

NOTES

- 1. Soil classification for these works are based on the Unified Soil Classification System (USCS).
- 2. On bare tundra surfaces the maximum snow thickness allowed prior to fill placement shall be 102mm (4"). On all other surfaces complete snow removal is required. The Engineer must approve all surfaces prior to placement of any construction material.
- 3. Snow and ice on construction material must be removed prior to loading for construction use.
- 4. Due care must be taken when placing fill materials such that no damage occurs to the subgrade and/or liner system. Any damage must be immediately reported to the Engineer.
- 5. Geotextile shall be 12 oz. non-woven geotextile.
- 6. Liner shall be 60 mil textured HDPE liner.
- 7. Maximum lift thickness of ROQ is 1.85m. Staged construction will be required where fill thickness exceeds 1.85m.
- 8. In areas where staged construction is required, all snow shall be removed and the surface scarified prior to placing the next lift. The Engineer will approve such staged construction.
- 9. Run of Quarry, and Surfacing material has to be compacted after placement.
- 10. Compaction will be a field specification, based on trial compaction tests to be carried out by the Contractor to the satisfaction of the Engineer.
- 11. It is the Contractor's responsibility to create the construction materials as specified through appropriate crushing. Any deviations must be approved by the Engineer.
- 12. Construction fill material shall be from approved rock quarries, shall be non-acid generating, free of organic material or similar impurities, as well as snow and ice.
- 13. Construction fill material must be free of overburden soils. Such unsuitable material shall be disposed of in a designated on site disposal area as outlined in the Contractors' quarry development
- 14. Construction fill material will not have to be washed to remove blast residues or fines, unless specifically instructed by the Engineer.
- 15. Rip Rap shall be clean with no fine grained material and a minimum boulder size of 1000mm.
- 16. Run of Quarry (ROQ) shall be well-graded, containing sufficient quantities of gravel, sand, and silt sized material. For fill thickness <0.85m the maximum boulder size shall not exceed 500mm. For fill thickness >0.85m the maximum boulder size shall not exceed 900mm.
- 17. Surfacing material shall be a well-graded manufactured crush product produced from ROQ material. The screen size shall be no greater than 51mm (2") but no smaller than 32mm (1-1/4").
- 18. 3/4" Finishing material shall be well graded manufactured crush product produced from ROQ material. The screen size shall be no greater than 32mm (1-1/4") but no smaller than 19mm (3/4")
- 19. The Contractor shall collect samples of the surfacing material directly from the crusher stockpile and submit for laboratory testing including but not limited to grain size distribution, and moisture content at least 1 sample every 8,000m³. The Engineer may conduct additional sampling and testing as deemed necessary.

Materials List and Quantities

Item	Quantity/Area/Vo	olume	Description		
3/4" Finishing Material	Liner Subgrade (0.3 m)	1,100 m ³	Volumes Derived by Eagle Point V7.2		
	Overliner (0.3 m)	1,100 m ³	- Side slope 1.5H:1V for fill less than 2m		
	Culvert	60 m ³	- Side slope 2H:1V for fill greater than 2m		
	Total	2,260 m ³	-Fills are a min. 1.0m		
Surfacing Material (1-1/4"	Berm Surfacing	100 m ³	- Volume derived by merging Topography/As-built		
Crush)	Road surfacing	1,200 m ³	to Pad Design surfaces		
	Total	1,300 m ³			
Run of Quarry Material	Berm	6,600 m ³			
	Road	14,000 m ³			
	Total	26,600 m ³			
Geotextile	Pollution Control Pond	8,200 m ²	12 oz. Non-Woven		
	Total	8,200 m ²			
Liner	Pollution Control Pond	2,000 m ²	Textured HDPE 60 or equivalent		
	Total	2,000 m ²			
Rip Rap		100 m ³	Spillway Aprons		
	Total	100 m ²			
Culverts 4 in total		95 m	250mm Diameter Corrugated Steel Culvert		
	Total	95 m			

SEDIMENTATION POND STAKE-OUT TABLE						
ID	Northing	Easting	Elevation (m)			
SP-01	7,558,915.40	433,164.14	37.43			
SP-02	7,558,965.46	433,119.21	40.26			
SP-03	7,558,963.30	433,119.29	39.50			
SP-04	7,558,930.28	433,088.97	39.50			
SP-05	7,558,913.78	433,070.97	39.49			
SP-06	7,558,906.68	433,072.64	39.38			
SP-07	7,558,902.40	433,082.52	39.21			
SP-08	7,558,919.76	433,151.32	34.24			
SP-09	7,558,950.99	433,119.36	35.32			
SP-10	7,558,924.38	433,094.87	35.33			
SP-11	7,558,911.32	433,079.92	35.42			
SP-12	7,558,910.20	433,083.15	35.34			

POLLUTION CONTROL POND STAKE-OUT TABLE						
ID	Northing	Easting	Elevation (m)			
PP-01	7,558,916.02	433,174.34	37.17			
PP-02	7,558,971.42	433,124.60	40.27			
PP-03	7,558,956.47	433,146.60	36.00			
PP-04	7,558,980.84	433,189.66	36.00			
PP-05	7,558,983.10	433,198.43	36.00			
PP-06	7,558,982.91	433,234.79	36.00			
PP-07	7,558,975.09	433,240.71	36.00			
PP-08	7,558,921.36	433,241.22	36.00			
PP-09	7,558,916.20	433,234.56	36.00			
PP-10	7,558,923.81	433,178.43	33.28			
PP-11	7,558,955.84	433,149.30	35.07			
PP-12	7,558,979.05	433,191.02	34.88			
PP-13	7,558,980.76	433,198.49	34.82			
PP-14	7,558,980.92	433,233.79	35.00			
PP-15	7,558,974.63	433,239.49	35.39			
PP-16	7,558,961.93	433,238.83	35.00			
PP-17	7,558,947.61	433,236.97	34.00			
PP-18	7,558,923.98	433,235.81	33.31			
PP-19	7,558,921.73	433,232.66	33.24			

ROAD RAISE STAKE-OUT TABLE						
ID	Northing	Easting	Elevation (m)			
RD-01	7,558,935.99	432,929.51	39.80			
RD-02	7,558,923.63	432,921.02	39.80			
RD-03	7,558,923.18	432,948.38	39.75			
RD-04	7,558,910.31	432,940.63	39.75			
RD-05	7,558,906.18	432,997.35	39.50			
RD-06	7,558,887.56	432,989.00	39.50			
RD-07	7,558,902.40	433,035.62	39.50			
RD-08	7,558,879.29	433,035.66	39.50			
RD-09	7,558,902.93	433,059.98	38.50			
RD-10	7,558,883.06	433,061.75	39.17			
RD-11	7,558,903.45	433,091.83	39.00			
RD-12	7,558,888.55	433,093.64	39.00			
RD-13	7,558,899.97	433,162.77	37.50			
RD-14	7,558,901.05	433,183.38	37.00			
RD-15	7,558,901.20	433,233.97	36.00			
RD-16	7,558,917.58	433,260.20	35.50			
RD-17	7,558,900.48	433,256.70	35.50			
RD-18	7,558,912.91	433,279.21	35.00			
RD-19	7,558,898.29	433,275.98	35.00			
RD-20	7,558,890.48	433,345.81	33.50			
RD-21	7,558,877.55	433,338.66	33.50			
RD-22	7,558,878.02	433,365.99	33.00			
RD-23	7,558,867.59	433,358.54	33.00			
RD-24	7,558,857.68	433,390.74	33.00			
RD-25	7,558,850.86	433,385.22	33.00			
RD-26	7,558,849.04	433,399.29	32.22			
RD-27	7,558,844.88	433,393.00	33.50			

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	REFERENCE DRAWINGS								PR

Original Drawings Stamped and Signed by Engineer





(Sedimenta

Doris North Project DRAWING TITLE:

> Material Specifications tation and Pollution Control Ponds)

NEMONT DRAWING NO. REVISION NO

PROFESSIONAL ENGINEER'S STAMP FILE NAME: DN-DMC-010.dwg

SRK JOB NO.: 1CH008 027 | SRK DWG NO.: DN-DMC-013 | HB+D-CIV-CIV-OND-0073 | 14 OF 18

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ROAD RAISE STAKE-OUT TABLE

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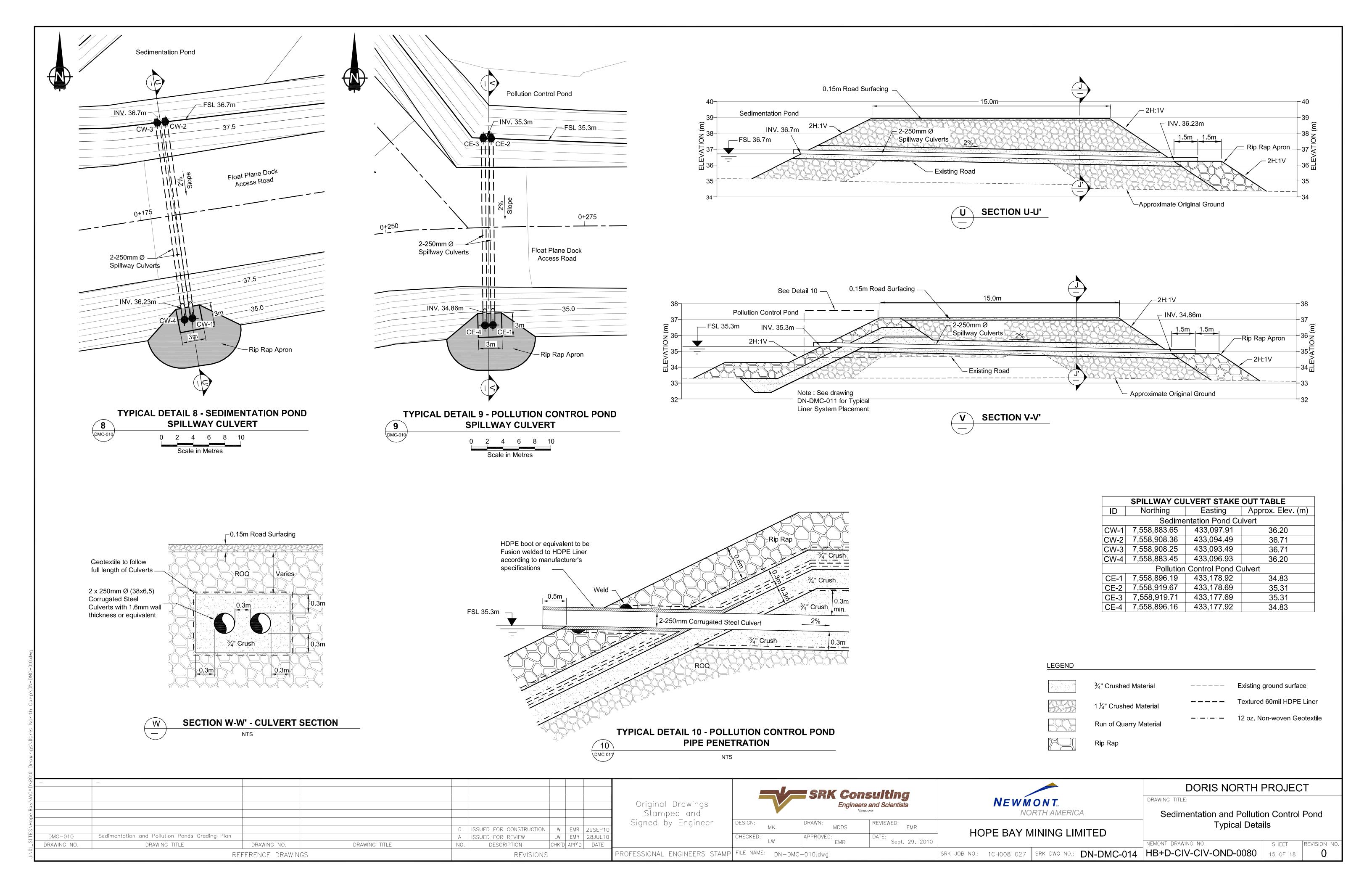


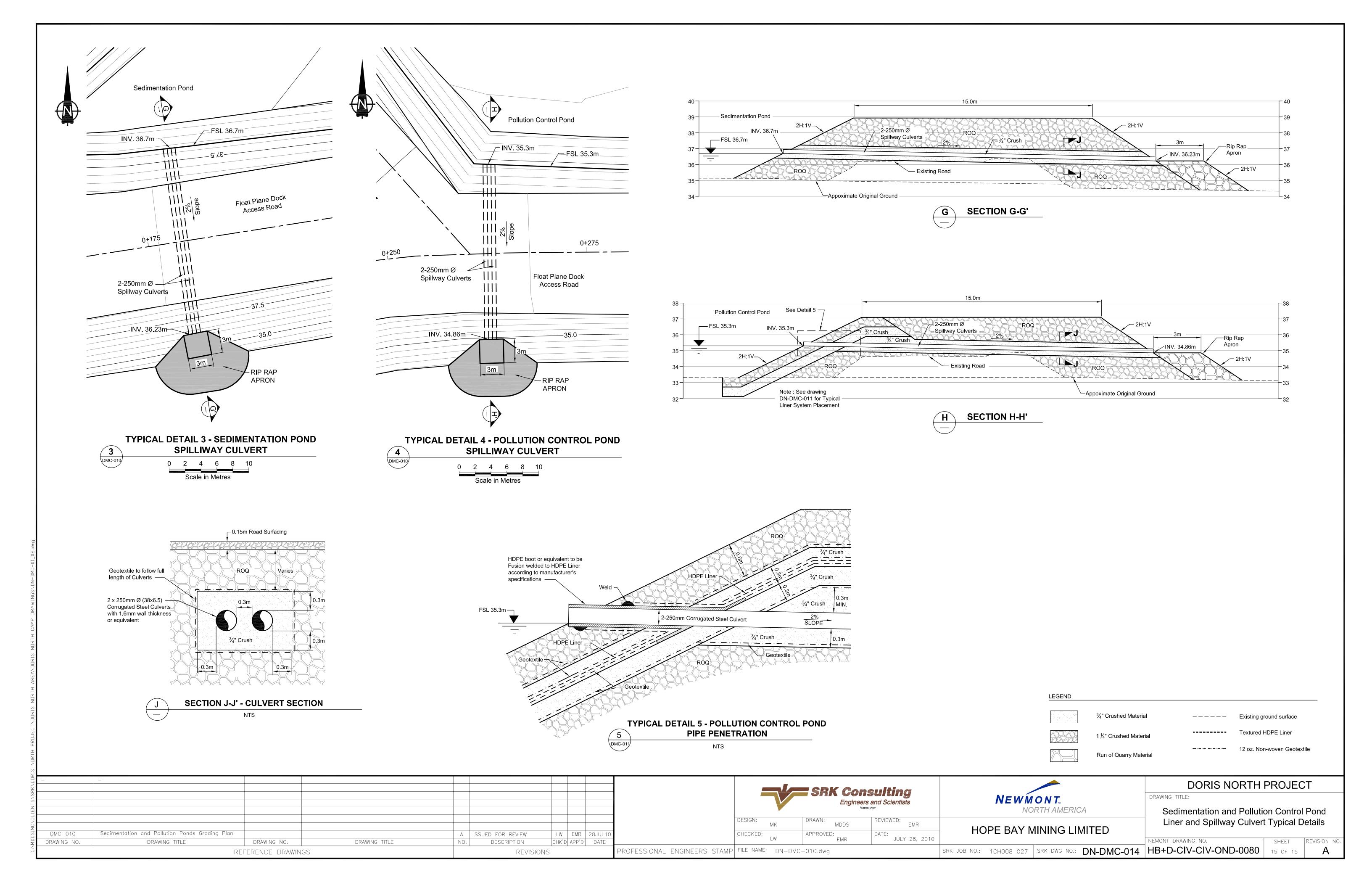
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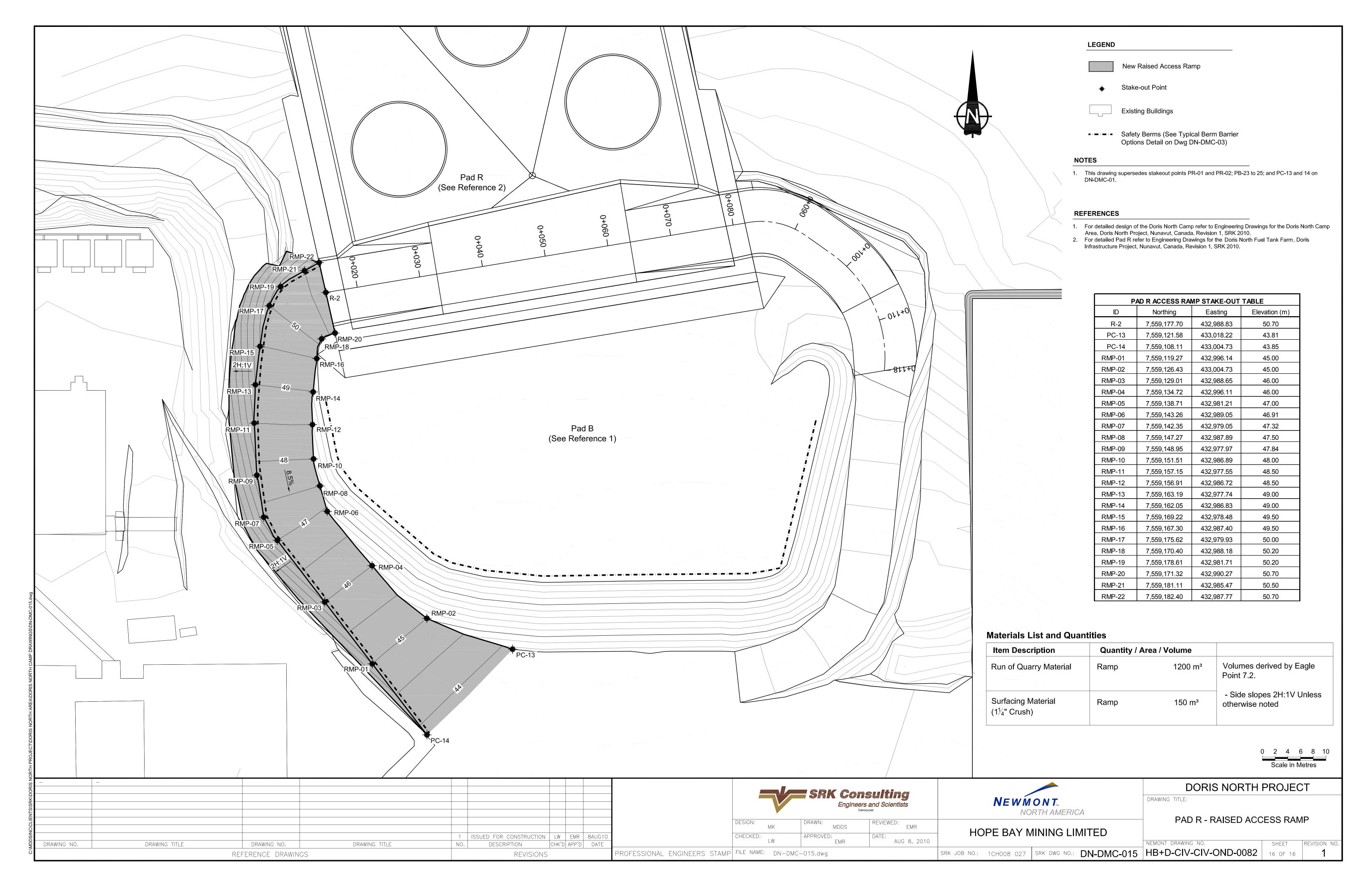
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	Material Specifications

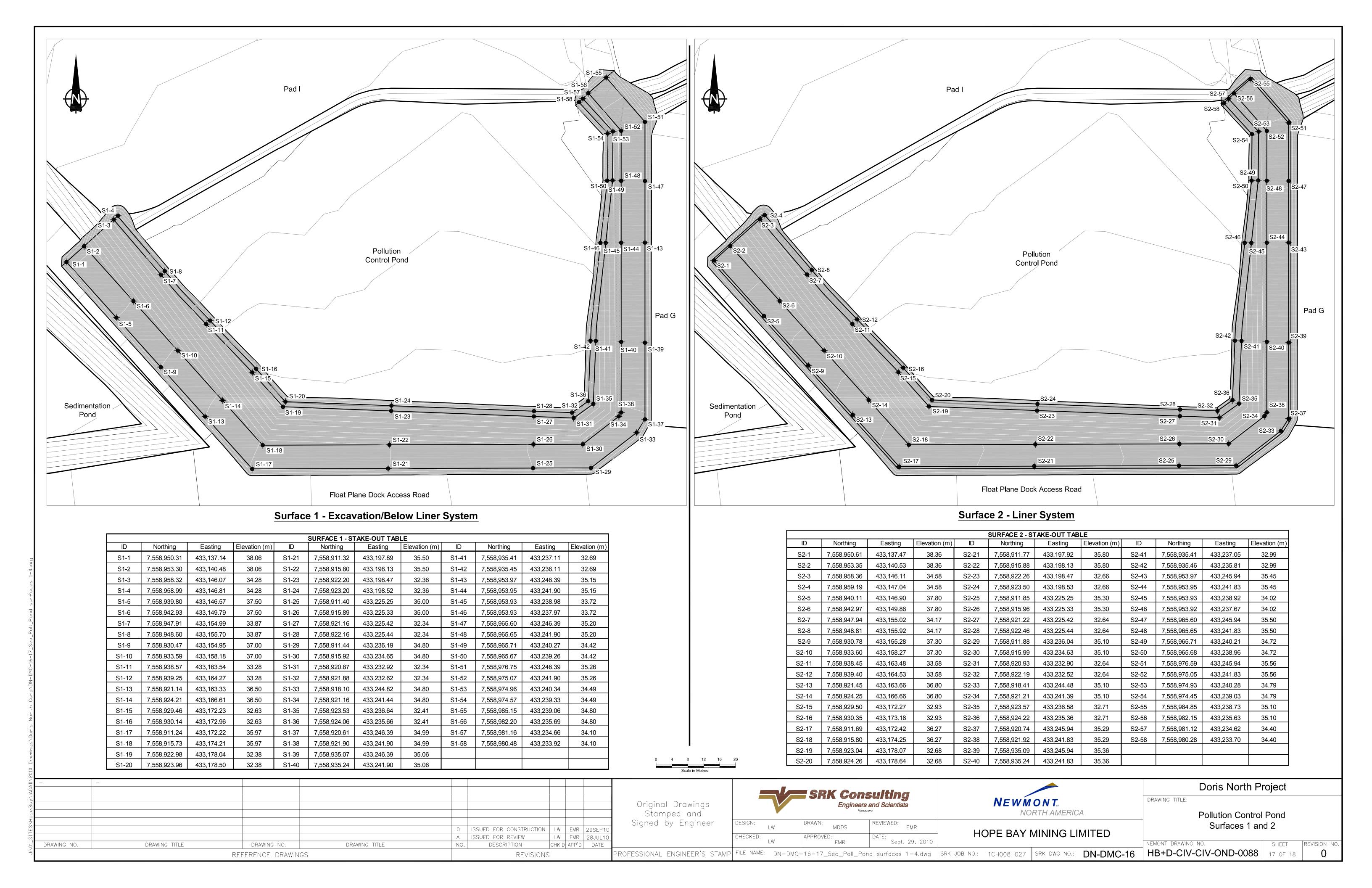
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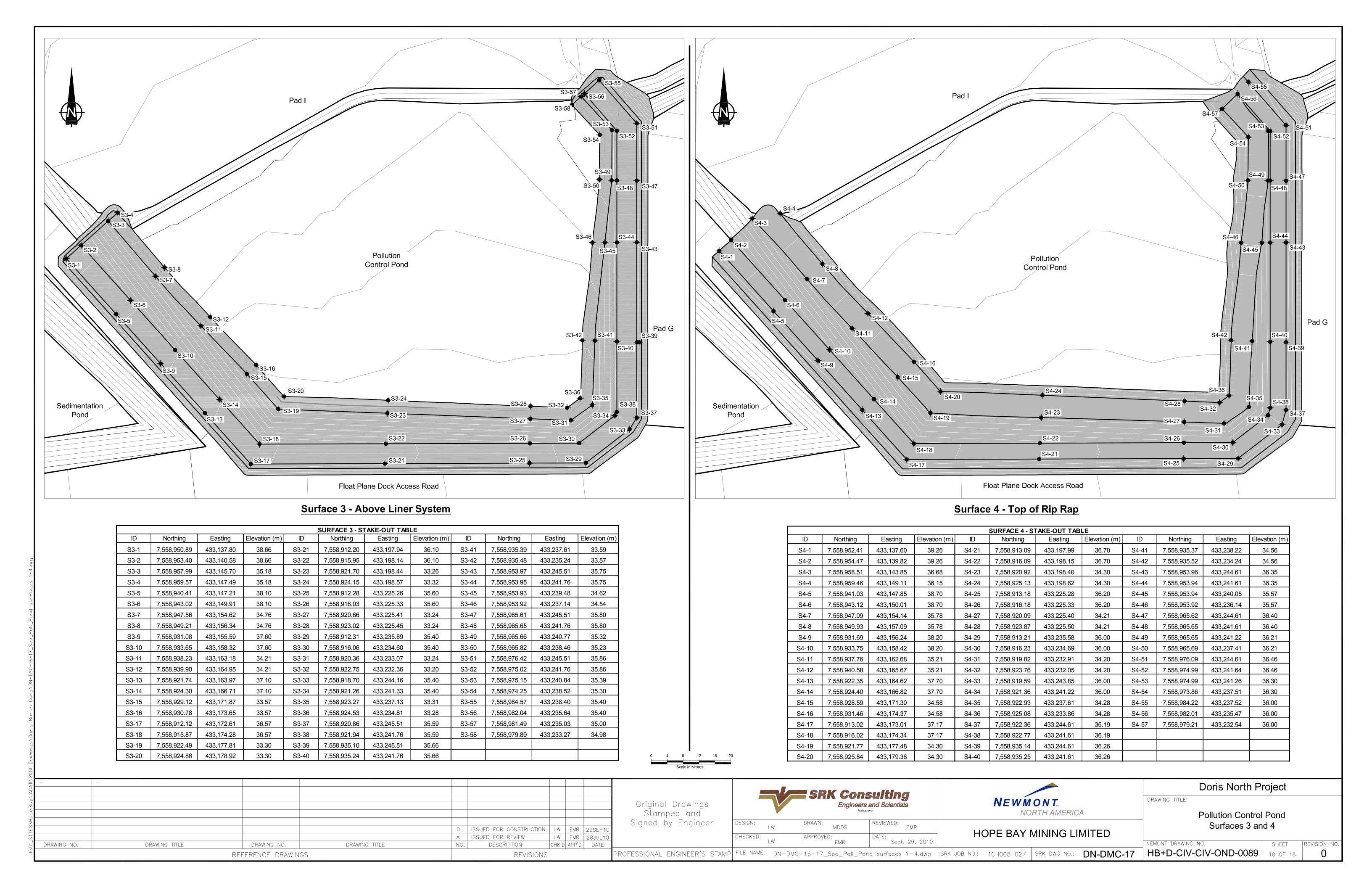
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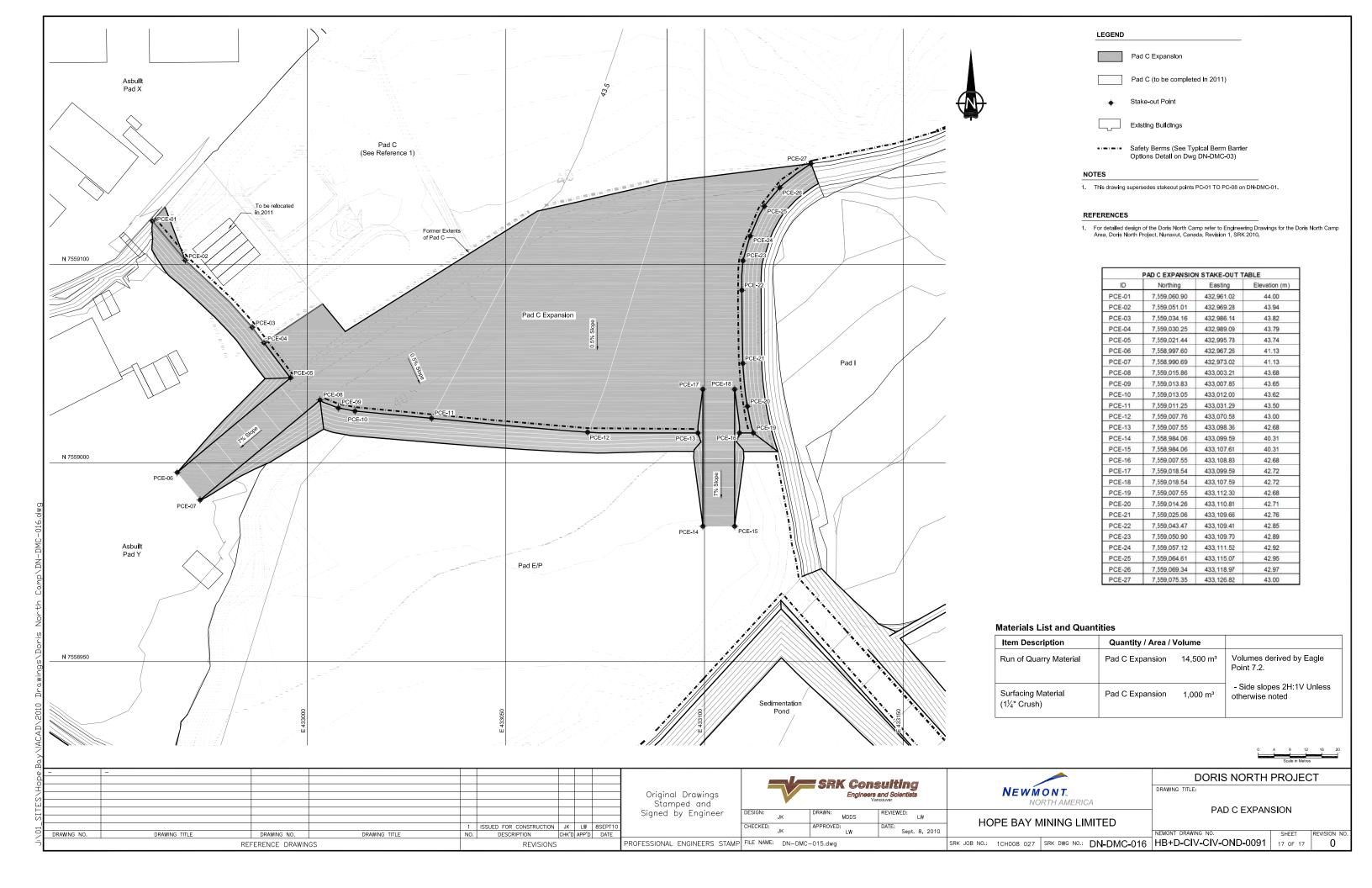


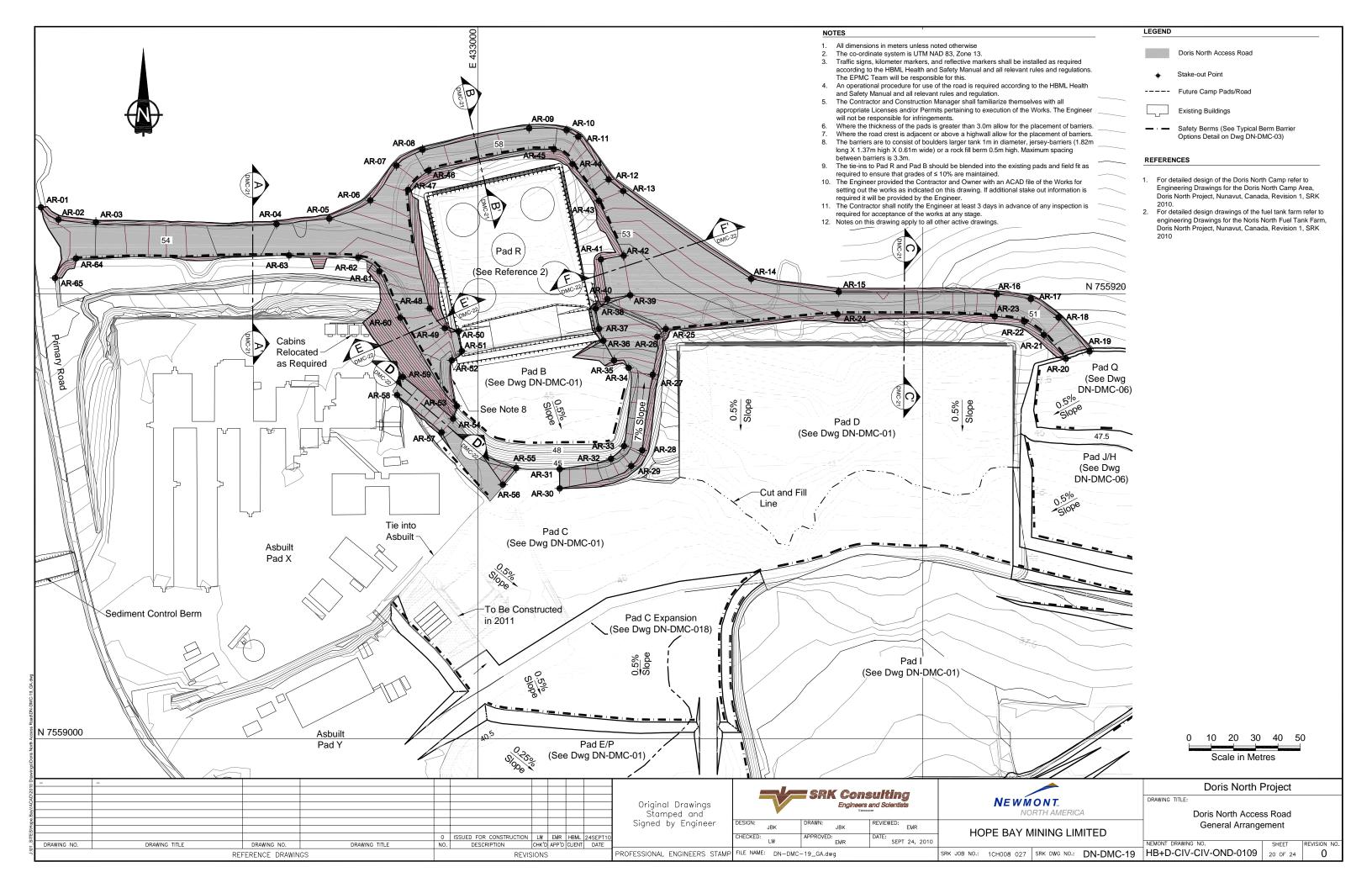


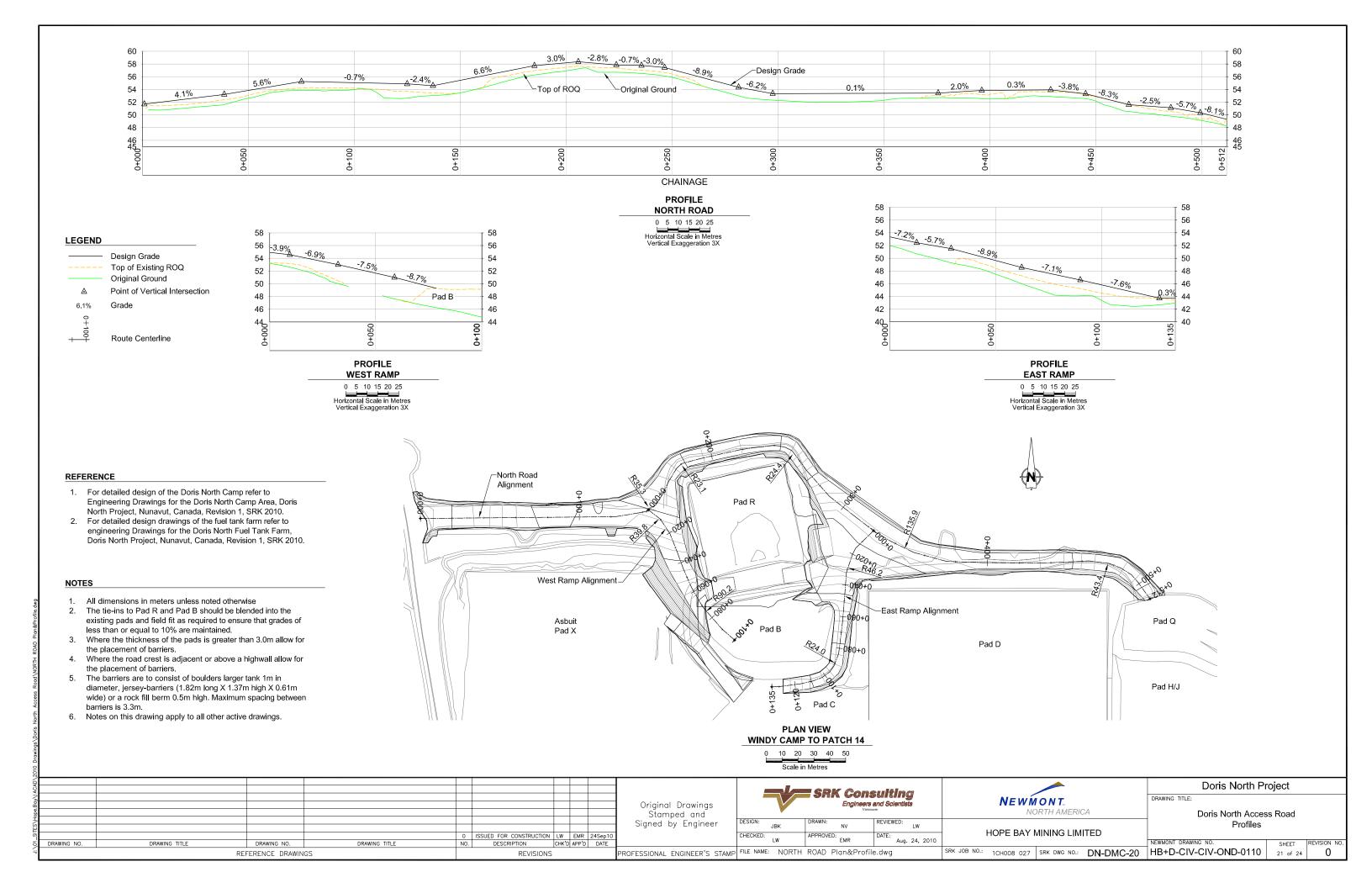


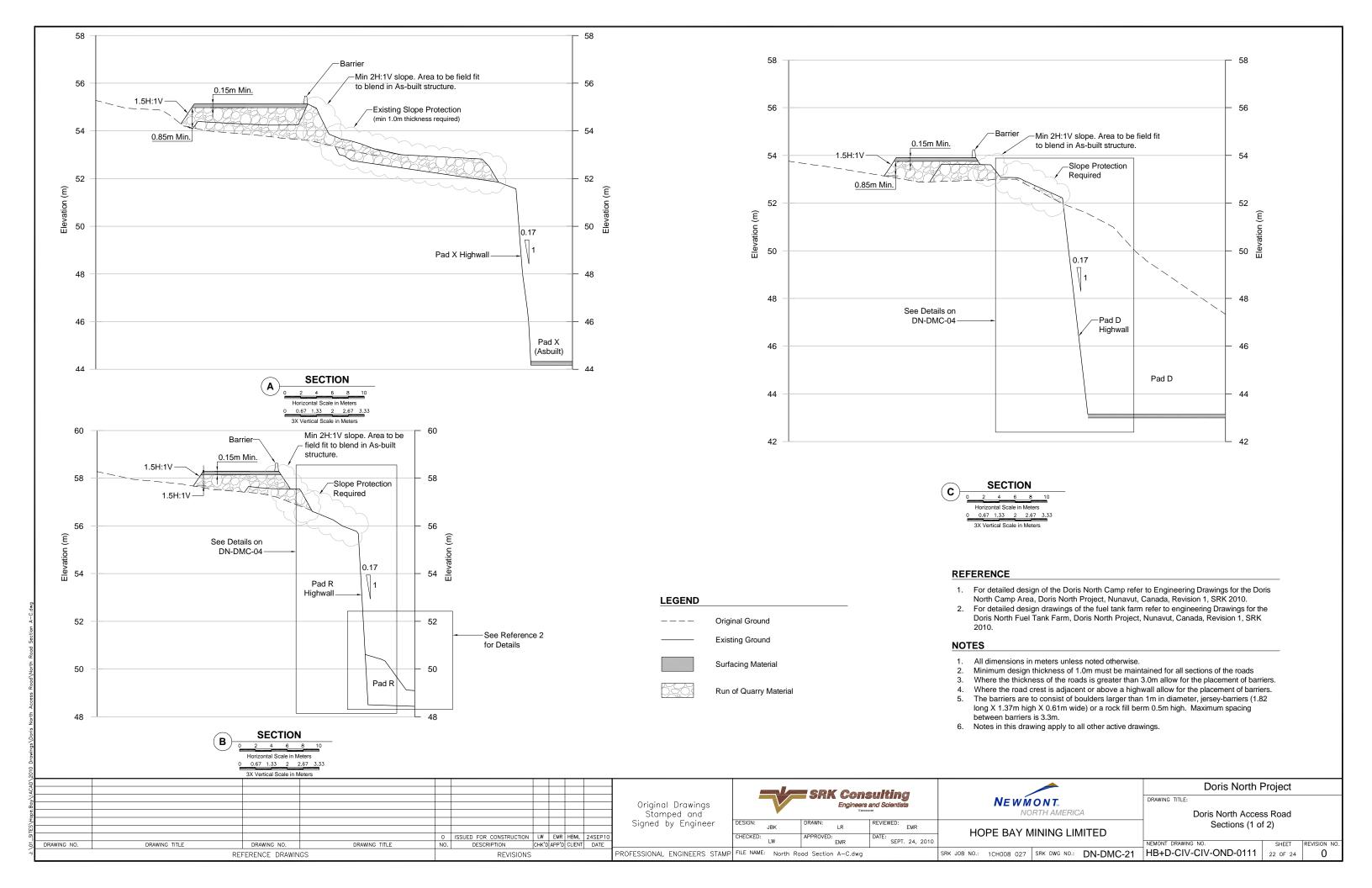


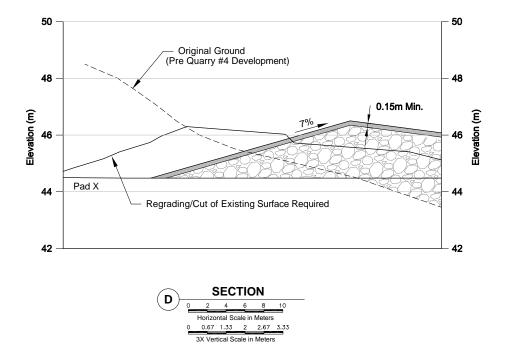


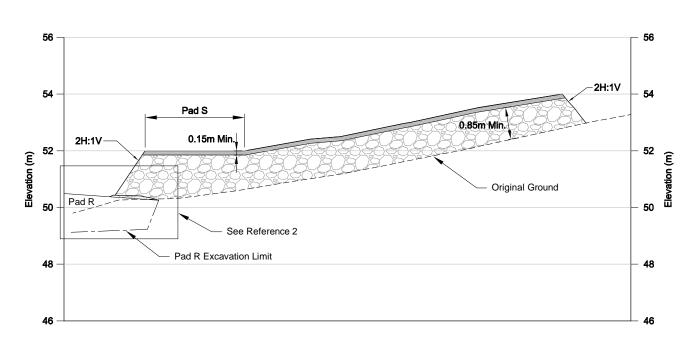


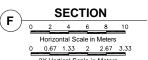


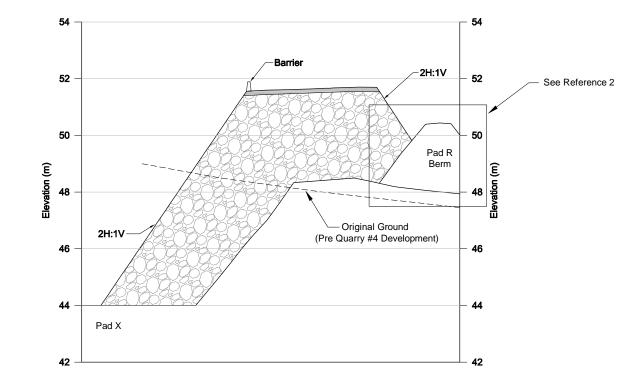


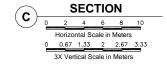












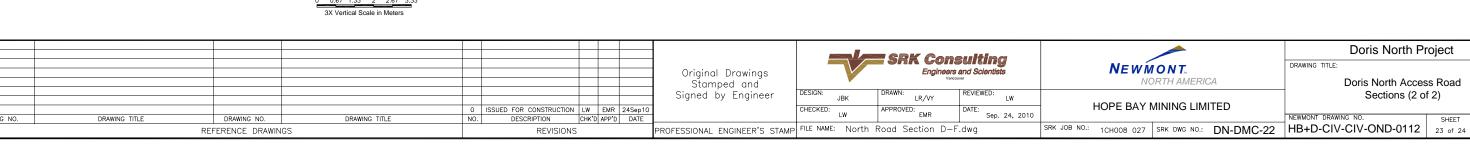
REFERENCE

- For detailed design of the Doris North Camp refer to Engineering Drawings for the Doris North Camp Area, Doris North Project, Nunavut, Canada, Revision 1, SRK 2010.
- For detailed design drawings of the fuel tank farm refer to engineering Drawings for the Doris North Fuel Tank Farm, Doris North Project, Nunavut, Canada, Revision 1, SRK 2010.

NOTES

- 1. All dimensions in meters unless noted otherwise.
- 2. Minimum design thickness of 1.0m must be maintained for all sections of the roads.
- Where the thickness of the roads is greater than 3.0m allow for the placement of barriers.
 Where the road crest is adjacent or above a highwall allow for the placement of barriers.
- The barriers are to consist of boulders larger than 1m in diameter, jersey-barriers (1.82 long X 1.37m high X 0.61m wide) or a rock fill berm 0.5m high. Maximum spacing
- between barriers is 3.3m.

 6. Notes in this drawing apply to all other active drawings.



LEGEND

Original Ground

Existing Ground

Surfacing Material

Run of Quarry Material

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- Sample collection and testing of ROQ, and surface material for geochemical suitability is required and will be carried out by the Site Environmental Manager in accordance with procedures developed by SRK.

Materials List and Quantities

Item	Quantity / Area / V	olume/	Description
Run of Quarry Material	Pad R Access Road Pad D Access Road	11,700 m³ 1,500 m³	Volumes derived by Eagle Point 7.2 Side slopes 1.5H:1V for fill less than 2m - Side slopes 2H:1V for fill greater than 2m - Fills are min. 1.0m
	Total Fill:	13,200 m ³	Volumes derived by merging Topography/ As-built to Pad Design Surfaces.
2. Surface Grade Material	Pad R Access Road Pad D Access Road	1,300 m³ 500 m³	
	 Total Fill:	1,800 m³	

ACCESS I	ROAD STAKE	OUT POINTS
ID	Easting	Northing
AR-01	432803.63	7559238.90
AR-02	432811.44	7559233.38
AR-03	432828.27	7559232.20
AR-04	432909.50	7559231.36
AR-05	432933.21	7559233.81
AR-06	432951.65	7559242.03
AR-07	432963.38	7559257.66
AR-08	432975.13	7559264.81
AR-09	433023.04	7559274.40
AR-10	433039.87	7559273.56
AR-11	433045.13	7559270.60
AR-12	433058.79	7559251.40
AR-13	433065.32	7559246.24
AR-14	433122.86	7559206.76
AR-15	433162.25	7559200.89
AR-16	433233.30	7559199.81
AR-17	433248.53	7559197.72
AR-18	433261.02	7559189.40
AR-19	433274.97	7559174.15
AR-20	433264.31	7559170.89
AR-21	433254.49	7559181.59
AR-22	433245.62	7559187.57
AR-23	433232.37	7559189.85
AR-24	433161.61	7559190.89
AR-25	433084.47	7559184.26
AR-26	433080.63	7559180.71
AR-27	433078.60	7559163.67
AR-28	433073.89	7559129.71
AR-29	433068.96	7559122.64
AR-30	433036.79	7559112.56
AR-31	433036.79	7559121.25
AR-32	433059.86	7559125.87
AR-33	433065.66	7559123.67
7117-00	+55005.00	7003101.04

CCESS ROAD STAKE OUT POINTS								
ID	Easting	Northing						
AR-34	433067.81	7559166.75						
AR-35	433061.21	7559170.08						
AR-36	433056.40	7559178.96						
AR-37	433054.47	7559184.34						
AR-38	433052.97	7559193.39						
AR-39	433068.46	7559199.40						
AR-40	433058.20	7559197.66						
AR-41	433055.28	7559215.48						
AR-42	433065.54	7559217.21						
AR-43	433054.35	7559241.77						
AR-44	433042.53	7559258.38						
AR-45	433034.15	7559265.04						
AR-46	432977.87	7559255.37						
AR-47	432968.65	7559246.75						
AR-48	432978.32	7559193.40						
AR-49	432985.12	7559184.58						
AR-50	432991.35	7559183.18						
AR-51	432992.82	7559174.32						
AR-52	432988.30	7559170.16						
AR-53	432990.55	7559149.57						
AR-54	432988.87	7559143.89						
AR-55	433017.22	7559121.69						
AR-56	433011.21	7559114.29						
AR-57	432983.70	7559137.78						
AR-58	432963.66	7559154.51						
AR-59	432966.24	7559162.70						
AR-60	432965.11	7559189.27						
AR-61	432955.74	7559210.18						
AR-62	432946.20	7559216.32						
AR-63	432915.10	7559217.32						
AR-64	432819.33	7559215.91						
AR-65	432809.89	7559207.09						

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										Original Drawings	
										Stamped and	
										Original Drawings Stamped and Signed by Engineer	Ь
										Signed by Engineer	
				0	ISSUED FOR CONSTRUCTION	LW	EMR	HBML	24SEPT10	1	С
DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	CLIENT	DATE		
	REF	ERENCE DRAWIN	GS S		REVISI	ONS				PROFESSIONAL ENGINEER'S STAMP	F



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DESIGN: JBK	DRAWN: MDDS	REVIEWED: EMR	
CHECKED: LW	APPROVED: EMR	DATE: SEPT 24, 2010	
FILE NAME: DN-DMC-	-NORTH ACCESS RD S	necs.dwa	SRI



DRAWING TITLE:

Material Specifications Doris North Access Road

Doris North Project

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NEMONT DRAWING NO HB+D-CIV-CIV-OND-0113 | 24 OF 24



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Tel: 604.681.4196 Fax: 604.687.5532

Memo

To: Project File **Date:** December 1, 2010

CC: Murray McGregor, Maritz Rykaart

Subject: Doris North Project Waste Rock Pile Project #: 1CH008.027.0300

Stability Analysis

This memo presents the results of a slope stability analyses for the waste rock pile at the Doris North Mill site. The stability analysis was carried out using the Morgenstern-Price method as applied in SLOPE/W. The model is set up using three materials: marine silt and clay, run of quarry foundation pad, and run of mine waste rock. Loading of the waste rock pile will occur at a rate that could outpace freezeback into the waste rock pile and therefore the entire waste rock pile is conservatively assumed to be unfrozen. The typical active layer thickness for uncovered marine silt and clay is about 1 m. However, for the purpose of this analysis, conservative active layer thickness of 2 m was used to compensate for the presence of the rockfill pad over the tundra soils which change the thermal regime.

Table 1 summarizes the material properties used in the analysis taken from the previous Doris Creek Bridge Abutments stability analysis.

Table 1: Material Properties

	Parameter	Run of Quarry Foundation Pad	Marine Silt and Clay Foundation		
Satur	ated Unit Weight (kN/m³)	20	20	18.5	
Degree of Saturation		30%	30%	85%	
Porosity		0.30	0.30	0.52	
Volumetric Water Content		0.090	0.090	0.442	
l lafa	Apparent Cohesion c' (kPa)	0	0	0	
Unfrozen	Friction angle, φ ⁰	40	39	30	
Frazan	Apparent Cohesion c' (kPa)	5	n/a	112	
Frozen	Friction angle, φ ⁰	40	n/a	26	

SRK Consulting Page 2 of 3

The analysis is carried out using a critical cross-section of the waste rock pile, taking into consideration the foundation slope and ultimate pile height. This typical section, complete with assigned material zones are presented in Figure 1 (note the overall slope angle is 2H:1V).

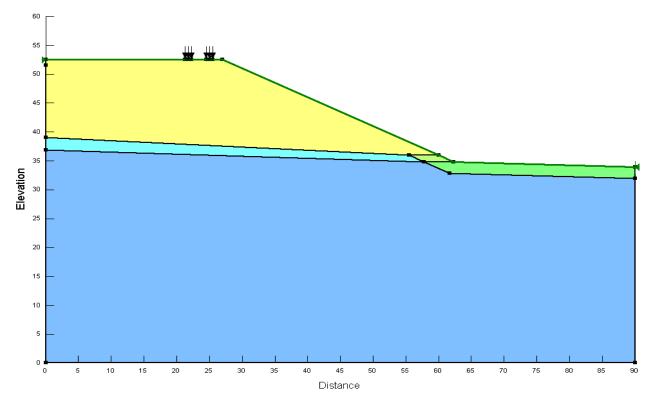


Figure 1: Critical Section of the Waste Rock Pile used in the Slope Stability Analysis

The critical slip surface was evaluated under two conditions; for a free standing waste rock pile without consideration of haul truck wheel loads at the crest, and with wheel loads. A sample calculation for haul truck wheel loading is included as Appendix A. Both rotational slip surfaces and blocks failure modes were considered in each case.

The Project site is located in a stable seismic zone of Canada with low peak ground accelerations. The waste rock piles are temporary, as they will be hauled back underground for ground support within 2 to 4 years of being stockpiled. For these reasons the stability analysis under seismic conditions was not assessed.

Graphic results for the critical slip surfaces of each analysis are presented in Appendix B. In each case where haul truck wheel loads are included, a load induced failure occurs near the crest of the pile. For the case where no wheel loads are considered, the critical slip surface appears as a shallow skin failure along the outer edge of the pile.

SRK Consulting Page 3 of 3

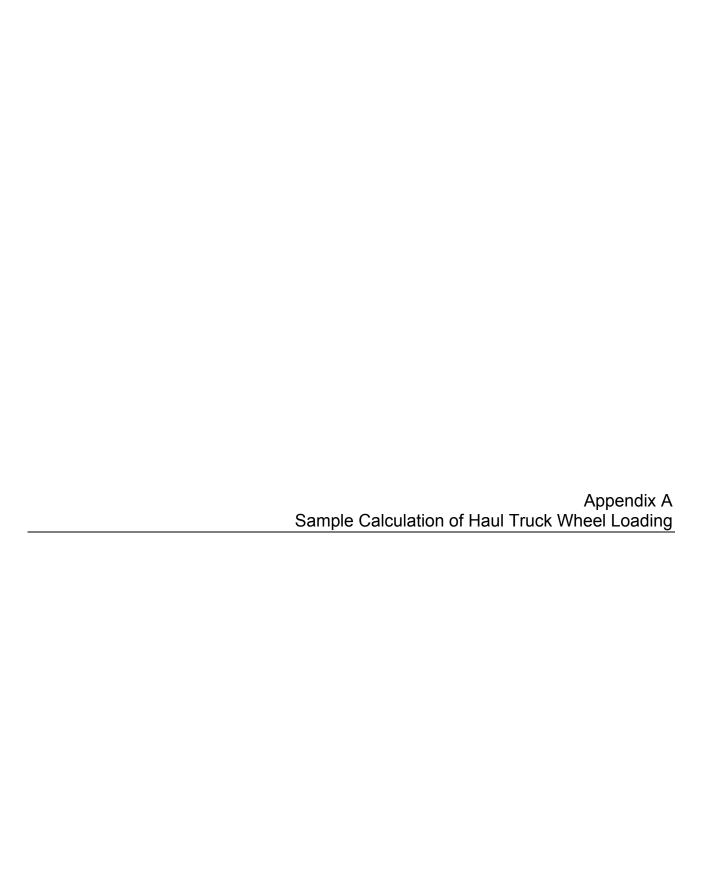
Table 2: Calculated Factors of Safety from SLOPE/W Models

Condition	Calculation Method	Factor of Safety	Critical Slip Surface Location			
Haul Truck Wheel	Entrance and Exit	1.315	Load induced failure occurs near the			
Loads Considered	Block Specified 1.343		crest of the pile.			
Free Standing Waste	Entrance and Exit	1.621	Shallow skin failure along the outer edge			
Pile	Block Specified	1.630	of the pile			

A dump stability rating for the waste rock pile was completed in accordance with the guidelines set by the British Columbia Mine Waste Rock Pile Research Committee in their 1991 publication of "*Mined Rock and Overburden Piles: Investigation and Design Manual*". For frozen foundation conditions the stability rating of the waste rock pile is 300 (Class I Stability), while for unfrozen foundation conditions the stability rating increases to 500 (Class II Stability). Details of the rating are provided in Appendix C.

The level of stability analysis presented in this memo is in accordance with the stated stability rating assessed for the waste rock pile.

The client should implement measures to ensure proper setback distances for haul trucks from the operating crest of the waste rock pile. Installation of thermistors to monitor foundation frost conditions is recommended to warn against possible onset of unfrozen conditions.





Project No	1 C H 008.	027	_ Site _	Vanc	eu ye	
Prepared by _	Murray	M'Gregor	Date	Nov.	73	2010
Approved by _			_ Date _		***************************************	····

Subject Vehicle Loading on Waste Rock Piles Calculation Sheet 1 of 1

From Manufacturer Website:

CAT 773 Gross Opperating Weight: 222,000 lbs = 100,698 kg

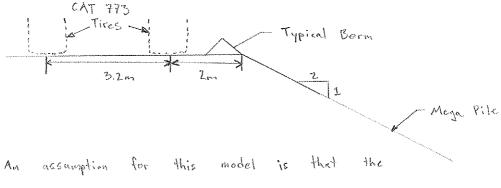
Load Weight Distributions: Front 35% Rear 65%

Rear Tire Load:
$$(100,698 \text{ kg})(65\%)/11$$
 (re) $(9.81 \text{ N})/15$ = 321 kN

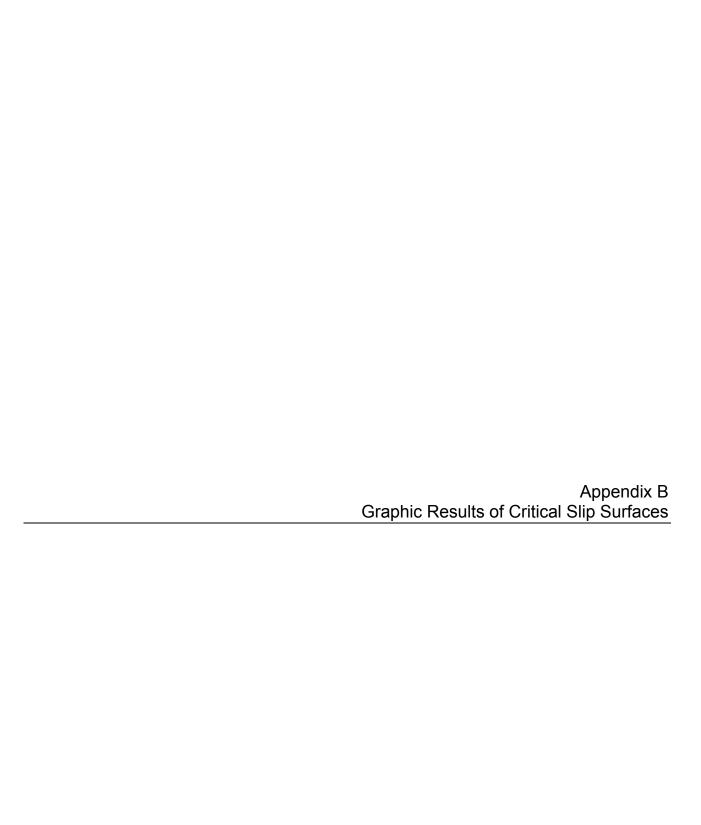
Axk(2) $(100,698 \text{ kg})/15$

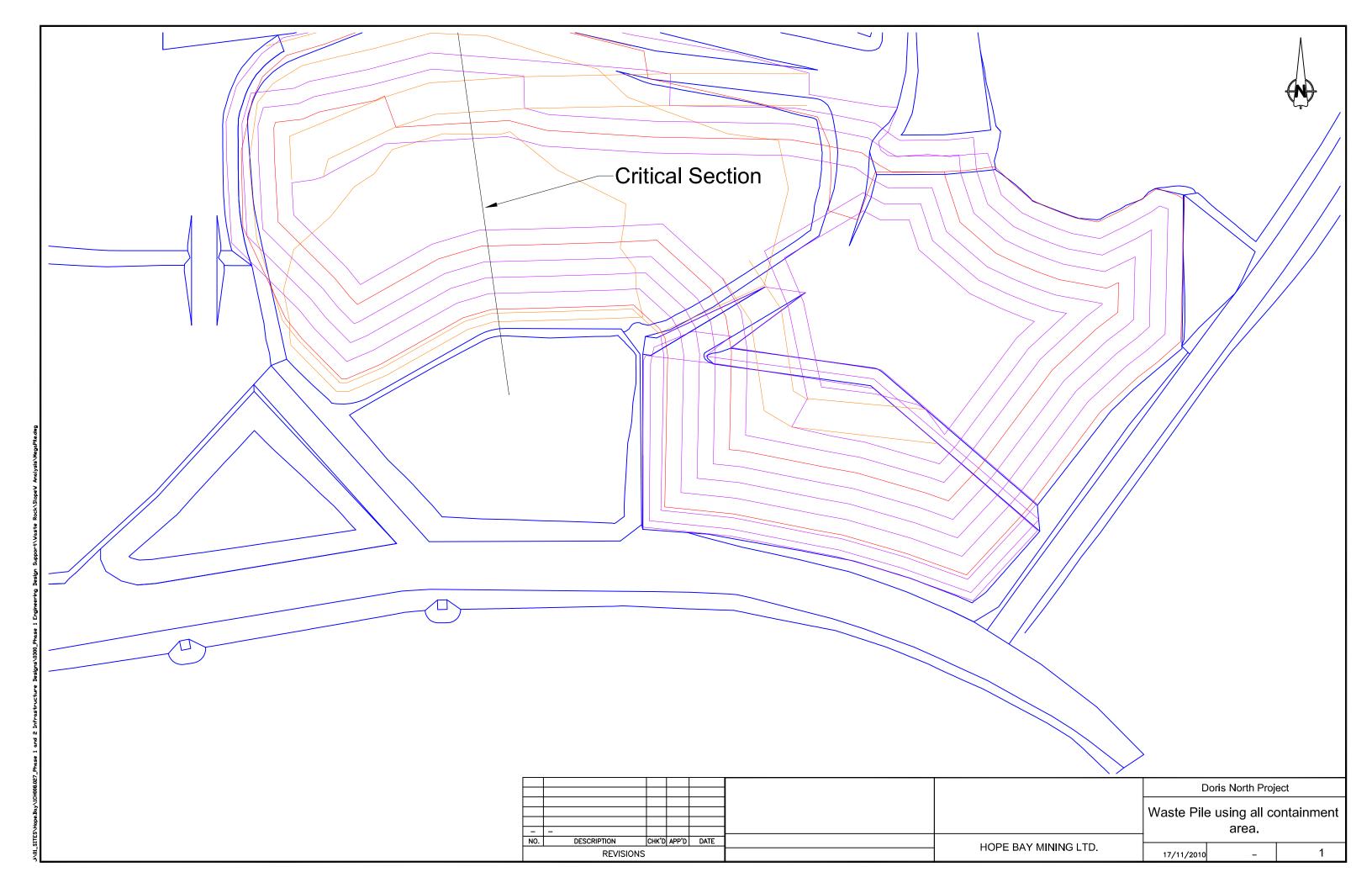
Centerline Front Tire Width: 10,59 = 3.2m

Offset from Slope Edge: (Beam width) + (1/2 fine width) = Zom
Typical Barn Width = 1 meter minimum



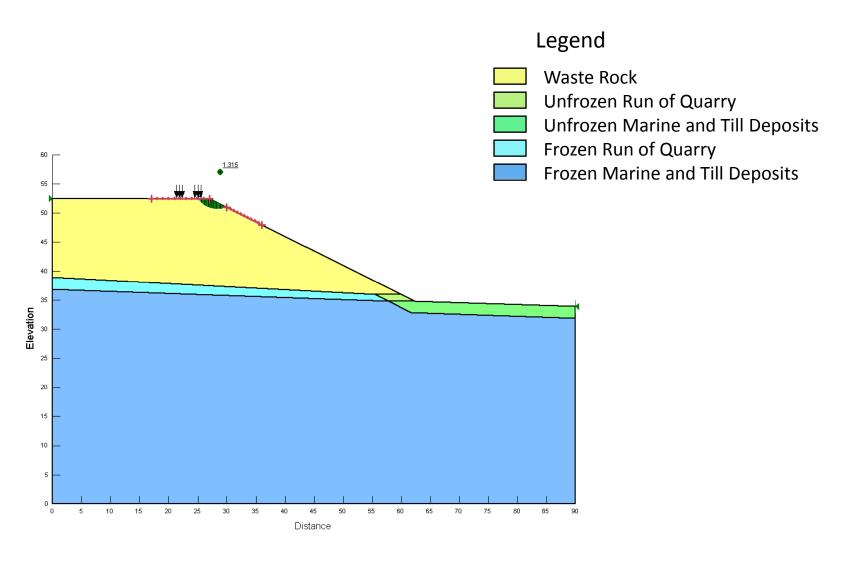
tires act as equal pressure loads over Im2 areas.





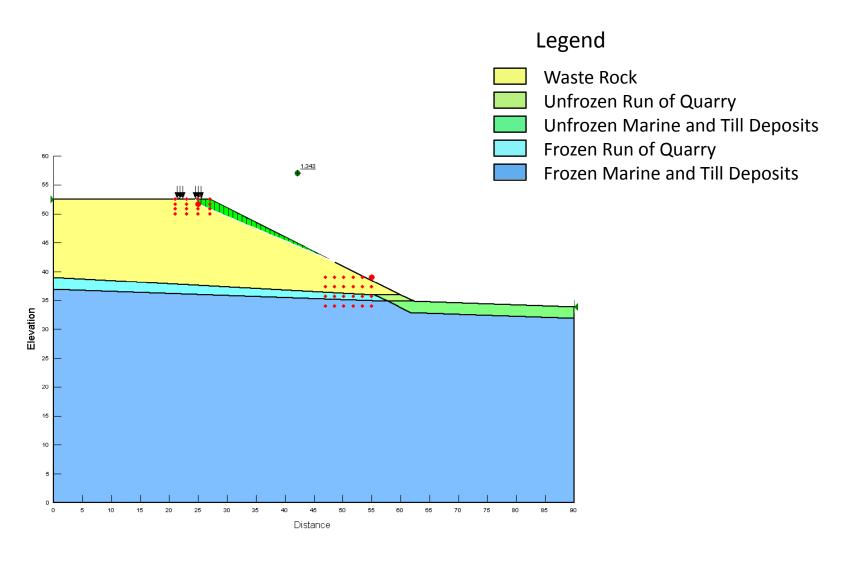
Doris North Waste Pile Section Defined by Entry and Exit

(Morgenstern-Price Method with Haul Truck Loading)



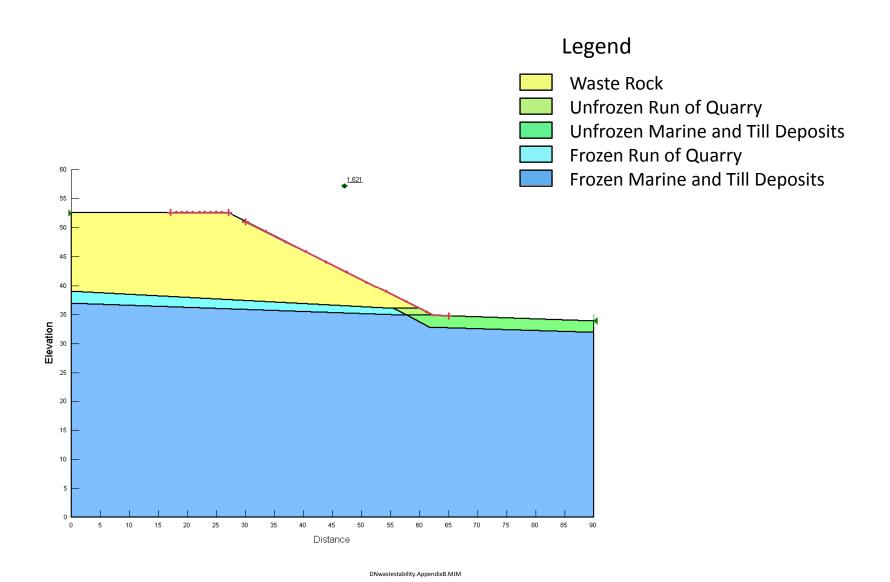
Doris North Waste Pile Section Defined by Blocks

(Morgenstern-Price Method with Haul Truck Loading)



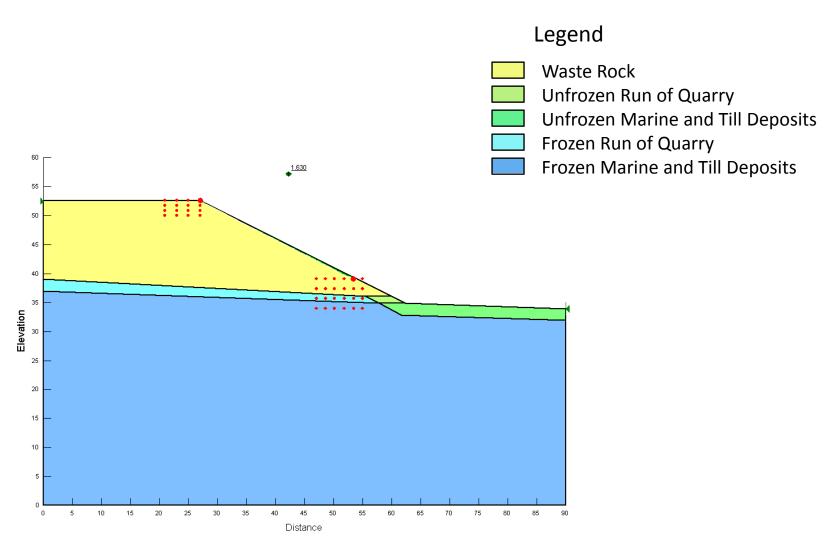
Doris North Waste Pile Section Defined by Entry and Exit

(Morgenstern-Price Method without Haul Truck Loading)



Doris North Waste Pile Section Defined by Blocks

(Morgenstern-Price Method without Haul Truck Loading)



Appendix C Waste Rock Pile Stability Ratings



Project No	1CH008,027	Site Vancouver
Prepared by _	Munay McGregor	Date Nov. 20, 2018
Approved by _		Date

	Approved by	Date	9
Subject Doris North	Waste Rock Pile Stability Ratio	Sheet	of
Stability Factor	Description		Points.
Dump Height	Maximum 21 m		o
Damp Velume	532,00 tonnes (1 1/18 tonnes) = 29	0,000m3	0
Dung Slope	2:1 = 28.6° Moderale		50
Foundation Slope	1% < 10°		0
Confinement	Unconfined		(00
Foundation Type	Competent (trezen) / Weak (untroxe	n)	200
Dump Material Quality	Strong - High		0
Construction Method	Lifts & 25m - Favourable		. 0
Pieretometria/Climate	Mederale percipitation (Intermedial		100
Dumping Kate	5 m 1/lincol meter/day (Low)		O i
Sciemicity	Low		0
		g . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115 . 115	
	Maximum dumping rate:	Frozen Total	306
	=81,000 towns /quarter	Untrozen	500
	= 27,000 townes /month	Total	
	= 14,500 m3/month		
	= 490 m3/day		7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -
:	Dump span = 100m		The market broken and and and and and and and and and an
	= 4.9 m3/lineal meter/day		a u la la descripto de la ca
			A purchase a control of the control

Table 1: Geochemical Classification and Management Recommendations for Proposed Waste Management Units

Unit	Quantity (tonnes)	No. of Samples		Classification Based on NP/AP			Clas	sification Bas TIC/AP	ed on	% Samples with	Classification bas Criteria***	ed on Segregation	Notes	Management	
				(% of samples)		(% of samples	s)	S >0.25%	(% of samples/qua	ntity of rock)			
				non- PAG	uncertain	PAG	non- PAG	uncertain	PAG		non-Mineralized	Mineralized			
Basalt	203,000	98	Sulphur content highly variable, with less than 0.5% in 95% of samples, and localized concentrations up to 6.8% (10 cm vein). NPs were greater than 30 kg CaCO ₃ eq/tonne in 95% of the samples. TICs were typically elevated.	96%	2%	2%	91%	3%	6%	8%	92% 159,000 tonnes	8% 14,000 tonnes	Descriptions for all uncertain and PAG samples noted elevated sulphides.	Low Risk: separate any high sulphide material.	
Gabbro	a minor subunit within basalt*	41	Sulphur content low with values between 0.01 and 0.32% in 95% of samples, with a maximum value of 0.74%. NP and TIC were consistently low with median values of 17 and 0.5 kg CaCO ₃ eq/tonne.	85%	10%	5%	8%	25%	67%	12%	0% n/a	100% *30,000 tonnes	Data set is biased toward the spatially clustered samples from 06TDD614.	Moderate Risk due to low NP: store in mineralized pile.	
Diabase	143,000	34	Sulphur content consistently low, with all values less than 0.1%. NP and TIC are also low, with median values of 12 and 1.5 kg CaCO ₃ eq/tonne.	100%	0%	0%	62%	24%	15%	0%	100% 203,000 tonnes	0% n/a	Given the consistently low AP, should be managed as non-PAG.	Low Risk: confirm lithology.	
Buffer Zone	58,000	24	Sulphur content highly variable, with median values of 0.15%, 95 th percentile values of 1.4%, and maximum values of 4.2%. NP and TIC were greater than 89 and 127 kg CaCO ₃ eq/tonne in 95% of the samples.	96%	4%	0%	100%	0%	0%	29%	71% 41,000 tonnes	29% 17,000 tonnes	Most PAG or uncertain samples contained sulphide or were logged as quartz veins.	Low Risk: separate any high sulphide material.	
Alteration Zone	102,000	45	Sulphur content highly variable, with median values of 0.2%, 95 th percentile values of 1.9%, and maximum values of 3.4%. NP and TIC were typically high, but larger number of samples had lower NP values than observed in the buffer zone or the basalt.	87%	11%	2%	93%	3%	3%	46%	0% n/a	100% 102,000 tonnes	Most PAG or uncertain samples contained sulphide or were logged as quartz veins.	Moderate Risk: store in mineralized pile.	
Stopes	n/a**	17	Sulphur content highly variable, with median values of 0.27%, 95 th percentile values of 2.3%, and maximum values of 5.4%. NP and TIC were highly variable, ranging from negligible to as high as 400 kg CaCO ₃ eq/tonne	41%	41%	18%	25%	38	38%	53%	n/a	n/a	Most PAG or uncertain samples contained or were logged as quartz veins.	n/a: all material from the stopes will be processed.	
Totals	506,000										403,000 tonnes	163,000 tonnes			

Notes: * The gabbro is not defined in the geological model but is considered a minor component of the zone defined as basalt. A search of the geological database indicated that 6% of the core in the deposit area was gabbro. Therefore, conservatively neglecting core that is from ore zones, approximately 30,000 tonnes of gabbro could be present. This is taken from the block model quantities for basalt.

^{**} all of the rock in the stopes is ore and will be processed.

^{***}Segregation criteria based on rock type and then visual percent sulphides. For diabase, gabbro, alteration zone and stopes, rock type is the only criteria considered. For basalt and buffer zone rock the percent of samples with greater than 0.25% sulphur based on lab analyses was used to estimate the percent of material in each category.