Muskrat Falls Vegetation Removal Scenario B

Date: 25-Feb-18

	Area of soil to be removed	Estimated Quantities 0.2m Removal	Estimated Quantities 0.5m Removal	Estimated Quantities Winter 1.5m Removal
	(ha)	Volume (m^3)	Volume (m^3)	Volume (m^3)
Cleared Area	1031	2,062,000	5,155,000	15,465,000
Excluded Area	725	1,450,000	3,625,000	10,875,000
Total	**1,756**	**3,512,000**	**8,780,000**	**26,340,000**

Construction Costs

Item	Description	Unit	Quantity	Low Estimate Unit Cost	High Estimate Unit Cost	Low	High
1	**Mobilization**						
1a	Contractor Mobilization/demobilization	% of Capex	1	$ 52,995,650	$ 79,493,475	$ 52,995,650	$ 79,493,475
1b	Contractor Compound	Lump	1	$ 3,000,000	$ 4,500,000	$ 3,000,000	$ 4,500,000
	Camp Capital Costs and set up	Lump	1	$ 25,000,000	$ 35,000,000	$ 25,000,000	$ 35,000,000
1c	Work Camp Operational Cost	Lump	1	$ 8,181,250	$ 11,900,000	$ 8,181,250	$ 11,900,000
1d	Summer Season Road Maintenace	$/day	120	$ 3,000	$ 6,500	$ 360,000	$ 780,000
1e	Engineering design and construction support	% of Capex	1	$ 30,472,499	$ 48,755,998	$ 30,472,499	$ 48,755,998
						$ 120,009,399	**$ 180,429,473**
2	**Site Clearing**						
2a	Timber (all inclusive rate)	$/ha	-	$ 40,000	$ 65,000	$ -	$ -
2b	Overburden Excavation (includes O and A)	$/m3	15,465,000	$ 15.00	$ 22.50	$ 231,975,000	$ 347,962,500
						$ 231,975,000	**$ 347,962,500**
3	**Site Clearing (Barge) - Quantities 20% of total site clearing**						
3a	Overburden Excavation (includes O and A)	$/m3	-	$ 14.00	$ 30.00	$ -	$ -
						$ -	**$ -**
4	**Road Construction**						
4a	New Roads	$/lineal m	25,000	$ 200.00	$ 300.00	$ 5,000,000	$ 7,500,000
4b	Upgrade existing roads	$/lineal m	191,000	$ 51.00	$ 60.00	$ 9,741,000	$ 11,460,000
4c	Water crossing (900mm CSP)	Lump	97	$ 6,000	$ 12,000	$ 582,000	$ 1,164,000
4d	Road Maintenance (fall -winter- apr)	$/day	300	$ 13,000	$ 20,000	$ 3,900,000	$ 6,000,000
4e	Contingency for dualling of upto 50% of haul roads	$/lineal m	230,500	$ 101.00	$ 180.00	$ 23,280,500	$ 41,490,000
						$ 42,503,500	**$ 67,614,000**
5	**General Excavation**						
5a	Sedimentation Ponds	$/m3	480,000	$ 7.00	$ 15.00	$ 3,360,000	$ 7,200,000
5b	Clay Slope Cutback to 3:1	$/m3	-	$ 7.00	$ 15.00	$ -	$ -
5c	Clay Slope Protection	$/m2	-	$ 5.00	$ 10.00	$ -	$ -
5d	Disposal Site Clearing, Excavation and Cover	$/m2	3,750,000	$ 12.00	$ 24.00	$ 45,000,000	$ 90,000,000
						$ 48,360,000	**$ 97,200,000**
	Construction Total					**$ 437,847,899**	**$ 685,705,973**