FREEPORT-McMoRan

Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

September 29, 2016

Certified Mail #70160750000113394957
Return Receipt Requested

David Ennis
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Ennis:

Re: Financial Assurance Cost Estimate - North Lampbright Waste Rock Stockpile
Modification 16-1: Closure Closeout Plan Update, Permit No. GR009RE

Freeport-McMoRan Chino Mines Company (Chino) submitted an application dated January 20, 2016 to revise Permit No. GR009RE to address design limits expansion and update the Chino closure plan to include the construction of the North Lampbright Waste Rock Stockpile. As part of this application, Chino provided a scope of work to develop financial assurance (FA) cost estimate and indicated that a FA cost estimate will be provided to the Mining and Minerals Division (MMD) following the approval of the scope of work.

MMD in a letter dated August 26, 2016 (which Chino received on August 29, 2016) deemed the North Lampbright Waste Rock Stockpile FA scope of work acceptable and requested that Chino provide a cost estimate for reclamation of this stockpile within 30 days after the receipt of the letter. This letter provides the FA cost estimate and supporting documentation for the North Lambright Waste Rock Stockpile.

Please contact me at (575) 912-5235 if you have additional questions concerning this submittal.

Sincerely,

p.p

Lynn A. Lande, Chief Environmental Engineer
Environmental/Sustainable Development

LAL: rlm
20160929-001
Enclosures

c: Brad Reid, NMED

TELESTO
SOLUTIONS • INCORPORATED

28 September 2016

Mr. David Ennis
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Subject: **Freeport-McMoRan Chino Mines Company**
North Lampbright Waste Rock Stockpile Reclamation Cost Estimate

Dear Recipient:

Telesto Solutions, Inc. (Telesto) humbly submits the attached reclamation cost estimate for Freeport-McMoRan Chino Mines Company's (Chino's) North Lampbright Stockpile Reclamation to support financial assurance bonding. The Microsoft Excel calculation Sheets 1 through 19 (labeled as Tab #1 through Tab #19) summarize the cost estimate, which was computed by Chino's Mandy Lilla and quality checked by Telesto's David Bauer. The cost estimate follows the processes and assumptions outlined in the document entitled "*North Lampbright Waste Rock Stockpile Extension Earthwork Cost Estimate Process Report*" (Telesto, 2016).

CAPITAL, OPERATION, AND MAINTENANCE COST ESTIMATES

This section presents the results of the reclamation cost estimate that is used in determining the value of the financial assurance. The net present value calculation will be provided upon the agencies approval of the costs presented herein.

The summary of capital and operations and maintenance costs are presented in Tab #1 and include indirect costs. A detailed description of the cost estimate, assumptions, development, and basis can be found in Telesto (2016) with an electronic copy of the cost estimate itself provided as an attachment to this submittal.

Earthwork

The drawings submitted in Telesto (2016) depict reclamation based upon the stockpile plan as conceptualized at closing. The drawings were used to develop reclamation quantities used in the reclamation cost estimate. All costs are 2016 current dollar costs based upon the most up to date unit rates.

Colorado Office (Corporate)
3801 Automation Way, Suite 201
Fort Collins, Colorado 80525
970-484-7704 / 970-484-7789 (FAX)

New Mexico Office
1303 Pope Street
Silver City, New Mexico 88061
575-538-5620 / 575-538-5625 (FAX)

Capital Costs

Earthwork capital costs are summarized in Tab #16 and are based upon the reclamation design criteria.

Operations and Maintenance Costs

Operations and Maintenance (O&M) costs are included for revegetation maintenance and summarized in Tab #19. Operations and maintenance costs are assumed to diminish as the reclamation cover matures. Based on observations of previously reclaimed areas, the annual vegetation failure is conservatively estimated to be 2% failure every year for a total of 12 years, starting the year reclamation is completed.

RECLAMATION SCHEDULE

The anticipated duration for reclamation activities is for the North Lampbright Stockpile is two years. The schedule is based on the estimated amount of labor, equipment and other resources that would be necessary to complete reclamation.

If you have any questions or concerns regarding this cost estimate, please contact Mandy Lilla at 575-912-5388 or Lynn Lande at 575-912-5235.

Sincerely,
Telesto Solutions, Inc.

Walter L. Niccoli
Senior Engineer

WLN:dtb
Enclosure
cc:

REFERENCES

Telesto. (2016). *North Lampbright Waste Rock Stockpile Extension Earthwork Cost Estimate Process Report.* Fort Collins, Colorado: Telesto Solutions, Inc. September 2016.

Microsoft Excel Sheets

General Information

Applicant	Chino Mines Company Hurley, New Mexico 88043 MMD Permit GR009RE	
Cat 785 Haul Trucks		
Disturbed Surface Area (acres)	221.0	
Type of Operation	Existing/Surface/Copper	
Capital and Capital Indirects	$4,363,079	
O+M and O+M Indirects	$61,461	
Current Value Financial Assurance Cost Estimate	**$4,424,540**	**North Lampbright Waste Stockpile**
Based on Projected Life of Mine Stockpile		

Demolition

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Material Handling Plan Summary Sheet

Item	Description	Location 1	Location 2	Haul/Push Distance (ft)	Grade (%)	Equipment
Stockpile Areas						
1101	Regrade Outslopes	North Lampbright Operational Benches	-	90	see sheet 5 dozer	D11T CD
1102	Dozer Assist	Borrow Area	North Lampbright Top	-		D11T CD
1103	Dozer Assist	Borrow Area	North Lampbright East Outslope	-		D11T CD
1104	Dozer Assist	Borrow Area	North Lampbright West Outslope	-		D11T CD
1105	Dozer Assist	Borrow Area	North Lampbright North and South Outslopes	-		D11T CD
1106	Dozer Assist	Topsoil stockpile	North Lampbright Top	-		D11T CD
1201	Load cover soil	Borrow Area	North Lampbright Top			992K
1202	Load cover soil	Borrow Area	North Lampbright East Outslope			992K
1203	Load cover soil		North Lampbright West Outslope			992K
1204	Load cover soil	Borrow Area	North Lampbright North and South Outslopes			992K
1205	Load cover soil	Topsoil stockpile	North Lampbright Top			992K
1301	Haul cover soil	Borrow Area	North Lampbright Top	15,153	see sheet 9 Trucks	785
1302	Haul cover soil	Borrow Area	North Lampbright East Outslope	15,153	see sheet 9 Trucks	785
1303	Haul cover soil	Borrow Area	North Lampbright West Outslope	15,153	see sheet 9 Trucks	785
1304	Haul cover soil	Borrow Area	North Lampbright North and South Outslopes	15,153	see sheet 9 Trucks	785
1305	Haul cover soil	Topsoil stockpile	North Lampbright Top	10,560	see sheet 9 Trucks	785
1501	Grade surface	North Lampbright Top	-		see sheet 6 grading	16M
1601	Grade cover soil	North Lampbright Top	-		see sheet 6 grading	D11T CD
1602	Grade cover soil	North Lampbright East Outslope	-		see sheet 6 grading	D11T CD
1603	Grade cover soil	North Lampbright West Outslope	-		see sheet 6 grading	D11T CD
1604	Grade cover soil	North Lampbright North and South Outslopes	-		see sheet 6 grading	D11T CD
1605	Grade cover soil	North Lampbright Top	-		see sheet 6 grading	D11T CD
Other						
1801	Off-Hwy Water Tanker Truck					10,000 gal
1802	Motor Grader					16M

								Chino
					Chino_North_Lampbright.xlsx			Excel Tab #4
Earthwork Quantity Worksheet								09/22/16
					Cover	Bank/Stockpile	Swell	Loose/Stockpile
		Location 1	Location 2	Area	Depth	Volume	Factor	Volume
Item	Description			(ac)	(in)	(bcy)	(%)	(lcy)
Stockpile Areas								
1101	Regrade Outslopes	North Lampbright Operational Benches	Outslopes			493,796	-	493,796
1102	Dozer Assist	Borrow Area	North Lampbright Top			304,741	8%	329,120
1103	Dozer Assist	Borrow Area	North Lampbright East Outslope			210,630	8%	227,480
1104	Dozer Assist	Borrow Area	North Lampbright West Outslope			210,630	8%	227,480
1105	Dozer Assist	Borrow Area	North Lampbright North and South Outslopes			17,926	8%	19,360
1106	Dozer Assist	Topsoil stockpile	North Lampbright Top			112,037	8%	121,000
1201	Load cover soil	Borrow Area	North Lampbright Top	68.0	36	304,741	8%	329,120
1202	Load cover soil	Borrow Area	North Lampbright East Outslope	47.0	36	210,630	8%	227,480
1203	Load cover soil		North Lampbright West Outslope	47.0	36	210,630	8%	227,480
1204	Load cover soil	Borrow Area	North Lampbright North and South Outslopes	4.0	36	17,926	8%	19,360
1205	Load cover soil	Topsoil stockpile	North Lampbright Top	25.0	36	112,037	8%	121,000
1301	Haul cover soil	Borrow Area	North Lampbright Top			329,120	-	329,120
1302	Haul cover soil	Borrow Area	North Lampbright East Outslope			227,480	-	227,480
1303	Haul cover soil	Borrow Area	North Lampbright West Outslope			227,480	-	227,480
1304	Haul cover soil	Borrow Area	North Lampbright North and South Outslopes			19,360	-	19,360
1305	Haul cover soil	Topsoil stockpile	North Lampbright Top			121,000	-	121,000
1501	Grade surface	North Lampbright Top	-	93.0				
1601	Grade cover soil	North Lampbright Top	-	68.0	36	329,120	-	329,120
1602	Grade cover soil	North Lampbright East Outslope	-	47.0	36	227,480	-	227,480
1603	Grade cover soil	North Lampbright West Outslope	-	47.0	36	227,480	-	227,480
1604	Grade cover soil	North Lampbright North and South Outslopes	-	4.0	36	19,360	-	19,360
1605	Grade cover soil	North Lampbright Top	-	25.0	36	121,000	-	121,000
Other								
1801	Off-Hwy Water Tanker Truck							
1802	Motor Grader							

Productivity and Hours Required for Dozer Use—Earthmoving

							PERFORMANCE FACTORS											
Task Description	Location 1	Location 2	Equipment	Loose/Stockpile Volume (lcy)	Productivity (cy/hr)	Total Task Time (hours)	Material Factor	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade Factor	Centroid to Centroid Push Distance (feet)	Normal Production (cy/hr)	Operator Factor	Work Hour (min/hr)	Visibility Factor	Elevation Factor	Transmission Factor	Cut to Fill Haul Grade (%)
Stockpile Areas																		
Regrade Outslopes	North Lampbright Operational Benches	Outslopes	D11T CD	493,796	4,455	111	1.2	1.8	3,300	1.2	90	3288	1.00	50	1	1	1	-31
Dozer Assist	Borrow Area	North Lampbright Top	D11T CD	N/A	N/A	306	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer Assist	Borrow Area	North Lampbright East Outslope	D11T CD	N/A	N/A	211	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer Assist	Borrow Area	North Lampbright West Outslope	D11T CD	N/A	N/A	211	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer Assist	Borrow Area	North Lampbright North and South Outslopes	D11T CD	N/A	N/A	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer Assist	Topsoil stockpile	North Lampbright Top	D11T CD	N/A	N/A	112	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Productivity and Hours Required for Dozer Use—Grading

								PERFORMANCE FACTORS													
Task Description	Location 1	Location 2	Equipment	Loose/Stockpile Volume (cy)	Area (acres)	Productivity (acres/hr)	Productivity (cy/hr)	Task Time (hours)	Material Factor	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade	Effective Blade Width (feet)	Speed (miles/hr)	Work Hour (min/hr)	Visibility Factor	Elevation Factor	Transmission Factor	Grade (%)	Operator Factor	Push Distance* (feet)	Normal Production (cy/hr)
Stockpile Areas																						
Grade surface	North Lampbright Top	-	16M	-	93	3.1		30.0	1.2	1.0	3,300	1.20	16.00	2.50	50	1.00	1.00	1.00	-1.0	0.75	-	
Grade cover soil	North Lampbright Top	-	D11T CD	329,120		-	1,540.8	213.6	1.2	1.0	2,900	1.20	-	-	50	1.00	1.00	1.00	-1	0.75	150	2116
Grade cover soil	North Lampbright East Outslope	-	D11T CD	227,480		-	933.8	243.6	1.2	1.6	2,900	1.20	-	-	50	1.00	1.00	1.00	-31	0.75	460	805
Grade cover soil	North Lampbright West Outslope	-	D11T CD	227,480		-	951.7	239.0	1.2	1.6	2,900	1.20	-	-	50	1.00	1.00	1.00	-31	0.75	450	820
Grade cover soil	North Lampbright North and South Outslopes	-	D11T CD	19,360		-	6,331.5	3.1	1.2	1.6	2,900	1.20	-	-	50	1.00	1.00	1.00	-31	0.75	50	5459
Grade cover soil	North Lampbright Top	-	D11T CD	121,000		-	1,540.8	78.5	1.2	1.0	2,900	1.20	-	-	50	1.00	1.00	1.00	-1.0	0.75	150	2116

*Push distances. Assumed 150 feet for Top. Outslopes are 1/2 the average slope distance

Productivity and Hours Required for Ripper-Equipped Dozer Use

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Productivity and Hours Required for Truck Use

											PERFORMANCE FACTORS											
Task Description	Location 1	Location 2	Loader/Stockpile Equipment	Volume (cy)	Truck Cycle Time (min)	Optimum No. of Trucks	Productivity (cy/hr)	Task Time (hrs)	Struck Capacity (cy)	Heaped Capacity (cy)	Loader Cycles per Truck	Total Haul Distance (feet)	Haul Distance Segment 1 (feet)	Haul Distance Segment 2 (feet)	Haul Distance Segment 3 (feet)	Haul Grade Segment 1 (%)	Haul Grade Segment 2 (%)	Haul Grade Segment 3 (%)	Rolling Resistance (%)	Haul Distance Segment 1 (meters)	Haul Distance Segment 2 (meters)	Haul Distance Segment 3 (meters)
Stockpile Areas																						
Haul cover soil	Borrow Area	North Lamebright Top	785	329,120	21.8	5	1,124	306	71.0	102.0	7	15,153	1,422	4,587	9,134	-2.6%	7.5%	0.6%	2.5%	433	1,401	2,784
Haul cover soil	Borrow Area	North Lamebright East Outslope	785	227,480	21.8	5	1,124	211	71.0	102.0	7	15,153	1,422	4,587	9,134	-2.6%	7.5%	0.6%	2.5%	433	1,401	2,784
Haul cover soil	Borrow Area	North Lamebright West Outslope	785	227,480	21.8	5	1,124	211	71.0	102.0	7	15,153	1,422	4,587	9,134	-2.6%	7.5%	0.6%	2.5%	433	1,401	2,784
Haul cover soil	Borrow Area	North Lamebright North and South Outslopes	785	19,380	21.8	5	1,124	18	71.0	102.0	7	15,153	1,422	4,587	9,134	-2.6%	7.5%	0.6%	2.5%	433	1,401	2,784
Haul cover soil	Topsoil stockpile		785	121,000	14.5	3	1,012	120	71.0	102.0	7	10,560	10,560	-	-	1.0%	-	-	2.5%	3,219	0	0

B

Productivity and Hours Required for Truck Use

Task Description	Location 1	Location 2	Loc Equipment	Haul Effective Grade Segment 1 (%)	Haul Effective Grade Segment 2 (%)	Haul Effective Grade Segment 3 (%)	Return Effective Grade Segment 1 (%)	Return Effective Grade Segment 2 (%)	Return Effective Grade Segment 3 (%)	Haul Time (min)	Return Time (min)	Loading Time (min)	Load/ Maneuver Time (min)	Dump/ Maneuver Time (min)	Work Hour (min/hr)	Travel Time Loaded Segment 1 (min/m)	Travel Time Loaded Segment 2 (min/m)	Travel Time Loaded Segment 3 (min/m)	Travel Time Empty Segment 1 (min/m)	Travel Time Empty Segment 2 (min/m)	Travel Time Empty Segment 3 (min/m)
Stockpile Areas																					
Haul cover soil	Borrow Area	North Lamebright Top	785	0%	10%	3%	5%	0%	2%	11.3	4.2	4.8	0.7	1.1	50	0.00090	0.00480	0.00160	0.00106	0.00090	0.00067
Haul cover soil	Borrow Area	North Lamebright East Outslope	785	0%	10%	3%	5%	0%	2%	11.3	4.2	4.8	0.7	1.1	50	0.00090	0.00480	0.00160	0.00106	0.00090	0.00067
Haul cover soil	Borrow Area	North Lamebright West Outslope	785	0%	10%	3%	5%	0%	2%	11.3	4.2	4.8	0.7	1.1	50	0.00090	0.00480	0.00160	0.00106	0.00090	0.00067
Haul cover soil	Borrow Area	North Lamebright North and South Outslopes	785	0%	10%	3%	5%	0%	2%	11.3	4.2	4.8	0.7	1.1	50	0.00090	0.00480	0.00160	0.00106	0.00090	0.00067
Haul cover soil	Topsoil stockpile		785	4%	0%	0%	2%	0%	0%	5.4	2.8	4.8	0.7	1.1	50	0.00167	0.00090	0.00090	0.00087	0.00090	0.00090

Productivity for Front End Loader

Task Description	Location 1	Location 2	Equipment	Loose/Stockpile Volume (cy)	Net Bucket Capacity (cy)	Loader Cycle Time (min)	Productivity (cy/hr)	PERFORMANCE FACTORS: Task Time (hours)	Heaped Bucket Capacity (cy)	Bucket Fill Factor	Work Hour (min/hr)
Stockpile Areas											
Load cover soil	Borrow Area	North Lampbright Top	992K	329,120	14.0	0.65	1,077	306	16.0	0.875	50
Load cover soil	Borrow Area	North Lampbright East Outslope	992K	227,480	14.0	0.65	1,077	211	16.0	0.875	50
Load cover soil	Borrow Area	North Lampbright West Outslope	992K	227,480	14.0	0.65	1,077	211	16.0	0.875	50
Load cover soil	Borrow Area	North Lampbright North and South Outslopes	992K	19,360	14.0	0.65	1,077	18	16.0	0.875	50
Load cover soil	Topsoil stockpile	North Lampbright Top	992K	121,000	14.0	0.65	1,077	112	16.0	0.875	50

Productivity and Hours Required for Scraper Use

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Productivity and Hours Required for Motorgrader Use—Grading

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Summary Calculation of Earthmoving Costs

Equipment Type	Task	Location 1	Location 2	Owning and Operating Cost ($/hr)	Labor Cost ($/hr)	Number of Units (Equipment)	Time Req'd (hrs)	Direct Cost ($)	Total Production	Prod. Unit	Unit Cost ($/unit)
Stockpile Areas											
Dozers-Earthmoving											
D11T CD	Regrade Outslopes	North Lampbright Operational Benches	Outslopes	$505.38	$29.56	1	111	$59,296	493,796	cy	$0.12
D11T CD	Dozer Assist	Borrow Area	North Lampbright Top	$505.38	$29.56	1	306	$163,484	304,741	cy	$0.54
D11T CD	Dozer Assist	Borrow Area	North Lampbright East Outslope	$505.38	$29.56	1	211	$112,996	210,630	cy	$0.54
D11T CD	Dozer Assist	Borrow Area	North Lampbright West Outslope	$505.38	$29.56	1	211	$112,996	210,630	cy	$0.54
D11T CD	Dozer Assist	Borrow Area	North Lampbright North and South Outslopes	$505.38	$29.56	1	18	$9,617	17,926	cy	$0.54
D11T CD	Dozer Assist	Topsoil stockpile	North Lampbright Top	$505.38	$29.56	1	112	$60,104	112,037	cy	$0.54
Dozers-Grading											
16M		North Lampbright Top	-	$137.61	$29.56	1	30	$5,012	93	ac	$53.89
D11T CD	Grade cover soil	North Lampbright Top	-	$505.38	$29.56	1	214	$114,265	329,120	cy	$0.35
D11T CD	Grade cover soil	North Lampbright East Outslope	-	$505.38	$29.56	1	244	$130,313	227,480	cy	$0.57
D11T CD	Grade cover soil	North Lampbright West Outslope	-	$505.38	$29.56	1	239	$127,866	227,480	cy	$0.56
D11T CD	Grade cover soil	North Lampbright North and South Outslopes	-	$505.38	$29.56	1	3	$1,636	19,360	cy	$0.08
D11T CD	Grade cover soil	North Lampbright Top	-	$505.38	$29.56	1	78.5	$42,009	121,000	cy	$0.35
Loaders											
992K	Load cover soil	Borrow Area	North Lampbright Top	$325.22	$29.79	1	306	$108,495	329,120	cy	$0.33
992K	Load cover soil	Borrow Area	North Lampbright East Outslope	$325.22	$29.79	1	211	$74,989	227,480	cy	$0.33
992K	Load cover soil	Borrow Area	North Lampbright West Outslope	$325.22	$29.79	1	211	$74,989	227,480	cy	$0.33
992K	Load cover soil	Borrow Area	North Lampbright North and South Outslopes	$325.22	$29.79	1	18	$6,382	19,360	cy	$0.33
992K	Load cover soil	Topsoil stockpile	North Lampbright Top	$325.22	$29.79	1	120	$42,450	121,000	cy	$0.35

Summary Calculation of Earthmoving Costs

Equipment Type	Task	Location 1	Location 2	Owning and Operating Cost ($/hr)	Labor Cost ($/hr)	Number of Units (Equipment)	Time Req'd (hrs)	Direct Cost ($)	Total Production	Prod. Unit	Unit Cost ($/unit)
Trucks											
785	Haul cover soil	Borrow Area	North Lampbright Top	$241.22	$31.55	5	306	$416,808	329,120	cy	$1.27
785	Haul cover soil	Borrow Area	North Lampbright East Outslope	$241.22	$31.55	5	211	$288,088	227,480	cy	$1.27
785	Haul cover soil	Borrow Area	North Lampbright West Outslope	$241.22	$31.55	5	211	$288,088	227,480	cy	$1.27
785	Haul cover soil	Borrow Area	North Lampbright North and South Outslopes	$241.22	$31.55	5	18	$24,518	19,360	cy	$1.27
785	Haul cover soil	Topsoil stockpile	North Lampbright Top	$241.22	$31.55	3	120	$97,850	121,000	cy	$0.81
Water Truck and Grader											
Off-Hwy Water Tanker Truck		North Lampbright Waste Stockpile		$135.52	$31.93	1	866	$144,949			—
Motor Grader		North Lampbright Waste Stockpile		$137.61	$29.56	1	866	$144,707			
							Earthwork Total Direct Cost	**$2,651,908**			

EQUIPMENT

Equipment Description	Fuel Consumption (gal/hr)	Fuel Cost ($/hr)	Owning and Operating Cost (w/out fuel) ($/hr)	Fuel-Adjusted Own/Op Cost ($/hr)	Reference
Cat D11T CD Bulldozer	29.80	$49.39	$455.99	$ 505.38	1
Cat D11R Bulldozer	29.80	$49.39	$ 315.07	$ 364.46	
Cat 777F Truck	18.79	$31.14	$ 212.57	$ 243.71	1
Cat 785 Truck	28.12	$46.68	$ 194.54	$ 241.22	1
Cat 992K Loader	25.68	$42.55	$282.67	$ 325.22	1
Cat 16M Motor Grader	9.52	$15.78	$153.24	$ 137.61	1
Off-Hwy Water Tanker Truck, 10,000-gal.	15.37	$25.47	$110.05	$ 135.52	1

FUEL

Oil Broker Quote	$1.66 per gallon	2

LABOR

Labor Description	NMDOL Type A Operator Group	NMDOL Type A Operator Classification	Nominal Total Rate ($/hr)	
Cat D11T CD Bulldozer	Equipment Operator IV	Bulldozer (mult. Units)	$29.56	3
Cat 777F Truck	Truck Driver III	Haul Truck	$31.55	3
Cat 785 Truck	Truck Driver III	Haul Truck	$31.55	3
Cat 992K Loader	Equipment Operator VI	Loader (over 10 cy)	$29.79	3
Cat 16M Motor Grader	Equipment Operator IV	Motor Grader	$29.56	3
Off-Hwy Water Tanker Truck, 10,000-gal.	Truck Driver III	N/A	$31.93	3

References

1. Equipment unit rates from EquipmentWatch Custom Cost Evaluator Version 6.17.13A (http://www.equipmentwatch.com). See attachments for rate development.
2. May 2016 fuel quote from Western Refining, Lordsburg
3. Labor rates based on NM Department of Labor Type H (Heavy Engineering) labor rates. See attachments for rate development.

Revegetation Costs

3

Description:

Includes scarifying (ripping), discing, rangeland drill seeding, mulching, crimping, and daily per diem

1

Unit or Disturbance	Area (acres)	Unit Cost* ($/acre)	Direct Cost ($)
Stockpile Areas			
North Lampbright Top	93.0	951	88,443
North Lampbright East Outslope	47.0	951	44,697
North Lampbright West Outslope	47.0	951	44,697
North Lampbright North and South Outslopes	4.0	951	3,804
Borrow Area Revegetation			
Borrow Area	29.0	951	27,579
Topsoil Stockpile	1.0	951	951
		Reveg Total Direct Cost	**$210,171**

*Rocky Mountain Reclamation Quote June, 18 2014, $1,153/acre minus 22.5% indirect costs, the adjusted for 2016 inflation using a 0.5% cumulative rate of inflation. Quote includes cost for scarifying (ripping) surface

Other Reclamation Activity Costs

	Activity	Quantity	Unit	Unit Cost ($/unit)	Direct Cost ($)	Reference	Means Line Item	Means Page	Description
Downdrains									
Bench Grading									
North Lampbright Waste Stockpile	Bench Grading	19885	ft	$2.14	$42,578	See attachment Bench Grading Appendix B.			Finish grade channel benches using D11T CD and D9T SU. Three passes per bench, 1 MPH operating speed. Soil weight 3,300 lb/cy. Grading benches 15 ft. wide, 4.07 cy cut-to-fill/ft. of bench, 76 foot push distance.
Channel Excavation									
North Lampbright Waste Stockpile	Downdrain Length		ft	$6.90	$14,319	2.3 cy/lf with D6T XL SU, 175-foot typical push distance. See attachment Stockpile Downdrains Appendix B.			Excavate and waste 5.8 cy/lf material on slopes with D11T CD, 175-foot downslope excavation, 200-foot lateral waste push. Finish grade
North Lampbright Waste Stockpile	Bench Channels	19,885	feet	$1.19	$23,659	SU, 175-foot typical push distance. See attachment Stockpile Downdrains Appendix B.			Excavate and waste 1 cy/lf material with D11T CD, 175-foot excavation, 200-foot lateral waste push. Finish grade 0.4 cy/lf with D6T XL
North Lampbright Waste Stockpile	Top Channels	4,601	feet	$2.97	$13,686	SU, 175-foot typical push distance. See attachment Top Channels Appendix B.			Excavate and waste 2.5 cy/lf material with D11T CD, 175-foot excavation, 200-foot lateral waste push. Finish grade 1 cy/lf with D6T XL
North Lampbright Waste Stockpile	Off Site Channels	5,265	feet	$2.97	$15,661	SU, 175-foot typical push distance. See attachment Top Channels Appendix B.			Excavate and waste 2.5 cy/lf material with D11T CD, 175-foot excavation, 200-foot lateral waste push. Finish grade 1 cy/lf with D6T XL
Riprap									
North Lampbright Waste Stockpile	Bench Channel Filter, Haul	5,745	cy	$1.95	$11,223	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Downdrain Filter, Haul	1,960	cy	$1.95	$3,829	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Downdrain Riprap, Haul	7,870	cy	$1.95	$15,375	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Top Channel Filter, Haul	2,692	cy	$1.95	$5,259	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Top Channel Riprap, Haul	4,448	cy	$1.95	$8,690	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Off Site Channel Filter, Haul	3,081	cy	$1.95	$6,019	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Off Site Channel Riprap, Haul	5,090	cy	$1.95	$9,944	Load and haul rock, max load 54.6 cy, 3.4 mile average one way trip, 777F haul trucks, 1 992K loader, 1,077 cy/hr.			
North Lampbright Waste Stockpile	Bench Channel Filter, Backfill	5,745	cy	$0.91	$5,228	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Downdrain Filter Backfill	1,960	cy	$0.91	$1,784	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Downdrain Riprap Backfill	7,870	cy	$0.91	$7,162	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Top Channel Filter, Backfill	2,692	cy	$0.91	$2,450	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Top Channel Riprap, Backfill	4,448	cy	$0.91	$4,048	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Off Site Channel Filter, Backfill	3,081	cy	$0.91	$2,804	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Off Site Channel Riprap, Backfill	5,090	cy	$0.91	$4,632	Gravel Backfill, 300 hp 980H Loader, Supporting documentation is included			
North Lampbright Waste Stockpile	Riprap and Filter production	30,886	cy	$16.23	$501,271	documentation is included in Appendix B.			The rip rap unit cost was developed based on experience gained producing rip rap at the McCain Springs Quarry. Supporting
	Channels and Benches Total Direct Cost				**$699,618**				

References
See Appendix B.7 for Channel, Bench, and Downdrain unit rate development.
RS Means Heavy Construction Cost Data (29th Annual Edition 2015)
New Mexico Las Cruces 84.4%

Chino Mines Company

DRAFT Reclamation Summary North Lampbright Waste Stockpile
Based on Projected Life of Mine Stockpile

			Current Value
DIRECT COSTS	Facility and Structure Removal		$0
	Earthmoving		$2,651,908
	Revegetation		$210,171
	Channels and Benches		$699,618
	Subtotal, Direct Costs		**$3,561,697**
INDIRECT COSTS[1]	Mobilization and Demobilization	1.0%	$35,616.97
	Contingencies	2.0%	$71,234
	Engineering Redesign Fee	2.5%	$89,042
	Contractor Profit and Overhead		$534,255
	Project Management Fee	2.0%	$71,234
	State Procurement Cost	0.0%	$0
	Indirect Percentage Sum =	22.5%	
	Subtotal, Indirect Costs		**$801,382**
TOTAL COST			**$4,363,079**

Data Sources:

MMD. 1996. Closeout Plan Guidelines for Existing Mines, Mining Act Reclamation Bureau Mining and Minerals Division New Mexico Energy, Minerals and Natural Resources Department. April 30, 1996.

OSM. 2000. U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement Handbook for Calculation of Reclamation Bond Amounts. April 5, 2000.

Notes:

1) Indirect costs are based on the guidance available from MMD (1996) and OSM (2000).

Facility Characteristics

Facility	North Lampbright Waste Stockpile
Reclaimed Acres[1]	221.0
Item	Capital Cost
Cover Material	$3,169,810
Regrade	$78,777
Seed & Mulch	$257,459
Channels and Benches	$857,032
Capital Cost Totals	$4,363,079
Capital Cost/Acre	
Capital Cost/Acre Cover Stockpile	$14,343
Capital Cost/Acre Stockpile Top/Outslope Adjustment	$356
Capital Cost/Acre Revegetation	$1,164.98
Capital Cost/Acre Stockpile Channels and Benches	$3,877.97

1 Includes 30 acres of borrow area revegetation.

Revegetation Maintenance Costs

Activity	Total Area (acres)	Years Vegetation Maintenance	% loss per year	Quantity	Unit	Unit Cost [1] ($/unit)	Item Cost ($)	Description
Revegetation Maintenance	221	12.0	2%	4.4	acres	$986	$52,307	2% of veg fails every year for 12 years.

Veg Maintenance Total Direct Cost: $52,307

Notes:

[1] Rocky Mountain Reclamation Quote June, 18 2014, $1153/acre minus 17.5% indirect costs and adjusted for 2015 inflation using a 0.5% cumulative rate of inflation. Quote includes cost for scarifying (ripping) surface.
986 $/acre

Chino Mines Company

Draft Operations and Maintenance Summary North Lampbright Waste Stockpile

Based on Projected Life of Mine Stockpile

			Current Value
DIRECT COSTS	Facility and Structure Removal		$0
	Earthmoving		$0
	Vegetation		$0
	Other		$52,307
	Subtotal, Direct Costs		**$52,307**
INDIRECT COSTS[1]	Mobilization and Demobilization	1.0%	$523
	Contingencies	2.0%	$1,046
	Engineering Redesign Fee	2.5%	$1,308
	Contractor Profit and Overhead		$5,231
	Project Management Fee	2.0%	$1,046
	State Procurement Cost	0.0%	$0
	Indirect Percentage Sum =	17.5%	
	Subtotal, Indirect Costs		**$9,154**
TOTAL COST			**$61,461**

Data Sources:

MMD. 1996. Closeout Plan Guidelines for Existing Mines, Mining Act Reclamation Bureau Mining and Minerals Division New Mexico Energy, Minerals and Natural Resources Department. April 30, 1996.

OSM. 2000. U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement Handbook for Calculation of Reclamation Bond Amounts. April 5, 2000.

Notes:

1) Indirect costs are based on the guidance available from MMD (1996) and OSM (2000).

North Lampbright Waste Rock Stockpile Extension
Earthwork Cost Estimate
Process Report

Prepared for

Freeport-McMoRan
Chino Mines Company
99 Santa Rita Mine Road
Vanadium, New Mexico 88023

Prepared by

Telesto Solutions, Inc.
3801 Automation Way, Suite 201
Fort Collins, CO 80525

September 2016

TELESTO
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Signature Page

North Lampbright Waste Rock Stockpile Extension Earthwork Cost Estimate Process Report

September 2016

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SOLUTIONS • INCORPORATED

Report Authors and Contributors

Telesto Solutions, Inc.

/s/ David T. Bauer

David Bauer, PG – Revision Author

Walter L Niccoli

Walter Niccoli – Review

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1.0 INTRODUCTION

1.1 Purpose & Summary

Freeport-McMoRan Chino Mines Company (Chino) is expanding the main Lambright Stockpile to the north. This expansion area will be called the North Lampbright Waste Rock Stockpile (NLS). The process and associated cost factors that will be used in the earthwork reclamation cost estimate have been prepared by Telesto Solutions Inc. (Telesto). The earthwork reclamation process is based on a template originally created by the New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division (MMD, 1996). The process addresses reclamation earthwork and site operations and maintenance costs.

Reclamation cost estimates are developed by first selecting an appropriate fleet of equipment and associated productivity factors, unit rates, and quantities. Equipment selection is based on the type and scale of operation. Equipment is optimized based on capacity, productivity, size and shape, and type of operation. The amount of time a reclamation operation takes is based on volume of material, haul distance, change in elevation, and variables termed productivity factors. Productivity factors are selected based on the latest Caterpillar equipment publications, and site specific conditions such as slope angle. Unit rates are referenceable current 3rd party rates for labor, equipment, fuel, and materials. Indirect rates are later added to the total direct costs. Reclamation material quantities are generated from the mine plan, the reclamation schedule and established reclamation design criteria. To develop the reclamation cost estimate, the equipment, productivity factors, unit rates, and quantities are organized using a template originally created by MMD. The template has been expanded to include additional information such as optimization of the mix of equipment.

1.2 Financial Assurance Cost Estimate Assumptions:

- **Cost estimate calculations:** Are based on the 2016 Caterpillar performance handbook (Edition 46) and the 1996 MMD cost estimate template. Appendix A.1 provides the calculations that will be used on each calculation sheet of the cost estimate spreadsheet
- **Labor Rates**: With the exception of the truck driver rate, all labor rates are developed based on the New Mexico Department of Labor (DOL) Type H (Heavy Engineering) labor rates effective January 1, 2016 and equivalent to or exceed the Davis-Bacon Act prevailing wages, used by the Bureau of Land Management (BLM, 2016). These rates include the base, fringe benefit, and apprenticeship contribution rates. FICA, Medicare, Federal unemployment, State unemployment, and Workman's Compensation Insurance are added to the labor rates to obtain the total per hour labor rate
- **Truck Driver Labor Rate**: The base truck driver labor rate will be 90% of the New Mexico DOL base operator labor rate. Added to the base rate are fringe benefits, apprenticeship contributions, taxes, and Workman's Compensation Insurance
- **Equipment Rates**: The earth-moving equipment used in the estimate would commonly be available to a contractor. The equipment unit operating costs are taken from EquipmentWatch Custom Cost Evaluator (Penton Media, Inc., 2016)
- **Fuel Costs**: The off-road diesel fuel cost will be a vendor quote for delivery of ultra-low sulfur diesel to Silver City, New Mexico
- **Revegetation Unit Costs**: The revegetation unit cost will be a vendor quote including: scarifying, discing, rangeland drill seeding, mulching, crimping, and daily per diem
- **Miscellaneous Unit Costs**: Miscellaneous unit costs are taken from several sources including R.S. Means Heavy Construction Cost Data Edition 29 (R.S. Means, 2016). All costs taken from R.S. Means are adjusted using the location factor for Las Cruces, NM (84.4%)
- **RipRap Production**: The riprap unit cost will be developed based on experience gained producing riprap at the Tyrone McCain Springs Quarry
- **Equipment Production Factors**: Production factors from Caterpillar (2016) for each type of equipment are presented in Table 1. Productivity curves are developed from Caterpillar (2016) and are described in Appendix A.2 and A.3
- **Haul Distances**: Haul distances are calculated along a preferred route and assumed to originate at the approximate centroid of the source and terminate at the approximate centroid of the reclamation area. A maximum of three segments is typically used for each haul route
- **Borrow Areas**: Two cover sources will be utilized: 1) A borrow area located southeast of NLS consisting of Rubio Peak Formation material and 2) a nearby topsoil stockpile consisting of suitable material stripped from within the footprint of the NLS. After cover operations is complete, borrow areas are left in a condition such that they can be directly reclaimed

- **Dozer Push Distances**: Dozer push distances represent the distance from the centroid of the cut block to the centroid of the fill block
- **Dust Suppression and Site Maintenance:** A full time water truck and a motor grader are included as part of the fleet during reclamation. The water truck and grader time are set equal to loader time
- **Capital Indirect Costs**: Total indirect costs of 22.5% per MMD (1996) and Office of Surface Mining (OSM, 2000) guidance based on total capital reclamation costs for Chino. The indirect costs are comprised of: Mobilization and Demobilization (1.0%), Contingencies (2.0%), Engineering Redesign Fee (2.5%), Contractor Profit and Overhead (15.0%), and Project Management Fee (2.0%). Indirect cost percentages are identical to the percentages presented to MMD and the New Mexico Environment Department (NMED) in meetings with Tyrone on September 20, 2012, and on November 2, 2012 (Table 2) and more recent phone calls
- **Operations and Maintenance Indirect Costs**: Total indirect costs of 17.5% for long term operations and maintenance per MMD (1996) and OSM (2000) guidance and comprise the same values and factors as the capital indirect costs with exception of Contractor Profit and Overhead. Contractor Profit and Overhead for long term operations and maintenance is 10.0%, to account for the long term contract and repetitive annual work. Indirect cost percentages are identical to the percentages presented to MMD and the NMED in meetings with Tyrone on September 20, 2012, November 2, 2012 (Table 2) and more recent phone calls

2.0 RECLAMATION DESIGN

Normal site operations activities will leave the North Lampbright stockpile with 3:1 (H:V) overall slopes. Reclamation work will include construction of benches and channels on the outslopes resulting in 3.5: 1 overall slopes. The top surface will be constructed at a 1% minimum slope, sloping to the east. The conceptual pre-reclamation and reclaimed NLS, including details are shown in the Drawings Sheets 1 through 7. The main reclamation activities that will occur include:

- Minor top surface grading to achieve a smooth top surface sloping a minimum 1% to the east
- Pushing down and grading operational stockpile benches to achieve a smooth slope
- Hauling and grading reclamation cover material for the top and outslope surfaces.
- Construction of surface water channels and benches to collect and convey storm water from the stockpile surfaces
- Scarification and revegetation of covered areas

The major design criteria assumptions to be used in the financial assurance cost estimate include:

- **Regrading Slopes**: 200-foot maximum inter-bench slope length, maximum 3H:1V inter-bench slopes, 1% minimum top surface slope
- **Outslope Channels and Benches:** 15-foot bench width, 1% to 5% cross-bench slope, <5.0% longitudinal bench slope and 3-feet of cover; channel have 6-inches of gravel underlain by a minimum of 2 feet of reclamation cover material
- **Top Surface:** 36-inch cover thickness
- **Channels:** 2,500 feet maximum length, maximum 2% longitudinal slope, 1-foot of riprap over 6-inches of filter material (gravel) underlain by 2 feet of reclamation cover material
- **Downdrains:** 2.5-feet of riprap over 6-inches of gravel filter material underlain by a minimum of 2 feet of cover material. 6-inches of filter material underlain by 36-inch of reclamation cover material
- **Cover**: 36-inch reclamation cover material thickness – tops and outslopes. Trucks and loaders with dozer assist perform all cover loading and distribution. The economic optimum number of trucks per loader is used for each haul route
- **Revegetation Maintenance**: Total of a 24% revegetation cost allocated over 12 years, starting the year reclamation is completed

3.0 REFERENCES

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TABLES

Table 1 Equipment Production Factors

Parameter	Value	Comment/Reference
Swell Factor Stockpiles and Tailings[1]	0% Pushdown, load & haul cover	Cover material volumes are calculated based on the reclaimed area and the cover depth No virgin materials are being regraded as part of reclamation. Thus a swell factor is not applied when regrading material.
Grading (D11T CD, D11T, D9T, 16M, D6T)		
Operator Factor[1]	1.0 Stockpile coarse grading 0.75 Cover & channel fine grading	Due to large job size assume available excellent operator (CPH 46, 19-55, excellent) (CPH 46, 19-55, average)
Material Factor	1.2 - Stockpile 1.2 - Cover	CPH 46, 19-55, Loose stockpile
Work Hour	50 min	(CPH 46, 19-55)
Grade Factor – Tops	1.0	(CPH 46, 19-55) 1-5% Slope
Grade Factor - Outslopes[1]	1.6	(CPH 46, 19-55) 1.6 – 3H:1V Slopes
Soil Weight	3,300 lb./cy Stockpile 2,900 lb/cy Cover	-
Production Method/ Blade Factor	1.2 – Slot 1 – Channels/Down drains/Benches	(CPH 46, 19-55, slot dozing) No correction applied for channels/ downdrains/benches
Effective Blade Width (feet)	22' D11T CD Universal Blade 14.25' D9T Semi Universal Blade 16' 16M, M3 17.5' D6T XL SU	(CPH 46, 19-49) (CPH 46, 19-47) (CPH 46, 11-17) (CPH 46, 19-43)
Speed (miles/hr)	2.5 mph D11T CD and 16M 1.0 mph D9T & D6T	(CPH 46, 11-19) and (CPH 46, 19-25)
Visibility Factor	1.0	(CPH 46, 19-55) Clear
Elevation Factor	1.0	(CPH 46, 30-5) No change
Transmission Factor	1.0	Power Shift or Direct Drive
Loader (992K)		
Heaped Bucket Capacity (cy)	16.0	(CPH 46, 23-288, Standard, 3000 lb./CY)
Loader Cycle Time (load, dump, and maneuver; minutes)	0.65	(CPH 46, 23-223) Avg 0.6-0.7min.
Bucket Fill Factor	0.875	(CPH 46, 30-1) Avg 0.85-0.90

Parameter	Value	Comment/Reference
		Loose Material 1" and over
Work Hour (min/hr)	50	(CPH 46, 19-55)
Trucks (CAT 785F) [2]		
Struck Capacity (cy)	71	Equipment Watch Specification Sheet
Heaped Capacity(cy)	102	Equipment Watch Specification Sheet (CPH 41, 46, 9-6)
Rolling Resistance (%)	2.5%	(CPH 46, 30-1) Radial tires, dirt road maintained fairly regularly, watered, flexing slightly
Truck Exchange Time (min)	0.7	(CPH 46, 10-20) Avg. 0.6-0.8
Dump/Maneuver Time (min)	1.1	(CPH 46, 10-20) Avg 1.0-1.2
Work Hour (min/hr)	50	(CPH 46, 19-55)

CPH = Caterpillar Performance Handbook Edition 35, 41, 44, 46(Caterpillar, Inc. 2007, 2014, 2016)

(1) The swell and operator factors used are consistent with factors presented to MMD and NMED in meetings with Tyrone on June 11, 2012, November 2, 2012, and a letter to MMD and NMED from Tyrone dated September 5, 2012

(2) Equipment Watch did not have recent information for Caterpillar 785F performance. The Kumatsu HD1500-5 has the same performance specifications as the Caterpillar 785F. Thus, the Equipment Watch costs for the Kumatsu HD1500-5 were used as an equivalent for the Caterpillar 785F

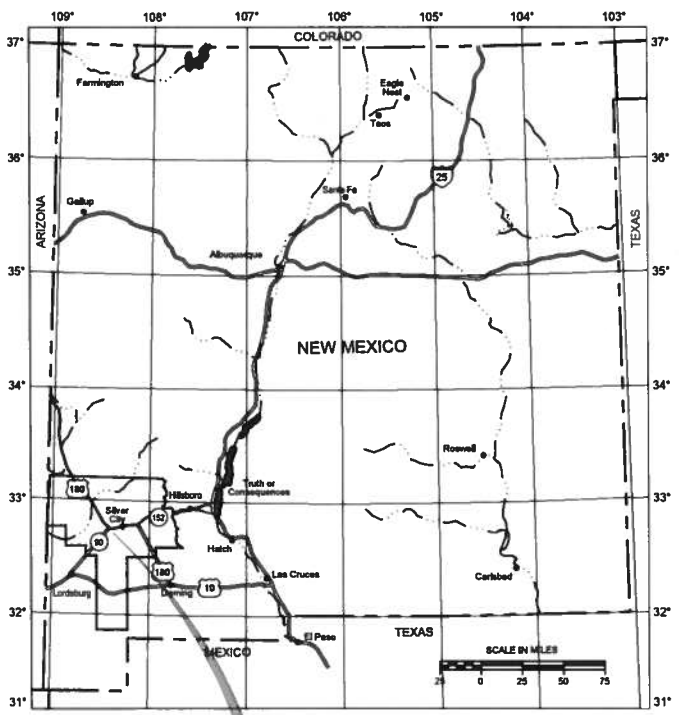
Table 2 Indirect Cost Summary

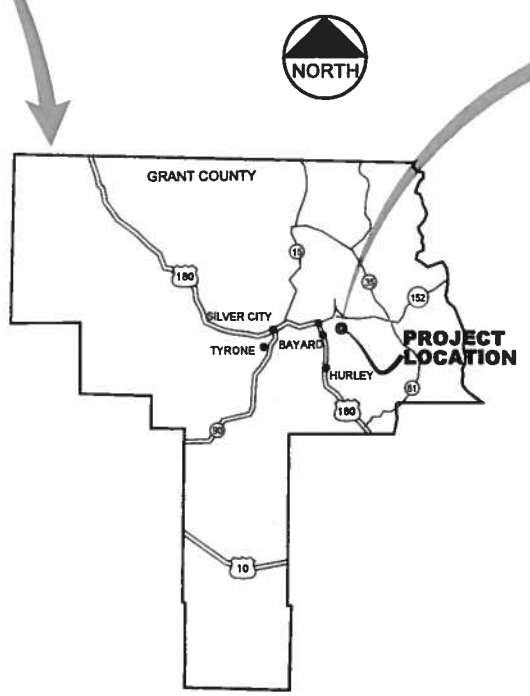
				Little Rock $1 M Direct Costs Presented to NMED/MMD in 2013 Little Rock CCP		Tyrone $400 M Direct Costs Presented to NMED/MMD in 2012 Tyrone CCP			Chino $400-$500 M Direct Costs Internal, proposed same as Tyrone CCP			Cobre $30-40M Direct Costs Presented to NMED/MMD in 2014 Continental Mine CCP			
Direct Cost ($)	**MMD (1996)**	**OSM (2000)**	**Prior Indirect Percentages**	**Capital**	**O&M**	**Capital**	**Earthwork O&M**	**Water Treatment O&M**	**Capital**	**Earthwork O&M**	**Water Treatment O&M**	**Capital**	**Earthwork O&M**	**Water Management O&M**	**Notes**
Mobilization & Demobilization	1%-5%	<10%	1.1%	5%	5%	1%	1%	0%	1%	1%	0%	3.8%	3.8%	0%	Mobilization and Demobilization not needed for water treatment plant operations and maintenance
Contingencies	-	3% - 5%	2%	-	-	-	-	-	-	-	-	-	-	-	
0 - 500,000	10%		-	-	-	-	-	-	-	-	-	-	-	-	
500,000 - 5 million	7%		-	7%	7%	-	-	-	-	-	-	-	-	-	
5 million - 50 million	4%		-	-	-	-	-	-	-	-	-	4%	4%	4%	
Greater than 50 million	2%		-	-	-	2%	2%	2%	2%	2%	2%				
Engineering Redesign	-	2.5% - 6%	4.5%	6%	6%	2.5%	2.5%	0%	2.5%	2.5%	0%	2.5%	2.5%	0%	Engineering Redesign not needed for water treatment plant operations and maintenance
Profit & Overhead (OSM)	-	10% - 30%	25%	-	-	-	-	-	-	-	-	-	-	-	
0 - 100,000	-	30%	-	-	-	-	-	-	-	-	-	-	-	-	Contractor Profit and overhead decreased by 5% for operations and maintenance since not new construction
100,000 - 500,000	-	25%	-	-	-	-	-	-	-	-	-	-	-	-	
500,000 - 2,000,000	-	20%	-	20.0%	10.0%	-	-	-	-	-	-	-	-	-	
>10,000,000	-	15%	-	-	-	15%	10%	10%	15%	10%	10%	15%	10%	10%	
Reclamation or closeout plan management	-	-	5%	-	-	-	-	-	-	-	-	-	-	-	
10,000	-	7%	-	-	-	-	-	-	-	-	-	-	-	-	
500,000		5%		-	-	-	-	-	-	-	-	-	-	-	
1,000,000	-	4.5%	-	4.5%	4.5%	-	-	-	-	-	-	-	-	-	
10,000,000	-	3.25%	-	-	-	-	-	-	-	-	-	-	-	-	
100,000,000	-	2%	-	-	-	2%	2%	2%	2%	2%	2%	3%	3%	3%	
State Procurement Cost	-	-	2%	-	-	-	-	-	-	-	-	-	-	-	Included in Engineering Re-Design and Reclamation Management Fee
Contract Administration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Included in Reclamation Management Fee, Procurement Cost and Engineering Re-Design
			39.6%	42.5%	32.5%	22.5%	17.5%	14.0%	22.5%	17.5%	14.0%	28.3%	23.3%	17.0%	

DRAWINGS

PROPOSED RECLAMATION PLAN FOR THE NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

ISSUED FOR FINANCIAL ASSURANCE RECLAMATION COST ESTIMATE





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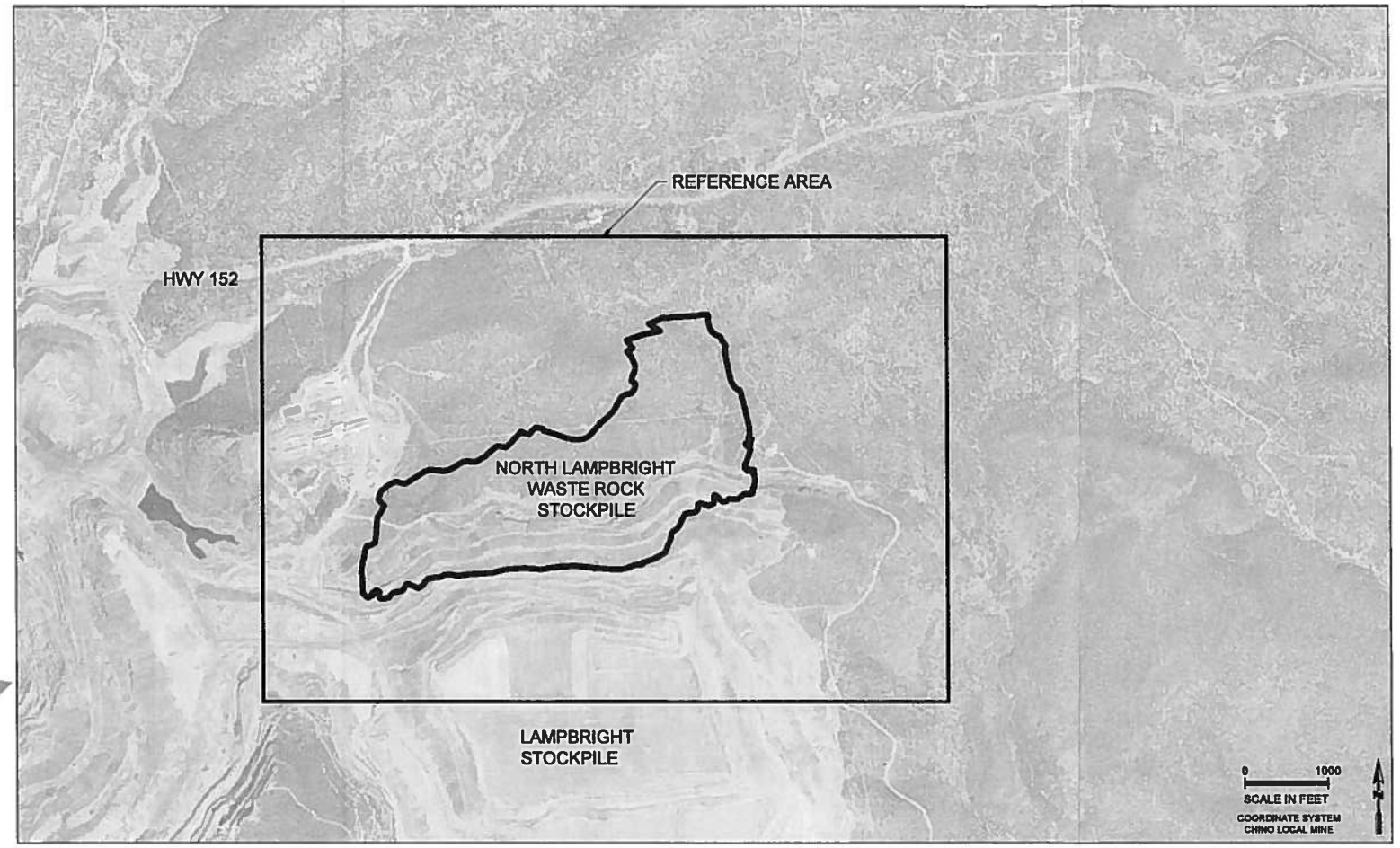


Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING TOPOGRAPHY
3	CONCEPTUAL PRE-RECLAMATION STOCKPILE
4	CONCEPTUAL RECLAIMED STOCKPILE
5	CROSS SECTIONS
6	DETAILS
7	CONCEPTUAL HAUL PATHS

DETAIL REFERENCE
1 — DETAIL IDENTIFICATION NUMBER OR LETTER

SECTION REFERENCE
A — SECTION IDENTIFICATION NUMBER OR LETTER

LEGEND / NOTES

REVISIONS				
#	DESCRIPTION	DATE	BY	CHECKED
0	FOR AGENCY REVIEW	1/15/2016	DO	AT

DATE	1/15/2016
PROJECT	206399
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

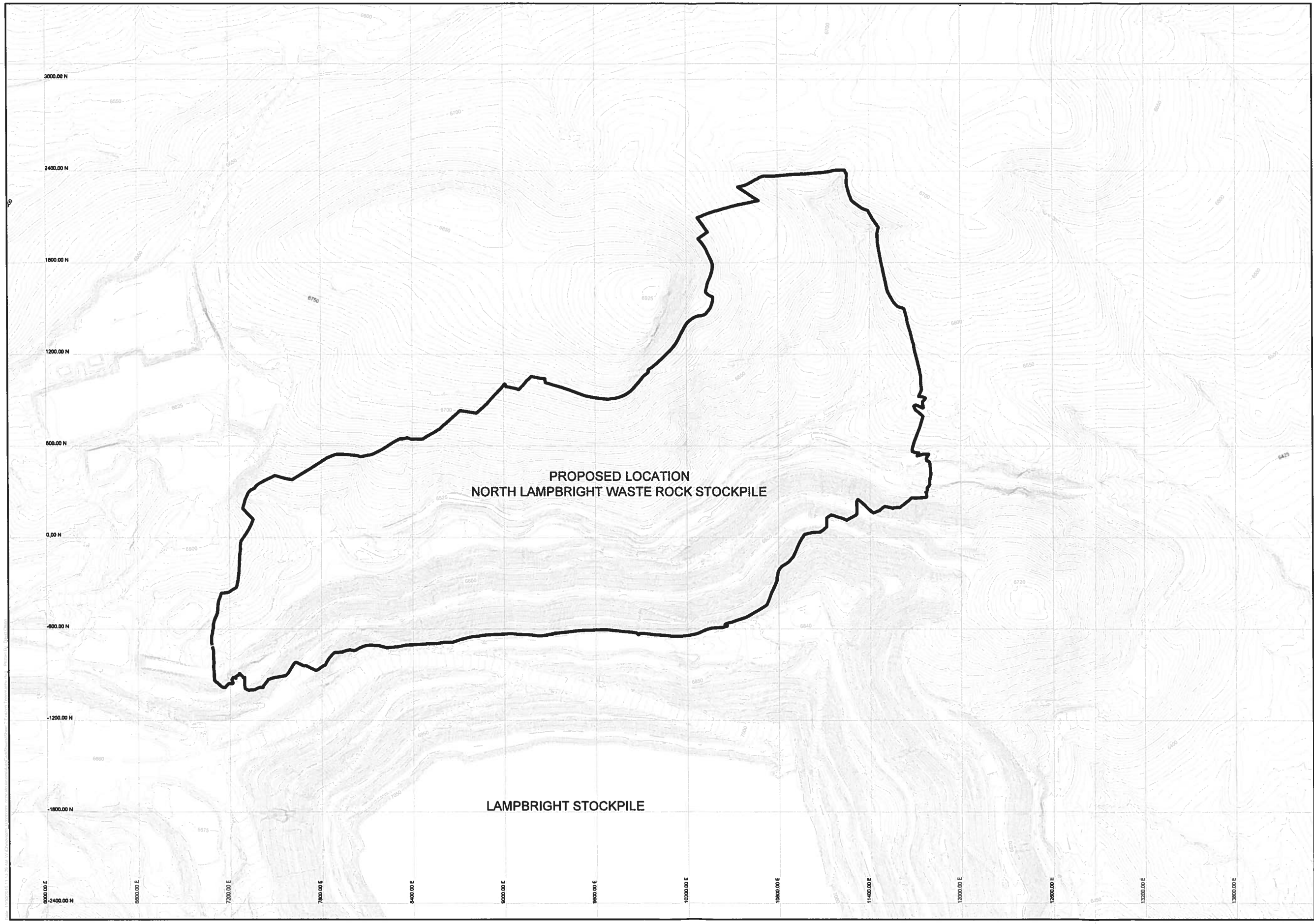
COVER SHEET

SHEET NUMBER: 1

REVISION NUMBER: 0

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN



LEGEND / NOTES

EXISTING CONTOURS
(5' CONTOUR INTERVAL)

0 300
SCALE IN FEET

N

COORDINATE SYSTEM
CHINO LOCAL MINE

REVISIONS

#	DESCRIPTION	DATE	BY	APPROVED
0	FOR AGENCY REVIEW	1/19/2018	DO	AT

DATE	1/19/2018
PROJECT	290399
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

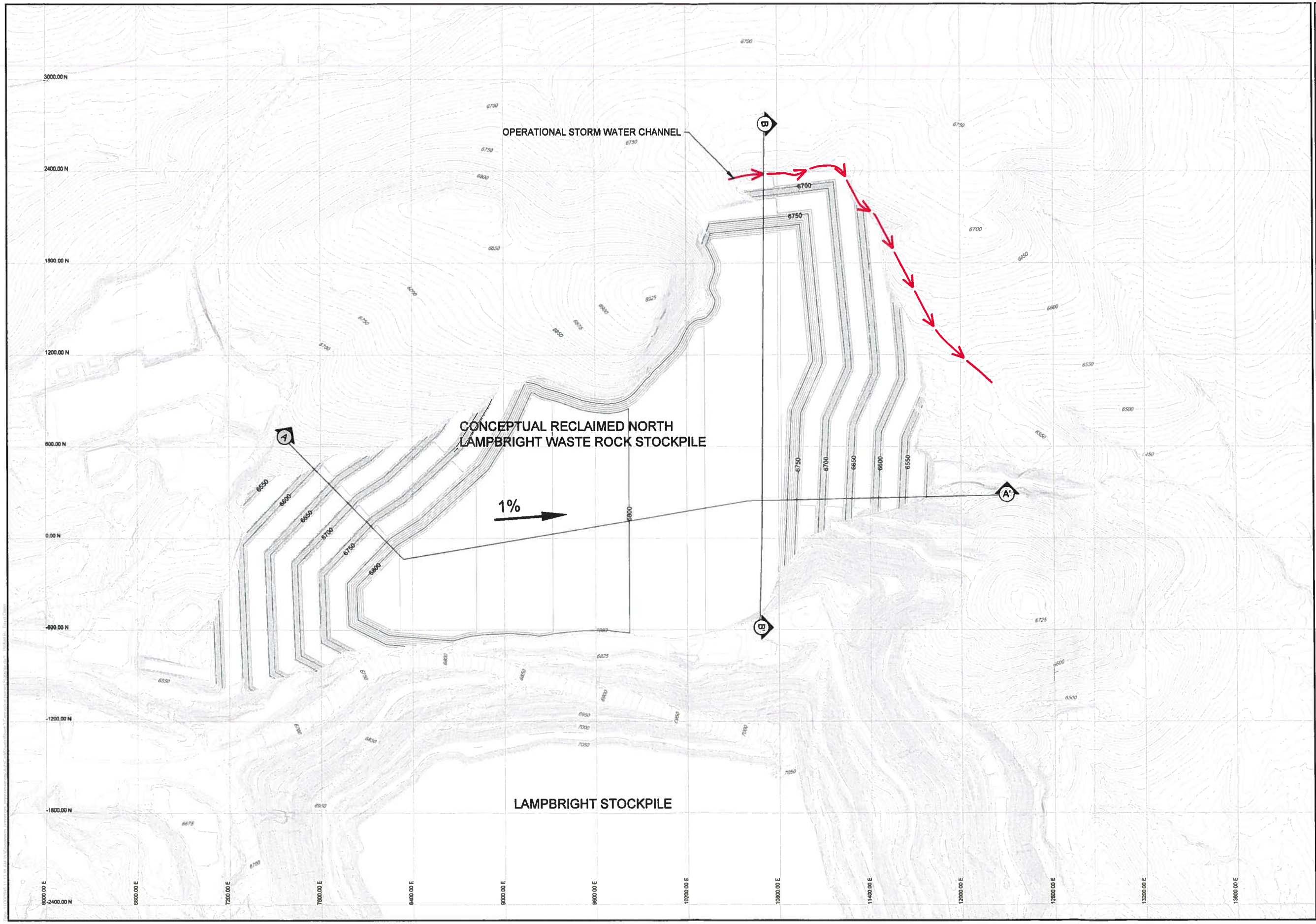
EXISTING TOPOGRAPHY

SHEET NUMBER: 2

REVISION NUMBER: 0

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN



LEGEND / NOTES

EXISTING CONTOURS (5' CONTOUR INTERVAL)

PRE-RECLAMATION CONTOURS (5' CONTOUR INTERVAL)

NOTE: SEE SHEET 5 DETAIL 1 FOR TYPICAL OPERATIONAL BENCH REGRADE

0 300
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

REVISIONS

#	DESCRIPTION	DATE	BY	APPROVED
0	FOR AGENCY REVIEW	1/19/2018	DO	AT

DATE	1/19/2018
PROJECT	200399
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

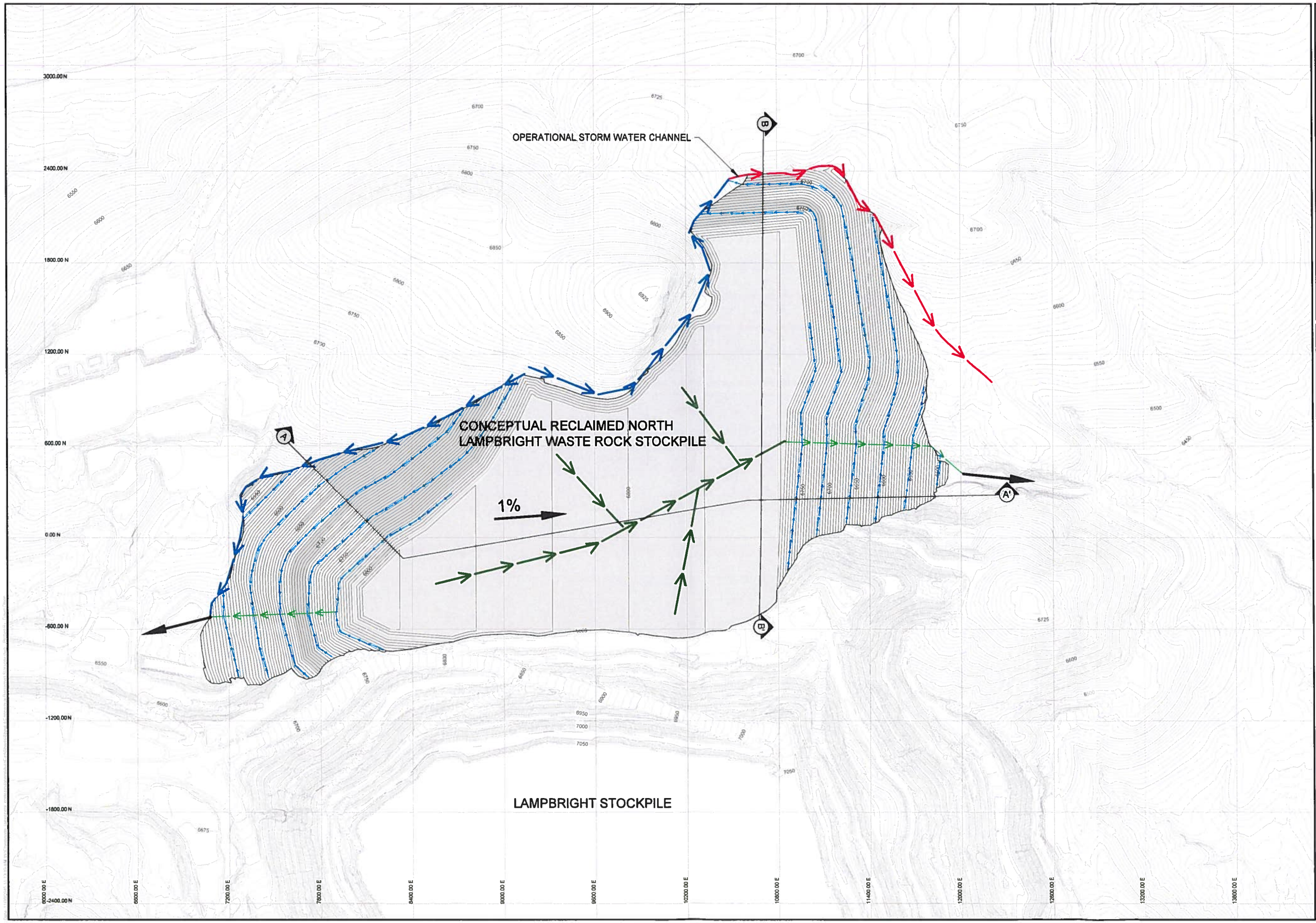
CONCEPTUAL PRE-RECLAMATION STOCKPILE

SHEET NUMBER: 3

REVISION NUMBER: 0

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-McMoRan



LEGEND / NOTES

- EXISTING CONTOURS (5' CONTOUR INTERVAL)
- CONCEPTUAL RECLAIMED CONTOURS (5' CONTOUR INTERVAL)
- TOP CHANNELS (DETAIL 2 SHEET 5)
- OFF SITE CHANNEL (DETAIL 2 SHEET 5)
- DOWNDRAINS (DETAIL 3 SHEET 5)
- BENCHES (DETAIL 4 SHEET 5)
- REVEGETATED AREA

0 300
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

N

REVISIONS

#	DESCRIPTION	DATE	BY	CHECKED
0	FOR AGENCY REVIEW	1/18/2018	DO	AT

DATE	1/18/2018
PROJECT	200399
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

CONCEPTUAL RECLAIMED STOCKPILE

SHEET NUMBER: 4

REVISION NUMBER: 0

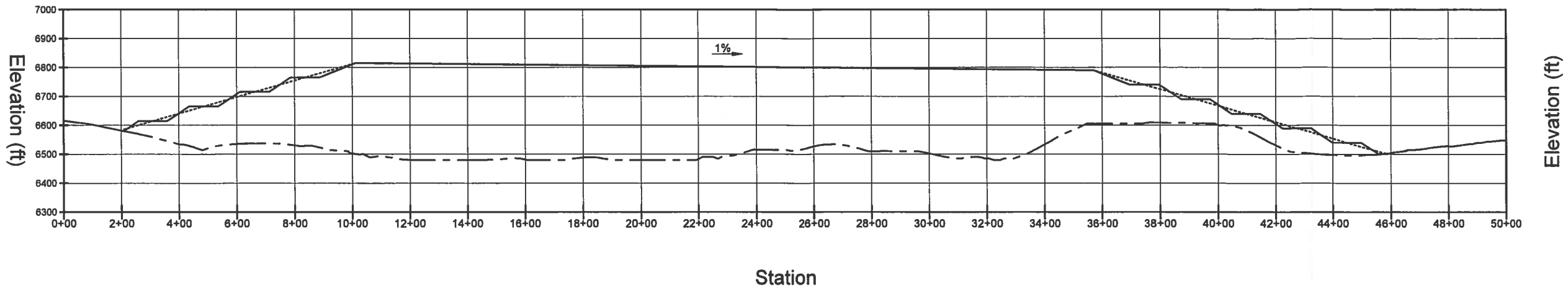
PREPARED BY: TELESTO

PREPARED FOR: FREEPORT-MCMORAN

A

CROSS SECTION ALIGNMENT A - A'

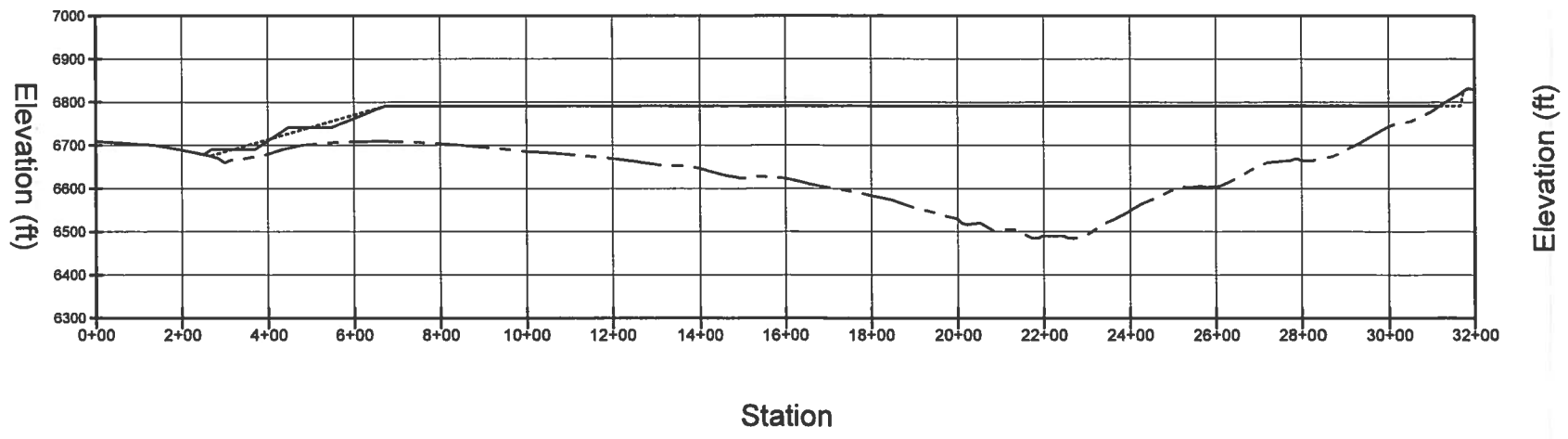
A'



B

CROSS SECTION ALIGNMENT B - B'

B'



LEGEND / NOTES

- PRE-RECLAMATION STOCKPILE
- CONCEPTUAL RECLAIMED STOCKPILE
- EXISTING GROUND

NOTE: RECLAIMED BENCHES NOT SHOWN

REVISIONS

#	DESCRIPTION	DATE	BY	CHECKED
0	FOR AGENCY REVIEW	1/18/2018	DO	AT

DATE	1/18/2018
PROJECT	206389
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

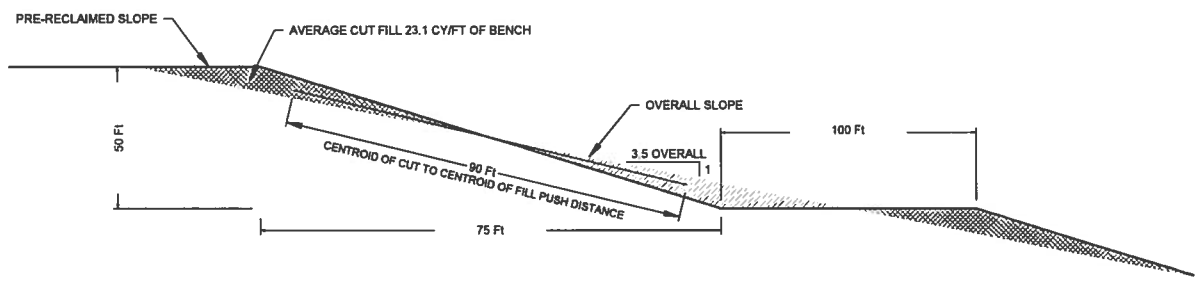
CROSS SECTIONS

SHEET NUMBER: 5

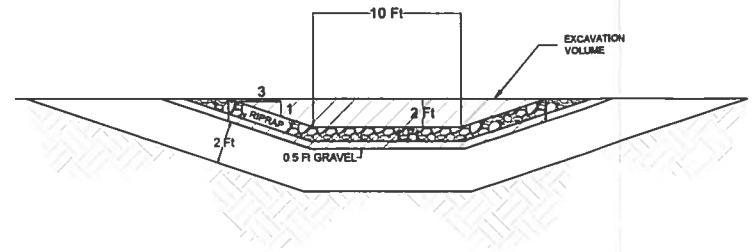
REVISION NUMBER: 0

PREPARED BY: TELESTO SOLUTIONS, INCORPORATED

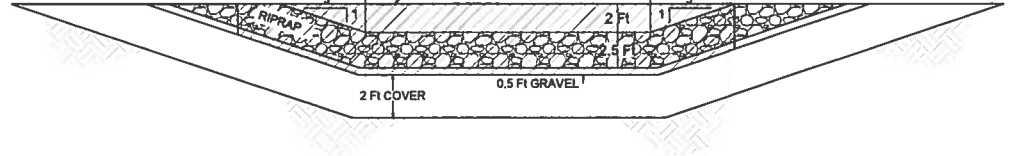
PREPARED FOR: FREEPORT-McMoRan



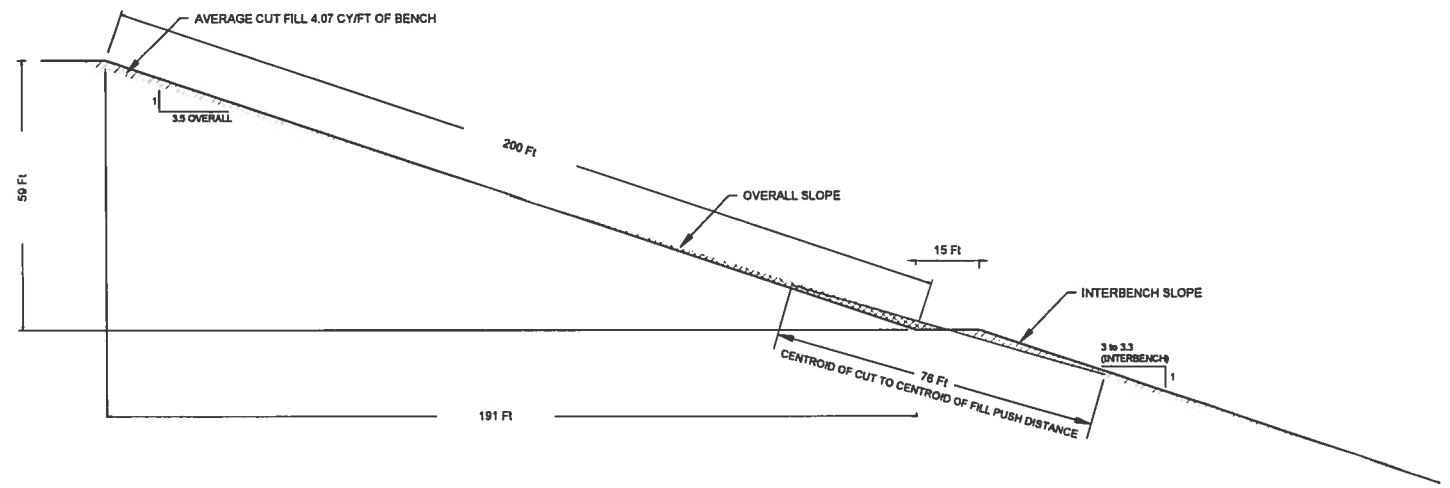
① TYPICAL OPERATIONAL BENCH REGRADE
(NOT TO SCALE)



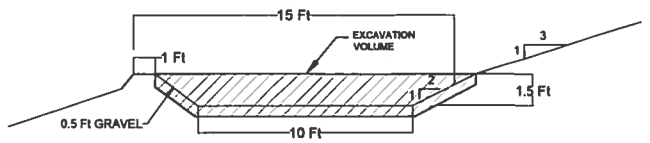
② TYPICAL TOP CHANNELS
(NOT TO SCALE)



③ TYPICAL DOWNDRAINS
(NOT TO SCALE)



⑤ TYPICAL RECLAIMED OUTSLOPE BENCH
(NOT TO SCALE)



④ TYPICAL BENCH
(NOT TO SCALE)

LEGEND / NOTES

RIPRAP

EXCAVATION VOLUME

REVISIONS				
#	DESCRIPTION	DATE	BY	CHKD
0	FOR AGENCY REVIEW	9/23/2018	DO	AT

DATE	9/23/2018
PROJECT	200389
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

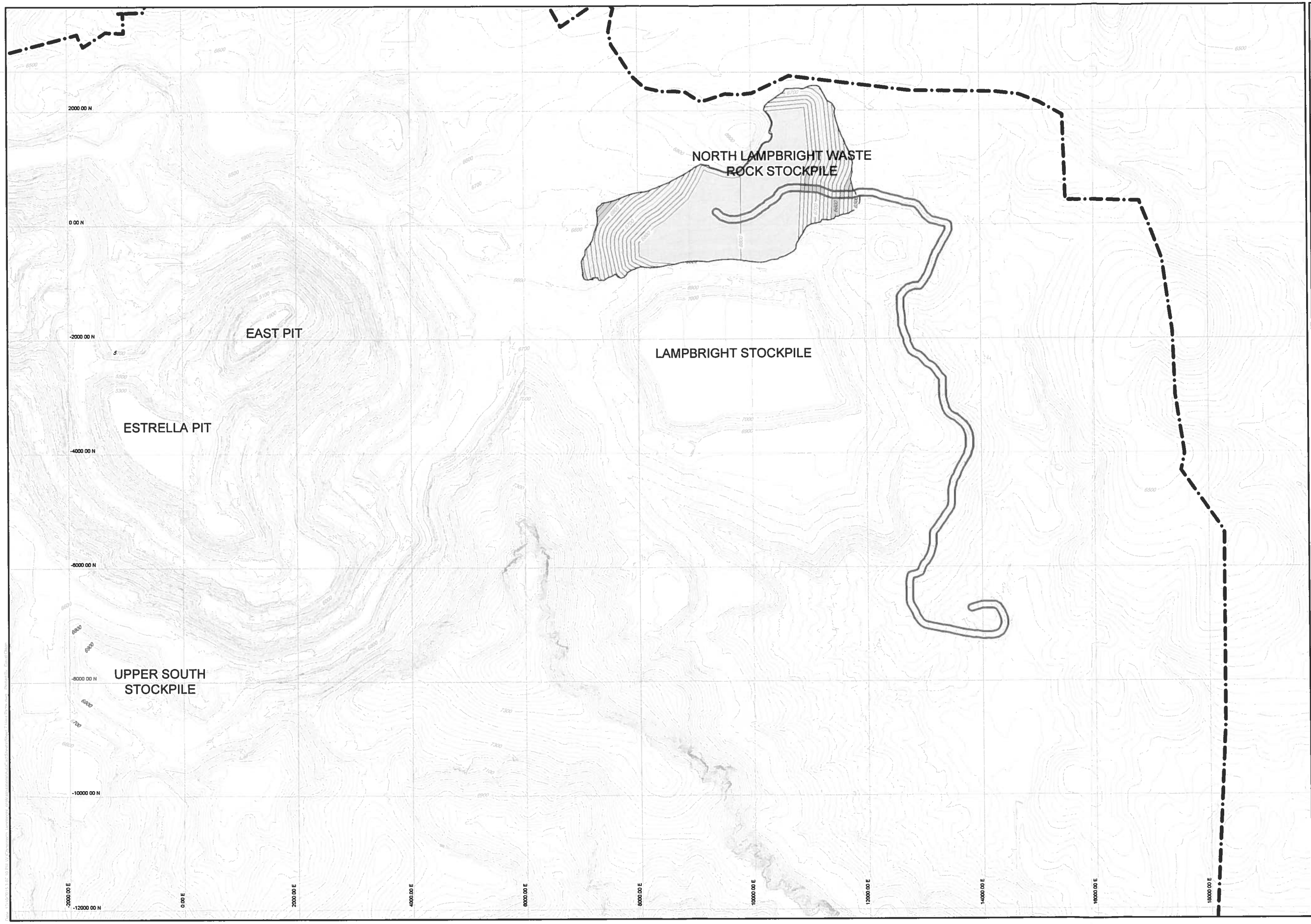
DETAILS

SHEET NUMBER: 6

REVISION NUMBER: 0

PREPARED BY: TELESTO

PREPARED FOR: FREEPORT-McMoRan



LEGEND / NOTES

- CHINO MMD PERMIT BOUNDARY
- EXISTING CONTOURS (20' CONTOUR INTERVAL)
- CONCEPTUAL RECLAIMED CONTOURS (20' CONTOUR INTERVAL)
- REVEGETATED AREA
- CONCEPTUAL HAUL ROAD

0 800
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

REVISIONS

#	DESCRIPTION	DATE	BY	APPROVED
0	FOR AGENCY REVIEW	1/18/2016	DO	AT

DATE	1/18/2016
PROJECT	200399
TASK NUMBER	
DRAWN BY	DO
PROJECT ENGINEER	AT
CHECKED BY	

NORTH LAMPBRIGHT WASTE ROCK STOCKPILE

CONCEPTUAL HAUL PATHS

SHEET NUMBER: 7

REVISION NUMBER: 0

PREPARED BY: TELESTO

PREPARED FOR: FREEPORT-MCMORAN

APPENDIX A
SUPPORTING DOCUMENTATION

Revegetation/Reclamation
Rangeland Rehabilitation
Fencing
Hydroseeding
Environmental Consulting

ROCKY MOUNTAIN RECLAMATION

Phone (307) 745-5235
Fax (307) 745-5230

rmr1@vcn.com
www.RockyMountainReclamation.com

P.O. Box 1695
Laramie, WY 82073

BID PROPOSAL FOR REVEGETATION SERVICES FOR THE

FREEPORT MCMORAN – TYRONE MINE – 21 ACRE REVEGETATION PROJECT - 2016

DATE: February 5, 2016

DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
REVEGETATION INCLUDING MULCHING: **				
1 Seedbed Preparation, Drill Seed, Mulch, Crimp				
A. Area Up to 21.0 acres	21.00	Acres	$9,694.00 LS	$9,694.00
B. Area Over 21.0 Acres	Variable	Acres	$449.50 /Ac.	Variable
2 Misc. Tractor Hours - Move Bales, etc.	Variable	Hours	$128.00 /Hr.	Variable
3 Mobilization	1.00	Each	$3,750.00 /Ea.	$3,750.00
				$13,444.00

Completion Date: May, 2016

BID ASSUMPTIONS AND NOTES:

1. Prices include: set up, safety orientation (up to 2.0 Man hours), seedbed preparation, drill seeding with the Freeport McMoRan-provided seed mixture utilizing our rangeland drill, native hay mulching with Freeport McMoRan-provided mulch** at approximately 2.0 tons/acre, and crimping with our specially designed floating gang crimper. Prices include our standard 4-wheel drive tractors and implements and assume all areas to be revegetated are accessible with this equipment (same equipment we have used on your mine in the past). Slopes too steep for this equipment will require alternative methods not included in the above pricing and we can work with you to find a cost effective solution as necessary.

   ** Mulch will be provided by Freeport McMoRan in large square bales (2015 crop). Our prices assume bales are in good condition with tight strings and strings are not broken or chewed by mice and rodents over the winter. Cost of unloading bales from semis if necessary and hauling bales to the project work area would be by the tractor hour as listed above.

2. Price does not include: **New Mexico gross receipts tax** (to be added to our invoice at the time of invoicing), scarifying compacted areas, topsoil, topsoil handling and grading, rock picking (available if requested at additional cost), watering, maintenance, weed spraying (available on a time and materials basis) warning signs, barriers, site protection, or *stand establishment warranty*. Native, dryland species often require several years (approximately 3) to fully establish. Contact us for more information if desired.

3. RMR warrants workmanship and materials. Workmanship will equal or exceed industry standards and materials will be as specified and will be provided with material certifications for materials we provide.

4. Bond additional at 3.5% ($350.00 minimum), if requested by your company. Prices good for 10 days from date of bid.

Thank you for the Opportunity to Provide Revegetation Prices to your Company

Gravel Placement 9/23/2016

Assumptions:
300 hp 980H Front End Loader
7.5 CY bucket

Load time[1]			0.65 min
Delivery Travel Time[1]	150' at 4.0 mph =	5.87 ft/sec	0.43 min
Unload and Maneuver Time[1]	10 sec + 10 sec		0.67 min
Return Travel Time[1]			0.43 min
			2.17 mins per load

300 hp 980H Front End Loader Operating, Ownership, Fuel, Labor Cost (per hour)

	Fuel Use Gal per hour	Fuel total $/hour[2]	Owner/Operate $/hour	Owner/Operate $/hour w/Fuel[2]	Owner/Operate $/hour w/Fuel & Labor
Cat 980H Loader	$ 10.08	$ 16.73	$ 87.66	$ 104.39	$ 134.18

Cost per cubic yard At 2.17 minutes per load, 50 minute work hour[3]
23.1 loads per hour - use 23
Loader cost $134.18 per hour, $ 5.83 per load
Load is 7.5 CY (heaped), net 6.4 CY at 85% bucket fill[1]
Cost per CY $ 0.91

NOTES:
1 - Load, dump, travel, maneuver times from Cat Handbook Edition 46
2 - Owner/Operating costs, fuel use collected from Equipment Watch 4/20/16
3 - 50 minute actual work hour recommended in Cat Handbook Edition 46

Labor Rate Detail

Labor rates per New Mexico Department of Labor 2016 Prevailing Type H (Heavy Equipment) wage Rates Poste

Labor	Equipment	Group	Base rate[1]	Fringes[1]	Apprentice Rate[1]	Subtotal	FICA[2] 6.200%	Medicare[2] 1.450%	Federal[3,4] Unemployment	State[3,4] Unemployment	Workmens Compensation[5,6]	Total per Hour
Power Equipment Operator	Front End Loaders	VI	$19.82	$5.83	$0.50	$26.15	$1.62	$0.38	$0.02	$0.22	$1.39	$29.79
Power Equipment Operator	Shovel	IV	$19.62	$5.83	$0.50	$25.95	$1.61	$0.38	$0.02	$0.22	$1.38	$29.56
Power Equipment Operator	Dozer	IV	$19.62	$5.83	$0.50	$25.95	$1.61	$0.38	$0.02	$0.22	$1.38	$29.56
Power Equipment Operator	Scrapers	IV	$19.62	$5.83	$0.50	$25.95	$1.61	$0.38	$0.02	$0.22	$1.38	$29.56
Power Equipment Operator	Motor Grader (Rough)	IV	$19.62	$5.83	$0.50	$25.95	$1.61	$0.38	$0.02	$0.22	$1.38	$29.56
Power Equipment Operator	Excavator	VIII	$21.38	$5.83	$0.50	$27.71	$1.72	$0.40	$0.02	$0.22	$1.47	$31.55
Power Equipment Operator	Mechanic	VI	$19.82	$5.83	$0.50	$26.15	$1.62	$0.38	$0.02	$0.22	$1.39	$29.79
Truck Drivers	Haul Trucks	III	$19.22	$5.83	$0.50	$25.55	$1.58	$0.37	$0.02	$0.22	$3.80	$31.55
Truck Drivers	Tanker Trucks	III	$19.53	$5.83	$0.50	$25.86	$1.60	$0.37	$0.02	$0.22	$3.85	$31.93
Laborer		VI	$19.03	$5.05	$0.50	$24.58	$1.52	$0.36	$0.02	$0.22	$1.36	$28.06
Power Equipment Operator	Oiler	II	$19.18	$5.83	$0.50	$25.51	$1.58	$0.37	$0.02	$0.22	$1.36	$29.07

	Federal Unemployment - 0.6% on the first $7,000	New Mexico Unemployment - 2% on the first $23,400
$ Max[3,4]	$7,000	$23,400
Unemployment Tax[3,4]	0.60%	2.00% new employees' first 4 yrs
Unemployment Taxes Paid	$42.00	$468.00
Hours per Yr	2,086 (365 * 5/7 * 8 = 2085.71)	2,086
Unemployment rate per Hour	$0.02	$0.22

Class	Group	Class Code	N. Mex Workmen's Comp (WC) Administrative Fee (per hour)	N. Mex Workmen's Comp (WC) Rate / $100[5]	Base Rate W/ Fringes & Apprentice	Total Workman's Comp (Base rate / $100 '
Operators						
Loader/Mechanic	VI	6217	$ 0.07	$5.08	$26.15	$1.39
Dozer/Scraper/Grader/	IV	6217	$ 0.07	$5.08	$25.95	$1.38
All Others	VIII	6217	$ 0.07	$5.08	$27.71	$1.47
Laborer	VI		$ 0.07	$5.08	$26.15	$1.39
Haul Trucks	III	7219	$ 0.07	$14.63	$25.55	$3.80
Oiler	II	6217	$ 0.07	$5.08	$25.51	$1.36

References

1. 2016 Base Rate, Fringes, Apprentice Rate	http://www.dws.state.nm.us/Portals/0/DM/LaborRelations/Prevailing_Wage_Poster_H_20
2. FICA, Medicare	https://www.ssa.gov/OACT/ProgData/taxRates.html
3. Federal Unemployment Tax	http://workforcesecurity.doleta.gov/unemploy/uitaxtopic.asp
4. New Mexico Unemployment Tax	http://www.dws.state.nm.us/UnemploymentInsurance/UIInformation/2015UITaxClaimsInf
5. State of New Mexico workers compensation administration fee and guidance manual	http://www.dws.state.nm.us/UnemploymentInsurance/UIInformation/2015UITaxClaimsInf
6. Workman's Comp premiums	Workers Compensation Rates by States; https://classcodes.com/lookup/workers-compensation-code RSMeans Heavy Construction Cost Data 2016 New Mexico worker's compensation rates for: 6217 Excavation earth or rock - $5.08, 7228 or 7219 Trucking-local hauling only-all employees $14.63 Note: Net rates including terrorist and premium.

TYPE "H" - HEAVY ENGINERRING

Effective January 1, 2016

Trade Classification	Base Rate	Fringe Rate	Apprenticeship
Asbestos Worker - Heat & Frost Insulator	31.26	11.11	0.50
Boilermaker	18.50	3.31	0.50
Bricklayer/Blocklayer/StoneMason	23.32	7.30	0.50
Carpenter/Lather	23.40	8.62	0.50
Millwright/Piledriver	31.00	14.56	0.50
Cement Mason	20.50	9.24	0.50
Electricians			
Outside Classifications			
Groundman	21.28	10.57	0.50
Equipment Operator	30.54	12.98	0.50
Lineman/Tech	35.93	14.23	0.50
Cable Splicer	39.52	15.13	0.50
Inside Classifications			
Wireman/Tech	29.70	9.94	0.50
Cable Splicer	32.67	10.03	0.50
Glazier	20.15	3.65	0.50
Ironworker	26.50	13.68	0.50
Painter (Brush/Roller/Spray)	21.17	6.53	0.50
Plumber/Pipefitter	31.14	11.55	0.50
Roofer	19.56	11.34	0.50
SheetmetalWorker	28.28	15.37	0.50
Operators			
Group I	17.67	5.83	0.50
Group II	18.76	5.83	0.50
Group III	19.41	5.83	0.50
Group IV	19.62	5.83	0.50
Group V	19.68	5.83	0.50
Group VI	19.82	5.83	0.50
Group VII	19.94	5.83	0.50
Group VIII	21.38	5.83	0.50
Group IX	26.45	5.83	0.50
Group X	29.35	5.83	0.50
Laborers			
Group I	18.00	5.05	0.50
Group II	19.18	5.05	0.50
Group III	19.53	5.05	0.50
Group IV	19.94	5.05	0.50
Group V	20.30	5.05	0.50
Group VI	19.03	5.05	0.50
Group VII	19.18	5.05	0.50
Group VIII	19.43	5.05	0.50
Group IX	19.63	5.05	0.50
Group X	20.30	5.05	0.50
Truck Drivers			
Group I	15.05	4.94	0.50
Group II	15.25	4.94	0.50
Group III	15.45	4.94	0.50
Group IV	15.65	4.94	0.50

NOTE: SUBSISTENCE, ZONE AND INCENTIVE PAY APPLY ACCORDING TO THE PARTICULAR TRADES COLLECTIVE BARGAINING AGREEMENT. DETAILS ARE LOCATED AT WWW.DWS.STATE.NM.US.

Social Security Online **Trust Fund Data**

Office of the Chief Actuary

Social Security & Medicare Tax Rates

Tax rates for each Social Security trust fund

Maximum taxable earnings

Social Security's Old-Age, Survivors, and Disability Insurance (OASDI) program and Medicare's Hospital Insurance (HI) program are financed primarily by employment taxes. Tax rates are set by law (see sections 1401, 3101, and 3111 of the Internal Revenue Code) and apply to earnings up to a maximum amount for OASDI.

The rates shown reflect the amounts received by the trust funds. In certain years, the effective rate paid by employees, employers, and/or self-employed workers was less than the rate received by the trust funds, with the difference covered by general revenue. See the footnotes for details.

	Tax rates as a percent of taxable earnings					
	Rate for employees and employers, each			Rate for self-employed workers		
Calendar year	OASDI	HI	Total	OASDI	HI	Total
1937-49	1.000	--	1.000	--	--	--
1950	1.500	--	1.500	--	--	--
1951-53	1.500	--	1.500	2.250	--	2.250
1954-56	2.000	--	2.000	3.000	--	3.000
1957-58	2.250	--	2.250	3.375	--	3.375
1959	2.500	--	2.500	3.750	--	3.750
1960-61	3.000	--	3.000	4.500	--	4.500
1962	3.125	--	3.125	4.700	--	4.700
1963-65	3.625	--	3.625	5.400	--	5.400
1966	3.850	0.350	4.200	5.800	0.350	6.150
1967	3.900	0.500	4.400	5.900	0.500	6.400
1968	3.800	0.600	4.400	5.800	0.600	6.400
1969-70	4.200	0.600	4.800	6.300	0.600	6.900
1971-72	4.600	0.600	5.200	6.900	0.600	7.500
1973	4.850	1.000	5.850	7.000	1.000	8.000
1974-77	4.950	0.900	5.850	7.000	0.900	7.900
1978	5.050	1.000	6.050	7.100	1.000	8.100
1979-80	5.080	1.050	6.130	7.050	1.050	8.100
1981	5.350	1.300	6.650	8.000	1.300	9.300
1982-83	5.400	1.300	6.700	8.050	1.300	9.350
1984 [a]	5.700	1.300	7.000	11.400	2.600	14.000

1985 [a]	5.700	1.350	7.050	11.400	2.700	14.100
1986-87 [a]	5.700	1.450	7.150	11.400	2.900	14.300
1988-89 [a]	6.060	1.450	7.510	12.120	2.900	15.020
1990 and later [b, c]	6.200	1.450	7.650	12.400	2.900	15.300

[a] In 1984 only, an immediate credit of 0.3 percent of taxable wages was allowed against the OASDI taxes paid by employees, resulting in an effective employee tax rate of 5.4 percent. The OASI and DI trust funds, however, received general revenue equivalent to 0.3 percent of taxable wages for 1984. Similar credits of 2.7 percent, 2.3 percent, and 2.0 percent were allowed against the combined OASDI and HI taxes on net earnings from self-employment in 1984, 1985, and 1986-89, respectively.

[b] Beginning in 1990, self-employed workers are allowed a deduction, for purposes of computing their net earnings, equal to half of the combined OASDI and HI contributions that would be payable without regard to the contribution and benefit base. The OASDI contribution rate is then applied to net earnings after this deduction, but subject to the OASDI base.

[c] For 2010, most employers were exempt from paying the employer share of OASDI tax on wages paid to certain qualified individuals hired after February 3. For 2011 and 2012, the OASDI tax rate is reduced by 2 percentage points for employees and for self-employed workers, resulting in a 4.2 percent effective tax rate for employees and a 10.4 percent effective tax rate for self-employed workers. These reductions in tax revenue due to lower tax rates will be made up by transfers from the general fund of the Treasury to the OASI and DI trust funds. Beginning in 2013, an additional HI tax of 0.9 percent is assessed on earned income exceeding $200,000 for individuals and $250,000 for married couples filing jointly. This additional HI tax rate is not reflected in the tax rates shown in the table.

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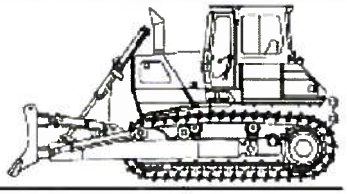
All prices shown in US$

Adjustments for Dozer D11R 3A in All Saved Models

September 21, 2016

Caterpillar D11R (disc. 2007)
Standard Crawler Dozers

Size Class:
520 HP & Over
Weight:
202,847 lbs.



Configuration for D11R (disc. 2007)

Dozer Type	**U Blade**	Power Mode	**Diesel**
Net Horsepower	**850 hp**	Operator Protection	**EROPS**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$88.20/hr	$82.52/hr	-6.4%
Cost of Facilities Capital (CFC)	$18.75/hr	$15.82/hr	-15.6%
Overhead	$15.74/hr	$13.12/hr	-16.6%
Overhaul Labor	$16.60/hr	$7.41/hr	-55.4%
Overhaul Parts	$95.77/hr	$79.85/hr	-16.6%
Total Hourly Ownership Cost:	**$235.06/hr**	**$198.72/hr**	**-15.5%**

User Defined Adjustments: Annual Use Hours (1,400hrs -> 1,679hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$19.43/hr	$8.68/hr	-55.3%
Field Parts	$93.28/hr	$77.78/hr	-16.6%
Ground Engaging Component (GEC)	$12.54/hr	$10.45/hr	-16.7%
Tire	$0.00/hr	-	-
Electrical/Fuel	$70.21/hr	$49.39/hr	-29.7%
Lube	$19.44/hr	-	-
Total Operating Ownership Cost:	**$214.90/hr**	**$165.74/hr**	**-22.9%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$235.06/hr	$198.72/hr	-15.5%
Hourly Operating Costs	$214.90/hr	$165.74/hr	-22.9%
Total Hourly Cost	**$449.96**	**$364.46/hr**	**-19%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

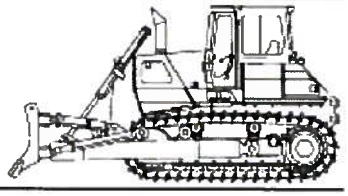
All prices shown in US$

Adjustments for 3A D9T in All Saved Models

September 21, 2016

Caterpillar D9T
Standard Crawler Dozers

Size Class:
360 - 519 HP
Weight:
105,600 lbs.



Configuration for D9T

Power Mode	**Diesel**	Net Horsepower	**410 hp**
Dozer Type	**Semi-U**	Operator Protection	**ROPS/FOPS**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$45.75/hr	$42.80/hr	-6.4%
Cost of Facilities Capital (CFC)	$9.85/hr	$8.31/hr	-15.6%
Overhead	$30.87/hr	$25.74/hr	-16.6%
Overhaul Labor	$16.60/hr	$7.41/hr	-55.4%
Overhaul Parts	$40.59/hr	$33.84/hr	-16.6%
Total Hourly Ownership Cost:	**$143.66/hr**	**$118.10/hr**	**-17.8%**

User Defined Adjustments: Annual Use Hours (1,400hrs -> 1,679hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$19.43/hr	$8.68/hr	-55.3%
Field Parts	$39.53/hr	$32.96/hr	-16.6%
Ground Engaging Component (GEC)	$6.59/hr	$5.49/hr	-16.7%
Tire	$0.00/hr	-	-
Electrical/Fuel	$33.87/hr	$23.82/hr	-29.7%
Lube	$9.91/hr	-	-
Total Operating Ownership Cost:	**$109.33/hr**	**$80.86/hr**	**-26%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$143.66/hr	$118.10/hr	-17.8%
Hourly Operating Costs	$109.33/hr	$80.86/hr	-26%
Total Hourly Cost	**$252.99**	**$198.96/hr**	**-21.4%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

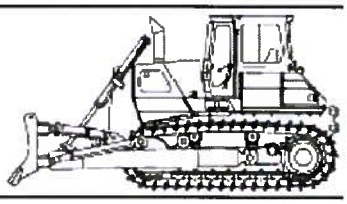
All prices shown in US$

Adjustments for 3A D6TXL in All Saved Models

September 21, 2016

Caterpillar D6T XL
Standard Crawler Dozers

Size Class:
190 - 259 HP
Weight:
44,420 lbs.



Configuration for D6T XL

Dozer Type	**Semi-U**	Operator Protection	**EROPS**
Net Horsepower	**200 hp**	Power Mode	**Diesel**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$24.76/hr	$23.02/hr	-7%
Cost of Facilities Capital (CFC)	$5.28/hr	$4.31/hr	-18.4%
Overhead	$13.99/hr	$11.25/hr	-19.6%
Overhaul Labor	$9.48/hr	$4.09/hr	-56.9%
Overhaul Parts	$16.85/hr	$13.56/hr	-19.5%
Total Hourly Ownership Cost:	**$70.36/hr**	**$56.23/hr**	**-20.1%**

User Defined Adjustments: Annual Use Hours (1,285hrs -> 1,597hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$11.69/hr	$5.04/hr	-56.9%
Field Parts	$16.33/hr	$13.14/hr	-19.5%
Ground Engaging Component (GEC)	$2.72/hr	$2.19/hr	-19.5%
Tire	$0.00/hr	-	-
Electrical/Fuel	$18.41/hr	$12.95/hr	-29.7%
Lube	$4.41/hr	-	-
Total Operating Ownership Cost:	**$53.56/hr**	**$37.73/hr**	**-29.6%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$70.36/hr	$56.23/hr	-20.1%
Hourly Operating Costs	$53.56/hr	$37.73/hr	-29.6%
Total Hourly Cost	**$123.92**	**$93.96/hr**	**-24.2%**

Revised Date: 2nd Half 2016

EquipmentWatch™

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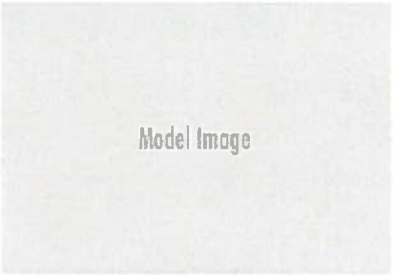
All prices shown in US$

Adjustments for 3A Double Deck Screen in All Saved Models

September 21, 2016

Miscellaneous Double Deck Portable Screening Plants
Double Deck Portable Screening Plants

Size Class:
37" & Over
Weight:
24,800 lbs.



Configuration for Double Deck Portable Screening Plants

Power Mode	**Diesel**	Horsepower	**110**
Screen Size	**5' X16'**	Conveyor Size	**48" X60'**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$10.34/hr	$9.72/hr	-6%
Cost of Facilities Capital (CFC)	$2.30/hr	$1.90/hr	-17.4%
Overhead	$3.56/hr	$2.86/hr	-19.7%
Overhaul Labor	$11.30/hr	$5.28/hr	-53.3%
Overhaul Parts	$7.71/hr	$6.21/hr	-19.5%
Total Hourly Ownership Cost:	**$35.21/hr**	**$25.97/hr**	**-26.2%**

User Defined Adjustments: Annual Use Hours (1,250hrs -> 1,553hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$12.56/hr	$5.86/hr	-53.3%
Field Parts	$7.12/hr	$5.73/hr	-19.5%
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,400.00/hr	-	-
Electrical/Fuel	$13.49/hr	$8.05/hr	-40.3%
Lube	$2.15/hr	-	-
Total Operating Ownership Cost:	**$35.72/hr**	**$22.19/hr**	**-37.9%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$35.21/hr	$25.97/hr	-26.2%
Hourly Operating Costs	$35.72/hr	$22.19/hr	-37.9%
Total Hourly Cost	**$70.93**	**$48.16/hr**	**-32.1%**

Revised Date: 1st Half 2016

EquipmentWatch™

www.equipmentwatch.com

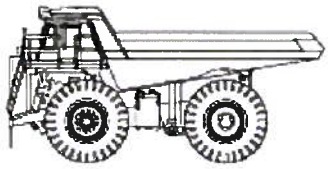
All prices shown in US$

Custom Cost Evaluator

September 22, 2016

Caterpillar 769D (disc. 2007)
Mechanical Drive Rear Dumps

Size Class:
30 - 39 MTons
Weight:
66,800 lbs.



Configuration for 769D (disc. 2007)

Body Capacity (Struck--Heaped)	**22.2 cu yd - 31.7 cu yd**	Net Horsepower	**487 hp**
Power Mode	**Diesel**	Rated Payload	**36.4 mt**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$33.71/hr	$31.57/hr	-6.3%
Cost of Facilities Capital (CFC)	$5.80/hr	-	-
Overhead	$5.25/hr	-	-
Overhaul Labor	$15.32/hr	$8.20/hr	-46.5%
Overhaul Parts	$15.95/hr	-	-
Total Hourly Ownership Cost:	**$76.03/hr**	**$66.77/hr**	**-12.2%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$12.10/hr	$6.48/hr	-46.4%
Field Parts	$9.72/hr	-	-
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,850.00/hr	-	-
Electrical/Fuel	$22.99/hr	$16.17/hr	-29.7%
Lube	$7.88/hr	-	-
Total Operating Ownership Cost:	**$65.84/hr**	**$53.40/hr**	**-18.9%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$76.03/hr	$66.77/hr	-12.2%
Hourly Operating Costs	$65.84/hr	$53.40/hr	-18.9%
Total Hourly Cost	**$141.87**	**$120.17/hr**	**-15.3%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

All prices shown in US$

Adjustments for Loader 992K 3A in All Saved Models

September 21, 2016

Caterpillar 992K
4-Wd Articulated Wheel Loaders

Size Class:
500 - 999 HP
Weight:
214,948 lbs.

Configuration for 992K

Power Mode	**Diesel**	Net Horsepower	**801 hp**
Bucket Capacity - Heaped	**14 cu yd**		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$111.88/hr	$103.81/hr	-7.2%
Cost of Facilities Capital (CFC)	$23.53/hr	$19.69/hr	-16.3%
Overhead	$50.60/hr	$41.76/hr	-17.5%
Overhaul Labor	$9.80/hr	$4.33/hr	-55.8%
Overhaul Parts	$30.19/hr	$24.92/hr	-17.5%
Total Hourly Ownership Cost:	**$226.00/hr**	**$194.51/hr**	**-13.9%**

User Defined Adjustments: Annual Use Hours (1,445hrs -> 1,751hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$11.96/hr	$5.29/hr	-55.8%
Field Parts	$33.31/hr	$27.49/hr	-17.5%
Ground Engaging Component (GEC)	$4.54/hr	$3.74/hr	-17.6%
Tire	$2,600.00/hr	-	-
Electrical/Fuel	$60.49/hr	$42.55/hr	-29.7%
Lube	$18.95/hr	-	-
Total Operating Ownership Cost:	**$161.94/hr**	**$130.71/hr**	**-19.3%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$226.00/hr	$194.51/hr	-13.9%
Hourly Operating Costs	$161.94/hr	$130.71/hr	-19.3%
Total Hourly Cost	**$387.94**	**$325.22/hr**	**-16.2%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

All prices shown in US$

Custom Cost Evaluator

September 22, 2016

Caterpillar 980H (disc. 2013)
4-Wd Articulated Wheel Loaders

Size Class:
275 - 349 HP
Weight:
67,294 lbs.

Configuration for 980H (disc. 2013)

Bucket Capacity - Heaped	**7.5 cu yd**	Net Horsepower	**315 hp**
Power Mode	**Diesel**		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$28.29/hr	$26.21/hr	-7.4%
Cost of Facilities Capital (CFC)	$6.37/hr	-	-
Overhead	$10.15/hr	-	-
Overhaul Labor	$9.80/hr	$5.25/hr	-46.4%
Overhaul Parts	$8.65/hr	-	-
Total Hourly Ownership Cost:	**$63.26/hr**	**$56.63/hr**	**-10.5%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$11.96/hr	$6.41/hr	-46.4%
Field Parts	$9.55/hr	-	-
Ground Engaging Component (GEC)	$1.23/hr	-	-
Tire	$2,800.00/hr	-	-
Electrical/Fuel	$23.79/hr	$16.73/hr	-29.7%
Lube	$5.87/hr	-	-
Total Operating Ownership Cost:	**$60.37/hr**	**$47.76/hr**	**-20.9%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$63.26/hr	$56.63/hr	-10.5%
Hourly Operating Costs	$60.37/hr	$47.76/hr	-20.9%
Total Hourly Cost	**$123.63**	**$104.39/hr**	**-15.6%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

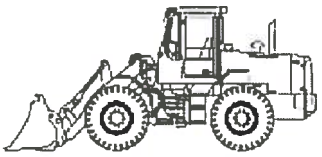
All prices shown in US$

Custom Cost Evaluator

September 22, 2016

Caterpillar 966H
4-Wd Articulated Wheel Loaders

Size Class:
250 - 274 HP
Weight:
52,254 lbs.



Configuration for 966H

Bucket Capacity - Heaped	**5.5 cu yd**	Net Horsepower	**262 hp**
Power Mode	**Diesel**		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$19.75/hr	$18.30/hr	-7.3%
Cost of Facilities Capital (CFC)	$4.44/hr	-	-
Overhead	$9.06/hr	-	-
Overhaul Labor	$9.80/hr	$5.25/hr	-46.4%
Overhaul Parts	$5.70/hr	-	-
Total Hourly Ownership Cost:	**$48.75/hr**	**$42.75/hr**	**-12.3%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$11.96/hr	$6.41/hr	-46.4%
Field Parts	$6.29/hr	-	-
Ground Engaging Component (GEC)	$0.86/hr	-	-
Tire	$2,800.00/hr	-	-
Electrical/Fuel	$19.79/hr	$13.92/hr	-29.7%
Lube	$4.42/hr	-	-
Total Operating Ownership Cost:	**$48.57/hr**	**$37.15/hr**	**-23.5%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$48.75/hr	$42.75/hr	-12.3%
Hourly Operating Costs	$48.57/hr	$37.15/hr	-23.5%
Total Hourly Cost	**$97.32**	**$79.90/hr**	**-17.9%**

Revised Date: 2nd Half 2016

EquipmentWatch™

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All prices shown in US$

Adjustments for WALTERNICCOLI2 in All Saved Models

September 22, 2016

Caterpillar 988H
4-Wd Articulated Wheel Loaders

Size Class:
350 - 499 HP
Weight:
109,230 lbs.

Configuration for 988H

Bucket Capacity - Heaped	**8.33 cu yd**	Net Horsepower	**475 hp**
Power Mode	**Diesel**		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$49.31/hr	$45.69/hr	-7.3%
Cost of Facilities Capital (CFC)	$11.05/hr	-	-
Overhead	$22.67/hr	-	-
Overhaul Labor	$9.80/hr	$5.25/hr	-46.4%
Overhaul Parts	$14.18/hr	-	-
Total Hourly Ownership Cost:	**$107.01/hr**	**$98.84/hr**	**-7.6%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$11.96/hr	$6.41/hr	-46.4%
Field Parts	$15.65/hr	-	-
Ground Engaging Component (GEC)	$2.13/hr	-	-
Tire	$2,600.00/hr	-	-
Electrical/Fuel	$35.87/hr	$25.23/hr	-29.7%
Lube	$9.65/hr	-	-
Total Operating Ownership Cost:	**$90.62/hr**	**$74.43/hr**	**-17.9%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$107.01/hr	$98.84/hr	-7.6%
Hourly Operating Costs	$90.62/hr	$74.43/hr	-17.9%
Total Hourly Cost	**$197.63**	**$173.27/hr**	**-12.3%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

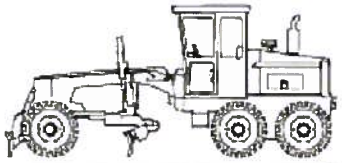
All prices shown in US$

Adjustments for Grader 16M 3A in All Saved Models

September 21, 2016

Caterpillar 16M
Articulated Frame Graders

Size Class:
250 HP & Over
Weight:
59,435 lbs.



Configuration for 16M

Operator Protection	**EROPS**	Net Horsepower	**297 hp**
Power Mode	**Diesel**	Moldboard Size	**16 ft**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$39.01/hr	$36.31/hr	-6.9%
Cost of Facilities Capital (CFC)	$9.06/hr	$7.47/hr	-17.5%
Overhead	$23.64/hr	$19.27/hr	-18.5%
Overhaul Labor	$7.29/hr	$3.18/hr	-56.4%
Overhaul Parts	$21.99/hr	$17.92/hr	-18.5%
Total Hourly Ownership Cost:	**$100.99/hr**	**$84.15/hr**	**-16.7%**

User Defined Adjustments: Annual Use Hours (1,400hrs -> 1,718hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$6.07/hr	$2.65/hr	-56.3%
Field Parts	$21.32/hr	$17.38/hr	-18.5%
Ground Engaging Component (GEC)	$1.78/hr	$1.45/hr	-18.5%
Tire	$2,800.00/hr	-	-
Electrical/Fuel	$22.43/hr	$15.78/hr	-29.6%
Lube	$7.20/hr	-	-
Total Operating Ownership Cost:	**$67.80/hr**	**$53.46/hr**	**-21.2%**
User Defined Adjustments:			

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$100.99/hr	$84.15/hr	-16.7%
Hourly Operating Costs	$67.80/hr	$53.46/hr	-21.2%
Total Hourly Cost	**$168.79**	**$137.61/hr**	**-18.5%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

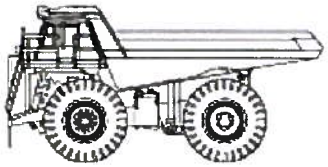
All prices shown in US$

Adjustments for Truck 777F 3A in All Saved Models

September 21, 2016

Caterpillar 777F
Mechanical Drive Rear Dumps

Size Class:
90 - 104 MTons
Weight:
154,753 lbs.



Configuration for 777F

Net Horsepower	**938 hp**	Power Mode	**Diesel**
Rated Payload	**90.7 mt**	Body Capacity (Struck--Heaped)	**54.8 cu yd - 78.8 cu yd**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$73.39/hr	$68.72/hr	-6.4%
Cost of Facilities Capital (CFC)	$13.59/hr	$12.40/hr	-8.8%
Overhead	$30.54/hr	$27.64/hr	-9.5%
Overhaul Labor	$28.18/hr	$13.66/hr	-51.5%
Overhaul Parts	$28.04/hr	$25.38/hr	-9.5%
Total Hourly Ownership Cost:	**$173.74/hr**	**$147.80/hr**	**-14.9%**

User Defined Adjustments: Annual Use Hours (1,850hrs -> 2,044hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$17.31/hr	$8.39/hr	-51.5%
Field Parts	$17.31/hr	$15.66/hr	-9.5%
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,850.00/hr	-	-
Electrical/Fuel	$44.27/hr	$31.14/hr	-29.7%
Lube	$17.60/hr	-	-
Total Operating Ownership Cost:	**$119.61/hr**	**$95.91/hr**	**-19.8%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$173.74/hr	$147.80/hr	-14.9%
Hourly Operating Costs	$119.61/hr	$95.91/hr	-19.8%
Total Hourly Cost	**$293.35**	**$243.71/hr**	**-16.9%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

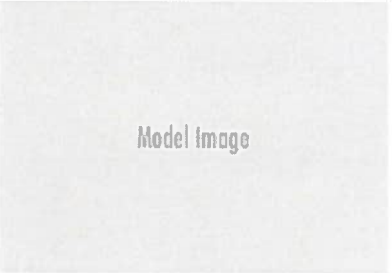
All prices shown in US$

Adjustments for Water Truck -10000gal 3A in All Saved Models

September 21, 2016

Miscellaneous Off-Highway Water Tanker Trucks
Off-Highway Water Tanker Trucks

Size Class:
400 - 499 HP
Weight:
82,200 lbs.



Configuration for Off-Highway Water Tanker Trucks

Horsepower	**450**	Power Mode	**Diesel**
Tank Capacity	**10000 gal**		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$37.55/hr	$34.91/hr	-7%
Cost of Facilities Capital (CFC)	$6.84/hr	$5.82/hr	-14.9%
Overhead	$11.91/hr	$9.97/hr	-16.3%
Overhaul Labor	$12.47/hr	$5.59/hr	-55.2%
Overhaul Parts	$9.02/hr	$7.55/hr	-16.3%
Total Hourly Ownership Cost:	**$77.79/hr**	**$63.84/hr**	**-17.9%**

User Defined Adjustments: Annual Use Hours (1,500hrs -> 1,793hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$30.22/hr	$13.54/hr	-55.2%
Field Parts	$17.41/hr	$14.56/hr	-16.4%
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,500.00/hr	-	-
Electrical/Fuel	$36.21/hr	$25.47/hr	-29.7%
Lube	$7.64/hr	-	-
Total Operating Ownership Cost:	**$101.95/hr**	**$71.68/hr**	**-29.7%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$77.79/hr	$63.84/hr	-17.9%
Hourly Operating Costs	$101.95/hr	$71.68/hr	-29.7%
Total Hourly Cost	**$179.74**	**$135.52/hr**	**-24.6%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

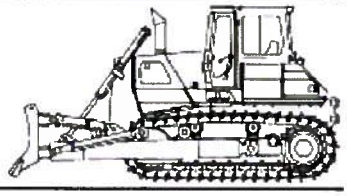
All prices shown in US$

Custom Cost Evaluator

September 21, 2016

Caterpillar D11T
Standard Crawler Dozers

Size Class:
520 HP & Over
Weight:
208,885 lbs.



Configuration for D11T

Dozer Type	**U Blade**	Operator Protection	**EROPS**
Net Horsepower	**850 hp**	Power Mode	**Diesel**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$117.19/hr	$109.64/hr	-6.4%
Cost of Facilities Capital (CFC)	$24.92/hr	-	-
Overhead	$59.40/hr	-	-
Overhaul Labor	$16.60/hr	$8.89/hr	-46.4%
Overhaul Parts	$102.61/hr	-	-
Total Hourly Ownership Cost:	**$320.72/hr**	**$305.46/hr**	**-4.8%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$19.43/hr	$10.41/hr	-46.4%
Field Parts	$99.94/hr	-	-
Ground Engaging Component (GEC)	$16.66/hr	-	-
Tire	$0.00/hr	-	-
Electrical/Fuel	$70.21/hr	$49.39/hr	-29.7%
Lube	$23.52/hr	-	-
Total Operating Ownership Cost:	**$229.76/hr**	**$199.92/hr**	**-13%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$320.72/hr	$305.46/hr	-4.8%
Hourly Operating Costs	$229.76/hr	$199.92/hr	-13%
Total Hourly Cost	**$550.48**	**$505.38/hr**	**-8.2%**

Revised Date: 2nd Half 2016

EquipmentWatch™

www.equipmentwatch.com

All prices shown in US$

Adjustments for 3A Triple Deck Screen in All Saved Models

September 21, 2016

Miscellaneous Triple Deck Portable Screening Plants
Triple Deck Portable Screening Plants

Size Class:
37" & Over
Weight:
27,400 lbs.

Configuration for Triple Deck Portable Screening Plants

Power Mode	**Diesel**	Horsepower	**110**
Conveyor Size	**48" X 60'**	Screen Size	**5' X 16'**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$10.93/hr	$10.28/hr	-5.9%
Cost of Facilities Capital (CFC)	$2.44/hr	$2.01/hr	-17.6%
Overhead	$3.76/hr	$3.03/hr	-19.4%
Overhaul Labor	$11.60/hr	$5.42/hr	-53.3%
Overhaul Parts	$8.08/hr	$6.51/hr	-19.4%
Total Hourly Ownership Cost:	**$36.81/hr**	**$27.25/hr**	**-26%**

User Defined Adjustments: Annual Use Hours (1,250hrs -> 1,551hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$12.98/hr	$6.07/hr	-53.2%
Field Parts	$7.72/hr	$6.22/hr	-19.4%
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,400.00/hr	-	-
Electrical/Fuel	$13.49/hr	$8.05/hr	-40.3%
Lube	$2.19/hr	-	-
Total Operating Ownership Cost:	**$36.77/hr**	**$22.92/hr**	**-37.7%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$36.81/hr	$27.25/hr	-26%
Hourly Operating Costs	$36.77/hr	$22.92/hr	-37.7%
Total Hourly Cost	**$73.58**	**$50.17/hr**	**-31.8%**

Revised Date: 1st Half 2016

EquipmentWatch™

www.equipmentwatch.com

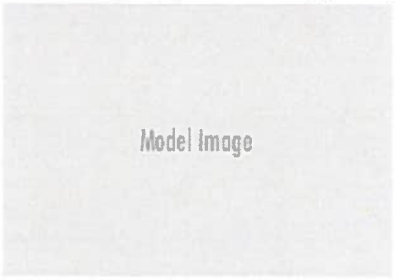
All prices shown in US$

Adjustments for 3A Triple Deck Screen in All Saved Models

September 21, 2016

Miscellaneous Triple Deck Portable Screening Plants
Triple Deck Portable Screening Plants

Size Class:
37" & Over
Weight:
27,400 lbs.



Configuration for Triple Deck Portable Screening Plants

Power Mode	**Diesel**	Horsepower	**110**
Conveyor Size	**48" X 60'**	Screen Size	**5' X 16'**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$10.93/hr	$10.28/hr	-5.9%
Cost of Facilities Capital (CFC)	$2.44/hr	$2.01/hr	-17.6%
Overhead	$3.76/hr	$3.03/hr	-19.4%
Overhaul Labor	$11.60/hr	$5.42/hr	-53.3%
Overhaul Parts	$8.08/hr	$6.51/hr	-19.4%
Total Hourly Ownership Cost:	**$36.81/hr**	**$27.25/hr**	**-26%**

User Defined Adjustments: Annual Use Hours (1,250hrs -> 1,551hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$12.98/hr	$6.07/hr	-53.2%
Field Parts	$7.72/hr	$6.22/hr	-19.4%
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,400.00/hr	-	-
Electrical/Fuel	$13.49/hr	$8.05/hr	-40.3%
Lube	$2.19/hr	-	-
Total Operating Ownership Cost:	**$36.77/hr**	**$22.92/hr**	**-37.7%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$36.81/hr	$27.25/hr	-26%
Hourly Operating Costs	$36.77/hr	$22.92/hr	-37.7%
Total Hourly Cost	**$73.58**	**$50.17/hr**	**-31.8%**

Revised Date: 1st Half 2016

EquipmentWatch™

www.equipmentwatch.com

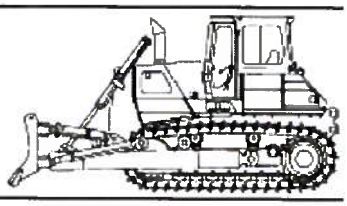
All prices shown in US$

Adjustments for 3A D9T in All Saved Models

September 21, 2016

Caterpillar D9T
Standard Crawler Dozers

Size Class:
360 - 519 HP
Weight:
105,600 lbs.



Configuration for D9T

Power Mode	**Diesel**	Net Horsepower	**410 hp**
Dozer Type	**Semi-U**	Operator Protection	**ROPS/FOPS**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$45.75/hr	$42.80/hr	-6.4%
Cost of Facilities Capital (CFC)	$9.85/hr	$8.31/hr	-15.6%
Overhead	$30.87/hr	$25.74/hr	-16.6%
Overhaul Labor	$16.60/hr	$7.41/hr	-55.4%
Overhaul Parts	$40.59/hr	$33.84/hr	-16.6%
Total Hourly Ownership Cost:	**$143.66/hr**	**$118.10/hr**	**-17.8%**

User Defined Adjustments: Annual Use Hours (1,400hrs -> 1,679hrs) Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$19.43/hr	$8.68/hr	-55.3%
Field Parts	$39.53/hr	$32.96/hr	-16.6%
Ground Engaging Component (GEC)	$6.59/hr	$5.49/hr	-16.7%
Tire	$0.00/hr	-	-
Electrical/Fuel	$33.87/hr	$23.82/hr	-29.7%
Lube	$9.91/hr	-	-
Total Operating Ownership Cost:	**$109.33/hr**	**$80.86/hr**	**-26%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$143.66/hr	$118.10/hr	-17.8%
Hourly Operating Costs	$109.33/hr	$80.86/hr	-26%
Total Hourly Cost	**$252.99**	**$198.96/hr**	**-21.4%**

Revised Date: 2nd Half 2016

Dave Bauer

From: Marker, James <James.Marker@wnr.com>
Sent: Friday, May 20, 2016 8:00 AM
To: Dave Bauer
Cc: Marker, James
Subject: Clear ULSD - Chino

Dave,

Per your request.

Quoted clear ULSD price for delivery 5/19/16 to Chino would be **$1.6572.** Price does not include any applicable taxes.

Please let me know if you have any questions.

Thank you,
James M. Marker
General Manager, Fuel Marketing

Western Refining
1250 W. Washington St., Suite 101
Tempe, AZ 85281
office 602.286.1681
cell 602.803.0087
fax 602.683.5678
james.marker@wnr.com
www.wnr.com

Ennis, David, EMNRD

From: Lloyd-Mills, Rita <rlloydmi@fmi.com>
Sent: Wednesday, November 30, 2016 3:50 PM
To: Ennis, David, EMNRD
Cc: Lande, Lynn; Lilla, Mandy; Ohori, David, EMNRD; Shepherd, Holland, EMNRD; Shelley, Thomas L.
Subject: RE: North Lampbright cost estimate discussion follow-up
Attachments: Komatsu HD 1500 haul truck EquipWatch.pdf; NLWRS_Appendix_B.pdf; RM_Chino Reveg Estimate 06.18.14.xlsx

Hello DJ,

Thank you for your email. Below in purple are responses to the comments. Chino would like to set up a meeting in Santa-Fe the first or second Friday of January 2017 to discuss indirects. Please let us know which day will work for you.

Regards,

Rita

From: Ennis, David, EMNRD [mailto:David.Ennis@state.nm.us]
Sent: Monday, November 28, 2016 11:55 AM
To: Lloyd-Mills, Rita <rlloydmi@fmi.com>
Cc: Lande, Lynn <llande@fmi.com>; Lilla, Mandy <mlilla@fmi.com>; Ohori, David, EMNRD <david.ohori@state.nm.us>; Shepherd, Holland, EMNRD <holland.shepherd@state.nm.us>
Subject: North Lampbright cost estimate discussion follow-up

Hi Rita,

On Nov. 9, 2016, Chino and MMD held an informal WebEx discussion/walk-through on the cost estimate for the North Lampbright Stockpile (dated September 28, 2016). There were a few action items discussed that I'd like to followup on. As I recall, Chino was going to research the following items and get back to MMD:

- The bid from Rocky Mountain reportedly contained indirects of either 22.5% or 17.5%. Chino was going to research which were included in their bid.
  The bid received from Rocky Mountain included all indirects, which Chino has calculated as 22.5% for capital cost and 17.5% as O&M.
  Find the details below:
    - 'Excel Tab #14' (Sheet 16 of 21) uses indirect cost of 22.5% which is consistent with the 'Earthwork' indirect %
        - Tab 14 addresses initial reseeding of reclaimed areas
        - Quote = $1,153/acre / (1 + 22.5%) *1.005 * 1.005 = $951/acre
        - 1.005 is an accumulated rate of inflation at 0.5%/year for 2 years
            - 2014 rate to 2016 = 2 years
    - 'Excel Tab # 18' (Sheet 20 of 21) uses an indirect % of 17.5% which is consistent with the 'O&M' indirect %
        - Tab # 18'addresses O&M interseeding
        - Quote = $1,153/acre / (1 + 17.5%) *1.005 *1.005 = $991/acre

- The original submittal had 2016 capital revegetation cost and 2015 O&M revegetation cost. The attached cost estimated has 2016 O&M revegetation cost.

- The bid from Rocky Mountain did not include providing mulch. Chino was going to research if mulch is included elsewhere in the cost estimate.

  The cost of mulch was included in the cost estimate as indicated on Tab# 17 (Sheet 19 of 21). See the attached quote (excel sheet) provided to Telesto by Rocky mountain Reclamation on June 18, 2014. The estimate was adjusted for 2016 inflation using 0.5% cumulative rate of inflation.

- The cost estimate did not include Appendix B, which Chino was going to provide to MMD for review.

  Find Appendix B attached.

- There were no Equipment Watch sheets for the 785 trucks or its surrogate the Komatsu HD1500-5.

  Attached is Equipment Watch sheet for Komatsu HD1500-5.

Additionally, on Nov. 5, 2016, MMD updated our guidance on reclamation costs, particularly in addressing indirect costs. As Holland stated previously, we'd like to apply this guidance to the development of the North Lampbright Expansion New Unit revision cost estimate.

Chino has real concerns about the newly drafted MMD guidance and believes it is premature to comment under the North Lampbright Stockpile revision application. The New Mexico Mining Association is reviewing the new guidance and will submit comment under a separate letter in the near future to MMD. Chino will be happy to address any specific questions MMD has for this FA proposal. However, please direct additional MMD FA guidance questions to Tom Shelley or Lynn Lande.

I'm still thinking of this to be an informal technical discussion so that MMD can understand the cost estimate, so these are not MMD's "official" comments at this time. I think through Chino's providing the above we could informally clarify several comments that we'd otherwise be providing. I would, however, like to conclude MMD's review of the cost estimate in order to provide Chino with any official written technical comments on the application as a whole (which includes the cost estimate).

If any of this is unclear or you wish to discuss, please let me know and I'd be happy to talk to you about it.

Thanks,
DJ

DJ Ennis, P.G.
Mining and Minerals Division / 1220 S. St. Francis Drive / Santa Fe, NM 87505
(505) 476-3434 / david.ennis@state.nm.us

EquipmentWatch™

www.equipmentwatch.com

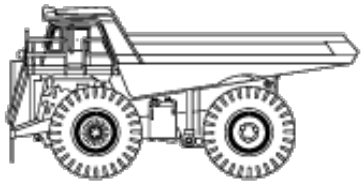
All prices shown in US$

Custom Cost Evaluator

September 26, 2016

Komatsu HD1500-5 (disc. 2008)
Mechanical Drive Rear Dumps

Size Class:
105 - 139 MTons
Weight:
221,481 lbs.



Configuration for HD1500-5 (disc. 2008)

Body Capacity (Struck--Heaped)	**71 cu yd - 102 cu yd**	Net Horsepower	**1406 hp**
Power Mode	**Diesel**	Rated Payload	**136 mt**

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	$54.15/hr	$50.71/hr	-6.4%
Cost of Facilities Capital (CFC)	$10.96/hr	-	-
Overhead	$24.81/hr	-	-
Overhaul Labor	$34.46/hr	$18.46/hr	-46.4%
Overhaul Parts	$26.31/hr	-	-
Total Hourly Ownership Cost:	**$150.69/hr**	**$131.25/hr**	**-12.9%**

User Defined Adjustments: Sales Tax (5.6% -> 0%)

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	$19.91/hr	$10.66/hr	-46.5%
Field Parts	$11.15/hr	-	-
Ground Engaging Component (GEC)	$0.00/hr	-	-
Tire	$2,850.00/hr	-	-
Electrical/Fuel	$66.36/hr	$46.68/hr	-29.7%
Lube	$17.34/hr	-	-
Total Operating Ownership Cost:	**$138.90/hr**	**$109.97/hr**	**-20.8%**

User Defined Adjustments:

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	$150.69/hr	$131.25/hr	-12.9%
Hourly Operating Costs	$138.90/hr	$109.97/hr	-20.8%
Total Hourly Cost	**$289.59**	**$241.22/hr**	**-16.7%**

Revised Date: 2nd Half 2016

Appendix B: Channel/Bench Grading and Excavation Costs

Bench Grading

Task Description	Equipment	Productivity (cy/hr)	Productivity (hrs/lf)	Material	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade	Work Hour (min/hr)	Visibility	Elevation	Direct Drive Trans.	Grade (%)	Operator
Excavate	D11T	3,142	-	1.2	1.58	3300	1	50	1	1	1	-29	0.75
Finish Grade	D9T	-	0.0011	1.2	1.58	3300	1	50	1	1	1	-29	0.75

Task Description	Equipment	Maximum Push Distance (feet)	Normal Production (cy/hr)	# Passes	Width (feet)	Speed (mi/hr)	Volume[1] (cy/lf)	Productivity (hrs/lf)	Operator Cost (IV) ($/hr)	Dozer Costs ($/hr)	Bench Cost ($/lf)
Excavate	D11T	76	3,804	-	-	-	11.1	0.0035	$ 29.56	$ 505.38	$ 1.89
Finish Grade	D9T	0	0	3	15	1.0	-	0.0011	$ 29.56	$ 198.86	$ 0.25
Total											**$ 2.14**

[1]Bench width: Stockpiles 15 ft.

Outslope Bench Channels

Task Description	Equipment	Productivity (cy/hr)	Material	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade	Work Hour (min/hr)	Visibility	Elevation	Direct Drive Trans.	Grade (%)	Operator	Maximum Push Distance (feet)
Excavate	D11T	1,479	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182
Cut/Fill	D11T	863	1.2	1.00	3300	1	50	1	1	1	0	0.75	200
Finish Grade	D6T XL	237	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182

Task Description	Equipment	Normal Production (cy/hr)	Volume[1] (cy/lf)	Productivity (hrs/lf)	Operator Cost (I' ($/hr)	Dozer Costs ($/hr)	Bench Cost ($/lf)
Excavate	D11T	1,791	1.0	0.0007	$ 29.56	$ 505.38	$ 0.36
Cut/Fill	D11T	1,651	1.0	0.0012	$ 29.56	$ 505.38	$ 0.62
Finish Grade	D6T XL	287	0.4	0.0017	$ 29.56	$ 93.96	$ 0.21
Total							**$ 1.19**

[1]Volumes based on cross-section area for excavation and waste, unit volume/linear foot of downdrain (23 ft^2 * 1 ft/27)

Top Channels

Task Description	Equipment	Productivity (cy/hr)	Material	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade	Work Hour (min/hr)	Visibility	Elevation	Direct Drive Trans.	Grade (%)	Operator	Maximum Push Distance (feet)
Excavate	D11T	1,479	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182
Cut/Fill	D11T	863	1.2	1.00	3300	1	50	1	1	1	0	0.75	200
Finish Grade	D6T XL	237	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182

Task Description	Equipment	Normal Production (cy/hr)	Volume[1] (cy/lf)	Productivity (hrs/lf)	Operator Cost (I' ($/hr)	Dozer Costs ($/hr)	Bench Cost ($/lf)
Excavate	D11T	1,791	2.5	0.0017	$ 29.56	$ 505.38	$ 0.90
Cut/Fill	D11T	1,651	2.5	0.0029	$ 29.56	$ 505.38	$ 1.55
Finish Grade	D6T XL	287	1.0	0.0042	$ 29.56	$ 93.96	$ 0.52
Total							**$ 2.97**

[1]Volumes based on cross-section area for excavation and waste, unit volume/linear foot of downdrain (73 ft^2 * 1 ft/27)

Downdrains

Task Description	Equipment	Productivity (cy/hr)	Material	Grade Factor	Soil Weight (lb/cy)	Production Method/ Blade	Work Hour (min/hr)	Visibility	Elevation	Direct Drive Trans.	Grade (%)	Operator	Maximum Push Distance (feet)
Excavate	D11T	1,479	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182
Cut/Fill	D11T	863	1.2	1.00	3300	1	50	1	1	1	0	0.75	200
Finish Grade	D6T XL	237	1.2	1.58	3300	1	50	1	1	1	-29	0.75	182

Task Description	Equipment	Normal Production (cy/hr)	Volume[1] (cy/lf)	Productivity (hrs/lf)	Operator Cost (I' ($/hr)	Dozer Costs ($/hr)	Bench Cost ($/lf)
Excavate	D11T	1,791	5.8	0.0039	$ 29.56	$ 505.38	$ 2.10
Cut/Fill	D11T	1,651	5.8	0.0067	$ 29.56	$ 505.38	$ 3.59
Finish Grade	D6T XL	287	2.3	0.0098	$ 29.56	$ 93.96	$ 1.21
Total							**$ 6.90**

[1]Volumes based on cross-section area for excavation and waste, unit volume/linear foot of downdrain (175.5 ft^2 * 1 ft/27)

Appendix B: Riprap Haulage Costs

PERFORMANCE FACTORS

Task Description	Location 1	Location 2	Equipment	Volume (cy)	Truck Cycle Time (min)	Optimum No. of Trucks	Productivity (cy/hr)	Task Time (hrs)	Truck Capacity (cy)	Heaped Capacity (cy)	Loader Cycles per Truck	Total Haul Distance (feet)	**Haul Distance Segment 1 (feet)	**Haul Distance Segment 2 (feet)	**Haul Grade Segment 1 (%)	**Haul Grade Segment 2 (%)	Rolling Resistance (%)	Haul Distance Segment 1 (meters)
Haul RipRap Material	Rip Rap	N Lampbright Stockpile	777F	30,886	23	7	1,067	29	54.6	78.6	5	18,036	9,879	8,157	5%	0%	3%	3,011

Task Description	Location 1	Location 2	Equipment	Haul Distance Segment 2 (meters)	Haul Effective Grade Segment 1 (%)	Haul Effective Grade Segment 2 (%)	Return Effective Grade Segment 1 (%)	Return Effective Grade Segment 2 (%)	Haul Time (min)	Return Time (min)	Haul Loading Time (min)	Return Load/ Maneuver Time (min)	Dump/ Maneuver Time (min)	Work Hour (min/hr)	Travel Time Loaded Segment 1 (min/ft)	Travel Time Loaded Segment 2 (min/ft)	Travel Time Empty Segment 1 (min/ft)	Travel Time Empty Segment 2 (min/ft)
Haul RipRap Material	Rip Rap	N Lampbright Stockpile	777F	2,486	7%	3%	0%	3%	12.8	5.1	3.3	0.7	1.1	50	0.00313	0.00136	0.00093	0.00093

Loader

Task Description	Location 1	Location 2	Equipment	Volume (cy)	Net Bucket Capacity (cy)	Loader Cycle Time (min)	Productivity (cy/hr)	Task Time (hours)	Heaped Bucket Capacity (cy)	Bucket Fill Factor	Haul Distance (feet)	Haul Grade (%)	Rolling Resistance (%)	Load Bucket (min)	Dump Bucket (min)	Swing Empty (min)
Load RipRap Material	Rip Rap	N Lampbright Stockpile	992K	30,886	14.0	0.7	1,077	29	16	0.875	NA	NA	NA	NA	NA	NA

Totals

Equipment Type	Task	Location 1	Location 2	Owning and Operating Cost ($/hr)	Fuel Consumption (gal/hr)	Fuel Consumption (gal)	Labor Cost ($/hr)	Number of Units (Equipment)	Time Req'd (hrs)	Total Cost ($)
D11R	Dozer Assist	Borrow Area	-	$ 364.46	19	544	$ 31.55	$ 1	29	$ 11,464
Water Truck		N Lampbright Stockpile	-	$ 135.52	15	445	$ 31.93	$ 1	29	$ 4,847
Motor Grader		N Lampbright Stockpile	-	$ 137.61	10	276	$ 29.56	$ 1	29	$ 4,839
*Loaders**										
	992K	Load cover material	Borrow Area	N Lampbright Stockpile	$ 325	$ 26	$ 743	$ 30	$ 1	$ 29	$ 10,277
*Trucks**										
	777F	Haul cover material	Borrow Area	N Lampbright Stockpile	$ 244	$ 19	$ 3,808	$ 32	$ 7	$ 203	$ 55,779
									N Lampbright Stockpile		$ 87,206
									$/yd^3		**$ 2.89**

Appendix B: Gravel Placement

Assumptions:
300hp 980H Front Loader
7.5 CY Bucket (heaped)
85% bucket fill[1]
Net 6.4 CY

Load Time[1]				0.65 min
Delivery Travel Time[1]	150 ft at	4 mph =	5.87 ft/sec	0.43 min
Unload and Maneuver Time[1]	20 sec +	20 sec		0.67 min
Return Travel Time[1]				0.43 min
				2.17 min

300 hp 980H Front End Loader Operating, Ownership, Fuel, and Labor Cost (per hour)

	Fuel Use Gal per Hour[2]	Fuel Total $/hr[2,4]	Owner/Operate $/hr	Owner/Operate $/hr w/Fuel[2]	Owner/Operate $/hr w/Fuel & Labor
Cat 980 Loader	10.1	$ 16.73	$ 87.66	$ 104.39	$ 134.18

[3] Cost per cubic yard at 2.17 minutes per load, 50 minute work hour
23 loads per hour
Loader costs $134.18 per hour, $5.83 per load
Cost per CY $0.91

NOTES:
1 - Load, dump, travel, maneuver times from Cat Handbook Edition 46
2 - Owner/Operating costs, fuel use collected from Equipment Watch 9/22/16
3 - 50 minutes actual work hour recommended in Cat Handbook Edition 46
4 - Western Refining, Lordsburg Diesel Quote $1.66/gal, 5/20/16

Appendix B: Riprap Production Costs

Equipment	Equipment ($/hr)	# Equipment	Operator ($/hr)	# Operator	Total ($/hr)
988H Loader	$ 173.27	1	$ 29.79	1	$ 203.06
769D Haul Truck	$ 120.17	2	$ 31.55	2	$ 303.44
2 Deck (5X16, 48X60)	$ 48.16	1	$ 28.06	1	$ 76.22
3 Deck (5X16, 48X60)	$ 50.17	1	$ 28.06	1	$ 78.23
980H Loader	$ 104.39	1	$ 29.79	1	$ 134.18
966H Loader	$ 79.90	1	$ 29.79	1	$ 109.69
769D Haul Truck	$ 120.17	1	$ 31.55	1	$ 151.72
Water Truck	$ 135.52	1	$ 31.93	1	$ 167.45
Supervisor	$ -	-	$ 38.32	1	$ 38.32

Direct Costs			
	$	1,262.31	$/hr
		8	hrs/day
	$	10,098.48	$/day
Production			
		200	tons input/hr (total)
		30%	% waste
		70%	% rip rap and gravel/filter
		140	tons produced/hr (net)
		280,000	lbs/hr
		3000	lb/cy
		93	cy/hr
		6.7	hr/day
		622	cy/day
Total	$	16.23	$/cy average for gravel and riprap produced together for a ratio of 2.6 cy of riprap per 1 cy of gravel for use in reclamation

CHINO MINE - REVEGETATION ESTIMATES FOR BONDING PURPOSES

06/18/2014 Quote

1	SCARIFYING	200	Acres	$80.00	$16,000.00
2	DISCING	200	Acres	$80.00	$16,000.00
3	DRILL_SEEDING_(special_Rangeland_Drill)	200	Acres	$80.00	$16,000.00
4	MULCHING	200	Acres	$130.00	$26,000.00
5	CRIMPING	200	Acres	$50.00	$10,000.00
6	DAILY_PER_DIEM_ETC.	20	Days	$350.00	$7,000.00
7	MOBILIZATION	1	Each	$7,500.00	$7,500.00
					$98,500.00
1	SEED at 8.9 PLS/acre	200	Acres	$160.00	$32,000.00
2	HAY_MULCH_nox._weed_free_native	400	Tons	$250.00	$100,000.00
					$230,500.00
			$1,152.50	Per Acre	
					$230,500.00

NOTE: Our actual bids to the Chino Mine would be less.