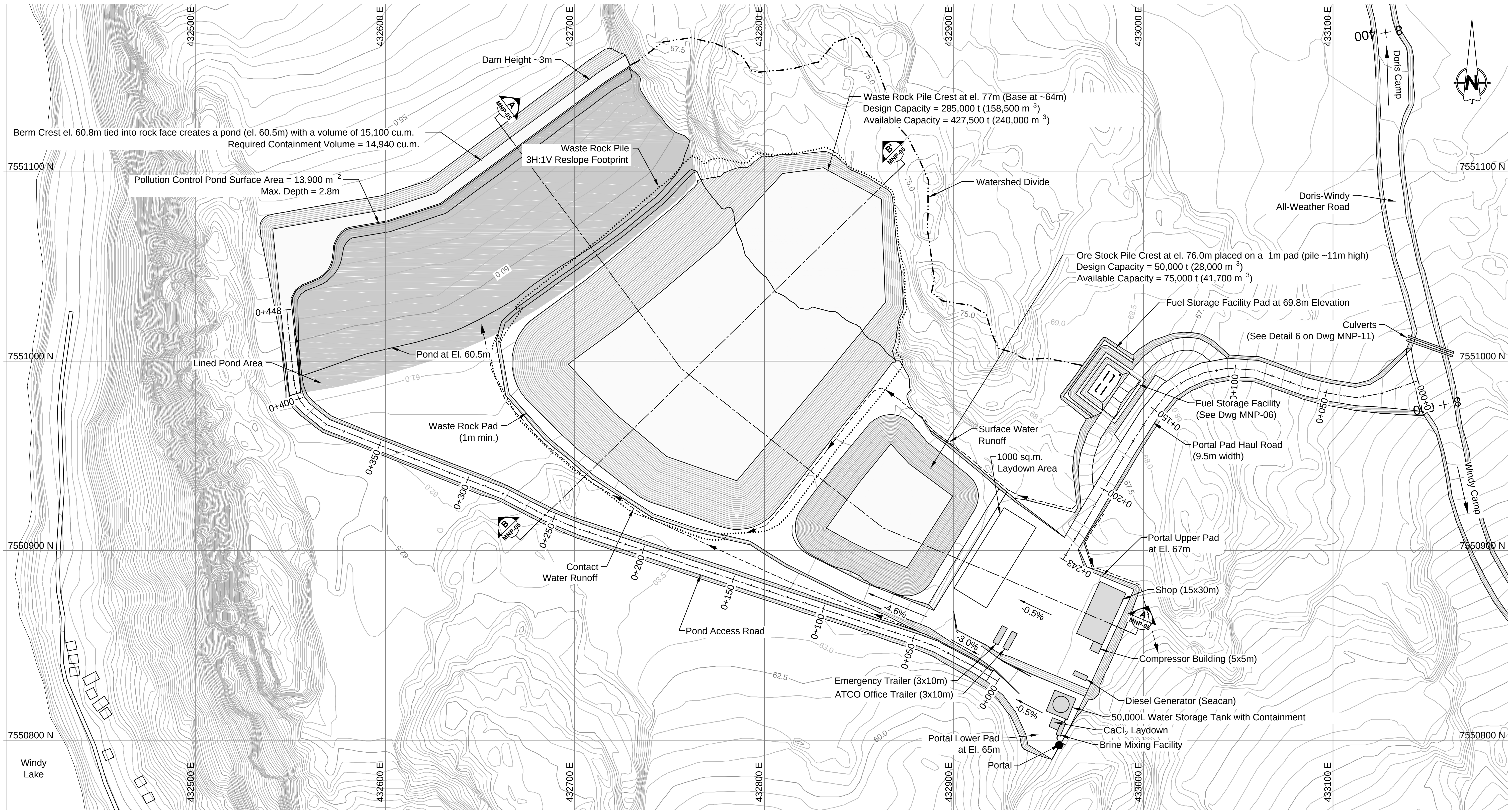

NOTES

1. All dimensions in metres unless noted otherwise.
2. Notes in this drawing apply to all other active drawings.

0 10 20 30 40 50
Scale in Metres

srk consulting

SRK JOB NO.: 1CH022.001

FILE NAME: 1CT022.001_MNP-Figure1.dwg

TMAC RESOURCES

HOPE BAY PROJECT

Surface Water Management

Madrid North Site Layout Portal

DATE: Oct. 2014 | APPROVED: ML | FIGURE: 1

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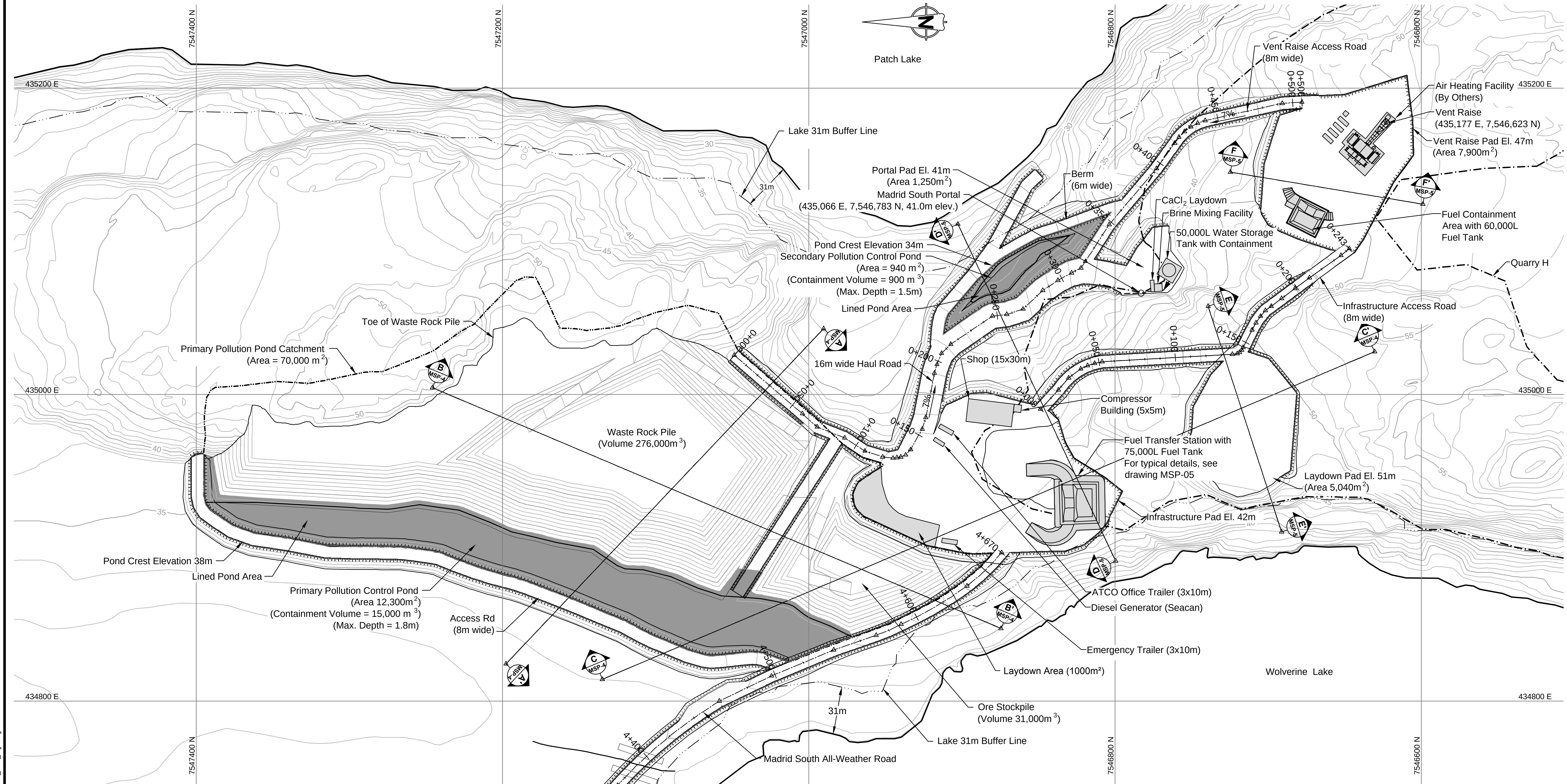

LEGEND

- Proposed Quarry Boundary
- Water Line
- Pollution Pond Catchment

NOTES

1. The design of the Madrid South Portal and Vent Raise is based on topographic contour information provided by HBML and is derived by 2007 aerial photography.
2. Contours are shown in 1m intervals.
3. The co-ordinate system is UTM NAD 83, Zone 13.
4. All dimensions are in metric units, unless specifically mentioned.
5. Notes in this drawing apply to all other active drawings.

srk consulting	TMAC RESOURCES	Surface Water Management Madrid South Site Layout
SRK JOB NO.: 1CH022.001 FILE NAME: 1CT022.001_MSP_Fig1.dwg	HOPE BAY PROJECT	DATE: Oct. 2014 / APPROVED: ML / FIGURE: 2

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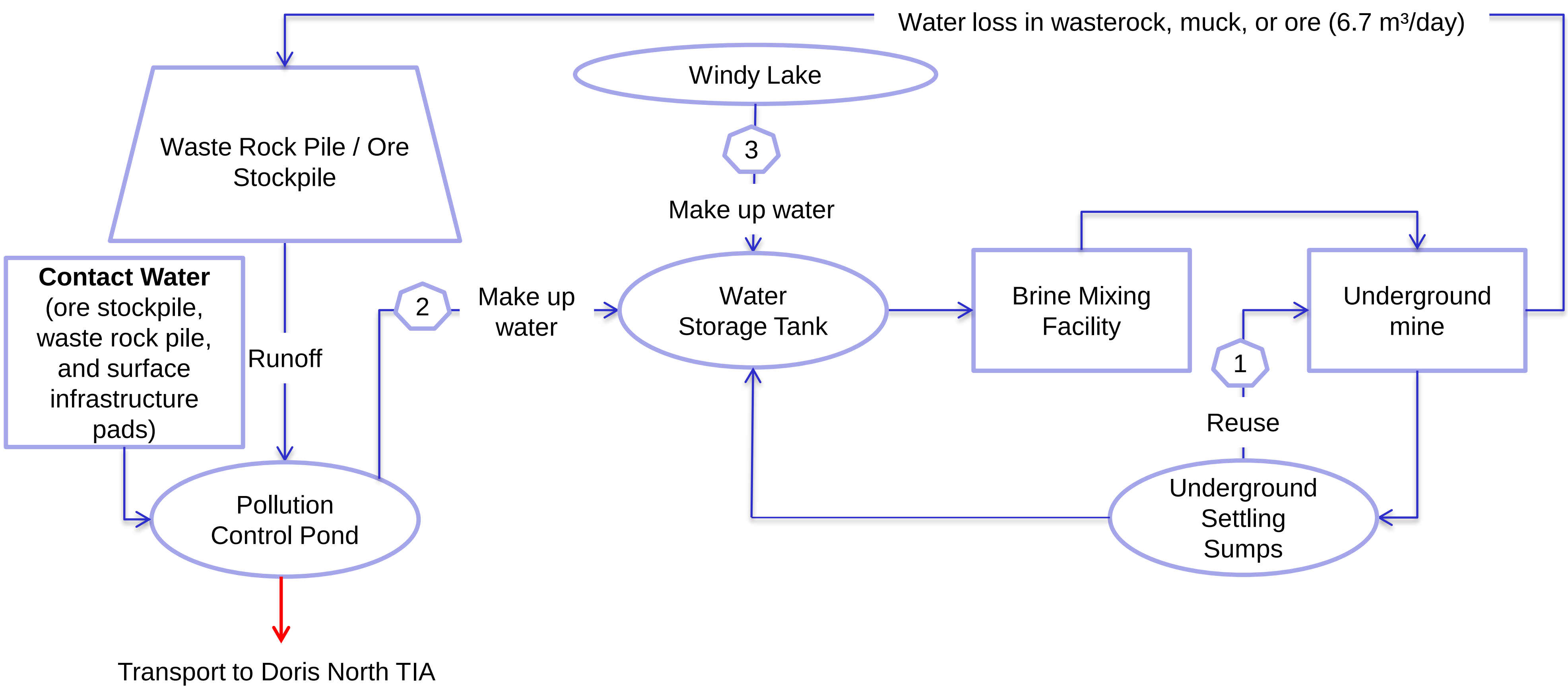
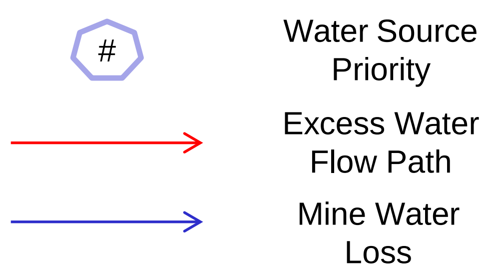




srk consulting

MAC RESOURCES

Madrid Advanced Exploration Project
Water Management Plan

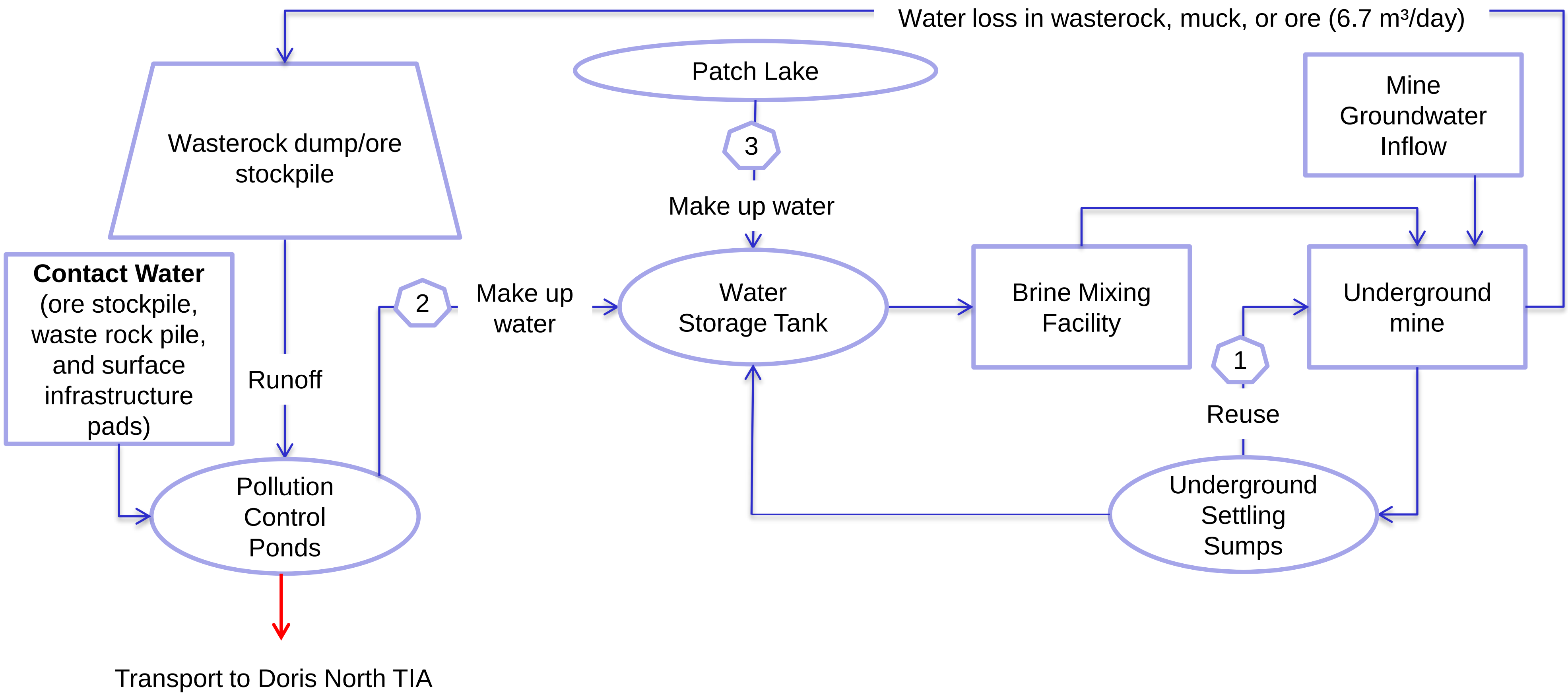
Operations Water Management Schematic Madrid North

Job No: 1CT022.001

Filename: Water_Management_Schematic_1CT022_MWL_North_and_South_rev9.pptx

Hope Bay Project

Date:	Approved:	Figure:
October 2014	TRS	3



Water Source Priority

Excess Water Flow Path

Mine Water Loss

srk consulting

TMAC RESOURCES

Madrid Advanced Exploration Project
Water Management Plan

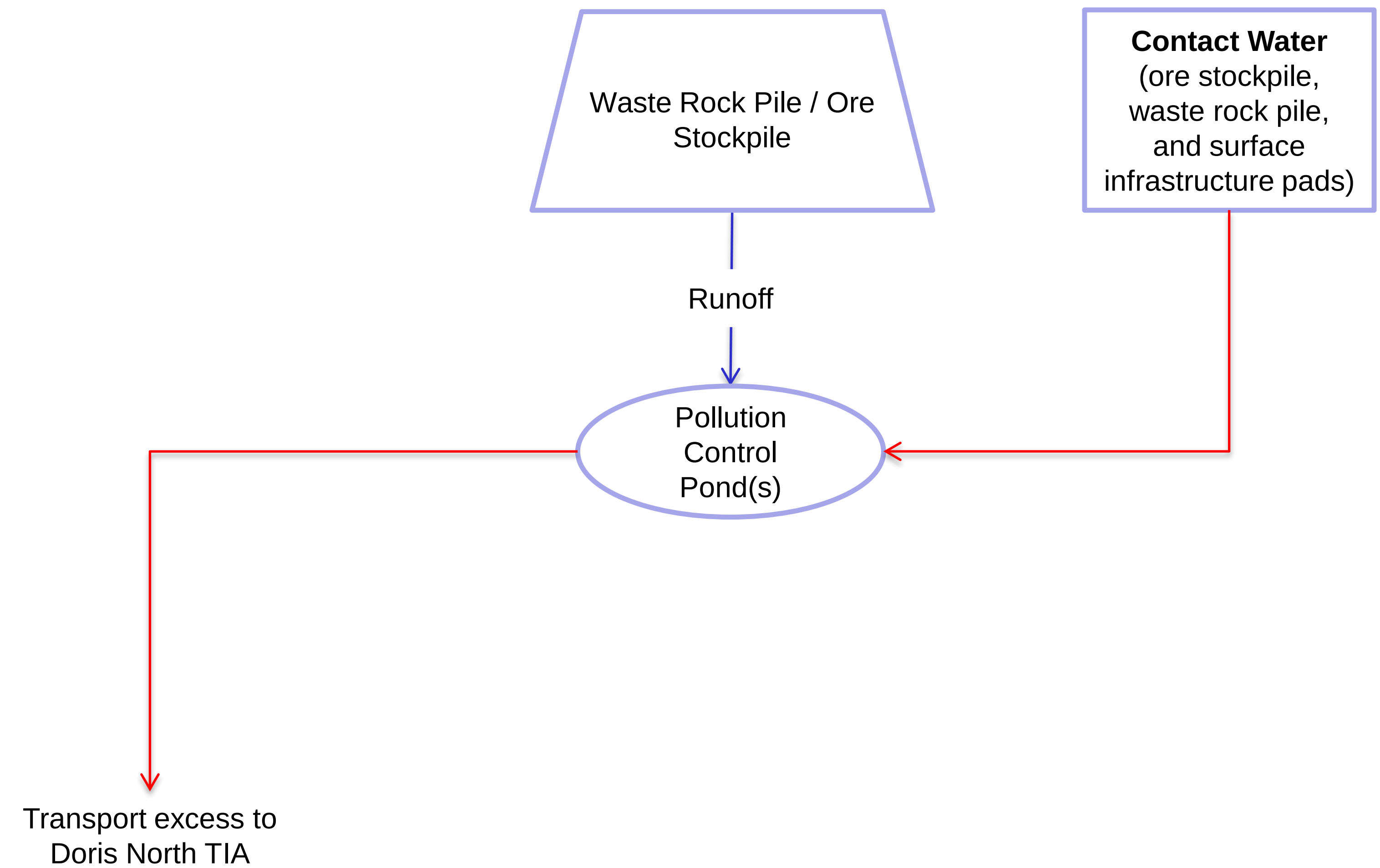
Operations Water Management Schematic Madrid South

Job No: 1CT022.001

Filename: Water_Management_Schematic_1CT022_MWL_North_and_South_rev9.pptx

Hope Bay Project

Date:	Approved:	Figure:
October 2014	TRS	4



Excess Water Flow Path

Mine Water Loss

srk consulting

TMAC RESOURCES

Job No: 1CT022.001

Filename: Water_Management_Schematic_1CT022_MWL_North_and_South_rev9.pptx

Hope Bay Project

Madrid Advanced Exploration Project
Water Management Plan

Closure or Temporary Closure Water Management Schematic Madrid North and South

Date:	Approved:	Figure:
October 2014	TRS	**5**

Appendix 8-B

SRK, December 2014 Memo – Overview of Madrid North and South Bulk Sample ML/ARD Characterization Programs and Conceptual Waste Rock Management Plans

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Memo

To:	John Roberts	**Client:**	TMAC Resources
From:	Lisa Barazzuol	**Project No:**	1CT022.001.400
Cc:	Dave King, TMAC Paul Christman, TMAC Kelly Sexsmith, SRK	**Date:**	December 11, 2014
Subject:	Overview of Madrid North and Madrid South Bulk Sample ML/ARD Characterization Programs and Conceptual Waste Rock Management Plans		

1 Introduction

TMAC Resources Inc. is advancing exploration and development on a number of gold deposits in the Hope Bay belt, Nunavut, Canada (Figure 1), including those at the Madrid Advanced Exploration Project, which includes the Madrid North (Naartok) and Madrid South (Patch 14/Wolverine) deposits. TMAC is planning a bulk sample program from Madrid North and Madrid South and will require a Type B water license for this activity. In support of both the engineering studies and the water licence application, SRK Consulting (Canada) Inc. was asked to compile all of the relevant geochemical information on these deposits and to provide input towards the waste and water management plans.

The purpose of this memorandum is to provide a conceptual waste rock management plan for the Madrid Advanced Exploration Project. The conceptual waste rock management plans are based on the results for the Madrid North and Madrid South geochemical testing program (SRK 2012 and 2014a) and the mine plans provided by TMAC for the bulk sample, which will be accessed by underground workings (Figure 2 and Figure 3).

This memorandum presents an overview of the geochemical findings for waste rock and ore that would be produced as part of the proposed bulk sample underground activities at Madrid North (SRK 2014a) and Madrid South (SRK 2012). A conceptual waste rock management plan for each of the Madrid North and Madrid South bulk sample programs is also presented.

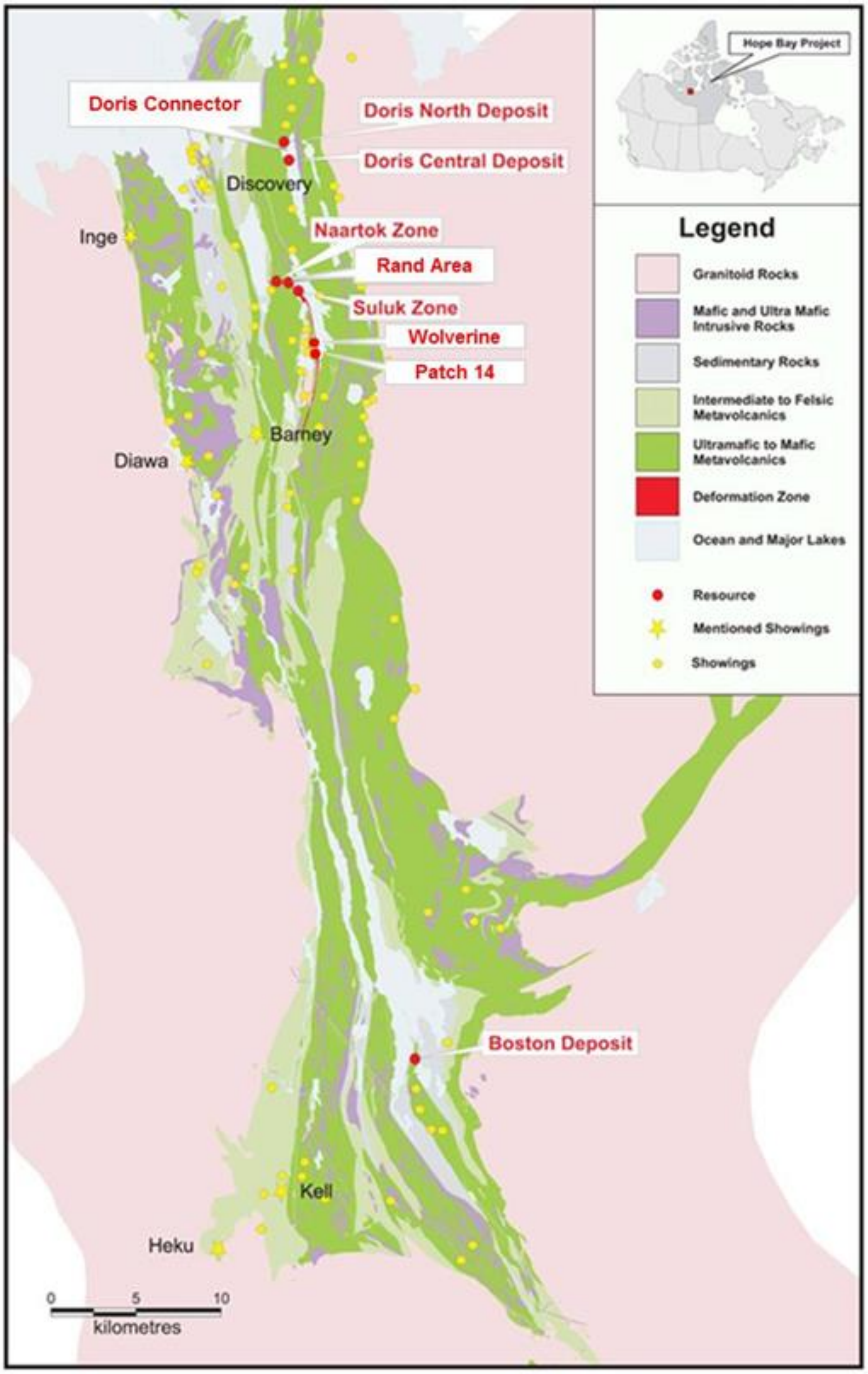
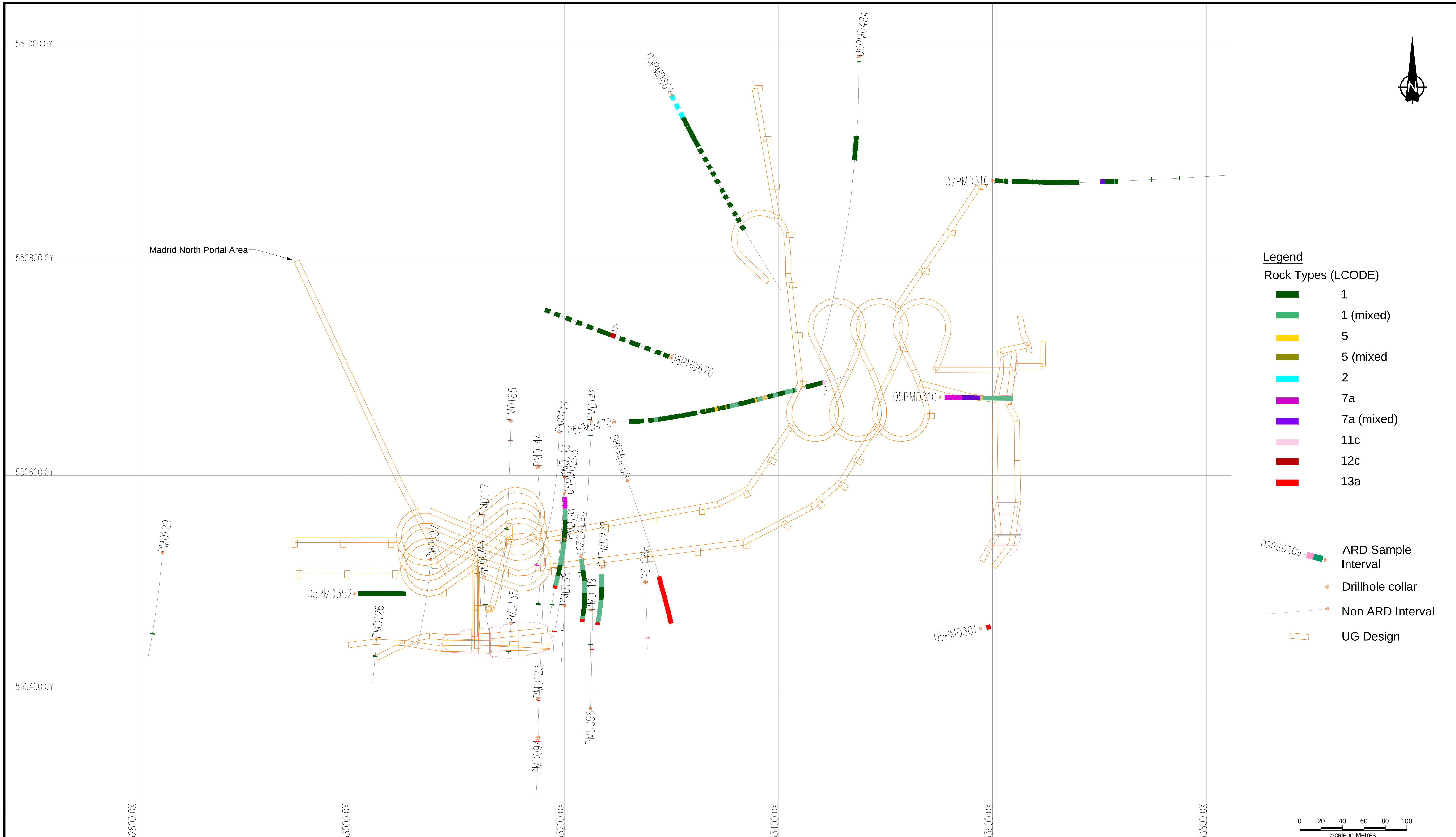


Figure 1: Geology of the Hope Bay Belt and Location of the Main Deposits. The location of the Madrid North bulk sample is labelled as Naartok Zone.



Note: For figure clarity, only drill holes with ABA samples are shown.

J:\01_SITES\Hope.Bay\!ACAD\2014 Drawings\MadridNorthBulkSampleGeochemPlan.dwg

srk consulting

TMAC RESOURCES

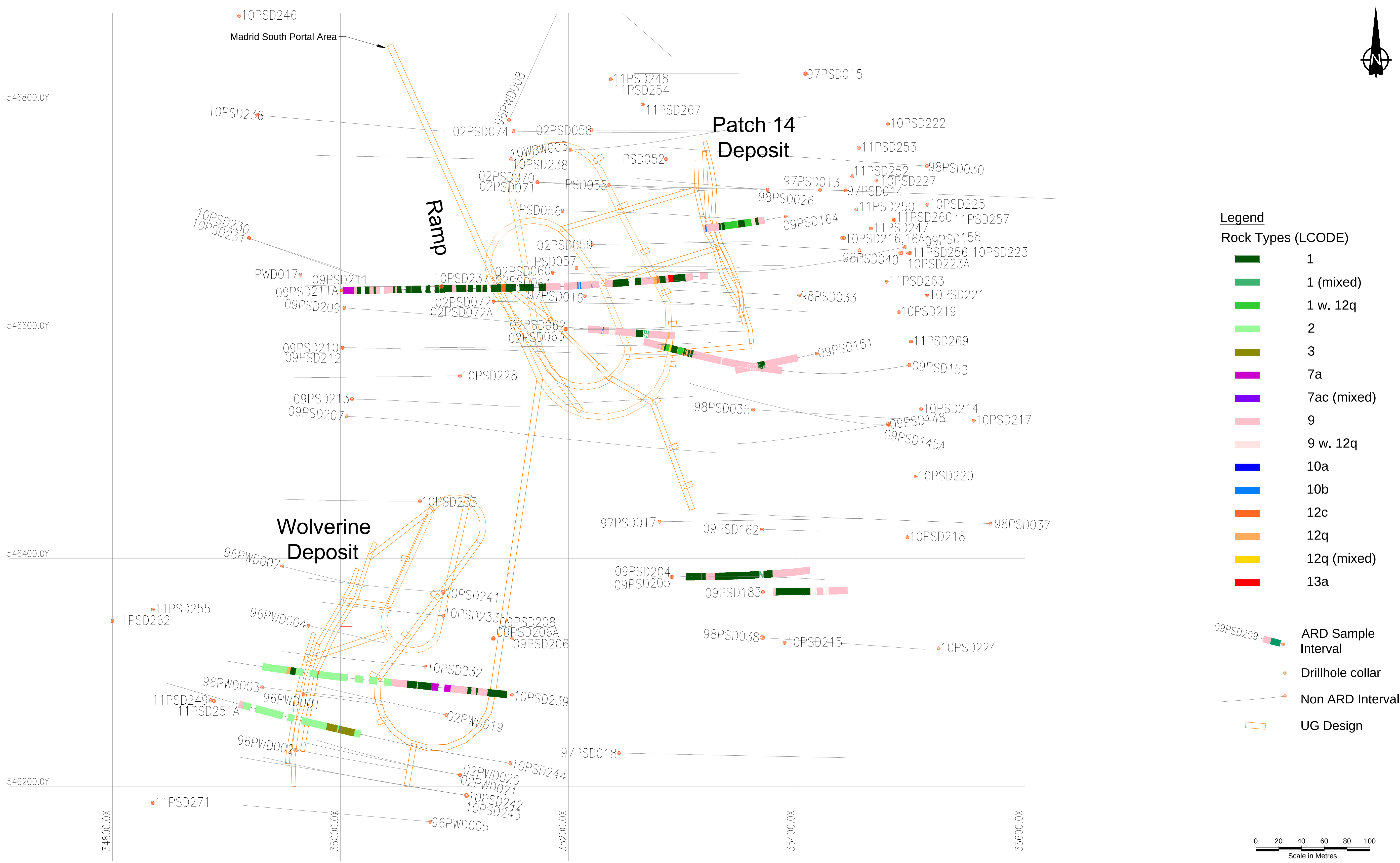
HOPE BAY PROJECT

Geochemical Characterization of Waste Rock, Madrid North Bulk Sample Application, Hope Bay

Madrid North Mine Plan for Bulk Sample and Distribution of Geochemistry Data Set

SRK JOB NO.:	1CT022.001.400.10
FILE NAME:	MadridNorthBulkSampleGeochemPlan.dwg

DATE:	APPROVED:	FIGURE:
June 2014	LNB	2



Geochemical Characterization of Waste Rock, Madrid South Bulk Sample Application, Hope Bay

Madrid South Mine Plan for Bulk Sample and Distribution of Geochemistry Data Set

srk consulting

MAC RESOURCES

HOPE BAY PROJECT

SRK JOB NO.:	1CT022.001.400.10
FILE NAME:	BulkSampleGeochemPlan.dwg

DATE:	APPROVED:	FIGURE:
June 2014	LNB	3

2 Overview of ARD/ML Characterization Programs

2.1 Madrid North

SRK (2014a) provided an assessment of the acid rock drainage and metal leaching (ARD/ML) potential of waste rock and ore that would be produced as part of the proposed bulk sample underground activities at Madrid North. The characterization program was conducted on behalf of Hope Bay Mining Ltd. (HBML) and was designed based on an open pit concept. SRK has reassessed the relevance of the existing Madrid North geochemical database with respect to TMAC's bulk sample mine plan and determined that the sample set provides sufficient coverage (both spatially and geologically) of TMAC's mine plan. Accordingly, the sample set formed the basis of the geochemical interpretations and conclusions presented in SRK (2014a), and the waste rock management plan presented herein. This section presents an overview of the geochemical characterization program.

2.1.1 Testing Programs

The Madrid North geochemical sample set consists of 186 samples (Table 1). The distribution of the sample set relative to TMAC's proposed underground workings for the bulk sample is presented in Figure 2. All 186 samples were characterized for acid-base accounting (ABA) and trace element content and 166 samples were analyzed for mineralogy (by XRD). The geochemical database also included 18 humidity cell tests and six barrel tests relevant to the Madrid North bulk sample. Further details about the sample set, selection rationale and analytical methods are provided in SRK (2014a).

Based on the mine plan, the most volumetrically significant waste rock type is mafic metavolcanics (1). The ore is also hosted in the mafic metavolcanics (1). Sedimentary units (5), early gabbro (7a) and diabase (11c) are volumetrically less significant waste lithologies that are projected to be intersected by the mine workings based on the geological logging. Similarly, it is expected that there would be minimal amounts of waste rock from the deformation zone (13a), which is located adjacent to some of the stopes. The other rock types listed in Table 1 are less prevalent in the deposit (and sample set). Similarly, the sample sets for sedimentary units (5), early gabbro (7a), diabase (11c) and defomation zone (13a) have fewer than ten samples. All data are presented though interpretations will focus on the rock types most relevant to the mine plan.

Table 1: Distribution of ABA Sample Set According to Rock Type

Description	Category	Lithology Code	Preliminary Economic Classification	No. of Samples
Ultramafic to Mafic Metavolcanic Rocks	1	1a, 1pv, 1p, 1u	Waste	96
			Ore	22
			Waste/Ore	7
Mixed Ultramafic to Mafic Metavolcanic Rocks	1 mixed	1a, 1pv, 1p, 5a, 7a, 9, 13a	Various[1]	20
Intermediate Metavolcanic Rocks	2	2p	Waste	3
Sedimentary Units (Argillite)	5	5a	Waste	5
	5 mixed	5a, 1a, 1pv	Various[2]	3
Early Gabbro	7a	7a	Various[3]	6
	7a mixed	7a, 5a, 1pv	Waste	2
Diabase	11c	11c	Waste	1
Carbonate Vein	12c mixed	12c, 1a	Waste	1
Deformation Zone	13a	13a	Waste	20
Total				186

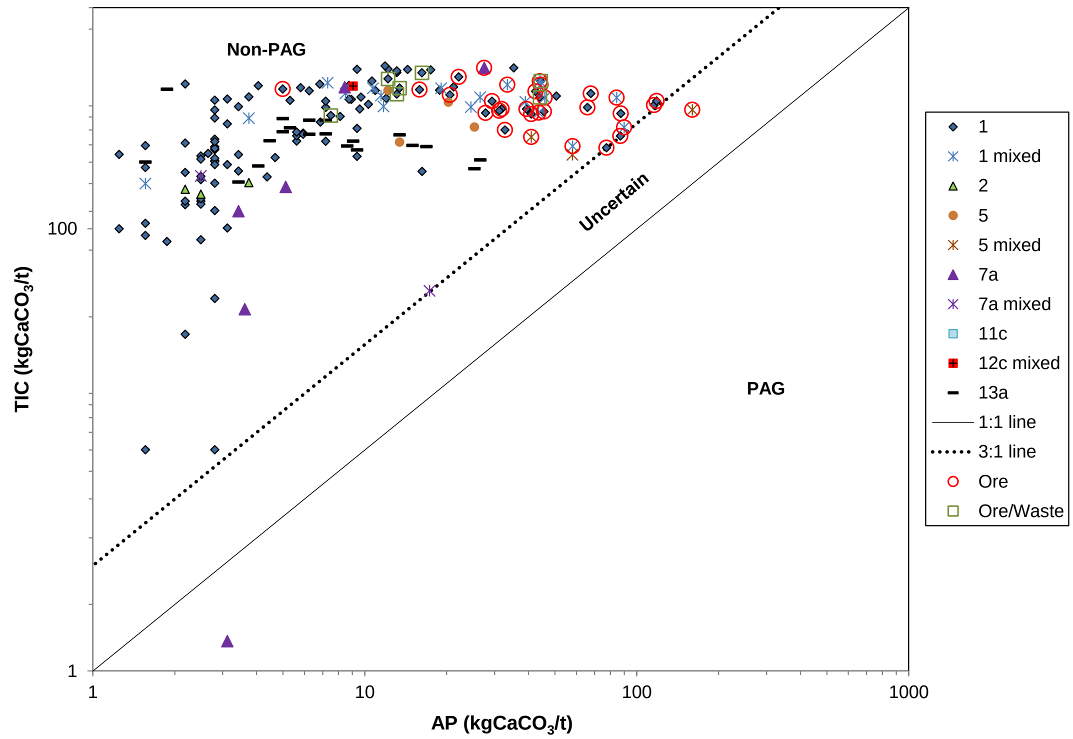
Source:\\van-svr0\projects\01_SITES\Hope.Bay\1CH008.005_Geochemistry (Doris, Madrid, Boston)\3.ABA data\201404_NaartokReport_TypeB_WL\Working File\[Hope Bay MASTER Geochemical Spreadsheet_Rev33_Naartok.xlsx]

Note:

[1] Category 1 mixed is comprised of samples classified as waste (n=8), ore (n=8) and ore/waste (n=4).
[2] Category 5 mixed is comprised of samples classified as waste (n=1) and ore (n=2)
[3] Category 7 is comprised of samples classified as waste (n=5) and ore (n=1).

2.1.2 Static Test Results and Mineralogy

The potential for acid rock drainage is considered to be low for the majority of the waste rock from the Madrid North bulk sample. The waste rock sample set was typically characterized by low sulphur levels where 90% of samples have total sulphur levels less than 0.5%. The ABA data indicate that the waste rock is primarily classified as non-PAG due to nearly ubiquitously high carbonate content. Early gabbro (7a) with low amounts of both sulphide and neutralization potential has the potential to be PAG (Figure 4). Also based on the humidity cell test samples, the static test data indicated the sedimentary units (5) with high sulphide content was classified as uncertain potential for ARD (Table 2). Volumetrically, both rock types are projected to be relatively minor - approximately 8% based on the distribution of these samples in the ABA sample set, which is assumed to be reasonably representative of the rock intersected by the bulk sample. In the event localized ARD is produced from sedimentary units and/or early gabbro, it is anticipated that the high carbonate content in the overall waste rock stockpile would provide sufficient buffering capacity, and that the overall drainage from the stockpile would remain neutral to alkaline.



P:\01_SITES\Hope.Bay\1CH008.005_Geochemistry (Doris, Madrid, Boston)\3.ABA data\201404_NaartokReport_TypeB_WL\Working File\[Hope Bay MASTER Geochemical Spreadsheet_Rev33_Naartok.xlsx]

Figure 4: Comparison of TIC and AP, Madrid North

In general, ferroan dolomite was the most abundant carbonate mineral (median concentrations ranging from below detection to 45%). Calcite, magnesite, magnesite-siderite and siderite occurred less frequently and were present in significantly lower levels as compared with ferroan dolomite.

All the significant rock types contained samples with elevated solid-phase arsenic. Overall highest arsenic levels were exhibited for samples of sedimentary units (median levels greater than 400 ppm). Samples of mafic volcanics and early gabbro contained median arsenic levels of approximately 35 ppm, while median levels for diabase and deformation zones samples were 3 ppm and 74 ppm, respectively. Compared to other Hope Bay deposits, the arsenic content of mafic volcanics from Madrid North is lower than samples from Boston but higher than samples from Madrid South and Doris.

2.1.3 Kinetic Test Results

Selected geochemical attributes of the eighteen humidity cell tests relevant to the Madrid North bulk sample are presented in Table 2. At the time of sample selection, an open pit mine was proposed for the Naartok, Rand and Suluk areas (SRK 2014a). Accordingly, sample selection included all of the aforementioned areas. TMAC’s current Madrid North bulk sample mine plan focusses on an underground development of Naartok only. On the basis of geology and static testing results, kinetic tests (e.g., humidity cell tests) from each of the aforementioned deposit areas are assumed to be representative of all areas for the purpose of water quality predictions.

All humidity cell tests had leachates with neutral pH. Sulphate concentrations were initially high and decreased rapidly, with the exception of HC-26 and HC-28 (both mafic volcanic, ore) and HC-21 (sedimentary unit). HC-26 and HC-21 are both “high” sulphide[1] samples whereas HC-28 is a “typical” sulphide sample. For these three samples, after an initial decrease, sulphate levels trended upward before levelling out to approximately 20 mg/L (HC-28), 50 mg/L (HC-21) and 80 mg/L (HC-26).

Arsenic and nickel were the only elements that exhibited noteworthy trends in concentrations and leaching rates. Stable sulphate, arsenic and nickel release rates are presented in Table 2. The humidity cell arsenic stable[2] release rates were variable with values varying over four orders of magnitude (Table 2). The highest arsenic leaching rates (0.2 to 0.3 mg/kg/week) were observed in HC-20 (sedimentary unit) and HC-41 (early gabbro) HC-27 (mafic metavolcanic, waste) and HC-24 (mafic volcanic, ore), but release rates were less than 0.01 mg/kg/week in most other samples. High levels of arsenic leaching appeared to be related to the occurrence of the trace mineral gersdorffite ((Fe,Co,Ni)AsS). Those humidity cell samples containing detectable levels of the trace mineral gersdorffite tended to have the highest stable arsenic release rates (Table 2) suggesting a possible relationship.

As with arsenic, nickel stable release rates were variable. Samples HC-20 (sedimentary unit) and HC-26 (mafic metavolcanics, ore) exhibited the highest rates of stable nickel release (0.02 and 0.002 mg/kg/week, respectively). Samples containing the mineral gersdorffite tended to have higher nickel release suggesting that nickel leaching may be related to the presence of gersdorffite.

There are six barrel tests relevant to the Madrid North bulk sample. Three of the barrels contained mafic metavolcanics (1) and there was one each with a mixture of sedimentary units mixed with mafic metavolcanics (5+1), mixed early gabbro (7a mixed) and deformation zone (13a).

The pHs for the barrel tests were alkaline, with field and lab values typically between 8 and 8.5. Antimony, arsenic, cobalt and nickel release rates were higher for the sample containing sedimentary units (5+1) and to a lesser degree deformation zone (13a).

The kinetic test results suggest that arsenic and nickel leaching under neutral pH conditions is expected from materials containing the trace mineral gersdorffite. As there is no practical means of identifying gersdorffite during mining, waste rock cannot be segregated and managed according to arsenic and nickel leaching characteristics.

[1] Assessed based on the assessment of the stability of sulphate release.

Table 2: Selected Humidity Cell Test Results Relevant to the Madrid North Bulk Sample

Humidity Cell #	Rock Type[1]	Total Sulpur	Preliminary Economic Classification	Static Test Results								Kinetic Test Results				
				Total	NP	TIC	NP/AP	TIC/AP	Arsenic	Nickel	Gersdorffite	pH		Stable Release Rates		
											(Fe,Co,Ni)AsS			SO_4	As	Ni
		% Rank[2]			kg $CaCO_3$/t				ppm		%	min	max	mg/kg/week		
HC-3	1	62%	W	0.17	146	165	27.5	31.0	6.7	68	--	7.5	9.1	0.7	0.0008	0.00005
	1	58%	W	0.12	145	148	38.3	39.1	4.1	75	--					
HC-9	1	19%	W	0.07	131	146	59.9	66.6	2.6	65	bd	7.9	9.3	0.7	0.0002	0.00006
HC-27	1	61%	W	0.15	244	310	52.1	66.1	122	141	0.01	8.5	9.5	1.3	0.2	0.0006
HC-25	1	91%	W	0.40	239	321	19.2	25.7	108	145	0.01	7.8	9.5	2.1	0.07	0.0008
HC-8	1	11%	mixed	0.26	250	335	30.7	41.2	115	479	0.01	7.5	9.5	2.2	0.01	0.0001
	1	12%	mixed	0.35	270	303	24.9	27.9	93	493	--					
HC-28	1	57%	O	1.31	262	330	6.4	8.1	433	131	0.02	8.1	9.3	10	0.08	0.00090
HC-26	1	>100%	O	3.93	294	367	2.4	3.0	628	394	0.02	7.3	8.8	25	0.007	0.002
HC-24	1	76%	O	2.17	337	409	5.0	6.0	630	264	0.03	7.7	9.1	3.1	0.2	0.001
HC-20	5	>100%	W	3.30	214	246	2.1	2.4	1070*	651*	0.09	7.4	8.9	3	0.3	0.02
HC-21	5	>100%	W	3.45	143	195	1.3	1.8	86.0	76	bd	7.5	8.3	41	0.0002	0.0002
HC-40	7a	25%	W	0.11	114	120	33.3	34.9	7.1	115	bd	7.7	9.9	1.1	0.002	0.00003
HC-41	7a	100%	W	0.27	321	437	38.0	51.7	273	183	0.03	8.1	9.2	2	0.3	0.0009
HC-22	11c	100%	W	0.02	22	11	35.3	17.4	3.1	25	bd	7.5	10.0	2.2	0.0006	0.0001
HC-23	11c	>100%	W	0.07	33	35	14.9	16.0	27	52	bd	8.1	9.9	1.5	0.001	0.00002
HC-5	13a	24%	W	0.16	215	242	42.9	48.4	73	45	<0.01	7.5	9.1	0.9	0.04	0.0002
	13a	60%	W	0.24	203	269	27.4	36.4	93	49	--					
HC-29	13a	39%	W	0.19	316	403	53.2	67.9	77	122	0.01	7.9	9.7	1.0	0.06	0.0005
HC-39	13a	94%	W	0.54	191	235	11.3	13.9	64	24	<0.01	7.3	9.1	2	0.003	0.0003
HC-30	13a	94%	W	0.55	300	419	17.5	24.4	2.0	306	--	8.0	9.2	4	0.0002	0.00003

Source: P:\01_SITES\Hope.Bay\1CH008.005_Geochemistry (Doris, Madrid, Boston)\3.ABA data\201404_NaartokReport_TypeB_WL\Working File\[HB_WR_Outcomes.mc.REV14_MadridNorth_Rev02.xlsx]

Notes:
[1] Rock codes: 1 = mafic volcanics; 5 = sedimentary rocks; 7a = early gabbro; 11c = diabase; 13a = deformation zone.
[2] Rank relative to rock type and economic classification for Madrid North sample set.
* Value as determined on humidity cell sample residue because residue levels were higher than initial values determined on ABA sample.
-- denotes data not available
bd denotes mineral below detection

2.2 Madrid South

SRK (2012) provides an assessment of the acid rock drainage and metal leaching (ARD/ML) potential of waste rock and ore that would be produced as part of the proposed bulk sample underground activities at Madrid South. The report was prepared for Hope Bay Mining Ltd. (HBML). TMAC's proposed mine plan for the Madrid South bulk sample (Figure 2) is a modification of the HBML mine plan that was evaluated in SRK (2012). SRK has reassessed the relevance of the Madrid South geochemical database with respect to TMAC's bulk sample mine plan and determined that the sample set provides sufficient coverage (both spatially and geologically) of TMAC's mine plan. Accordingly, the interpretations and conclusions in SRK (2012) are an appropriate basis for the waste rock management plan presented herein.
This section presents an overview of the geochemical characterization program.

2.2.1 Testing Programs

The Madrid South geochemical sample set consists of 261 samples (Table 3). The distribution of the sample set relative to TMAC's proposed underground workings for the bulk sample is presented in Figure 3. All 261 samples were characterized for mineralogy (by XRD), acid-base accounting (ABA) and trace element content. Furthermore, the geochemical database included five humidity cell tests and two barrel tests. Details about the sample set, selection rationale and analytical methods are outlined in SRK (2012).

The dominant rock types for the Madrid South deposit include mafic metavolcanics (unit 1) and porphyry granitoids (unit 9), with lesser amounts of intermediate volcanics (2). As shown in Table 1, the bulk of the ABA samples are for these aforementioned rock types. Less significant rock types characterized include quartz veining (unit 12q), which is associated with gold mineralization, intermediate to felsic volcanic (unit 3ao), early gabbro intrusives (unit 7a), late gabbro intrusives (10a), late mafic dykes (10b), and carbonate veins (12c).

Table 3: Distribution of ABA Sample Set According to Rock Type

Lithological Description	No. of Samples
Mafic to ultramafic metavolcanics (1a, 1p, 1pd)	92
Mafic to ultramafic metavolcanics (1) mixed with Quartz Vein (12q) only	2
Mixed mafic to ultramafic metavolcanics (1)	4
Intermediate volcanics (2a, 2p, 2pd)	28
Intermediate to felsic volcanics (3ao)	6
Early gabbro intrusives (7a)	5
Mixed early gabbro (melangabbro) intrusives (7ac)	1
Late porphyry granitoids (9p, 9pf, 9pq)	97
Late porphyry granitoids mixed with quartz vein (9 w. 12q)	4
Late gabbro intrusives (10a)	1
Late mafic dyke (10b)	4
Quartz vein (12q)	12
Mixed quartz veins (12q w. 1a)	1
Carbonate vein (12c)	3
Madrid deformation zone (13a)	1
Total	**261**

2.2.2 Static Test Results and Mineralogy

The samples were characterized by low sulphur content, with 95% of samples containing less than 0.50% total sulphur (Figure 5). Sulphur levels for the deposit rock types were low, with the highest levels observed for samples of quartz vein (12q, median level of 0.46%). Median levels were below 0.10% for mafic metavolcanics (1), intermediate volcanics (unit 2) and late porphyry granitoids (9). Levels of NP and TIC were high (median values for all rock types greater than 75 kg$CaCO_3$ eq/t). All samples were classified as non-potentially acid generating (non-PAG).

In general, ferroan dolomite was the most abundant carbonate mineral (median concentrations ranging from below detection to 38%). Calcite was also present at median levels greater than 5% in selected rock types. The occurrence of magnesite and magnesium siderite was overall less significant, both in quantity and occurrence.

All the significant rock types contained samples with elevated solid-phase arsenic. Overall highest arsenic levels were exhibited for samples of quartz vein (median levels greater than 100 ppm) while samples of mafic volcanics, intermediate volcanics and late porphyry granitoids contained median levels of less than 10 ppm. Compared to other Hope Bay deposits, arsenic content for mafic volcanics from Madrid South was lower than Boston, Madrid North (Naartok, Rand and Suluk), and generally similar to Doris.

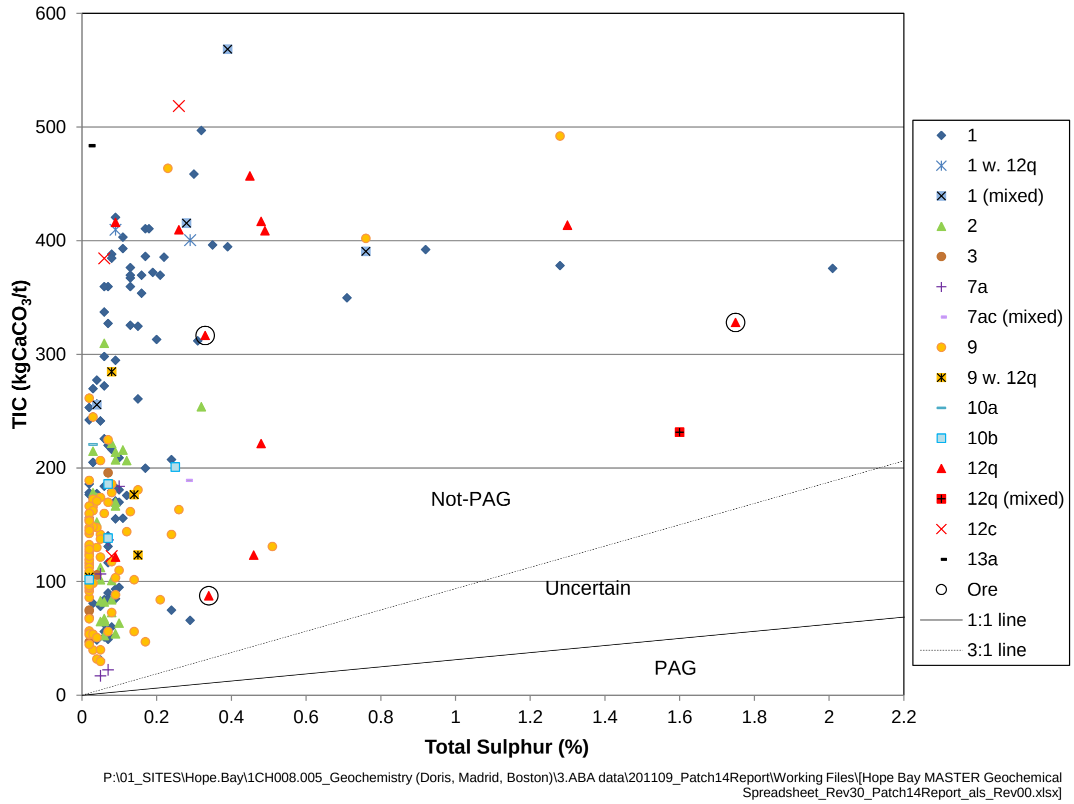


Figure 5: Comparison of TIC and Total Sulphur, Madrid South

2.2.3 Kinetic Test Results

Selected geochemical attributes of the five humidity cell tests of Madrid South waste rock are presented in Table 2. All tests had leachates with neutral pH. Sulphate release rates were low (maximum 1 mg/kg/week) for the mafic metavolcanic and late porphyry granitoid samples, indicating low rates of sulphide oxidation. Stable sulphate leaching rates for the sample of mixed early gabbro were higher (23 mg/kg/week), however this likely reflects the leaching of primary sulphate minerals in the sample rather than sulphide oxidation.

For each of the mafic metavolcanics and late porphyry granitoids humidity cell test samples, there are samples with lower and higher sulphide content, as denoted by the %rank value in Table 2. Arsenic, cobalt and nickel leaching rates were appreciably higher in the samples with high sulphide content, i.e., HC-61 and HC-64. Sulphate release rates for HC-61 and HC-61 were uniformly low (1 mg/kg/week) and were equivalent to the lower sulphide samples (HC-63 and HC-60).

The pHs for the two barrel of Madrid South waste rock (mafic volcanic and late porphyry granitoid) are circumneutral. The database for the barrels is limited due to the absence of or low volumes of leachate.

Table 4: Selected Humidity Cell Test Results for Mafic Metavolcanic and Late Porphyry Granitoid Samples

HCT #	Rock Type[1]	Sulphide	Static Test Results					HCT Stable Release Rates			
			Sulphide	NP	TIC	NP/AP	TIC/AP	SO_4	As	Co	Ni
		% Rank[2]	%S	$kgCaCO_3/t$				mg/kg/week			
HC-63	1	77	0.16	299	383	60	77	0.6	0.0005	0.00001	0.00003
HC-61	1	97	0.83	281	388	11	15	1	0.06	0.001	0.0006
HC-62*	7ac mixed	0	<0.02	169	189	27	30	23	0.0005	0.00002	0.00005
HC-60	9	0 to 51	0.02	102	137	164	219	0.5	0.003	0.00003	0.00003
HC-64	9	97	0.27	348	473	41	56	1	0.1	0.0009	0.0007

Source: P:\01_SITES\Hope.Bay\1CH008.005_Geochemistry (Doris, Madrid, Boston)\3.ABA data\201406_MadridSouthWRMP_TypeB_WL\Table\[HCT Rates table.xlsx]

Notes:
[1] Rock codes as follows: 1 = mafic volcanics; 7ac = early gabbro; 9 = late porphyry granitoids
[2] For HC-62, percent rank of sulphide determined by comparion with early gabbro samples (7a, mixed and unmixed)

3 Conceptual Waste Rock Management Plan

This section presents a conceptual waste rock management plan. A comprehensive waste rock management plan will be developed and submitted six months after receipt of the Type B water license. The framework of the waste rock management plan would be parallel to the approved plan for Doris North (SRK 2010), and would address details such as waste rock and seepage monitoring; water management; management of residual explosives; spill prevention and dust management.

The geochemical characterization programs for the Madrid Advanced Exploration Project indicated that there are no practical methods for segregating PAG from non-PAG waste rock. Accordingly, a waste rock pile at Madrid North and at Madrid South would be placed on a minimum of 1m thick pad, constructed from Run-of-Quarry (ROQ) material placed over the original ground.

The drainage from each waste rock pile would be captured by a Pollution Control Pond (PCP). The PCP's would be fully lined, with a geosynthetic liner and contained by a 6 m wide berm, constructed from ROQ material (SRK 2014b and SRK 2014c). The berms have been designed to allow for light vehicle access around the pond for regular inspection; to assist in accommodating any required maintenance; and to allow for a vacuum truck to remove any retained water.

Water collected in each of the PCPs will be transferred to the 50,000 L supply tank located at each respective location. Supply water for the Brine Mixing Facility (BMF) will be drawn from this tank to create a Brine to be used in underground operations. Any excess water from the PCPs would be transported to the Tailings Impoundment Area.

Water collected in the PCP and any seeps flowing directly from waste rock would be monitored in accordance with the water licence and to monitor metal leaching from the stockpile. The objective of monitoring is to assess the magnitude of arsenic and nickel concentrations to inform waste management practices and adjust closure planning, if results determine this is appropriate.

Operational monitoring of solids would follow the general methodology used at Doris North. However, monitoring would be less frequent, because unlike Doris North, the waste rock from the Madrid Advanced Exploration Project will not be segregated. Monitoring of waste rock during mining would include a geological inspection and collection of confirmatory samples from either blasted rock, either from within the mine, or immediately following placement in the waste rock pile. Sampling frequency would be approximately one sample per 5,000 tonnes of rock. A minimum of one in five samples would be submitted for full ABA tests. The other four samples would be submitted for total sulphur and TIC only.

Three samples from the first six months of mining and then one in ten samples from the confirmatory testing (representing approximately one sample per 50,000 tonnes of rock) will be subjected to shake flask extractions to assess the amount of soluble salt, nutrients and metals present in the rock.

At closure, the Madrid Advanced Exploration Project waste rock piles will be reshaped to prevent the ponding of water with the final slopes of 3H:1V, and covered with an HPDE liner with a 0.3 m thick protective layer of crushed rock.

4 References

SRK Consulting (Canada) Inc., 2012. Geochemical Characterization of Waste Rock and Ore from the Patch 14 and Wolverine Deposits, Hope Bay – Draft. Draft report prepared for Hope Bay Mining Ltd. by SRK Consulting (Canada) Inc., December 2012.

SRK Consulting (Canada) Inc., 2014a. Geochemical Characterization of Waste Rock and Ore, Madrid North Bulk Sample, Hope Bay – Draft. Draft report prepared for TMAC Resources Inc. by SRK Consulting (Canada) Inc., July 2014.

SRK Consulting (Canada) Inc., 2014b. Hope Bay Project: Madrid North Bulk Sample: Portal and Vent Raise. Technical Memorandum prepared for TMAC Resources Inc. by SRK Consulting (Canada) Inc. Project Number 1CT022.001.410. May 9, 2014.

SRK Consulting (Canada) Inc., 2014c. Hope Bay Project: Madrid South Bulk Sample: Portal and Vent Raise. Technical Memorandum prepared for TMAC Resources Inc. by SRK Consulting (Canada) Inc. Project Number 1CT022.001.410. May 9, 2014.

Appendix 8-C

SRK, December 2014 – Hope Bay Project Quarry Management and Monitoring Plan - Revision 02

Hope Bay Project
Quarry Management and Monitoring Plan – Revision 02

Prepared for

TMAC Resources Inc.

Prepared by

SRK Consulting (Canada) Inc.
1CT022.001
December 2014

Hope Bay Project
Quarry Management and Monitoring Plan – Revision 02

December 2014

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Project No: 1CT022.001

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1 Introduction

TMAC Resources Inc. is conducting advanced exploration and developing the infrastructure at the Hope Bay Mining Project in the Hope Bay Belt, Nunavut, Canada. The Project site is located on Inuit Owned Land (IOL) in the West Kitikmeot region of Nunavut approximately 125 km southwest of Cambridge Bay and 75 km northeast of Umingmaktok.

The project is owned and operated by TMAC Resources Inc.:

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Construction of many of the facilities associated with the advanced exploration and infrastructure development program at the Hope Bay Project site has made use of or will continue to require rock from various quarries developed or approved for development at the site, including Quarry 1, 2, 3 and 4 (Figure 1), and Quarry A, B, and D (Figure 2). The proposed construction and development at Madrid South, including the Madrid South Road that connects to the existing Doris-Windy Road (TMAC 2014), would make use of rock from Quarry G and H (Figure 3). The proposed expansion of the Doris deposit will also require a small quarry (Quarry I) in the Doris Central area (Figure 2), (TMAC 2013).

This *Hope Bay Project Quarry Management and Monitoring Plan – Revision 02* has been prepared by TMAC in accordance with Quarry Permit Agreements KTP307Q010 and KTP308Q010, issued by the Kitikmeot Inuit Association, and Water Licences 2BE-HOP1222 and 2AM-DOH1323 issued by the Nunavut Water Board (NWB). The plan was originally prepared to address the management requirements for Quarry A, B and D, but has been expanded to include three new Quarries (G, H and I) which have been proposed to support expanded mining activities in the Doris area (TMAC in preparation), and exploration activities for Madrid South (TMAC in preparation). Additionally, the plan addresses ongoing management requirements for Quarry 2 and 3 in the Doris area.