

## **Appendix H:      Materials Testing Results**

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## **Appendix H.1: Particle Size Distribution Test Certificates**

DUfjWY`G]nY`8 ]gh]Vi h]cb`HYgh7 Yfh]4WUHYg`  
7 cfY`A Uhf]U.&\$`a a `A]bi g`7 fi gl` `A Uhf]U`

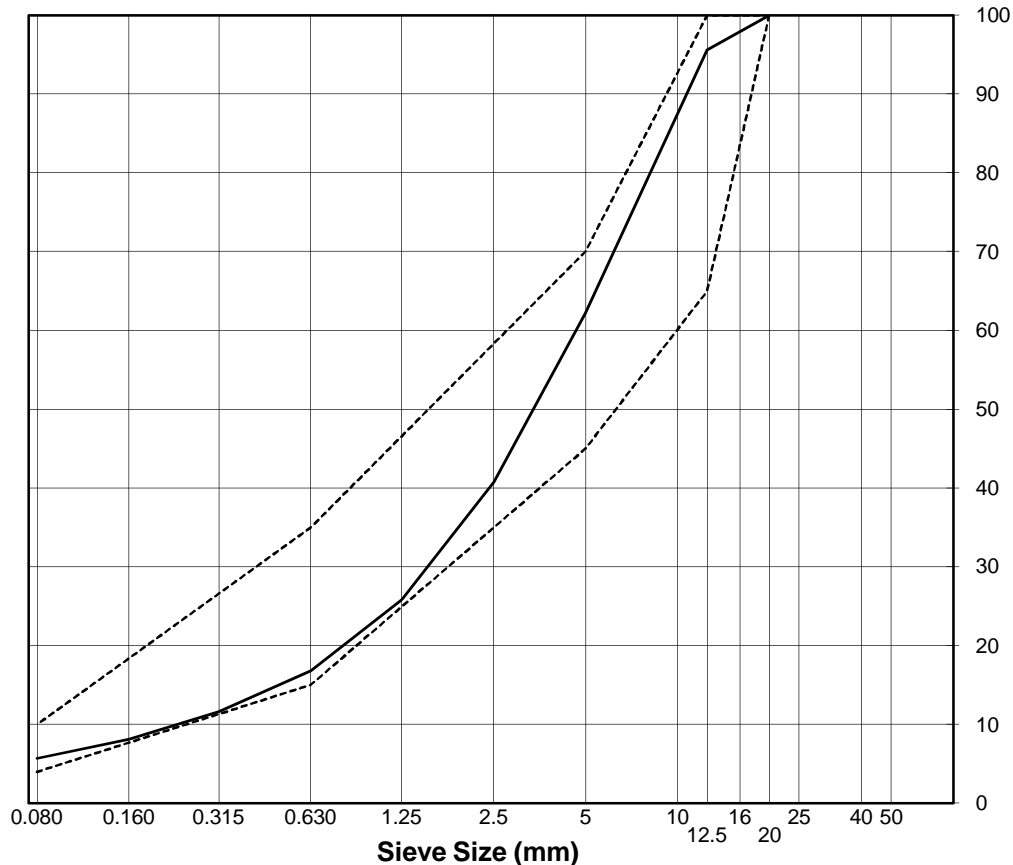
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Stockpile, 35mN of Frozen Core Plant.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 01  
Date Received: February 15, 2011  
Sampled by: GDV  
Date Tested: February 16, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
5	62
2.5	41
1.25	26
0.630	17
0.315	12
0.160	8
0.080	5.6



Remarks: This particle size analysis represents the Core blend, prior to saturation.

Reviewed By: \_\_\_\_\_

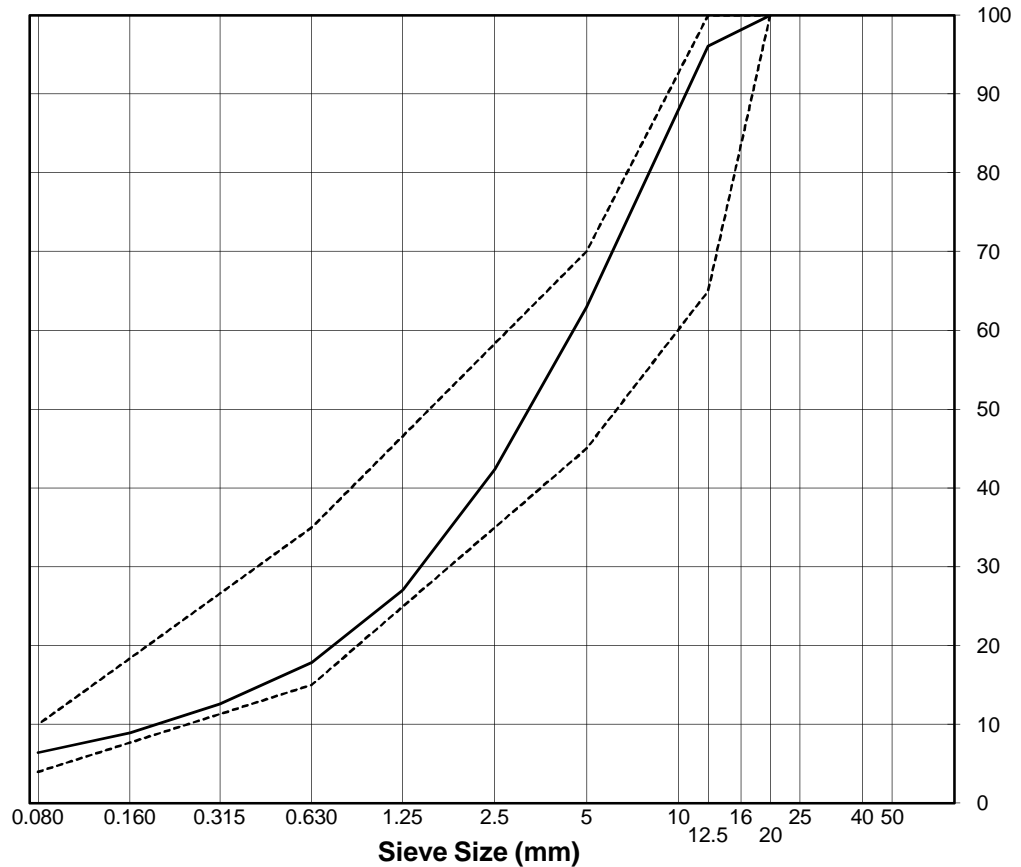
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 02  
Date Received: February 19, 2011  
Sampled by: GDV  
Date Tested: February 19, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
5	63
2.5	42
1.25	27
0.630	18
0.315	13
0.160	9
0.080	6.4



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken by QC, time unknown.

**Reviewed By:** \_\_\_\_\_

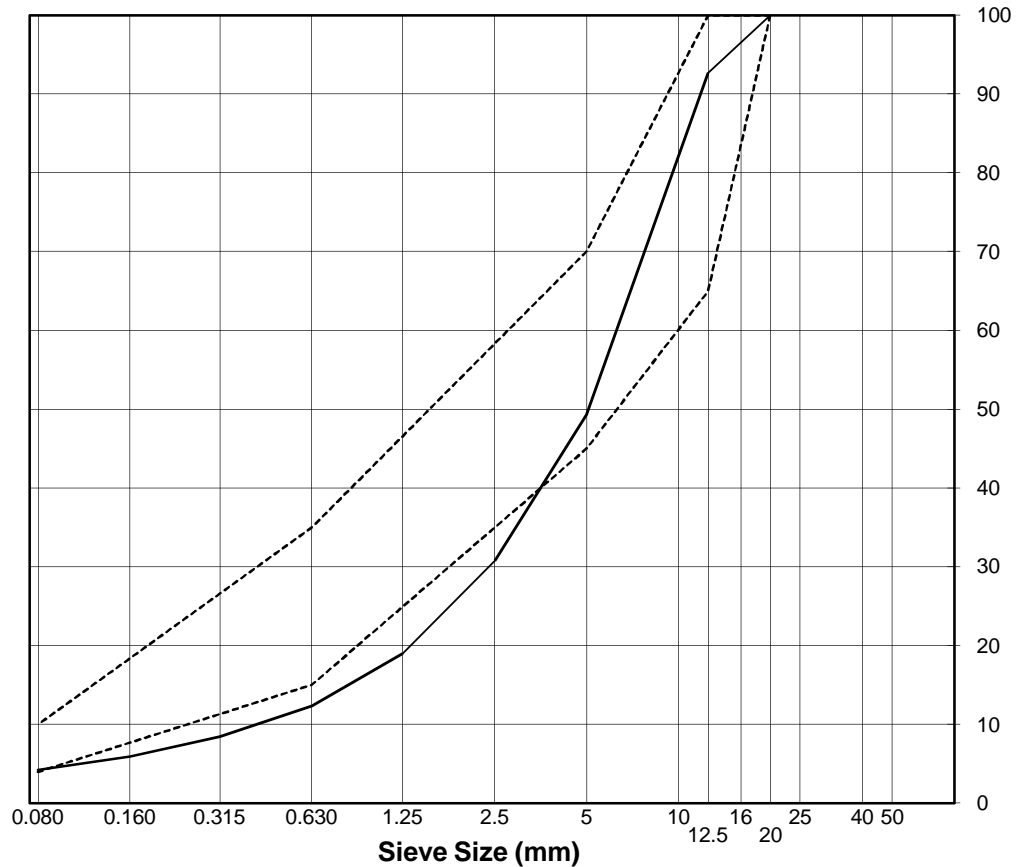
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 03  
Date Received: February 19, 2011  
Sampled by: QC  
Date Tested: February 19, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
5	49
2.5	31
1.25	19
0.630	12
0.315	8
0.160	6
0.080	4.2



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken by QC, time unknown.

**Reviewed By:** \_\_\_\_\_

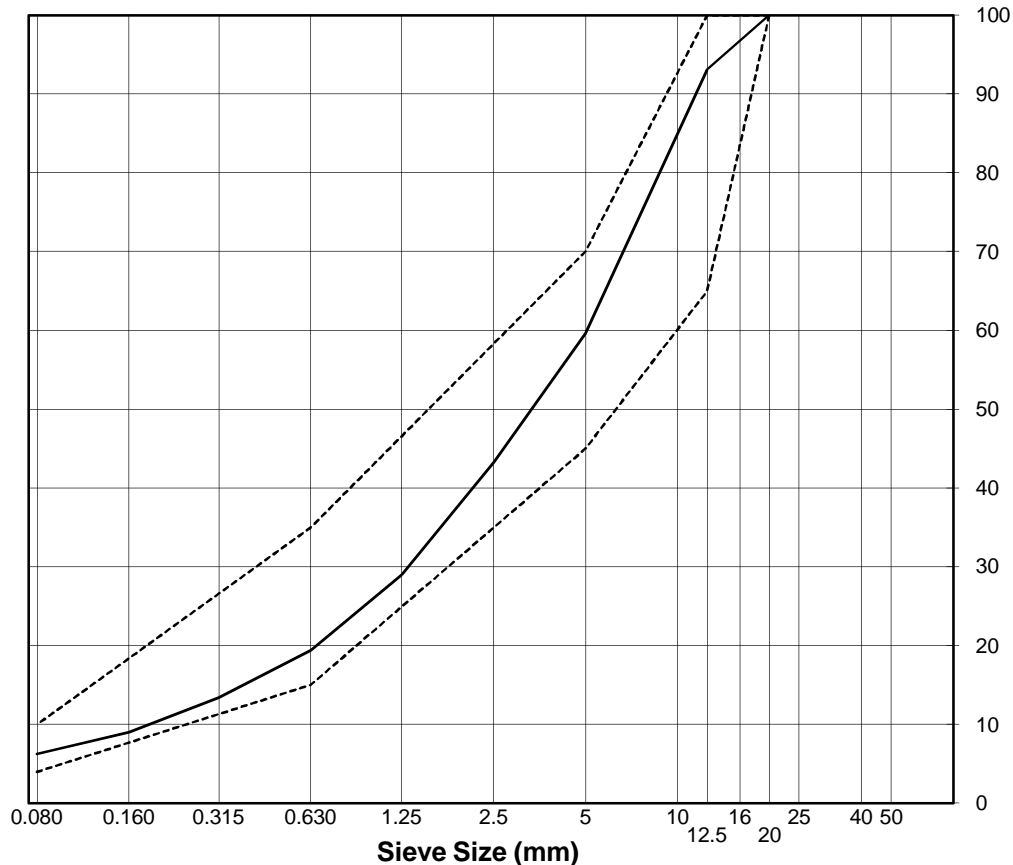
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
 Project: Doris North - North Dam  
 Client: SRK Consulting  
 Attention: Lowell Wade  
 Email: HopeBay@SRK.com  
 Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
 Source: Quarry 2  
 Supplier: Crusher  
 Sample Location: Quarry 2, BELT sample.  
 Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 04  
 Date Received: February 20, 2011  
 Sampled by: GDV  
 Date Tested: February 20, 2011  
 Tested by: GDV Office: On-site lab  
 Moisture Content (as received): 1.6%  
 No. Crushed Faces: Two (2) or Three (3)  
 By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
5	60
2.5	43
1.25	29
0.630	19
0.315	13
0.160	9
0.080	6.2



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 0230 Hrs.

**Reviewed By:** \_\_\_\_\_

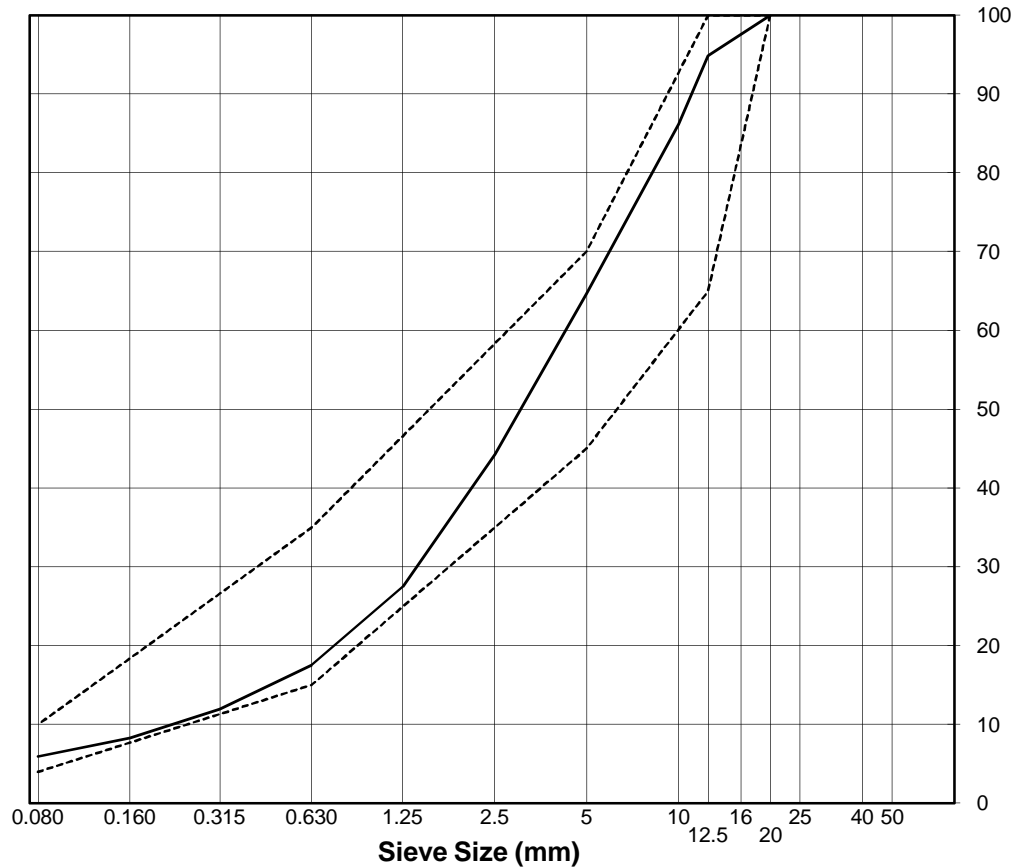
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 05  
Date Received: February 20, 2011  
Sampled by: GDV  
Date Tested: February 20, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	86
5	65
2.5	44
1.25	27
0.630	18
0.315	12
0.160	8
0.080	5.9



Remarks: This particle size analysis represents the Core blend, prior to saturation.

Sample taken 0500 Hrs.

Reviewed By: \_\_\_\_\_

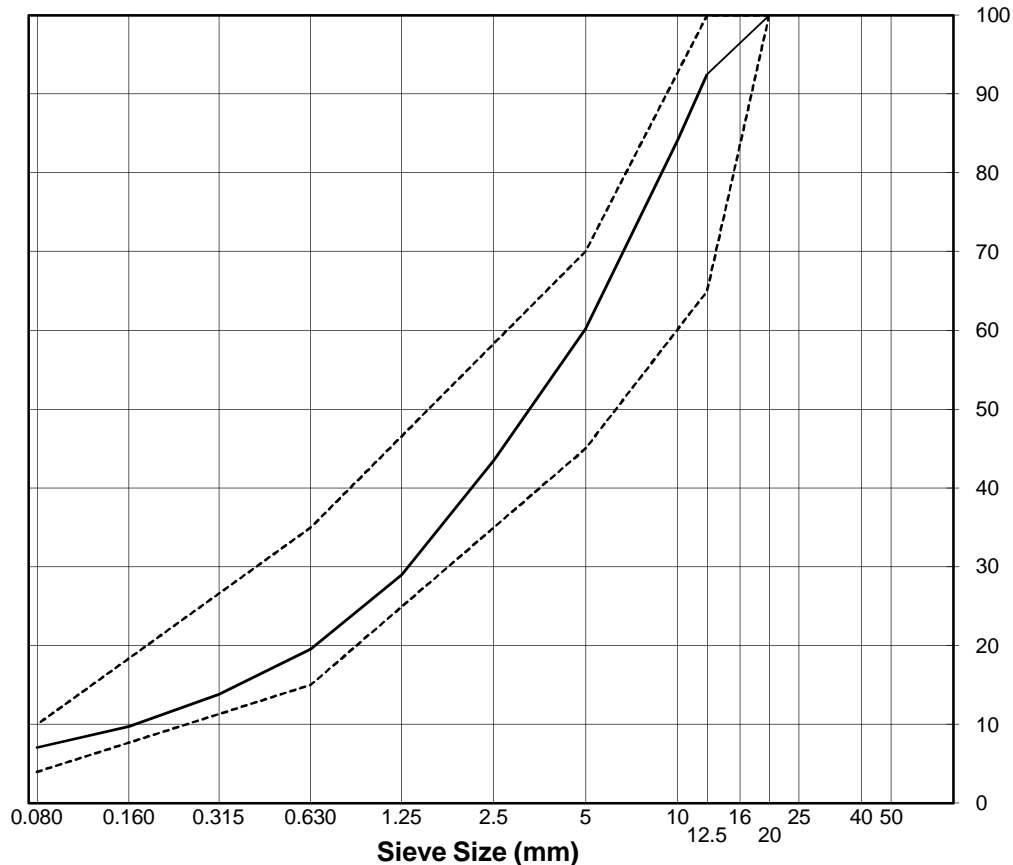
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 06  
Date Received: February 20, 2011  
Sampled by: QC  
Date Tested: February 20, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 4.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
10.0	84
5	60
2.5	44
1.25	29
0.630	20
0.315	14
0.160	10
0.080	7.0



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 1100 Hrs.

**Reviewed By:** \_\_\_\_\_

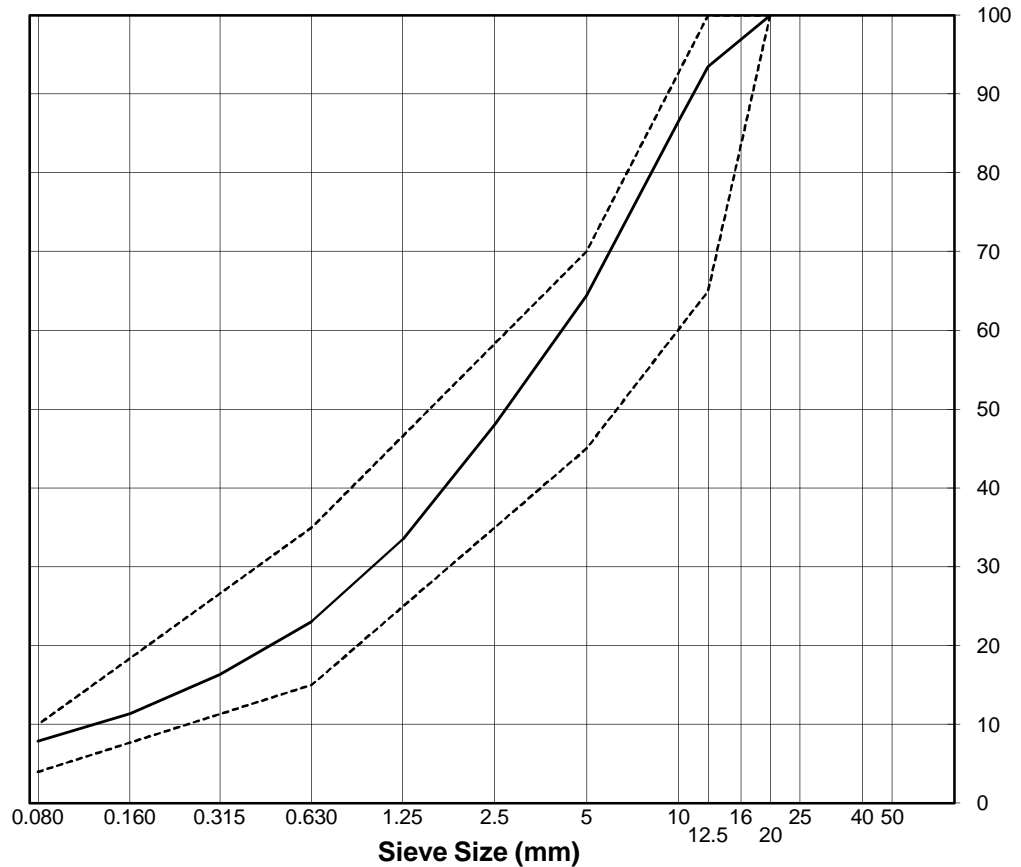
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 07  
Date Received: February 20, 2011  
Sampled by: QC  
Date Tested: February 20, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 3.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
10.0	87
5	64
2.5	48
1.25	33
0.630	23
0.315	16
0.160	11
0.080	7.8



Remarks: This particle size analysis represents the Core blend, prior to saturation.

Sample taken 1700 Hrs.

Reviewed By: \_\_\_\_\_

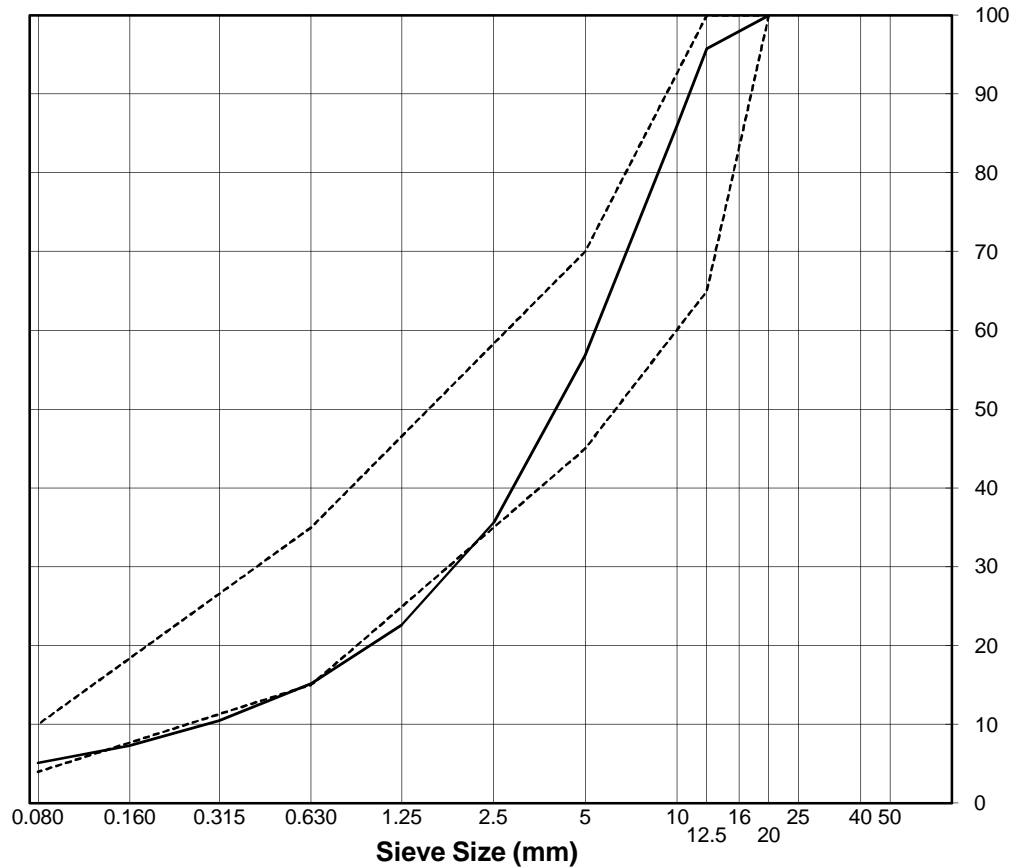
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, STOCKPILE sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 08  
Date Received: February 21, 2011  
Sampled by: GDV  
Date Tested: February 21, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	86
5	57
2.5	36
1.25	23
0.630	15
0.315	10
0.160	7
0.080	5.1



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 0100 Hrs.

**Reviewed By:** \_\_\_\_\_

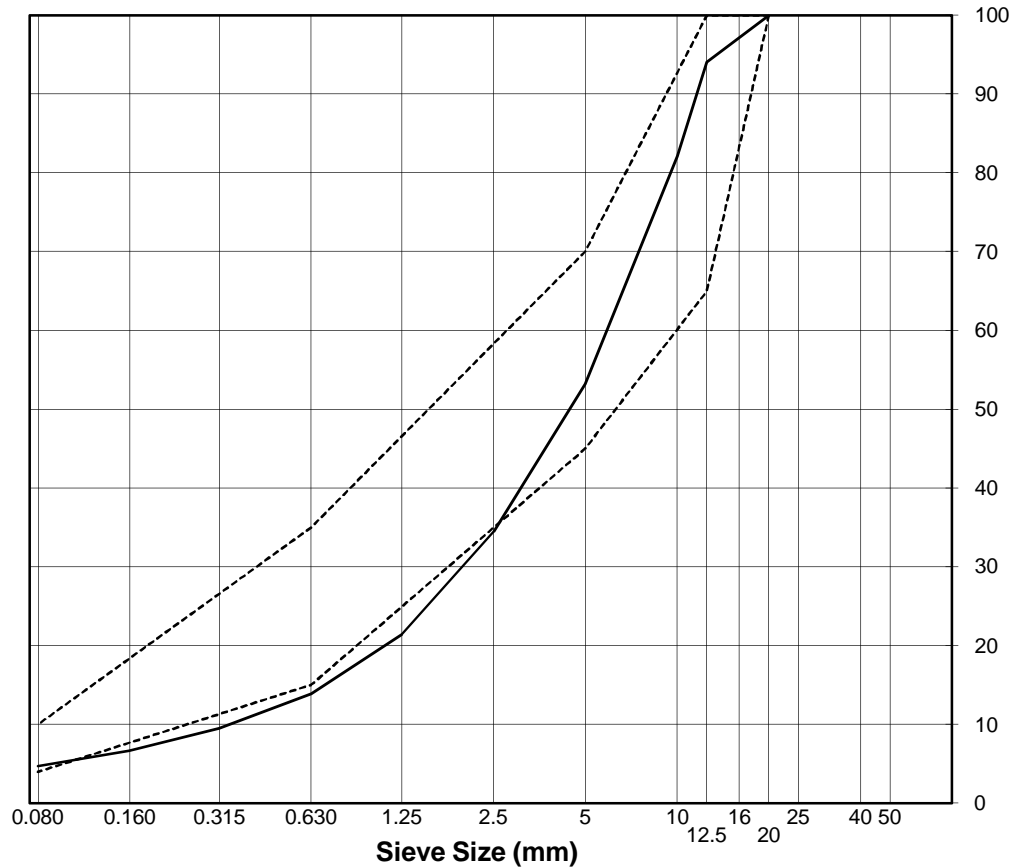
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 09  
Date Received: February 22, 2011  
Sampled by: QC  
Date Tested: February 22, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	94
10.0	82
5	53
2.5	34
1.25	21
0.630	14
0.315	10
0.160	7
0.080	4.7



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 1100 Hrs. (First sample taken after Nuna changed damaged crusher parts.)

**Reviewed By:** \_\_\_\_\_

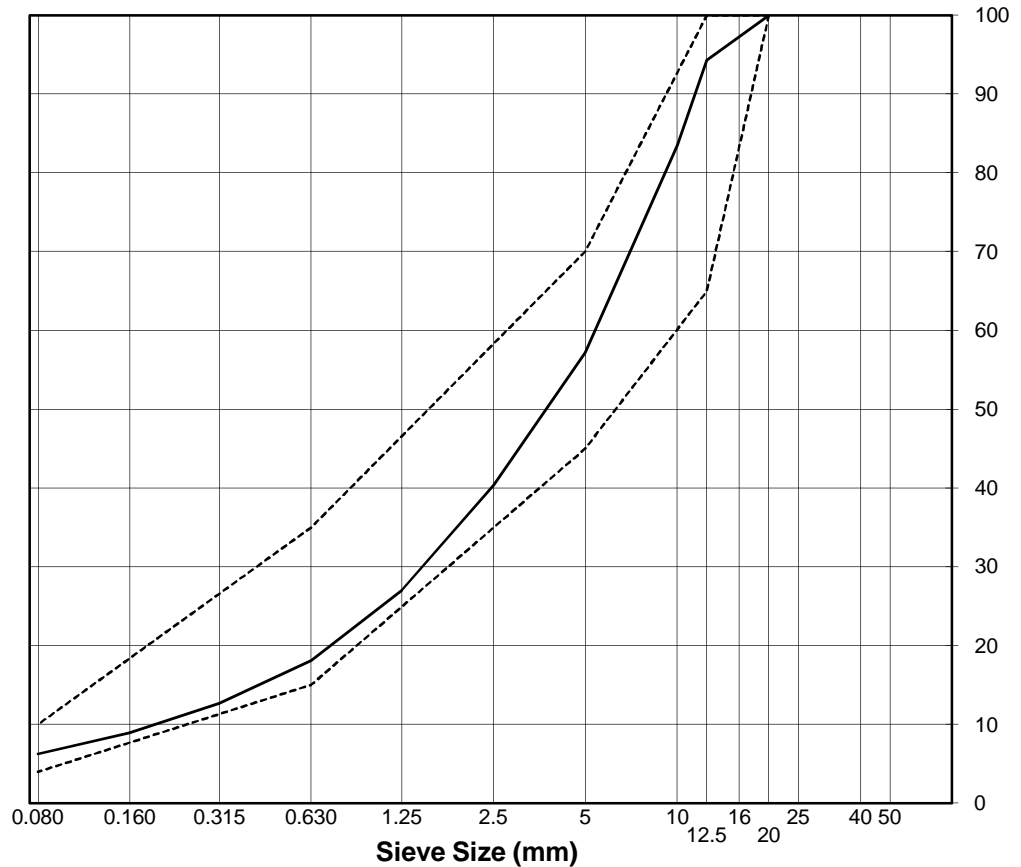
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 10  
Date Received: February 22, 2011  
Sampled by: QC  
Date Tested: February 22, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 3.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	94
10.0	84
5	57
2.5	40
1.25	27
0.630	18
0.315	13
0.160	9
0.080	6.2



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 1700 Hrs.

Reviewed By: \_\_\_\_\_

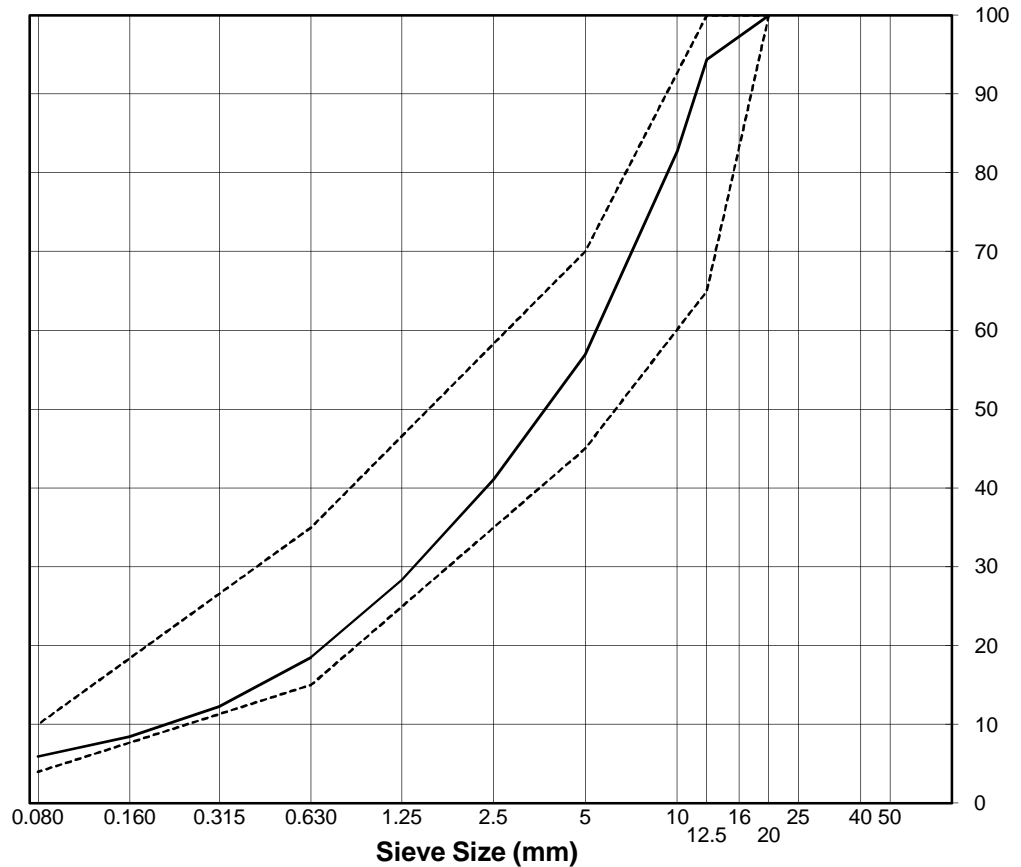
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, STOCKPILE sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 11  
Date Received: February 23, 2011  
Sampled by: QA  
Date Tested: February 23, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	94
10.0	83
5	57
2.5	41
1.25	28
0.630	18
0.315	12
0.160	8
0.080	5.9



Remarks: This particle size analysis represents the Core blend, prior to saturation.

Sample taken 0300 Hrs.

Reviewed By: \_\_\_\_\_

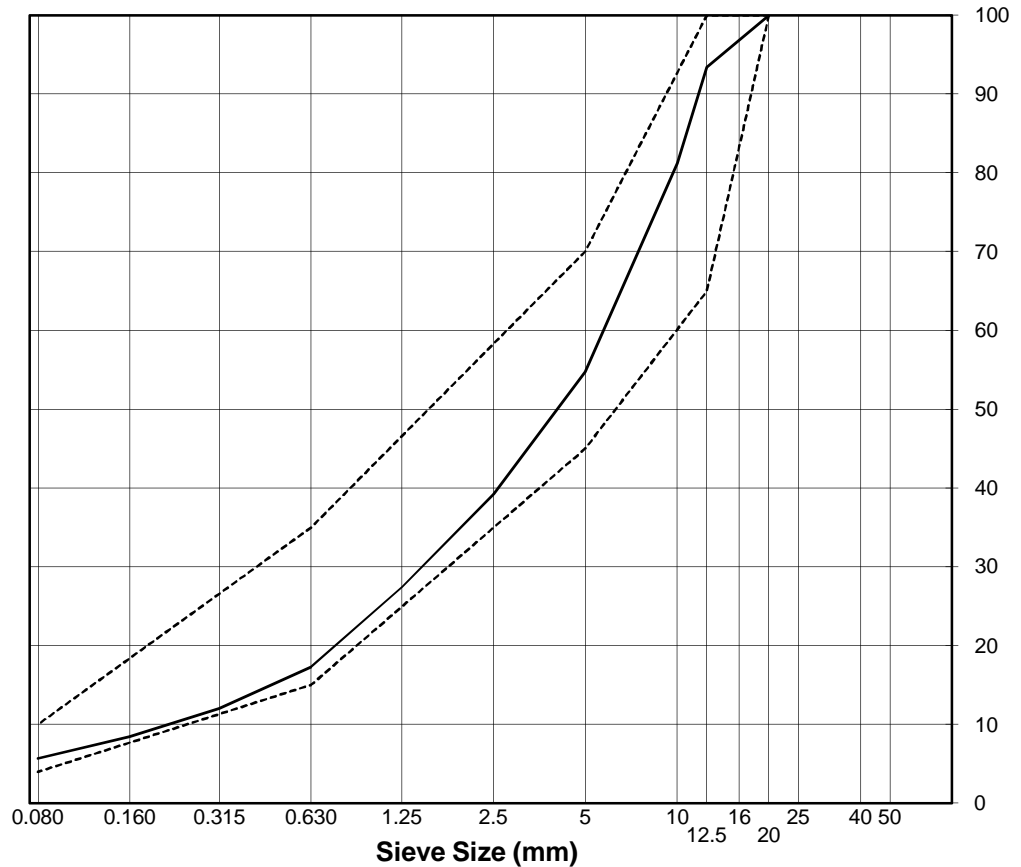
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 12  
Date Received: February 23, 2011  
Sampled by: QA  
Date Tested: February 23, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
10.0	81
5	55
2.5	39
1.25	27
0.630	17
0.315	12
0.160	8
0.080	5.7



**Remarks:** This particle size analysis represents the Core blend, prior to saturation.

Sample taken 0500 Hrs.

**Reviewed By:** \_\_\_\_\_

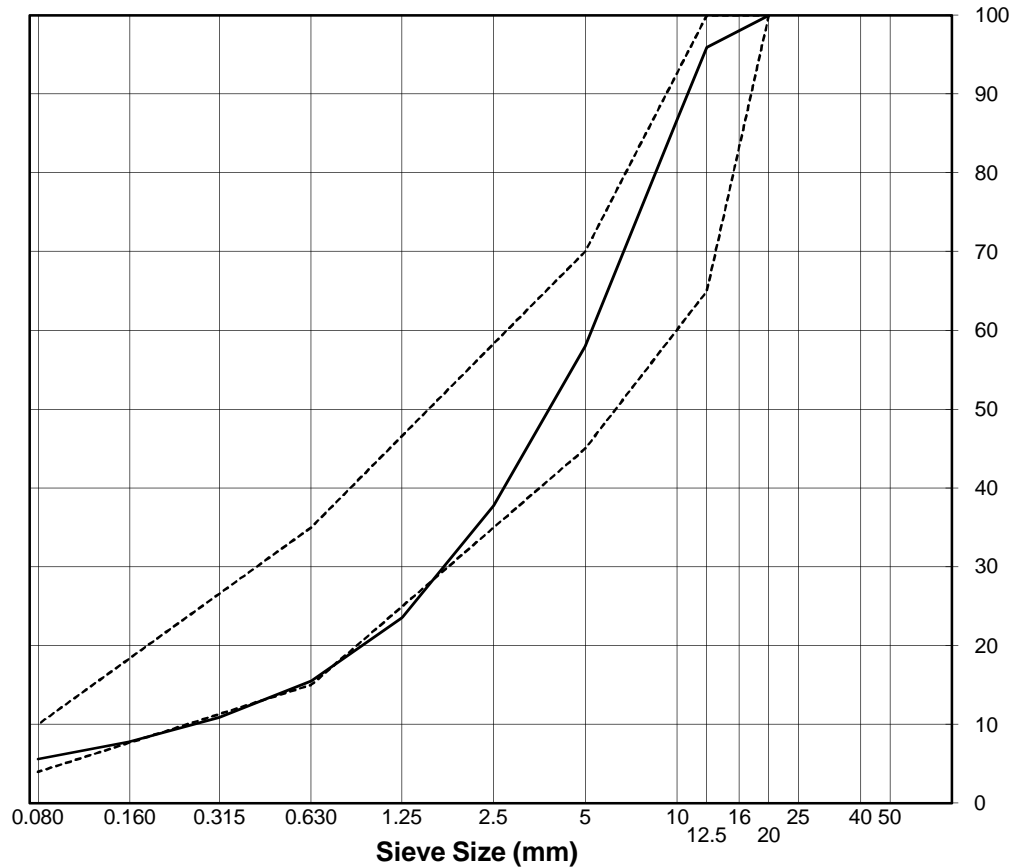
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 13  
Date Received: February 23, 2011  
Sampled by: QC  
Date Tested: February 23, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	87
5	58
2.5	38
1.25	24
0.630	15
0.315	11
0.160	8
0.080	5.6



Remarks: File name: HB-CR-CORE-PSD 13-QC-20110223.xls

This particle size distribution represents the Core blend, prior to saturation. Sample was taken at 1100 hrs.

Reviewed By: \_\_\_\_\_

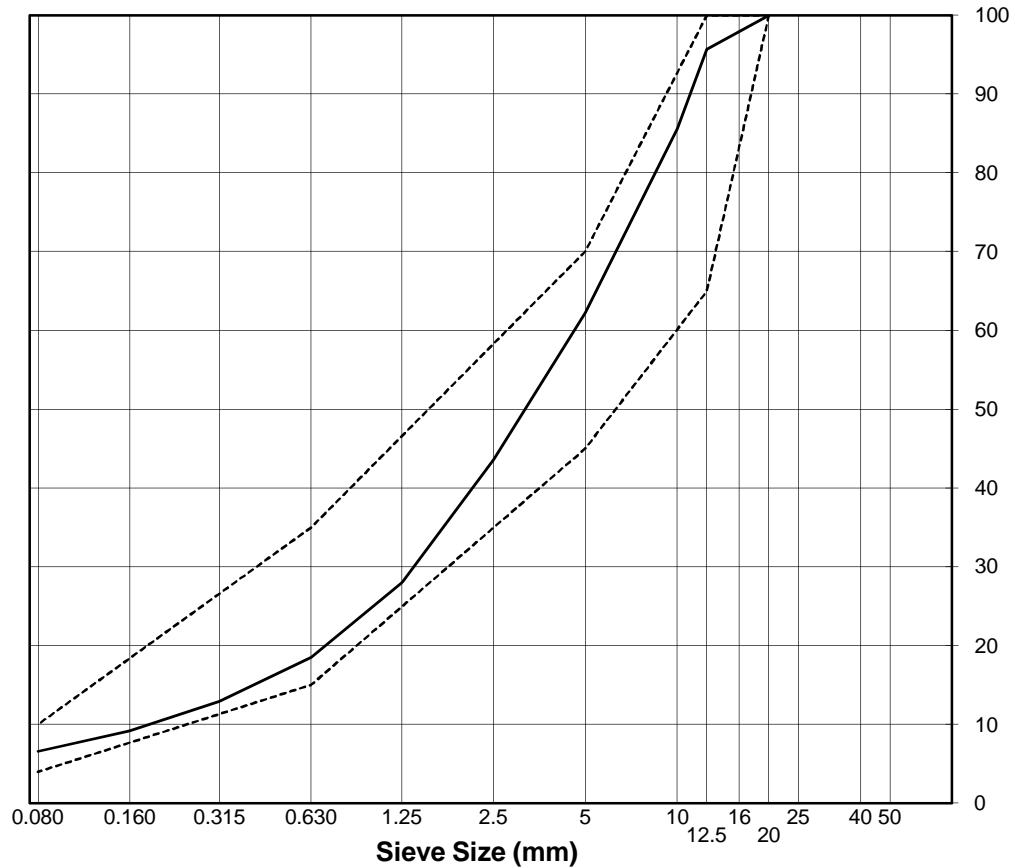
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 14  
Date Received: February 23, 2011  
Sampled by: QC  
Date Tested: February 23, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	86
5	62
2.5	44
1.25	28
0.630	18
0.315	13
0.160	9
0.080	6.5



Remarks: File name: HB-CR-CORE-PSD 14-QC-20110223.xls

This particle size distribution represents the Core blend, prior to saturation. Sample was taken at 1700 hrs.

Reviewed By: \_\_\_\_\_

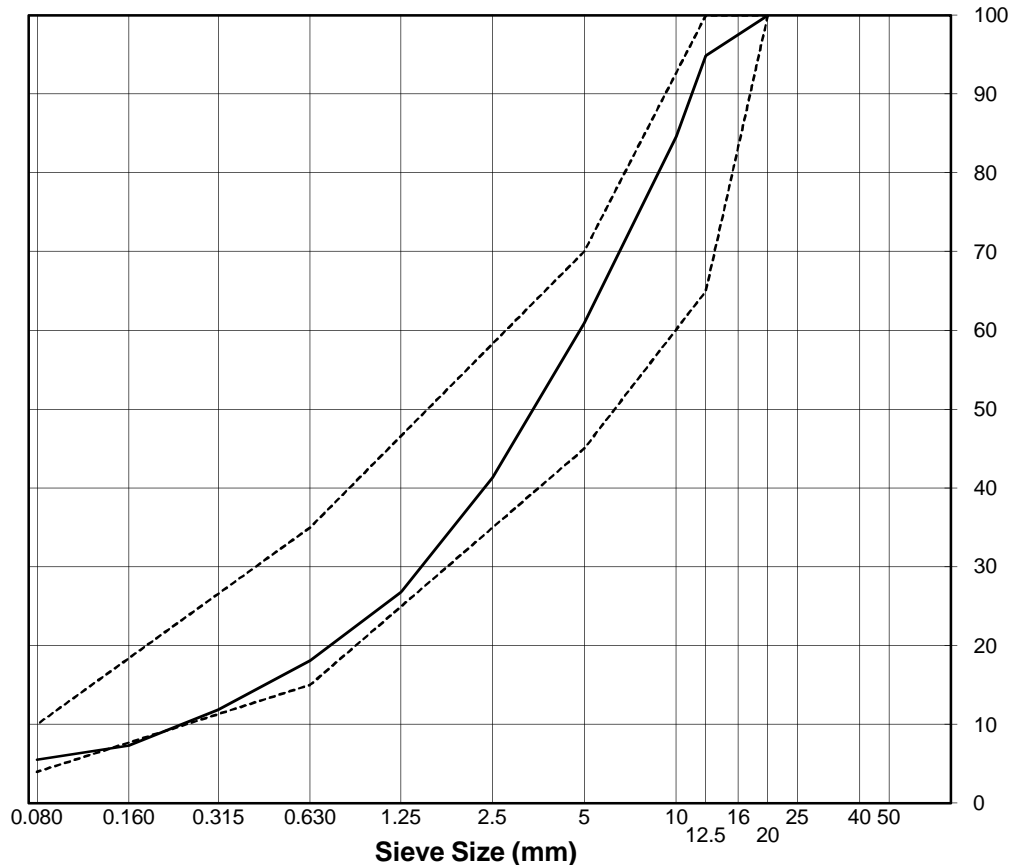
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
 Project: Doris North - North Dam  
 Client: SRK Consulting  
 Attention: Lowell Wade  
 Email: HopeBay@SRK.com  
 Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
 Source: Quarry 2  
 Supplier: Crusher  
 Sample Location: Quarry 2, STOCKPILE sample  
 Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 15  
 Date Received: February 24, 2011  
 Sampled by: QA  
 Date Tested: February 24, 2011  
 Tested by: GDV Office: On-site lab  
 Moisture Content (as received): 1.9%  
 No. Crushed Faces: Two (2) or Three (3)  
 By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	85
5	61
2.5	41
1.25	27
0.630	18
0.315	12
0.160	7
0.080	5.5



**Remarks:** File name: HB-CR-CORE-PSD 15-QA-20110224.xls

This particle size distribution represents the Core blend, prior to saturation. Sample was taken at 0100 hrs.

**Reviewed By:** \_\_\_\_\_

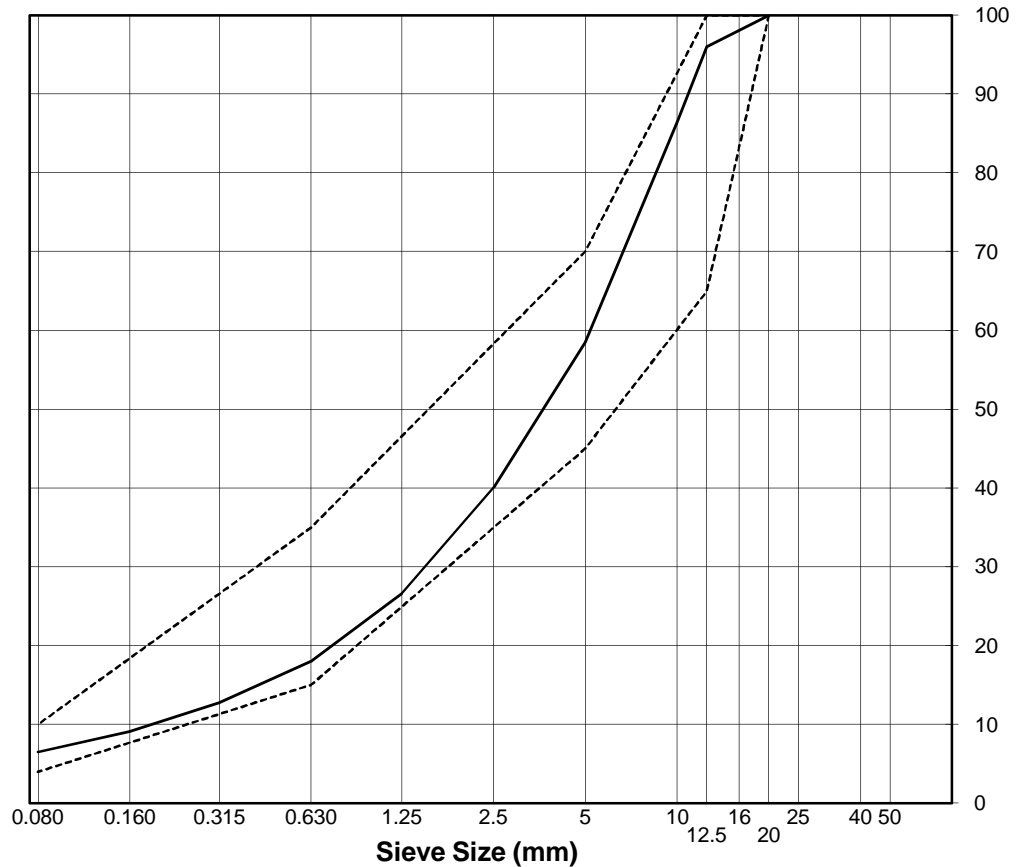
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), trace silt, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 16  
Date Received: February 24, 2011  
Sampled by: QA  
Date Tested: February 24, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	86
5	58
2.5	40
1.25	27
0.630	18
0.315	13
0.160	9
0.080	6.5



Remarks: File name: HB-CR-CORE-PSD 16-QA-20110224.xls

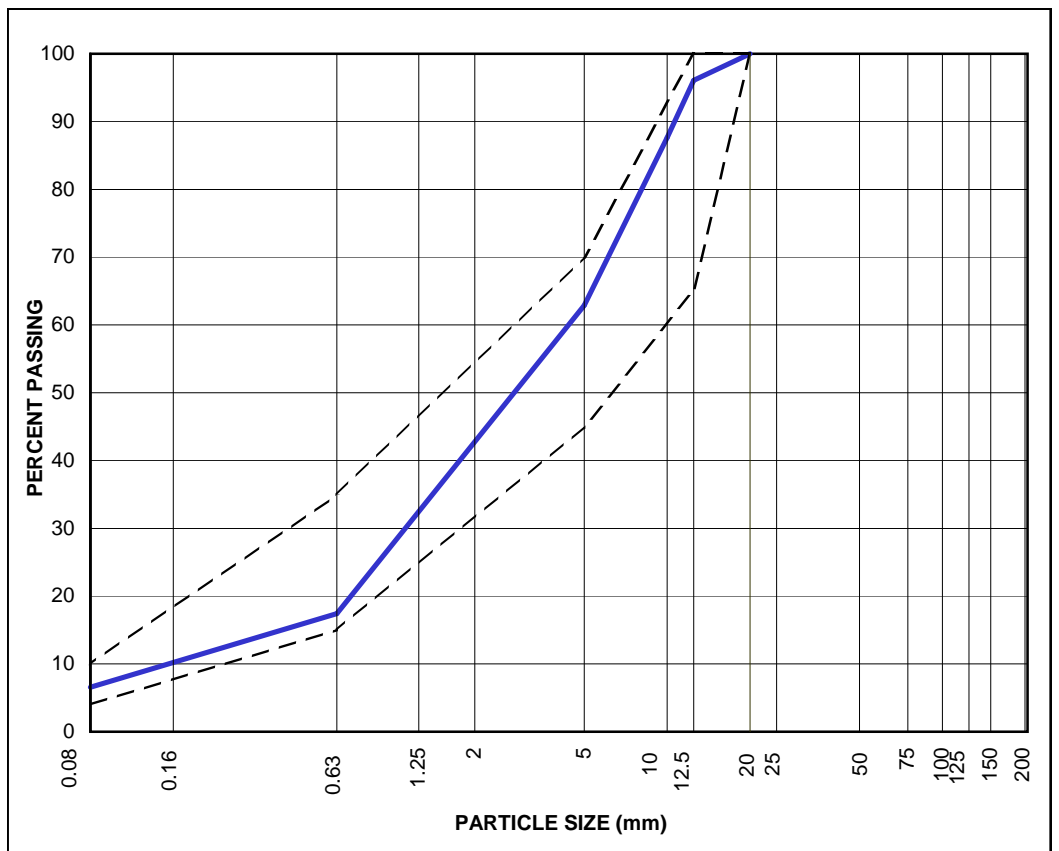
This particle size distribution represents the Core blend, prior to saturation. Sample was taken at 0450 hrs.

Reviewed By: \_\_\_\_\_

**EBA, A Tetra Tech Company****PARTICLE SIZE ANALYSIS REPORT**

<b>PROJECT:</b>	<u>Doris North - North Dam</u>	<b>SRK SAMPLE NO:</b>	<u>HB-CR-CORE-PSD 27-QC-20110226</u>
		<b>Sample Description:</b>	<u>Core Material</u>
<b>ADDRESS:</b>	<u>Hope Bay, NU</u>		
<b>PROJECT NO:</b>	<u>E14101112</u>	<b>MOISTURE CONT. :</b>	<u>2.5%</u>
<b>DATE TESTED:</b>	<u>Feb 26/11</u> <u>By: RAK</u>		
<b>CLIENT:</b>	<u>SRK Consulting (Canada) Inc.</u>	<b>BULK REL DENSITY:</b>	<u>n/a</u>
		<b>BULK REL. DENSITY (SSD):</b>	<u>n/a</u>
<b>ATTENTION:</b>	<u>Lowell Wade</u>	<b>APPARENT REL. DENSITY:</b>	<u>n/a</u>
		<b>ABSORPTION:</b>	<u>n/a</u>

PARTICLE SIZE	PERCENT PASSING
20	100
12.5	96
10	88
5	63
0.63	17
0.080	7



**Remarks:** Core material PSD limits shown.

Sampled by QC, approximately 0800 hrs.

**Reviewed by:** \_\_\_\_\_ **P.Eng.**

Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA.

The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.

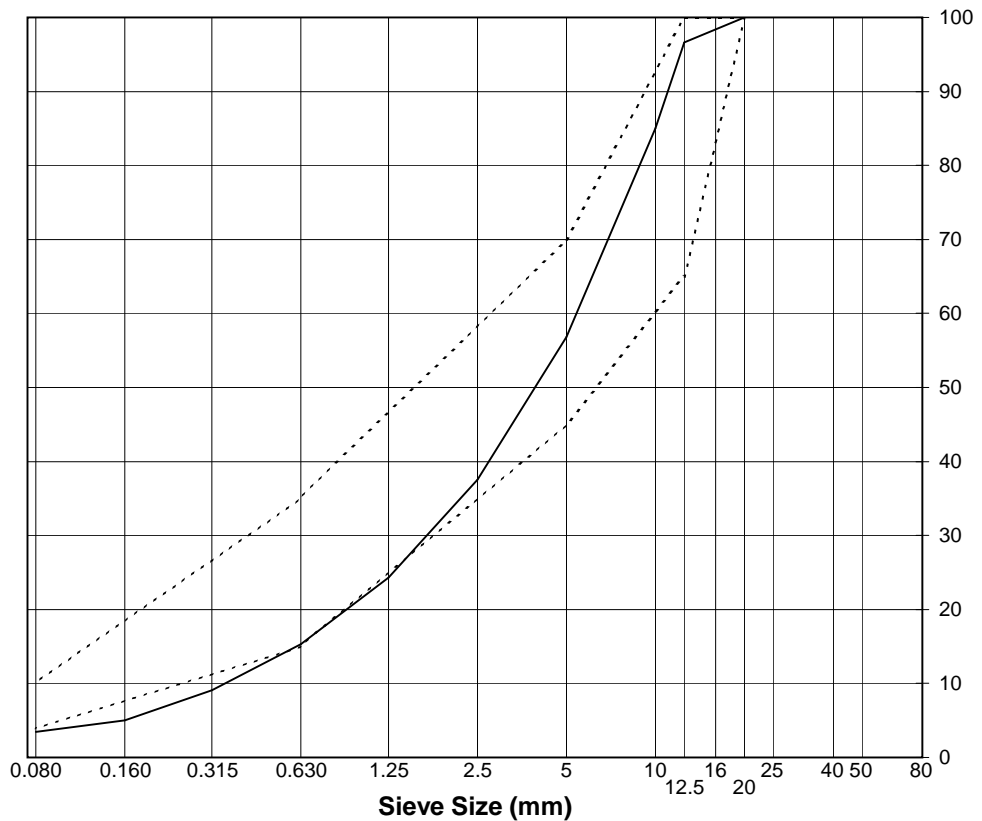
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2 & FCP stockpile.  
Supplier: Crusher  
Sample Location: Frozen Core Plant chute. Trial Batch #1.  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 28  
Date Received: February 26, 2011  
Sampled by: RAK/MMM  
Date Tested: February 26, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 7.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	85
5	57
2.5	38
1.25	24
0.630	15
0.315	9
0.160	5
0.080	3.5



Remarks: File name: HB-FCP-CORE-PSD 28-QA-20110226 Sample taken approx. 1900 hrs.

This particle size distribution represents the core material after saturation at frozen core plant.

Reviewed By: \_\_\_\_\_

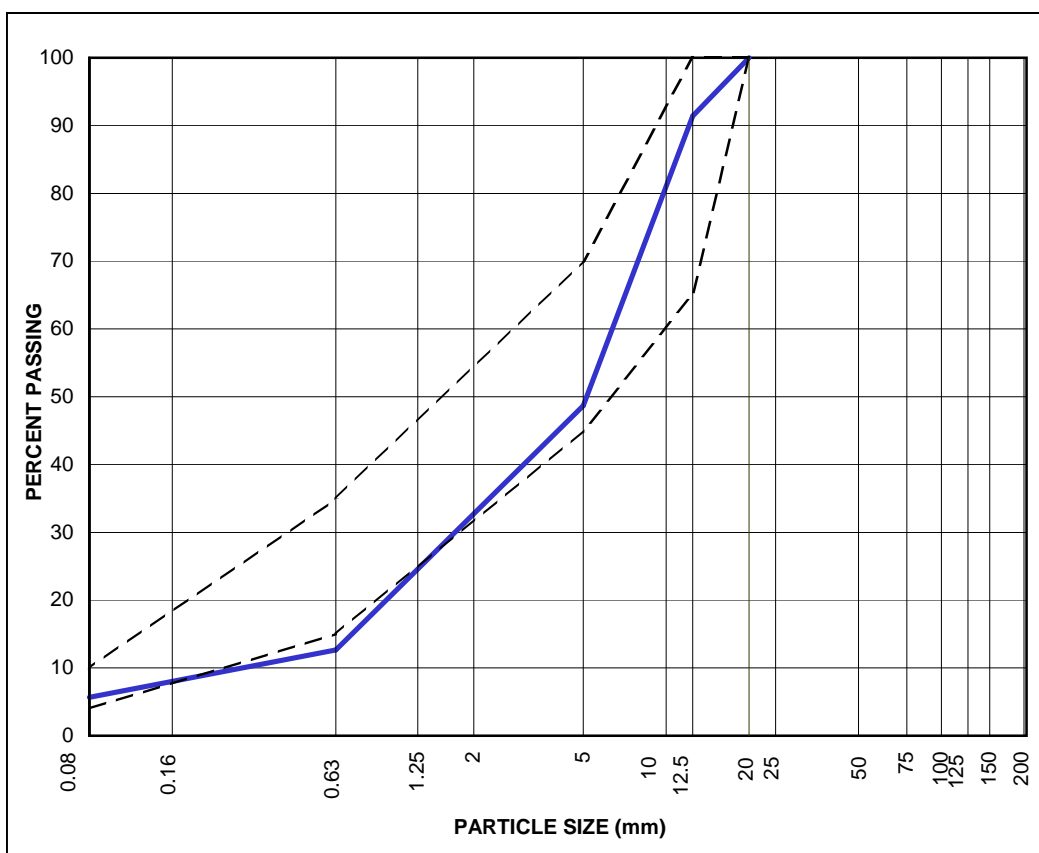
Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA. The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.

# EBA, A Tetra Tech Company

## PARTICLE SIZE ANALYSIS REPORT

PROJECT:	<u>Doris North - North Dam</u>	SRK SAMPLE NO:	<u>HB-FCP-CORE-PSD 29-QA-20110226</u>
		Sample Description:	<u>Core Material</u>
			<u>Sampled from FCP, Trial batch #2.</u>
ADDRESS:	<u>Hope Bay, NU</u>		
PROJECT NO:	<u>E14101112</u>	MOISTURE CONT. :	<u>7.9%</u>
DATE TESTED:	<u>Feb 26/11</u> By: <u>RAK</u>		
CLIENT:	<u>SRK Consulting (Canada) Inc.</u>	BULK REL DENSITY:	<u>n/a</u>
		BULK REL. DENSITY (SSD):	<u>n/a</u>
ATTENTION:	<u>Lowell Wade</u>	APPARENT REL. DENSITY:	<u>n/a</u>
		ABSORPTION:	<u>n/a</u>

PARTICLE SIZE	PERCENT PASSING
20	100
12.5	91
5	49
0.63	13
0.080	6



Remarks: Core material PSD limits shown.

Sample taken approx. 1900 hrs.

Reviewed by: \_\_\_\_\_ P.Eng.

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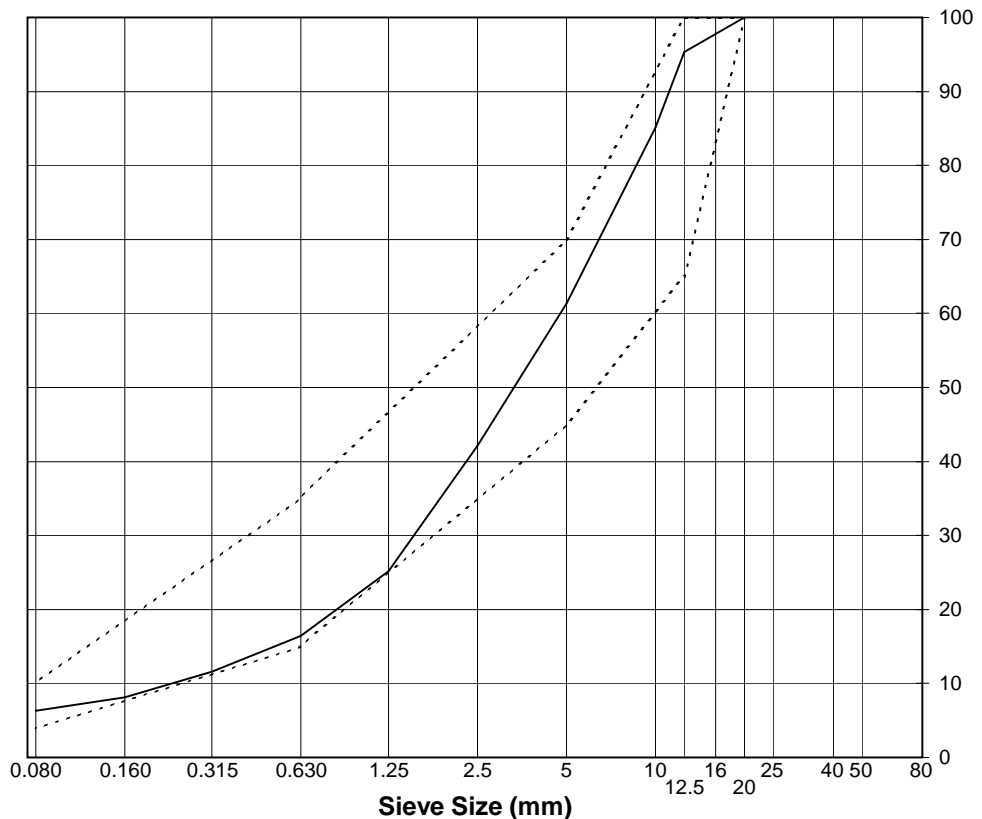
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 30  
Date Received: February 27, 2011  
Sampled by: GDV  
Date Tested: February 27, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 1.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	85
5	61
2.5	42
1.25	25
0.630	16
0.315	12
0.160	8
0.080	6.3



Remarks: File name: HB-CR-CORE-PSD 30-QA-20110227 Sample taken 0445 hrs.

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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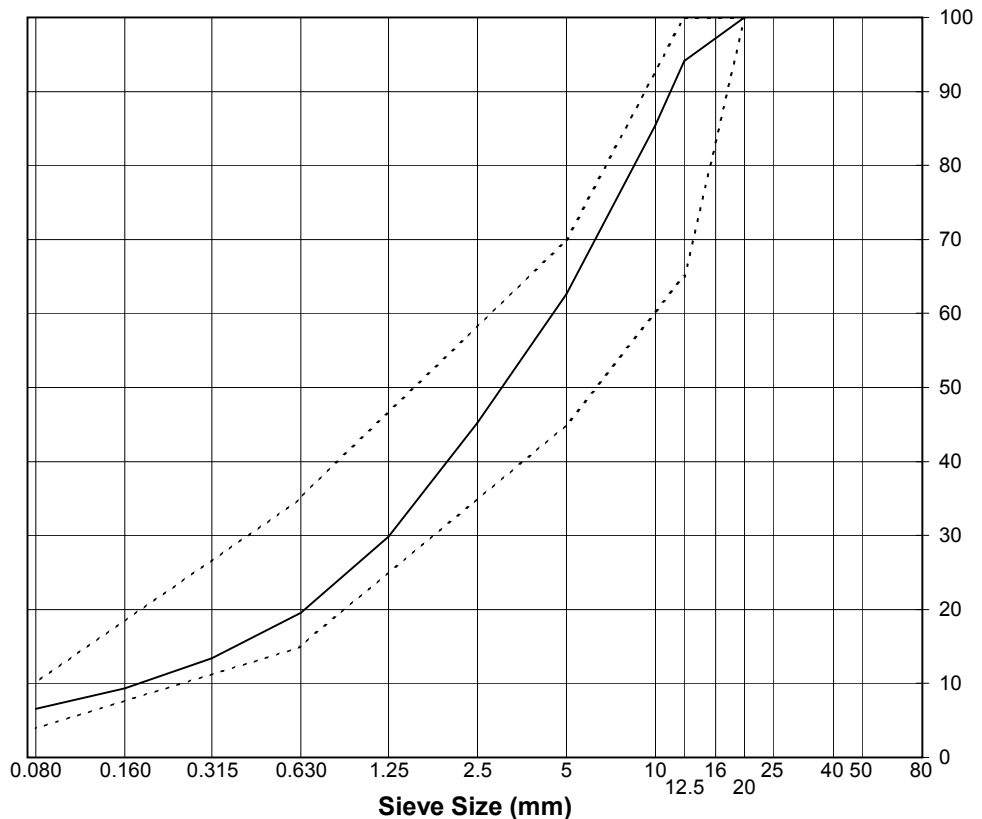
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 31  
Date Received: February 27, 2011  
Sampled by: QC  
Date Tested: February 27, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	94
10.0	85
5	63
2.5	45
1.25	30
0.630	20
0.315	13
0.160	9
0.080	6.6



Remarks: File name: HB-CR-CORE-PSD 31-QC-20110227 Sample taken 1100 hrs.

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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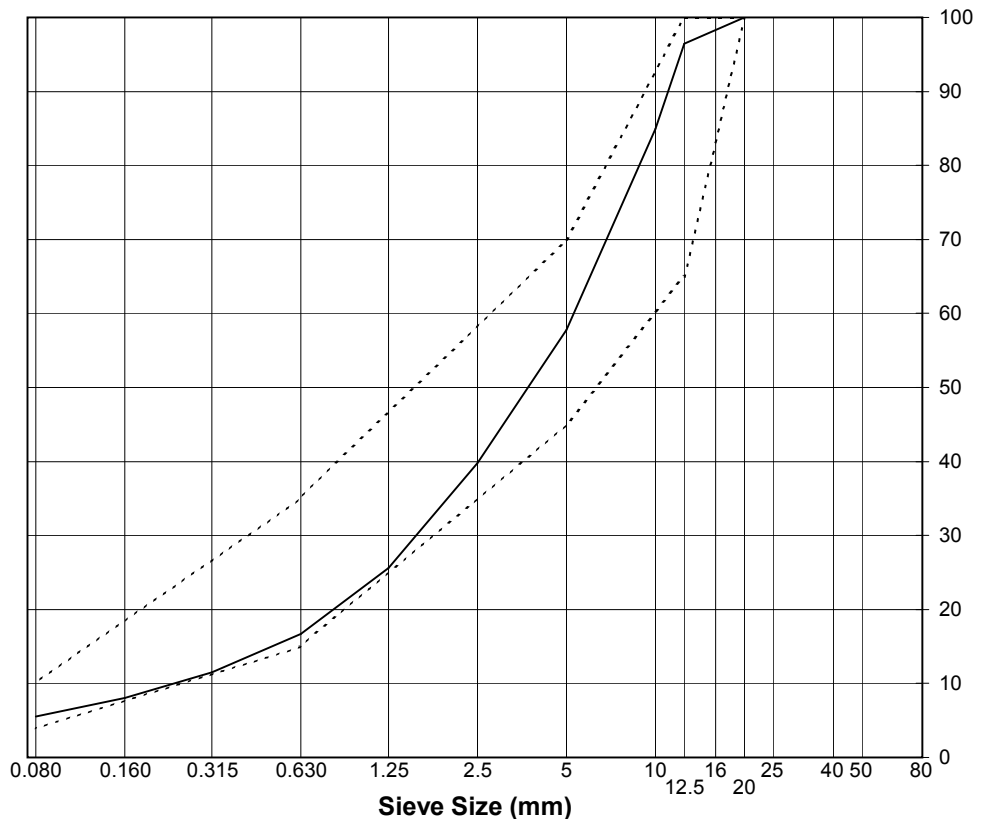
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 32  
Date Received: February 27, 2011  
Sampled by: QC  
Date Tested: February 27, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 2.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	85
5	58
2.5	40
1.25	26
0.630	17
0.315	11
0.160	8
0.080	5.6



Remarks: File name: HB-CR-CORE-PSD 32-QC-20110227 Sample taken 1500 hrs.

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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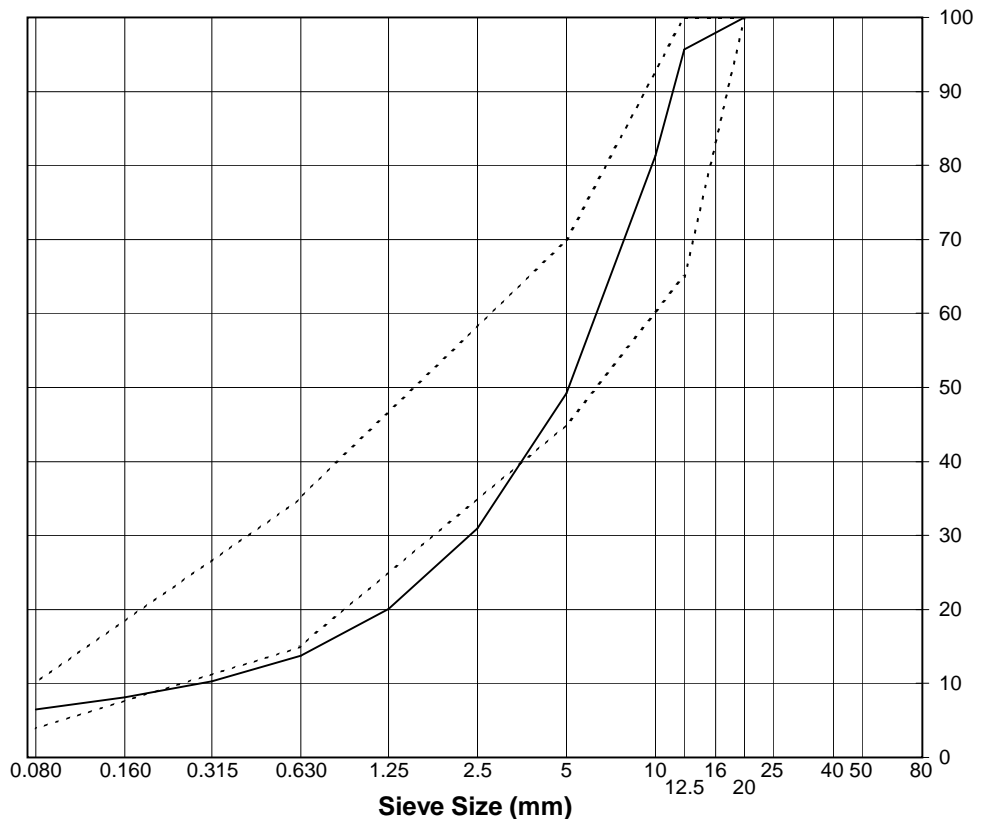
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2 & FCP stockpile  
Supplier: Crusher  
Sample Location: Frozen Core Plant  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 33  
Date Received: February 27, 2011  
Sampled by: QA  
Date Tested: February 27, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 7.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	81
5	49
2.5	31
1.25	20
0.630	14
0.315	10
0.160	8
0.080	6.5



Remarks: File name: HB-FCP-CORE-PSD 33-QA-20110227 Sample taken approx. 1730 hrs

This particle size distribution represents the core material after saturation.

Reviewed By: \_\_\_\_\_

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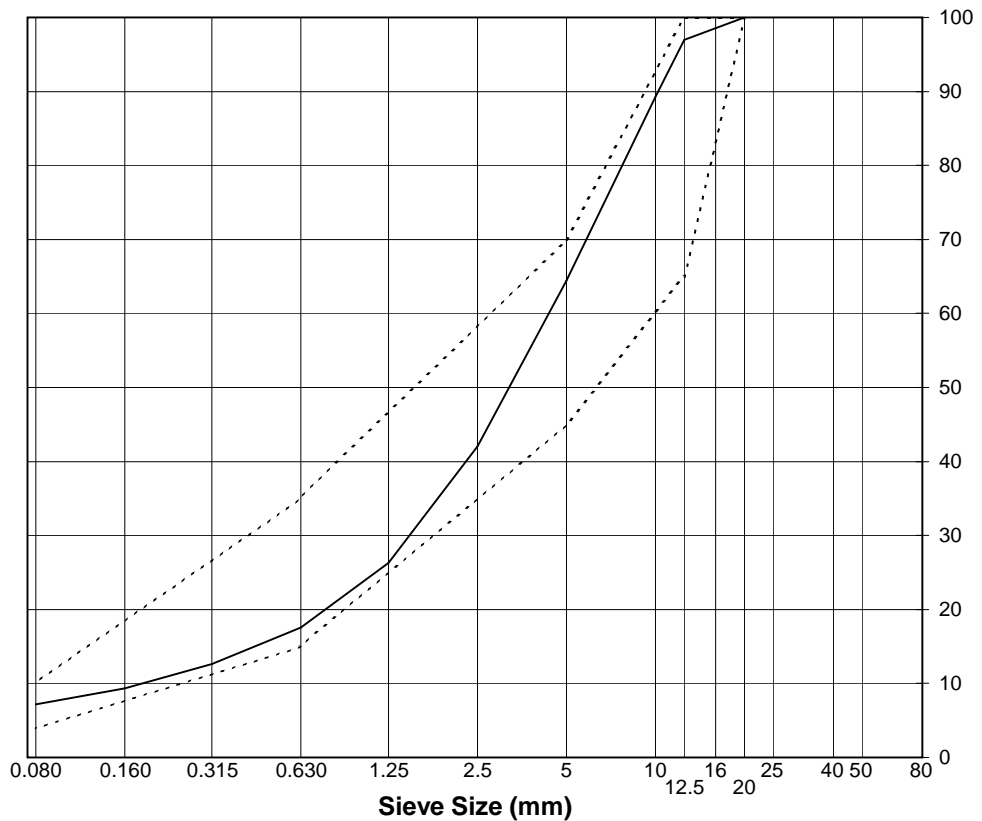
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2 & FCP stockpile  
Supplier: Crusher  
Sample Location: Frozen Core Plant  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 34  
Date Received: February 27, 2011  
Sampled by: QA  
Date Tested: February 27, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 13.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	89
5	64
2.5	42
1.25	26
0.630	18
0.315	13
0.160	9
0.080	7.2



Remarks: File name: HB-FCP-CORE-PSD 34-QA-20110227 Sample taken approx. 1730 hrs

This particle size distribution represents the core material after saturation.

Reviewed By: \_\_\_\_\_

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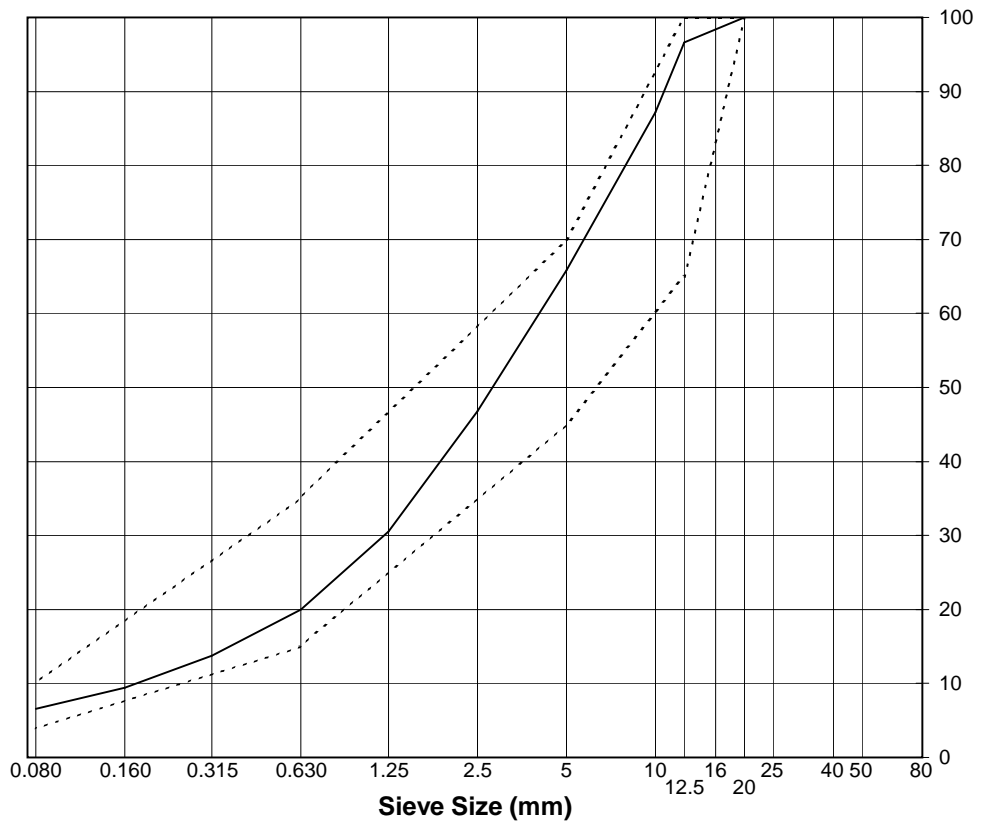
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 35  
Date Received: February 28, 2011  
Sampled by: GDV  
Date Tested: February 28, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 3.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	87
5	66
2.5	47
1.25	31
0.630	20
0.315	14
0.160	9
0.080	6.6



Remarks: File name: HB-CR-CORE-PSD 35-QA-20110228 Sample taken 0430 hrs.

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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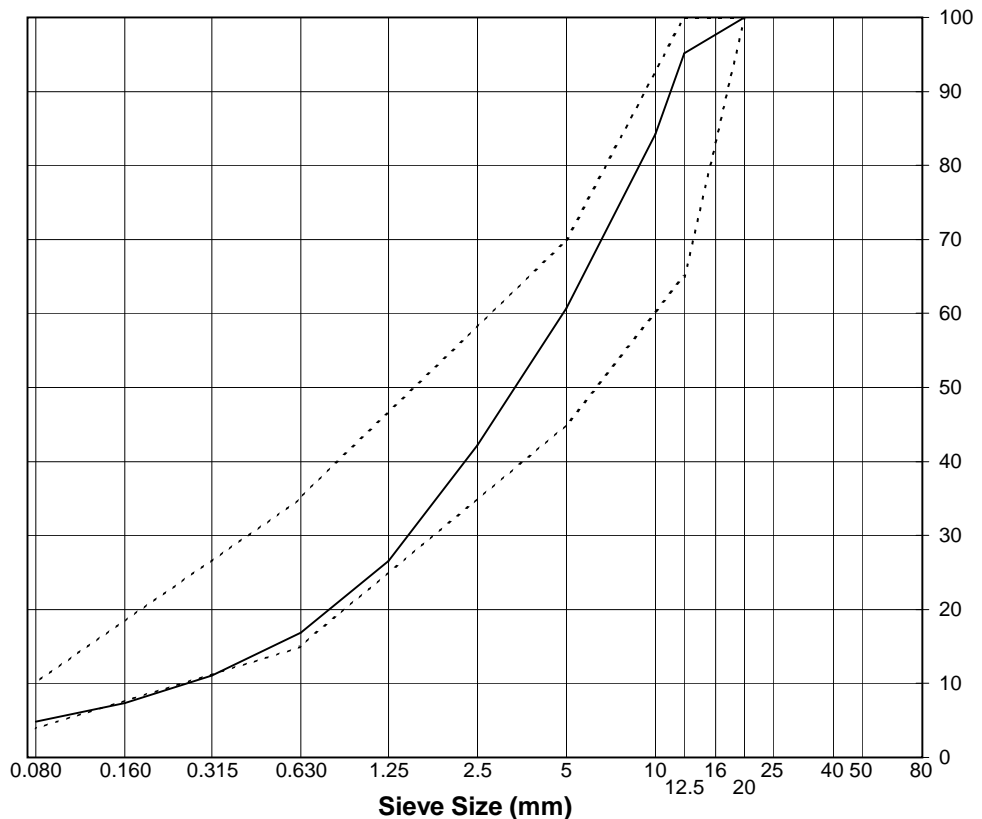
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 36  
Date Received: February 28, 2011  
Sampled by: QC  
Date Tested: February 28, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 3.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	84
5	61
2.5	42
1.25	27
0.630	17
0.315	11
0.160	7
0.080	4.9



Remarks: File name: HB-CR-CORE-PSD 36-QC-20110228 Sample taken 1100 hrs

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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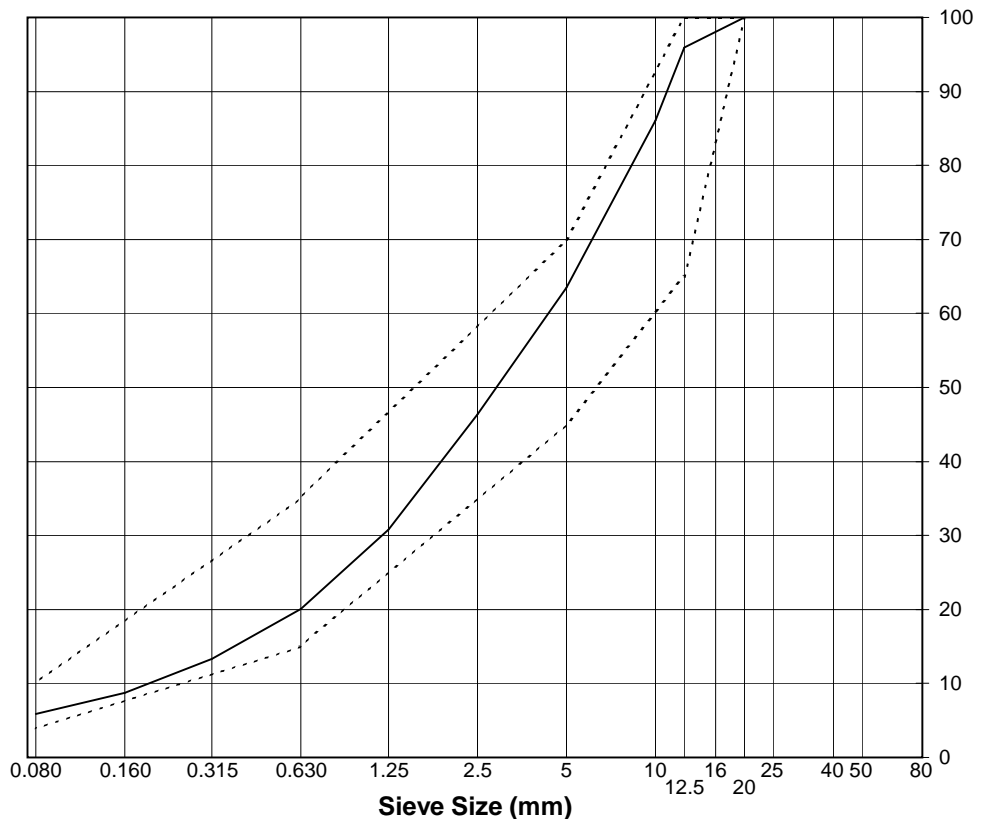
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2  
Supplier: Crusher  
Sample Location: Quarry 2, BELT sample  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 37  
Date Received: February 28, 2011  
Sampled by: QC  
Date Tested: February 28, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 4.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	86
5	64
2.5	46
1.25	31
0.630	20
0.315	13
0.160	9
0.080	5.9



Remarks: File name: HB-CR-CORE-PSD 37-QC-20110228 Sample taken 1500 hrs

This particle size distribution represents the core material prior to saturation.

Reviewed By: \_\_\_\_\_

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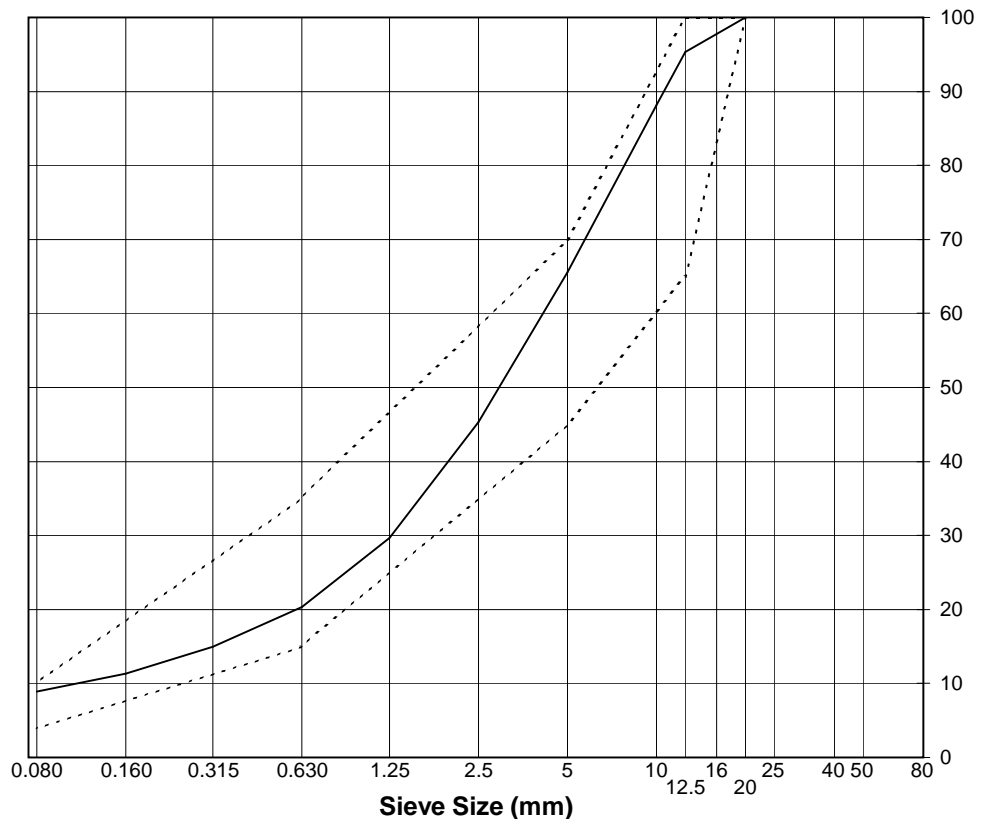
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2 & FCP stockpile  
Supplier: Crusher  
Sample Location: Frozen Core Plant  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 38  
Date Received: March 1, 2011  
Sampled by: QA (MMM)  
Date Tested: March 1, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 8.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	88
5	66
2.5	45
1.25	30
0.630	20
0.315	15
0.160	11
0.080	8.9



Remarks: File name: HB-FCP-CORE-PSD 38-QA-20110301

This particle size distribution represents the core material after saturation.

Reviewed By: \_\_\_\_\_

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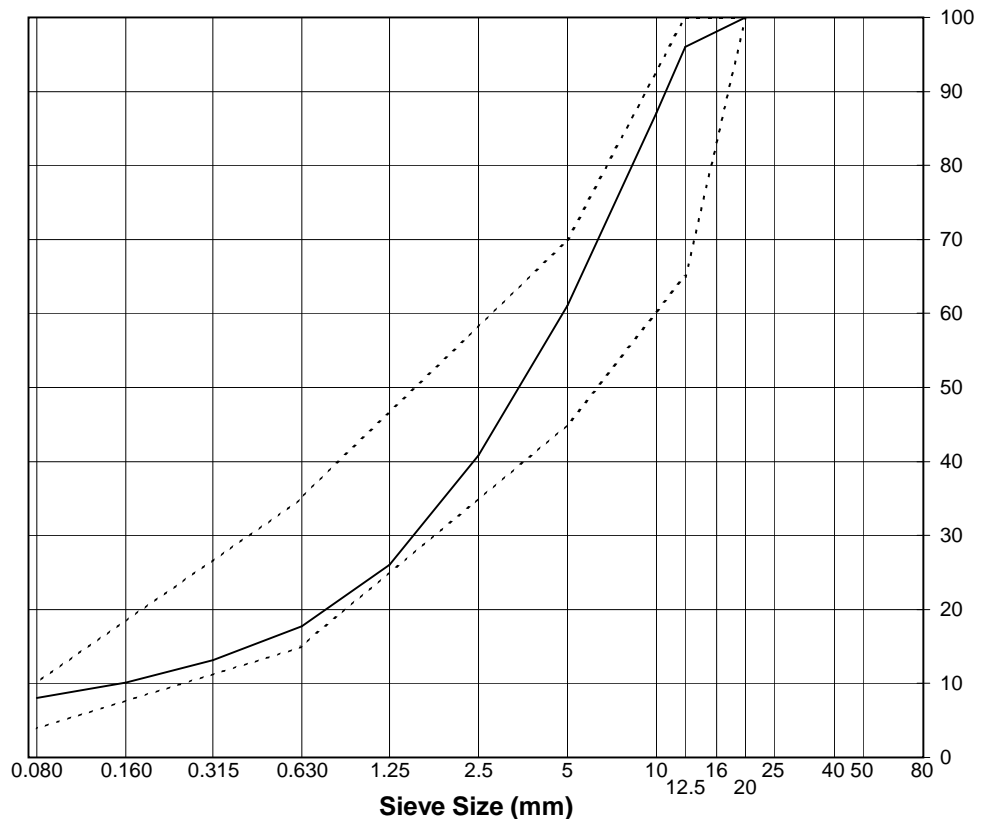
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Sand & Gravel (20mm max, crush), saturated, grey.  
Source: Quarry 2 & FCP stockpile  
Supplier: Crusher  
Sample Location: Frozen Core Plant  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: Core 39  
Date Received: March 2, 2011  
Sampled by: ORR  
Date Tested: March 2, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 11.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	87
5	61
2.5	41
1.25	26
0.630	18
0.315	13
0.160	10
0.080	8.0



Remarks: File name: HB-FCP-CORE-PSD 39-QA-20110302

This particle size distribution represents the core material after saturation.

Reviewed By: \_\_\_\_\_

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**Particle Size Distribution Test Certificates**  
**Core Material: Core Fines Blend 2:3**

## SIEVE ANALYSIS REPORT

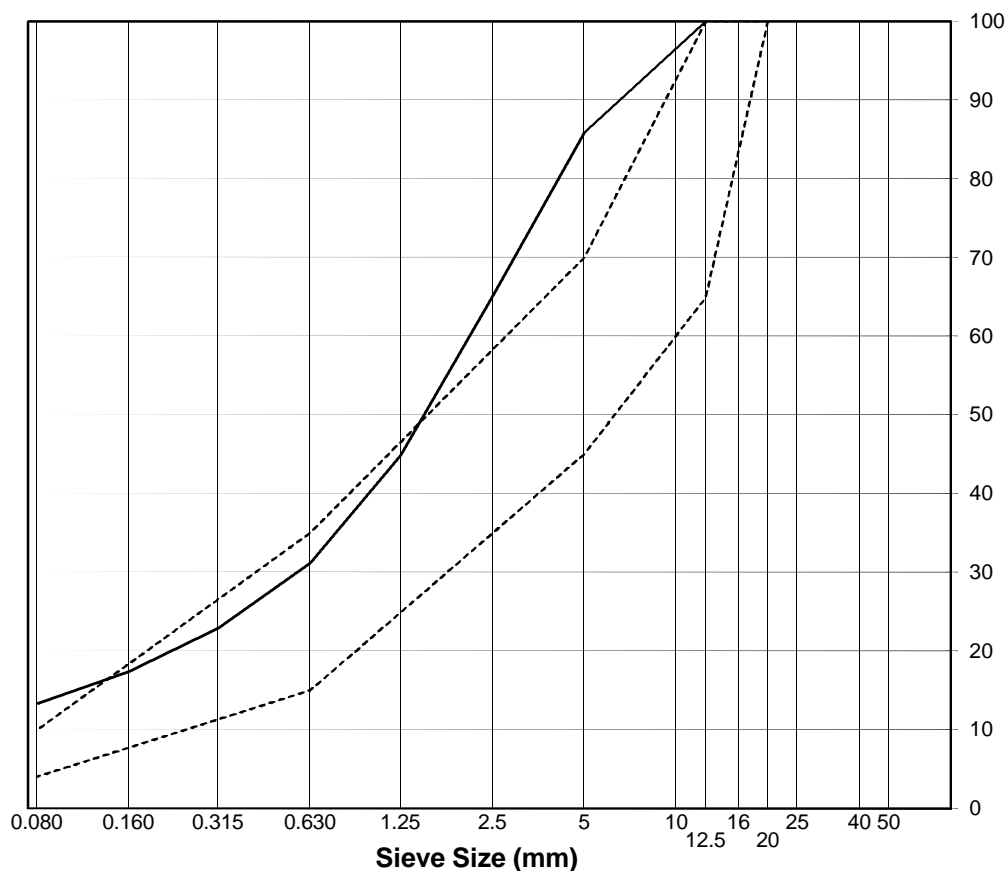
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-1  
Date Sampled: January 15, 2012  
Sampled by: JO  
Date Tested: January 17, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): No Test  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 1

Sieve Size	Percent Passing
12.5	100
10.0	97
5	86
2.5	65
1.25	45
0.630	31
0.315	23
0.160	17
0.080	13.3



Remarks: File name: HB12-FCP-CORE-PSD1-QA-20120115

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

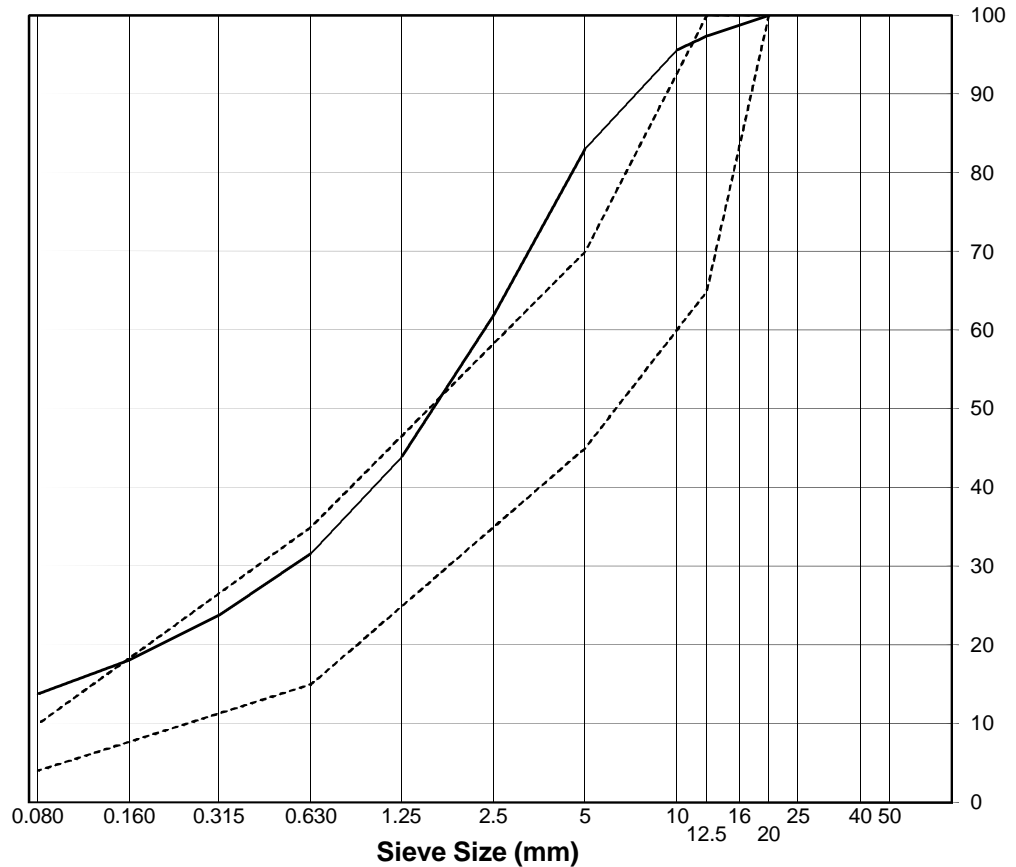
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-4  
Date Received: January 17, 2012  
Sampled by: JO  
Date Tested: January 19, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 9.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 2

Sieve Size	Percent Passing
20	100
12.5	97
10.0	96
5	83
2.5	62
1.25	44
0.630	32
0.315	24
0.160	18
0.080	13.8



Remarks: File name: HB12-FCP-CORE-PSD2-QA-20120117

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

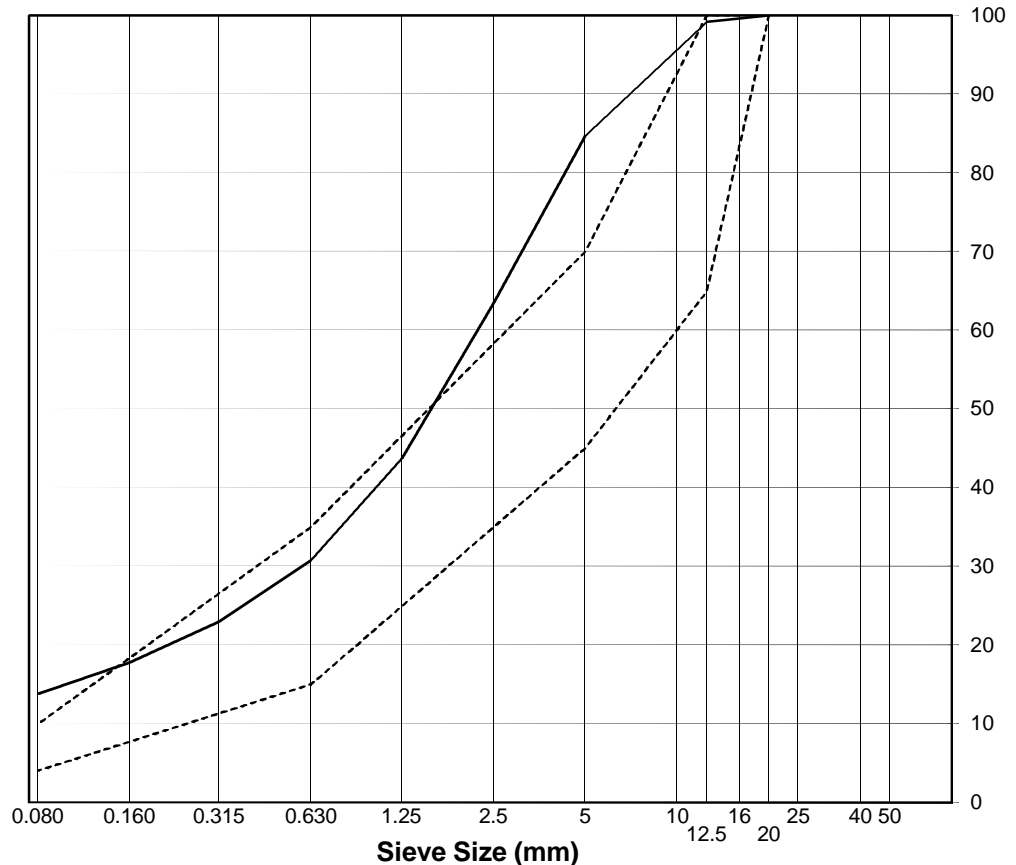
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-7  
Date Sampled: January 18, 2012  
Sampled by: JO  
Date Tested: January 20, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 11.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 3

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	85
2.5	64
1.25	44
0.630	31
0.315	23
0.160	18
0.080	13.8



Remarks: File name: HB12-FCP-CORE-PSD3-QA-20120118

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

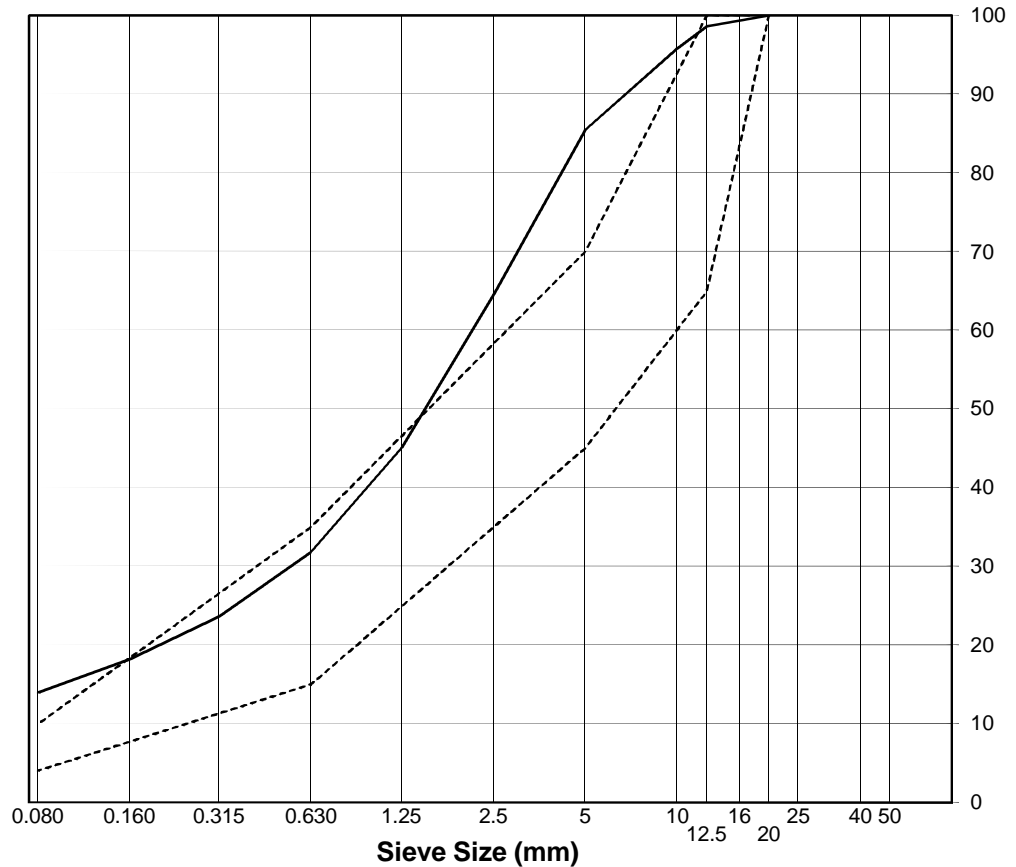
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-10  
Date Received: January 20, 2012  
Sampled by: JO  
Date Tested: January 21, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 10.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 4

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	85
2.5	65
1.25	45
0.630	32
0.315	24
0.160	18
0.080	13.9



Remarks: File name: HB12-FCP-CORE-PSD4-QA-20120120

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

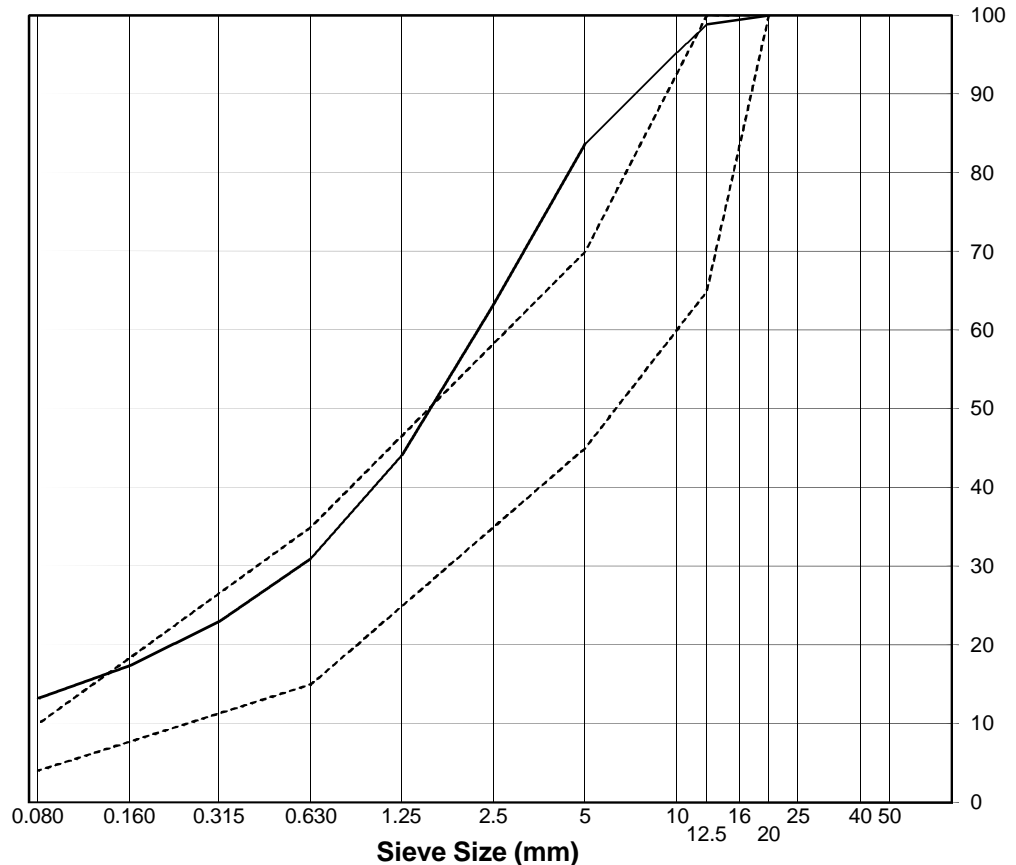
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-11  
Date Sampled: January 21, 2012  
Sampled by: JO  
Date Tested: January 21, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 9.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 5

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	84
2.5	63
1.25	44
0.630	31
0.315	23
0.160	17
0.080	13.2



Remarks: File name: HB12-FCP-CORE-PSD5-QA-20120121

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

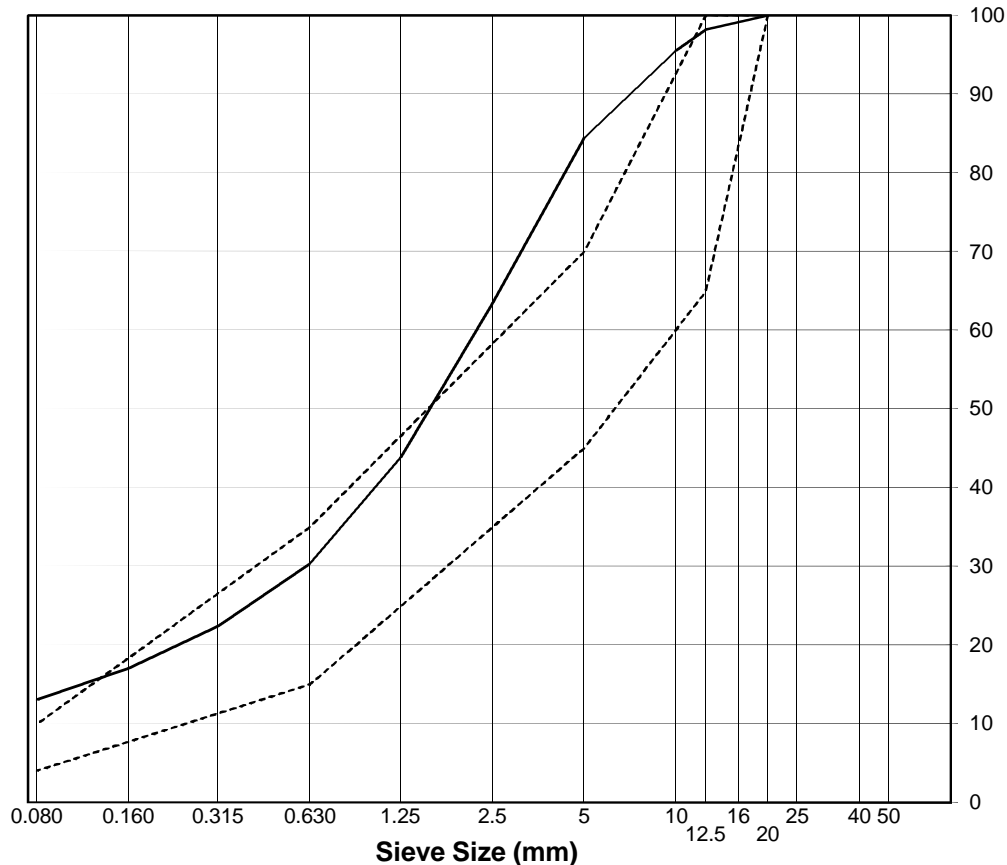
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-15  
Date Sampled: January 22, 2012  
Sampled by: JO  
Date Tested: January 22, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 9.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 6

Sieve Size	Percent Passing
20	100
12.5	98
10.0	96
5	84
2.5	63
1.25	44
0.630	30
0.315	22
0.160	17
0.080	13.0



Remarks: File name: HB12-FCP-CORE-PSD6-QA-20120122

Reviewed By: \_\_\_\_\_

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# SIEVE ANALYSIS REPORT

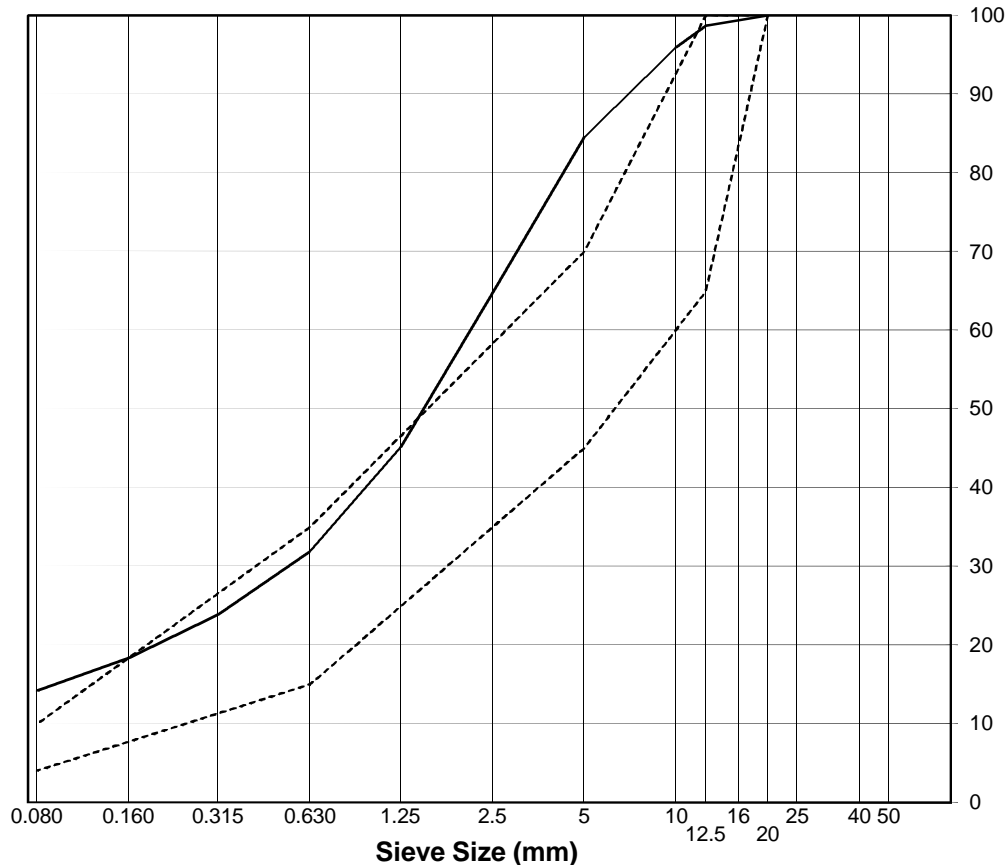
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
 Project: Doris North Dam Construction  
 Client: SRK Consulting (Canada) Inc.  
 Attention: Lowell Wade  
 Email: HopeBay@SRK.com  
 Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
 Source: Quarry 2  
 Supplier: Nuna Logistics  
 Sample Location: FCP Chute  
 Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-18  
 Date Received: January 23, 2012  
 Sampled by: JO  
 Date Tested: January 23, 2012  
 Tested by: JO/JS Office: On-site Lab  
 Moisture Content (as received): 9.3%  
 No. Crushed Faces: Two (2) or Three (3)  
 By Particle Mass: \_\_\_\_\_

PSD 7

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	85
2.5	65
1.25	45
0.630	32
0.315	24
0.160	18
0.080	14.2



Remarks: File name: HB12-FCP-CORE-PSD7-QA-20120123

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

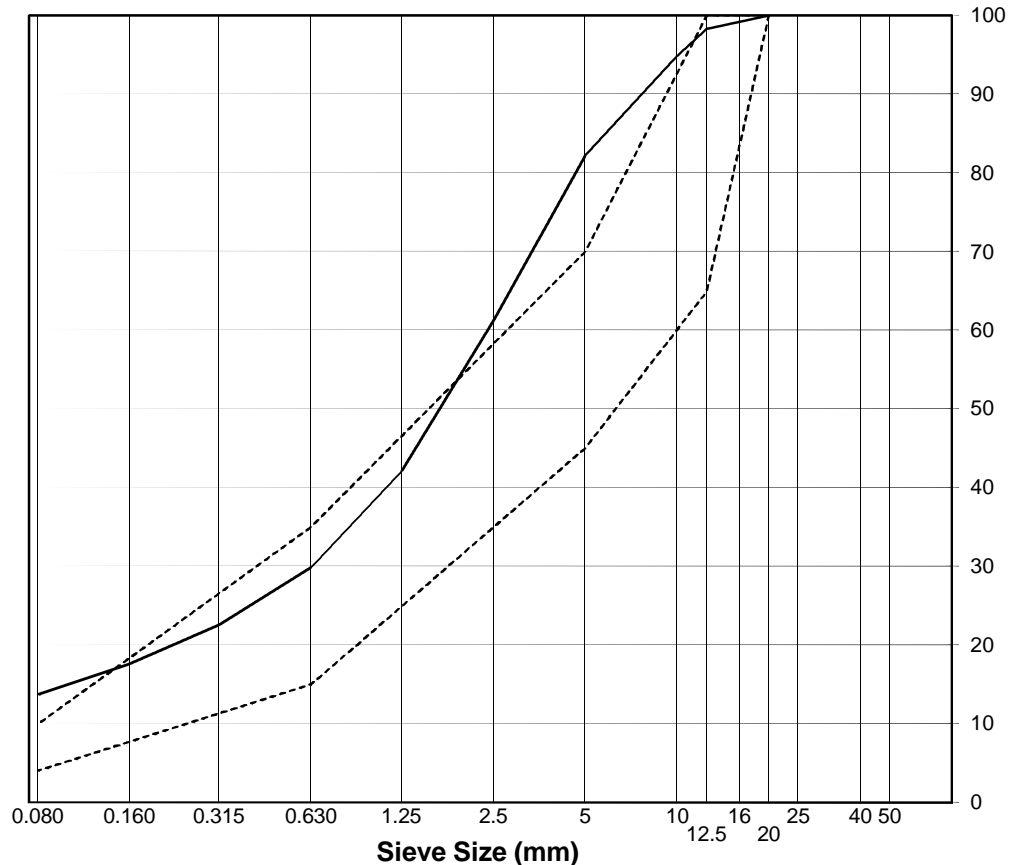
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-21  
Date Sampled: January 24, 2012  
Sampled by: JO  
Date Tested: January 25, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 8.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 8

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	82
2.5	61
1.25	42
0.630	30
0.315	23
0.160	18
0.080	13.7



Remarks: File name: HB12-FCP-CORE-PSD8-QA-20120124

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

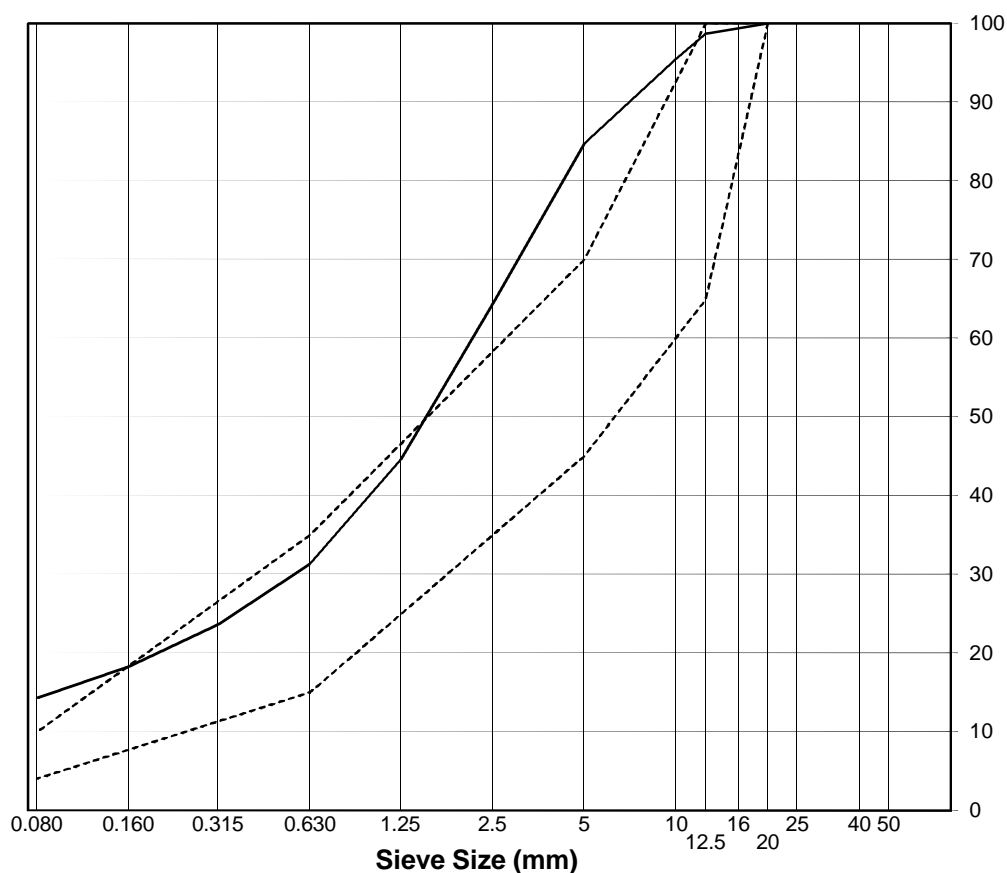
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-26  
Date Sampled: January 25, 2012  
Sampled by: JO  
Date Tested: January 25, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 9.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 9

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	85
2.5	64
1.25	45
0.630	31
0.315	24
0.160	18
0.080	14.3



Remarks: File name: HB12-FCP-CORE-PSD9-QA-20120125

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

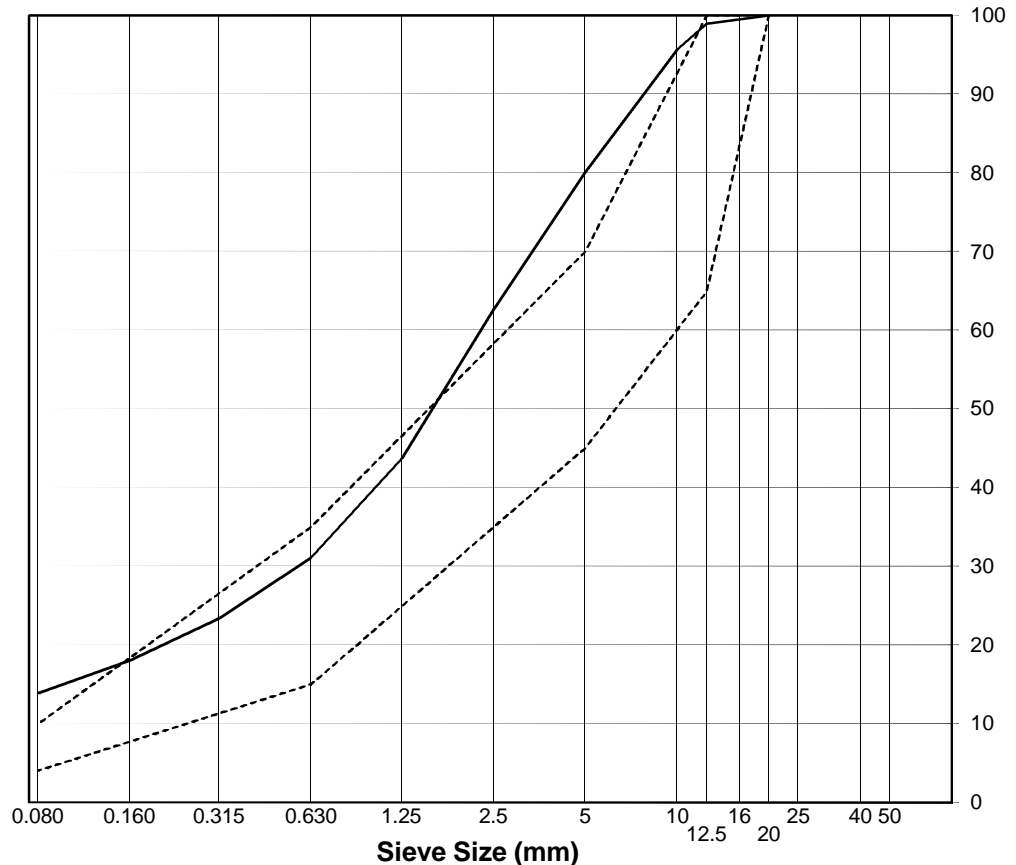
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-29  
Date Sampled: January 27, 2012  
Sampled by: JO  
Date Tested: January 27, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 8.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 10

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	80
2.5	63
1.25	44
0.630	31
0.315	23
0.160	18
0.080	13.9



Remarks: File name: HB12-FCP-CORE-PSD10-QA-20120127

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

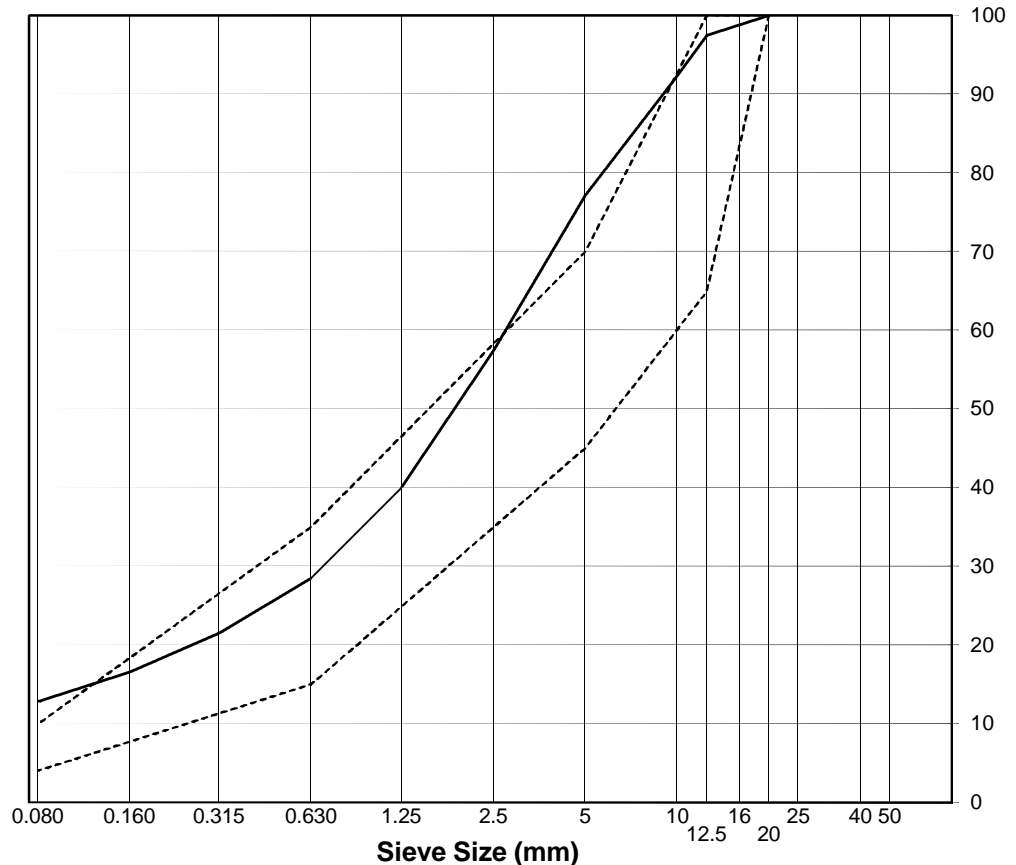
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: DC 10, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+92 CL, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-37  
Date Received: January 29, 2012  
Sampled by: JO  
Date Tested: January 30, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 9.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 12

Sieve Size	Percent Passing
20	100
12.5	98
10.0	92
5	77
2.5	57
1.25	40
0.630	29
0.315	22
0.160	17
0.080	12.8



Remarks: File name: HB12-ND-CORE-PSD12-QA-20120129

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

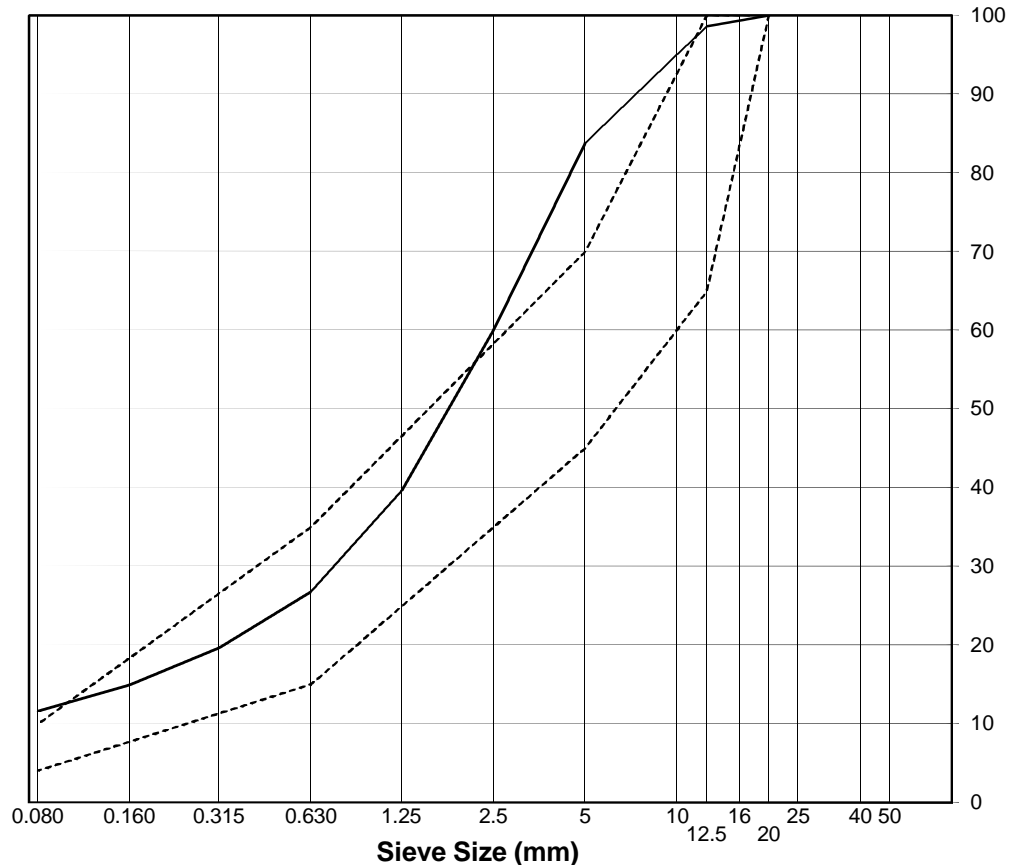
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-41  
Date Sampled: January 29, 2012  
Sampled by: JO  
Date Tested: January 30, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 8.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 11

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	84
2.5	60
1.25	40
0.630	27
0.315	20
0.160	15
0.080	11.6



Remarks: File name: HB12-FCP-CORE-PSD11-QA-20120129

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

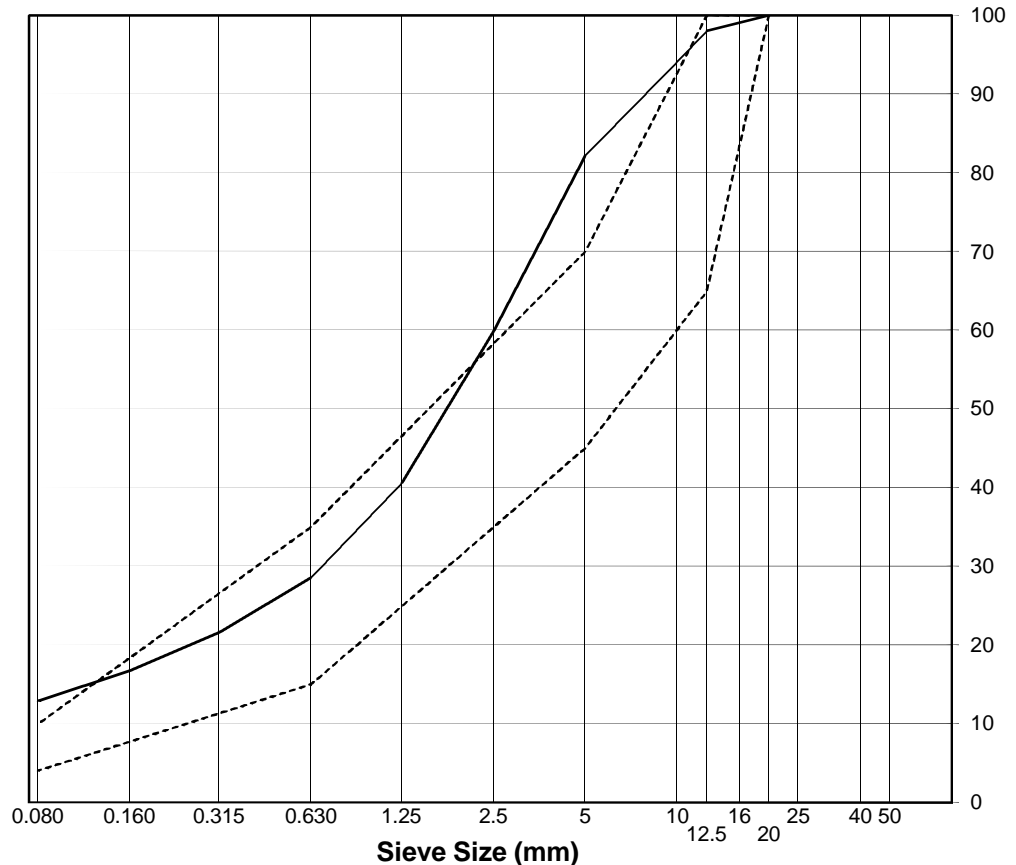
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-51  
Date Sampled: January 31, 2012  
Sampled by: JO  
Date Tested: January 31, 2012  
Tested by: JO/JS Office: On-site Lab  
Moisture Content (as received): 8.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 13

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	82
2.5	60
1.25	41
0.630	29
0.315	22
0.160	17
0.080	12.9



Remarks: File name: HB12-FCP-CORE-PSD13-QA-20120131

Reviewed By: \_\_\_\_\_

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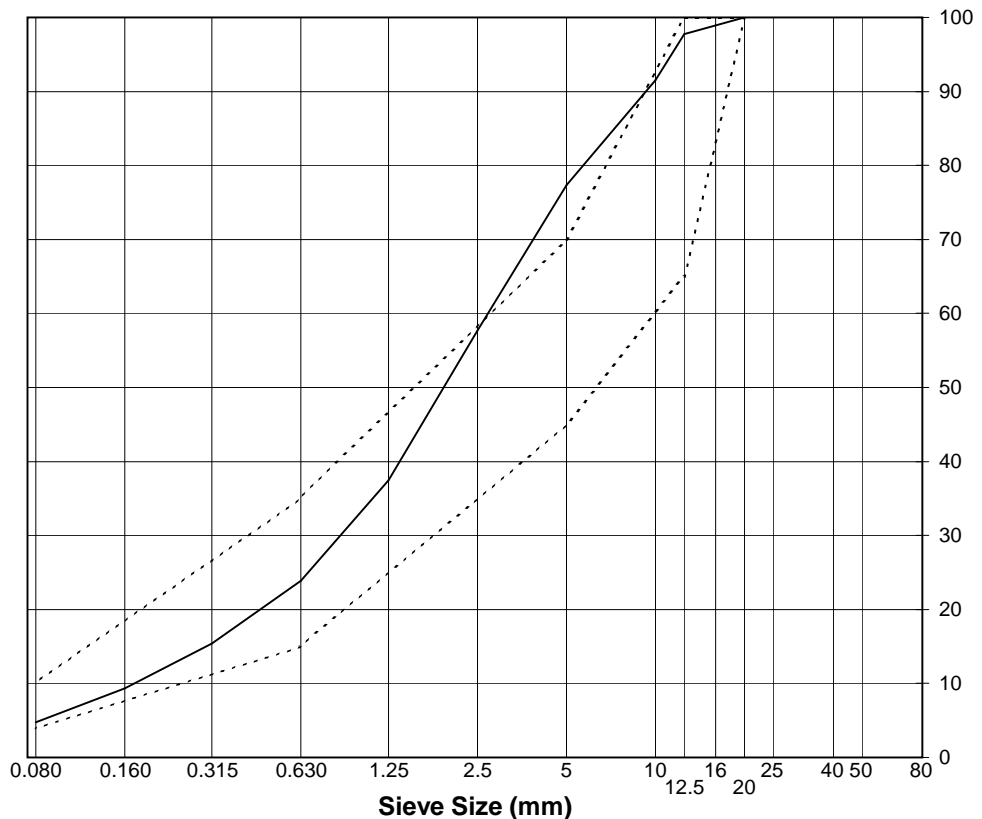
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 1 to 1.5 by volume)  
Source: Quarry 2 (fines) & FCP stockpile (core material)  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 43  
Date Received: March 7, 2011  
Sampled by: JJJ  
Date Tested: March 8, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 3.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	92
5	77
2.5	58
1.25	37
0.630	24
0.315	15
0.160	9
0.080	4.7



Remarks: File name: HB-FCP-CORE-PSD 43-QA-20110308

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Sample No.: EBA 2

Project: Doris North - North Dam

Date Received: March 8, 2011

Client: SRK Consulting

Sampled by: JO

Attention: Lowell Wade

Date Tested: March 10, 2011

Email: HopeBay@SRK.com

Tested by: JJJ Office: On-site lab

Description: Core Material/Fines Blend ( 2 to 3 by volume)

Moisture Content (as received): 10.1%

No. Crushed Faces: Two (2) or Three (3)

Source: Quarry 2 (fines) & FCP stockpile (core material)

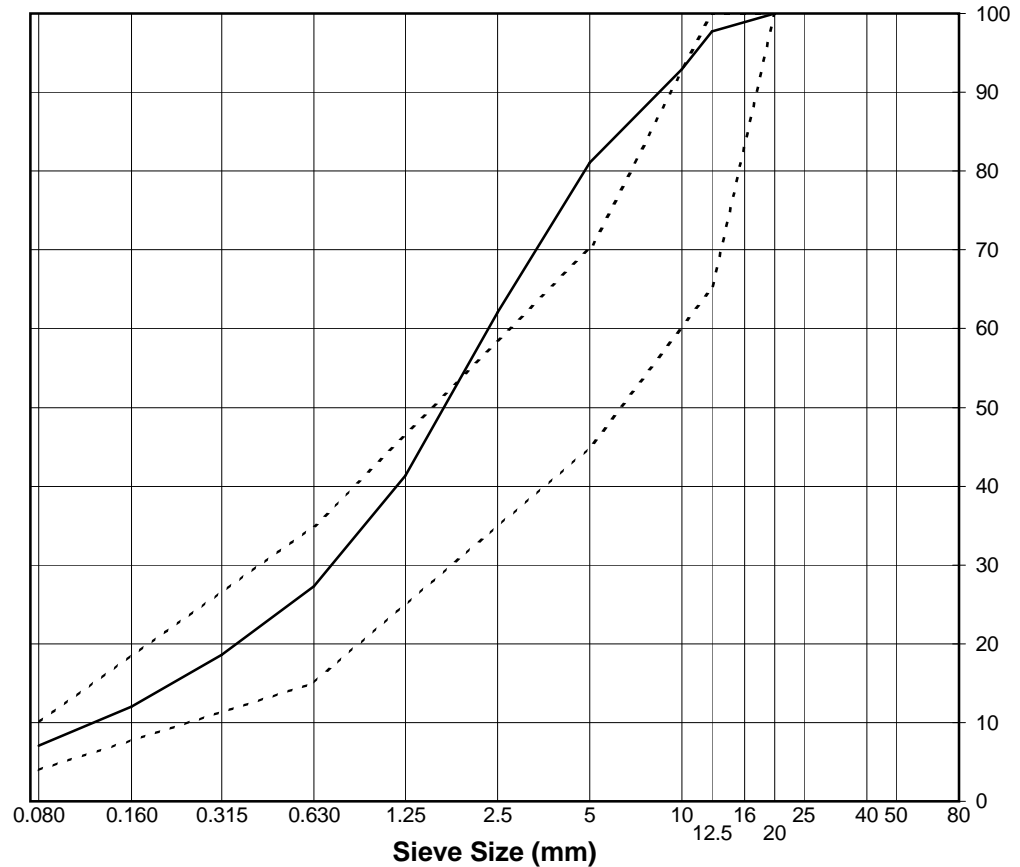
By Particle Mass: \_\_\_\_\_

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision E Core Material

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	81
2.5	62
1.25	41
0.630	27
0.315	19
0.160	12
0.080	7.1



Remarks: File name: HB-FCP-CORE-PSD 45-QA-20110310

Reviewed By: \_\_\_\_\_

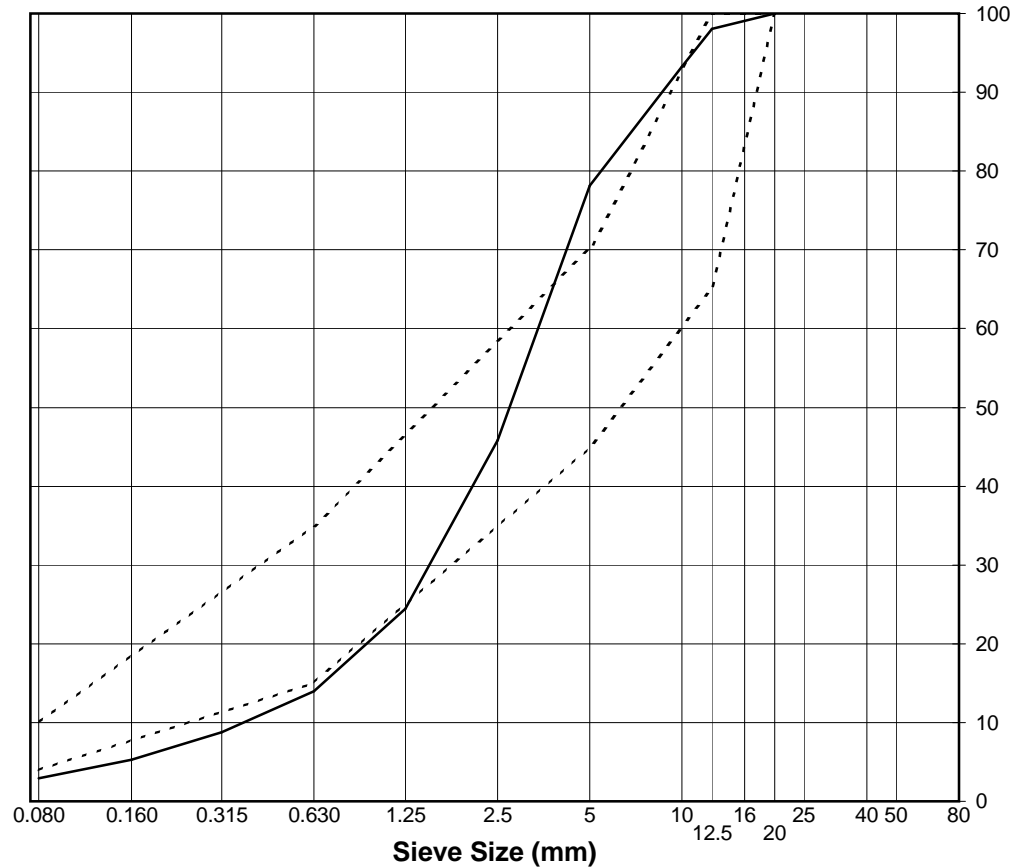
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: Crusher  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 14  
Date Received: March 13, 2011  
Sampled by: JJJ  
Date Tested: March 13, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 2.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	78
2.5	46
1.25	24
0.630	14
0.315	9
0.160	5
0.080	2.9



Remarks: File name: HB-CR-CORE-PSD 46-QA-20110313

Material sampled at crusher.

Reviewed By: \_\_\_\_\_

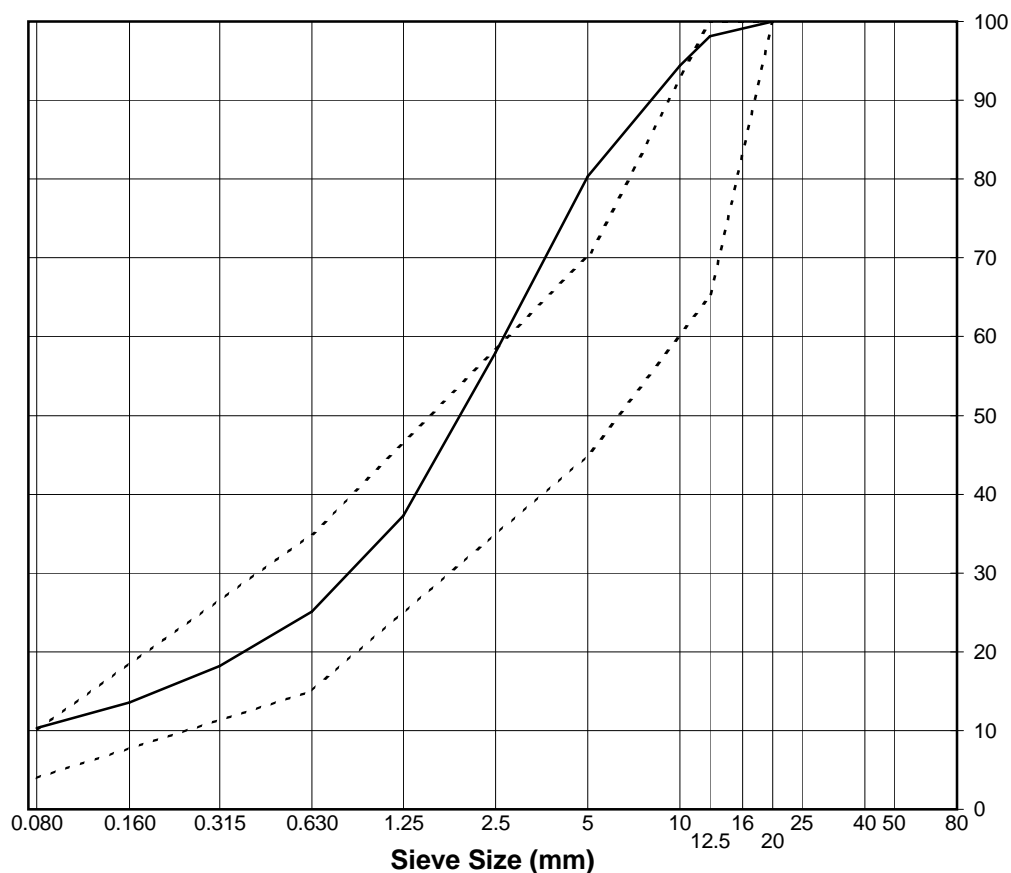
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 16  
Date Received: March 13, 2011  
Sampled by: JJJ  
Date Tested: March 14, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 10.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	80
2.5	58
1.25	37
0.630	25
0.315	18
0.160	14
0.080	10.3



Remarks: File name: HB-FCP-CORE-PSD 47-QA-20110313

Material sampled at FCP belt conveyor.

Reviewed By: \_\_\_\_\_

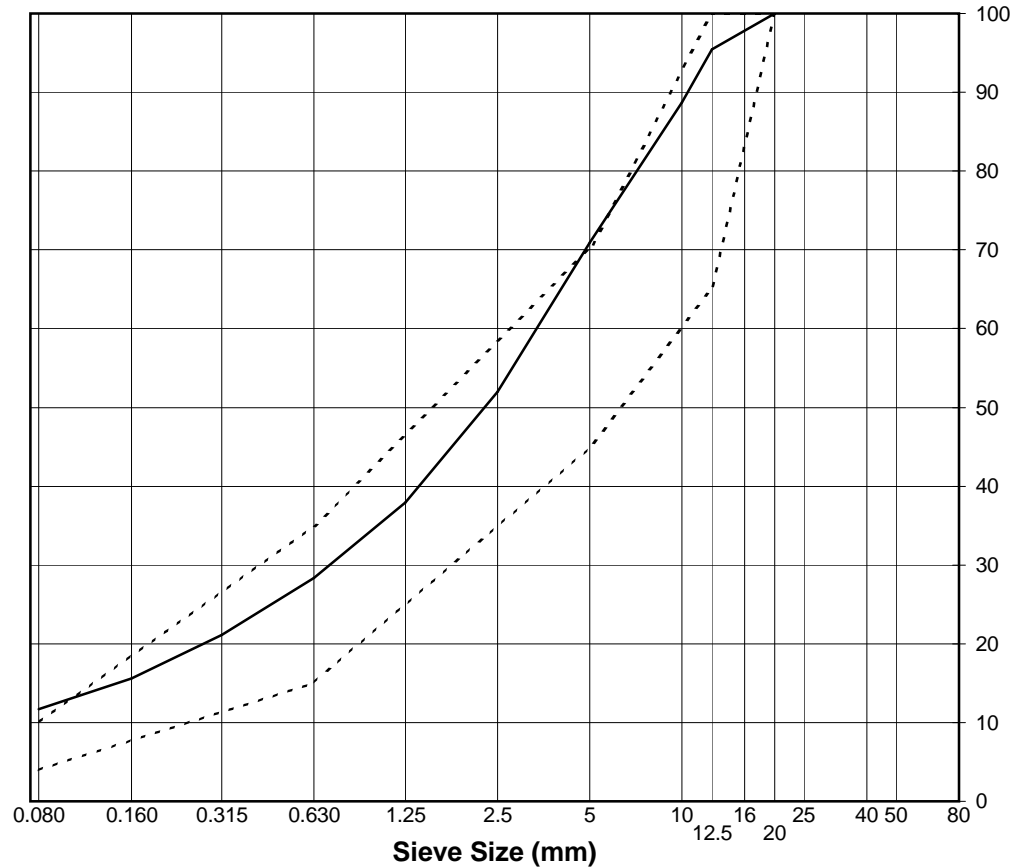
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 23  
Date Received: March 15, 2011  
Sampled by: JJJ  
Date Tested: March 15, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 11.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	89
5	71
2.5	52
1.25	38
0.630	28
0.315	21
0.160	16
0.080	11.7



Remarks: File name: HB-FCP-CORE-PSD 48-QA-20110315

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

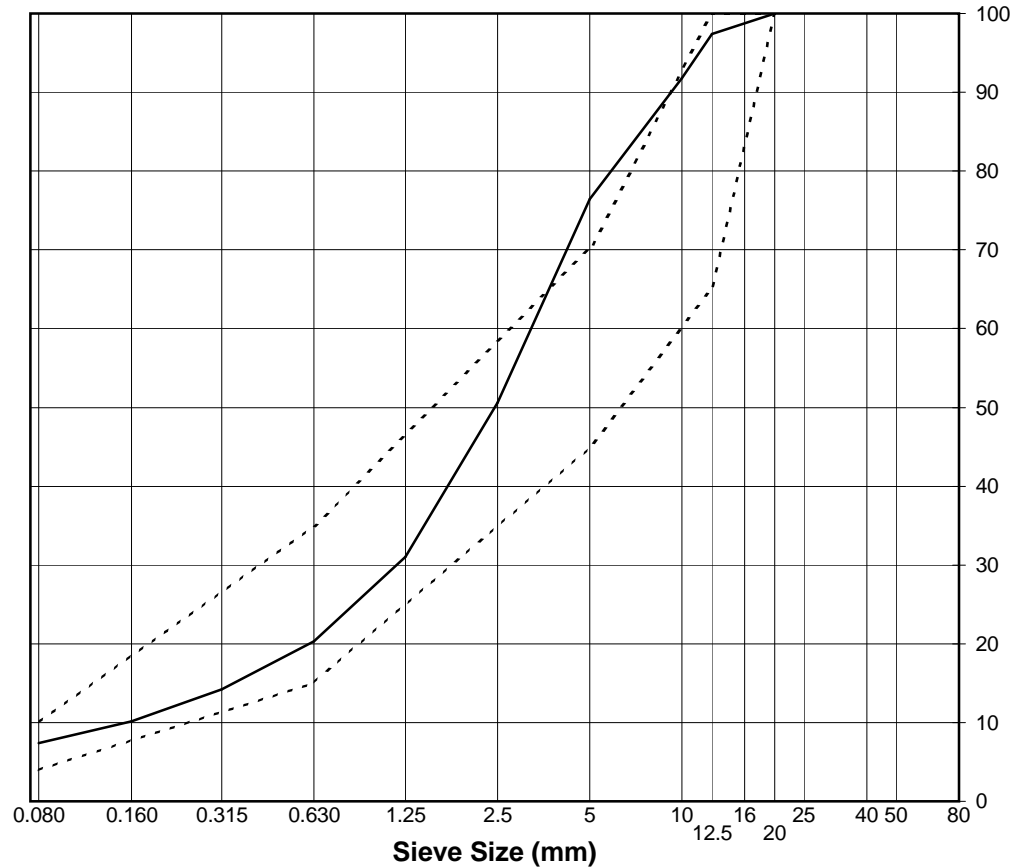
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 27  
Date Received: March 16, 2011  
Sampled by: JO  
Date Tested: March 16, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 7.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	92
5	76
2.5	51
1.25	31
0.630	20
0.315	14
0.160	10
0.080	7.4



Remarks: File name: HB-FCP-CORE-PSD 49-QA-20110316

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

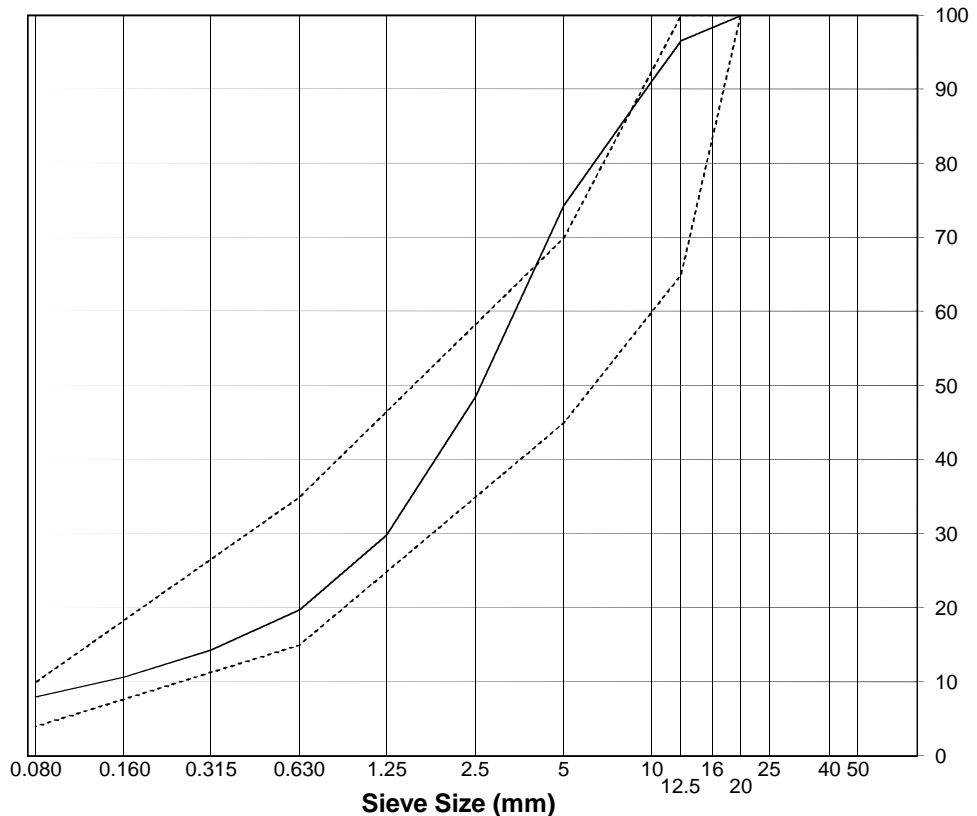
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 30  
Date Received: March 17, 2011  
Sampled by: JJJ  
Date Tested: March 17, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 8.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	91
5	74
2.5	49
1.25	30
0.630	20
0.315	14
0.160	11
0.080	8.0



Remarks: File name: HB-FCP-CORE-PSD 50-QA-20110317

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA. The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.

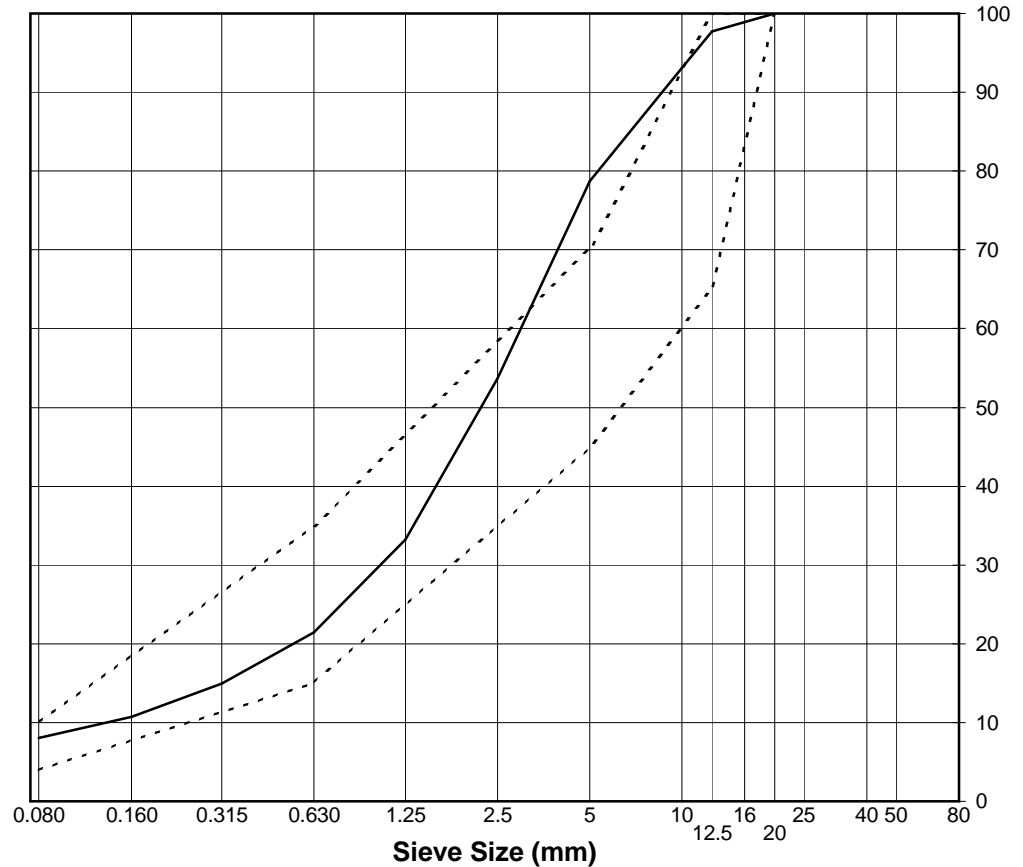
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 34  
Date Received: March 17, 2011  
Sampled by: JJJ  
Date Tested: March 17, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 10.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	79
2.5	54
1.25	33
0.630	21
0.315	15
0.160	11
0.080	8.1



Remarks: File name: HB-FCP-CORE-PSD 51-QA-20110317

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

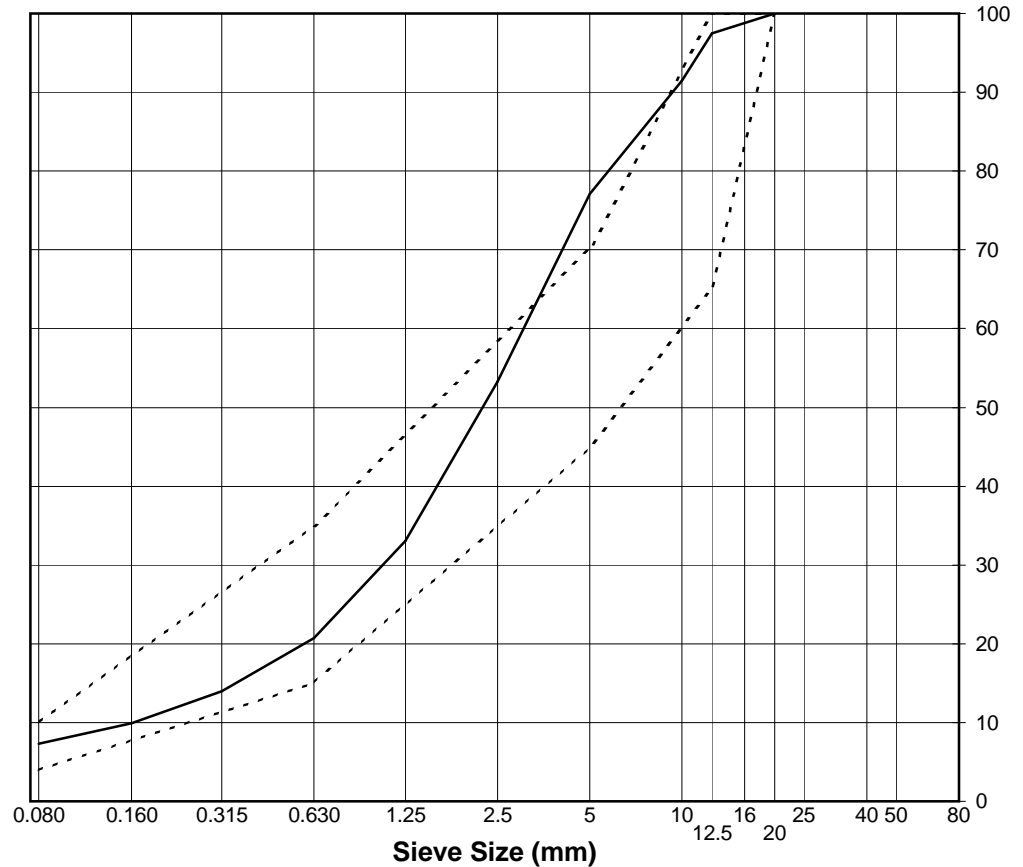
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 35  
Date Received: March 18, 2011  
Sampled by: GD/JK  
Date Tested: March 18, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 13.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	91
5	77
2.5	53
1.25	33
0.630	21
0.315	14
0.160	10
0.080	7.3



Remarks: File name: HB-FCP-CORE-PSD 52-QA-20110318

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

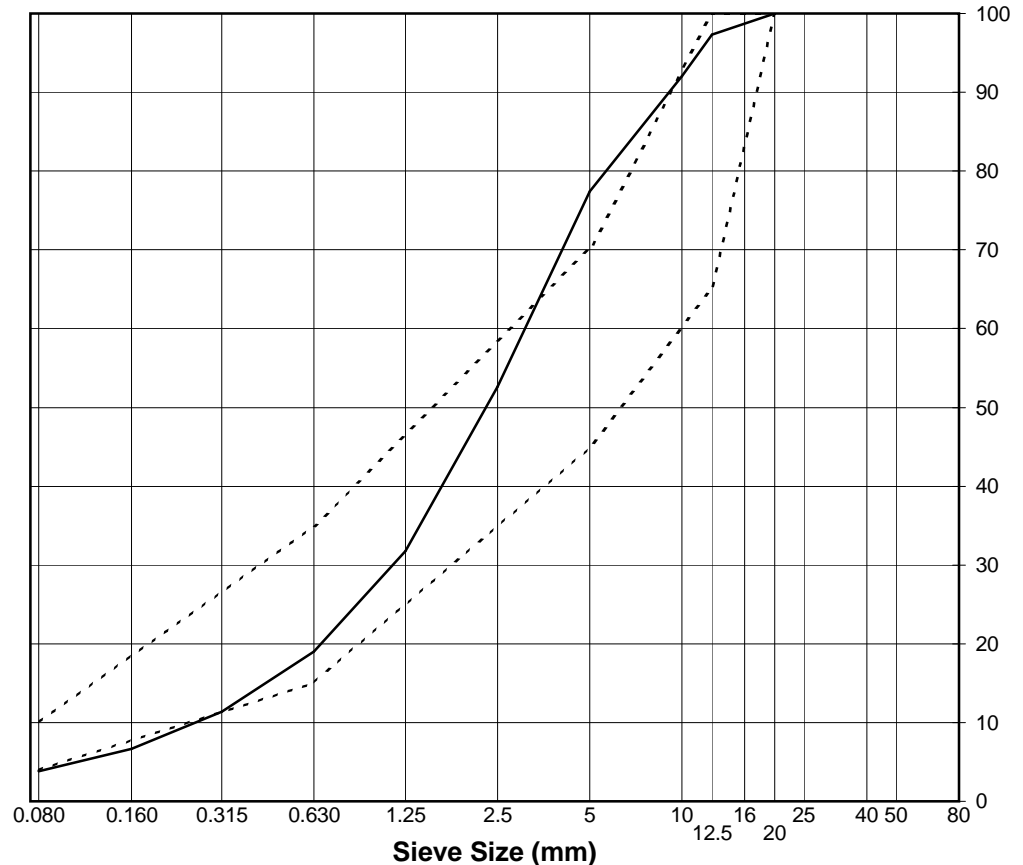
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 37  
Date Received: March 19, 2011  
Sampled by: GDV  
Date Tested: March 19, 2011  
Tested by: GDV/JJJ Office: On-site lab  
Moisture Content (as received): 12.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	92
5	77
2.5	53
1.25	32
0.630	19
0.315	11
0.160	7
0.080	3.8



Remarks: File name: HB-FCP-CORE-PSD 53-QA-20110319

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

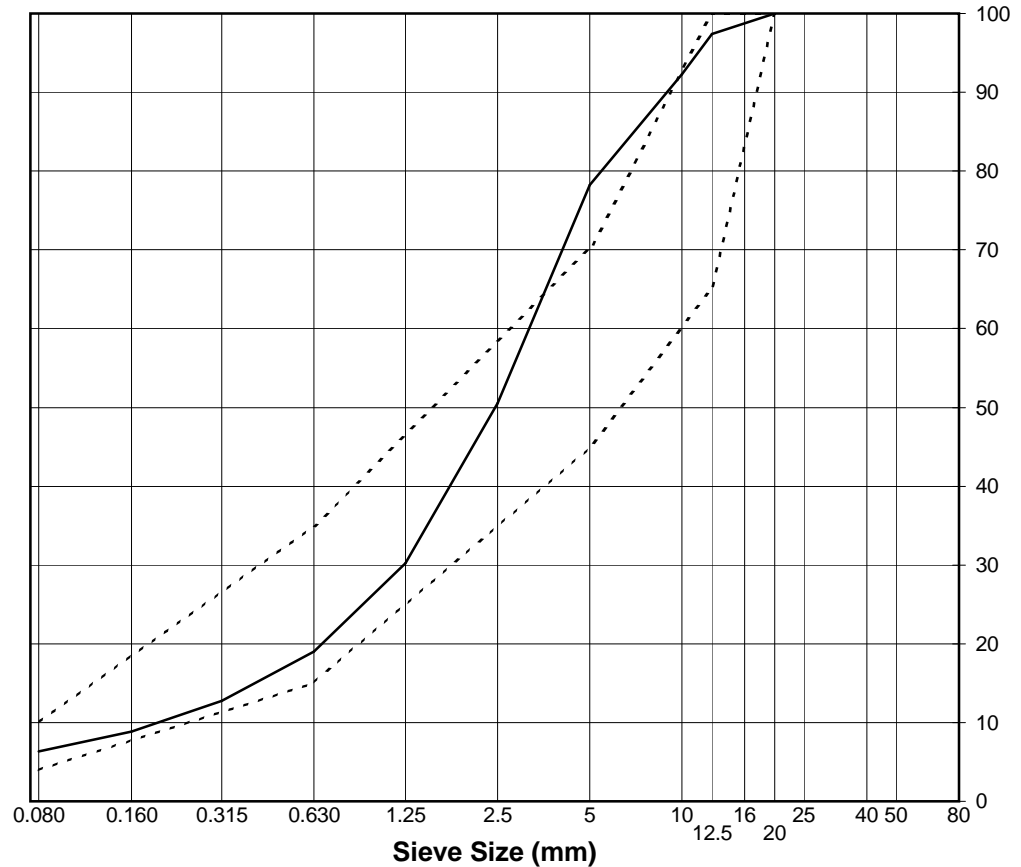
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 41  
Date Received: March 20, 2011  
Sampled by: GDV  
Date Tested: March 20, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 11.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	92
5	78
2.5	50
1.25	30
0.630	19
0.315	13
0.160	9
0.080	6.3



Remarks: File name: HB-FCP-CORE-PSD 54-QA-20110320

Material sampled at FCP conveyor belt.

Reviewed By: \_\_\_\_\_

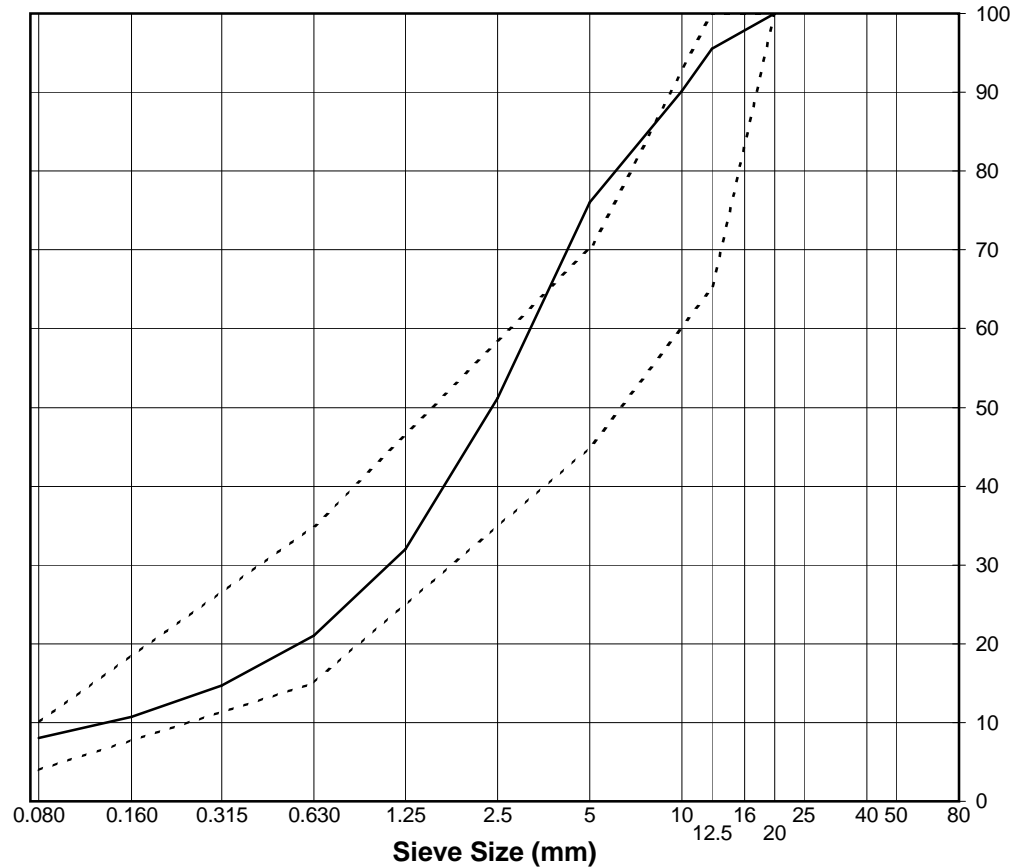
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 46  
Date Received: March 21, 2011  
Sampled by: GDV  
Date Tested: March 21, 2011  
Tested by: GDV/JJJ Office: On-site lab  
Moisture Content (as received): 8.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	90
5	76
2.5	51
1.25	32
0.630	21
0.315	15
0.160	11
0.080	8.0



Remarks: File name: HB-FCP-CORE-PSD 55-QA-20110321

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: Core Material/Fines Blend (3 to 2 by volume)

Source: FCP

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 56

Date Received: March 23, 2011

Sampled by: GDV

Date Tested: March 23, 2011

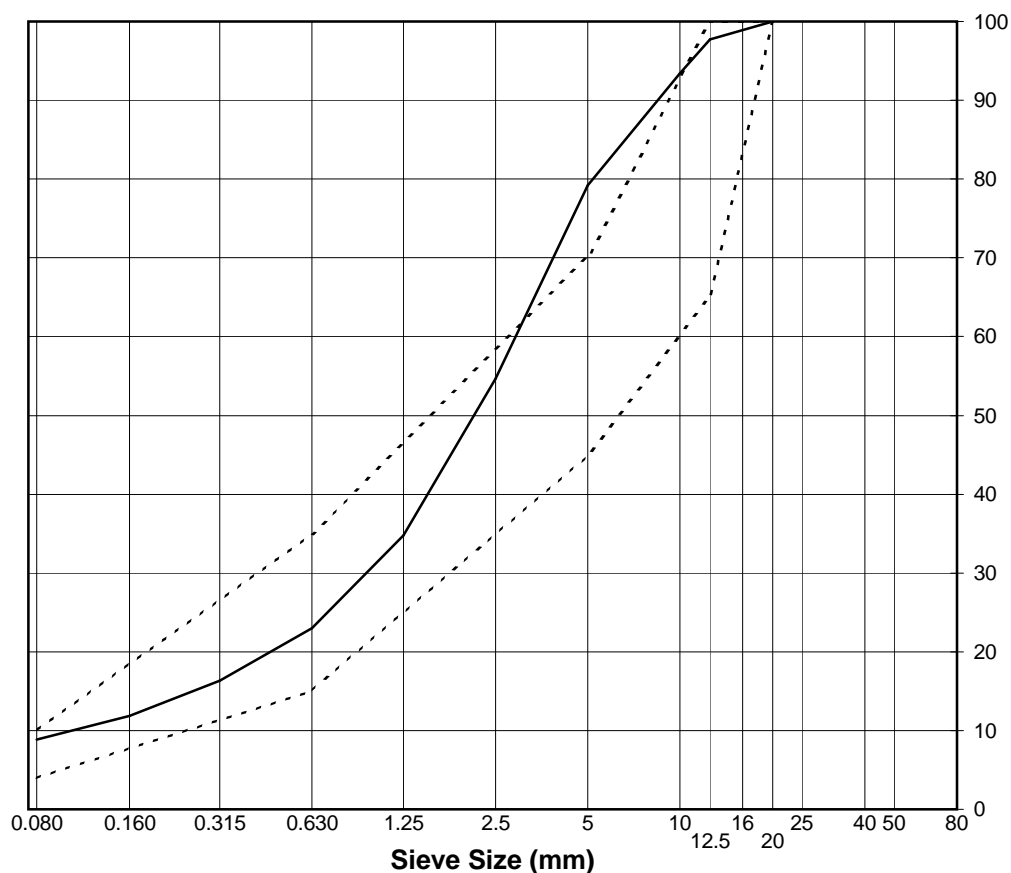
Tested by: GDV/JJJ Office: On-site lab

Moisture Content (as received): 8.3%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	79
2.5	55
1.25	35
0.630	23
0.315	16
0.160	12
0.080	8.9



Remarks: File name: HB-FCP-CORE-PSD 56-QA-20110323

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

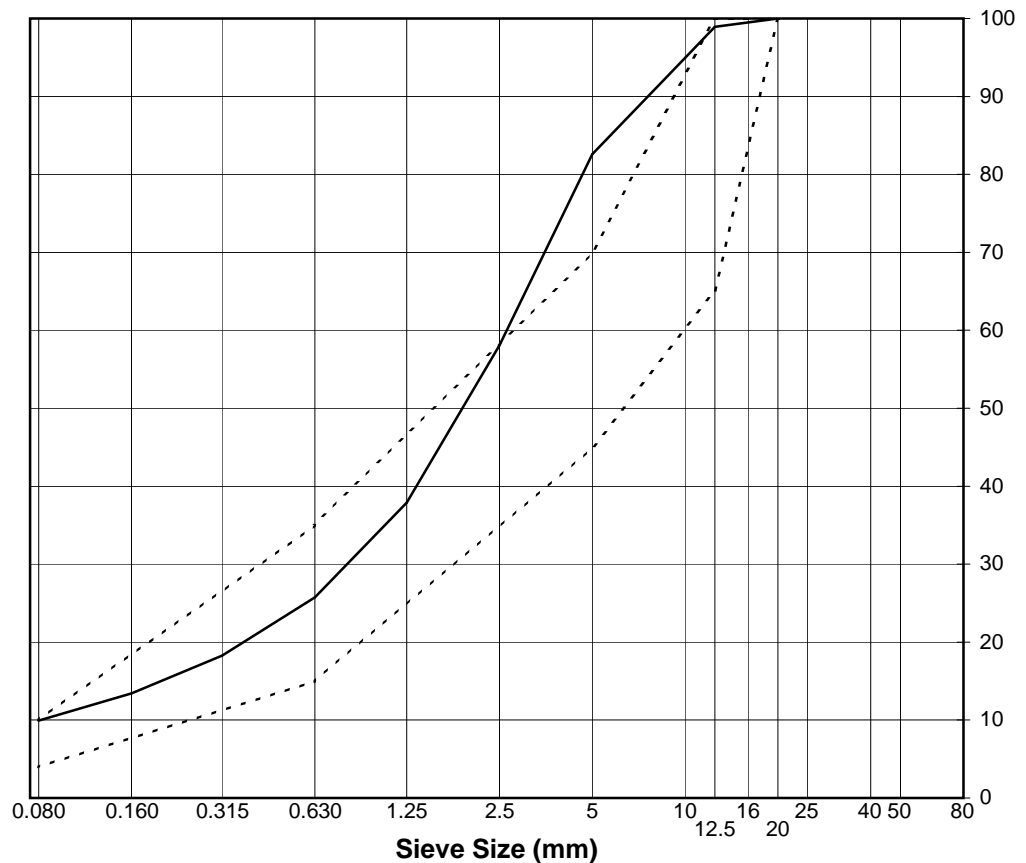
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (3 to 2 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 57  
Date Received: March 24, 2011  
Sampled by: GDV  
Date Tested: March 24, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 8.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	58
1.25	38
0.630	26
0.315	18
0.160	13
0.080	9.9



Remarks: File name: HB-FCP-CORE-PSD 57-QA-20110324

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA. The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.

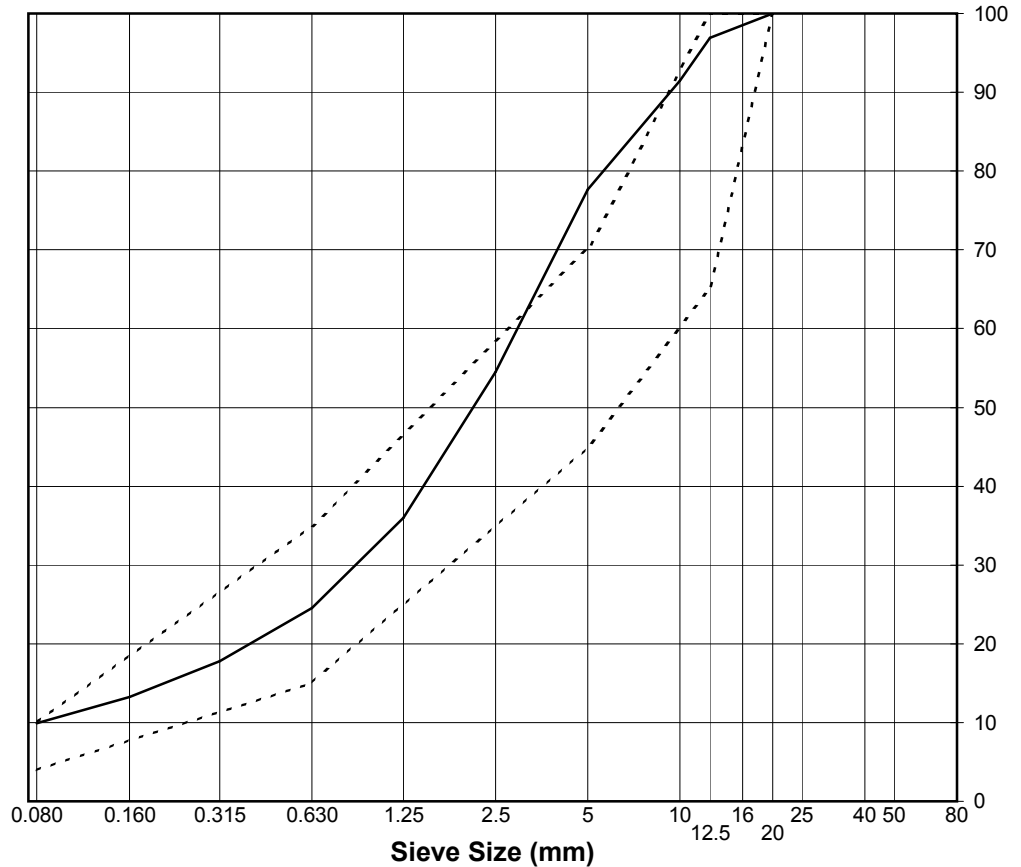
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (3 to 2 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 58  
Date Received: March 25, 2011  
Sampled by: JJJ/GFL  
Date Tested: March 25, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 8.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	91
5	78
2.5	54
1.25	36
0.630	25
0.315	18
0.160	13
0.080	9.9



Remarks: File name: HB-FCP-CORE-PSD 58-QA-20110325

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

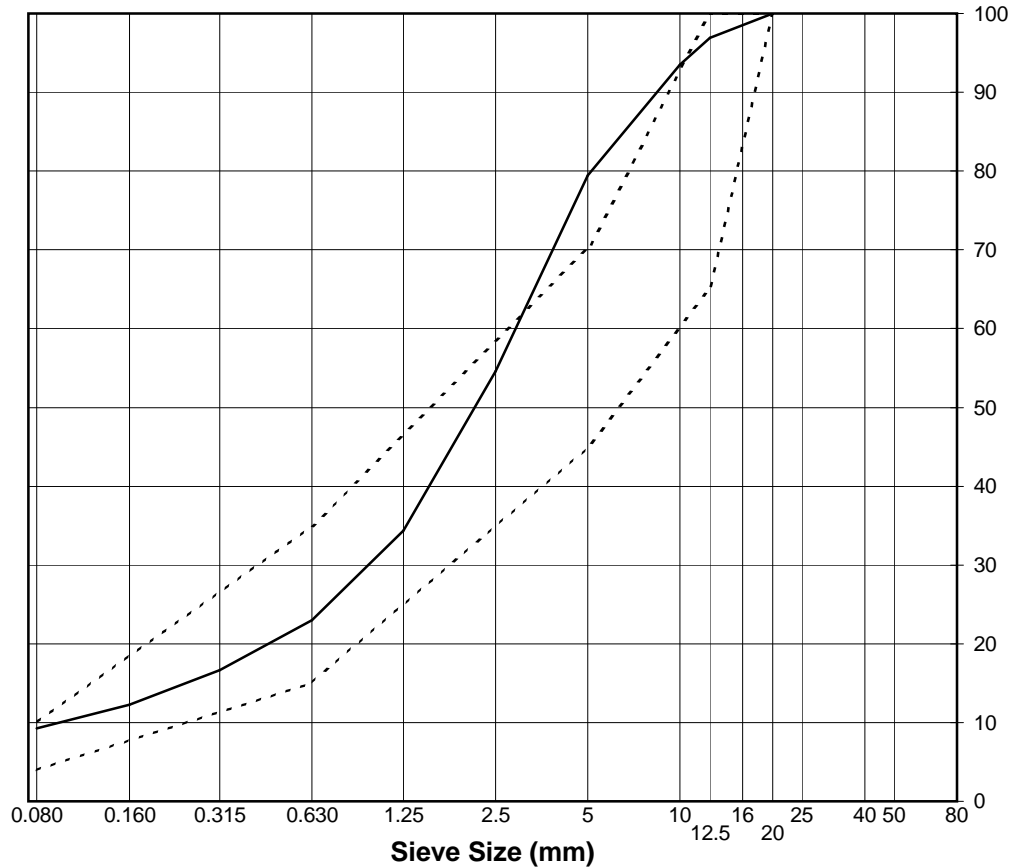
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (3 to 2 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 67  
Date Received: March 26, 2011  
Sampled by: GDV  
Date Tested: March 26, 2011  
Tested by: GDV/GFL Office: On-site lab  
Moisture Content (as received): 7.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	94
5	79
2.5	55
1.25	34
0.630	23
0.315	17
0.160	12
0.080	9.3



Remarks: File name: HB-FCP-CORE-PSD 59-QA-20110326

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

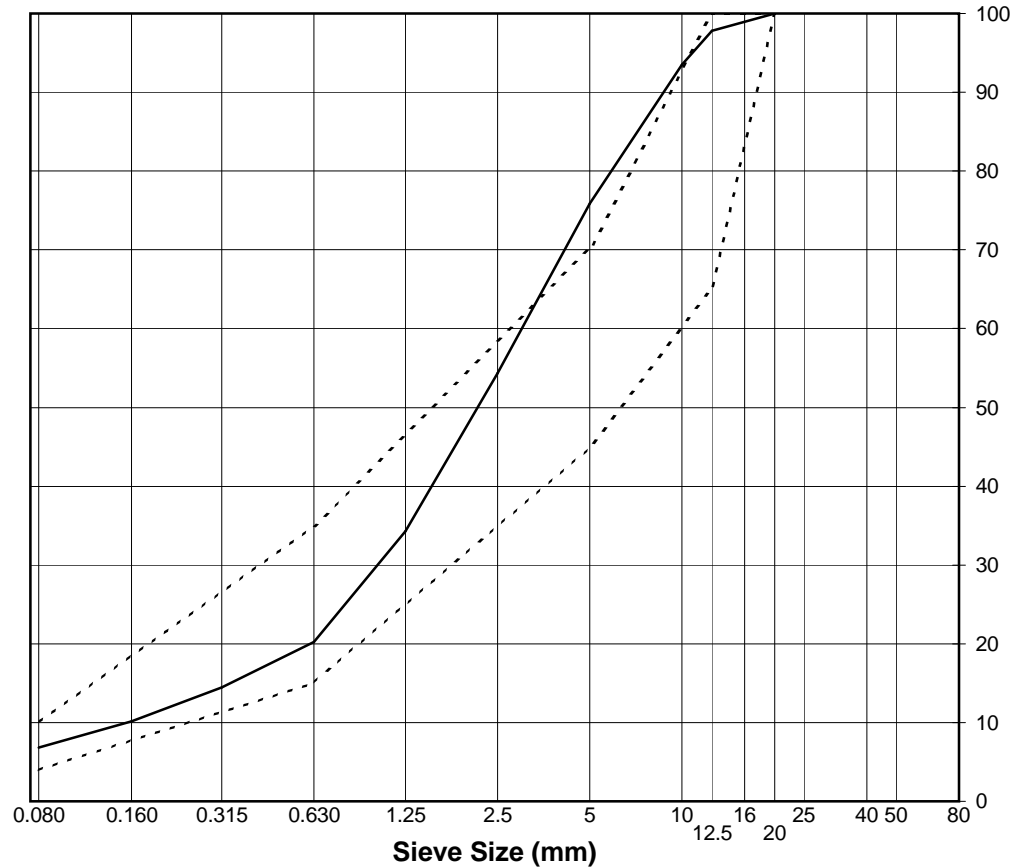
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision F Core Material

Sample No.: 68  
Date Received: March 26, 2011  
Sampled by: GDV  
Date Tested: March 26, 2011  
Tested by: GDV/GFL Office: On-site lab  
Moisture Content (as received): 8.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	76
2.5	54
1.25	34
0.630	20
0.315	14
0.160	10
0.080	6.8



Remarks: File name: HB-FCP-CORE-PSD 60-QA-20110326

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

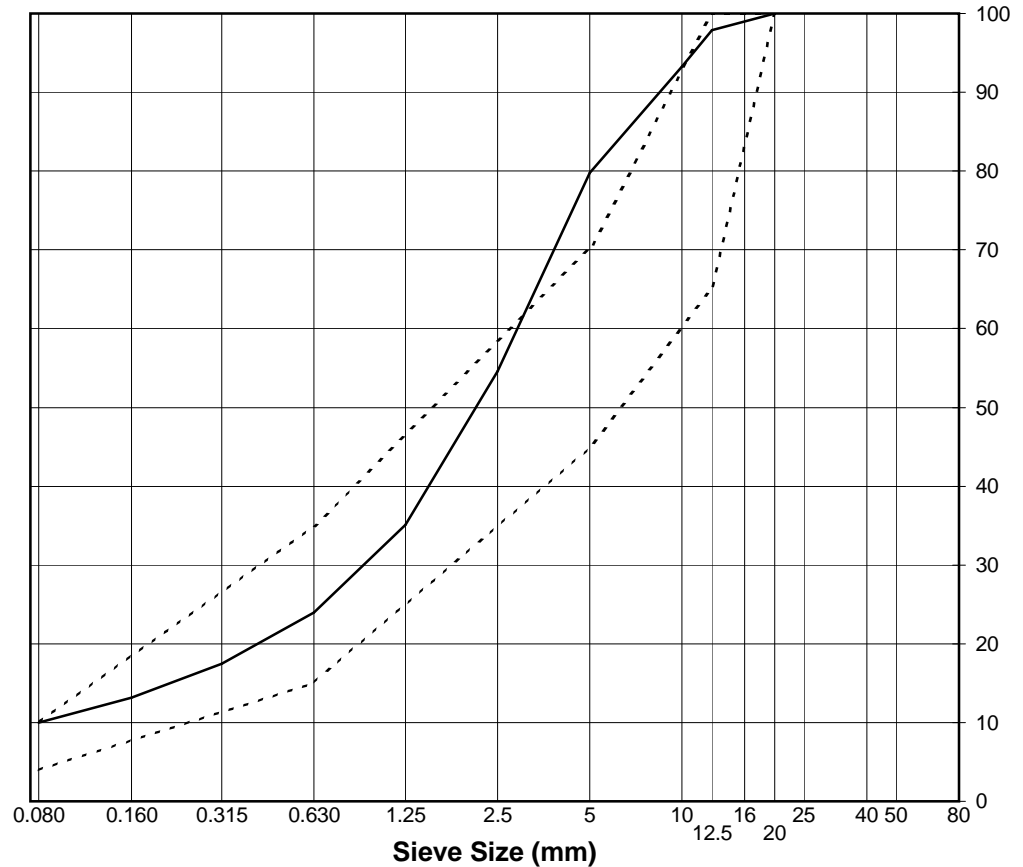
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 73  
Date Received: March 27, 2011  
Sampled by: GDV  
Date Tested: March 27, 2011  
Tested by: GDV/GFL Office: On-site lab  
Moisture Content (as received): 8.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	80
2.5	55
1.25	35
0.630	24
0.315	17
0.160	13
0.080	10.0



Remarks: File name: HB-FCP-CORE-PSD 61-QA-20110327

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

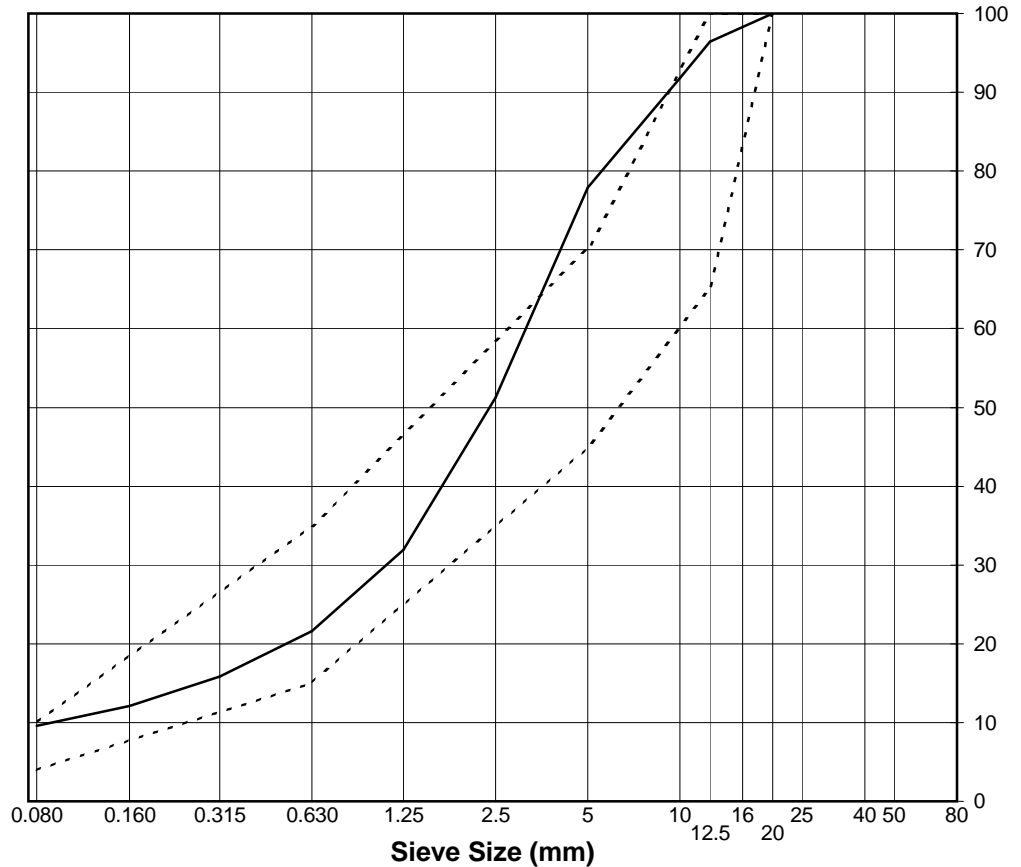
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision F Core Material

Sample No.: 77  
Date Received: March 28, 2011  
Sampled by: GDV  
Date Tested: March 28, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 7.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	92
5	78
2.5	51
1.25	32
0.630	22
0.315	16
0.160	12
0.080	9.6



Remarks: File name: HB-FCP-CORE-PSD 62-QA-20110328

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: Core Material/Fines Blend (2 to 3 by volume)

Source: FCP

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 86

Date Received: March 31, 2011

Sampled by: GDV

Date Tested: March 31, 2011

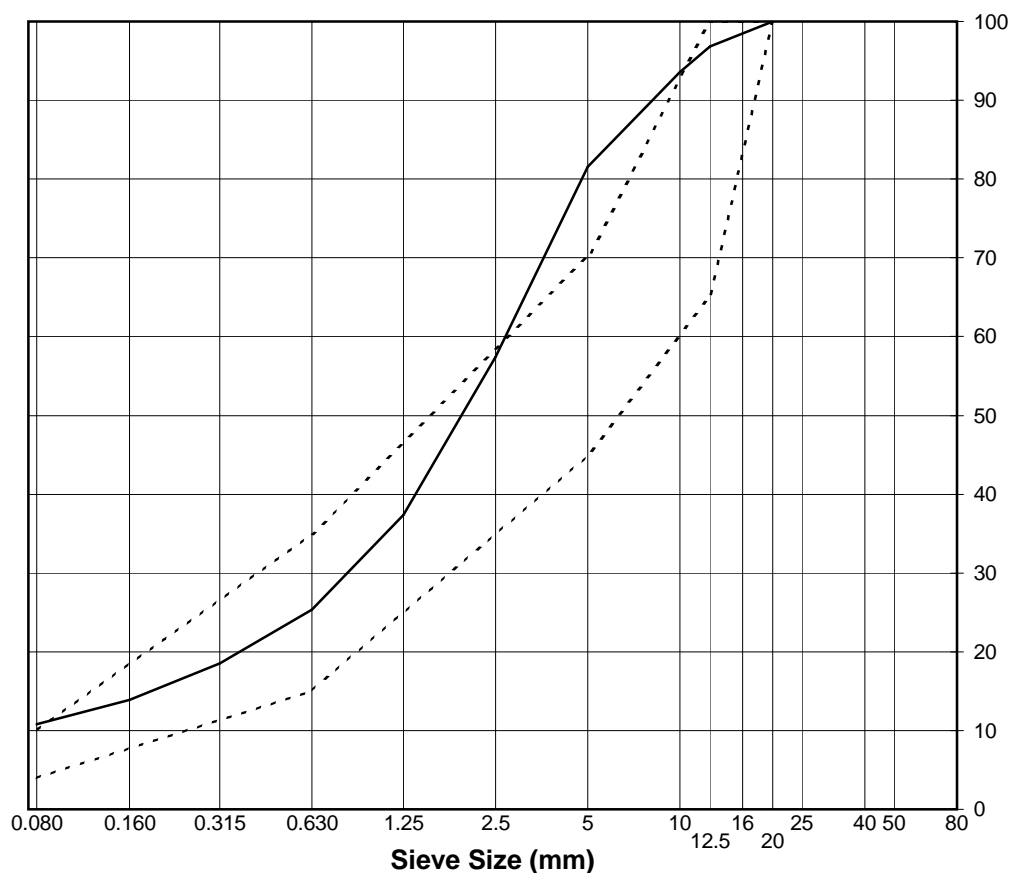
Tested by: GDV Office: On-site lab

Moisture Content (as received): 8.2%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	94
5	82
2.5	57
1.25	37
0.630	25
0.315	18
0.160	14
0.080	10.8



Remarks: File name: HB-FCP-CORE-PSD 63-QA-20110331

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

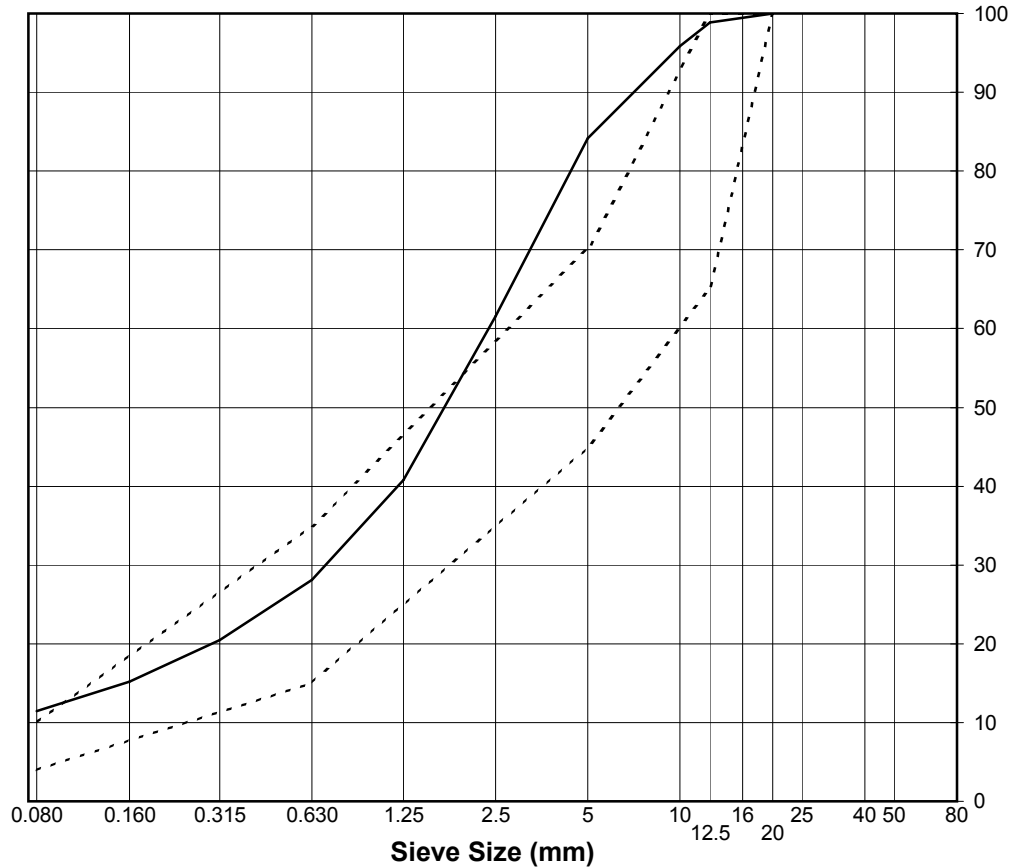
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 88  
Date Received: March 31, 2011  
Sampled by: GFL  
Date Tested: March 31, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 9.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	84
2.5	62
1.25	41
0.630	28
0.315	20
0.160	15
0.080	11.4



Remarks: File name: HB-FCP-CORE-PSD 64-QA-20110331

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: Core Material/Fines Blend (2 to 3 by volume)

Source: FCP

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 89

Date Received: April 2, 2011

Sampled by: GFL

Date Tested: March 31, 2011

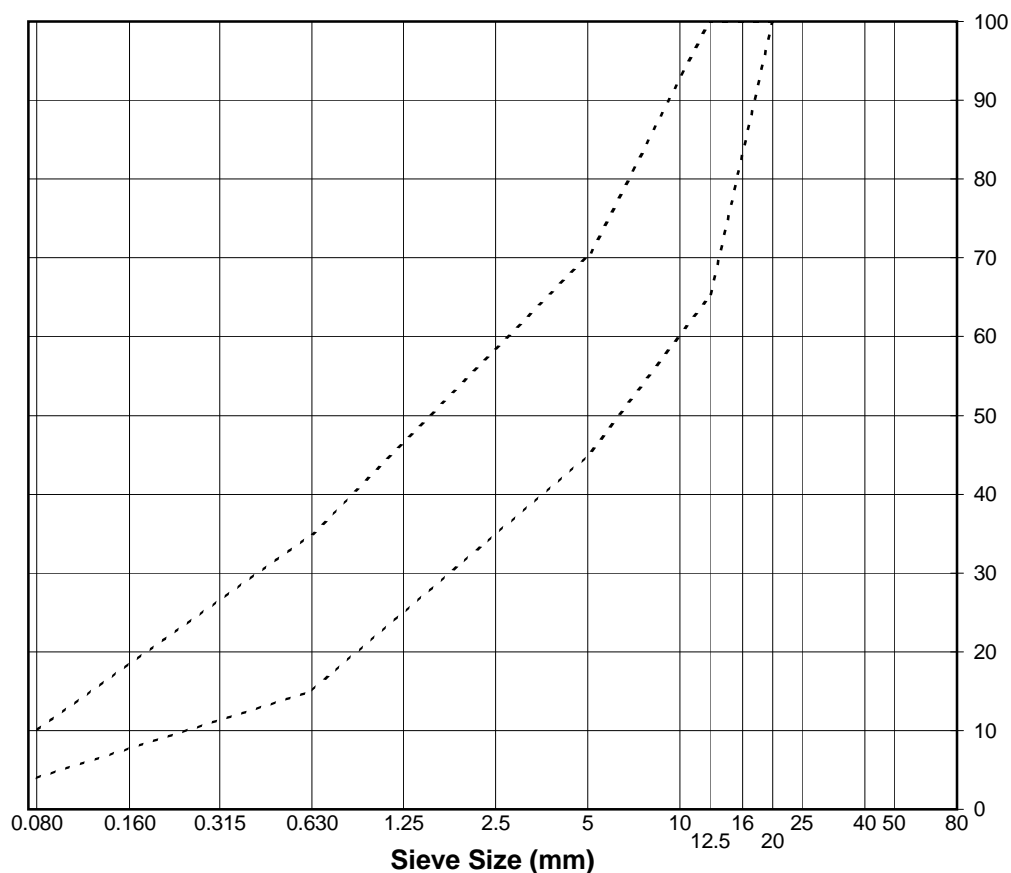
Tested by: GFL/GDV Office: On-site lab

Moisture Content (as received): 9.9%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
0.080	100.0



Remarks: File name: HB-FCP-CORE-PSD 65-QA-20110402

Material sampled at FCP chute. SIEVE SET FELL ONTO FLOOR DURING SHAKE - NO TEST.

Reviewed By: \_\_\_\_\_

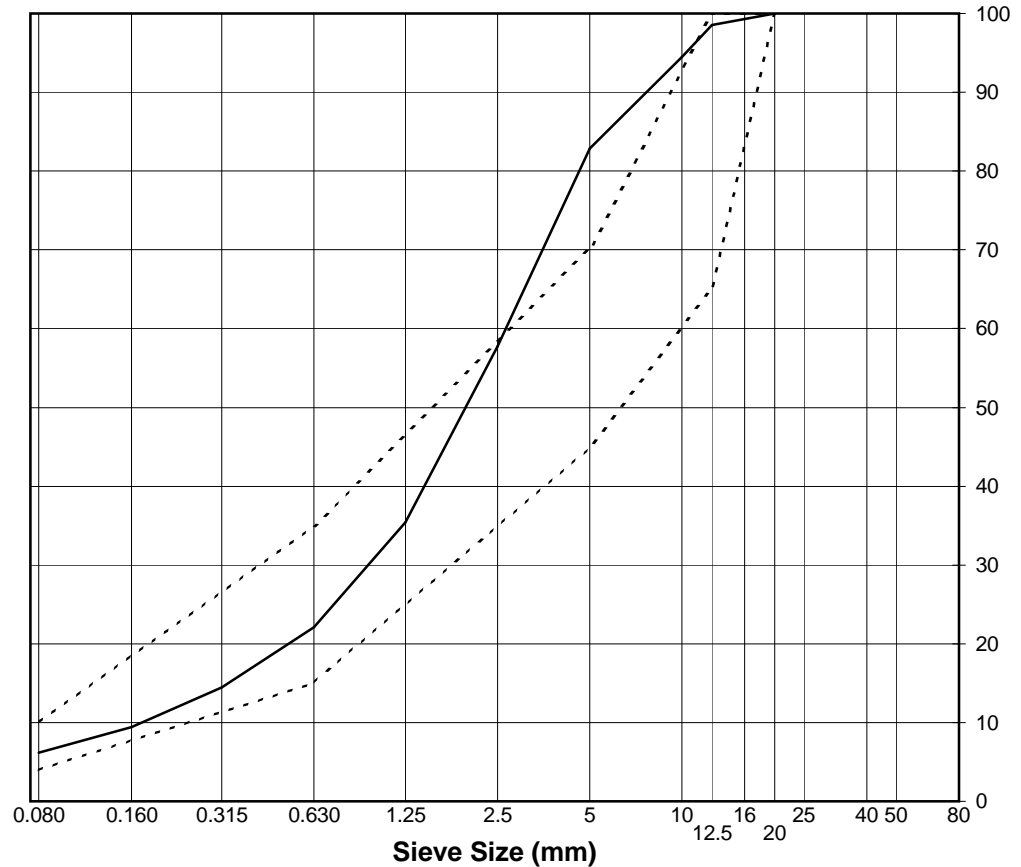
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 95  
Date Received: April 3, 2011  
Sampled by: GDV  
Date Tested: April 3, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 15.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	58
1.25	35
0.630	22
0.315	14
0.160	9
0.080	6.2



Remarks: File name: HB-FCP-CORE-PSD 66-QA-20110403

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

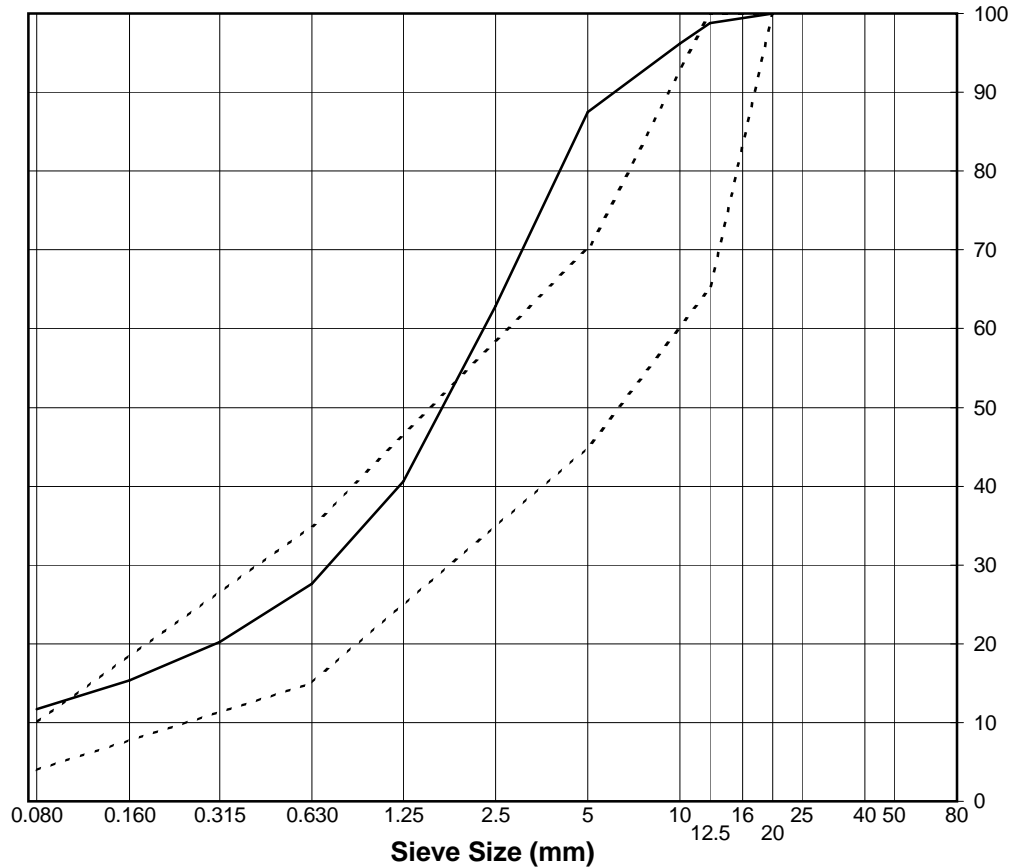
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 100  
Date Received: April 4, 2011  
Sampled by: GFL  
Date Tested: April 4, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 8.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	88
2.5	63
1.25	41
0.630	28
0.315	20
0.160	15
0.080	11.7



Remarks: File name: HB-FCP-CORE-PSD 67-QA-20110404

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

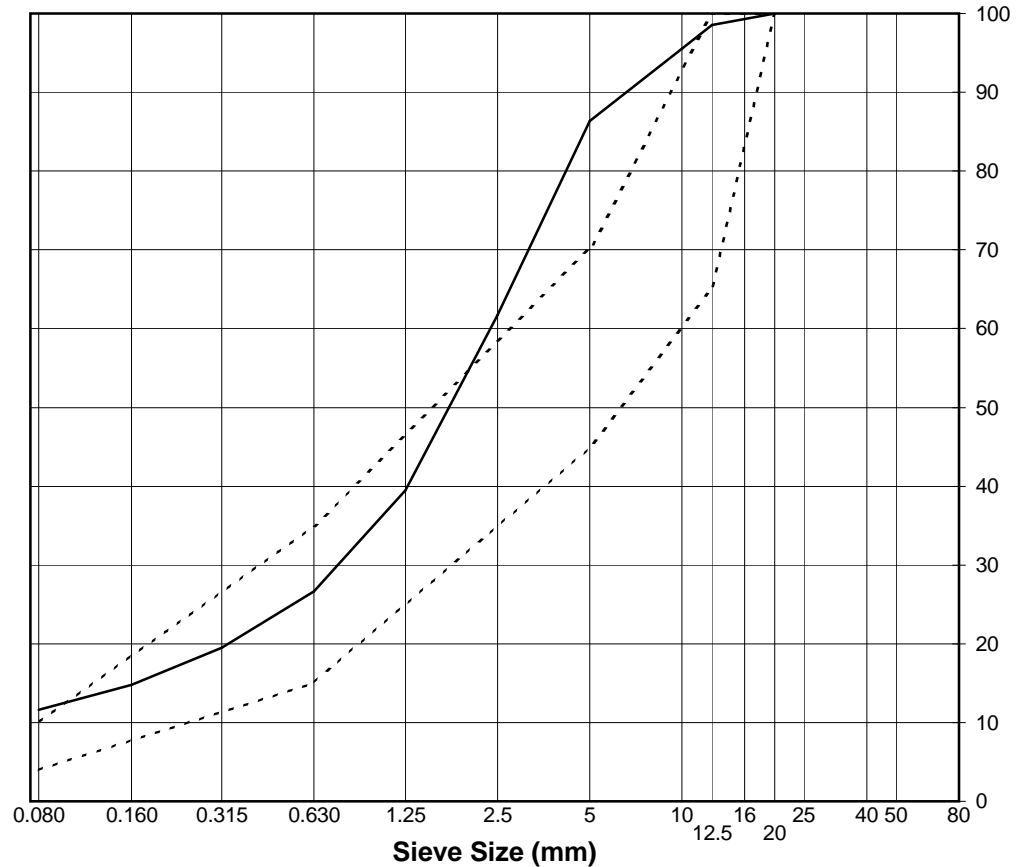
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 109  
Date Received: April 4, 2011  
Sampled by: GFL  
Date Tested: April 4, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 10.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	86
2.5	62
1.25	39
0.630	27
0.315	19
0.160	15
0.080	11.6



Remarks: File name: HB-FCP-CORE-PSD 68-QA-20110404

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: Core Material/Fines Blend (2 to 3 by volume)

Source: FCP

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 112

Date Received: April 5, 2011

Sampled by: GDV

Date Tested: April 5, 2011

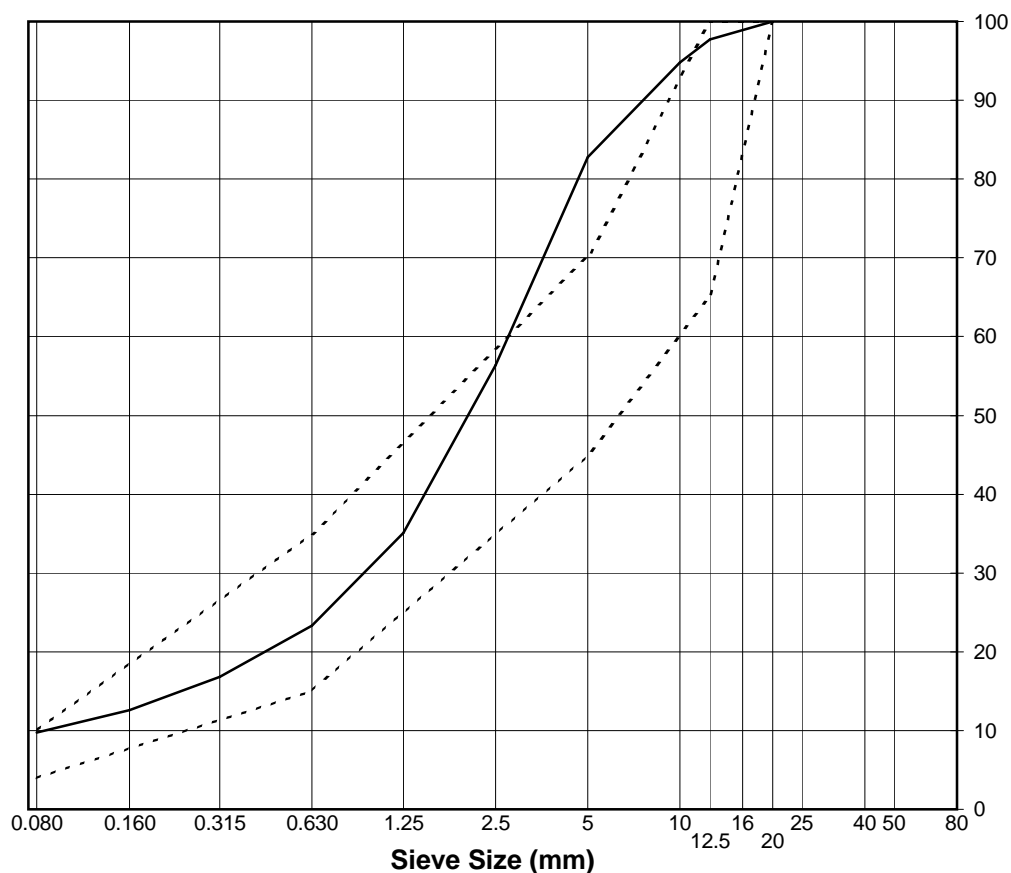
Tested by: GDV/GFL Office: On-site lab

Moisture Content (as received): 9.6%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	83
2.5	56
1.25	35
0.630	23
0.315	17
0.160	13
0.080	9.7



Remarks: File name: HB-FCP-CORE-PSD 69-QA-20110405

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

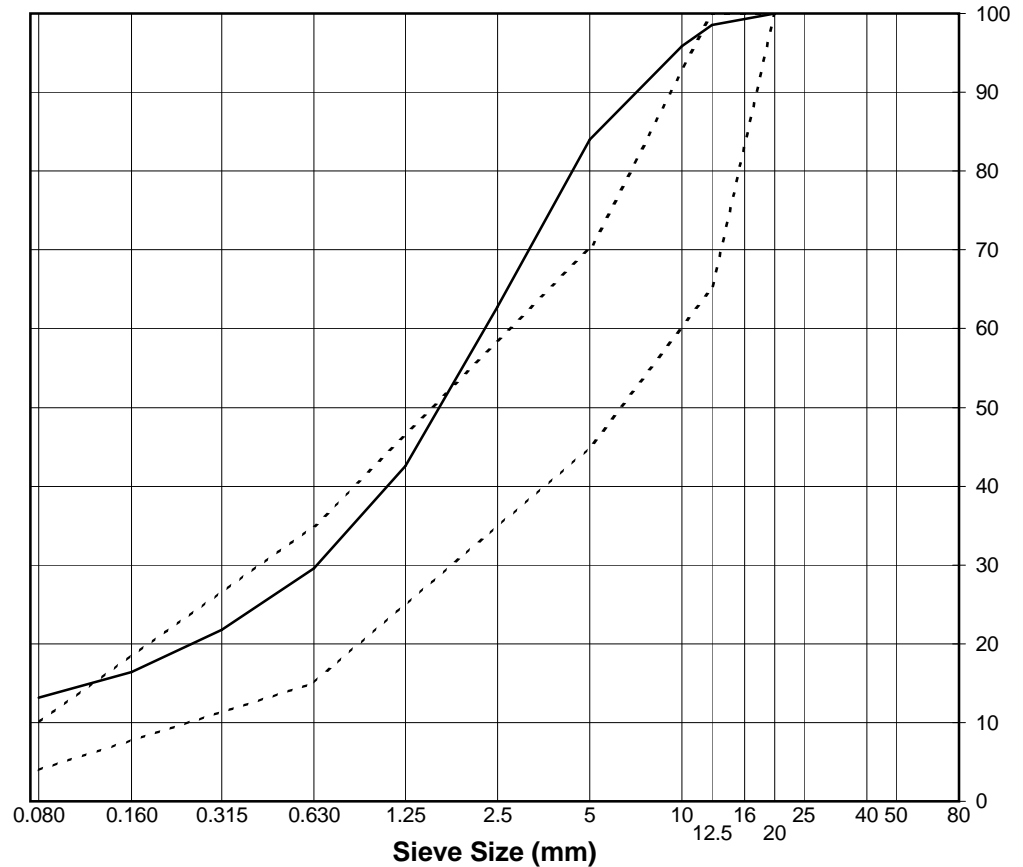
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 115  
Date Received: April 5, 2011  
Sampled by: GFL  
Date Tested: April 5, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 9.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	84
2.5	63
1.25	43
0.630	30
0.315	22
0.160	16
0.080	13.1



Remarks: File name: HB-FCP-CORE-PSD 70-QA-20110405

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

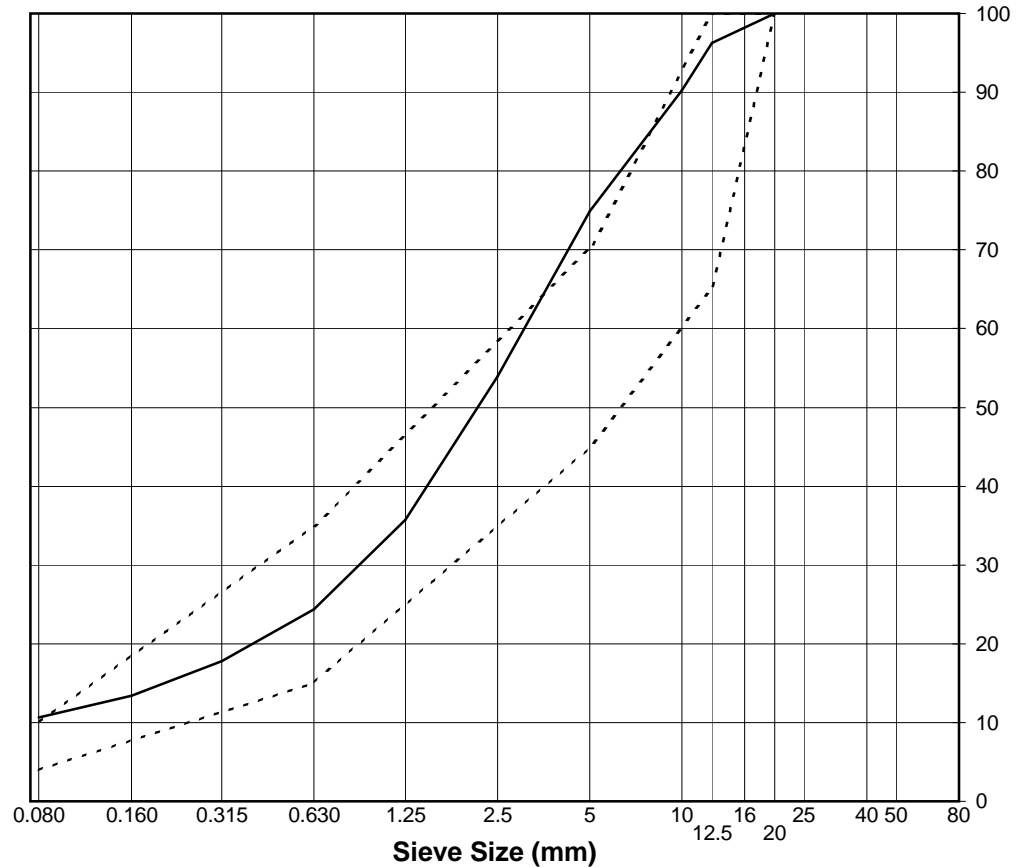
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 121  
Date Received: April 6, 2011  
Sampled by: GDV  
Date Tested: April 6, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 8.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	90
5	75
2.5	54
1.25	36
0.630	24
0.315	18
0.160	13
0.080	10.7



Remarks: File name: HB-FCP-CORE-PSD 71-QA-20110406

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

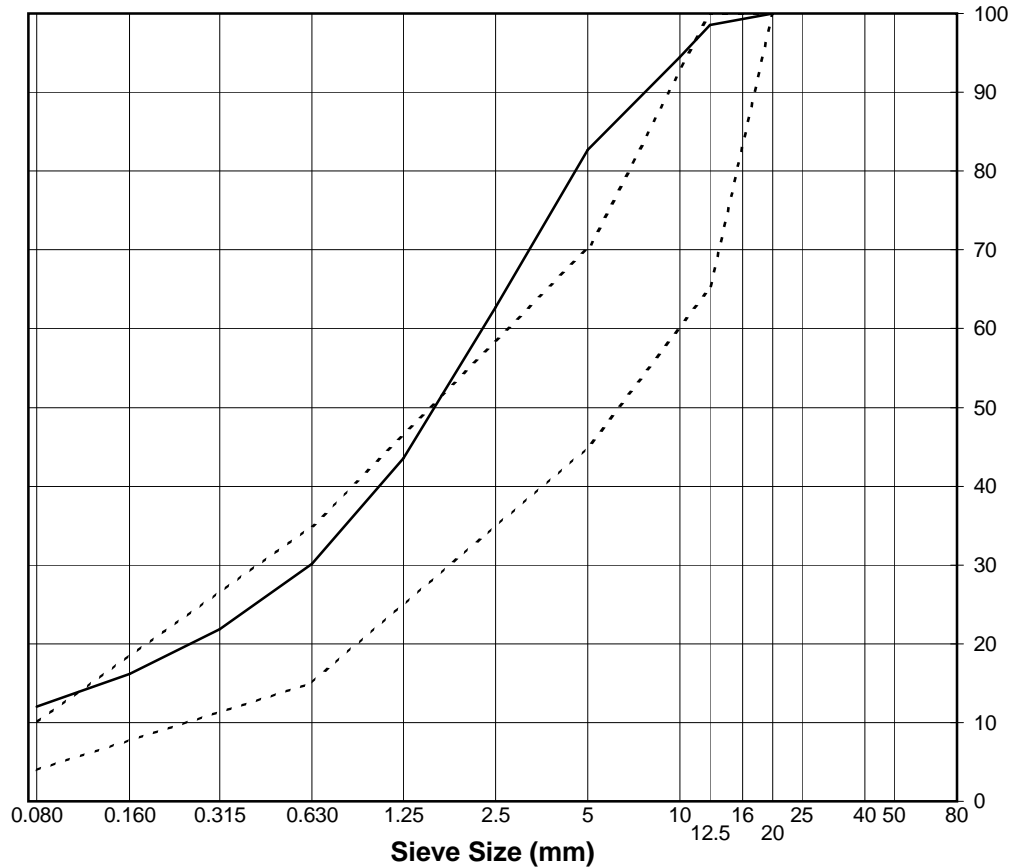
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 123  
Date Received: April 6, 2011  
Sampled by: GDV  
Date Tested: April 6, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 10.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	63
1.25	44
0.630	30
0.315	22
0.160	16
0.080	12.0



Remarks: File name: HB-FCP-CORE-PSD 72-QA-20110406

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

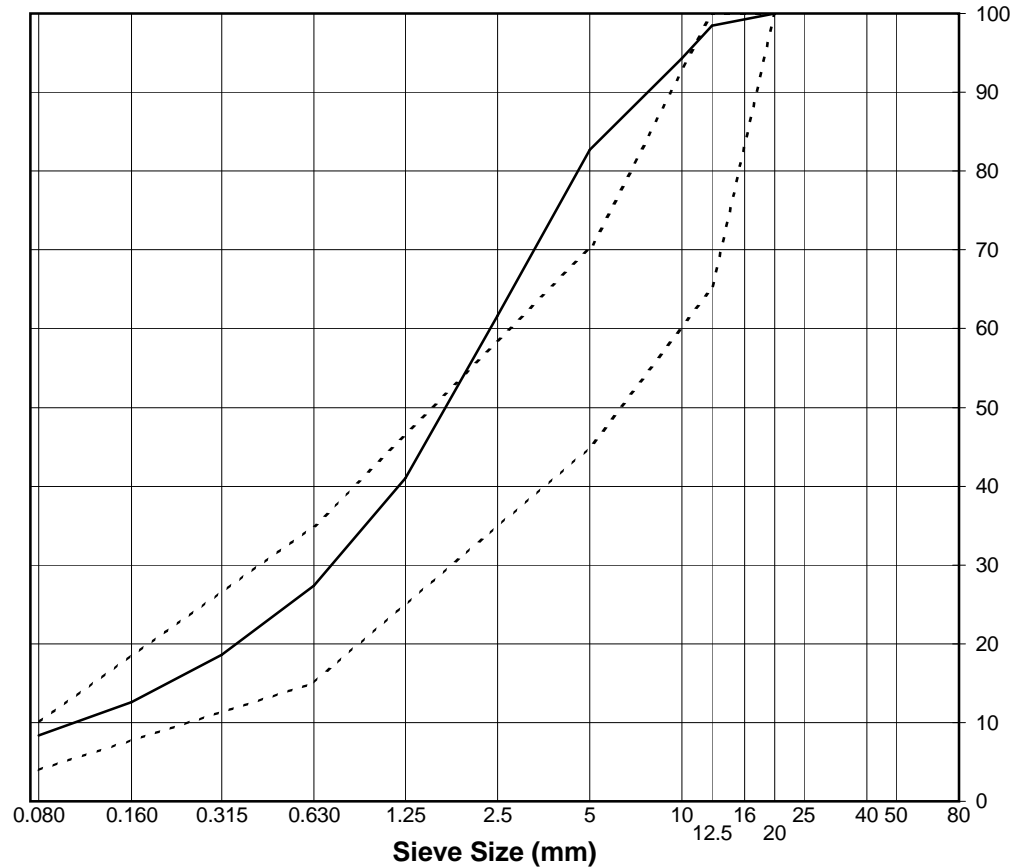
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 127  
Date Received: April 7, 2011  
Sampled by: GDV  
Date Tested: April 7, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 8.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	83
2.5	62
1.25	41
0.630	27
0.315	19
0.160	13
0.080	8.4



Remarks: File name: HB-FCP-CORE-PSD 73-QA-20110407

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: Core Material/Fines Blend (2 to 3 by volume)

Source: FCP

Supplier: Nuna

Sample Location: Same as source

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 131

Date Received: April 7, 2011

Sampled by: GFL

Date Tested: April 9, 2011

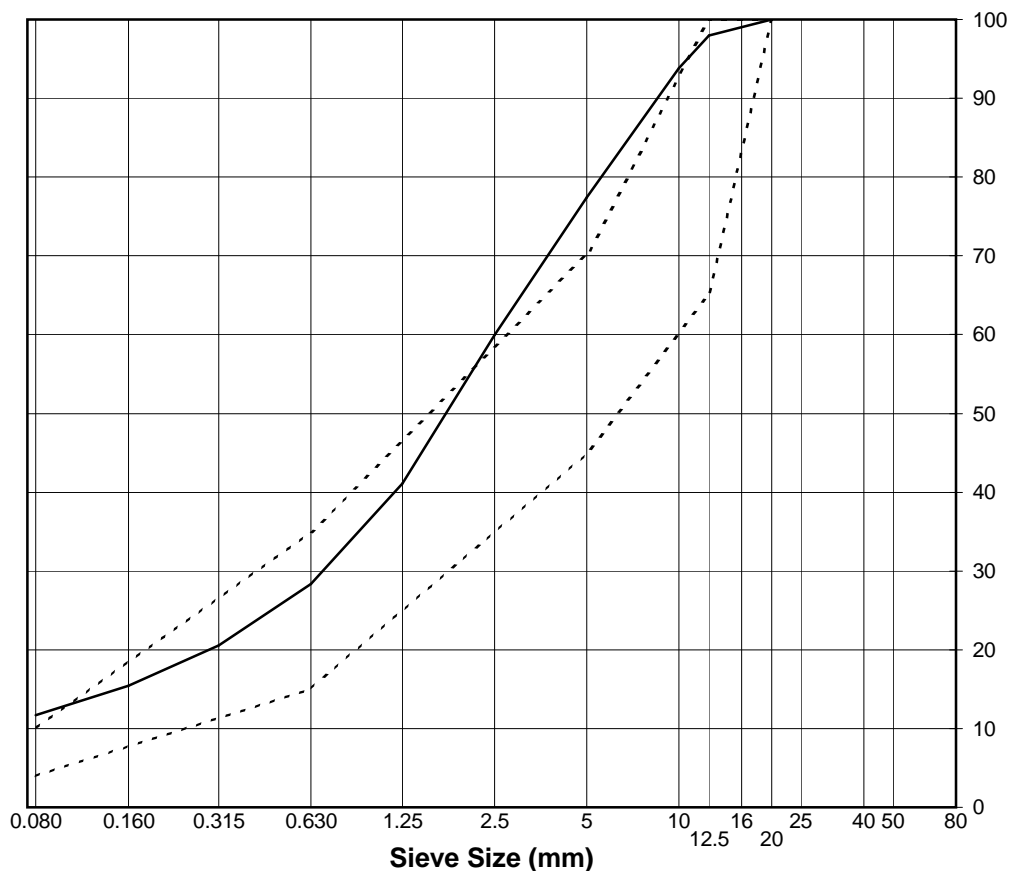
Tested by: GFL/JJJ Office: On-site lab

Moisture Content (as received): 9.2%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	77
2.5	60
1.25	41
0.630	28
0.315	21
0.160	15
0.080	11.7



Remarks: File name: HB-FCP-CORE-PSD 74-QA-20110407

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

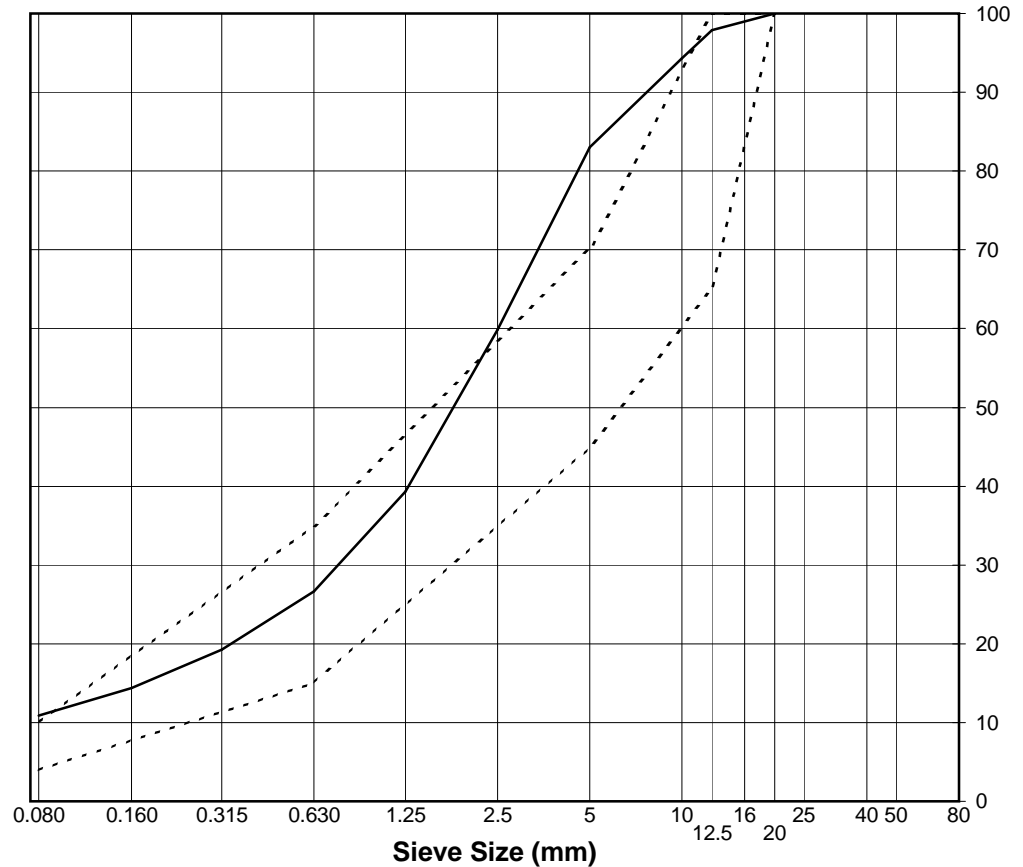
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 133  
Date Received: April 9, 2011  
Sampled by: JJJ  
Date Tested: April 9, 2011  
Tested by: GFL/JJJ Office: On-site lab  
Moisture Content (as received): 8.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	83
2.5	60
1.25	39
0.630	27
0.315	19
0.160	14
0.080	10.9



Remarks: File name: HB-FCP-CORE-PSD 75-QA-20110409

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

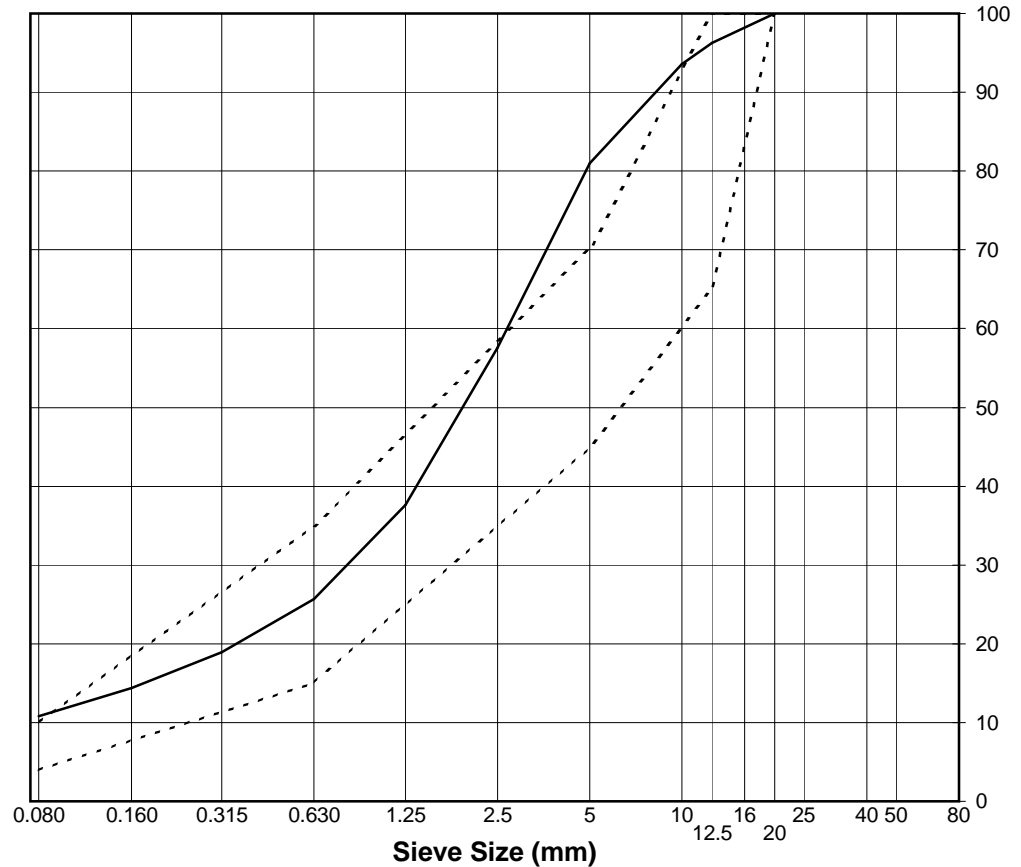
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 151  
Date Received: April 11, 2011  
Sampled by: JJJ  
Date Tested: April 11, 2011  
Tested by: GFL/JJJ Office: On-site lab  
Moisture Content (as received): 10.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	96
10.0	94
5	81
2.5	58
1.25	38
0.630	26
0.315	19
0.160	14
0.080	10.8



Remarks: File name: HB-FCP-CORE-PSD 77-QA-20110411

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

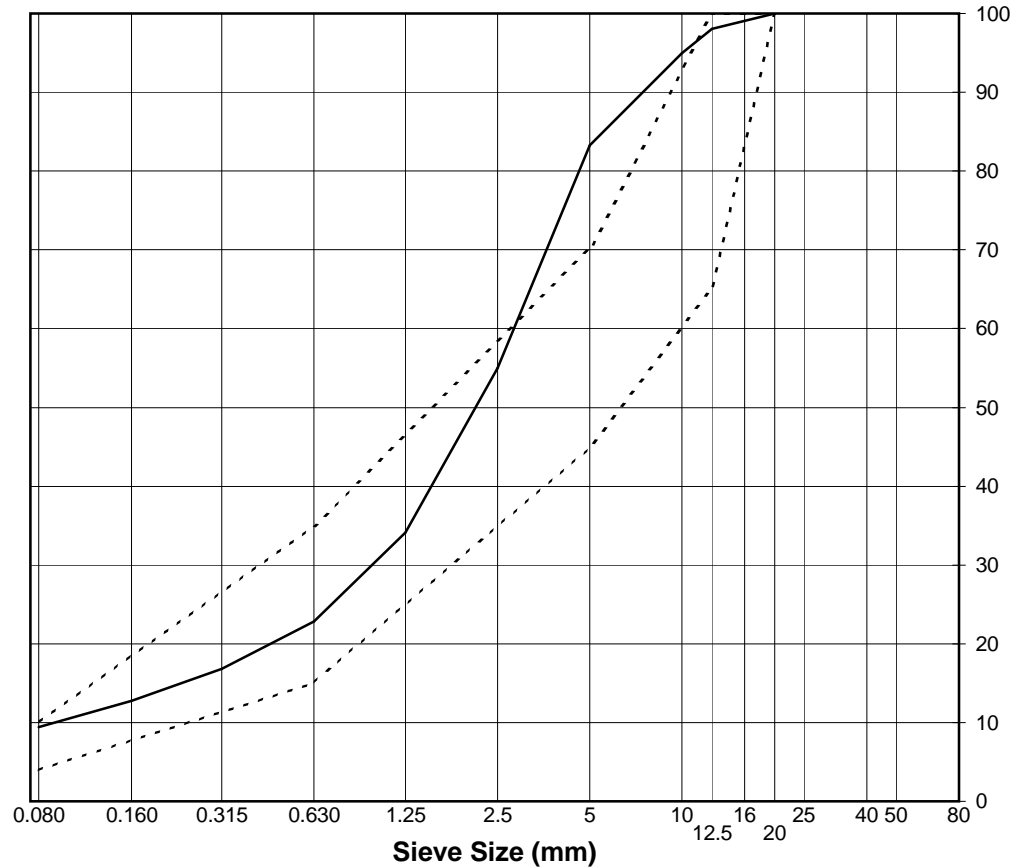
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 152  
Date Received: April 11, 2011  
Sampled by: JJJ  
Date Tested: April 11, 2011  
Tested by: GFL/JJJ Office: On-site lab  
Moisture Content (as received): 8.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	83
2.5	55
1.25	34
0.630	23
0.315	17
0.160	13
0.080	9.4



Remarks: File name: HB-FCP-CORE-PSD 78-QA-20110411

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

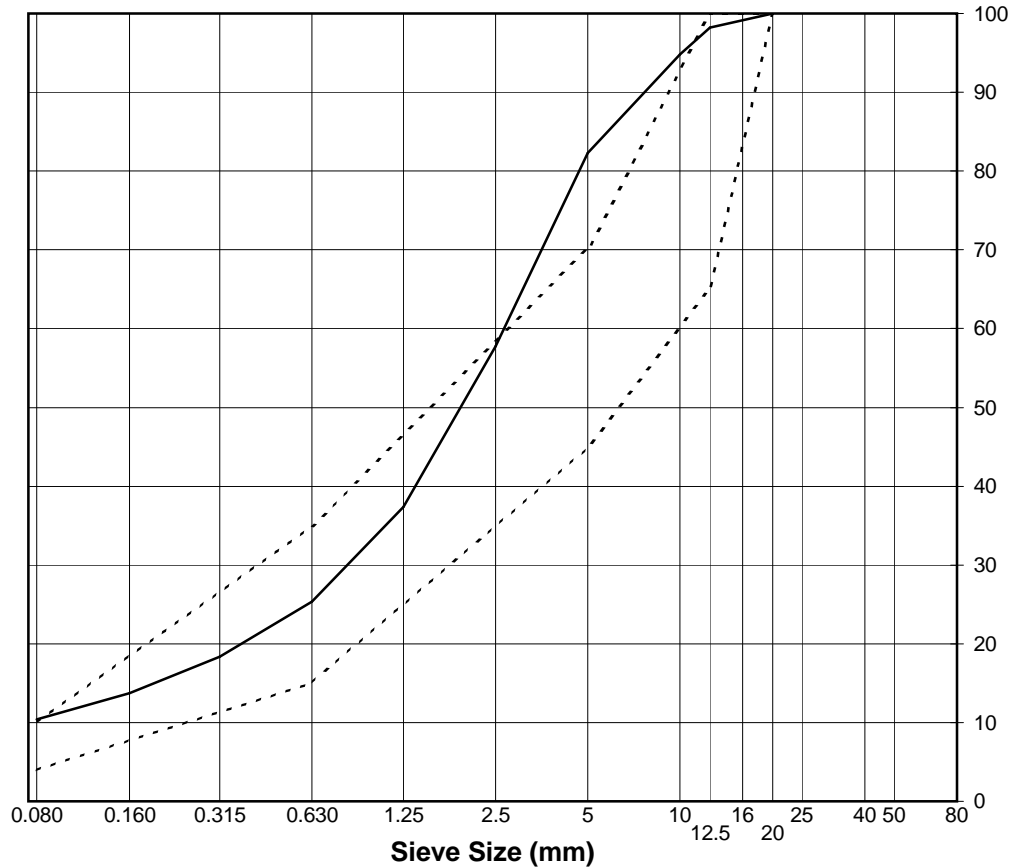
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 157  
Date Received: April 13, 2011  
Sampled by: JJJ  
Date Tested: April 13, 2011  
Tested by: GFL/JJJ Office: On-site lab  
Moisture Content (as received): 8.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	82
2.5	58
1.25	37
0.630	25
0.315	18
0.160	14
0.080	10.4



Remarks: File name: HB-FCP-CORE-PSD 79-QA-20110413

Material sampled at FCP chute

Reviewed By: \_\_\_\_\_

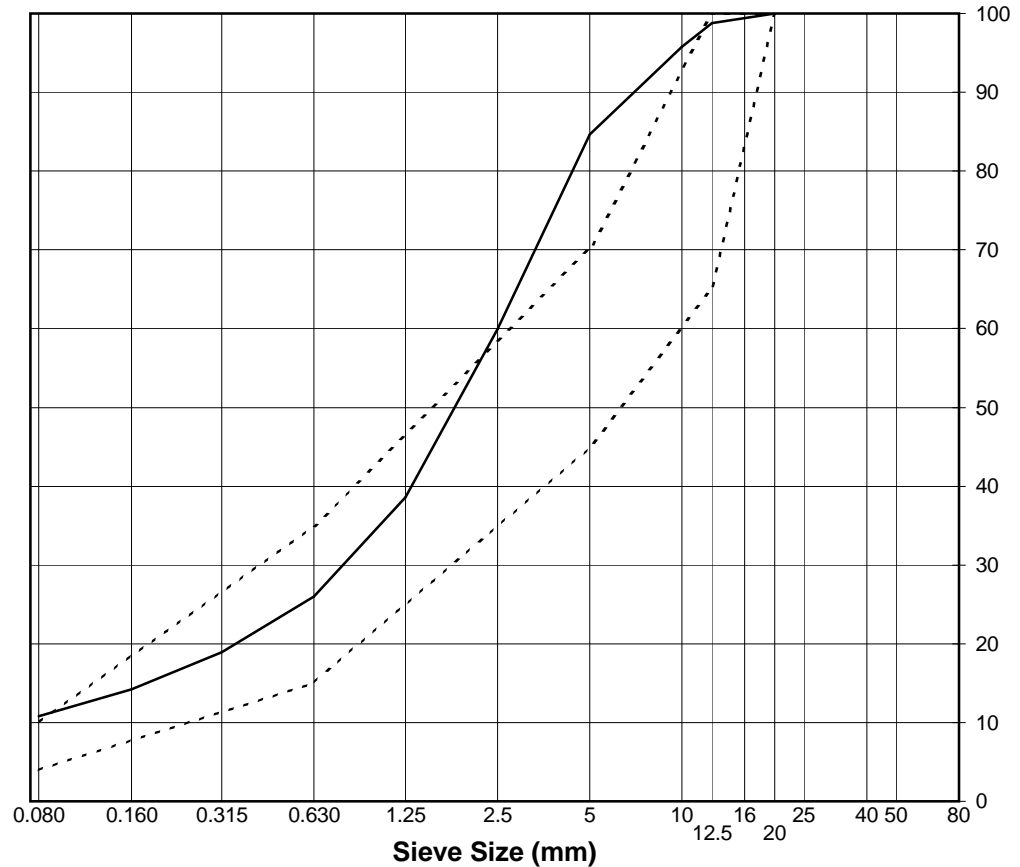
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Spill-Over Stn0+85 1st Lift  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 161  
Date Received: April 14, 2011  
Sampled by: JJJ  
Date Tested: April 14, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 5.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	85
2.5	60
1.25	39
0.630	26
0.315	19
0.160	14
0.080	10.8



Remarks: File name: HB-FCP-CORE-PSD 80-QA-20110414

Material sampled at Spill-Over Stn0+85 1st Lift

Reviewed By: \_\_\_\_\_

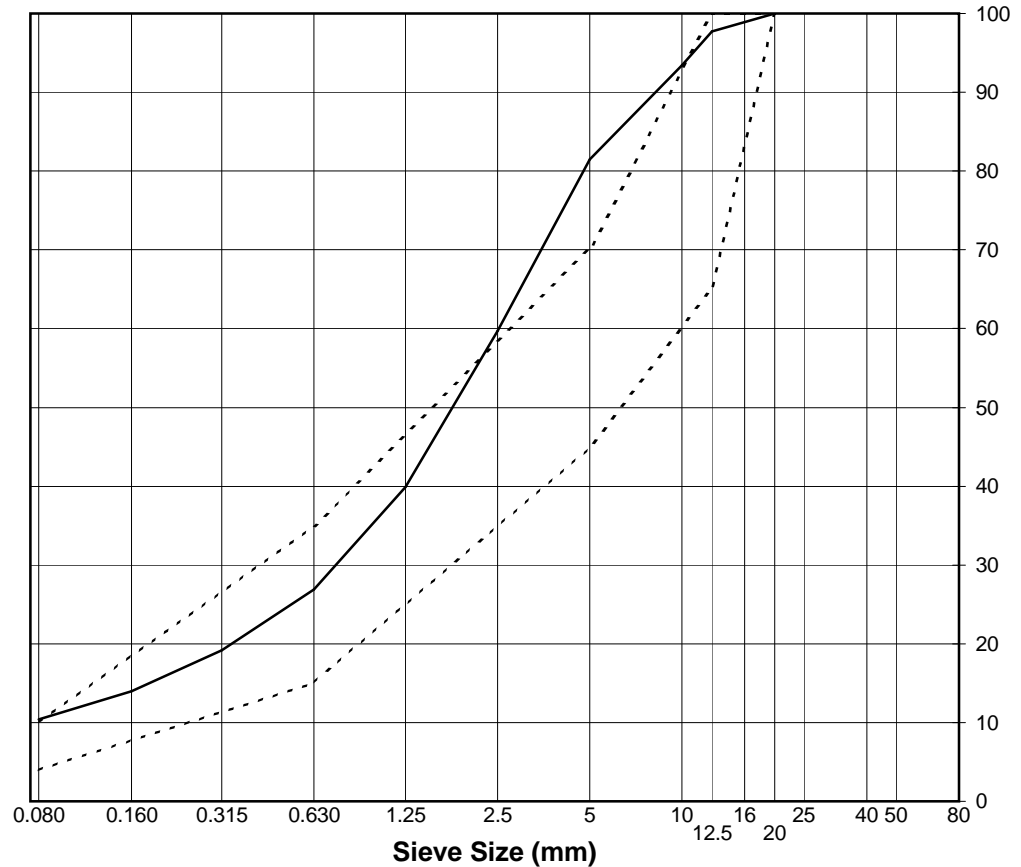
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 162  
Date Received: April 14, 2011  
Sampled by: JJJ  
Date Tested: April 15, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 9.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	81
2.5	60
1.25	40
0.630	27
0.315	19
0.160	14
0.080	10.4



Remarks: File name: HB-FCP-CORE-PSD 81-QA-20110414

Reviewed By: \_\_\_\_\_

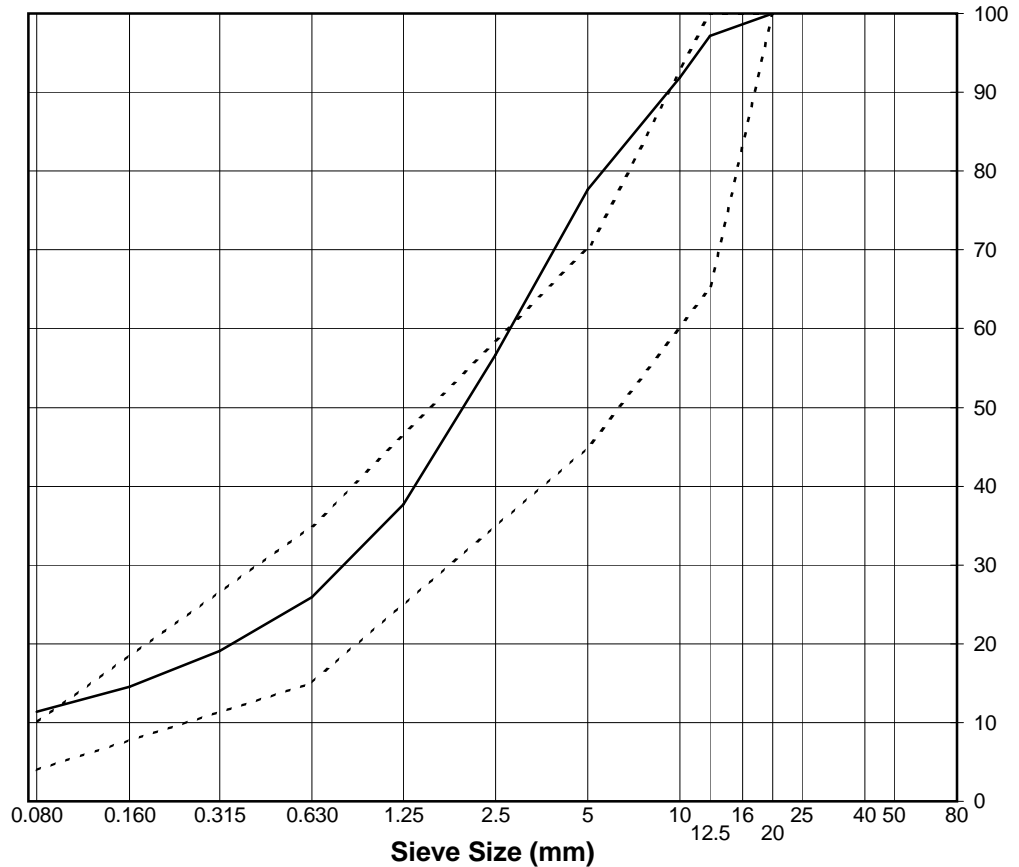
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC55-QA-20110414  
Supplier: Nuna  
Sample Location: STN. 1+10 D/S  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 163  
Date Received: April 14, 2011  
Sampled by: JJJ  
Date Tested: April 15, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 11.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	92
5	78
2.5	57
1.25	38
0.630	26
0.315	19
0.160	15
0.080	11.3



Remarks: File name: HB-ND-CORE-PSD 82-QA-20110414

Corelated to sample #157 PSD79-QA-20110413, DC55-QA-20110414 and CT343/2011-04-13

Reviewed By: \_\_\_\_\_

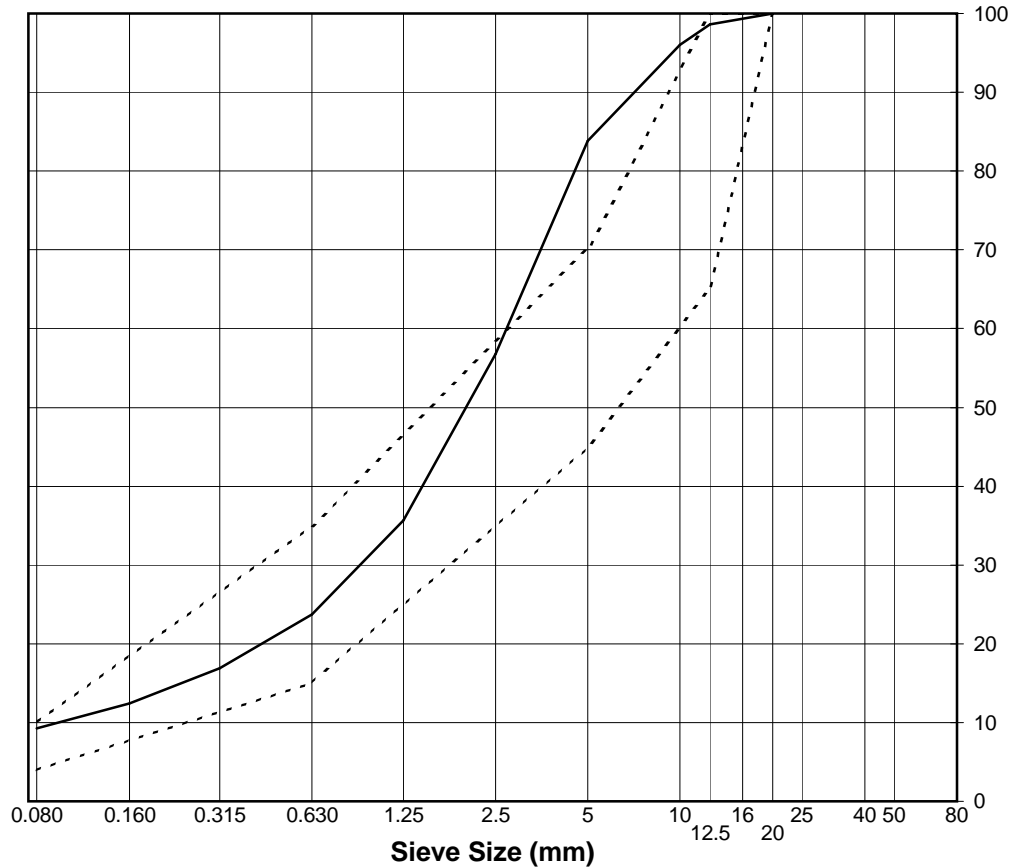
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 166  
Date Received: April 16, 2011  
Sampled by: GDV  
Date Tested: April 16, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 7.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	84
2.5	57
1.25	36
0.630	24
0.315	17
0.160	12
0.080	9.2



Remarks: File name: HB-FCP-CORE-PSD 83-QA-20110416

Reviewed By: \_\_\_\_\_

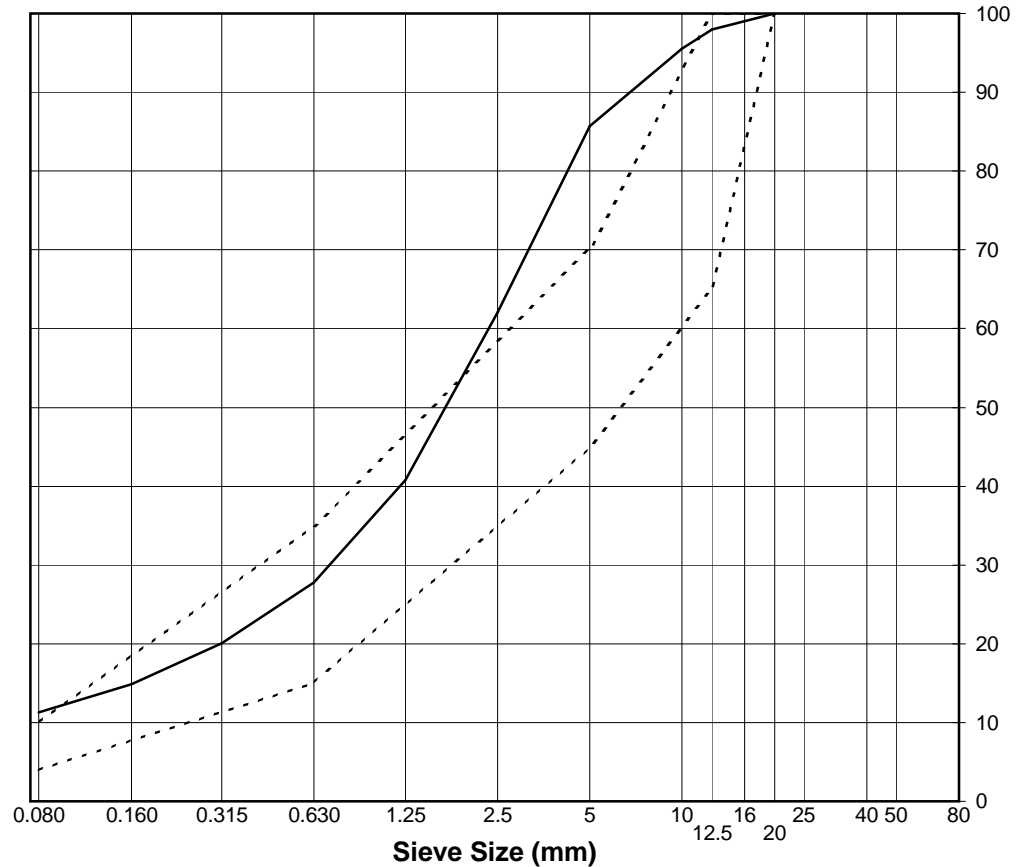
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 169  
Date Received: April 17, 2011  
Sampled by: JJJ  
Date Tested: April 17, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 9.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	96
5	86
2.5	62
1.25	41
0.630	28
0.315	20
0.160	15
0.080	11.3



Remarks: File name: HB-FCP-CORE-PSD 84-QA-20110417

Reviewed By: \_\_\_\_\_

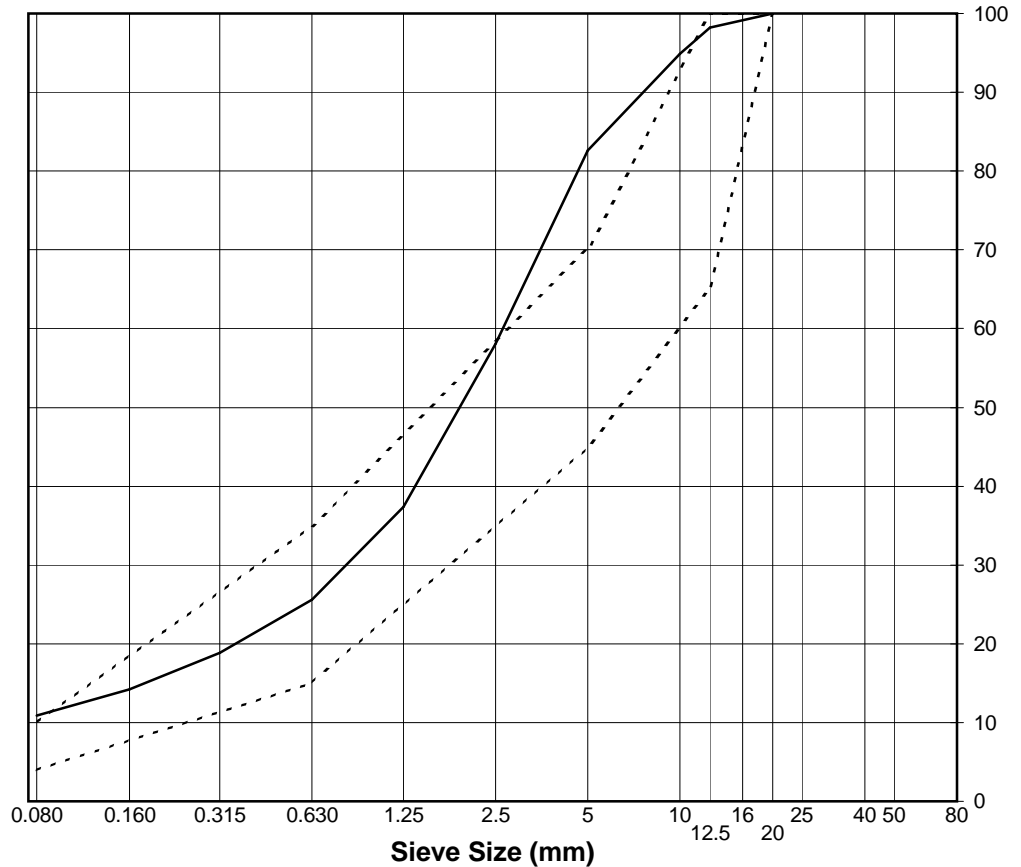
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 172  
Date Received: April 18, 2011  
Sampled by: JJJ  
Date Tested: April 18, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 7.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	83
2.5	58
1.25	37
0.630	26
0.315	19
0.160	14
0.080	10.9



Remarks: File name: HB-FCP-CORE-PSD 85-QA-20110418

Reviewed By: \_\_\_\_\_

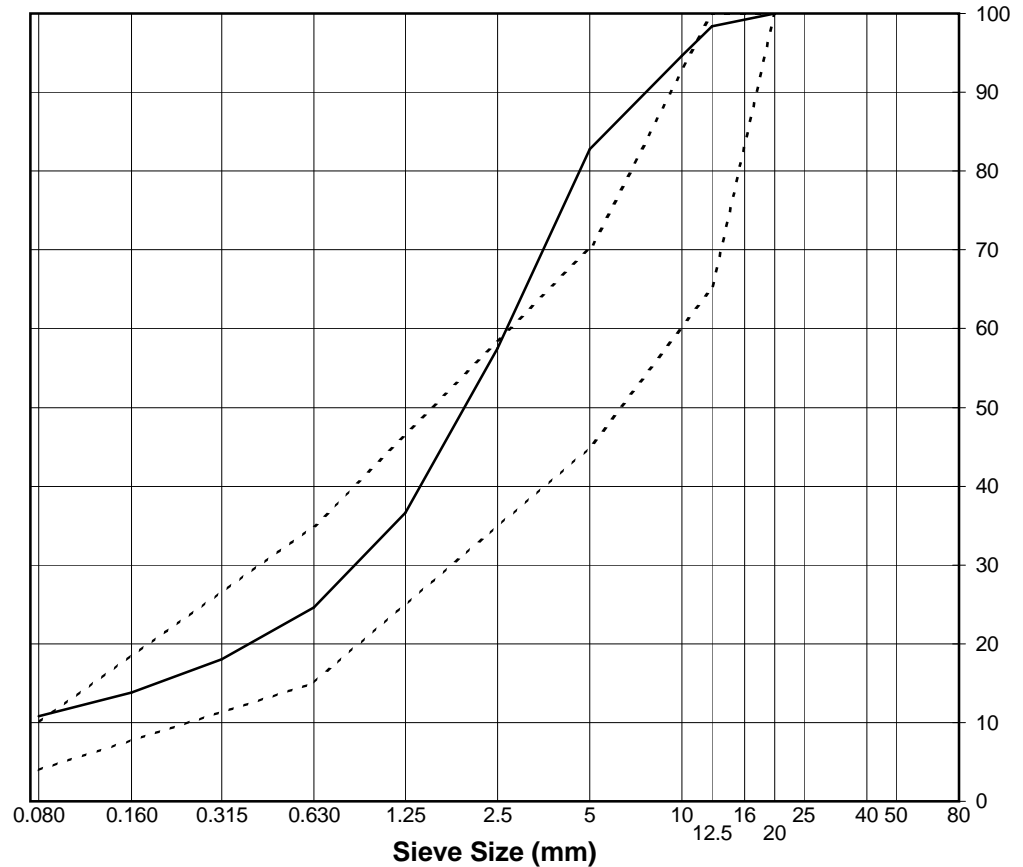
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 179  
Date Received: April 19, 2011  
Sampled by: JJJ  
Date Tested: April 19, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 9.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	83
2.5	58
1.25	37
0.630	25
0.315	18
0.160	14
0.080	10.8



Remarks: File name: HB-FCP-CORE-PSD 86-QA-20110419

Reviewed By: \_\_\_\_\_

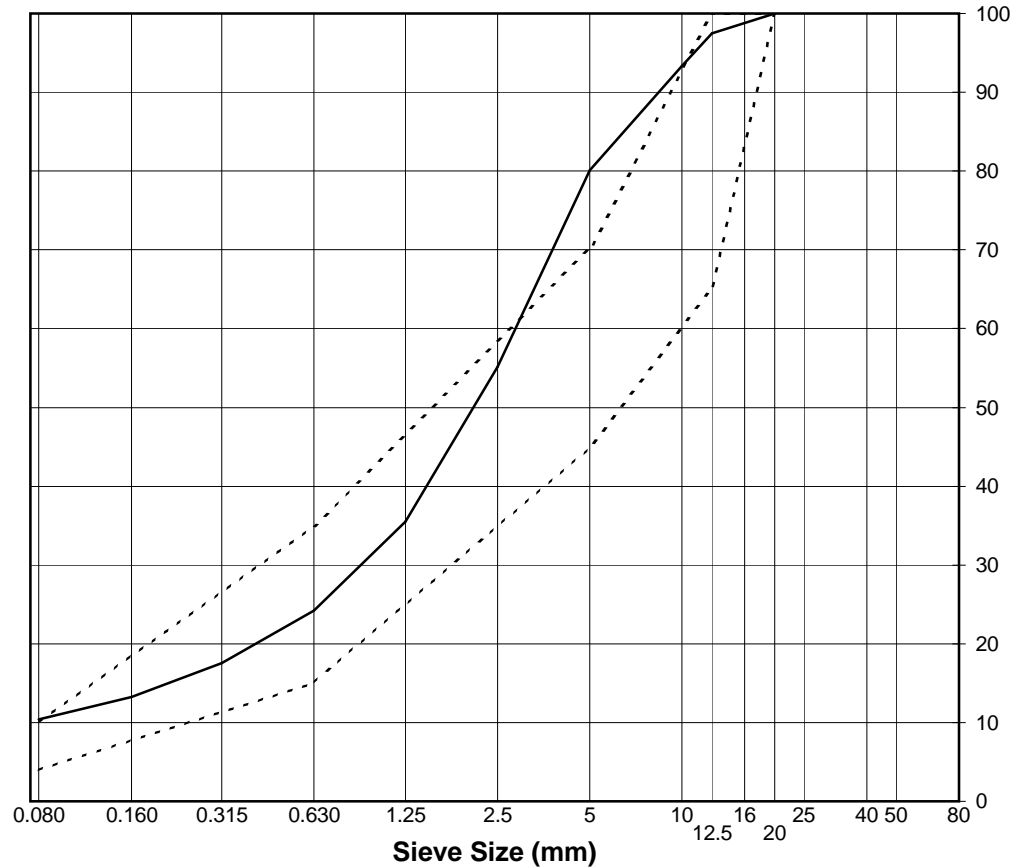
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 187  
Date Received: April 21, 2011  
Sampled by: JJJ  
Date Tested: April 21, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 8.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	93
5	80
2.5	55
1.25	36
0.630	24
0.315	18
0.160	13
0.080	10.4



Remarks: File name: HB-FCP-CORE-PSD 87-QA-20110421

Reviewed By: \_\_\_\_\_

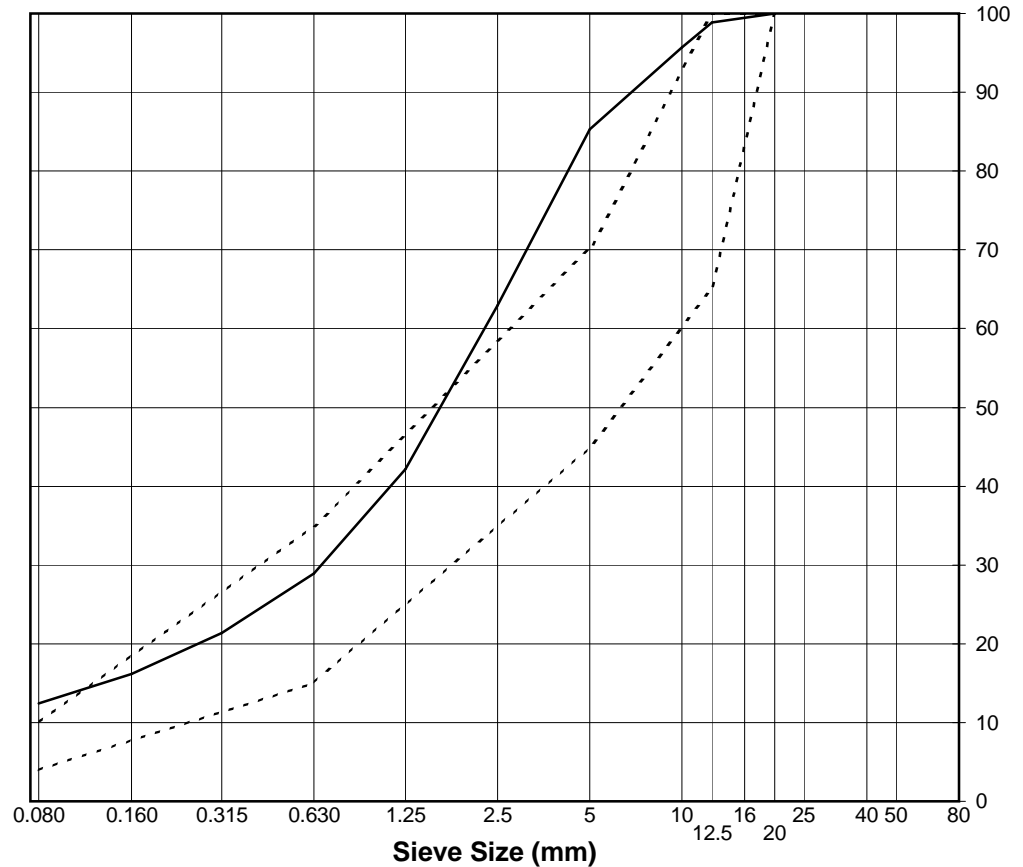
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC57-QA-20110422  
Supplier: Nuna  
Sample Location: STN. 0+74 U/S  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 193  
Date Received: April 22, 2011  
Sampled by: JJJ  
Date Tested: April 23, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 8.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	85
2.5	63
1.25	42
0.630	29
0.315	21
0.160	16
0.080	12.4



Remarks: File name: HB-ND-CORE-PSD 88-QA-20110422

Correlates to HB-ND-CORE-DC57-QA-20110422

Reviewed By: \_\_\_\_\_

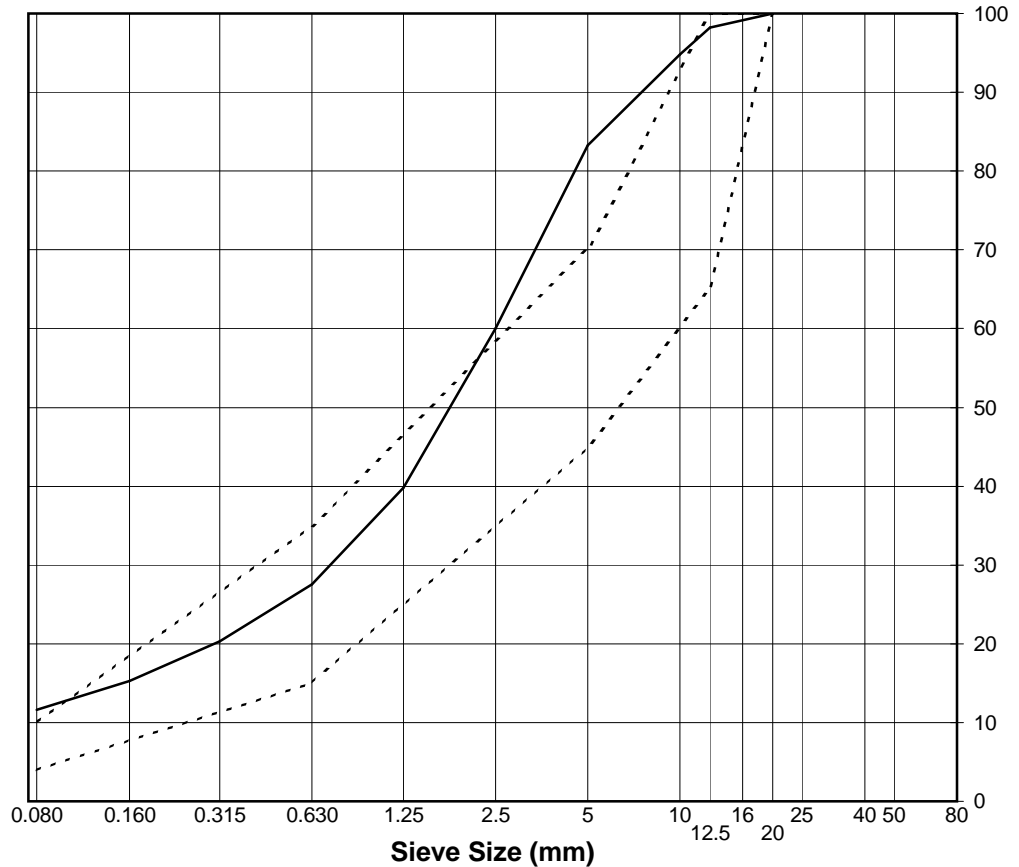
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC58-QA-20110422  
Supplier: Nuna  
Sample Location: STN. 0+45 C/L  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 194  
Date Received: April 22, 2011  
Sampled by: JJJ  
Date Tested: April 23, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 8.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	83
2.5	60
1.25	40
0.630	28
0.315	20
0.160	15
0.080	11.6



Remarks: File name: HB-ND-CORE-PSD 89-QA-20110422

Correlates to HB-ND-CORE-DC58-QA-20110422

Reviewed By: \_\_\_\_\_

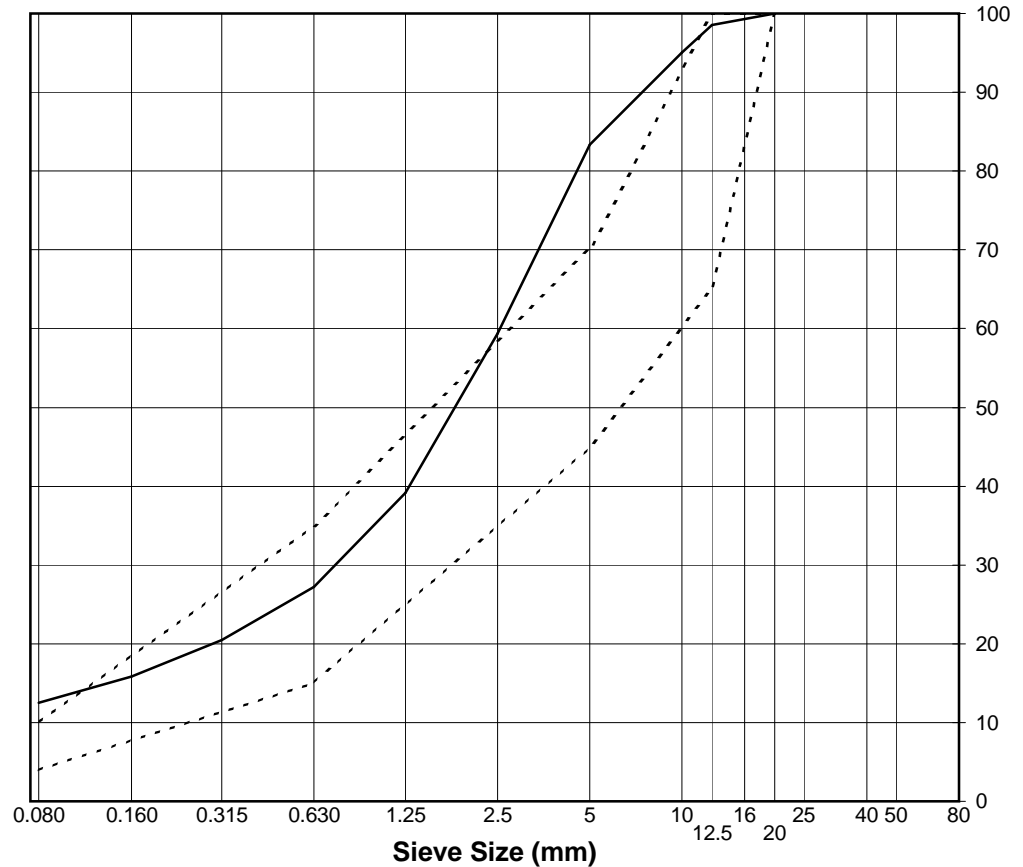
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC59-QA-20110422  
Supplier: Nuna  
Sample Location: STN. 1+66 U/S  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 195  
Date Received: April 22, 2011  
Sampled by: JJJ  
Date Tested: April 23, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 9.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	59
1.25	39
0.630	27
0.315	20
0.160	16
0.080	12.5



Remarks: File name: HB-ND-CORE-PSD 90-QA-20110422

Correlates to HB-ND-CORE-DC59-QA-20110422

Reviewed By: \_\_\_\_\_

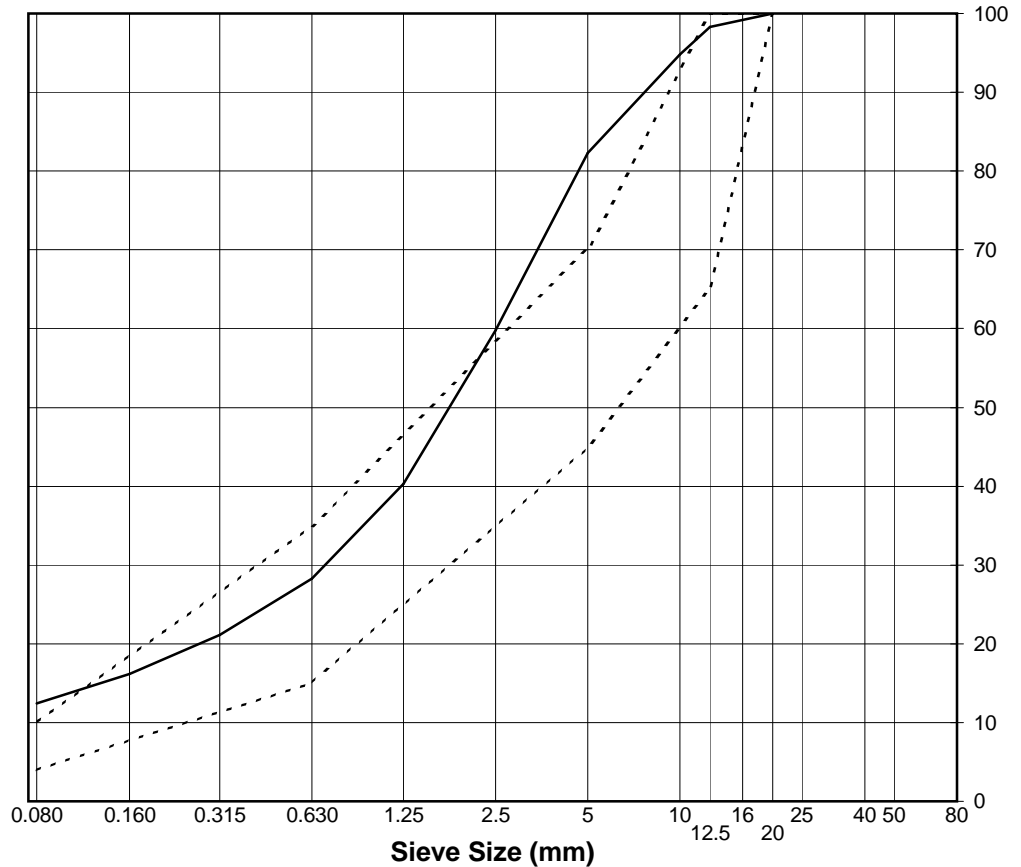
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC60-QA-20110422  
Supplier: Nuna  
Sample Location: STN. 1+20 U/S  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 196  
Date Received: April 22, 2011  
Sampled by: JJJ  
Date Tested: April 23, 2011  
Tested by: JJJ/GDV Office: On-site lab  
Moisture Content (as received): 9.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	82
2.5	60
1.25	40
0.630	28
0.315	21
0.160	16
0.080	12.5



Remarks: File name: HB-ND-CORE-PSD 91-QA-20110422

Correlates to HB-ND-CORE-DC60-QA-20110422

Reviewed By: \_\_\_\_\_

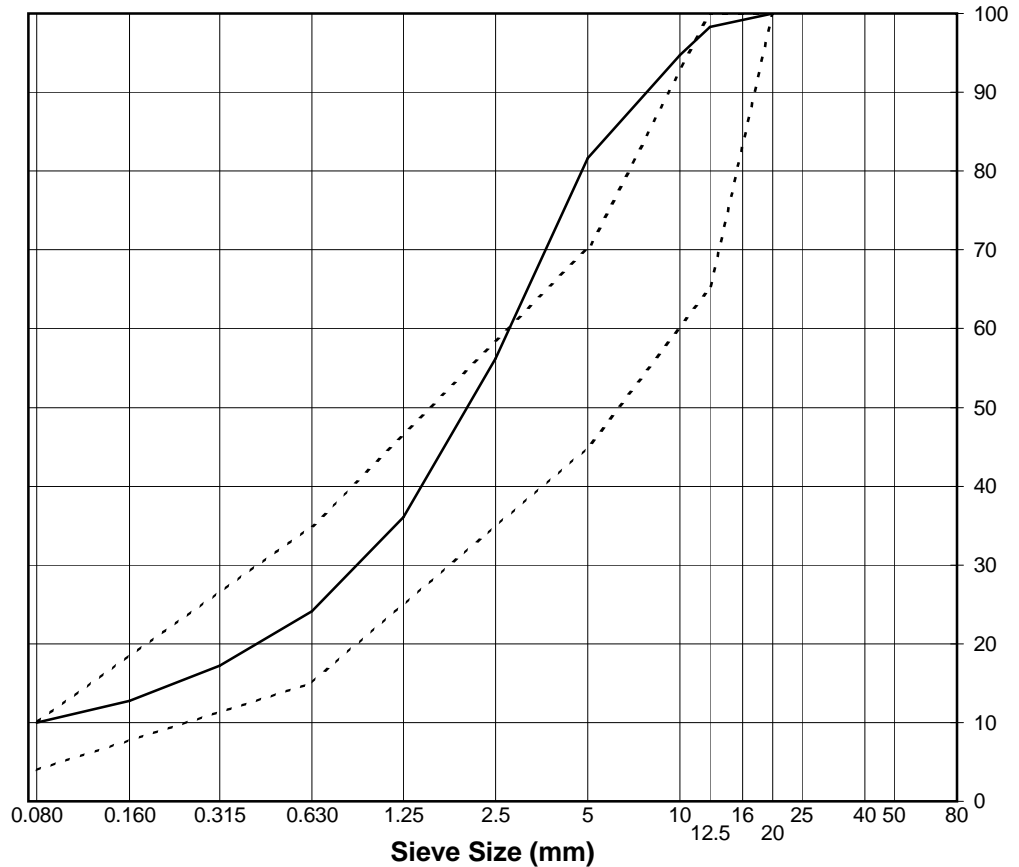
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 198  
Date Received: April 22, 2011  
Sampled by: GDV  
Date Tested: April 22, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 7.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	82
2.5	56
1.25	36
0.630	24
0.315	17
0.160	13
0.080	10.0



Remarks: File name: HB-FCP-CORE-PSD 92-QA-20110422

Reviewed By: \_\_\_\_\_

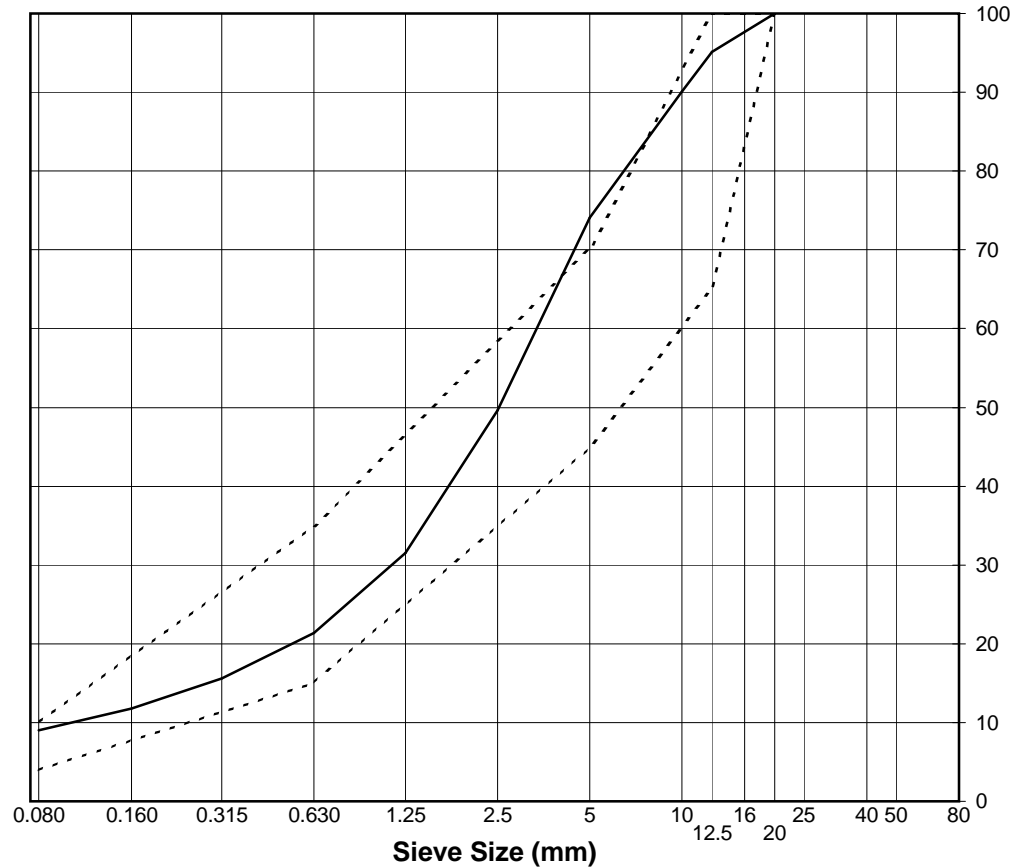
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 213  
Date Received: April 28, 2011  
Sampled by: GDV  
Date Tested: April 28, 2011  
Tested by: GDV Office: On-site lab  
Moisture Content (as received): 8.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	95
10.0	90
5	74
2.5	50
1.25	32
0.630	21
0.315	16
0.160	12
0.080	9.0



Remarks: File name: HB-FCP-CORE-PSD 93-QA-20110428

Reviewed By: \_\_\_\_\_

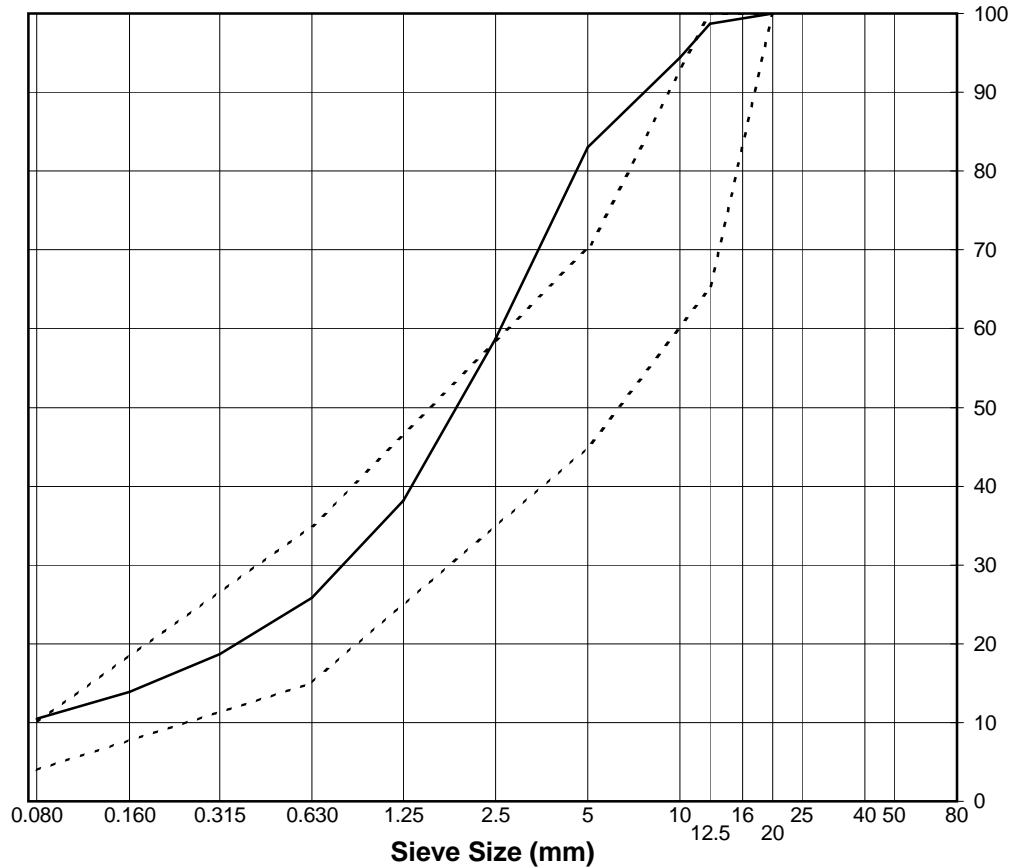
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume)  
Source: FCP  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 227  
Date Received: May 2, 2011  
Sampled by: GFL  
Date Tested: May 2, 2011  
Tested by: GFL/GDV Office: On-site lab  
Moisture Content (as received): 9.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	94
5	83
2.5	59
1.25	38
0.630	26
0.315	19
0.160	14
0.080	10.5



Remarks: File name: HB-FCP-CORE-PSD 94-QA-20110502

Reviewed By: \_\_\_\_\_

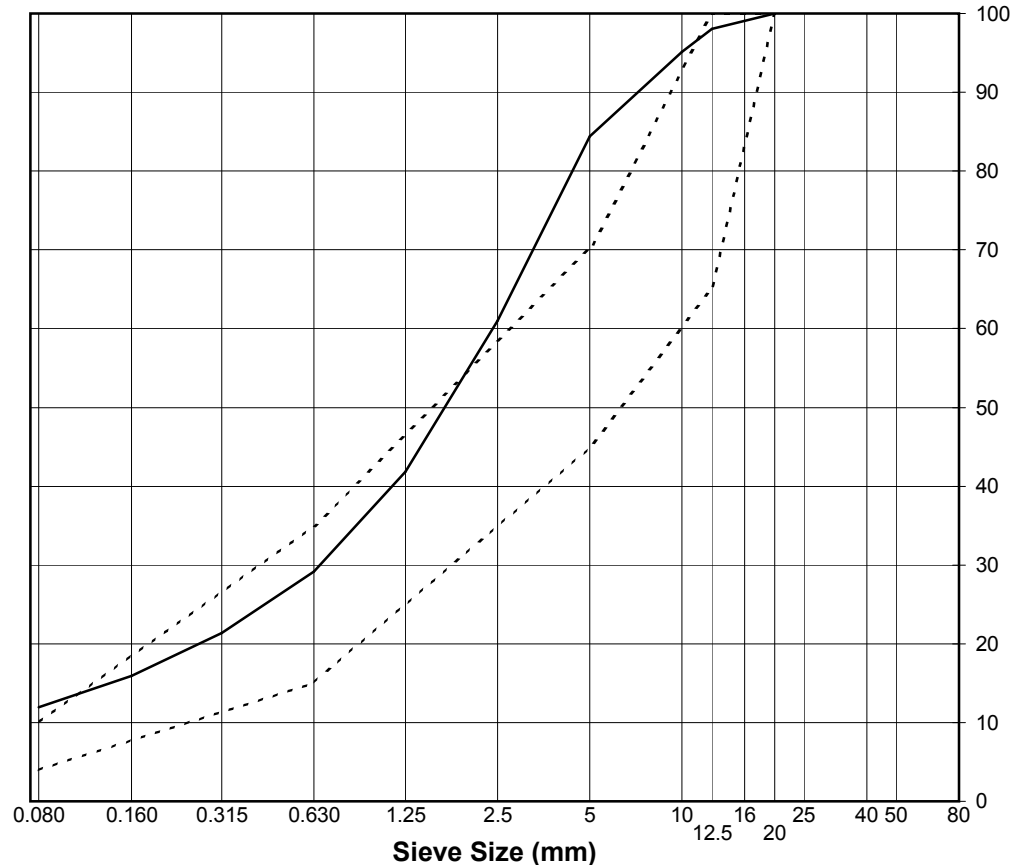
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: Core Material/Fines Blend (2 to 3 by volume) from a Drilled Core  
Source: Core No HB-ND-CORE-DC62-QA-20110505  
Supplier: Nuna  
Sample Location: STN. 0+35 U/S. Elv: GCL+0.6m  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 231  
Date Received: May 5, 2011  
Sampled by: GFL  
Date Tested: May 6, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 11.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	95
5	84
2.5	61
1.25	42
0.630	29
0.315	21
0.160	16
0.080	11.9



Remarks: File name: HB-ND-CORE-PSD 95-QA-20110505

Correlates to HB-ND-CORE-DC62-QA-20110505

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

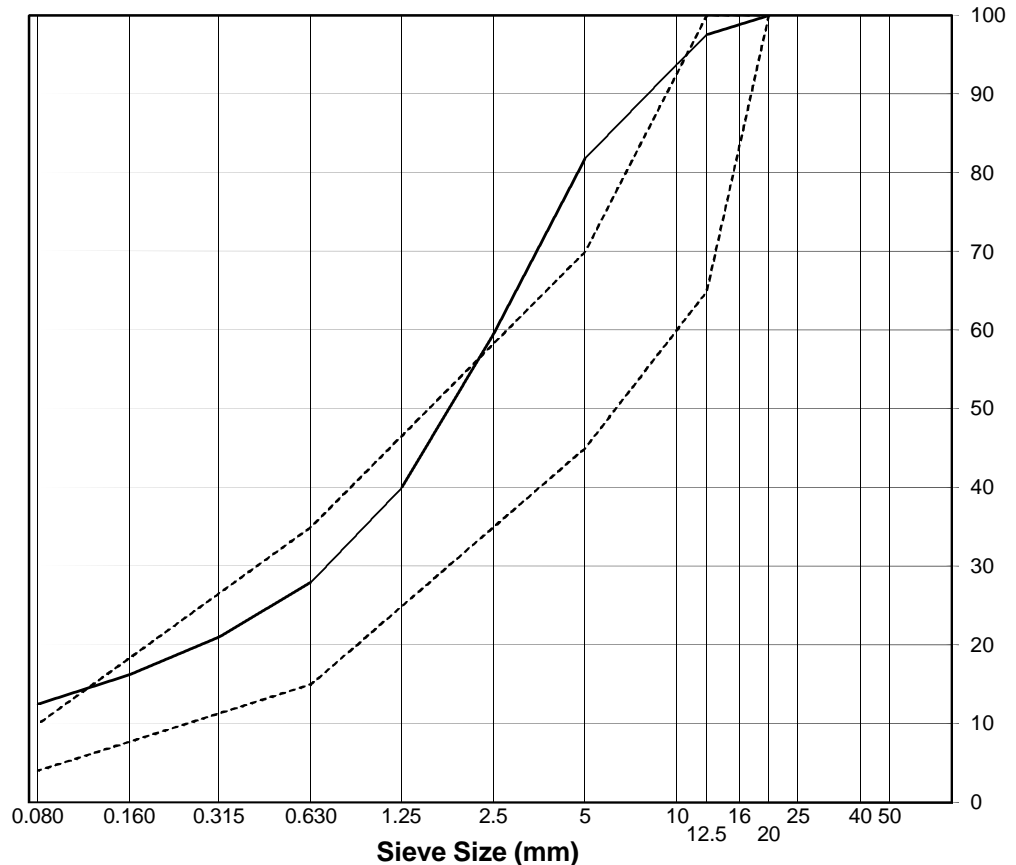
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-60  
Date Sampled: February 1, 2012  
Sampled by: JS  
Date Tested: February 2, 2012  
Tested by: JS Office: On-site Lab  
Moisture Content (as received): 9.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 14

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	82
2.5	60
1.25	40
0.630	28
0.315	21
0.160	16
0.080	12.5



Remarks: File name: HB12-FCP-CORE-PSD14-QA-20120201

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

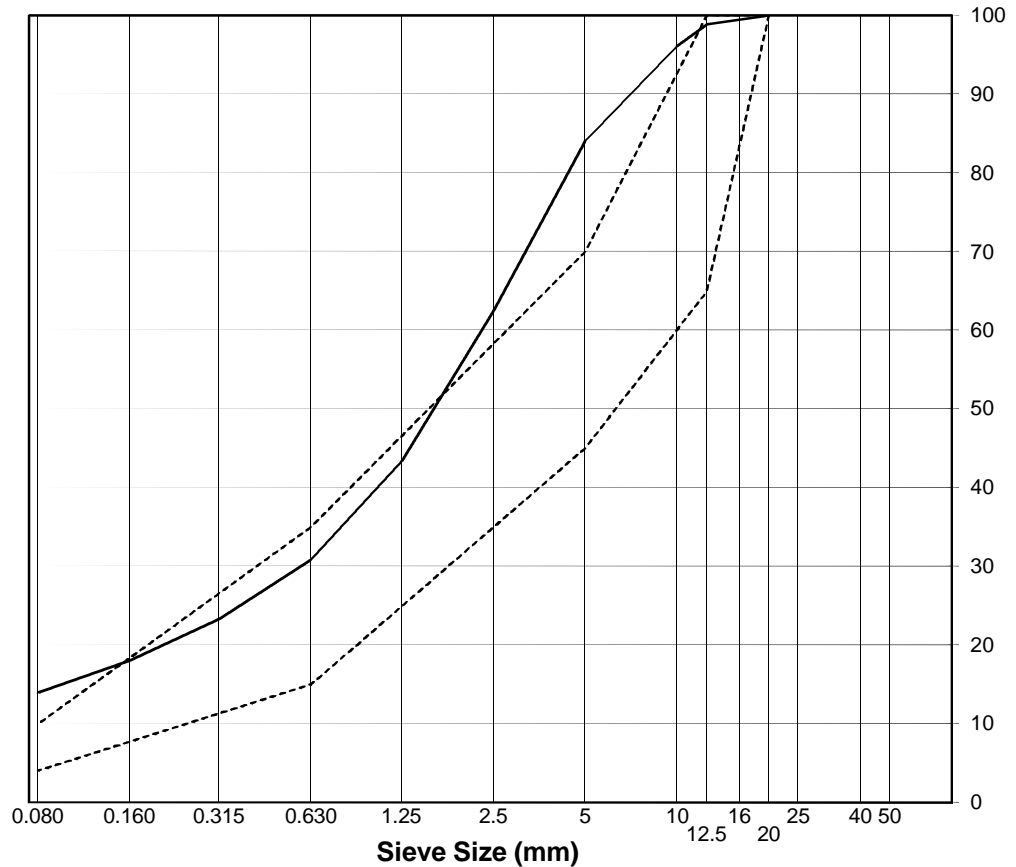
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: DC 18, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+90 D/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-66  
Date Received: February 3, 2012  
Sampled by: JS  
Date Tested: February 5, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 11.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 15

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	84
2.5	63
1.25	43
0.630	31
0.315	23
0.160	18
0.080	14.0



Remarks: File name: HB12-ND-CORE-PSD15-QA-20120203

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

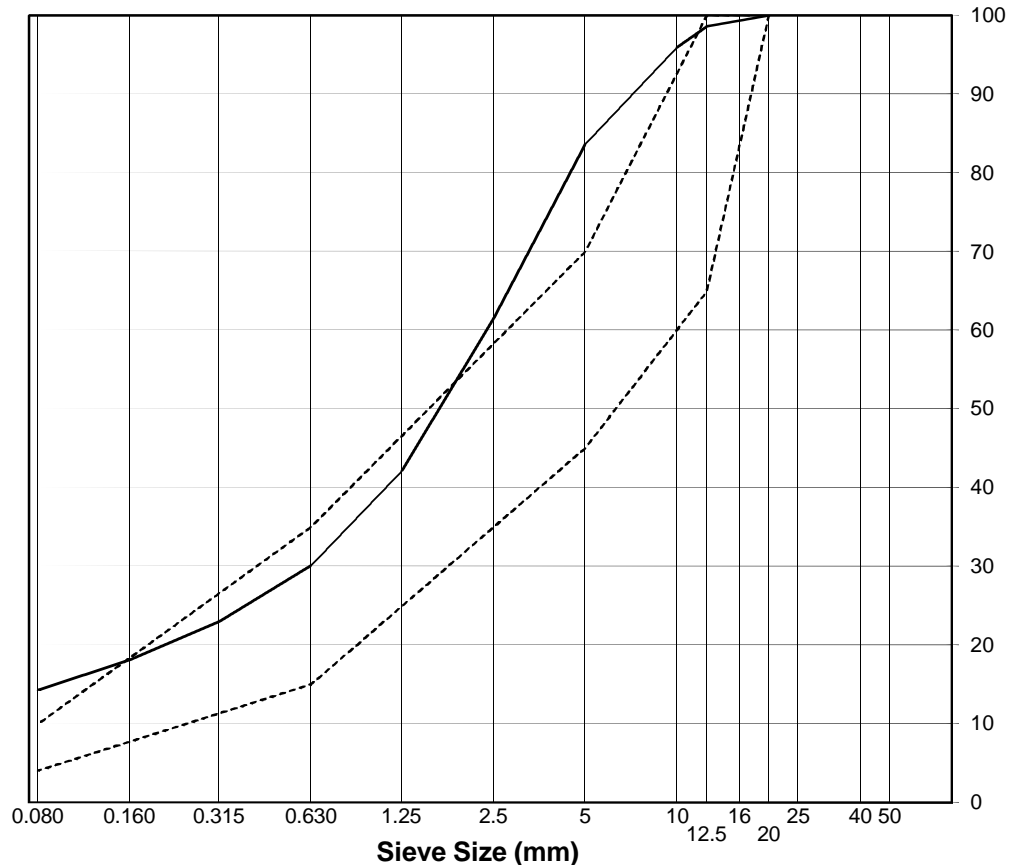
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: DC 21, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+54 CL, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-69  
Date Received: February 4, 2012  
Sampled by: JS  
Date Tested: February 5, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 10.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 16

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	84
2.5	62
1.25	42
0.630	30
0.315	23
0.160	18
0.080	14.3



Remarks: SRK File name: HB12-ND-CORE-PSD16-QA-20120204

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

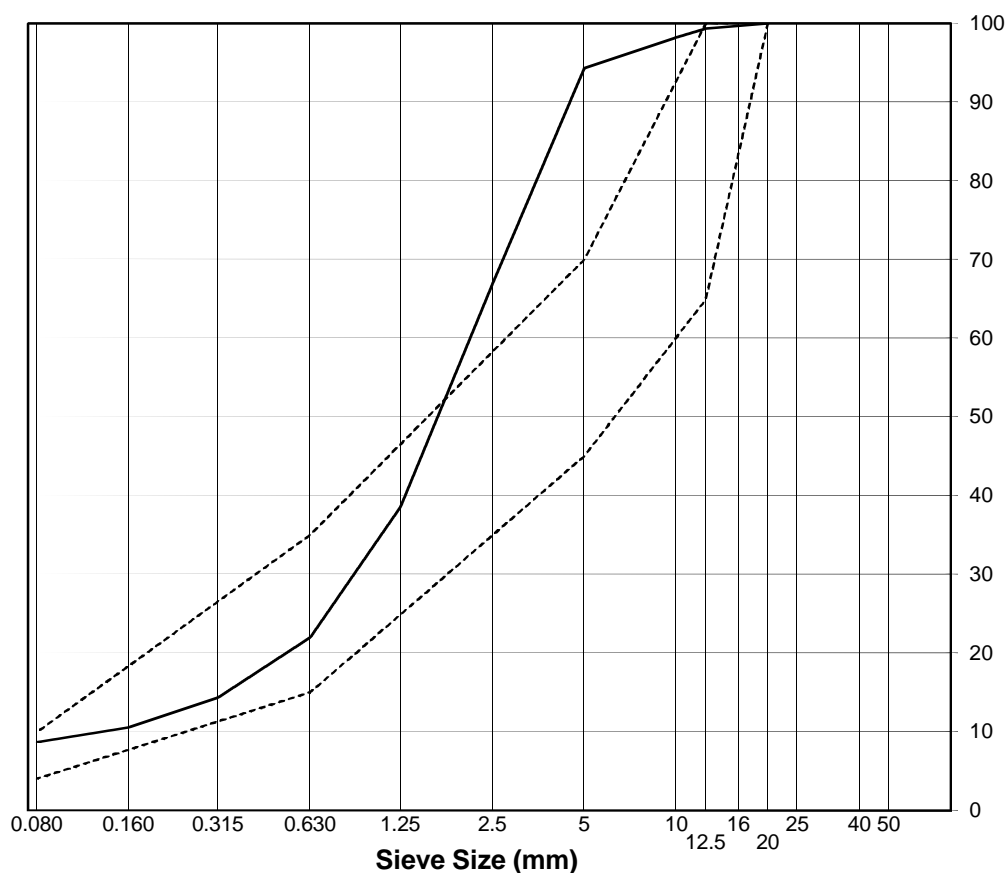
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend (2/3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Stockpile @ 16:15  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-76  
Date Received: February 5, 2012  
Sampled by: EP  
Date Tested: February 5, 2012  
Tested by: EP/JS Office: On-site Lab  
Moisture Content (as received): 4.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 17

Sieve Size	Percent Passing
20	100
12.5	99
10.0	98
5	94
2.5	67
1.25	39
0.630	22
0.315	14
0.160	11
0.080	8.7



Remarks: File name: HB12-CR-CORE-PSD17-QA-20120205

Large frozen chunks from the frozen core plant stockpile run through the crusher again

Reviewed By: \_\_\_\_\_

Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA. The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.

## SIEVE ANALYSIS REPORT

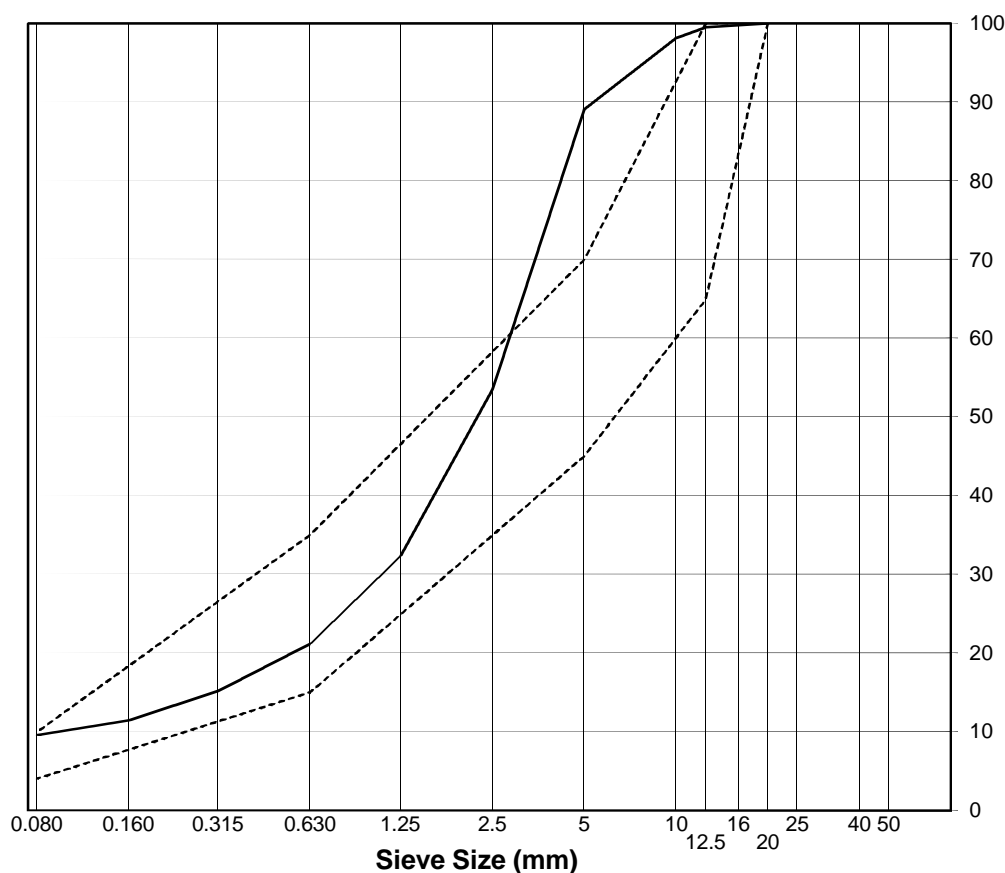
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend (2/3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-79  
Date Received: February 5, 2012  
Sampled by: JS  
Date Tested: February 7, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 4.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 18

Sieve Size	Percent Passing
20	100
12.5	100
10.0	98
5	89
2.5	54
1.25	32
0.630	21
0.315	15
0.160	11
0.080	9.6



Remarks: File name: HB12-CR-CORE-PSD18-QA-20120205

Large frozen chunks from the frozen core plant stockpile run through the crusher again

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

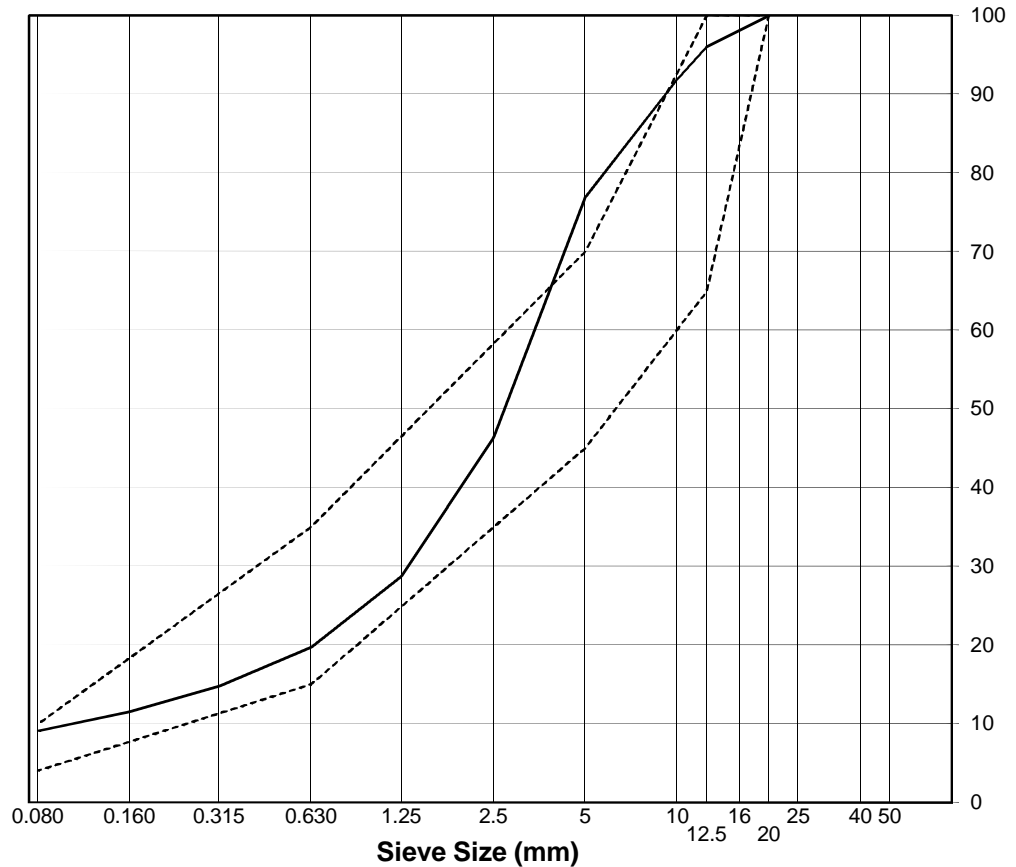
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-91  
Date Received: February 6, 2012  
Sampled by: JS  
Date Tested: February 7, 2012  
Tested by: EP/JS Office: On-site Lab  
Moisture Content (as received): 9.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 19

Sieve Size	Percent Passing
20	100
12.5	96
10.0	92
5	77
2.5	46
1.25	29
0.630	20
0.315	15
0.160	12
0.080	9.1



Remarks: File name: HB12-FCP-CORE-PSD19-QA-20120206

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

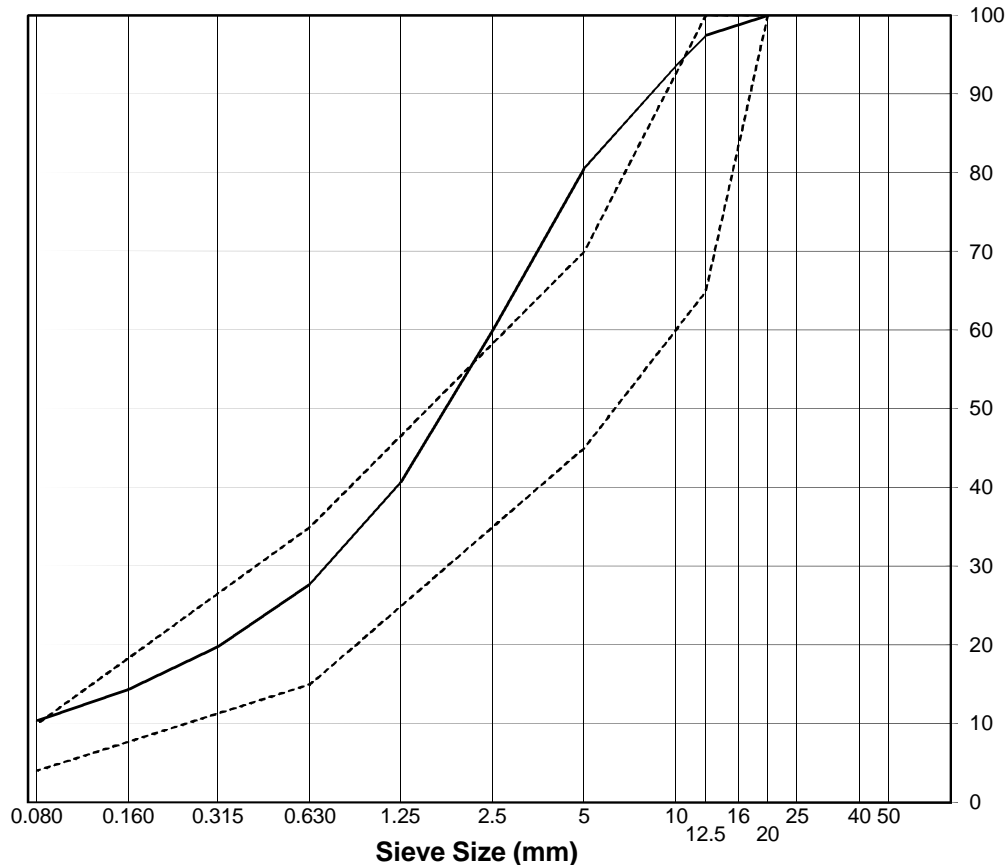
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend (2/3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-94  
Date Received: February 7, 2012  
Sampled by: JS  
Date Tested: February 8, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 9.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 20

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	81
2.5	60
1.25	41
0.630	28
0.315	20
0.160	14
0.080	10.4



Remarks: File name: HB12-CR-CORE-PSD20-QA-20120207

Large frozen chunks from the frozen core plant stockpile run through the crusher again

Reviewed By: \_\_\_\_\_

Data presented hereon is for the sole use of the stipulated client. EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of EBA. The testing services reported herein have been performed by an EBA technician to recognized industry standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, EBA will provide it upon written request.



## SIEVE ANALYSIS REPORT

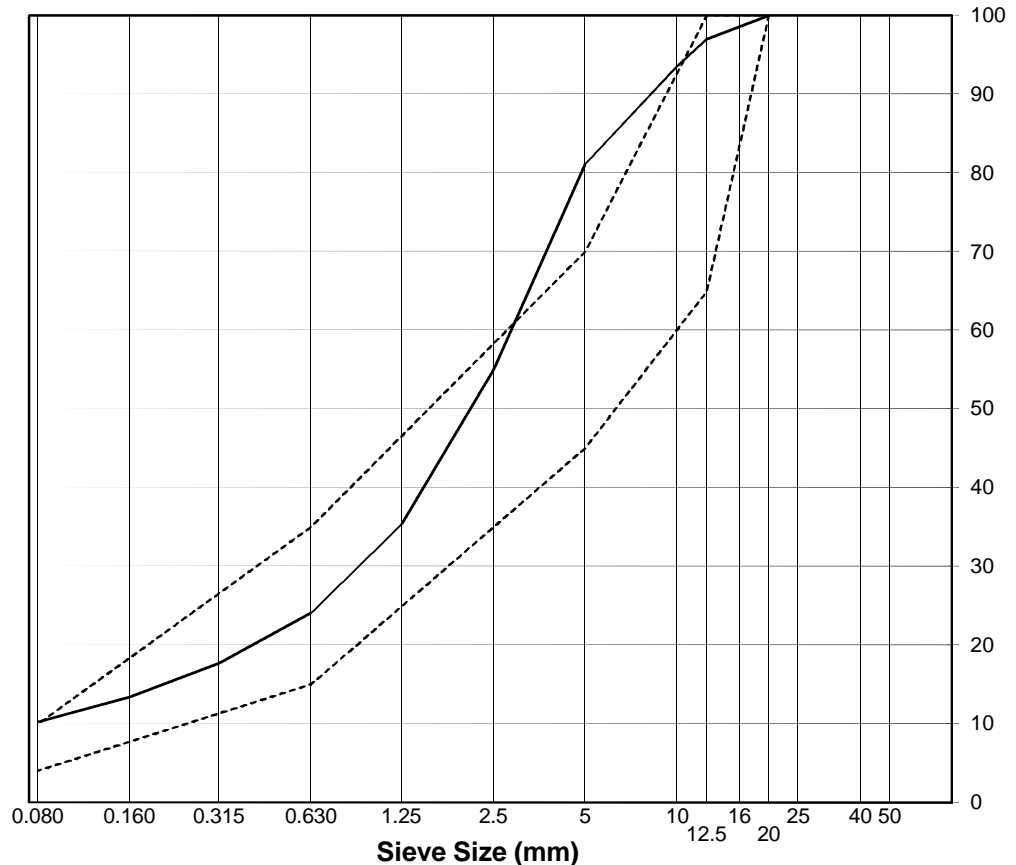
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: DC 26, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+72 D/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-95  
Date Sampled: February 8, 2012  
Sampled by: TB  
Date Tested: February 10, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 9.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 22

Sieve Size	Percent Passing
20	100
12.5	97
10.0	94
5	81
2.5	55
1.25	35
0.630	24
0.315	18
0.160	13
0.080	10.2



Remarks: File name: HB12-ND-CORE-PSD22-QA-20120208

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

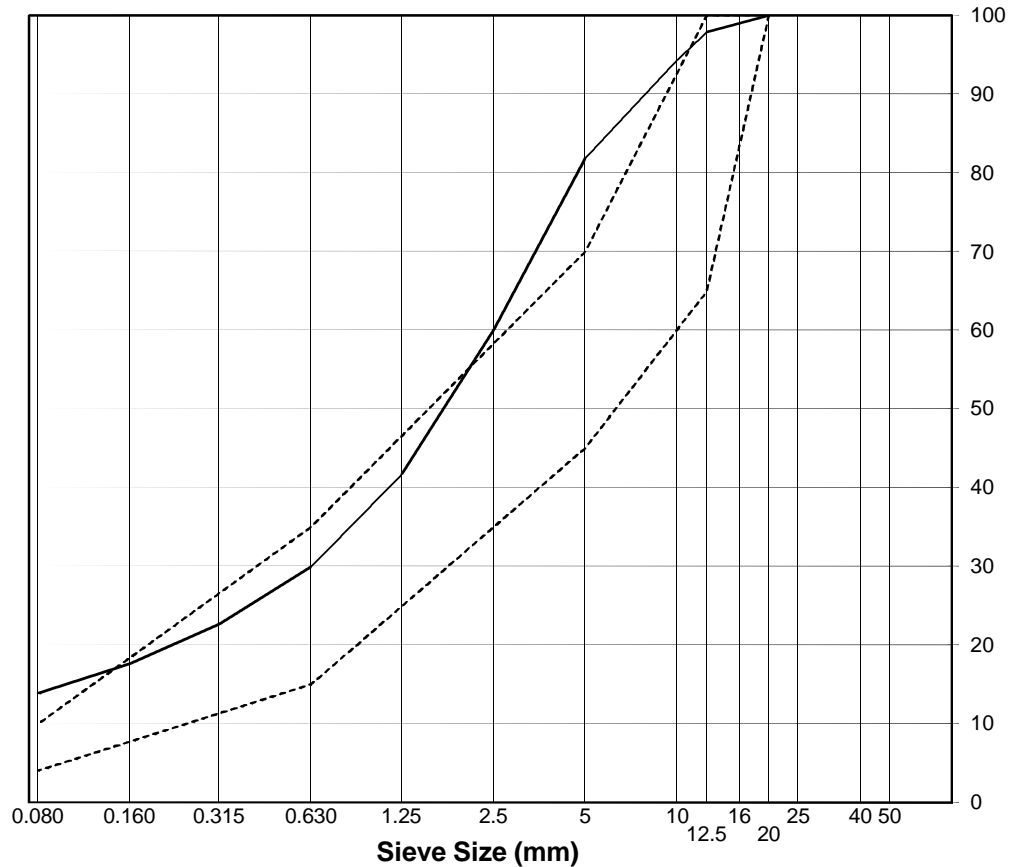
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: MC 67, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-102  
Date Sampled: February 8, 2012  
Sampled by: EP  
Date Tested: February 9, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 7.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 21

Sieve Size	Percent Passing
20	100
12.5	98
10.0	94
5	82
2.5	60
1.25	42
0.630	30
0.315	23
0.160	18
0.080	13.9



Remarks: File name: HB12-FCP-CORE-PSD21-QA-20120208

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

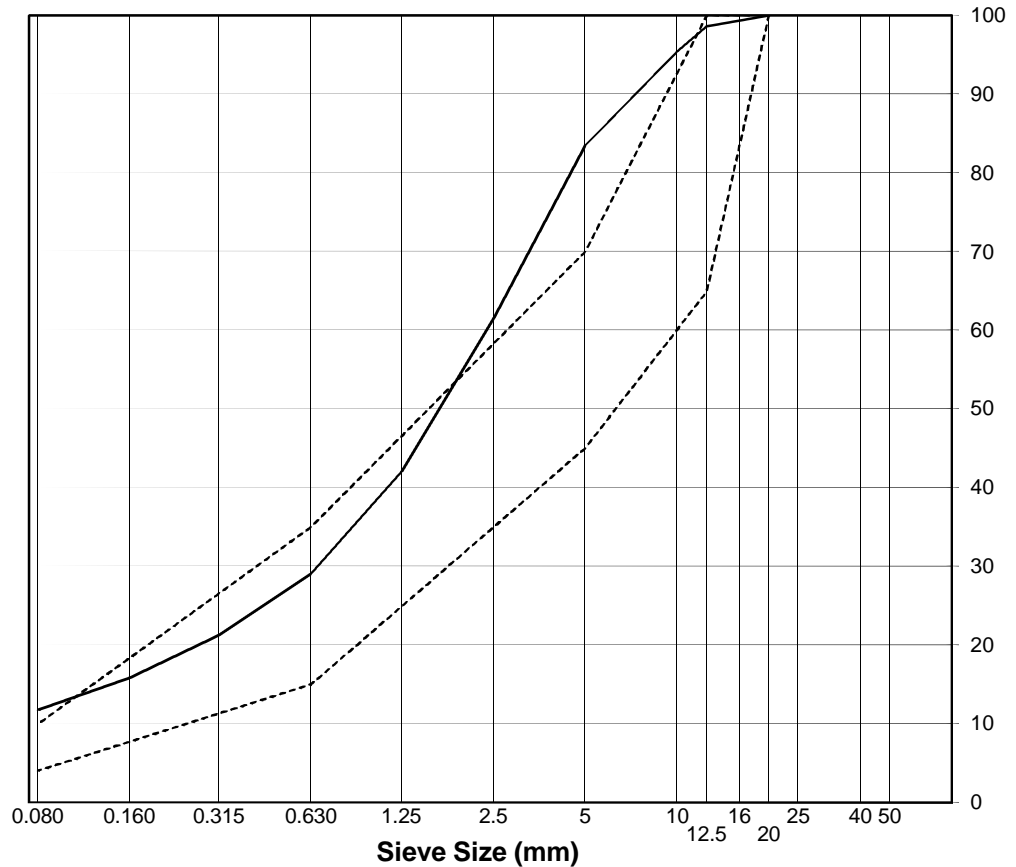
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-113  
Date Received: February 11, 2012  
Sampled by: TB  
Date Tested: February 12, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 8.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 23

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	62
1.25	42
0.630	29
0.315	21
0.160	16
0.080	11.8



Remarks: SRK Sample No. HB12-FCP-CORE-PSD23-QA-20120211

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

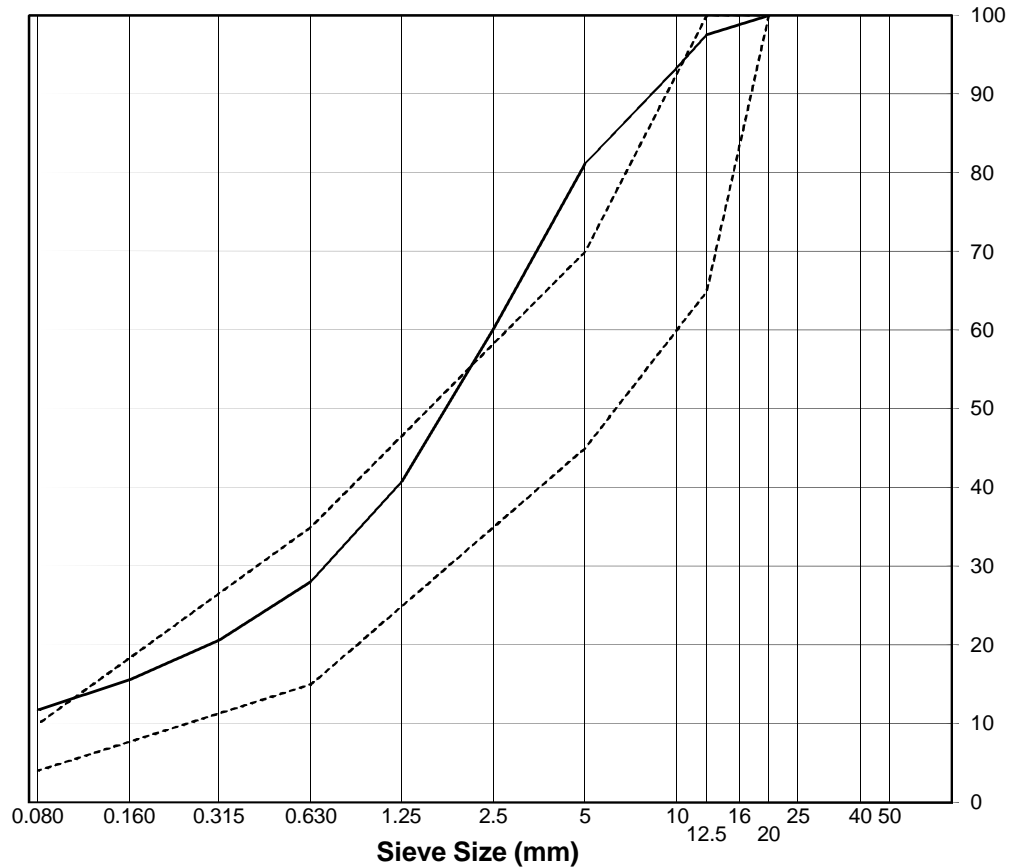
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend (2:3 by Volume)  
Source: MC 91, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-132  
Date Sampled: February 12, 2012  
Sampled by: EP  
Date Tested: February 12, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 9.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 24

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	81
2.5	60
1.25	41
0.630	28
0.315	21
0.160	16
0.080	11.8



Remarks: SRK Sample No. HB12-FCP-CORE-PSD24-QA-20120212

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

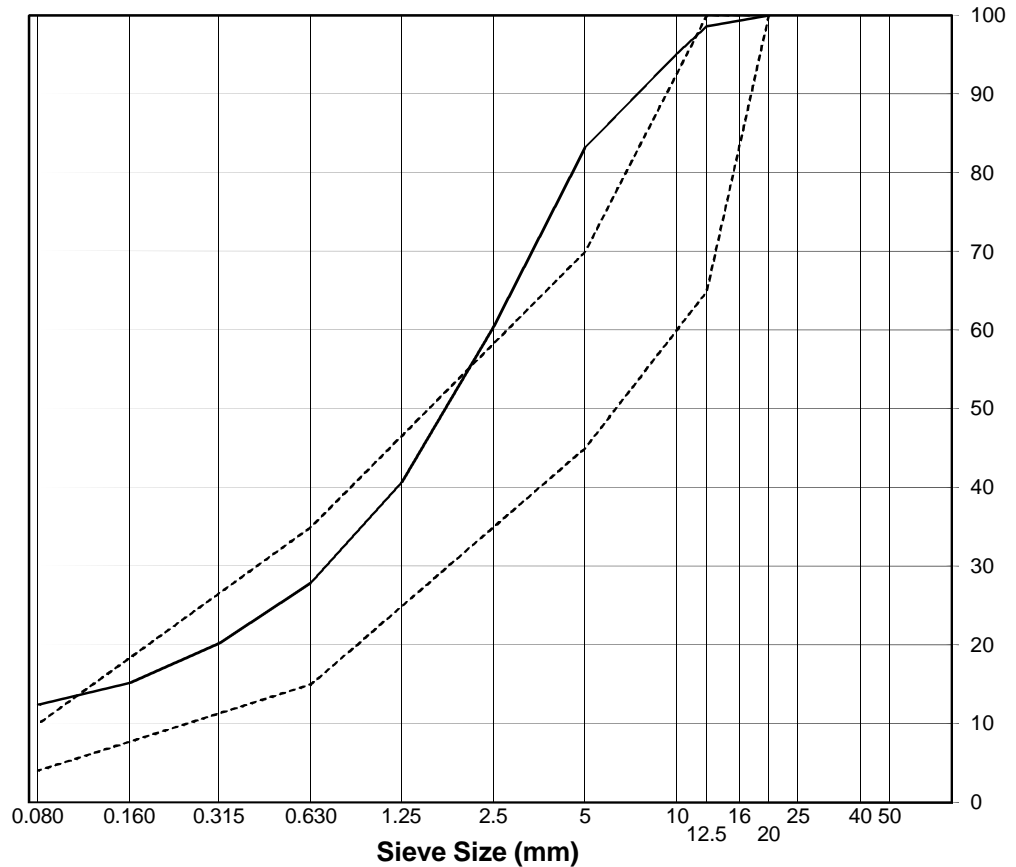
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Recrushed Core Material/Fines Blend (2:3 by Volume)  
Source: DC 33, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+00 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-138  
Date Sampled: February 12, 2012  
Sampled by: EP  
Date Tested: February 14, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 2.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 25

Sieve Size	Percent Passing
20	100
12.5	99
10.0	95
5	83
2.5	61
1.25	41
0.630	28
0.315	20
0.160	15
0.080	12.4



Remarks: File name: HB12-ND-CORE-PSD25-QA-20120212

Reviewed By: \_\_\_\_\_

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**Particle Size Distribution Test Certificates**  
**Core Material: Test Blend**

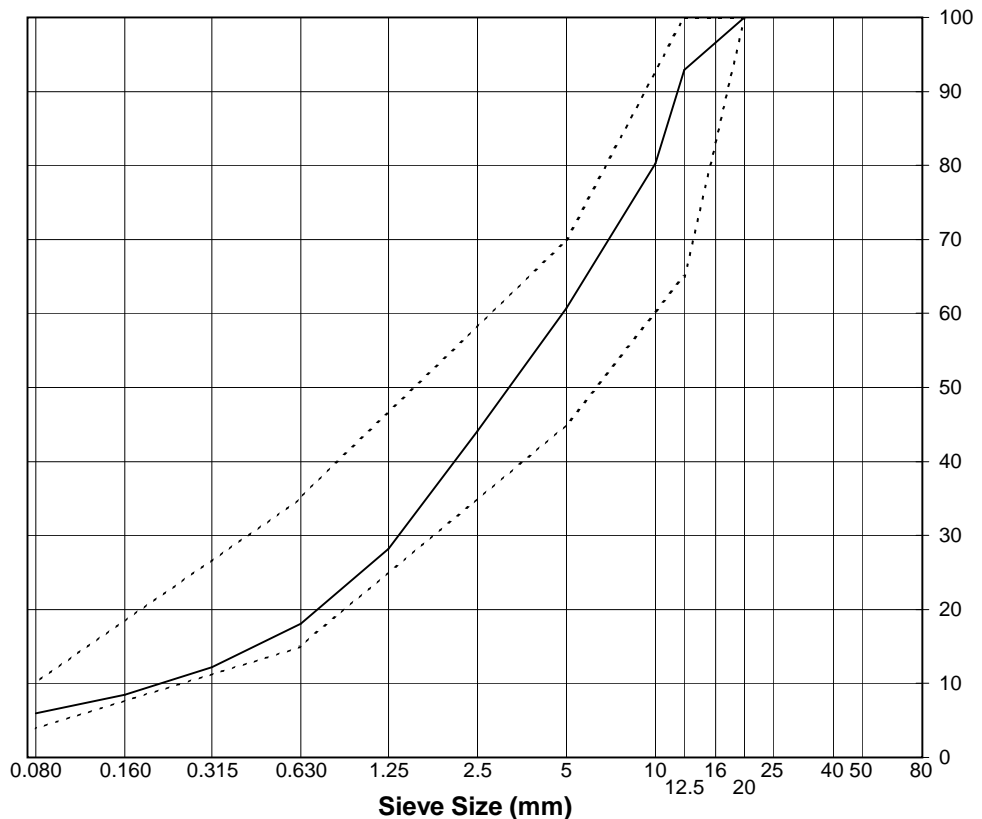
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 1 to 1 by volume)  
Source: Quarry 2 (fines) & FCP stockpile (core material)  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 40  
Date Received: March 5, 2011  
Sampled by: JO  
Date Tested: March 6, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 2.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	93
10.0	80
5	61
2.5	44
1.25	28
0.630	18
0.315	12
0.160	8
0.080	6.0



Remarks: File name: HB-FCP-CORE-PSD 40-QA-20110306

50/50 Fines to Core Material by volume.

Reviewed By: \_\_\_\_\_

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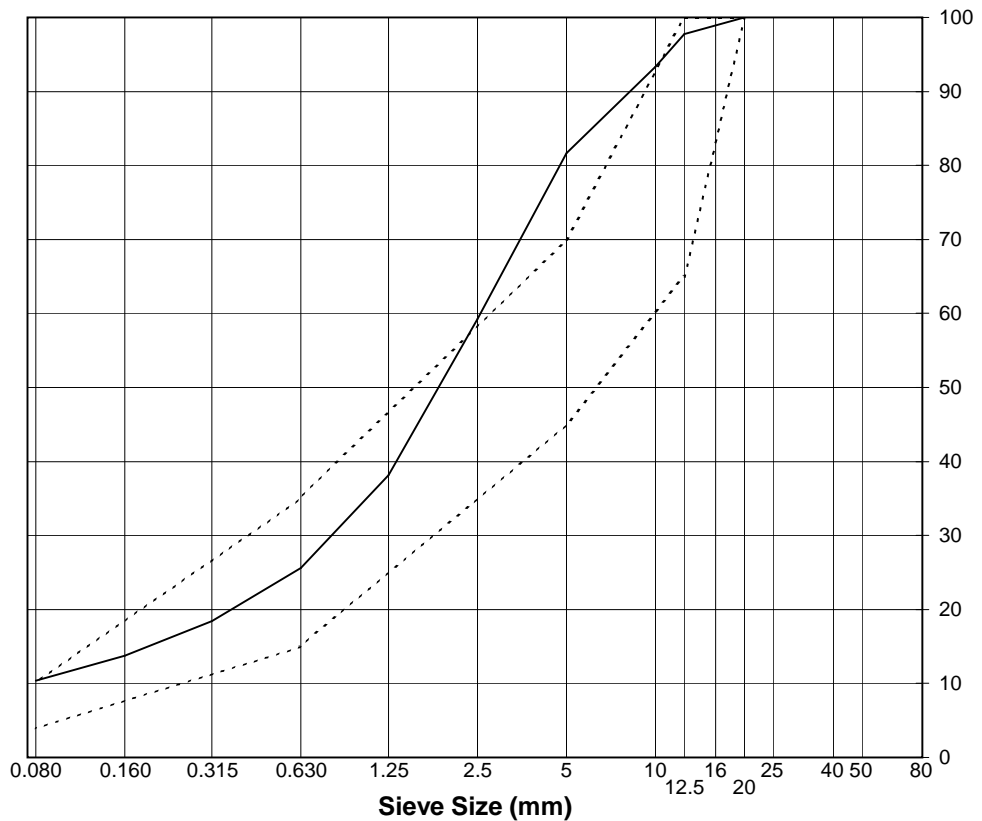
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 1 to 1 by volume)  
Source: Quarry 2 (fines) & FCP stockpile (core material)  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 41  
Date Received: March 6, 2011  
Sampled by: JO  
Date Tested: March 7, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 10.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	93
5	82
2.5	59
1.25	38
0.630	26
0.315	18
0.160	14
0.080	10.4



Remarks: File name: HB-FCP-CORE-PSD 41-QA-20110307

50/50 Fines to Core material by volume.

Reviewed By: \_\_\_\_\_

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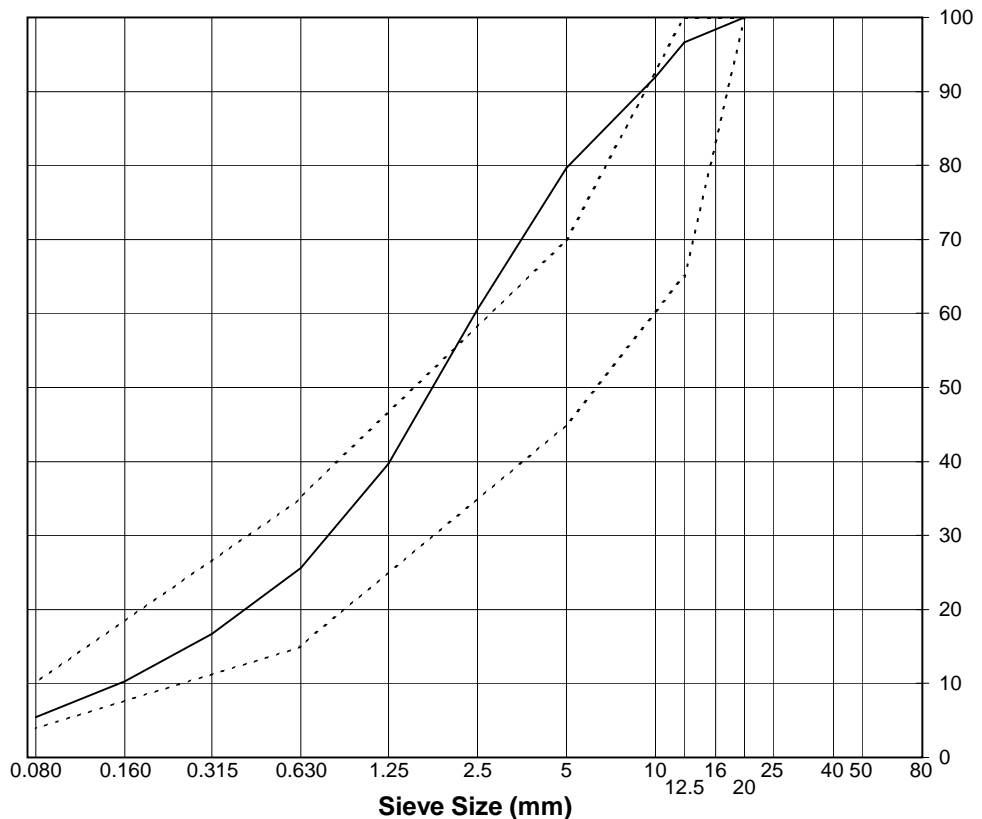
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 1 to 2 by volume)  
Source: Quarry 2 (fines) & FCP stockpile (core material)  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: 42  
Date Received: March 7, 2011  
Sampled by: JJJ  
Date Tested: March 8, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 3.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	97
10.0	92
5	80
2.5	61
1.25	40
0.630	26
0.315	17
0.160	10
0.080	5.4



Remarks: File name: HB-FCP-CORE-PSD 42-QA-20110308

Reviewed By: \_\_\_\_\_

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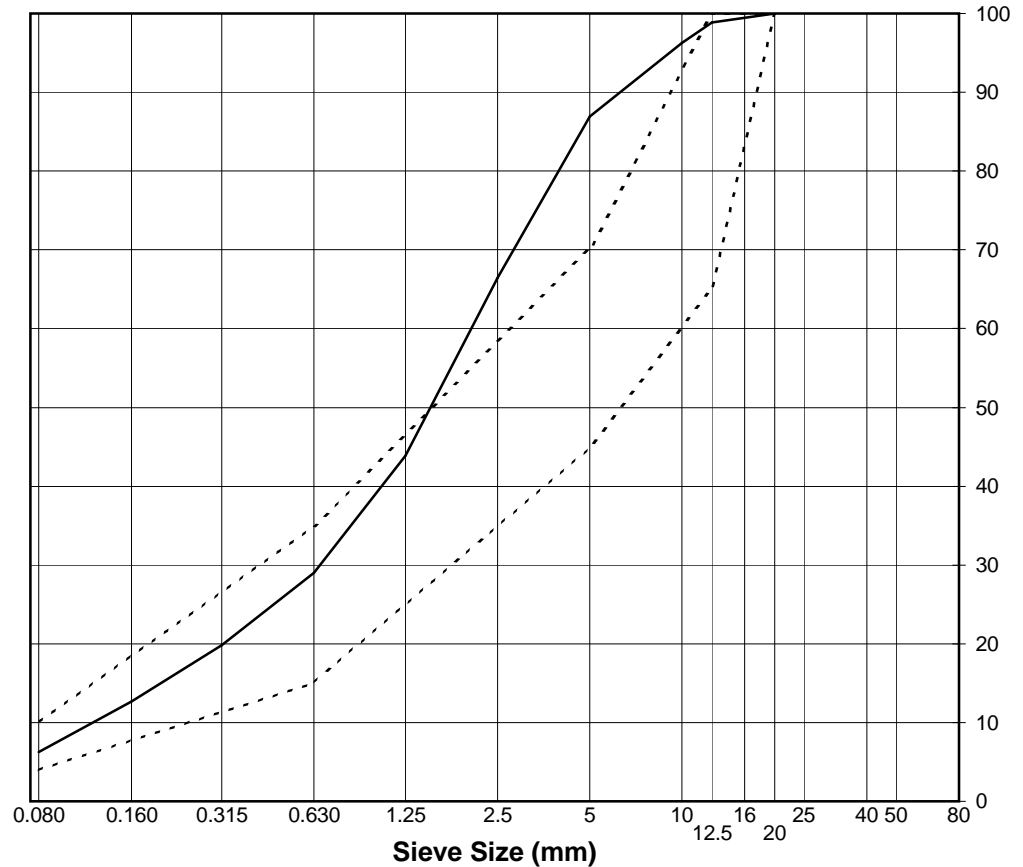
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Core Material/Fines Blend ( 1 to 2 by volume)  
Source: Quarry 2 (fines) & FCP stockpile (core material)  
Supplier: Nuna  
Sample Location: Same as source  
Specification: SRK Consulting Specification Revision E Core Material

Sample No.: EBA 1  
Date Received: March 8, 2011  
Sampled by: JO  
Date Tested: March 10, 2011  
Tested by: JJJ Office: On-site lab  
Moisture Content (as received): 10.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	96
5	87
2.5	66
1.25	44
0.630	29
0.315	20
0.160	13
0.080	6.3



Remarks: File name: HB-FCP-CORE-PSD 44-QA-20110310

Reviewed By: \_\_\_\_\_

**Particle Size Distribution Test Certificates**  
**Core Material: 5 mm Minus Crush**

## SIEVE ANALYSIS REPORT

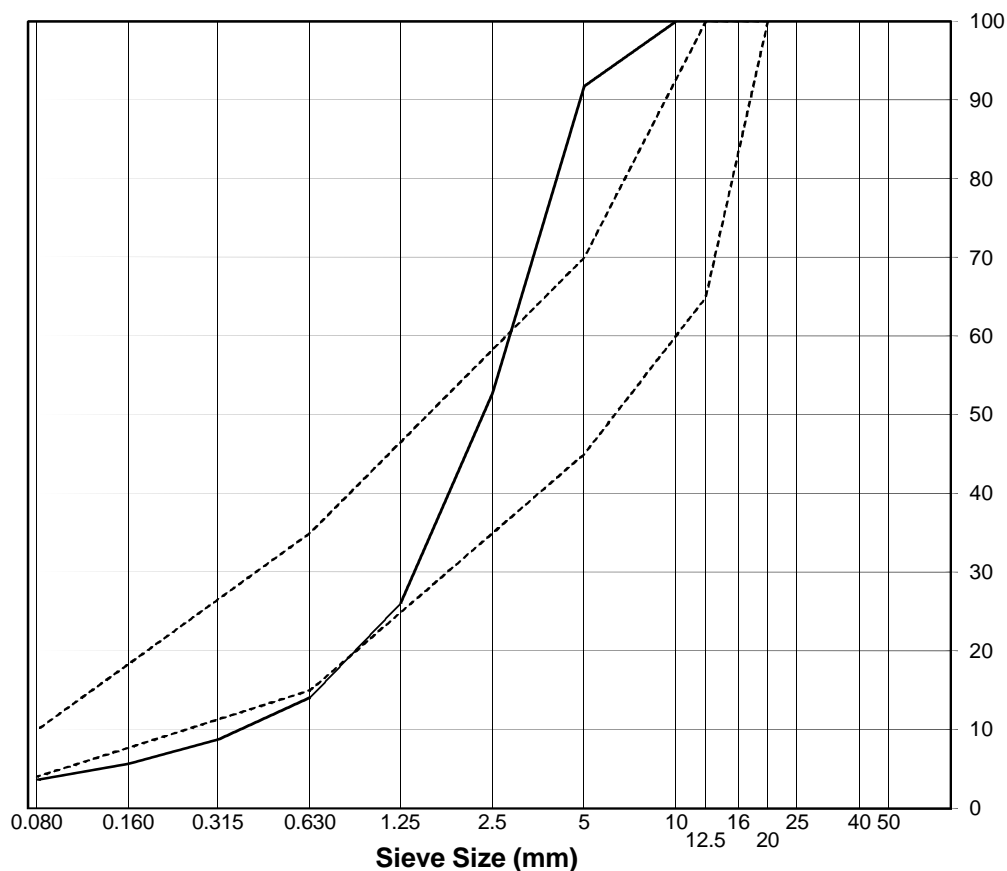
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-148  
Date Received: February 13, 2012  
Sampled by: EP  
Date Tested: February 13, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 26

Sieve Size	Percent Passing
10.0	100
5	92
2.5	53
1.25	26
0.630	14
0.315	9
0.160	6
0.080	3.6



Remarks: SRK Sample No. HB12-CR-CORE-PSD26-QA-20120213

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

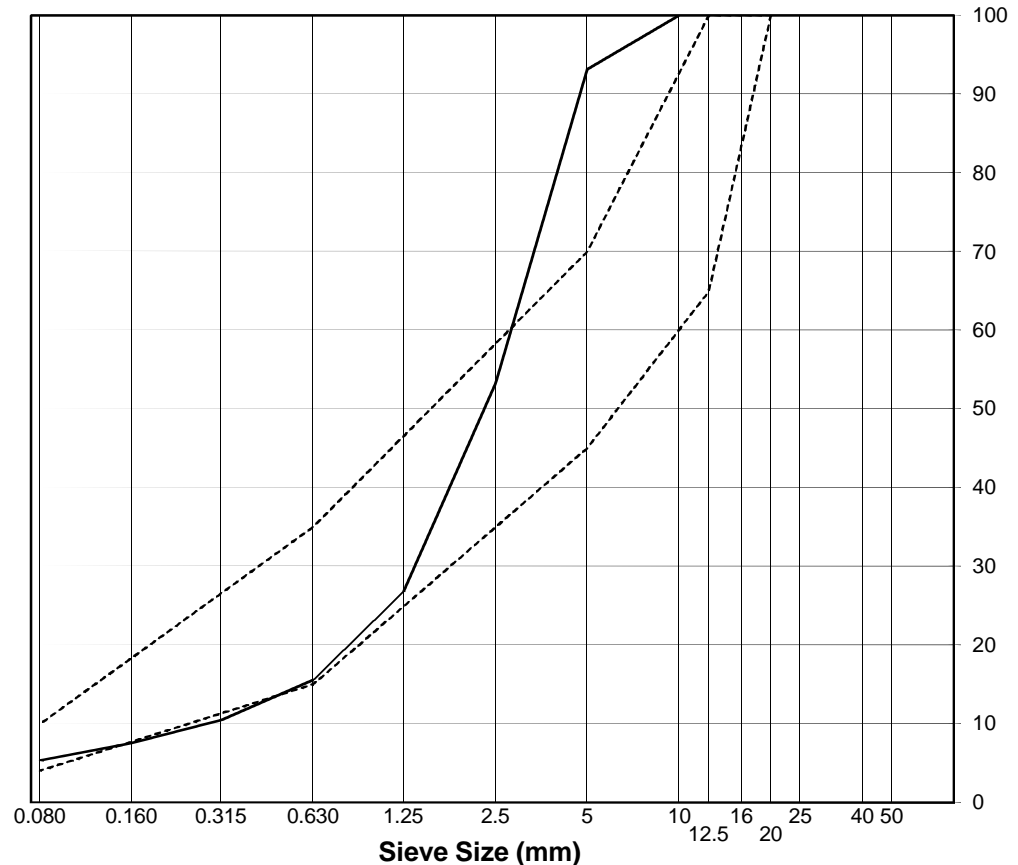
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-150  
Date Received: February 13, 2012  
Sampled by: EP  
Date Tested: February 13, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 2.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 27

Sieve Size	Percent Passing
10.0	100
5	93
2.5	53
1.25	27
0.630	16
0.315	11
0.160	8
0.080	5.4



Remarks: SRK Sample No. HB12-CR-CORE-PSD27-QA-20120213

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

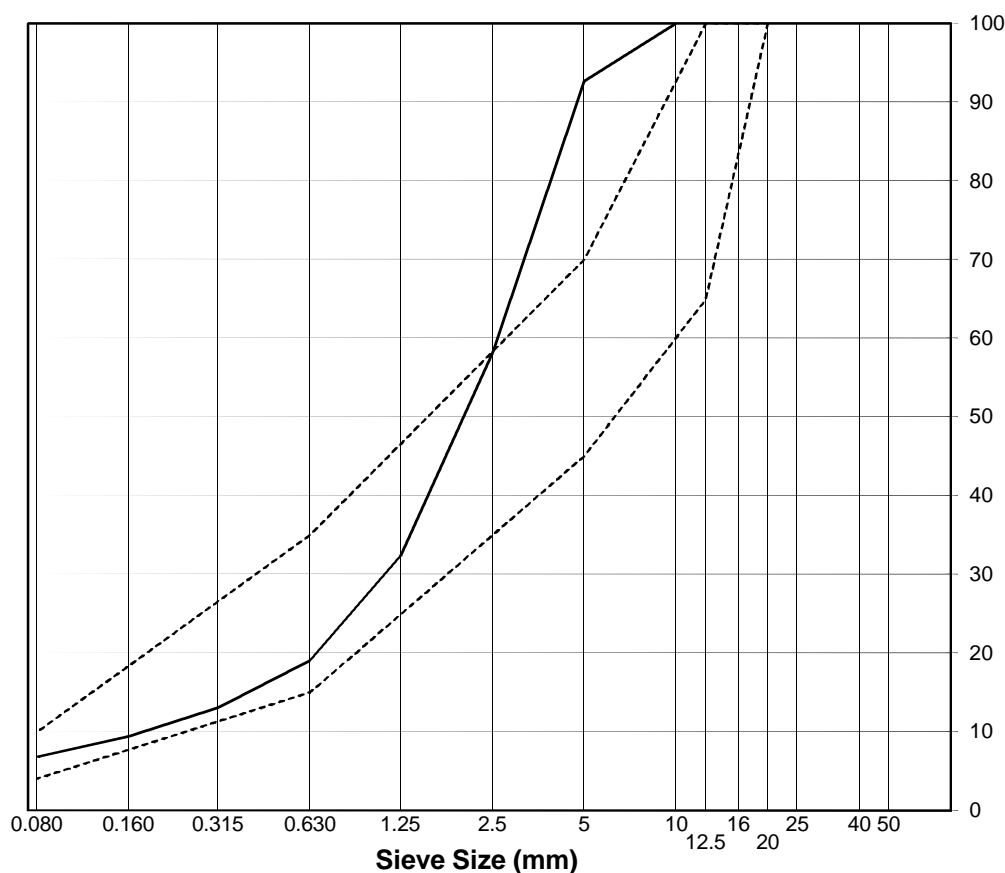
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-152  
Date Received: February 13, 2012  
Sampled by: EP  
Date Tested: February 13, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 3.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 28

Sieve Size	Percent Passing
10.0	100
5	93
2.5	58
1.25	32
0.630	19
0.315	13
0.160	9
0.080	6.8



Remarks: SRK Sample No. HB12-CR-CORE-PSD28-QA-20120213

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

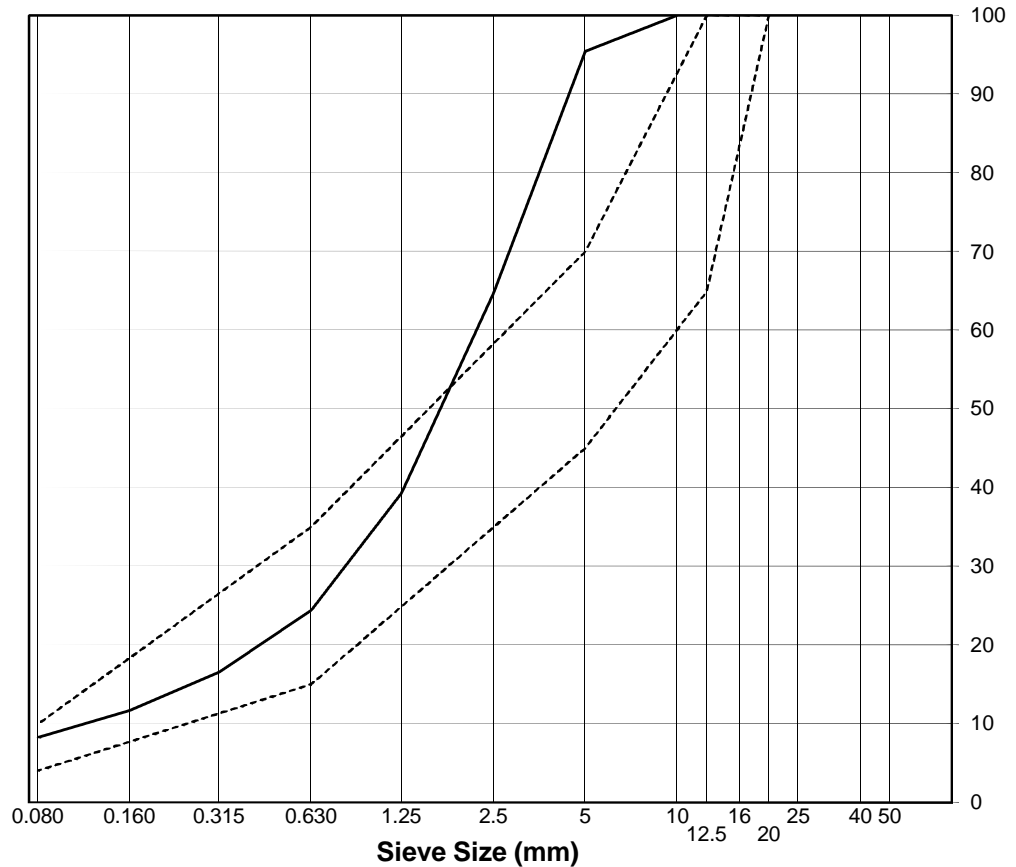
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-154  
Date Received: February 13, 2012  
Sampled by: EP  
Date Tested: February 13, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 2.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 29

Sieve Size	Percent Passing
10.0	100
5	95
2.5	65
1.25	39
0.630	24
0.315	17
0.160	12
0.080	8.2



Remarks: SRK Sample No. HB12-CR-CORE-PSD29-QA-20120213

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

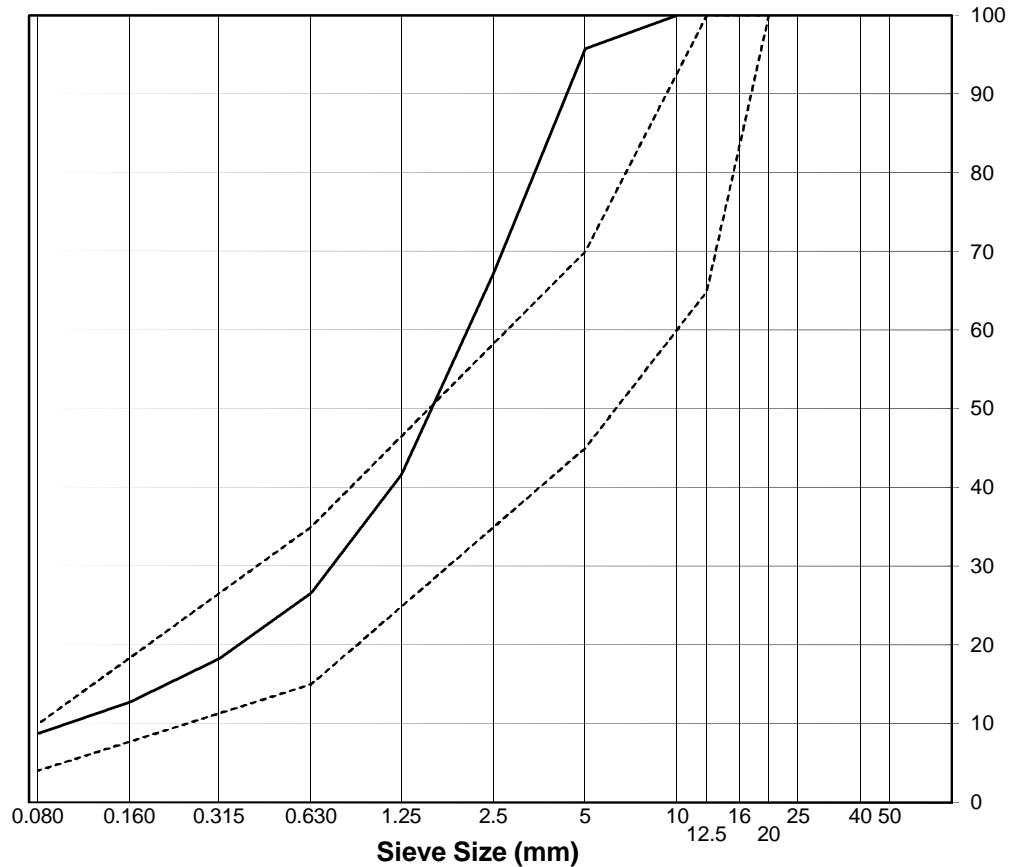
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-156  
Date Sampled: February 14, 2012  
Sampled by: EP  
Date Tested: February 14, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 2.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 30

Sieve Size	Percent Passing
10.0	100
5	96
2.5	67
1.25	42
0.630	27
0.315	18
0.160	13
0.080	8.8



Remarks: SRK Sample No. HB12-CR-CORE-PSD30-QA-20120214

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

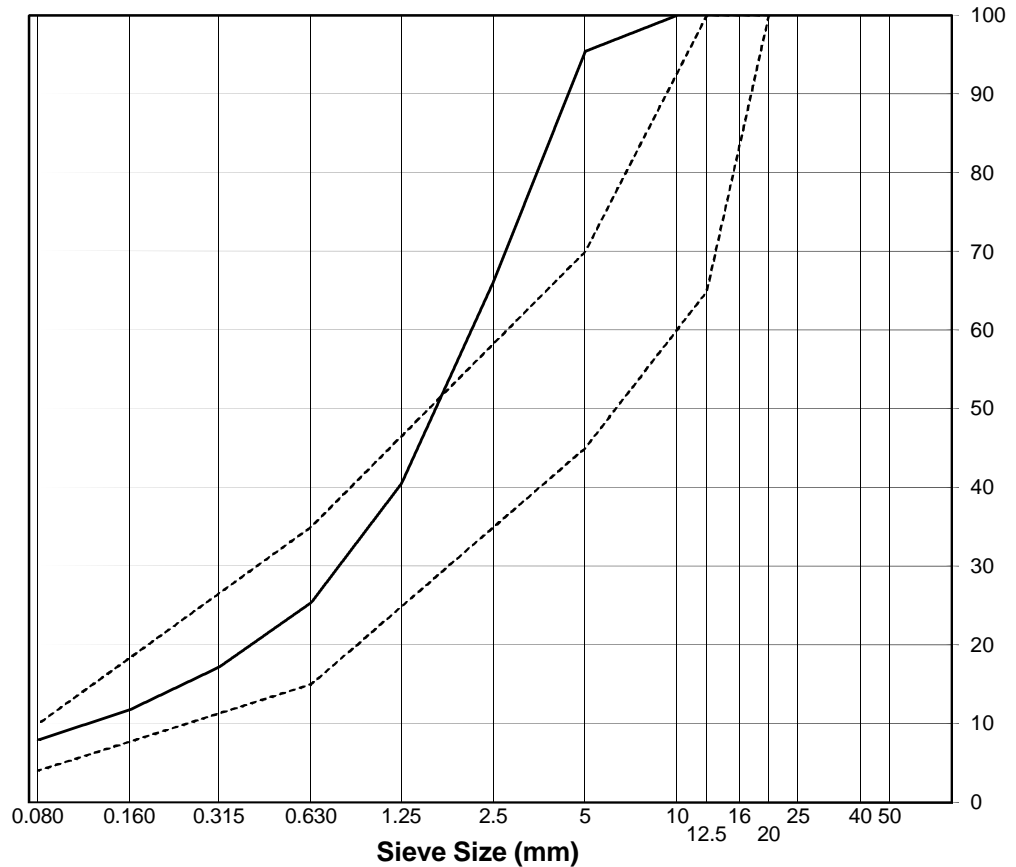
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-159  
Date Sampled: February 14, 2012  
Sampled by: EP  
Date Tested: February 14, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 31

Sieve Size	Percent Passing
10.0	100
5	96
2.5	66
1.25	41
0.630	25
0.315	17
0.160	12
0.080	8.0



Remarks: SRK Sample No. HB12-CR-CORE-PSD31-QA-20120214

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

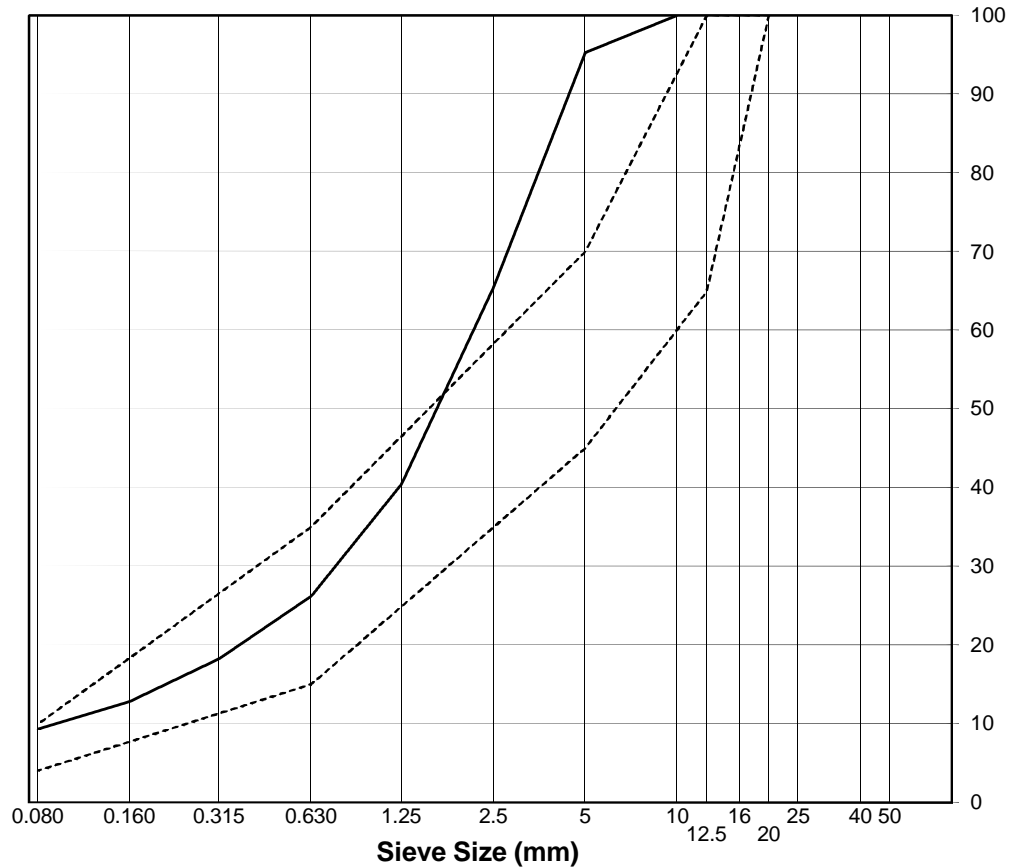
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-161  
Date Sampled: February 14, 2012  
Sampled by: EP  
Date Tested: February 14, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 32

Sieve Size	Percent Passing
10.0	100
5	95
2.5	66
1.25	41
0.630	26
0.315	18
0.160	13
0.080	9.3



Remarks: SRK Sample No. HB12-CR-CORE-PSD32-QA-20120214

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

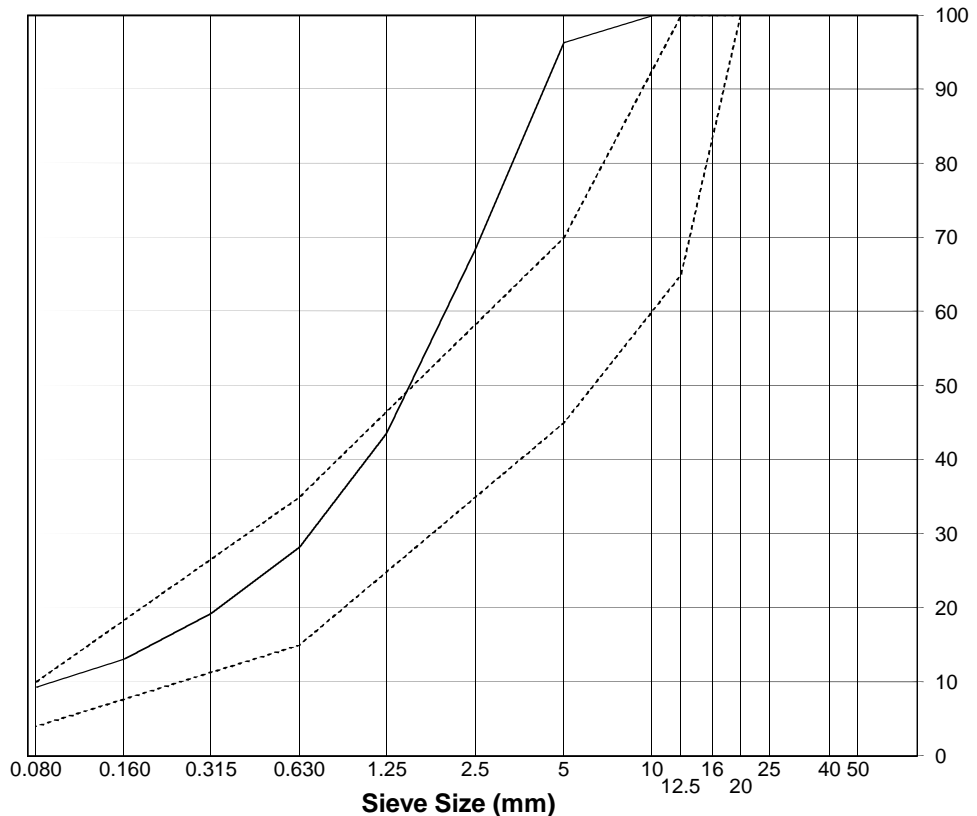
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-163  
Date Sampled: February 14, 2012  
Sampled by: EP  
Date Tested: February 14, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 33

Sieve Size	Percent Passing
10.0	100
5	96
2.5	69
1.25	44
0.630	28
0.315	19
0.160	13
0.080	9.3



Remarks: SRK Sample No. HB12-CR-CORE-PSD33-QA-20120214

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

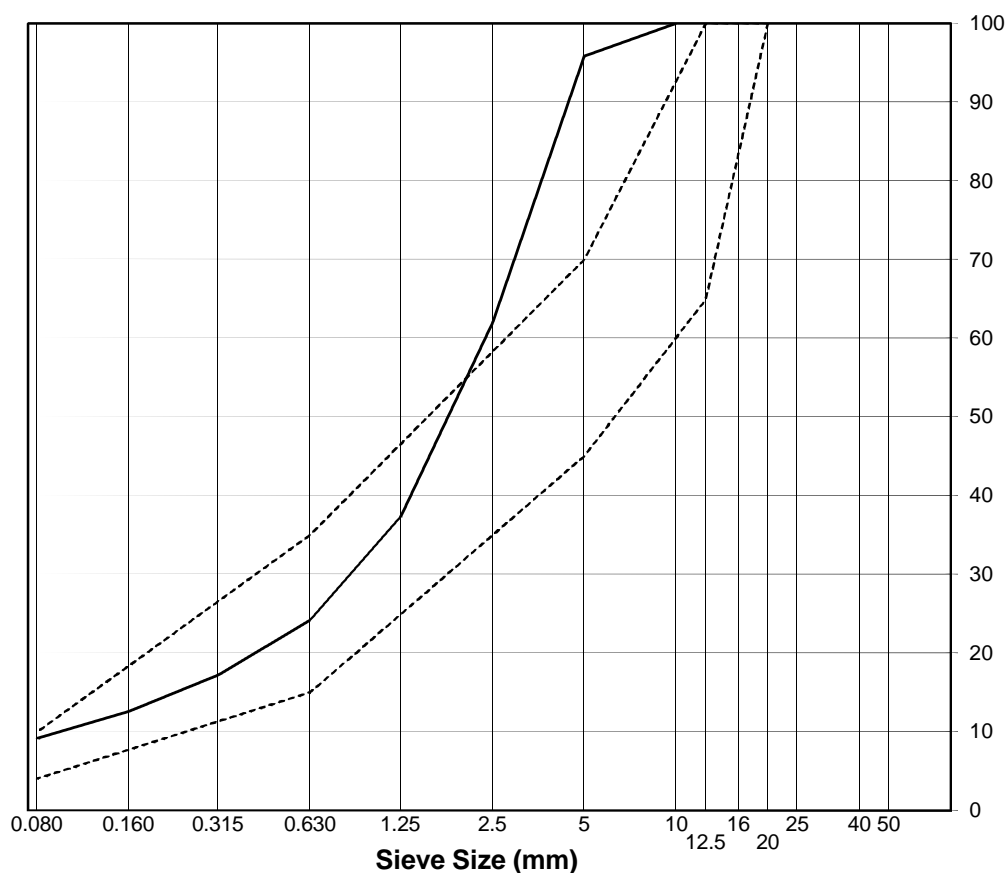
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 11:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-171  
Date Sampled: February 15, 2012  
Sampled by: EP  
Date Tested: February 15, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 34

Sieve Size	Percent Passing
10.0	100
5	96
2.5	62
1.25	37
0.630	24
0.315	17
0.160	13
0.080	9.2



Remarks: SRK Sample No. HB12-CR-TEST-PSD34-QA-20120215

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

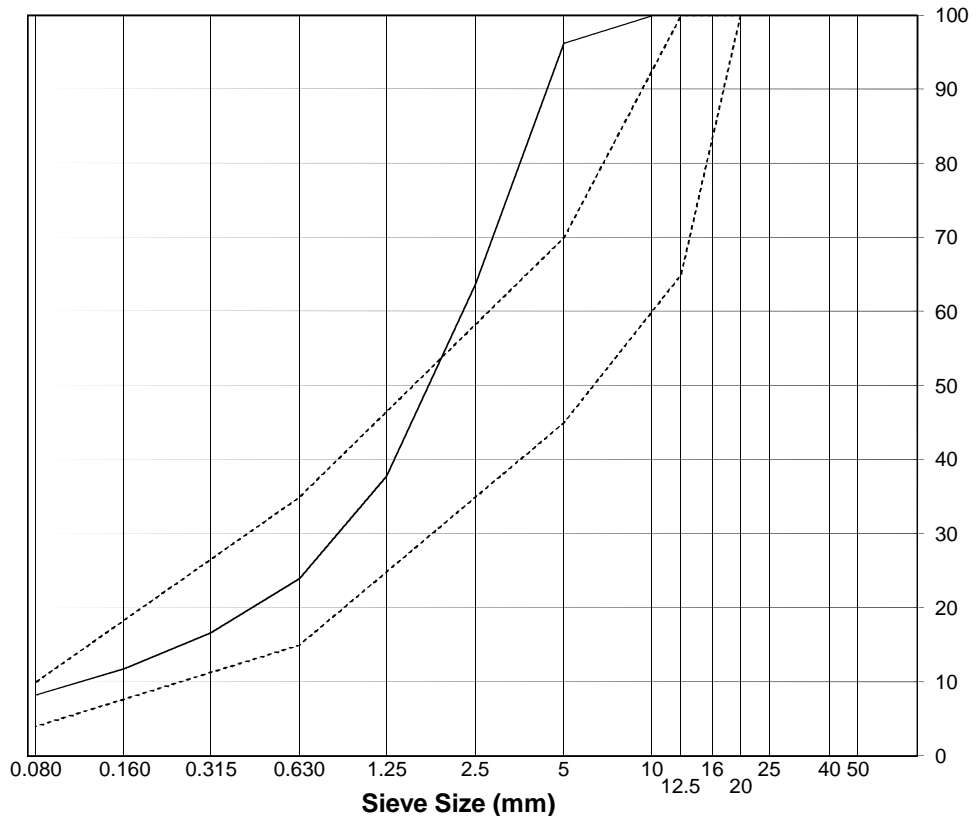
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 14:30 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-172  
Date Sampled: February 15, 2012  
Sampled by: EP  
Date Tested: February 15, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 35

Sieve Size	Percent Passing
10.0	100
5	96
2.5	64
1.25	38
0.630	24
0.315	17
0.160	12
0.080	8.3



Remarks: SRK Sample No. HB12-CR-TEST-PSD35-QA-20120215

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

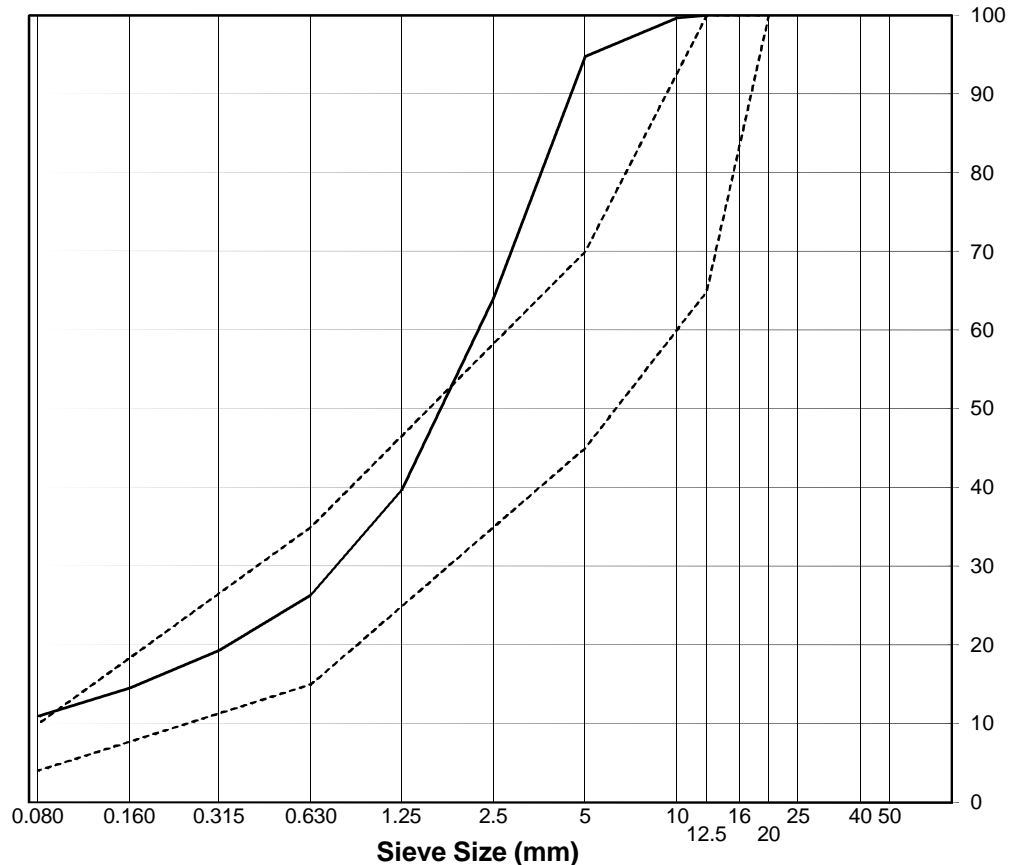
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 40, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Test Area 4  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-203  
Date Received: February 17, 2012  
Sampled by: EP  
Date Tested: February 17, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 13.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 36

Sieve Size	Percent Passing
12.5	100
10.0	100
5	95
2.5	64
1.25	40
0.630	26
0.315	19
0.160	15
0.080	10.9



Remarks: SRK Sample No. HB12-ND-CORE-PSD36-QA-20120217

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

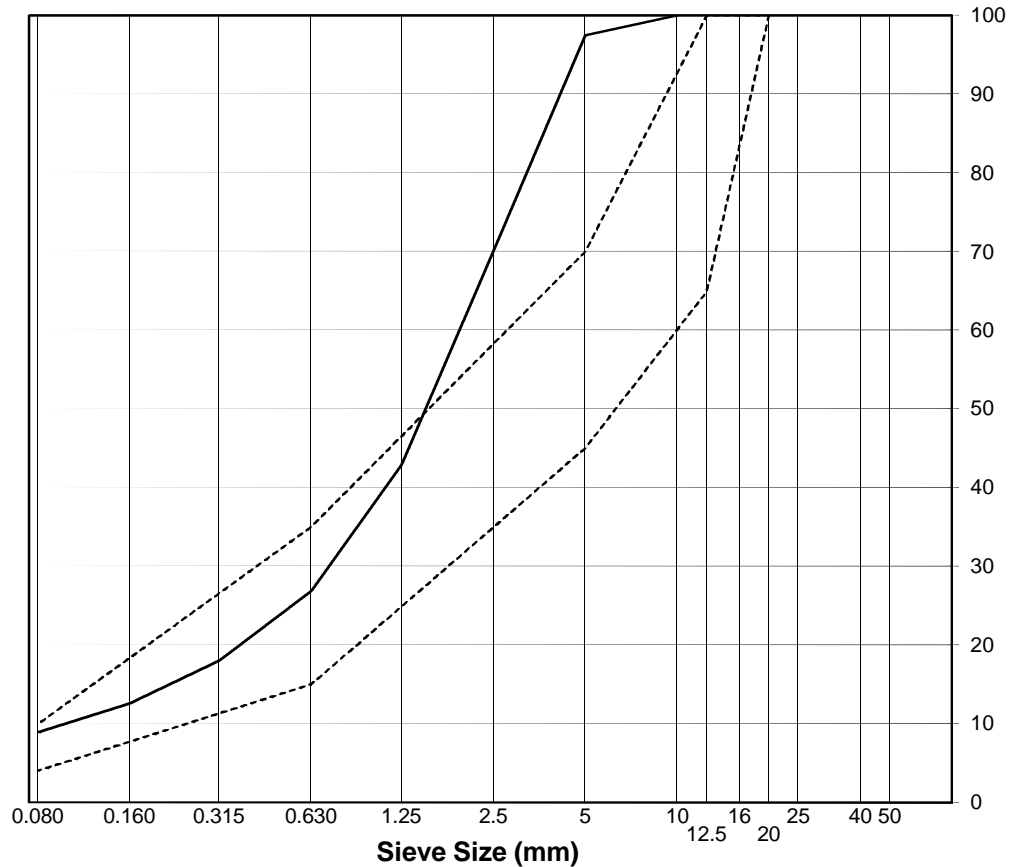
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 10:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-209  
Date Sampled: February 18, 2012  
Sampled by: EP  
Date Tested: February 18, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 2.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 37

Sieve Size	Percent Passing
10.0	100
5	98
2.5	70
1.25	43
0.630	27
0.315	18
0.160	13
0.080	8.9



Remarks: SRK Sample No. HB12-CR-CORE-PSD37-QA-20120218

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

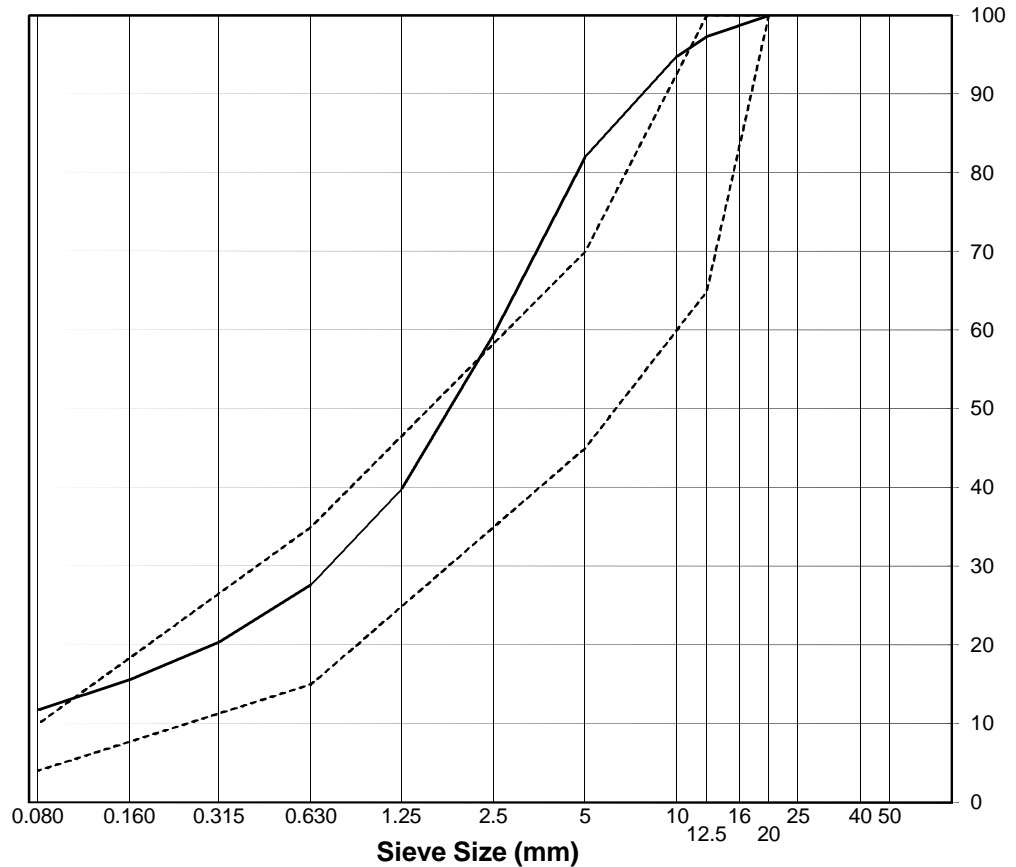
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 138, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+93 D/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-219  
Date Sampled: February 18, 2012  
Sampled by: TB  
Date Tested: February 18, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 10.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 38

Sieve Size	Percent Passing
20	100
12.5	97
10.0	95
5	82
2.5	60
1.25	40
0.630	28
0.315	20
0.160	16
0.080	11.8



Remarks: SRK Sample No. HB12-ND-CORE-PSD38-QA-20120218

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

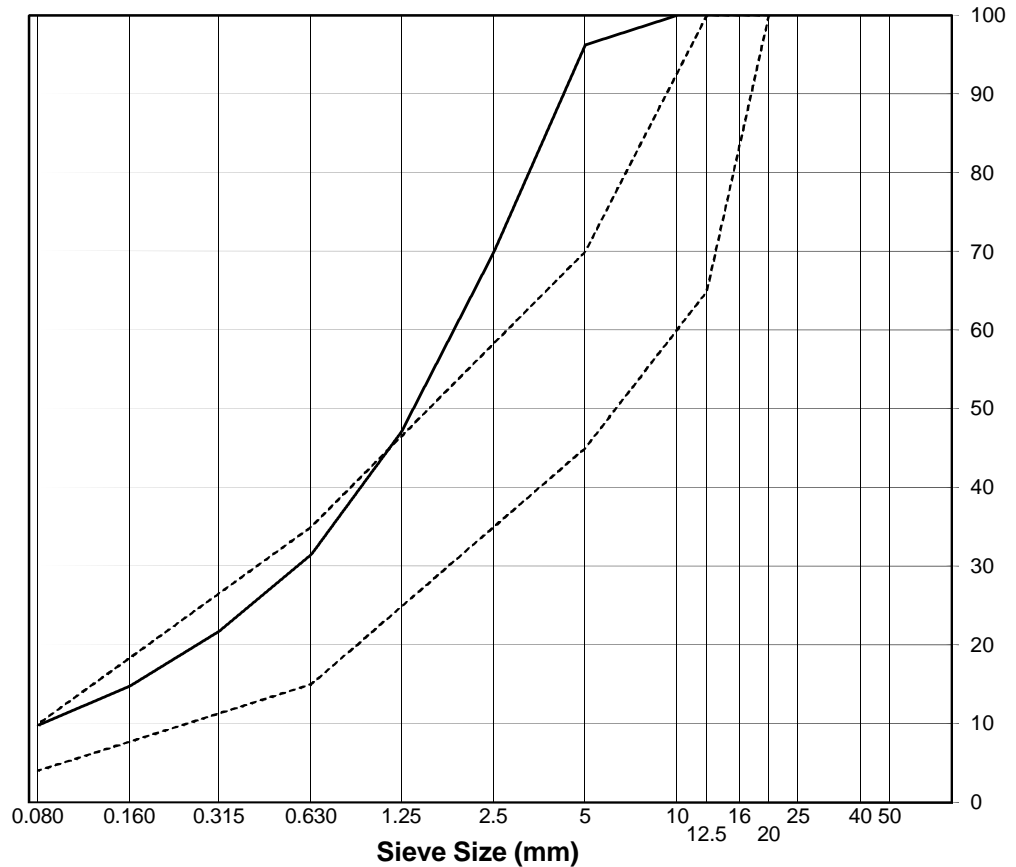
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 16:15 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-221  
Date Sampled: February 18, 2012  
Sampled by: EP  
Date Tested: February 19, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 39

Sieve Size	Percent Passing
10.0	100
5	96
2.5	70
1.25	47
0.630	32
0.315	22
0.160	15
0.080	9.8



Remarks: SRK Sample No. HB12-CR-CORE-PSD39-QA-20120218

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

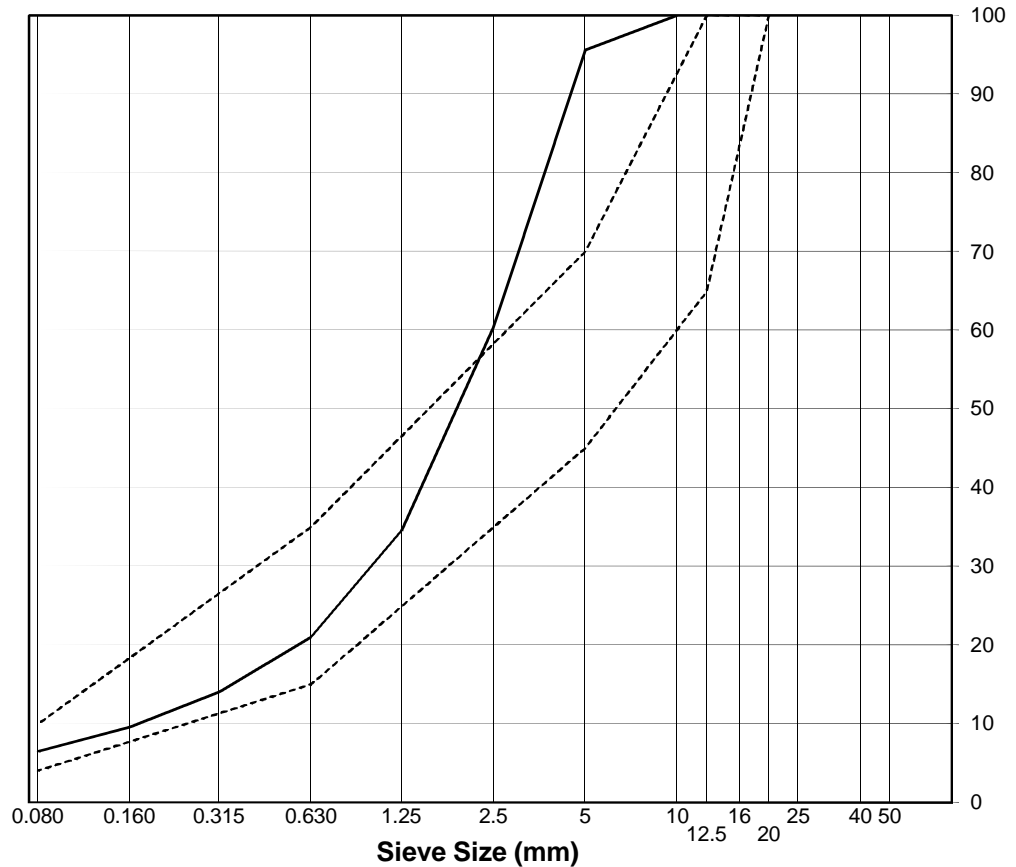
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 08:30 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-223  
Date Sampled: February 19, 2012  
Sampled by: EP  
Date Tested: February 19, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 40

Sieve Size	Percent Passing
10.0	100
5	96
2.5	61
1.25	35
0.630	21
0.315	14
0.160	10
0.080	6.5



Remarks: SRK Sample No. HB12-CR-CORE-PSD40-QA-20120219

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

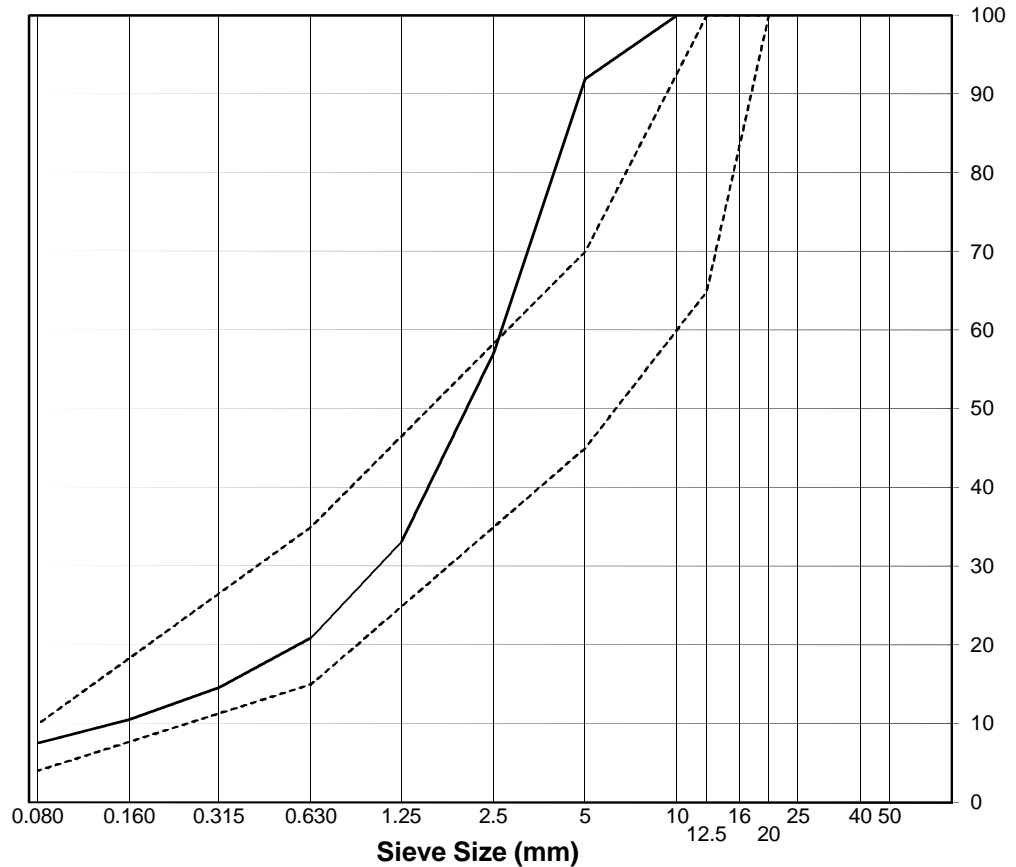
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 17:15 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-233  
Date Sampled: February 19, 2012  
Sampled by: EP  
Date Tested: February 20, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 1.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 41

Sieve Size	Percent Passing
10.0	100
5	92
2.5	57
1.25	33
0.630	21
0.315	15
0.160	11
0.080	7.5



Remarks: SRK Sample No. HB12-CR-CORE-PSD41-QA-20120219

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

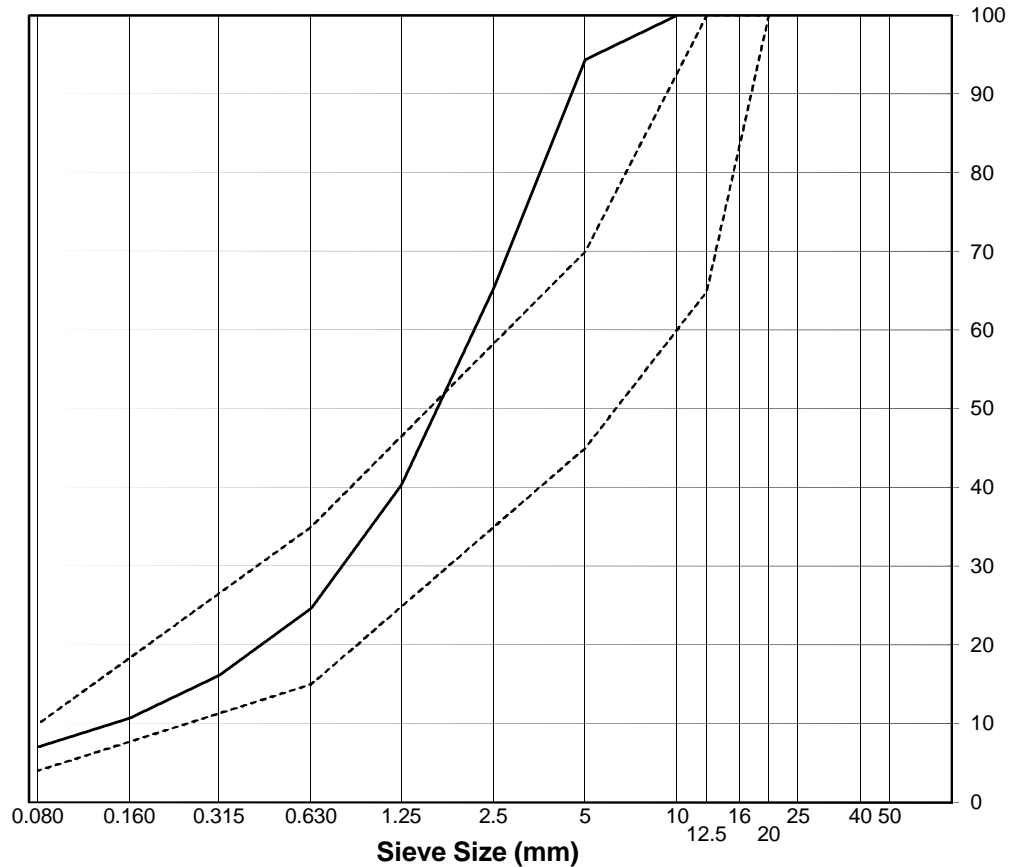
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 10:30 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-236  
Date Sampled: February 20, 2012  
Sampled by: EP  
Date Tested: February 20, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 42

Sieve Size	Percent Passing
10.0	100
5	94
2.5	65
1.25	40
0.630	25
0.315	16
0.160	11
0.080	7.0



Remarks: SRK Sample No. HB12-CR-CORE-PSD42-QA-20120220

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

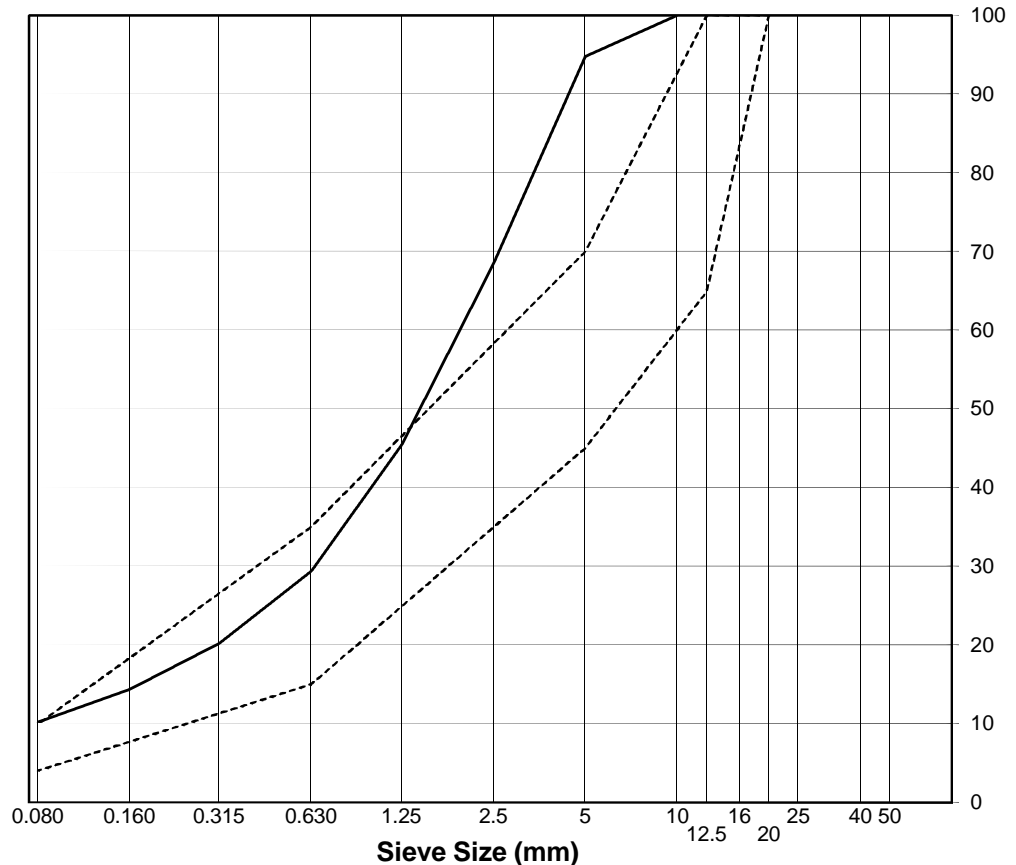
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 08:45 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-250  
Date Sampled: February 21, 2012  
Sampled by: EP  
Date Tested: February 21, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 43

Sieve Size	Percent Passing
10.0	100
5	95
2.5	69
1.25	45
0.630	29
0.315	20
0.160	14
0.080	10.2



Remarks: SRK Sample No. HB12-CR-CORE-PSD43-QA-20120221

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

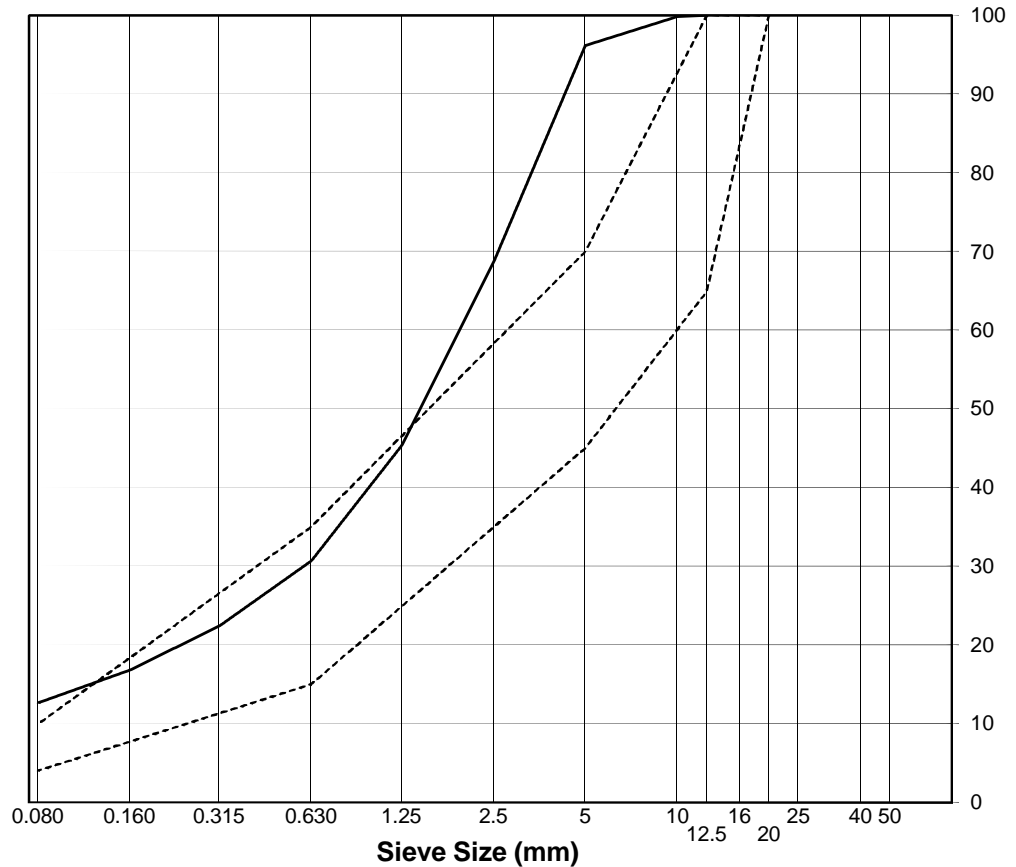
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 44, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+15 D/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-257  
Date Sampled: February 21, 2012  
Sampled by: EP  
Date Tested: February 21, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 13.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 44

Sieve Size	Percent Passing
12.5	100
10.0	100
5	96
2.5	69
1.25	45
0.630	31
0.315	22
0.160	17
0.080	12.7



Remarks: SRK Sample No. HB12-ND-CORE-PSD44-QA-20120221

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

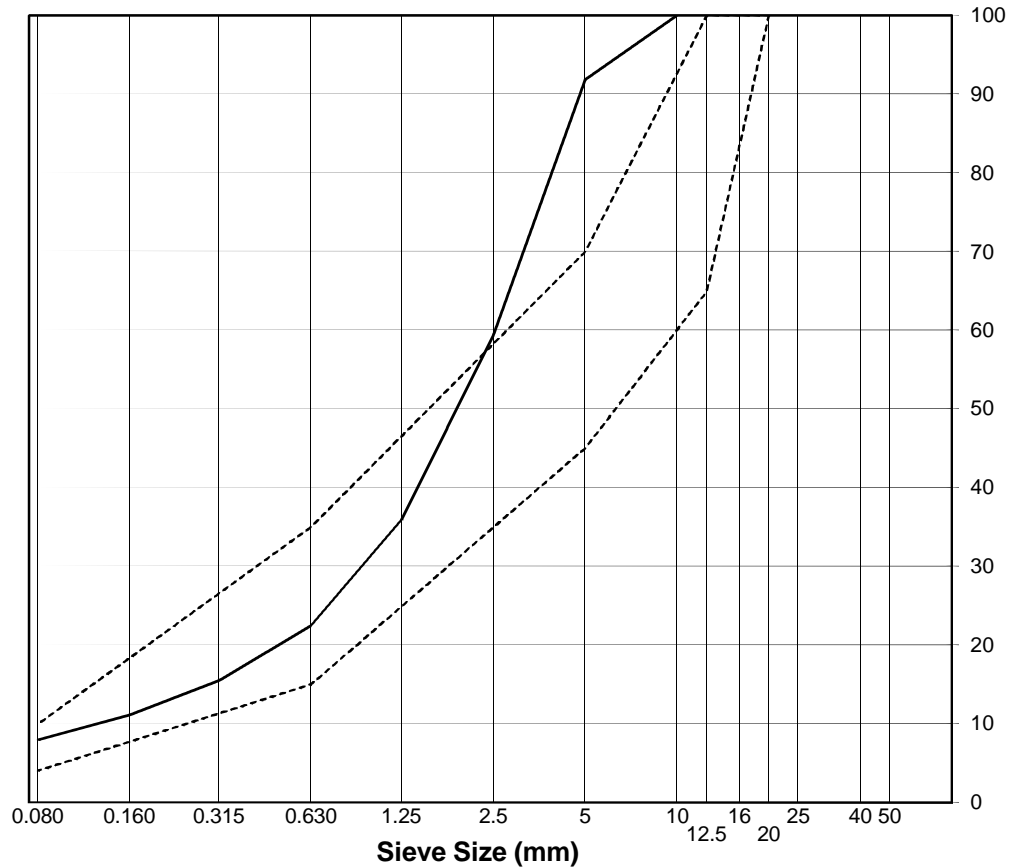
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 17:15 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-259  
Date Sampled: February 21, 2012  
Sampled by: EP  
Date Tested: February 21, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 45

Sieve Size	Percent Passing
10.0	100
5	92
2.5	60
1.25	36
0.630	22
0.315	16
0.160	11
0.080	7.9



Remarks: SRK Sample No. HB12-CR-CORE-PSD45-QA-20120221

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

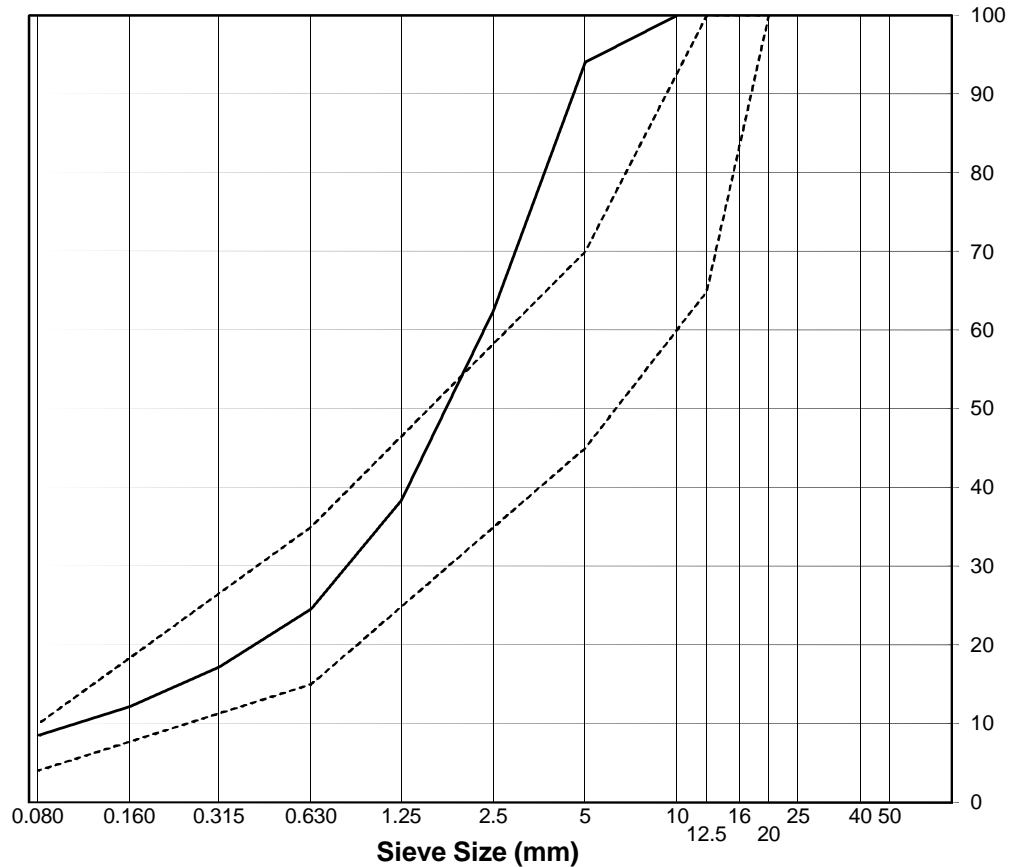
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 22:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-260  
Date Sampled: February 21, 2012  
Sampled by: EP  
Date Tested: February 21, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 46

Sieve Size	Percent Passing
10.0	100
5	94
2.5	63
1.25	38
0.630	25
0.315	17
0.160	12
0.080	8.5



Remarks: SRK Sample No. HB12-CR-CORE-PSD46-QA-20120221

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

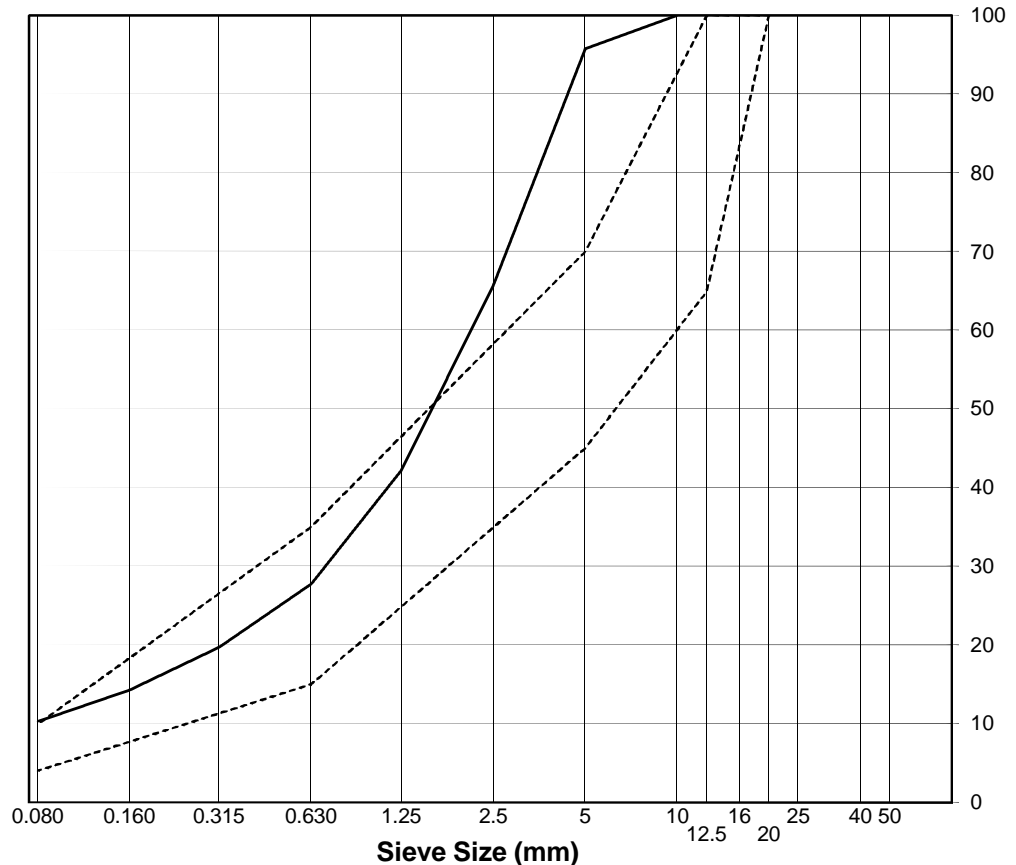
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 46 + DC 47, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+02 U/S, 0+78 CL, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-261/262  
Date Sampled: February 21, 2012  
Sampled by: EP  
Date Tested: February 22, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 12.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 48

Sieve Size	Percent Passing
10.0	100
5	96
2.5	66
1.25	42
0.630	28
0.315	20
0.160	14
0.080	10.3



Remarks: SRK Sample No. HB12-ND-CORE-PSD48-QA-20120221

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

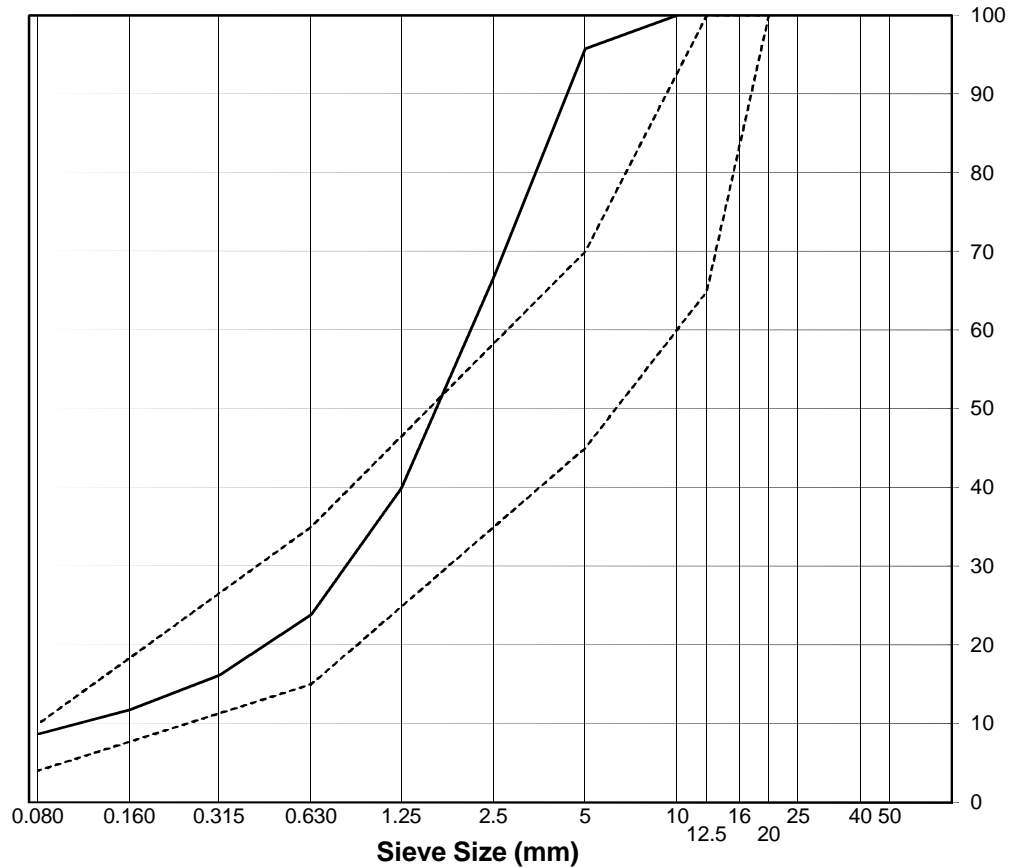
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 10:55 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-268  
Date Sampled: February 22, 2012  
Sampled by: EP  
Date Tested: February 22, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 47

Sieve Size	Percent Passing
10.0	100
5	96
2.5	67
1.25	40
0.630	24
0.315	16
0.160	12
0.080	8.7



Remarks: SRK Sample No. HB12-CR-CORE-PSD47-QA-20120222

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

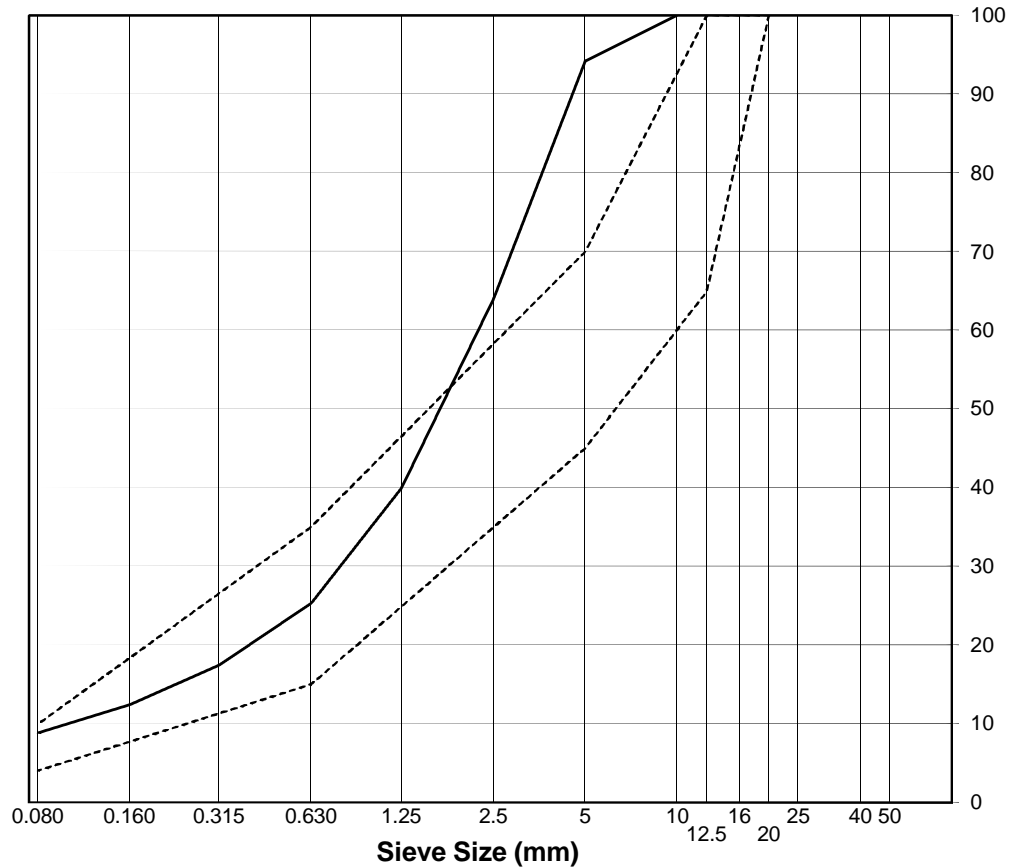
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 16:15 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-283  
Date Sampled: February 23, 2012  
Sampled by: TB  
Date Tested: February 23, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 1.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 49

Sieve Size	Percent Passing
10.0	100
5	94
2.5	64
1.25	40
0.630	25
0.315	17
0.160	12
0.080	8.9



Remarks: SRK Sample No. HB12-CR-CORE-PSD49-QA-20120223

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

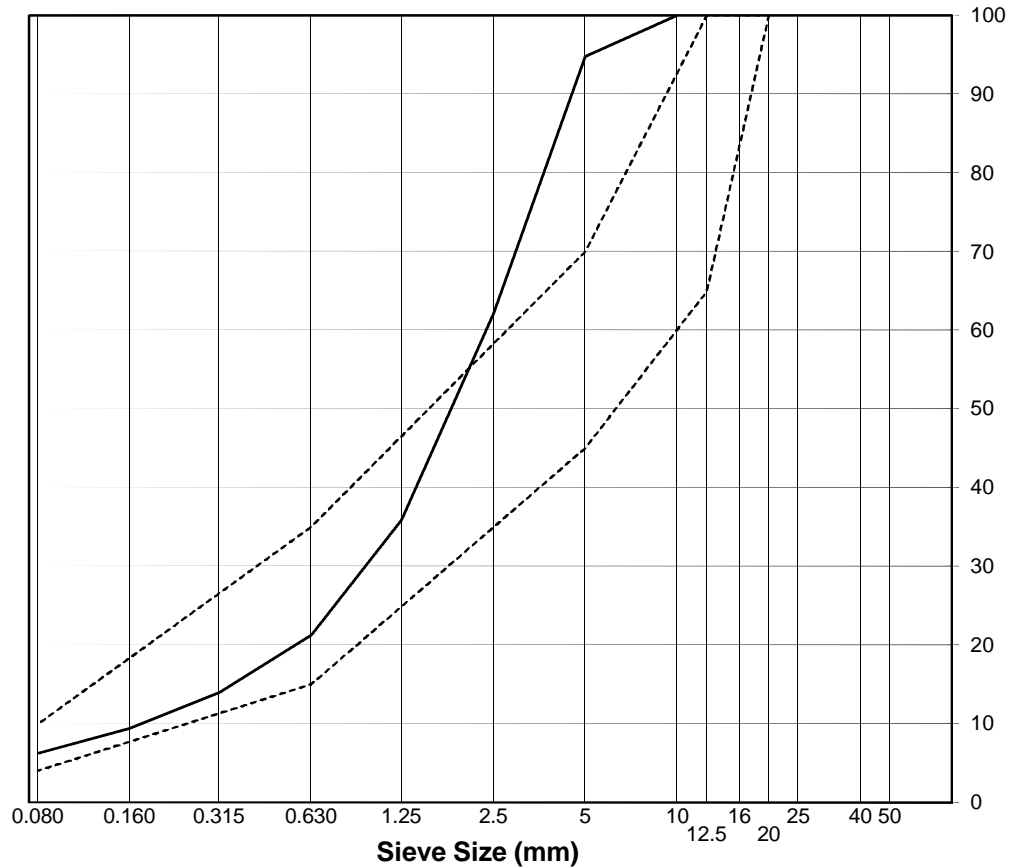
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 23:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-284  
Date Sampled: February 23, 2012  
Sampled by: TB  
Date Tested: February 23, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 50

Sieve Size	Percent Passing
10.0	100
5	95
2.5	62
1.25	36
0.630	21
0.315	14
0.160	9
0.080	6.2



Remarks: SRK Sample No. HB12-CR-CORE-PSD50-QA-20120223

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

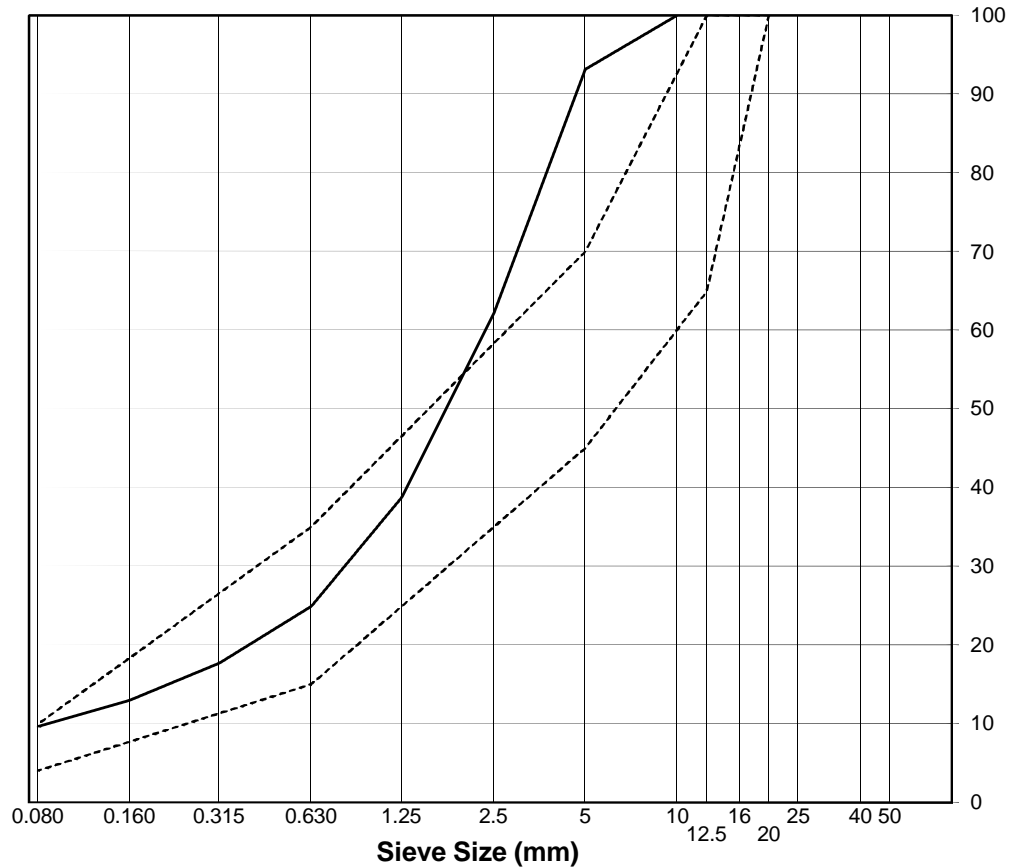
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 50, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+00 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-285  
Date Sampled: February 23, 2012  
Sampled by: TB  
Date Tested: February 24, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 10.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 51

Sieve Size	Percent Passing
10.0	100
5	93
2.5	62
1.25	39
0.630	25
0.315	18
0.160	13
0.080	9.7



Remarks: SRK Sample No. HB12-ND-CORE-PSD51-QA-20120223

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

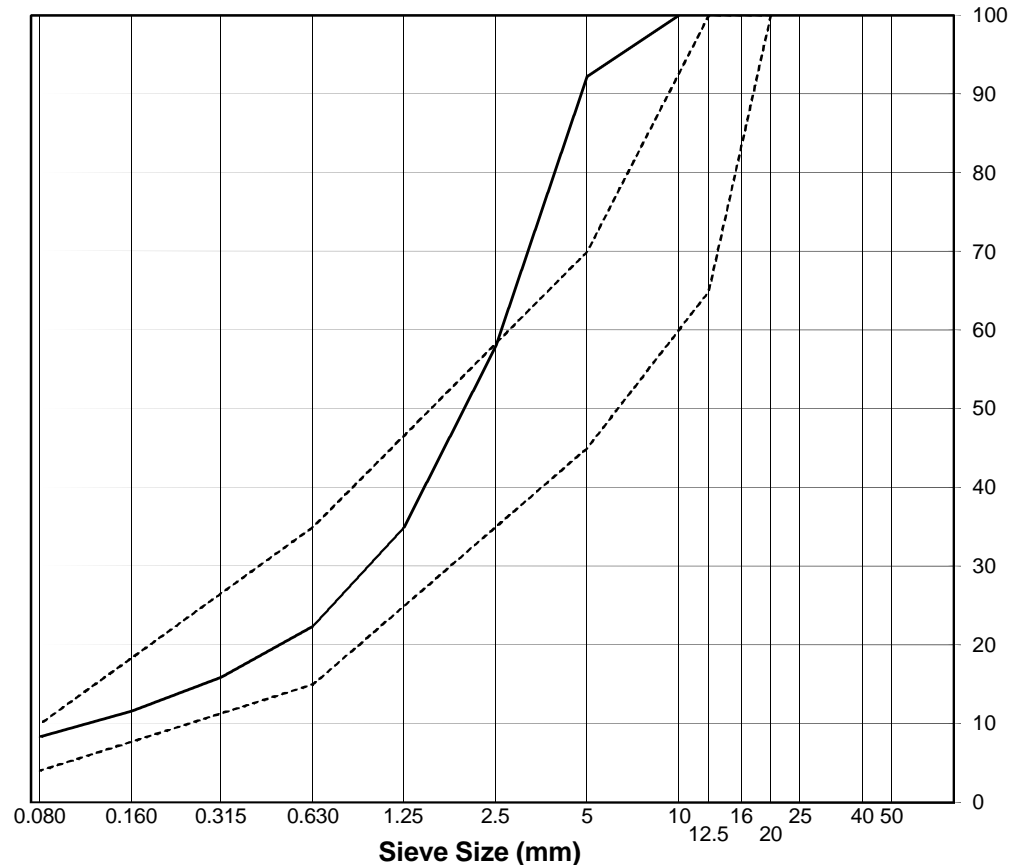
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 16:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-301  
Date Sampled: February 24, 2012  
Sampled by: Nuna  
Date Tested: February 24, 2012  
Tested by: TB Office: On-site Lab  
Moisture Content (as received): 0.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 52

Sieve Size	Percent Passing
10.0	100
5	92
2.5	58
1.25	35
0.630	22
0.315	16
0.160	12
0.080	8.4



Remarks: SRK Sample No. HB12-CR-CORE-PSD52-QA-20120224

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

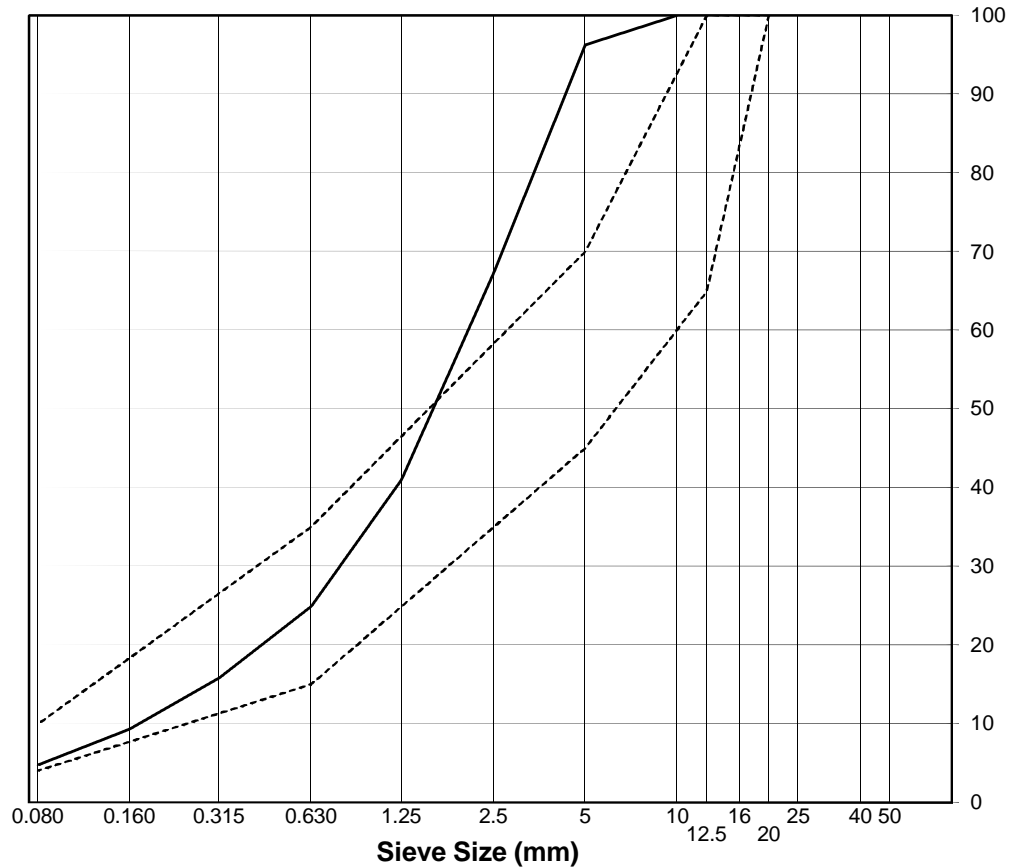
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 22:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-302  
Date Sampled: February 24, 2012  
Sampled by: Nuna  
Date Tested: February 24, 2012  
Tested by: TBJO Office: On-site Lab  
Moisture Content (as received): 1.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 53

Sieve Size	Percent Passing
10.0	100
5	96
2.5	67
1.25	41
0.630	25
0.315	16
0.160	9
0.080	4.8



Remarks: SRK Sample No. HB12-CR-CORE-PSD53-QA-20120224

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

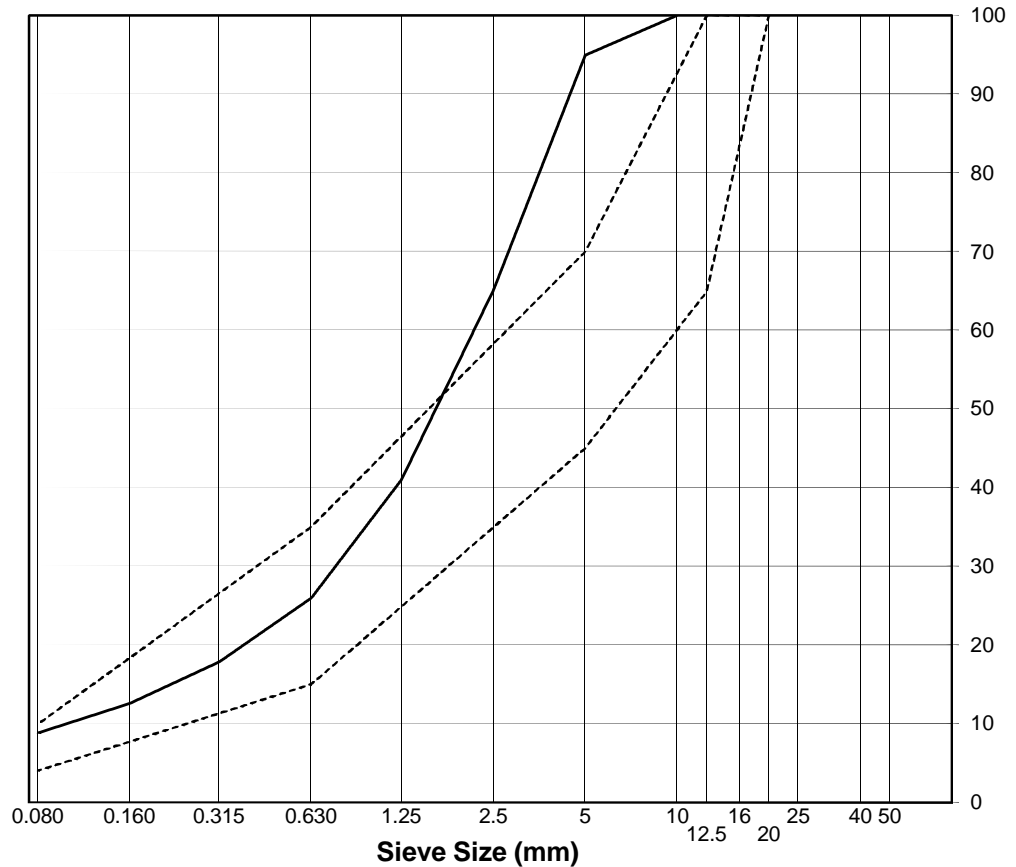
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 22:00 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-304  
Date Sampled: February 25, 2012  
Sampled by: Nuna  
Date Tested: February 25, 2012  
Tested by: TB/JO Office: On-site Lab  
Moisture Content (as received): 0.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 54

Sieve Size	Percent Passing
10.0	100
5	95
2.5	65
1.25	41
0.630	26
0.315	18
0.160	13
0.080	8.8



Remarks: SRK Sample No. HB12-CR-CORE-PSD54-QA-20120225

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

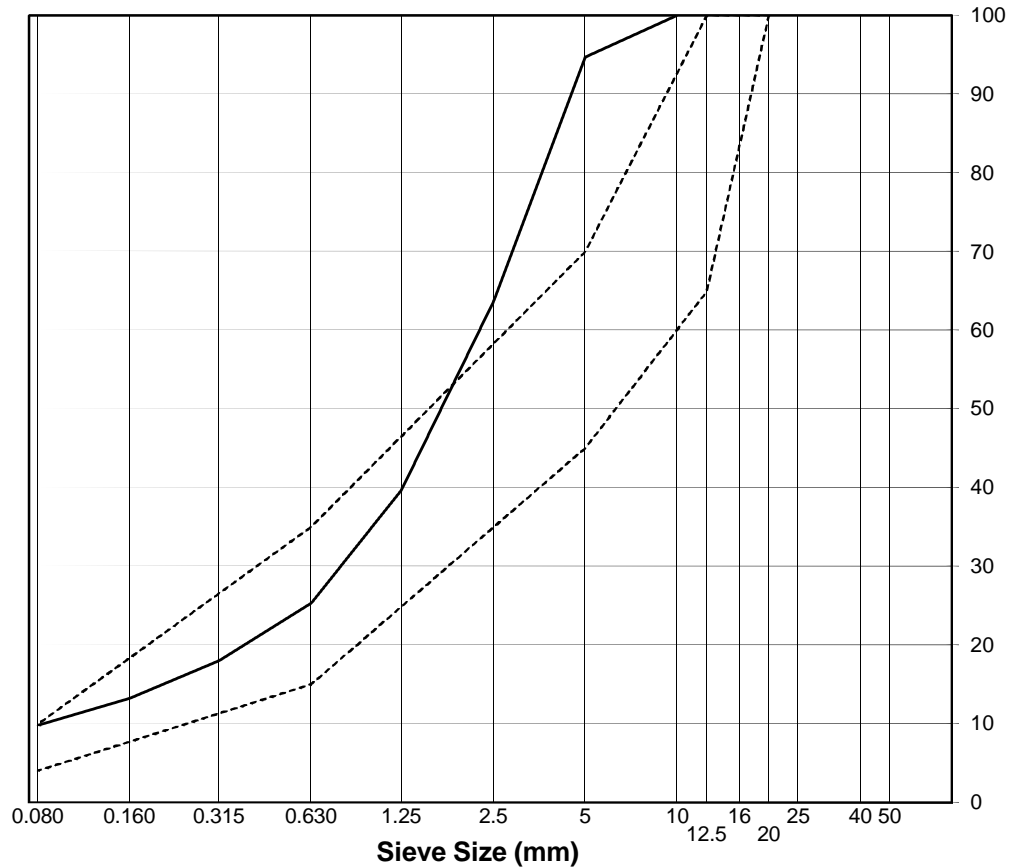
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 55, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+84 CL, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-306  
Date Sampled: February 25, 2012  
Sampled by: JO  
Date Tested: February 27, 2012  
Tested by: TB/JO Office: On-site Lab  
Moisture Content (as received): 11.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 56

Sieve Size	Percent Passing
10.0	100
5	95
2.5	64
1.25	40
0.630	25
0.315	18
0.160	13
0.080	9.8



Remarks: SRK Sample No. HB12-ND-CORE-PSD56-QA-20120225

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

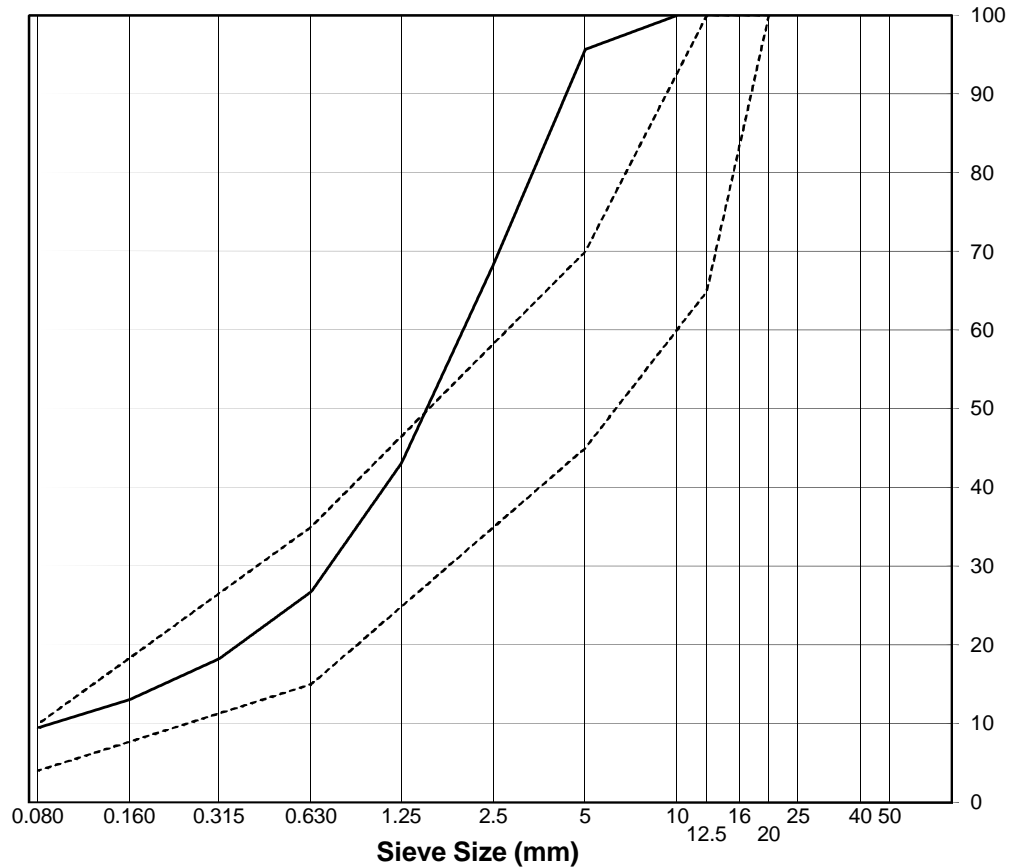
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 13:30 hrs  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-315  
Date Sampled: February 26, 2012  
Sampled by: JO  
Date Tested: February 26, 2012  
Tested by: TB/JO Office: On-site Lab  
Moisture Content (as received): 0.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 55

Sieve Size	Percent Passing
10.0	100
5	96
2.5	68
1.25	43
0.630	27
0.315	18
0.160	13
0.080	9.5



Remarks: SRK Sample No. HB12-CR-CORE-PSD55-QA-20120226

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

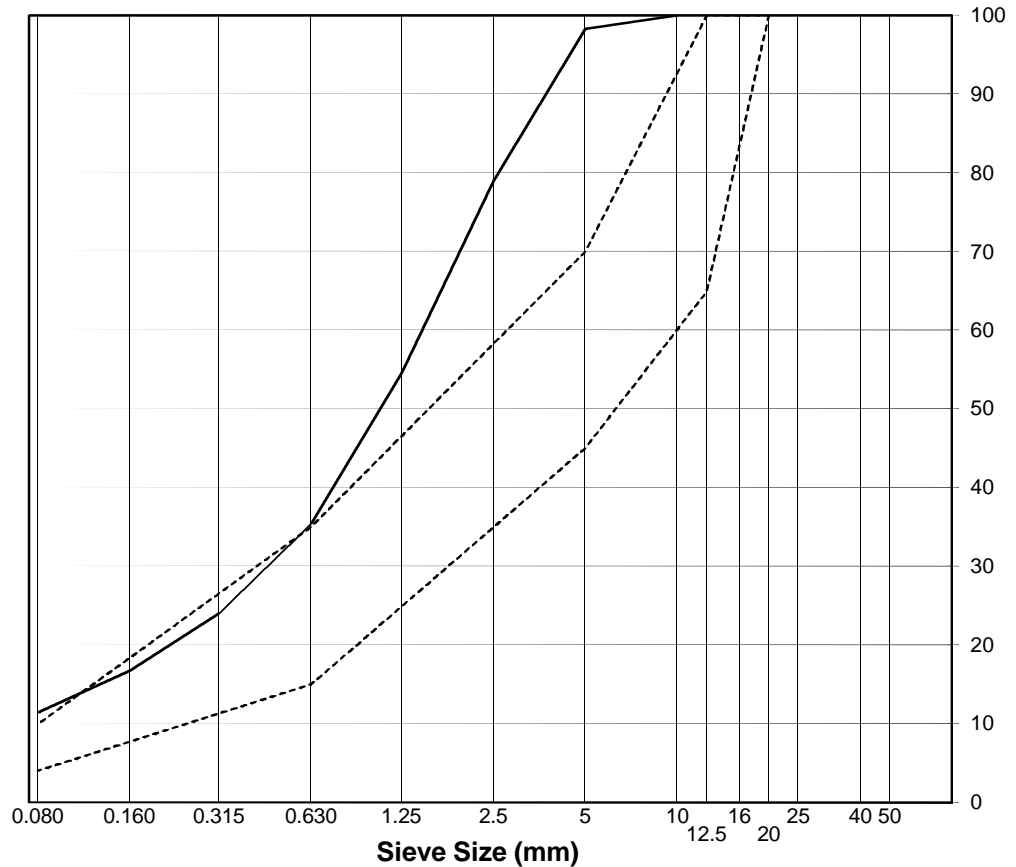
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher Belt @ 22:30  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-317  
Date Sampled: February 26, 2012  
Sampled by: JO  
Date Tested: February 27, 2012  
Tested by: TB/JO Office: On-site Lab  
Moisture Content (as received): 1.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 57

Sieve Size	Percent Passing
10.0	100
5	98
2.5	79
1.25	55
0.630	35
0.315	24
0.160	17
0.080	11.4



Remarks: SRK Sample No. HB12-CR-CORE-PSD57-QA-20120226

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

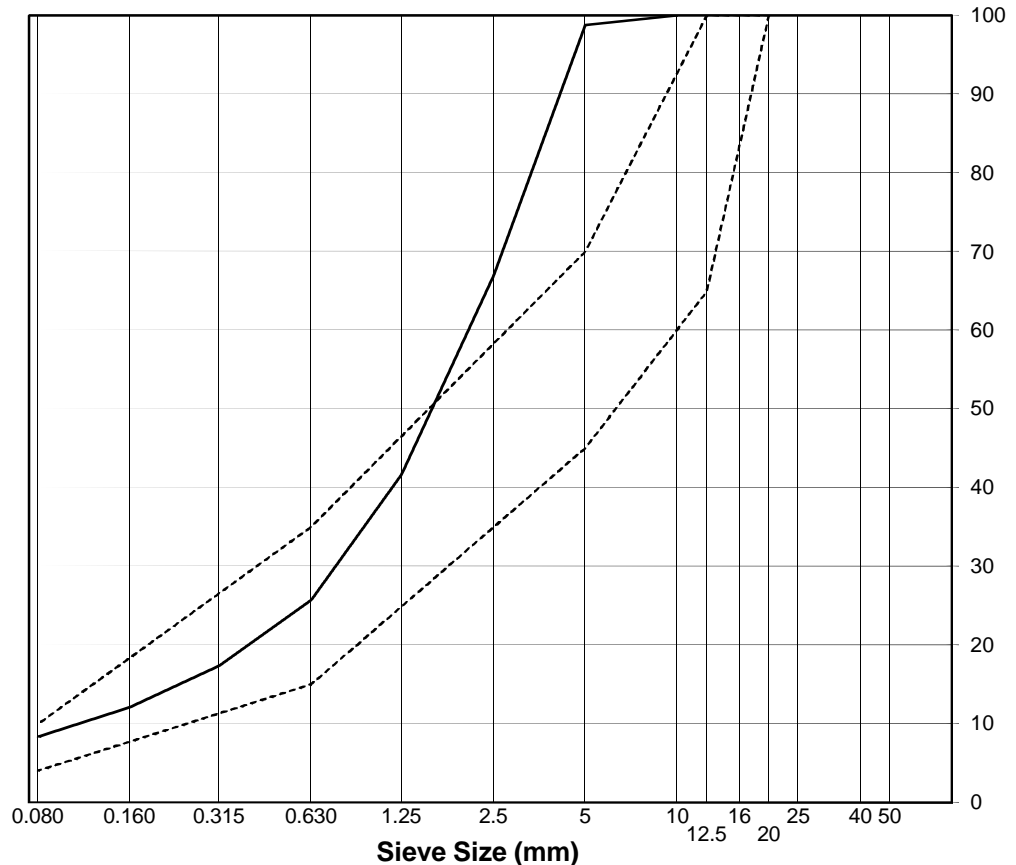
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher belt @ 10:30  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-329  
Date Sampled: February 28, 2012  
Sampled by: Nuna  
Date Tested: February 28, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 1.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 58

Sieve Size	Percent Passing
10.0	100
5	99
2.5	67
1.25	42
0.630	26
0.315	17
0.160	12
0.080	8.4



Remarks: SRK Sample No. HB12-CR-CORE-PSD58-QA-20120228

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

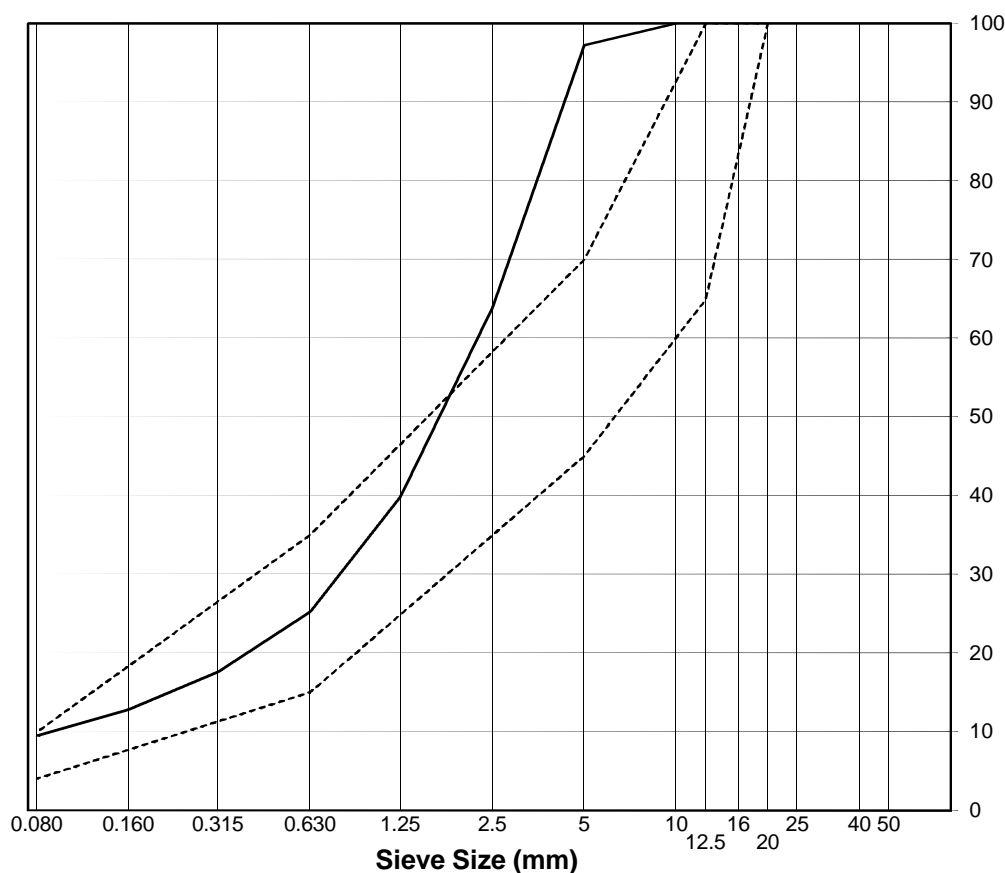
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 221, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-332  
Date Sampled: February 28, 2012  
Sampled by: TB  
Date Tested: February 28, 2012  
Tested by: TB/JO Office: On-site Lab  
Moisture Content (as received): 9.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 59

Sieve Size	Percent Passing
10.0	100
5	97
2.5	64
1.25	40
0.630	25
0.315	18
0.160	13
0.080	9.5



Remarks: SRK Sample No. HB12-FCP-CORE-PSD59-QA-20120228

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

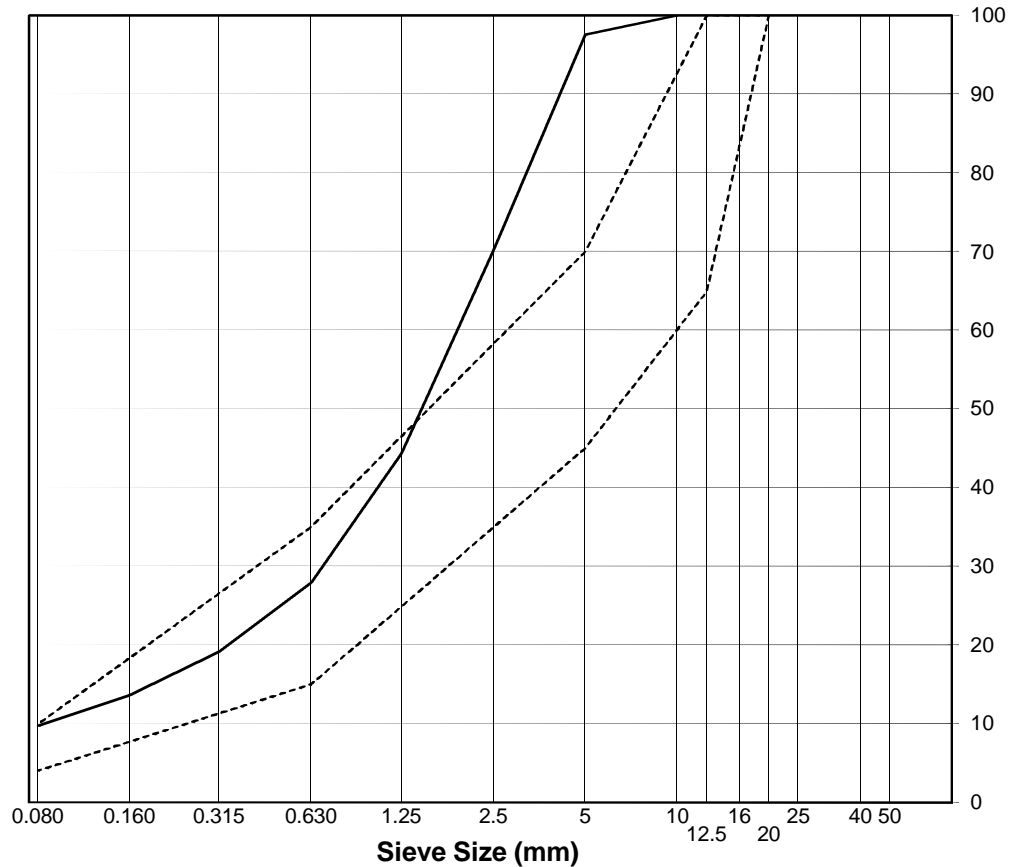
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher belt @ 21:45  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-347  
Date Sampled: February 28, 2012  
Sampled by: Nuna  
Date Tested: February 29, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 0.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 60

Sieve Size	Percent Passing
10.0	100
5	98
2.5	70
1.25	44
0.630	28
0.315	19
0.160	14
0.080	9.7



Remarks: SRK Sample No. HB12-CR-CORE-PSD60-QA-20120228

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

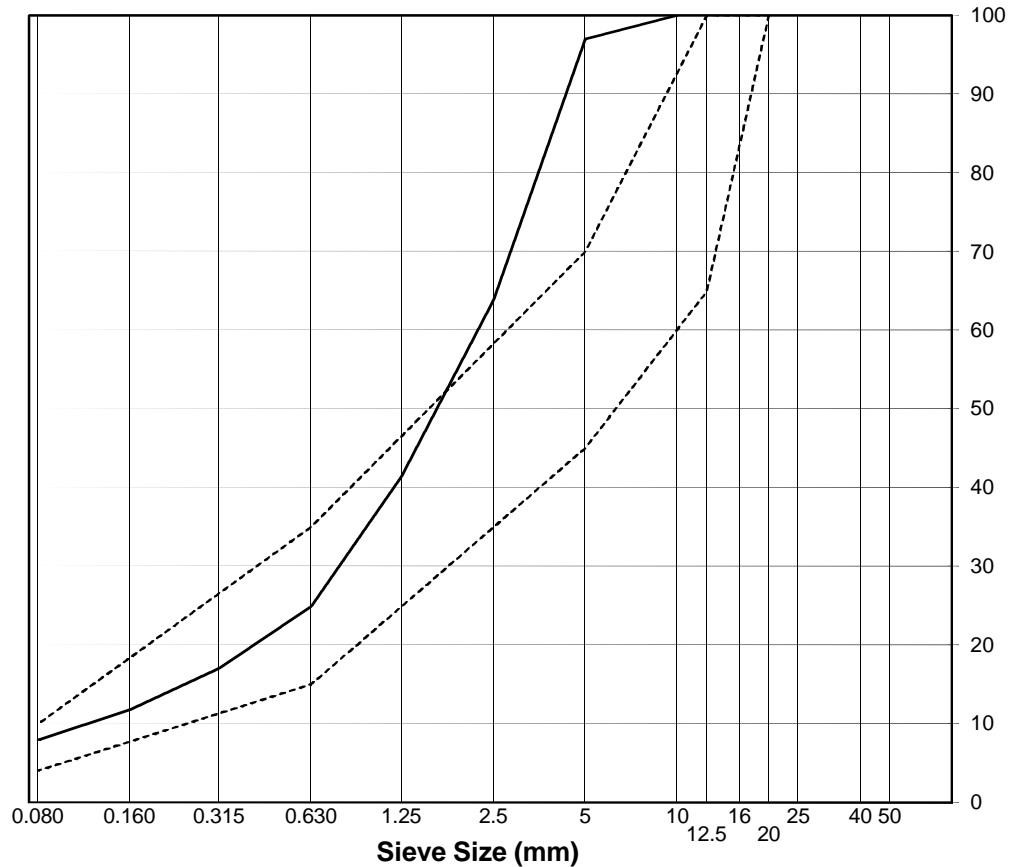
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher belt @ 14:22  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-348  
Date Sampled: February 29, 2012  
Sampled by: Nuna  
Date Tested: February 29, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 0.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 61

Sieve Size	Percent Passing
10.0	100
5	97
2.5	64
1.25	41
0.630	25
0.315	17
0.160	12
0.080	7.9



Remarks: SRK Sample No. HB12-CR-CORE-PSD61-QA-20120229

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

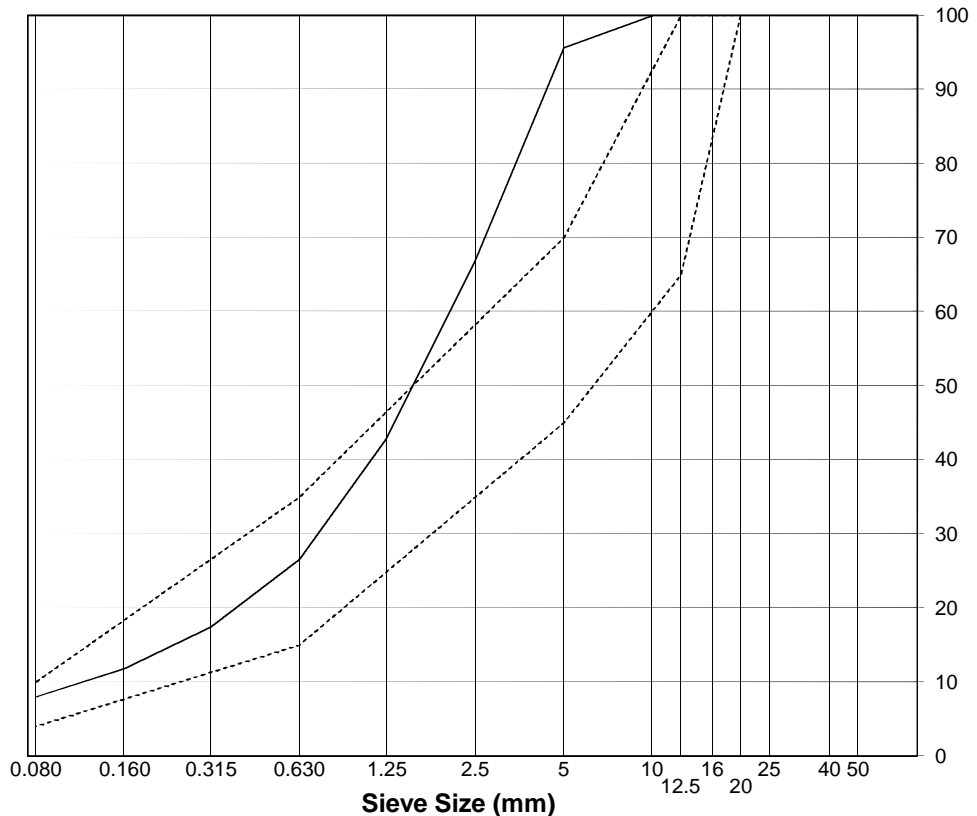
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Clemro Crusher belt @ 21:50  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-354  
Date Sampled: February 29, 2012  
Sampled by: Nuna  
Date Tested: March 1, 2012  
Tested by: JO Office: On-site Lab  
Moisture Content (as received): 1.3%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 62

Sieve Size	Percent Passing
10.0	100
5	96
2.5	67
1.25	43
0.630	27
0.315	17
0.160	12
0.080	8.0



Remarks: SRK Sample No. HB12-CR-CORE-PSD62-QA-20120229

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

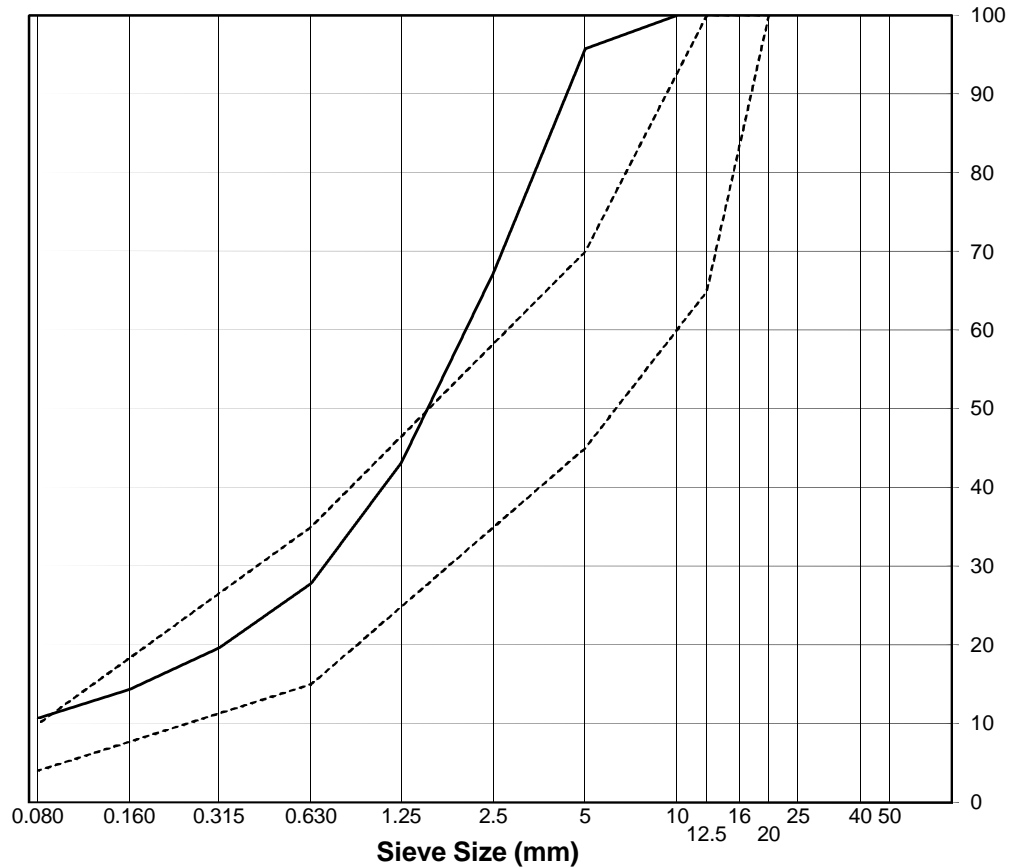
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 60, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+10 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-358  
Date Sampled: March 2, 2012  
Sampled by: JO  
Date Tested: March 3, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 10.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 63

Sieve Size	Percent Passing
10.0	100
5	96
2.5	67
1.25	43
0.630	28
0.315	20
0.160	14
0.080	10.7



Remarks: SRK Sample No. HB12-ND-CORE-PSD63-QA-20120302

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

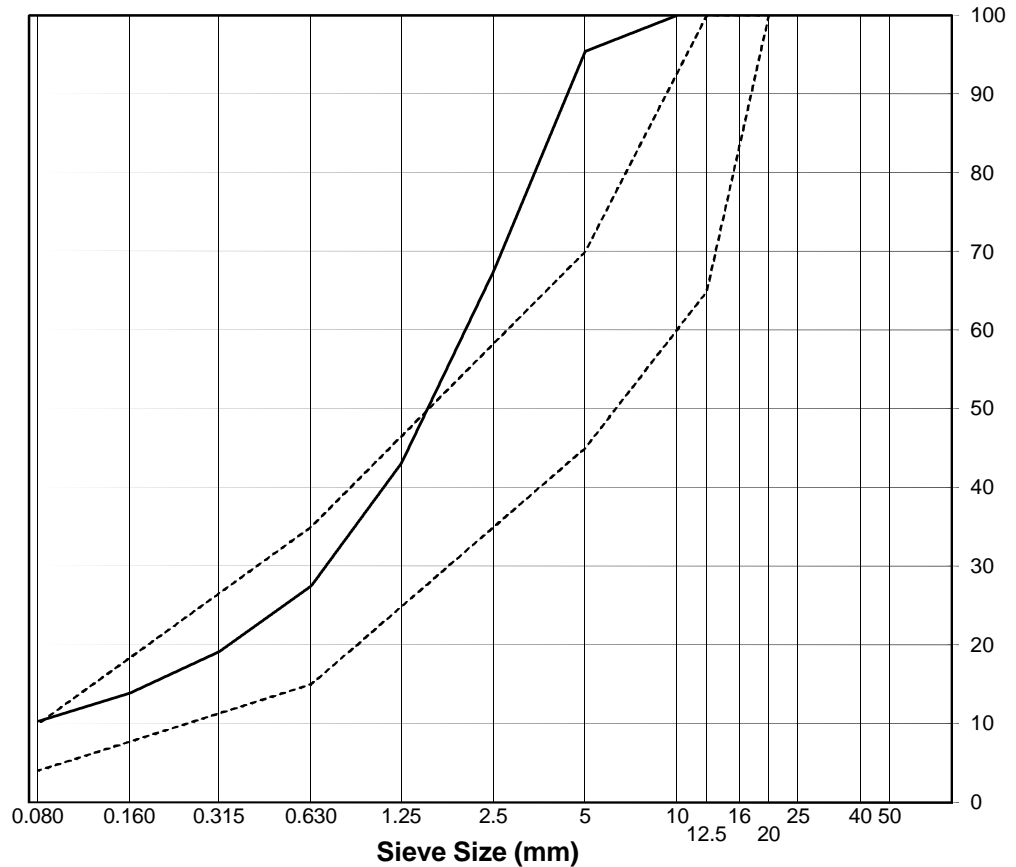
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 245, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 1012-363  
Date Sampled: March 2, 2012  
Sampled by: JS  
Date Tested: March 3, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 10.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 64

Sieve Size	Percent Passing
10.0	100
5	96
2.5	68
1.25	43
0.630	28
0.315	19
0.160	14
0.080	10.3



Remarks: SRK Sample No. HB12-FCP-CORE-PSD64-QA-20120302

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

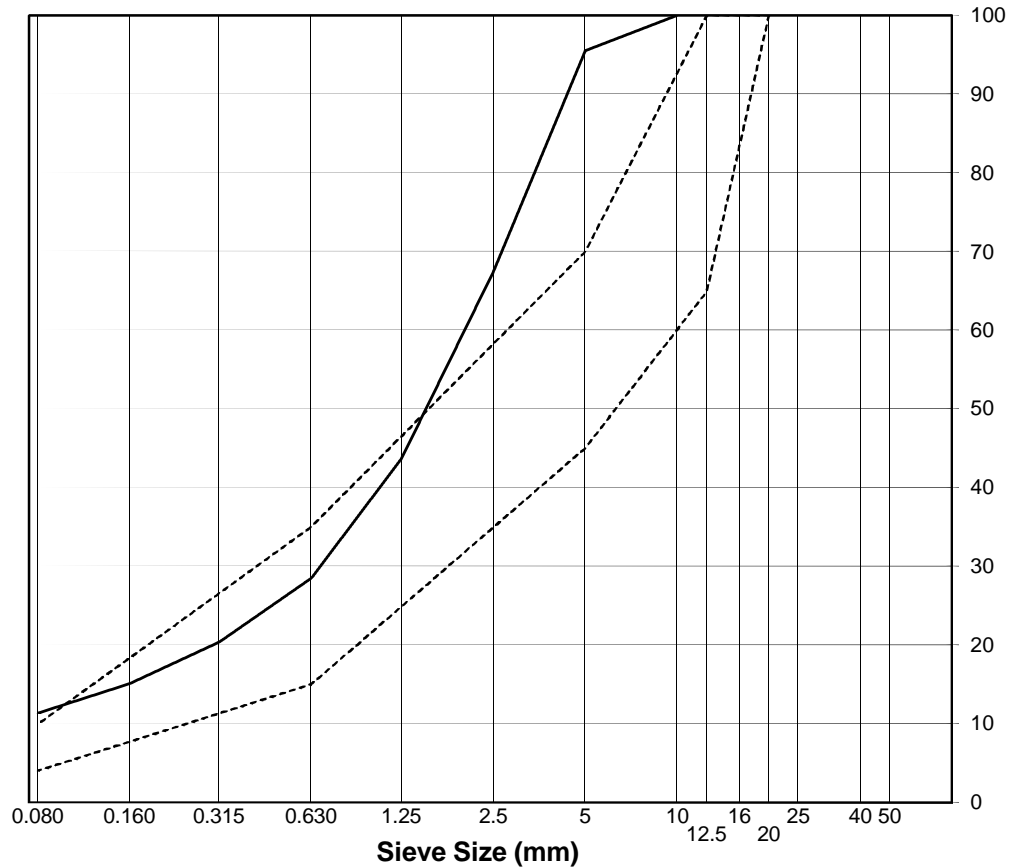
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 65, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+40 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-392  
Date Sampled: March 4, 2012  
Sampled by: JO  
Date Tested: March 6, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 10.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 65

Sieve Size	Percent Passing
10.0	100
5	96
2.5	68
1.25	44
0.630	29
0.315	20
0.160	15
0.080	11.4



Remarks: SRK Sample No. HB12-ND-CORE-PSD65-QA-20120304

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

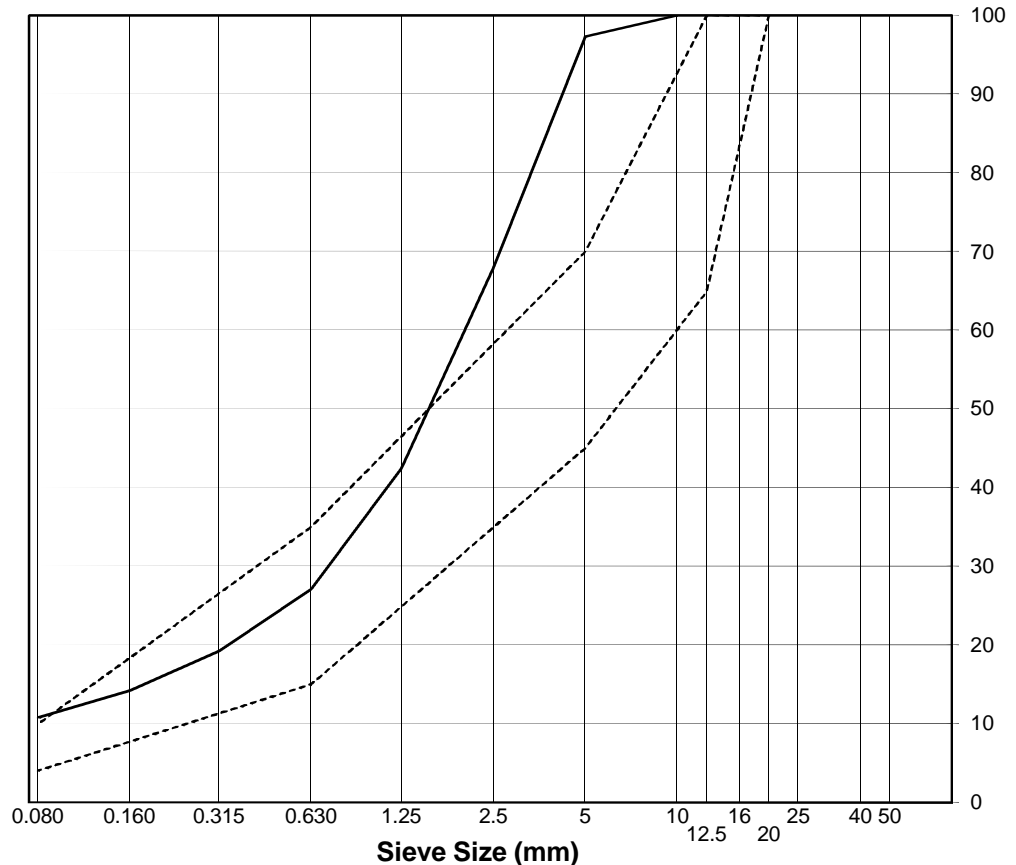
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 298, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+72 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-429  
Date Sampled: March 9, 2012  
Sampled by: JO  
Date Tested: March 10, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 11.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 67

Sieve Size	Percent Passing
10.0	100
5	97
2.5	68
1.25	43
0.630	27
0.315	19
0.160	14
0.080	10.8



Remarks: SRK Sample No. HB12-ND-CORE-PSD67-QA-20120309

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

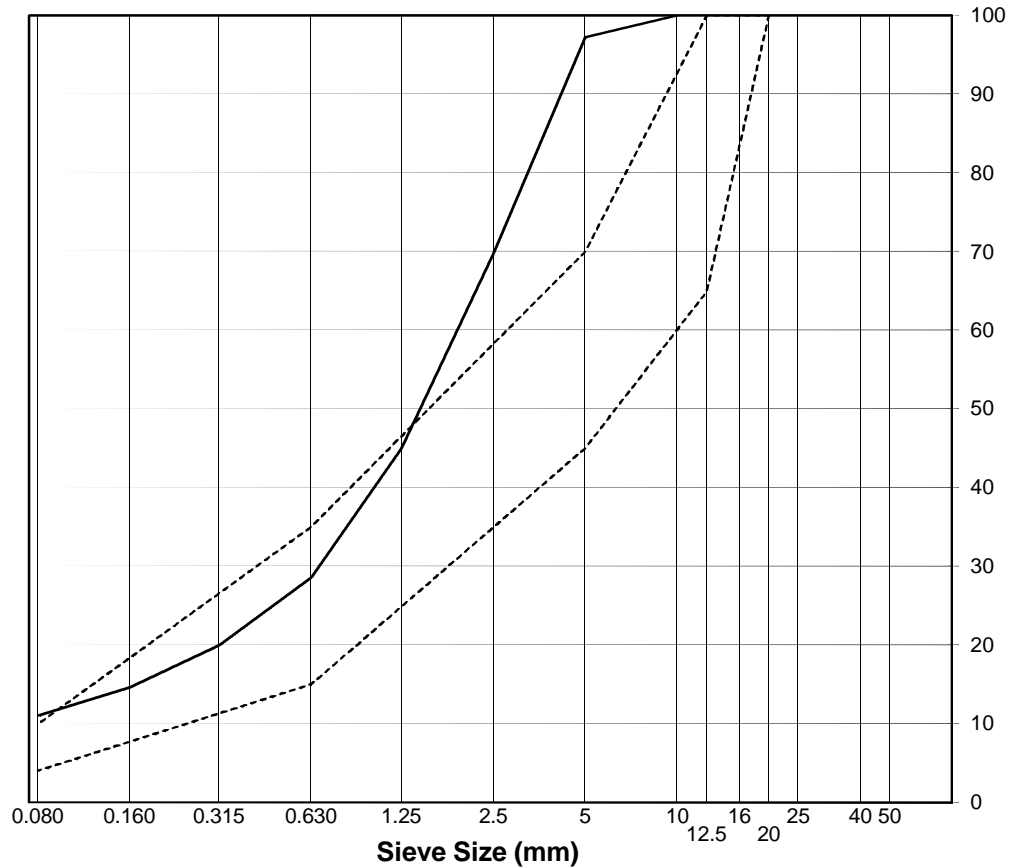
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 303, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+48 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-435  
Date Sampled: March 10, 2012  
Sampled by: JO  
Date Tested: March 11, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 11.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 68

Sieve Size	Percent Passing
10.0	100
5	97
2.5	70
1.25	45
0.630	29
0.315	20
0.160	15
0.080	11.0



Remarks: SRK Sample No. HB12-ND-CORE-PSD68-QA-20120310

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

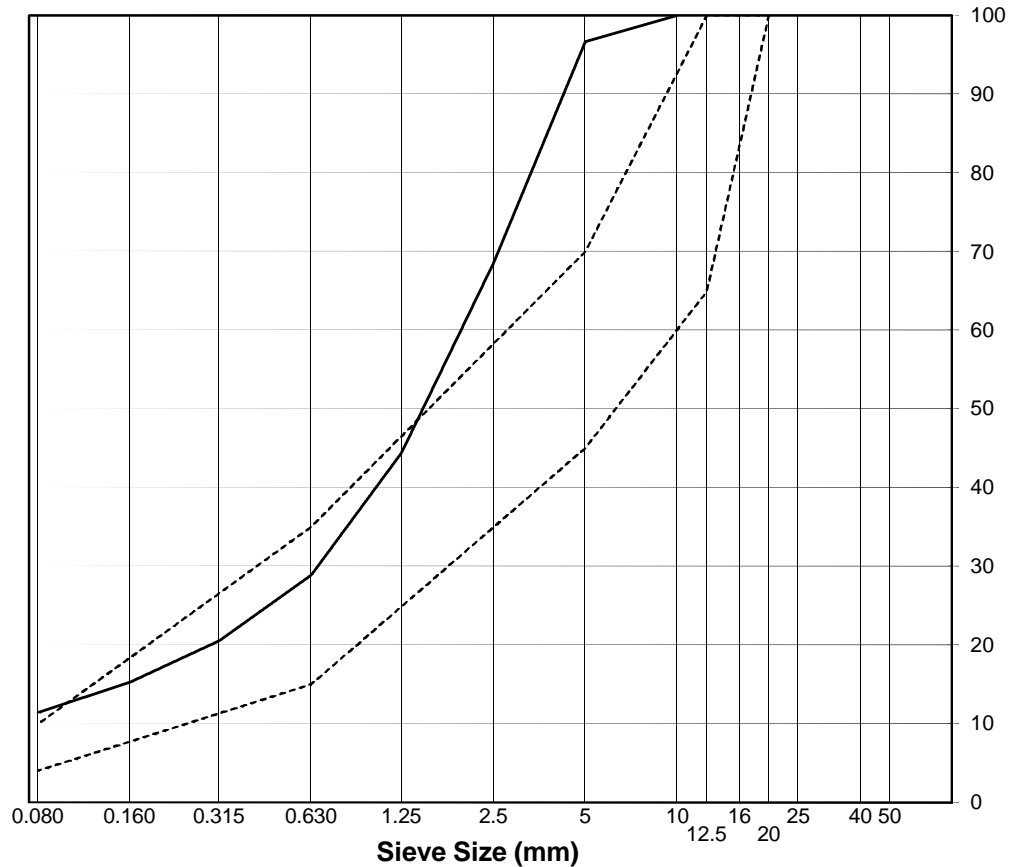
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 317, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+85 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-451  
Date Sampled: March 11, 2012  
Sampled by: JO  
Date Tested: March 12, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 10.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 69

Sieve Size	Percent Passing
10.0	100
5	97
2.5	69
1.25	44
0.630	29
0.315	21
0.160	15
0.080	11.4



Remarks: SRK Sample No. HB12-ND-CORE-PSD69-QA-20120311

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

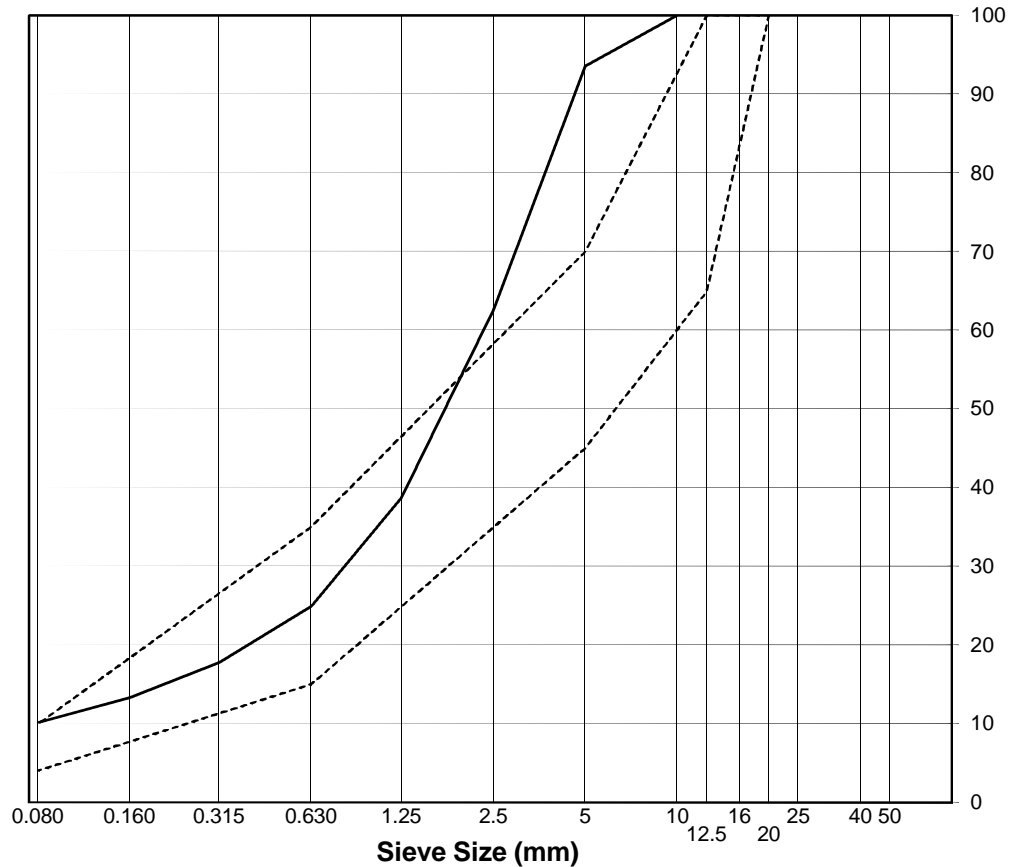
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 324, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Frozen Core Plant Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-459  
Date Sampled: March 12, 2012  
Sampled by: JO  
Date Tested: March 13, 2012  
Tested by: JS/JO Office: On-site Lab  
Moisture Content (as received): 10.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 70

Sieve Size	Percent Passing
10.0	100
5	94
2.5	63
1.25	39
0.630	25
0.315	18
0.160	13
0.080	10.1



Remarks: SRK Sample No. HB12-FCP-CORE-PSD70-QA-20120312

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

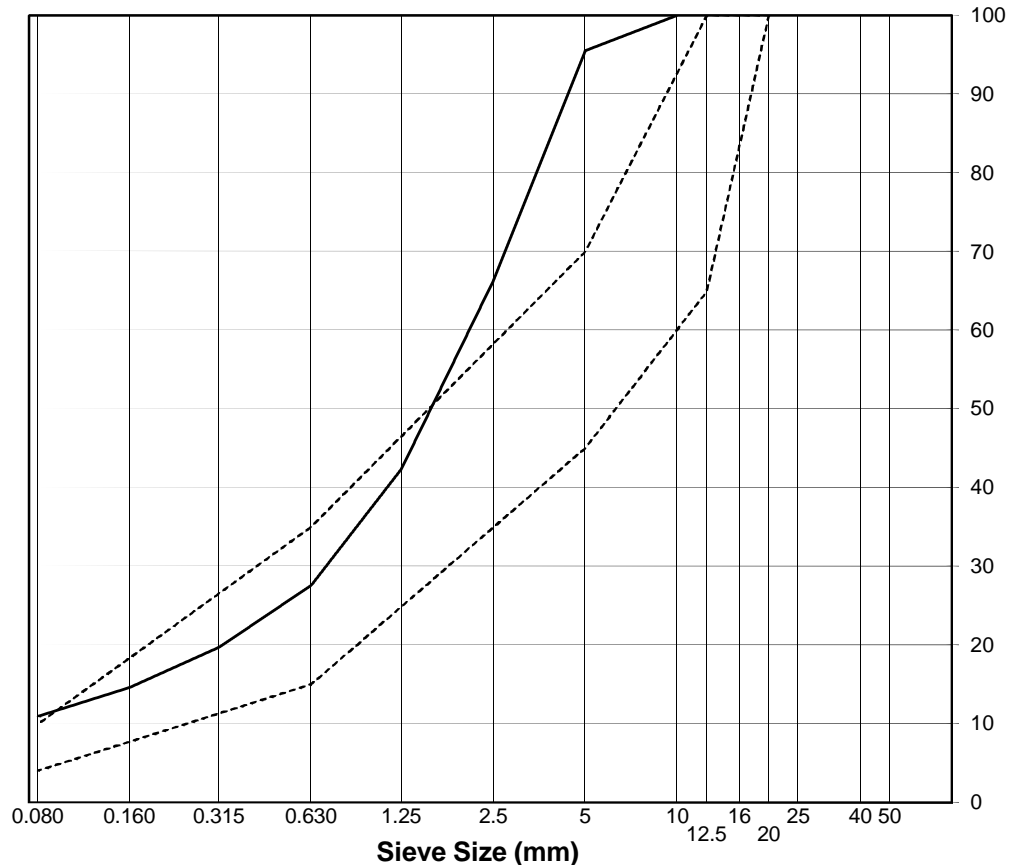
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 79, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+15 D/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-486  
Date Sampled: March 15, 2012  
Sampled by: JS  
Date Tested: March 16, 2012  
Tested by: JS Office: On-site Lab  
Moisture Content (as received): 12.9%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 71

Sieve Size	Percent Passing
10.0	100
5	96
2.5	66
1.25	42
0.630	28
0.315	20
0.160	15
0.080	11.0



Remarks: SRK Sample No. HB12-ND-CORE-PSD71-QA-20120315

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

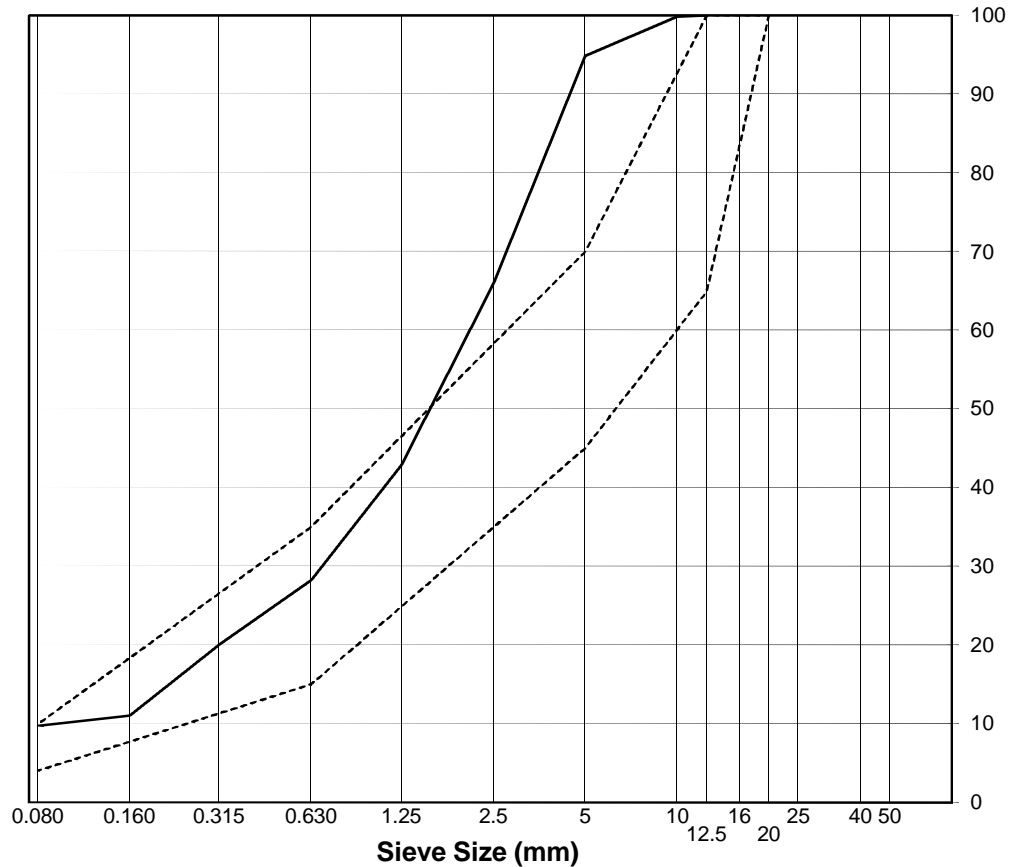
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: MC 356, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 0+32 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-501  
Date Sampled: March 17, 2012  
Sampled by: JS  
Date Tested: March 19, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 11.8%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 72

Sieve Size	Percent Passing
12.5	100
10.0	100
5	95
2.5	66
1.25	43
0.630	28
0.315	20
0.160	11
0.080	9.7



Remarks: SRK Sample No. HB12-ND-CORE-PSD72-QA-20120317

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

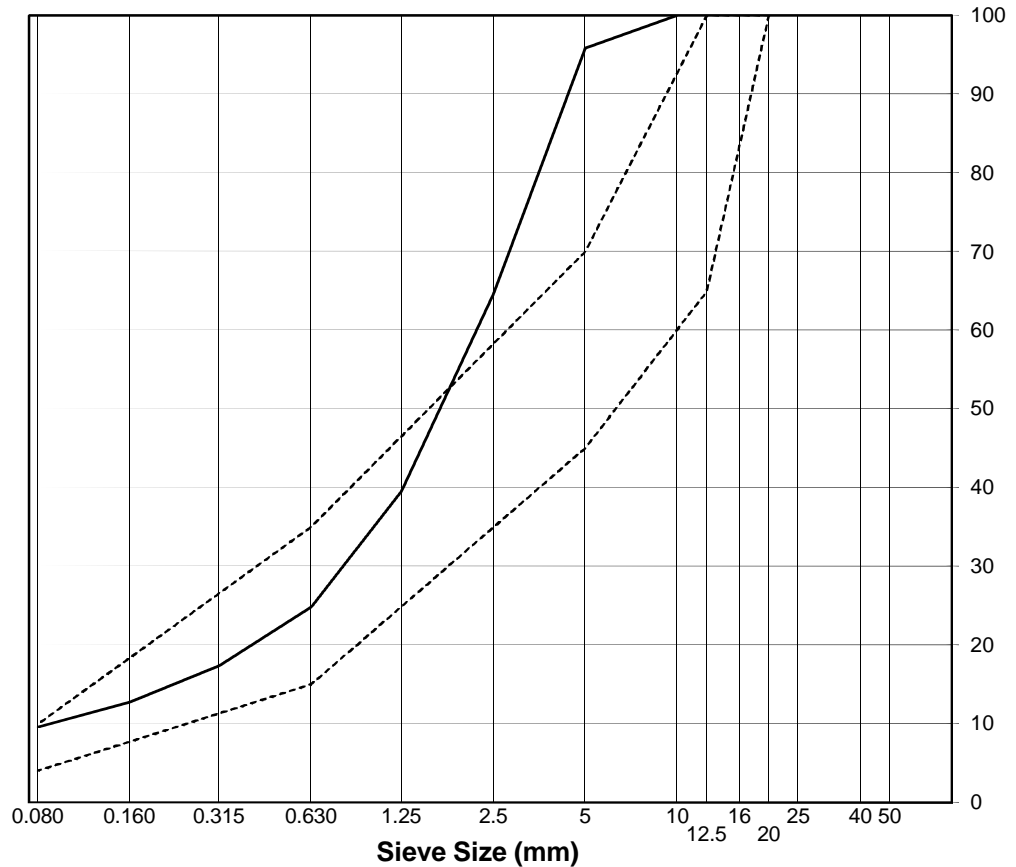
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm minus  
Source: MC 373, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: FCP Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-522  
Date Sampled: March 21, 2012  
Sampled by: JS  
Date Tested: March 22, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 11.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 74

Sieve Size	Percent Passing
10.0	100
5	96
2.5	65
1.25	40
0.630	25
0.315	17
0.160	13
0.080	9.5



Remarks: SRK Sample No. HB12-FCP-CORE-PSD74-QA-20120321

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

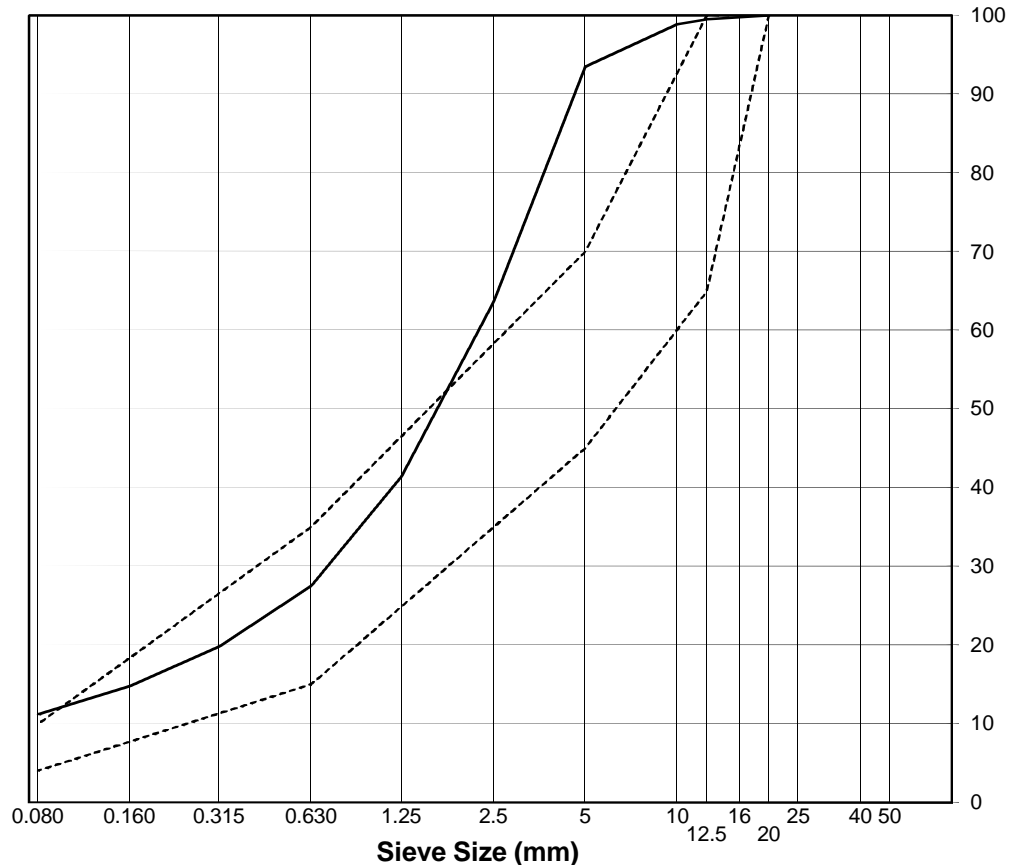
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5 mm Minus  
Source: DC 86, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+20 U/S, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-527  
Date Sampled: March 21, 2012  
Sampled by: JS  
Date Tested: March 22, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 12.2%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 75

Sieve Size	Percent Passing
20	100
12.5	100
10.0	99
5	94
2.5	64
1.25	41
0.630	28
0.315	20
0.160	15
0.080	11.2



Remarks: SRK Sample No. HB12-ND-CORE-PSD75-QA-20120321

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

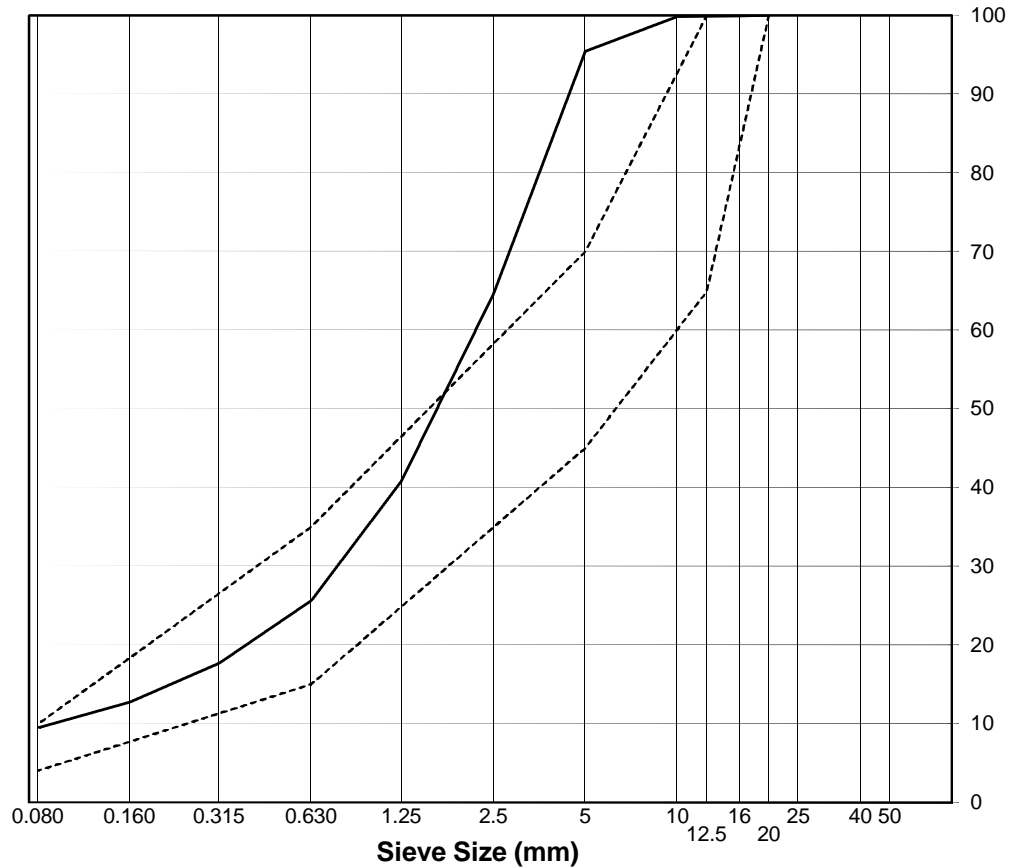
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: 5mm Minus  
Source: MC 384, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Frozen Core Plant Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-537  
Date Sampled: March 23, 2012  
Sampled by: TB  
Date Tested: March 24, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 11.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 77

Sieve Size	Percent Passing
20	100
12.5	100
10.0	100
5	95
2.5	65
1.25	41
0.630	26
0.315	18
0.160	13
0.080	9.5



Remarks: SRK Sample No. HB12-FCP-CORE-PSD77-QA-20120323

Reviewed By: \_\_\_\_\_

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**Particle Size Distribution Test Certificates**  
**Core Material: Manufactured Fines**

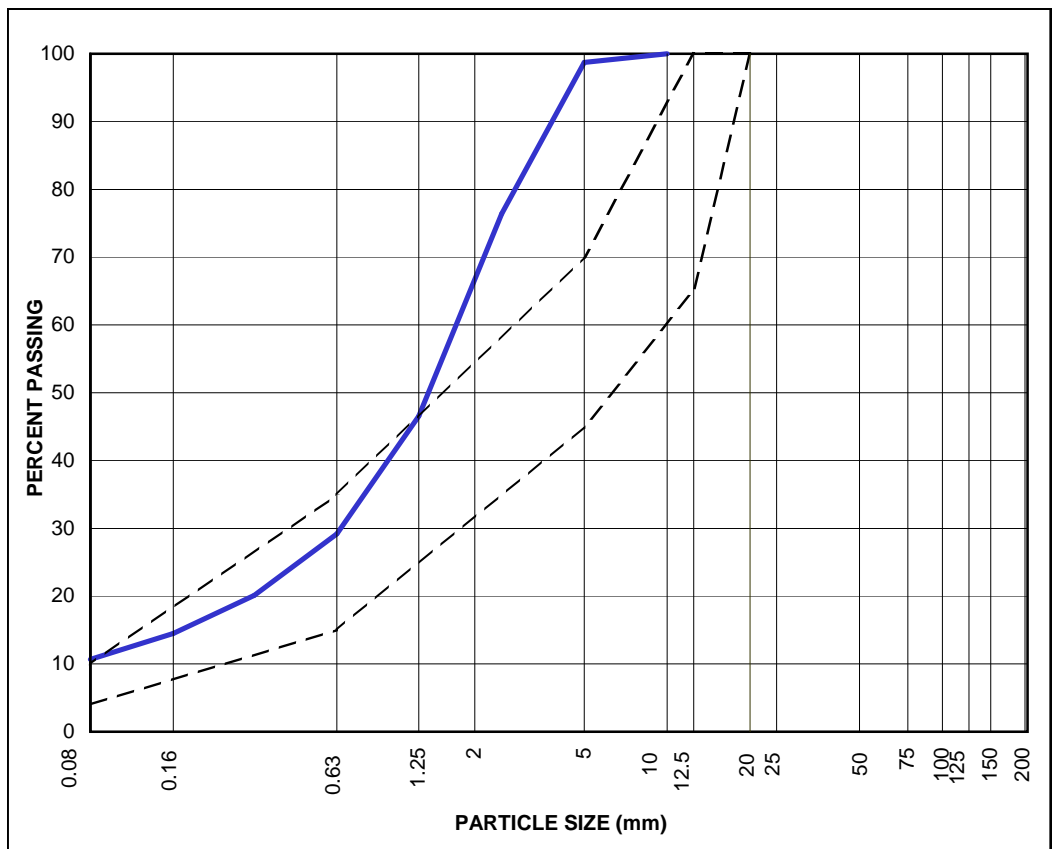


# EBA, A Tetra Tech Company

## PARTICLE SIZE ANALYSIS REPORT

<b>PROJECT:</b>	<u>Doris North - North Dam</u>	<b>SRK SAMPLE NO:</b>	<u>HB-CR-FINES-PSD 2-QA-20110305</u>
		<b>Sample Description:</b>	<u>Fines</u>
<b>ADDRESS:</b>	<u>Hope Bay, NU</u>		
<b>PROJECT NO:</b>	<u>E14101112</u>	<b>MOISTURE CONT. :</b>	<u>1.4%</u>
<b>DATE TESTED:</b>	<u>Mar 05/11</u> <u>By: JJJ/JO</u>		
<b>CLIENT:</b>	<u>SRK Consulting (Canada) Inc.</u>	<b>BULK REL DENSITY:</b>	<u>n/a</u>
		<b>BULK REL. DENSITY (SSD):</b>	<u>n/a</u>
<b>ATTENTION:</b>	<u>Lowell Wade</u>	<b>APPARENT REL. DENSITY:</b>	<u>n/a</u>
		<b>ABSORPTION:</b>	<u>n/a</u>

PARTICLE SIZE	PERCENT PASSING
10	100
5	99
0.63	29
0.080	11
0.315	20
0.160	14



**Remarks:** Core material PSD limits shown. Sampled by JO from the stockpile at the crusher.

**Reviewed by:** \_\_\_\_\_ P.Eng.

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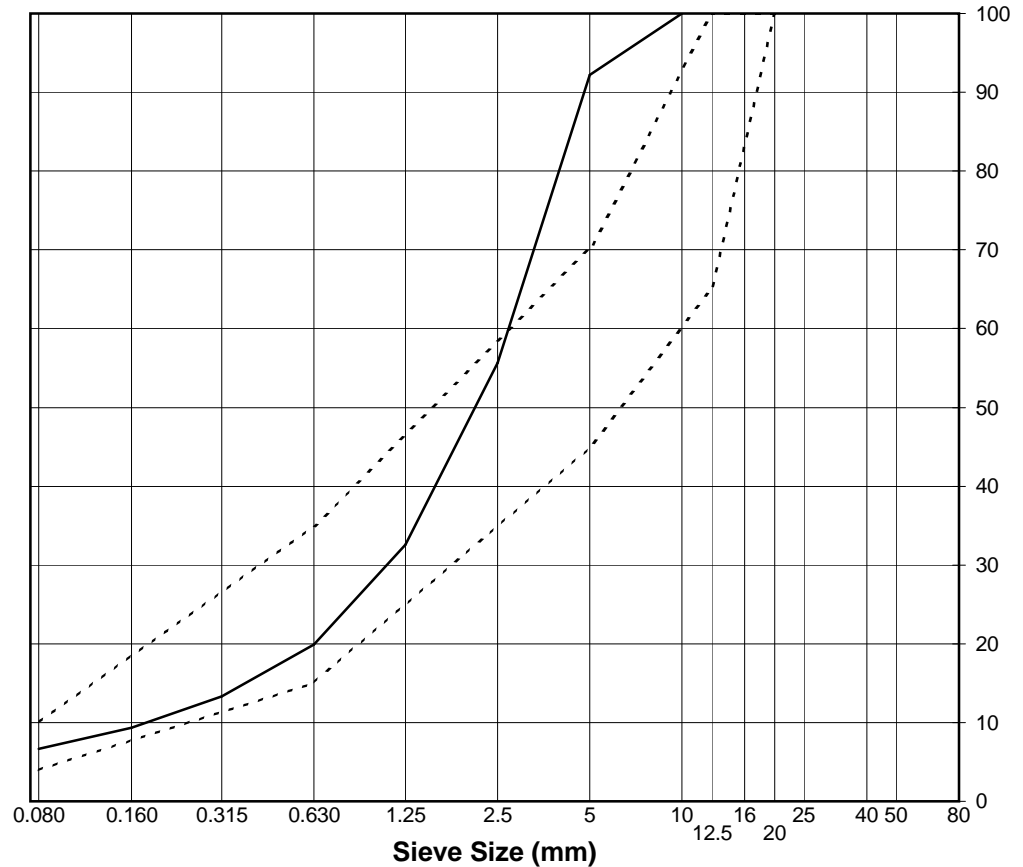
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 235  
Date Received: May 6, 2011  
Sampled by: GFL  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 2.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
10.0	100
5	92
2.5	56
1.25	33
0.630	20
0.315	13
0.160	9
0.080	6.6



Remarks: File name: HB-CR-FINES-PSD17-QA-20110506

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: 5/8" Rejects Re-crushed on 1/4" Screen

Source: Crusher Belt

Supplier: Nuna

Sample Location: Crusher Belt

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 234

Date Received: May 6, 2011

Sampled by: GFL

Date Tested: May 7, 2011

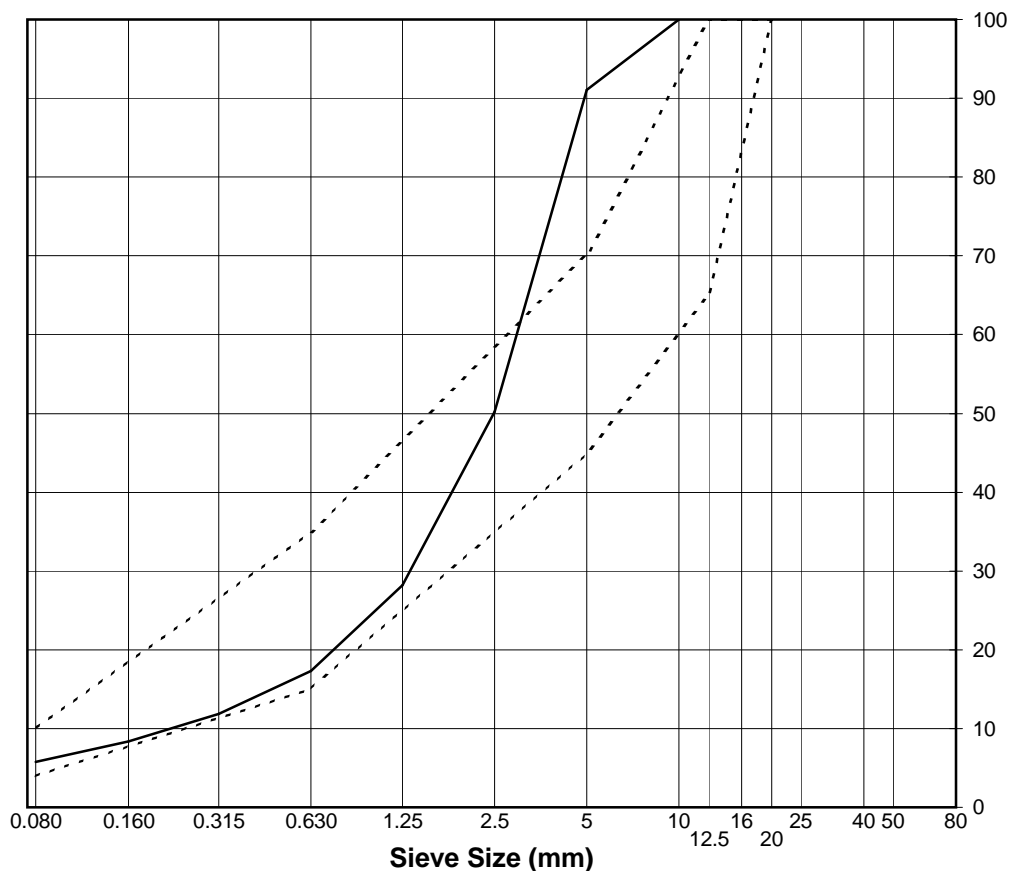
Tested by: GFL Office: On-site lab

Moisture Content (as received): 1.6%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
10.0	100
5	91
2.5	50
1.25	28
0.630	17
0.315	12
0.160	8
0.080	5.8



Remarks: File name: HB-CR-FINES-PSD16-QA-20110506

Reviewed By: \_\_\_\_\_

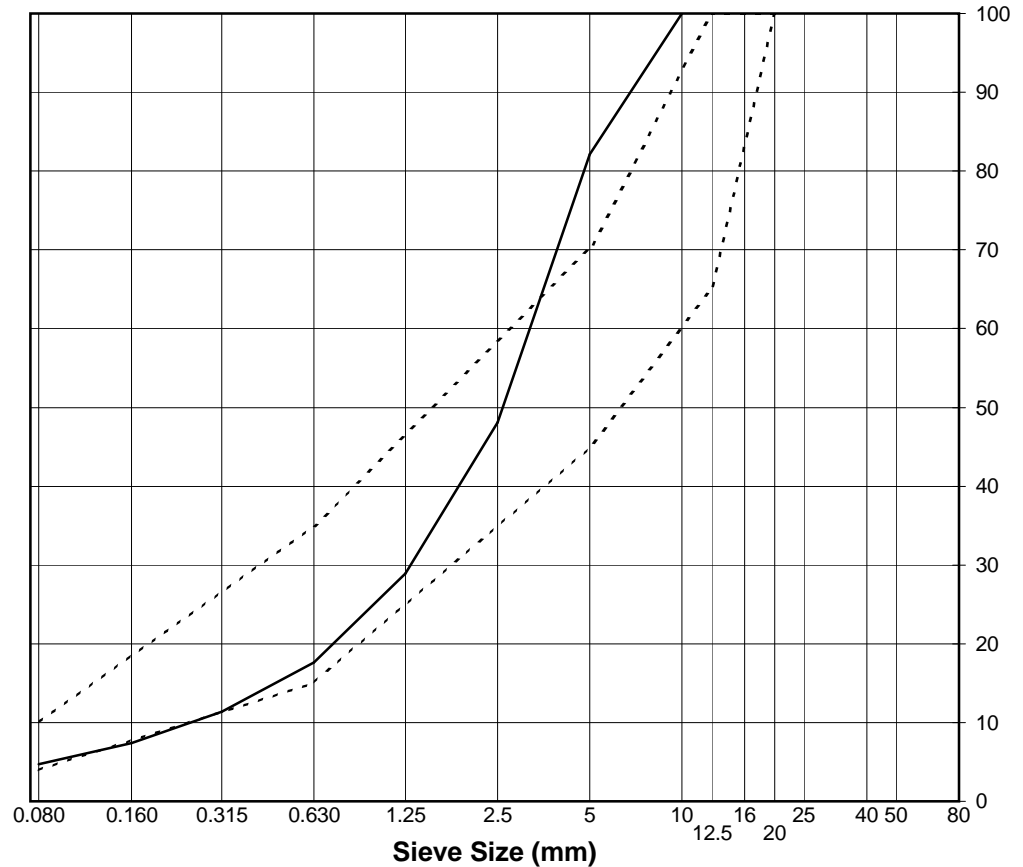
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 3/8"&1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 237  
Date Received: May 6, 2011  
Sampled by: Harry  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 1.7%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
10.0	100
5	82
2.5	48
1.25	29
0.630	18
0.315	11
0.160	7
0.080	4.7



Remarks: File name: HB-CR-FINES-PSD19-QA-20110506

Reviewed By: \_\_\_\_\_

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112

Project: Doris North - North Dam

Client: SRK Consulting (Canada) Inc.

Attention: Lowell Wade

Email: hopebay@srk.com

Description: 5/8" Rejects Re-crushed on 3/8"&1/4" Screen

Source: Crusher Belt

Supplier: Nuna

Sample Location: Crusher Belt

Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 238

Date Received: May 6, 2011

Sampled by: Harry

Date Tested: May 7, 2011

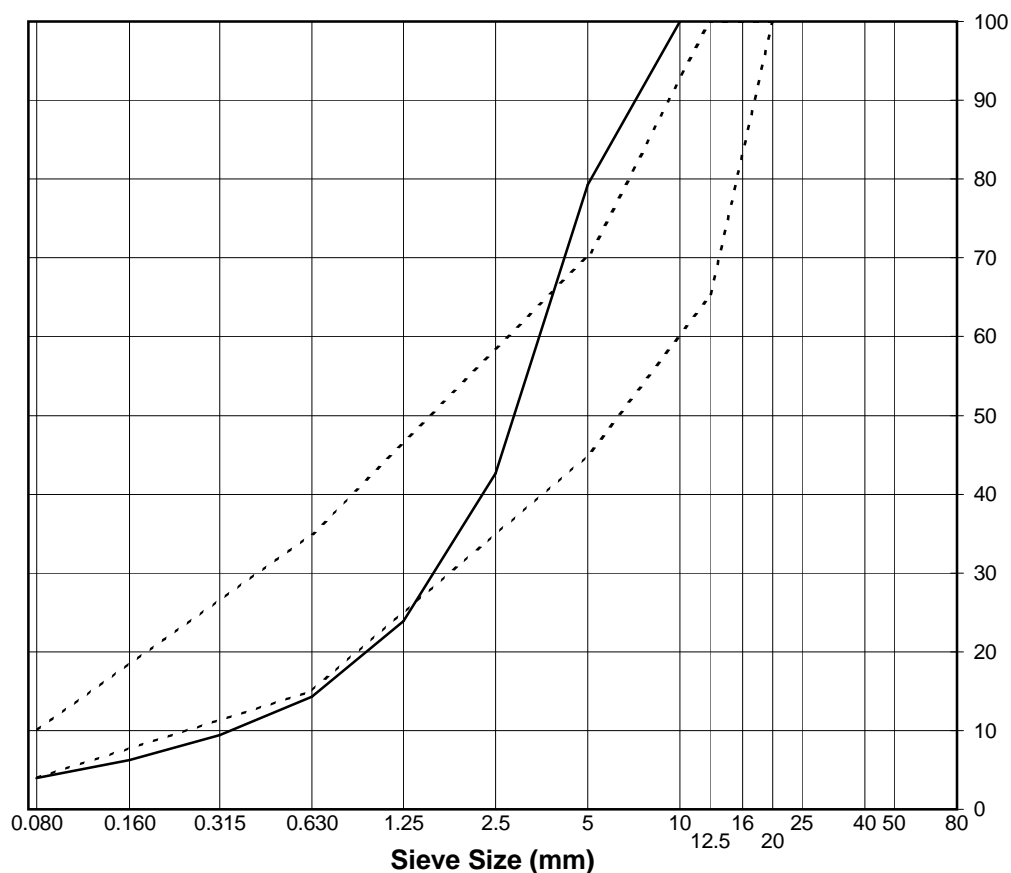
Tested by: GFL Office: On-site lab

Moisture Content (as received): 1.5%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
10.0	100
5	79
2.5	43
1.25	24
0.630	14
0.315	9
0.160	6
0.080	4.0



Remarks: File name: HB-CR-FINES-PSD20-QA-20110506

Reviewed By: \_\_\_\_\_

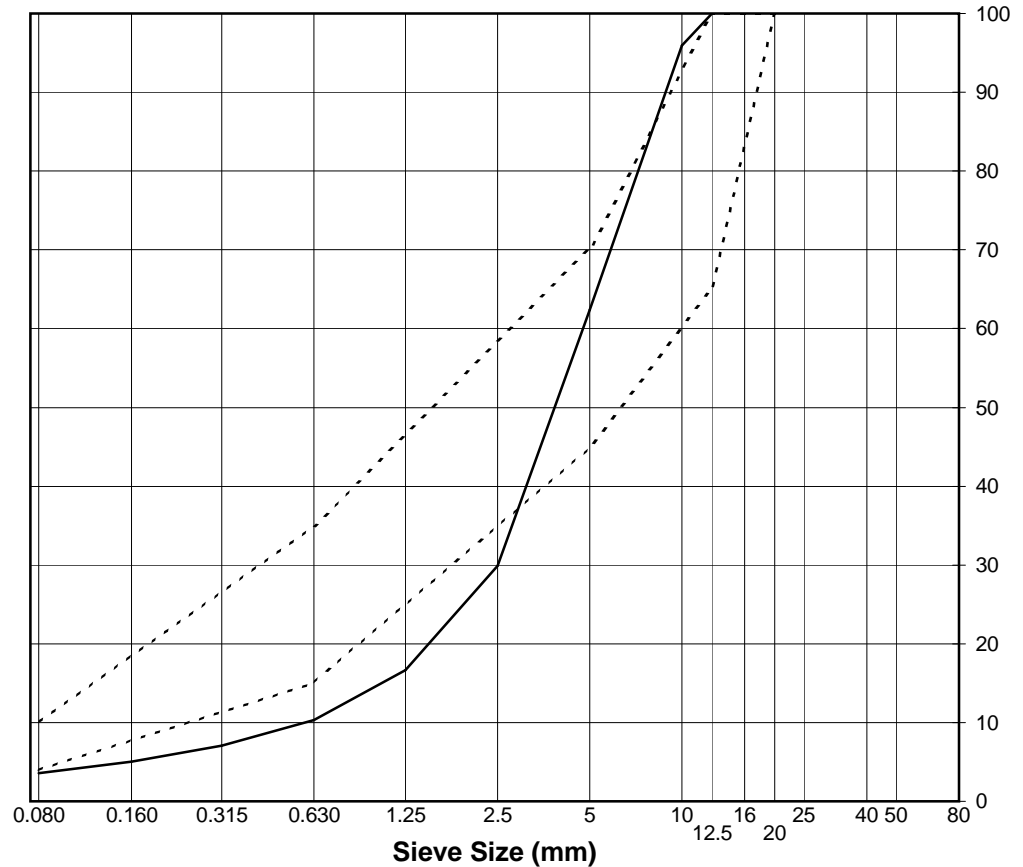
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 1/2"&1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 239  
Date Received: May 6, 2011  
Sampled by: Harry  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 0.4%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
12.5	100
10.0	96
5	62
2.5	30
1.25	17
0.630	10
0.315	7
0.160	5
0.080	3.5



Remarks: File name: HB-CR-FINES-PSD21-QA-20110506

Reviewed By: \_\_\_\_\_

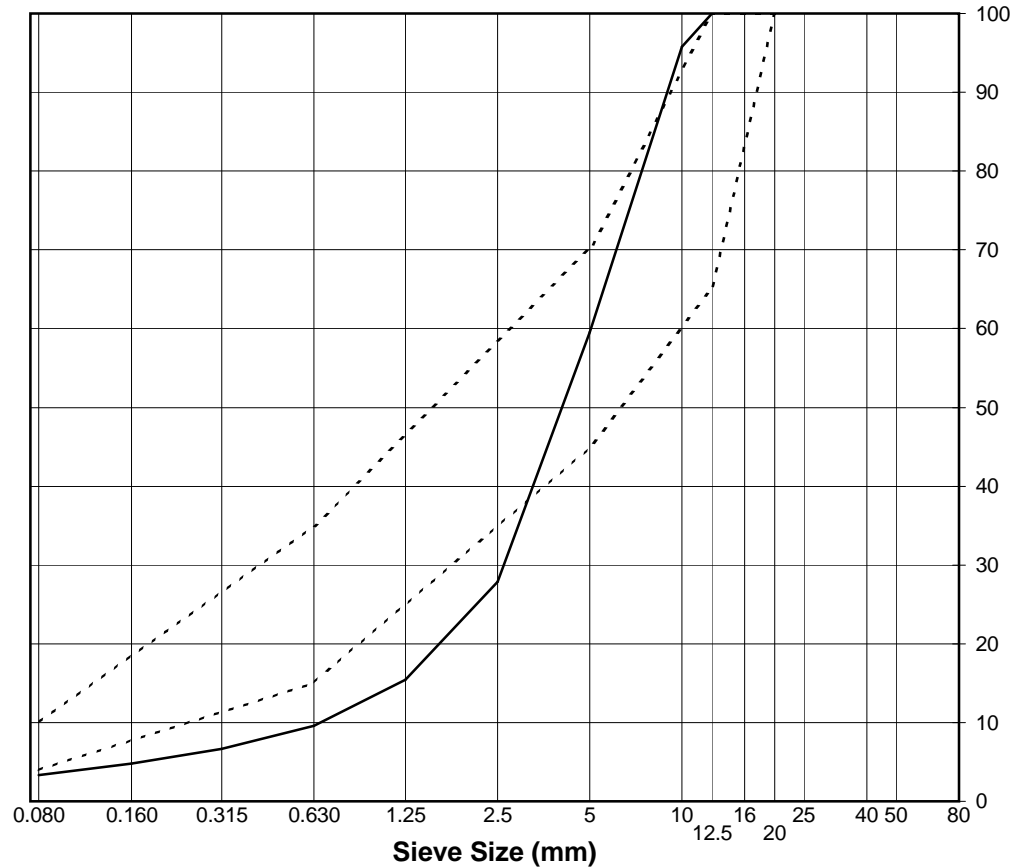
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 1/2"&1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 240  
Date Received: May 6, 2011  
Sampled by: Harry  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 0.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
12.5	100
10.0	96
5	60
2.5	28
1.25	15
0.630	10
0.315	7
0.160	5
0.080	3.4



Remarks: File name: HB-CR-FINES-PSD22-QA-20110506

Reviewed By: \_\_\_\_\_

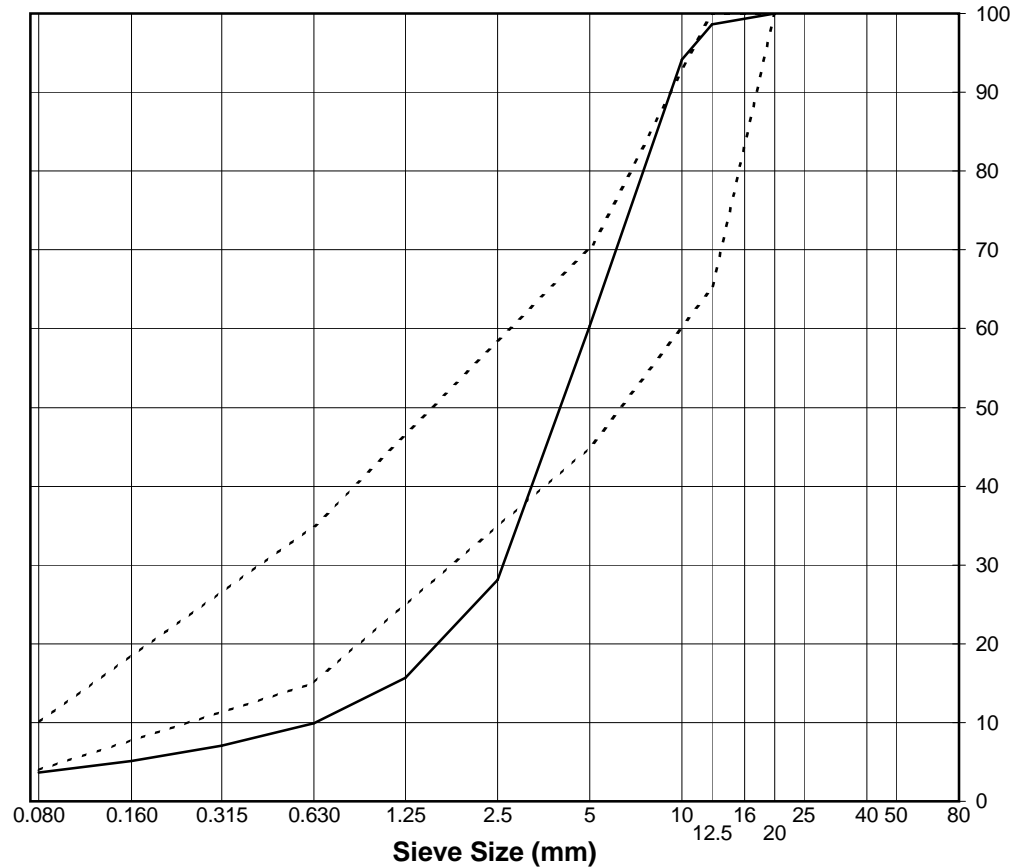
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 5/8"&1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 241  
Date Received: May 6, 2011  
Sampled by: Harry  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 0.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	99
10.0	94
5	60
2.5	28
1.25	16
0.630	10
0.315	7
0.160	5
0.080	3.7



Remarks: File name: HB-CR-FINES-PSD23-QA-20110506

Reviewed By: \_\_\_\_\_

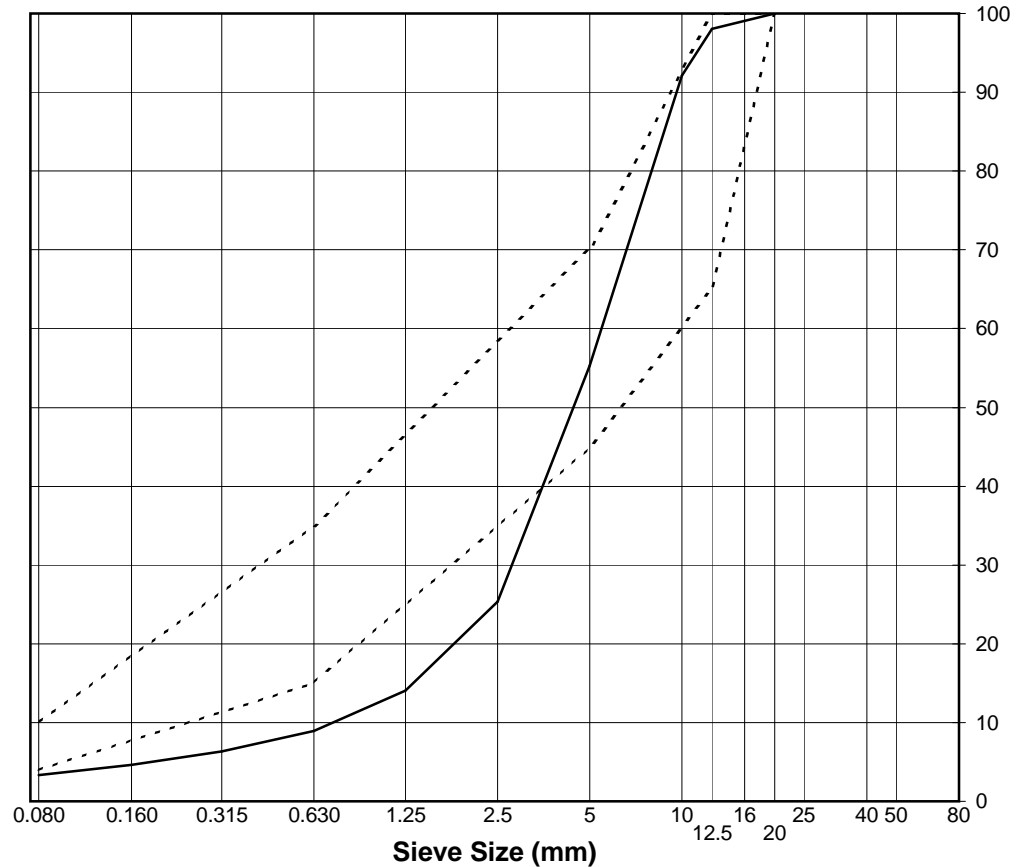
## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.: E14101112  
Project: Doris North - North Dam  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: hopebay@srk.com  
Description: 5/8" Rejects Re-crushed on 5/8"&1/4" Screen  
Source: Crusher Belt  
Supplier: Nuna  
Sample Location: Crusher Belt  
Specification: SRK Consulting Specification Revision G Core Material

Sample No.: 242  
Date Received: May 6, 2011  
Sampled by: Harry  
Date Tested: May 7, 2011  
Tested by: GFL Office: On-site lab  
Moisture Content (as received): 0.5%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

Sieve Size	Percent Passing
20	100
12.5	98
10.0	92
5	55
2.5	25
1.25	14
0.630	9
0.315	6
0.160	5
0.080	3.4



Remarks: File name: HB-CR-FINES-PSD24-QA-20110506

Reviewed By: \_\_\_\_\_



**Particle Size Distribution Test Certificates**  
**GCL Cover Material**

## SIEVE ANALYSIS REPORT

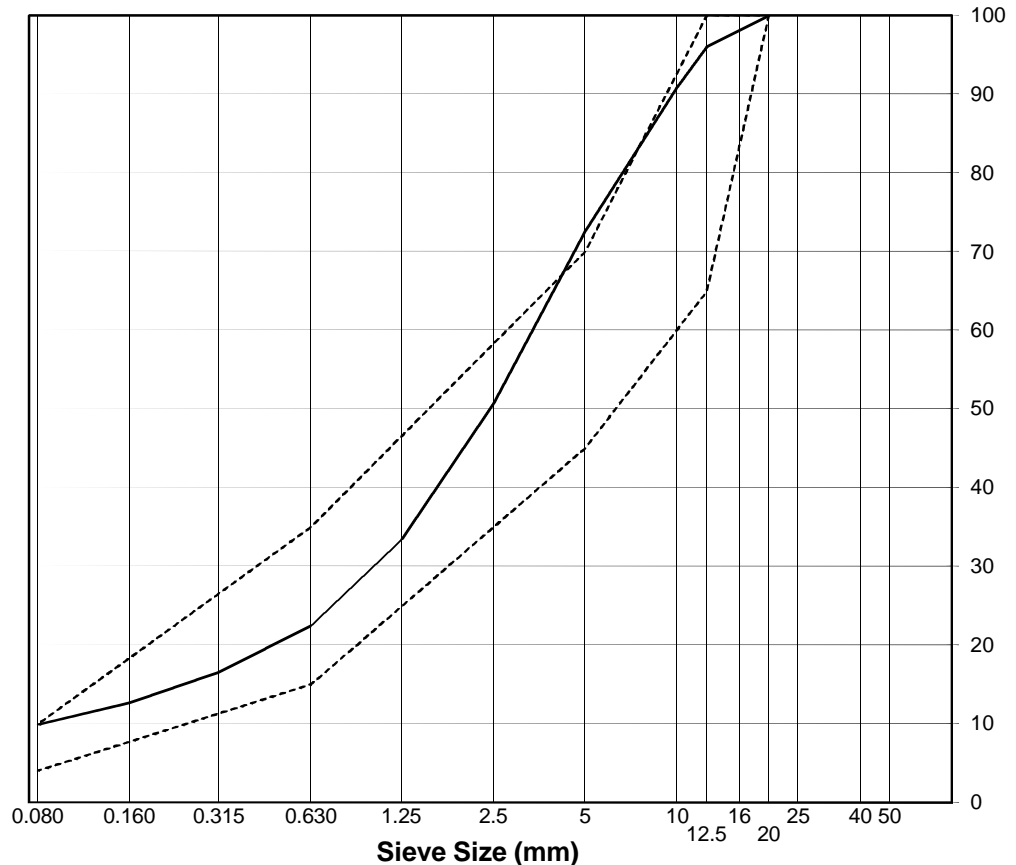
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: GCL Cover Material  
Source: MC 372, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: 1+60 CL, Doris North Dam  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-521  
Date Sampled: March 20, 2012  
Sampled by: JS  
Date Tested: March 21, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 10.6%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 73

Sieve Size	Percent Passing
20	100
12.5	96
10.0	91
5	73
2.5	51
1.25	33
0.630	22
0.315	17
0.160	13
0.080	9.9



Remarks: SRK Sample No. HB12-ND-COVER-PSD73-QA-20120320

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

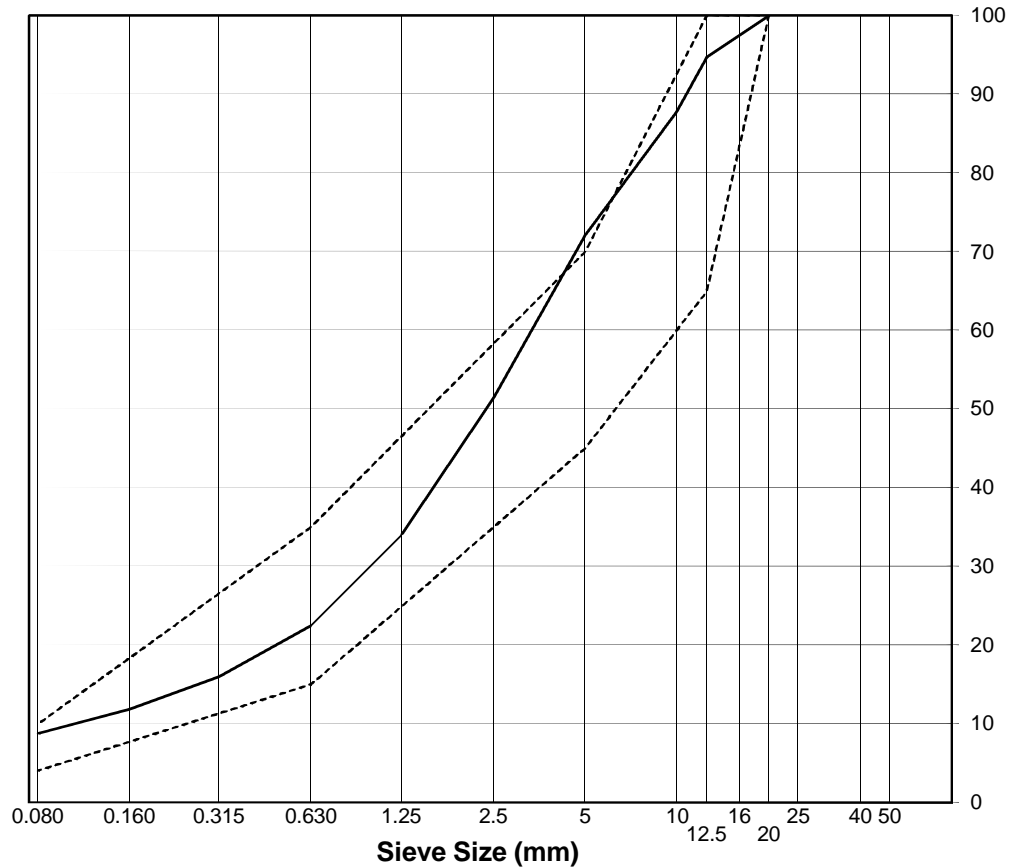
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: GCL Cover Material  
Source: MC 378, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Frozen Core Plant Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-529  
Date Sampled: March 22, 2012  
Sampled by: TB  
Date Tested: March 23, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 10.0%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 76

Sieve Size	Percent Passing
20	100
12.5	95
10.0	88
5	72
2.5	51
1.25	34
0.630	23
0.315	16
0.160	12
0.080	8.8



Remarks: SRK Sample No. HB12-FCP-COVER-PSD76-QA-20120322

Reviewed By: \_\_\_\_\_

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## SIEVE ANALYSIS REPORT

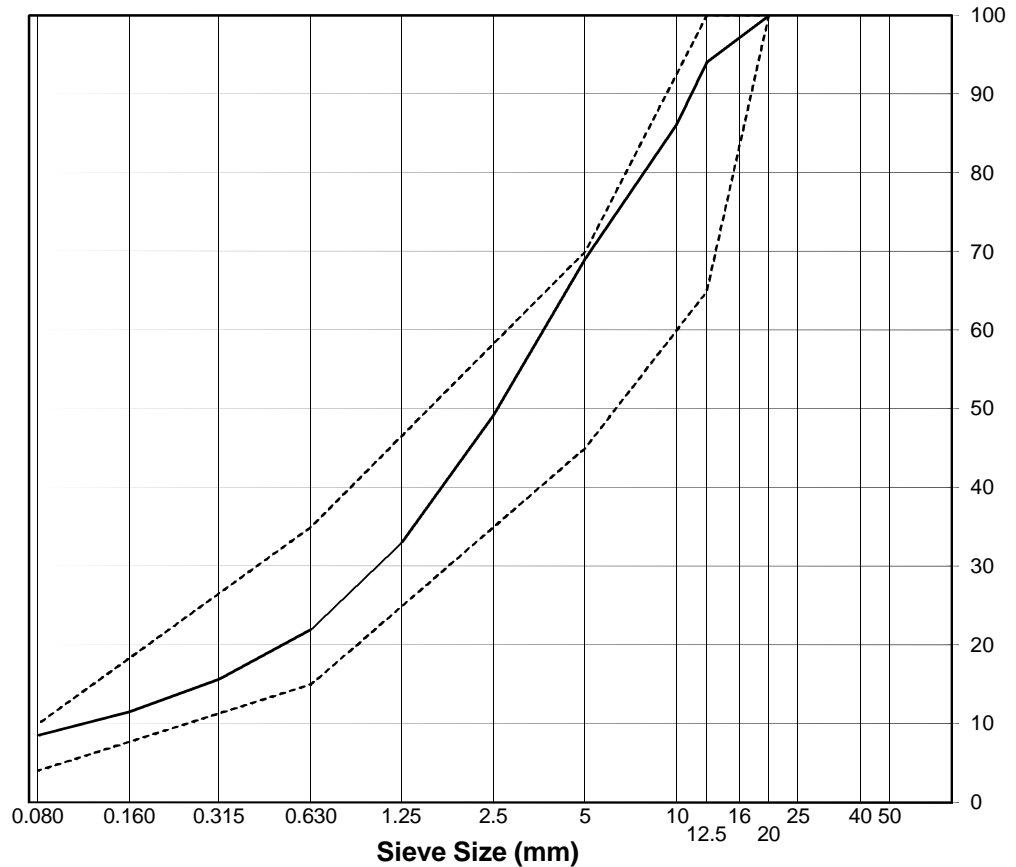
Washed Sieve: ASTM C136 and C117

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: GCL Cover Material  
Source: MC 391, Quarry 2  
Supplier: Nuna Logistics  
Sample Location: Frozen Core Plant Chute  
Specification: SRK Core Material Rev. G

Sample No.: EBA 2012-546  
Date Sampled: March 24, 2012  
Sampled by: TB  
Date Tested: March 25, 2012  
Tested by: EP Office: On-site Lab  
Moisture Content (as received): 7.1%  
No. Crushed Faces: Two (2) or Three (3)  
By Particle Mass: \_\_\_\_\_

PSD 78

Sieve Size	Percent Passing
20	100
12.5	94
10.0	86
5	69
2.5	49
1.25	33
0.630	22
0.315	16
0.160	11
0.080	8.5



Remarks: SRK Sample No. HB12-FCP-COVER-PSD78-QA-20120324

Reviewed By: \_\_\_\_\_

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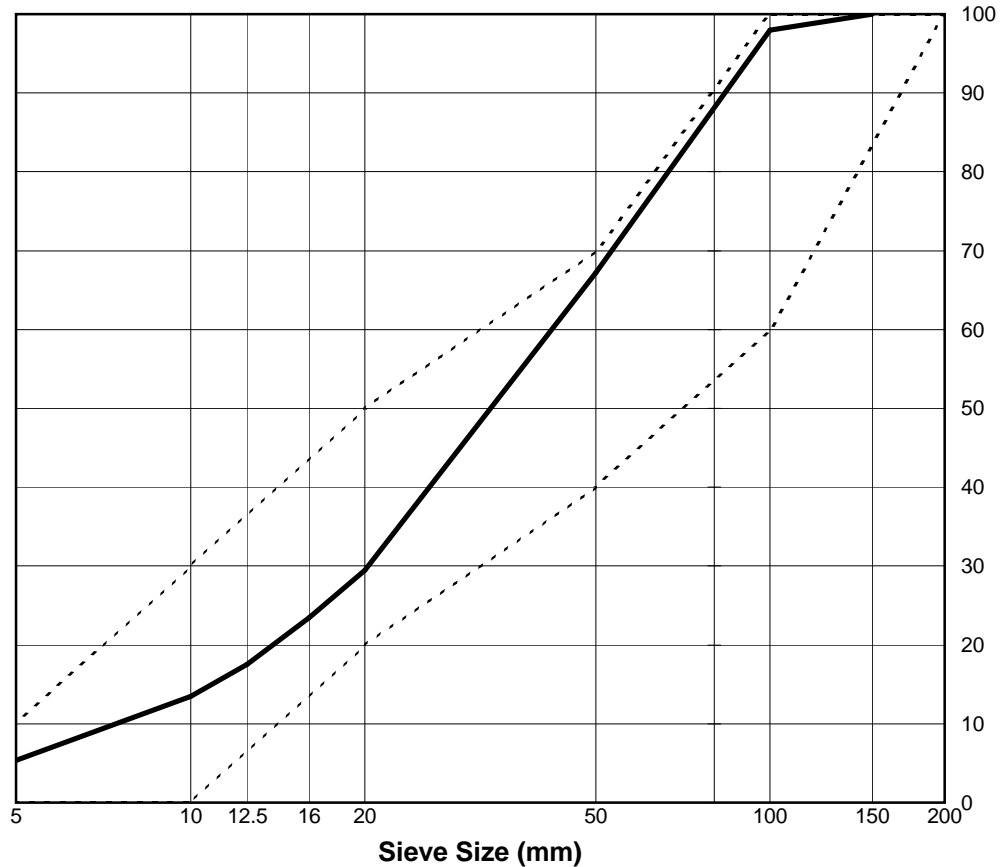
**Particle Size Distribution Test Certificates**  
**Transition Material**

## SIEVE ANALYSIS REPORT

Project No.: Y14101245.002  
Project: Doris North - North Dam  
Client: Nuna Logistics Ltd.  
Attention: Mark Valerioté  
Dan Buriac QA/QC Coordinator  
Description: GRAVEL - cobbly, trace sand  
Source: Quarry 2  
Supplier: Nuna Logistics Ltd.  
Sample Location: Stockpile  
Specification: SRK Consulting Specification Revision D

Sample No.: T1  
Date Sampled: January 12, 2011  
Sample Time:  
Sampled by: DB, AJC  
Date Tested: January 13, 2011  
Tested by: AJC Office: Site  
Moisture Content (as received): 2.7%

Sieve Size	Percent Passing
150	100
100	98
50	67
20	29
16	23
12.5	18
10	13
5	5
2.5	3
1.25	1.8
0.630	1.4
0.315	0.9
0.160	0.6
0.080	0.3



**Remarks:** Test not to ASTM standard. Small stockpile mixed with loader before sampling. Loader could not reach all areas of stockpile due to frozen soil and excessive height. Sample not washed.

Reviewed By: \_\_\_\_\_ P.Eng.

## SIEVE ANALYSIS REPORT

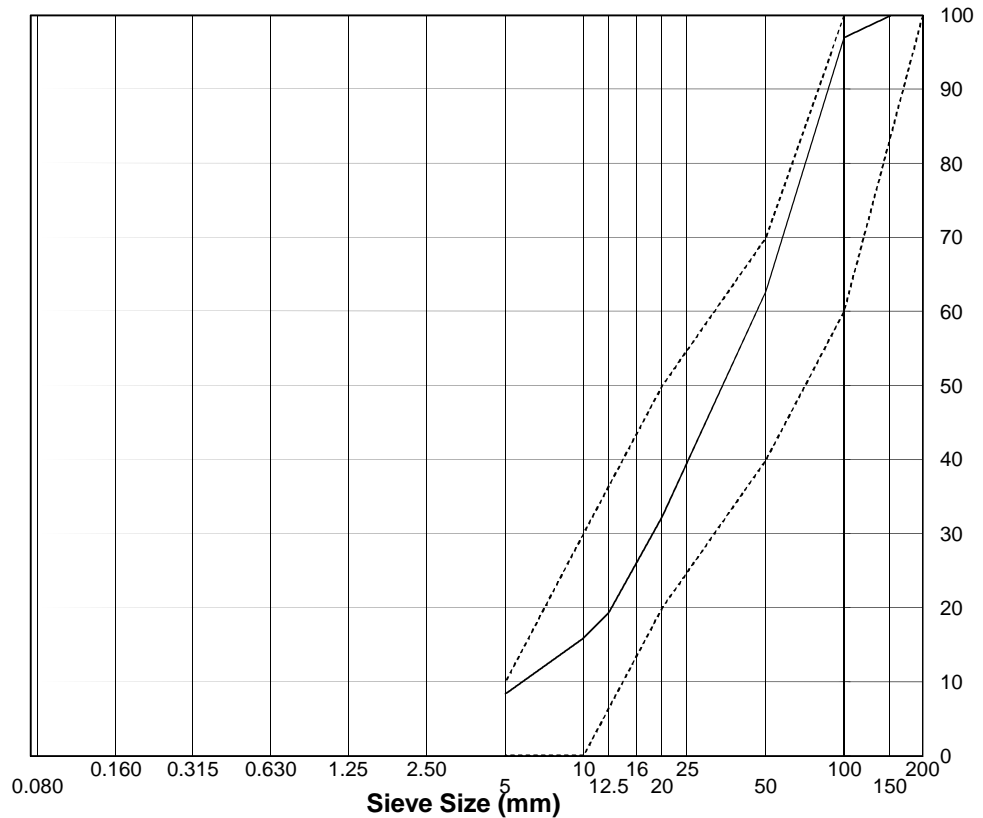
ASTM C136

Project No.: E14101162  
Project: Doris North Dam Construction, Hope Bay  
Client: SRK Consulting (Canada) Inc.  
Attention: Lowell Wade  
Email: HopeBay@SRK.com  
Description: Transition Material - 150mm Max Crush.  
Source: Quarry 2  
Supplier: Nuna  
Sample Location: Stockpile at Frozen Core Plant  
Specification: SRK Transition Material Rev. G

Sample No.: EBA 2012-411  
Date Sampled: March 7, 2012  
Sampled by: JO  
Date Tested: March 7, 2012  
Tested by: JO Office: On-site lab  
Moisture Content (as received): 0.3%  
No. Crushed Faces: Two (2) or Three (3)  
By particle mass: \_\_\_\_\_

PSD 66

Sieve Size	Percent Passing
150	100
100	97
50	63
20	32
12.5	19
10	16
5	8



Remarks: HB12-FCP-TRANS-PSD66-20120307

Material sampled with loader from north side of the stockpile at the frozen core plant.

Reviewed By: \_\_\_\_\_ C.E.T.

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## **Appendix H.2:      Standard Proctor Test Certificates**

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This appendix contains all data collected during standard proctor testing including:

- Maximum dry density
- Optimum moisture content

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P1

Project No.: E14101112

Sampled By: GDV

Client: SRK Consulting Inc.

Date Received: 16-Feb-11

Attention: Lowell Wade

Test Date: 17-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

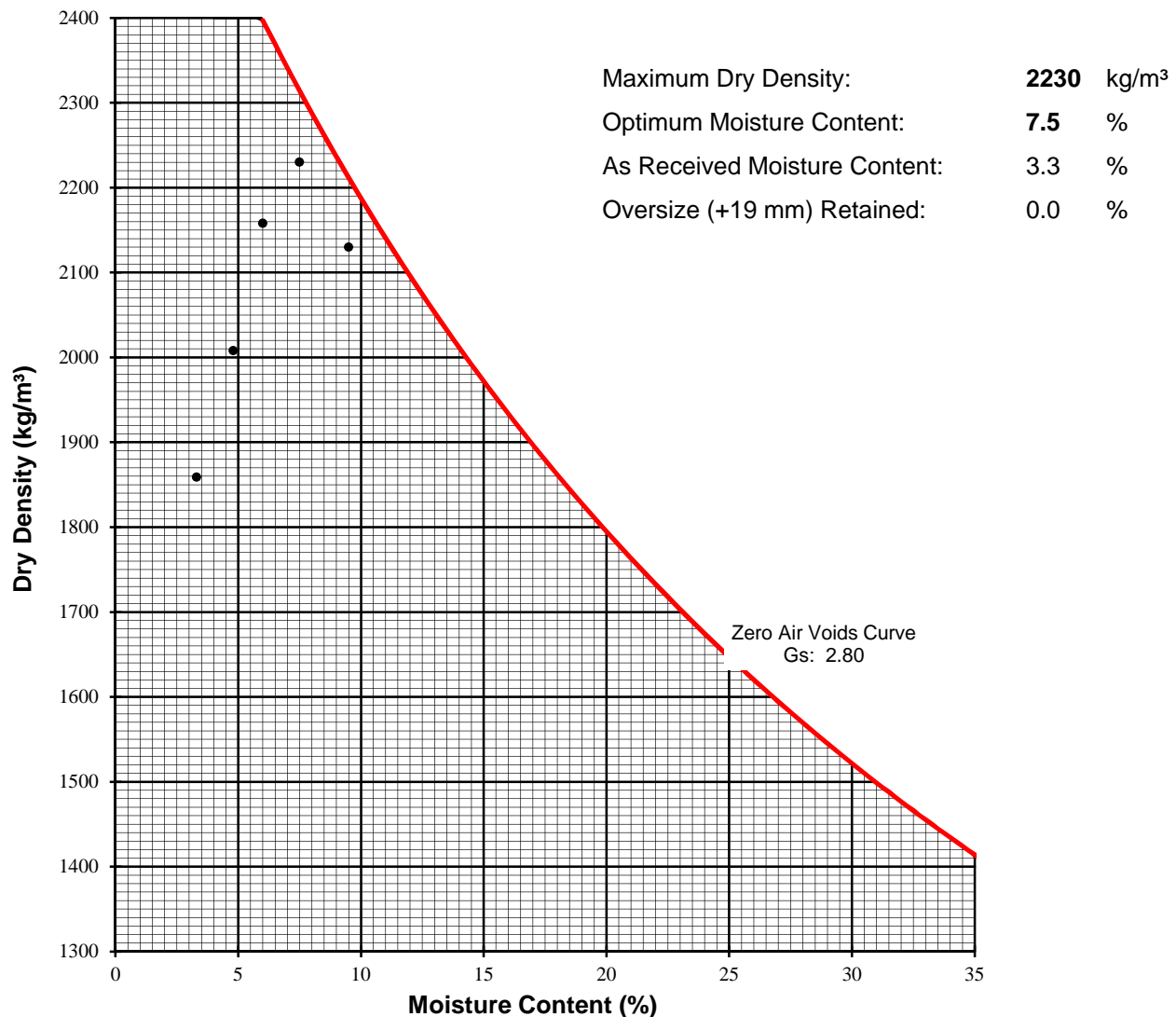
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, North of Frozen Core Plant

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



Remarks: This proctor reflects HB-FCP-CORE-SP 01-QC-20110217.xls

Reviewed By: \_\_\_\_\_

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P7

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 7-Mar-11

Attention: Lowell Wade

Test Date: 7-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

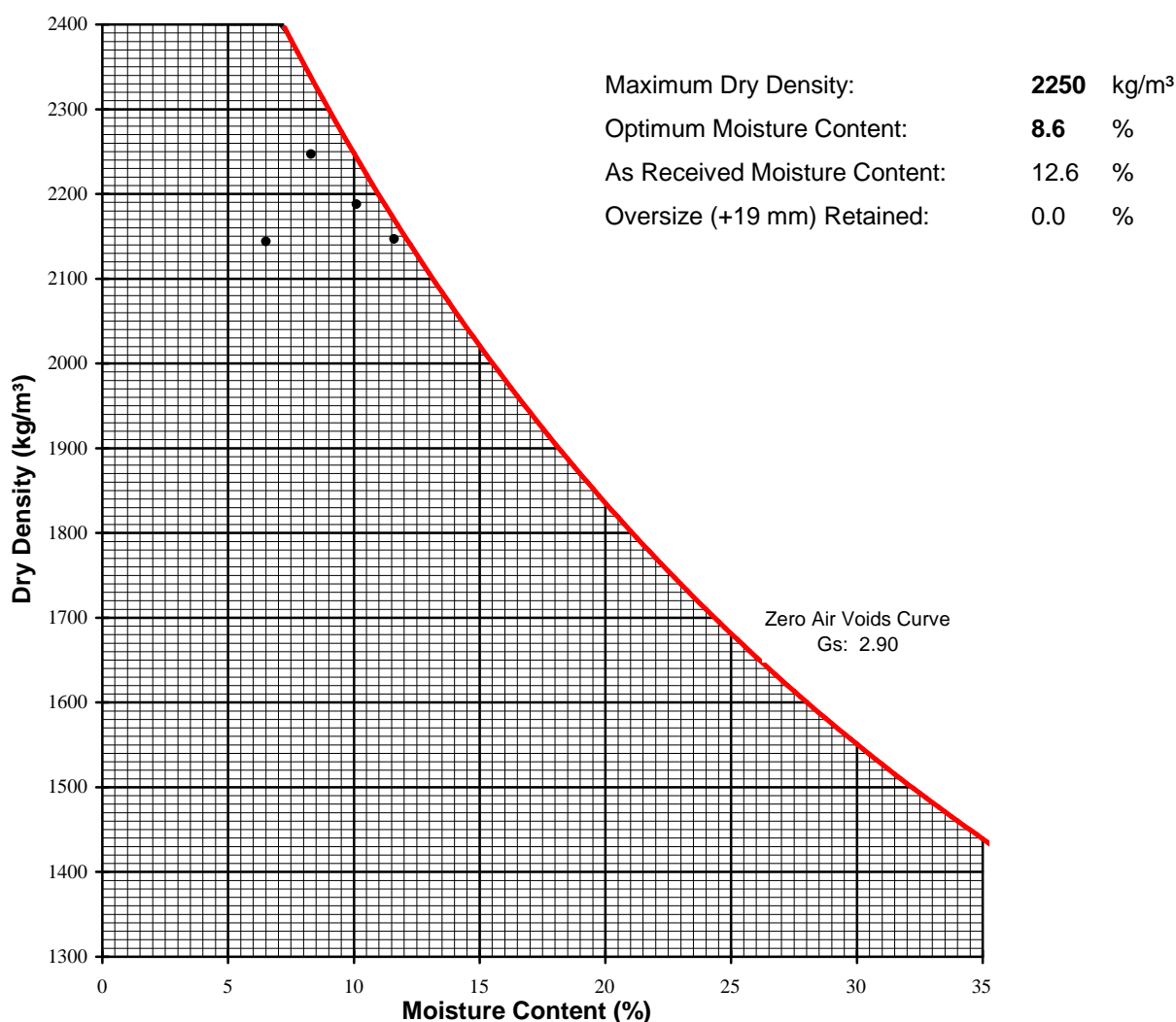
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Sand (5mm minus, crush), trace silt, gravel, grey.



Remarks: File name: HB-FCP-CORE-SP 02-QA-20110217.xls

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: 79

Project No.: E14101112

Sampled By: GDV/GFL

Client: SRK Consulting (Canada) Inc.

Date Received: 28-Mar-11

Attention: Lowell Wade

Test Date: 28-Mar-11

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

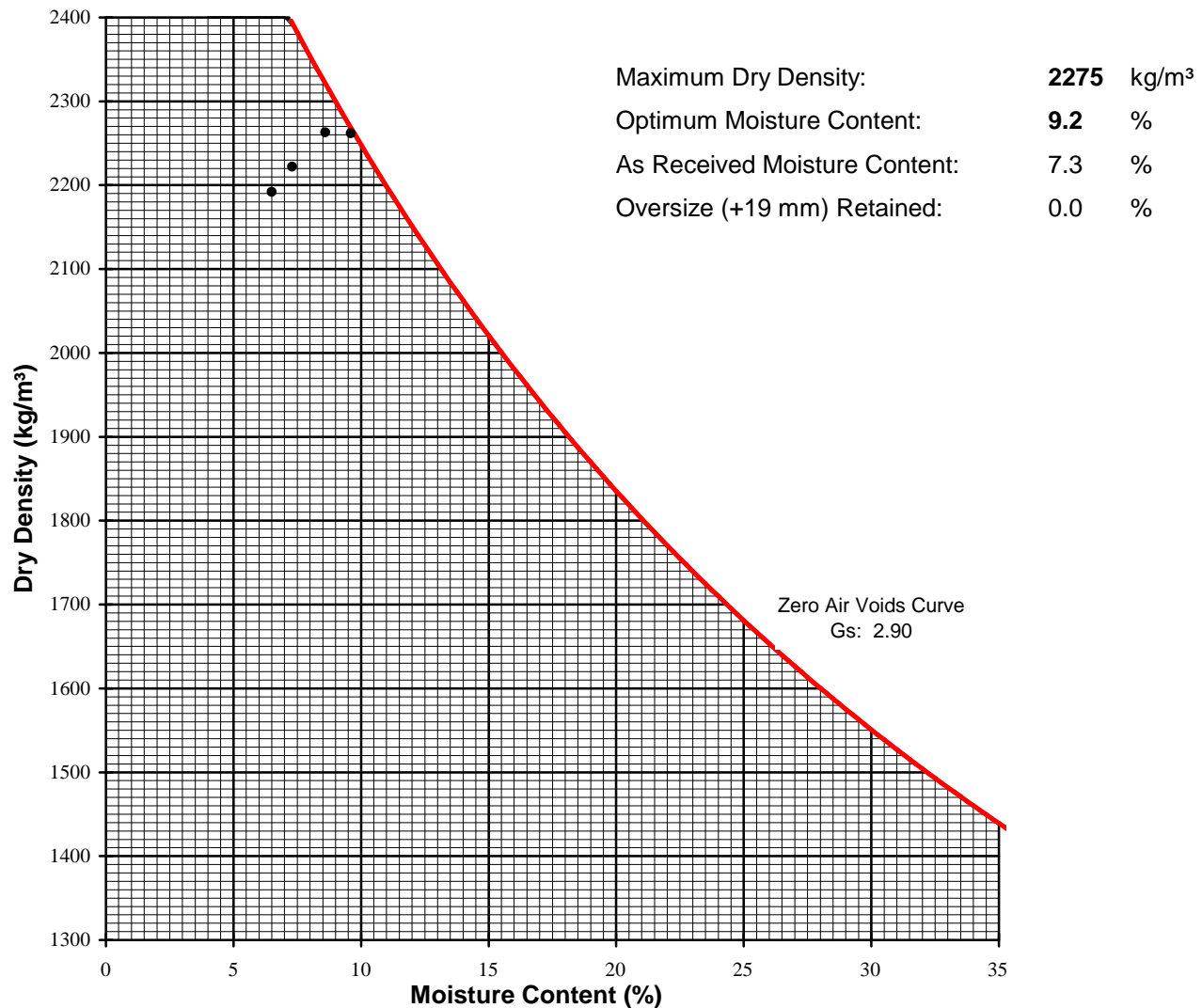
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Frozen Core Plant, Chute

Sample Description: Core material blend. 3 parts fines to 2 parts core material by volume.



Remarks: File name: HB-FCP-CORE-SP 12-QA-20110328.xls.

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: EBA 2

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 8-Mar-11

Attention: Lowell Wade

Test Date: 10-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

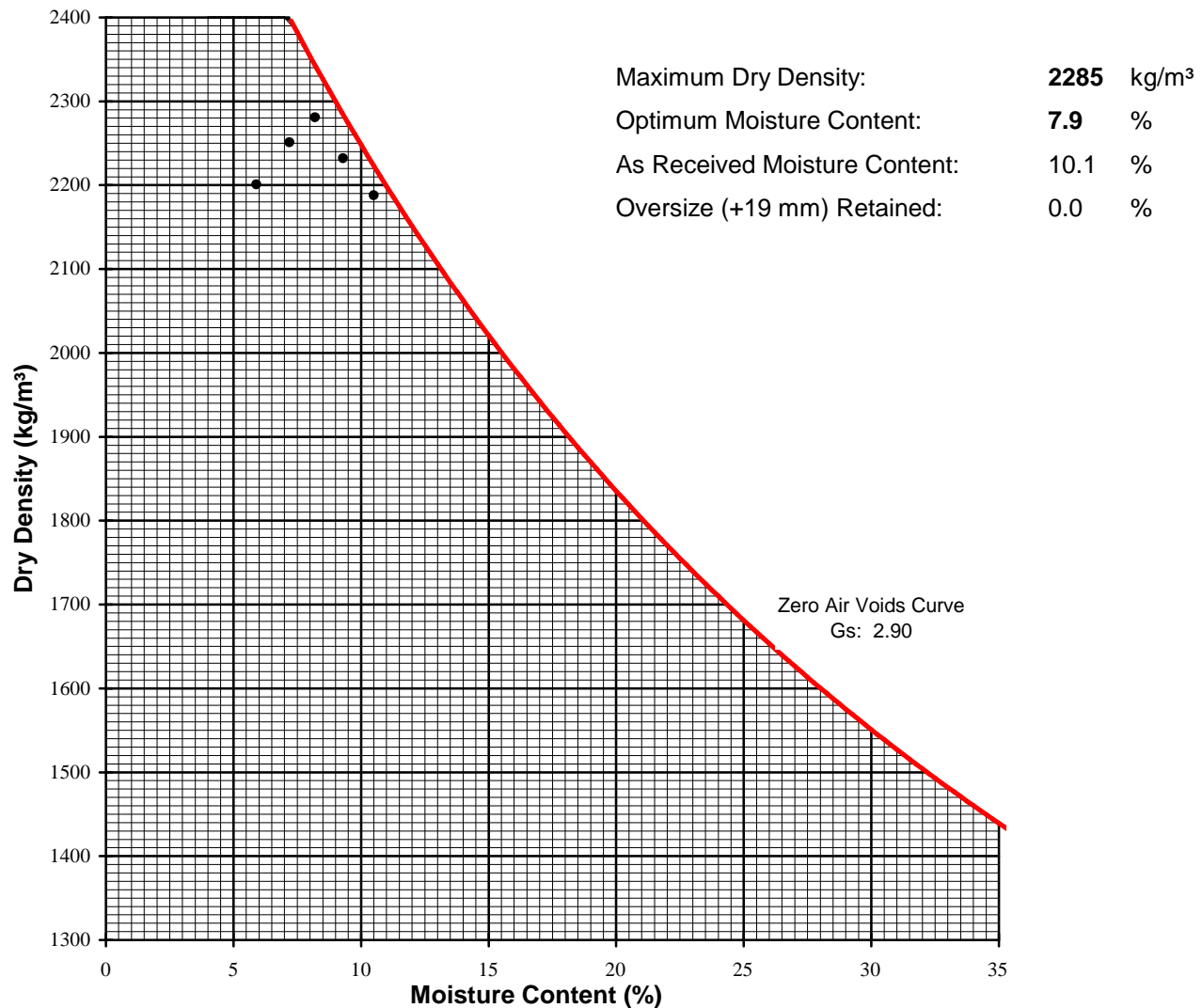
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core material blend. 3 parts fines to 2 parts core material by volume.



Remarks: File name: HB-FCP-CORE-SP 08-QA-20110308.xls.

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: EBA 1

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 8-Mar-11

Attention: Lowell Wade

Test Date: 10-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

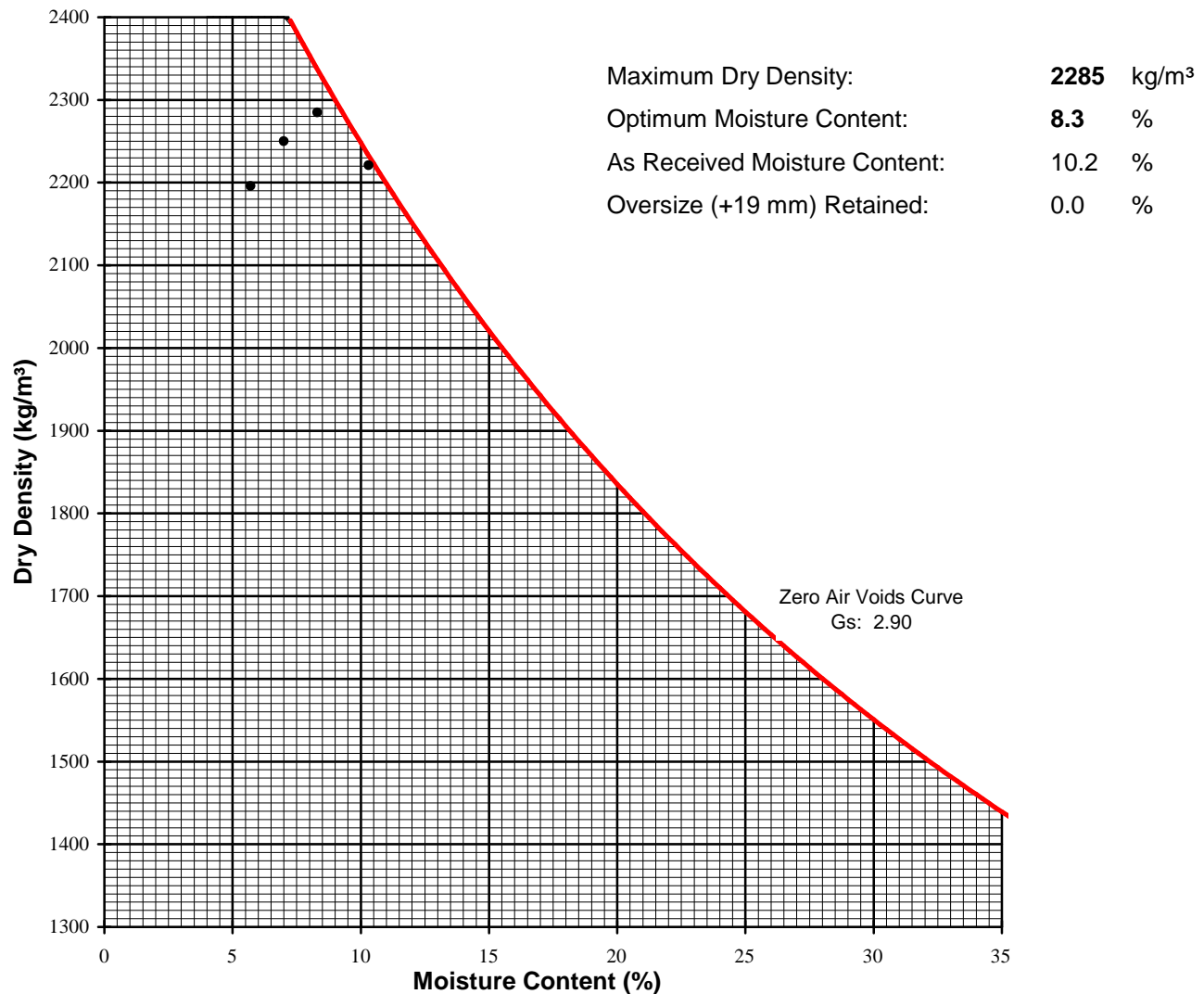
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core material blend, 2 parts fines to 1 part core material by volume.



Remarks: File name: HB-FCP-CORE-SP 10-QA-20110310.xls.

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: 9

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 7-Mar-11

Attention: Lowell Wade

Test Date: 8-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

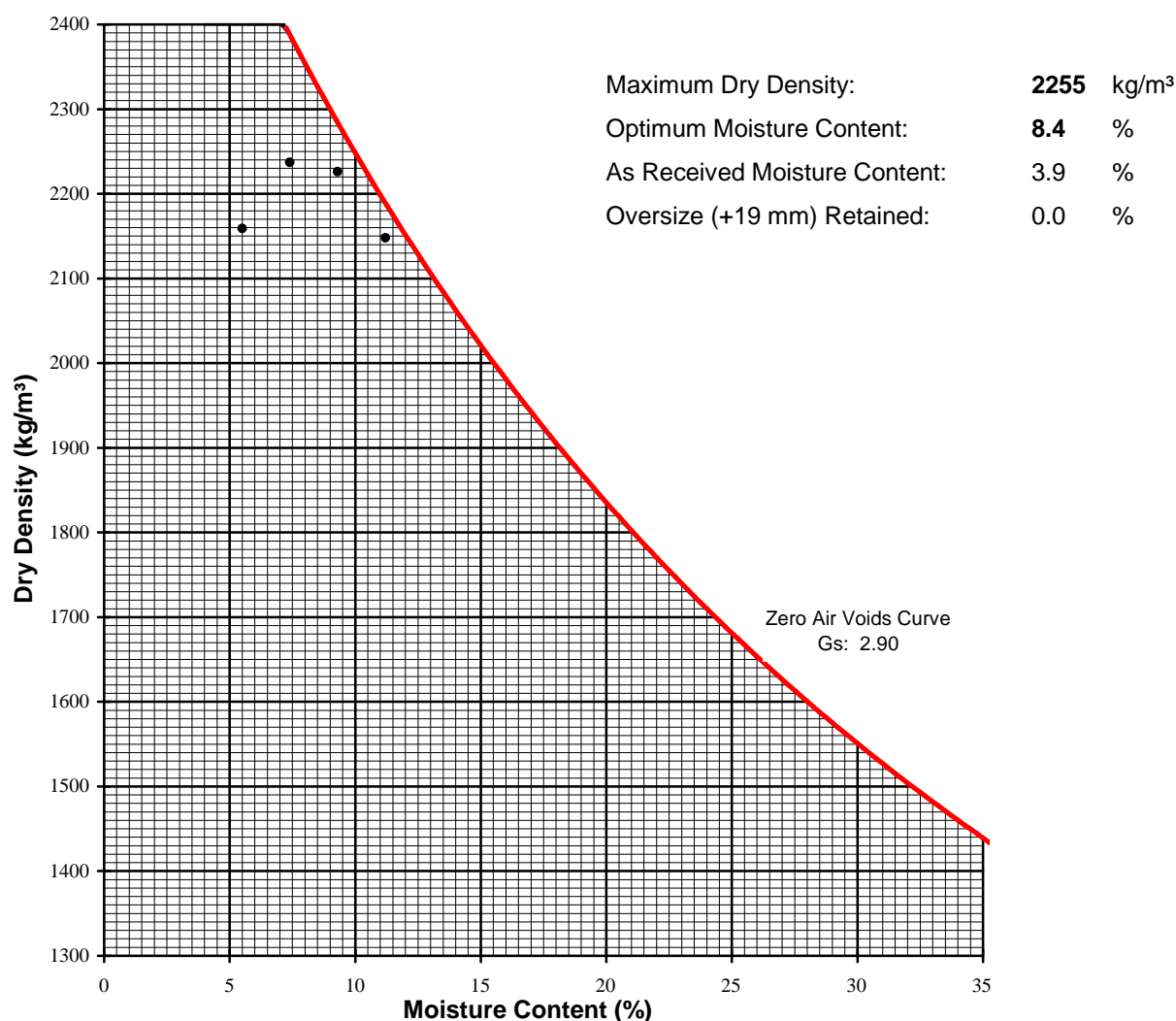
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core material blend, 2 parts fines to 1 part core material by volume.



Remarks: File name: HB-FCP-CORE-SP 09-QA-20110308.xls.

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: 8

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 7-Mar-11

Attention: Lowell Wade

Test Date: 8-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

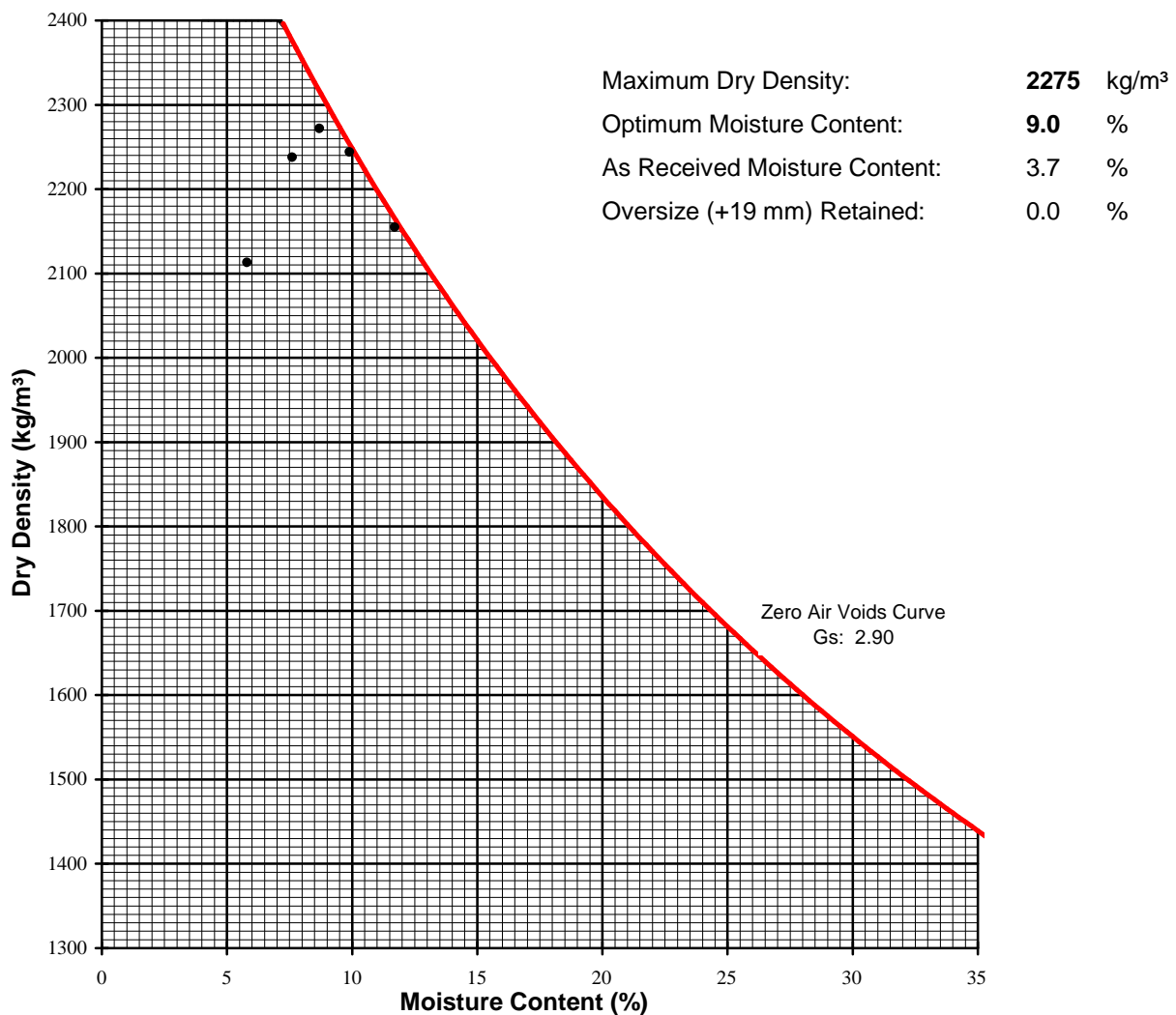
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core material blend. 3 parts fines to 2 parts core material by volume.



Remarks: File name: HB-FCP-CORE-SP 08-QA-20110308.xls.

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: 7

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 7-Mar-11

Attention: Lowell Wade

Test Date: 7-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

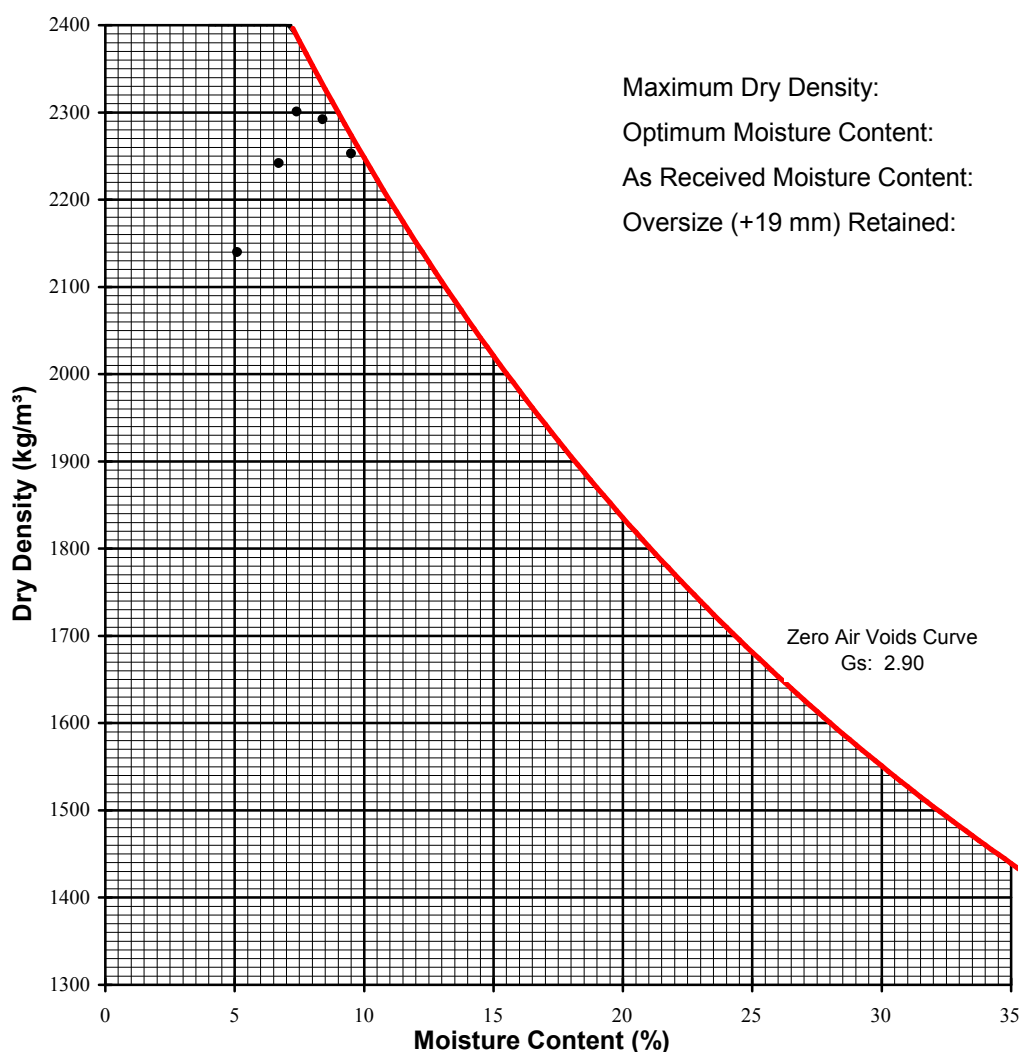
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core Material 20mm max crush.



Maximum Dry Density: **2310** kg/m<sup>3</sup>  
Optimum Moisture Content: **7.9** %  
As Received Moisture Content: 10.7 %  
Oversize (+19 mm) Retained: 0.0 %

Remarks: File name: HB-FCP-CORE-SP 07-QA-20110307.xls

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P6

Project No.: E14101112

Sampled By: JJJ

Client: SRK Consulting Inc.

Date Received: 6-Mar-11

Attention: Lowell Wade

Test Date: 6-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

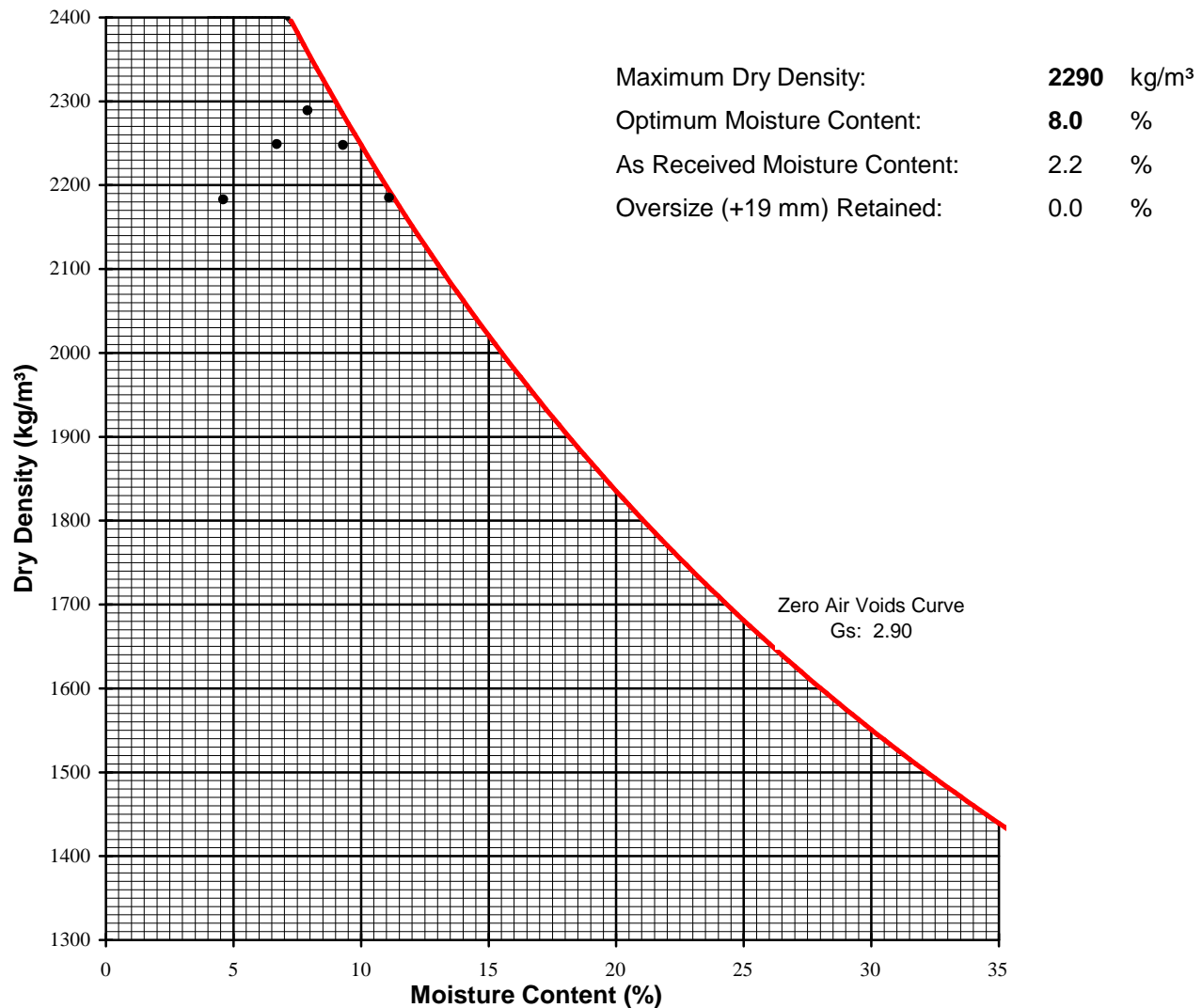
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Stockpile on site, East of Frozen Core Plant

Sample Description: Core material 20mm max crush.



Remarks: File name: HB-FCP-CORE-SP 06-QA-20110306.xls

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P1

Project No.: E14101112

Sampled By: GDV

Client: SRK Consulting Inc.

Date Received: 16-Feb-11

Attention: Lowell Wade

Test Date: 17-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

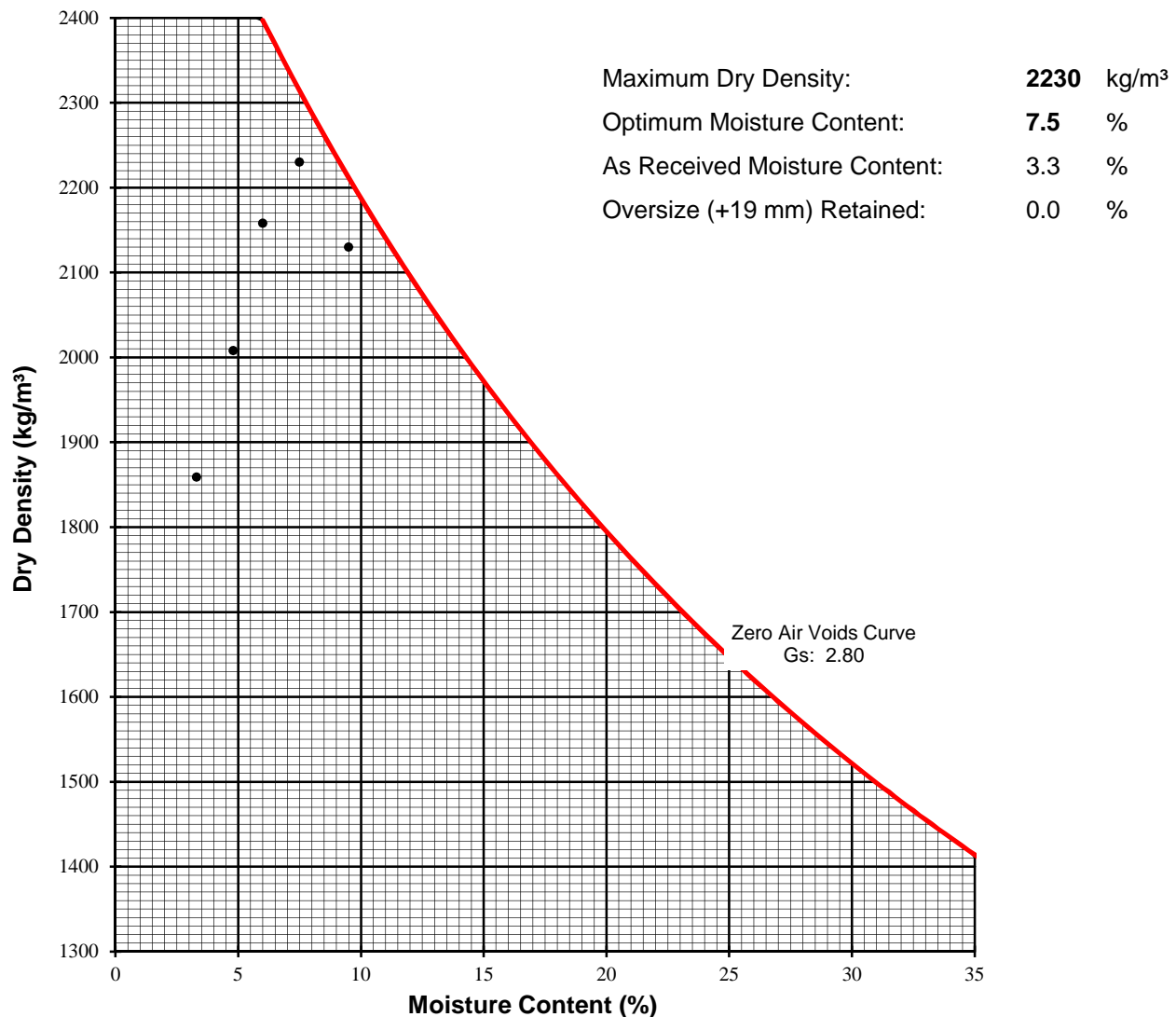
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile on site, North of Frozen Core Plant

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



Remarks: This proctor reflects HB-FCP-CORE-SP 01-QC-20110217.xls

Reviewed By: \_\_\_\_\_

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P6

Project No.: E14101112

Sampled By: JO/JJ

Client: SRK Consulting Inc.

Date Received: 4-Mar-11

Attention: Lowell Wade

Test Date: 4-Mar-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

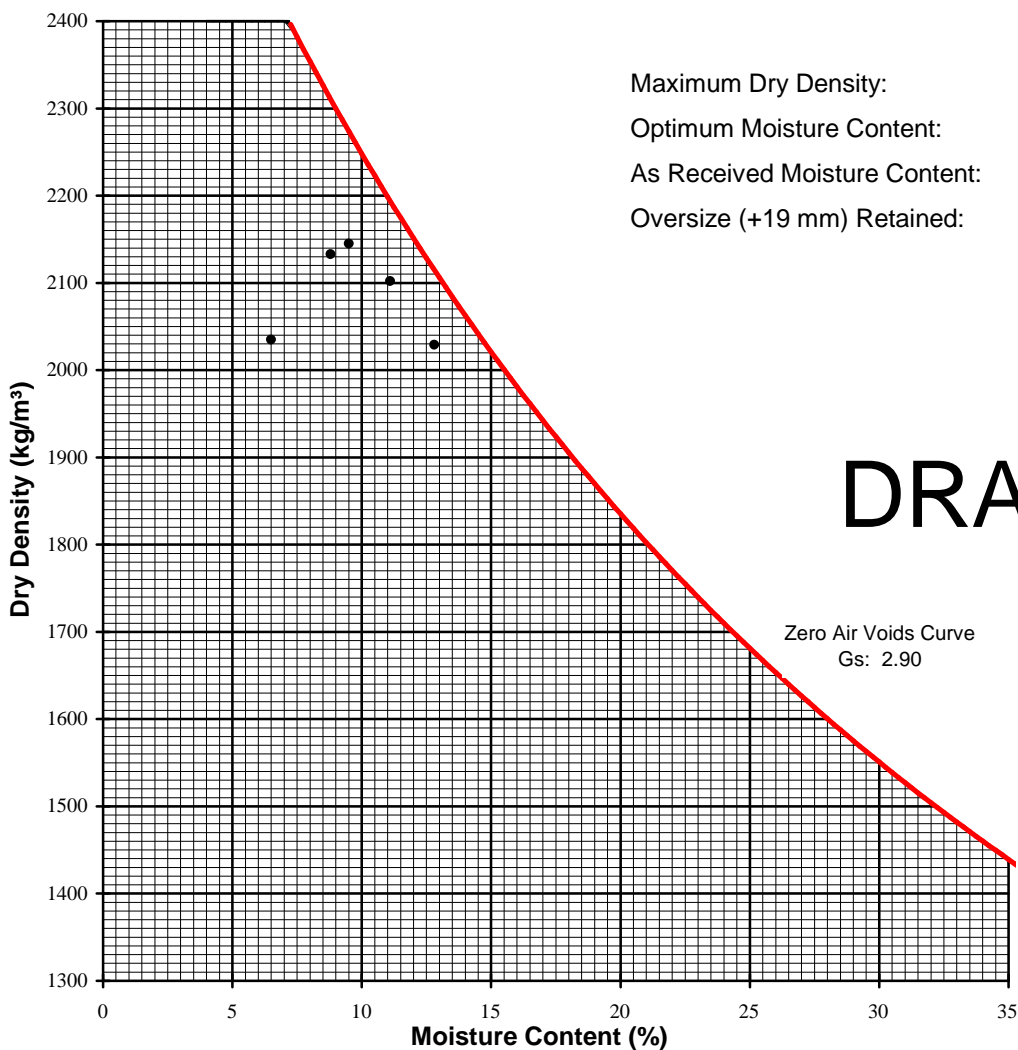
Test Method: Method A

Source: Stockpile at Crusher

Compaction: Manual

Sample Location: Northside of "Fines" stockpile at crusher.

Sample Description: Sand & Gravel (5mm max, crush), grey.



Maximum Dry Density: **2145** kg/m³  
Optimum Moisture Content: **9.5** %  
As Received Moisture Content: 4.2 %  
Oversize (+19 mm) Retained: 0.0 %

**DRAFT**

Zero Air Voids Curve  
Gs: 2.90

**Remarks:** File name: HB-CR-FINES-SP 01-QA-20110304.xls, Material starting to "Bleed" and pump in proctor mold at 11.1%.

**Reviewed By:** \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P5

Project No.: E14101112

Sampled By: GDV

Client: SRK Consulting Inc.

Date Received: 26-Feb-11

Attention: Lowell Wade

Test Date: 26-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

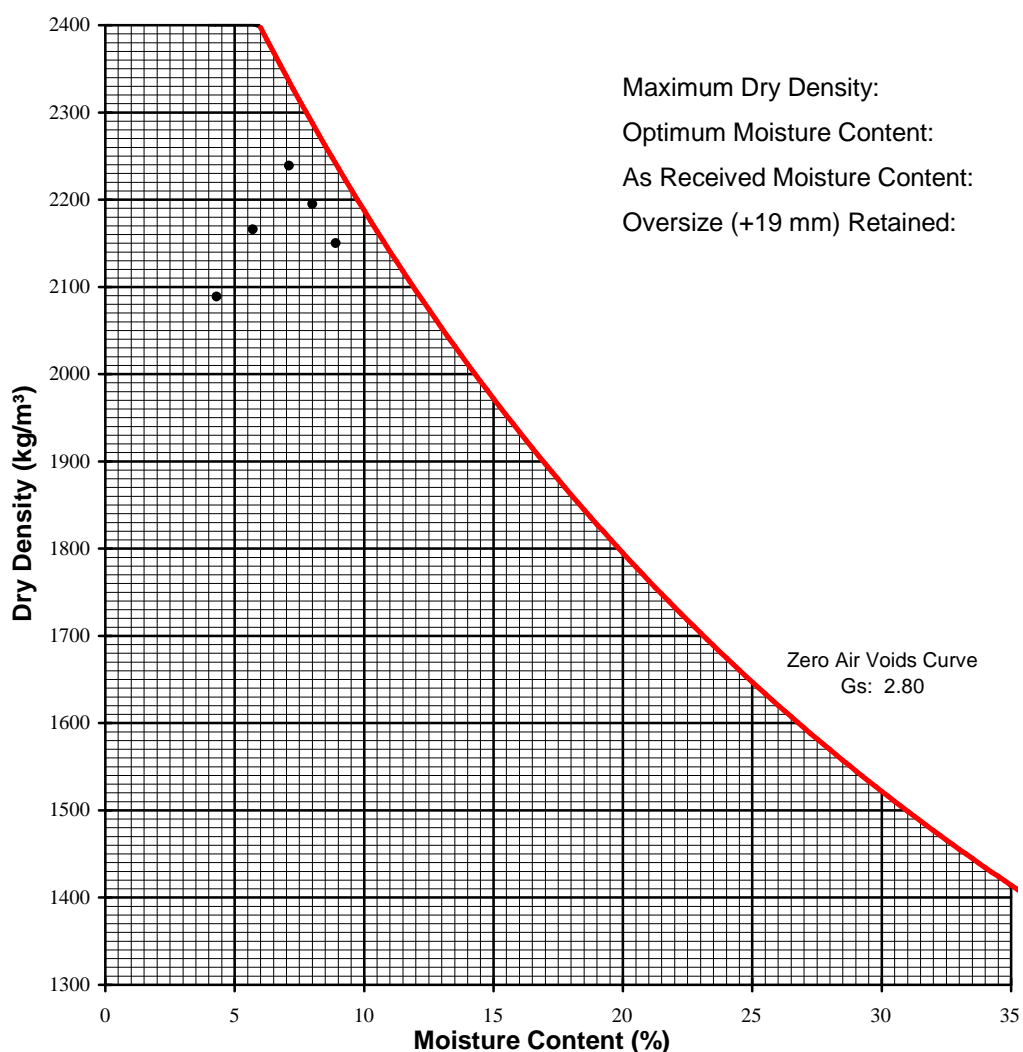
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Quarry 2, belt sample

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



Maximum Dry Density: **2240** kg/m³

Optimum Moisture Content: **7.1** %

As Received Moisture Content: 2.3 %

Oversize (+19 mm) Retained: 0.0 %

Remarks: File name: HB-CR-CORE-SP 05-QA-20110226.xls

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P4

Project No.: E14101112

Sampled By: GDV

Client: SRK Consulting Inc.

Date Received: 25-Feb-11

Attention: Lowell Wade

Test Date: 25-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

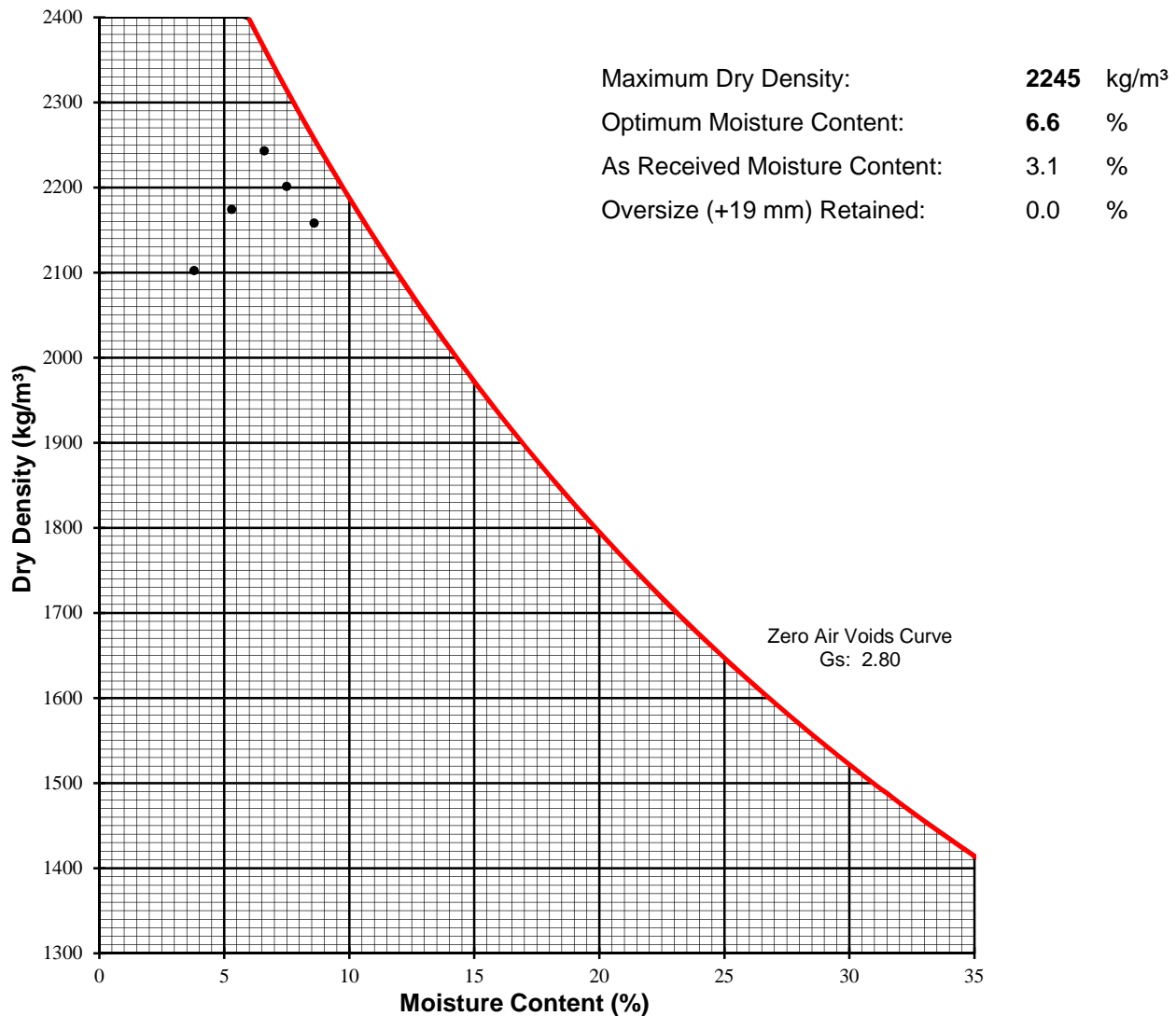
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Quarry 2, belt sample

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



Remarks: File name: HB-CR-CORE-SP 04-QA-20110225.xls

Reviewed By: \_\_\_\_\_

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P3

Project No.: E14101112

Sampled By: SRK

Client: SRK Consulting Inc.

Date Received: 21-Jan-11

Attention: Lowell Wade

Test Date: 24-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

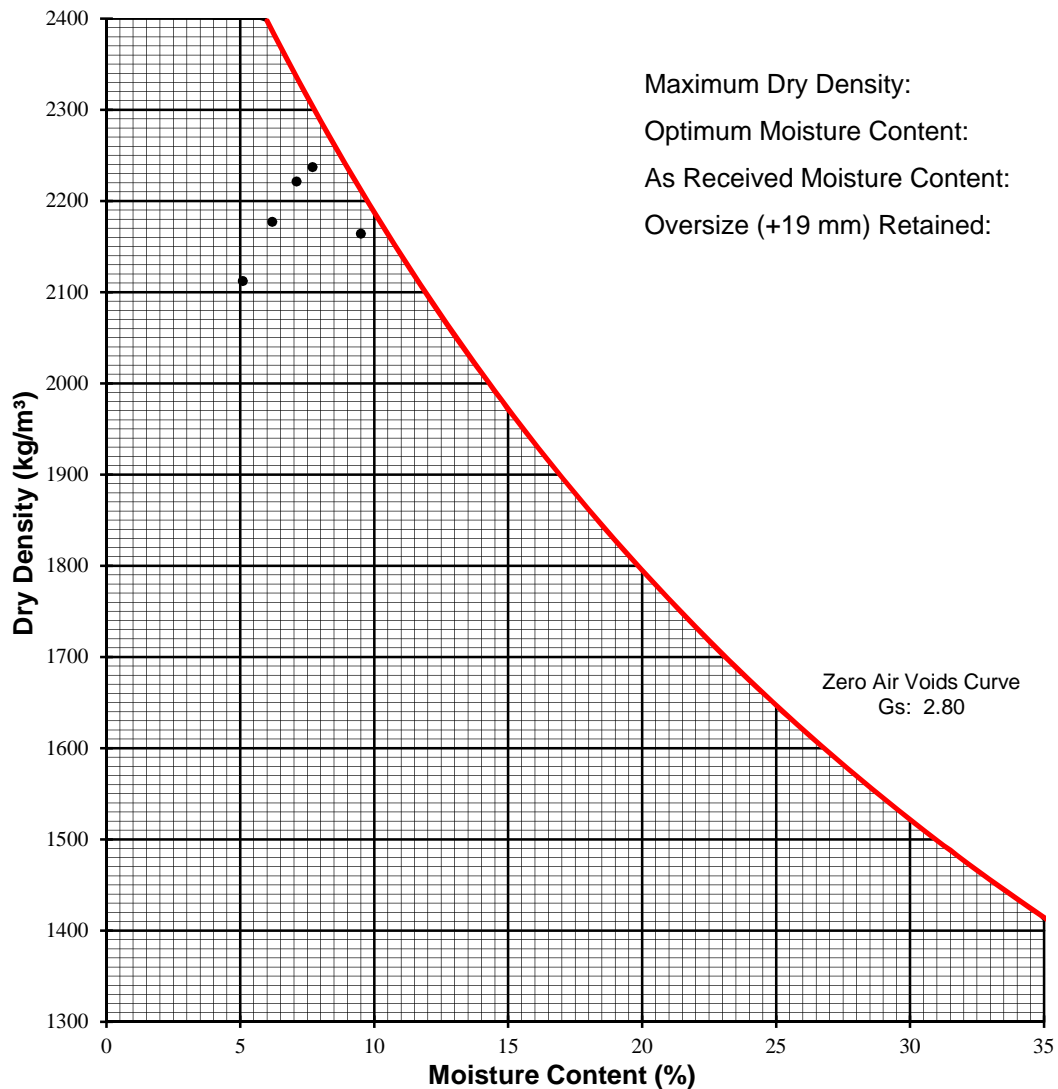
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: "Most Northeast pile, halfway up pile"

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



Remarks: File name: HB-CR-CORE-SP 03-QA-20110224.xls

Reviewed By: \_\_\_\_\_

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Project, North Dam

Sample No.: P2

Project No.: E14101112

Sampled By: GDV

Client: SRK Consulting Inc.

Date Received: 21-Feb-11

Attention: Lowell Wade

Test Date: 22-Feb-11

E-mail: [HopeBay@SRK.com](mailto:HopeBay@SRK.com)

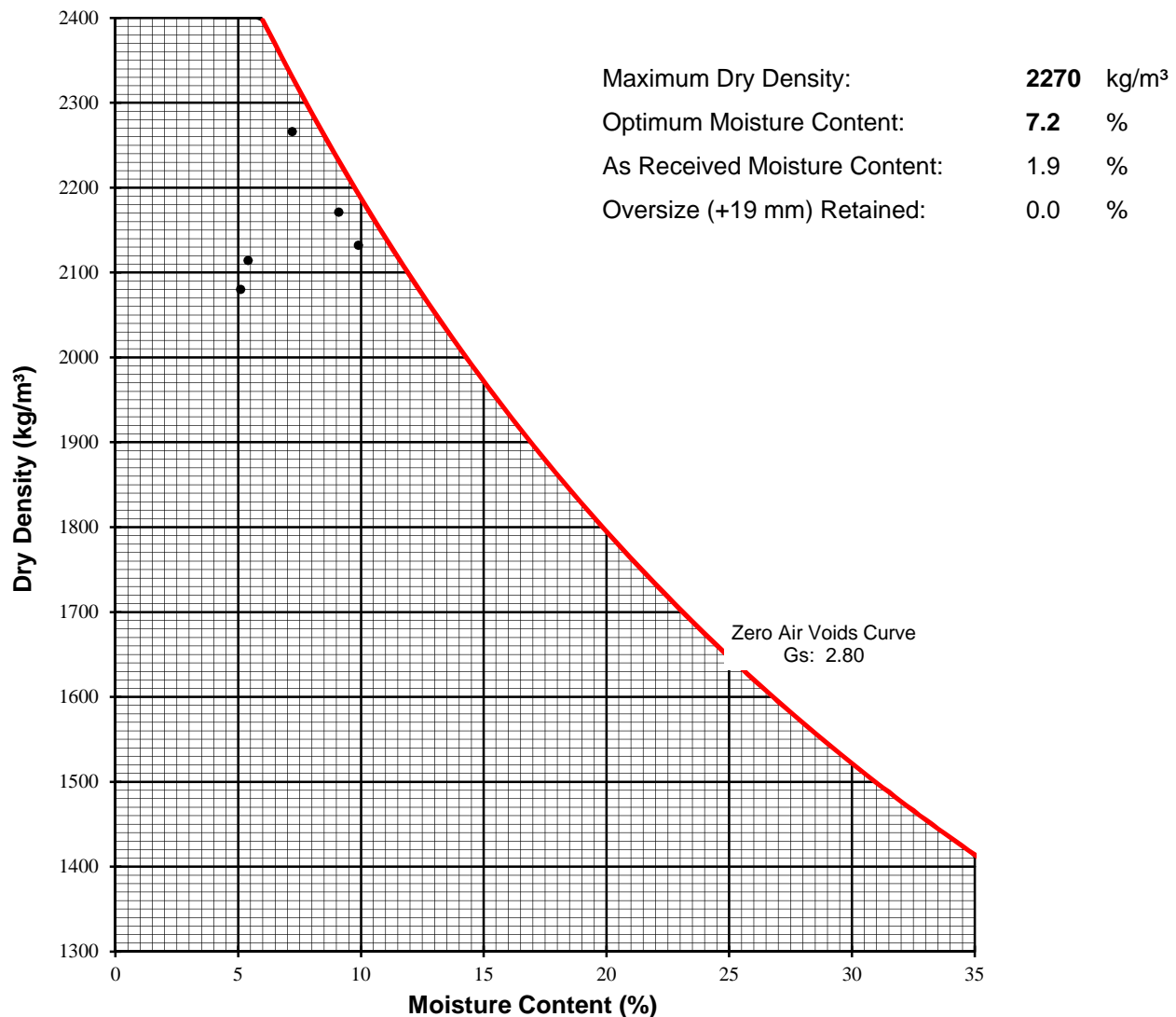
Test Method: Method A

Source: Quarry 2 Blend

Compaction: Manual

Sample Location: Stockpile in Quarry 2

Sample Description: Sand & Gravel (20mm max, crush), trace silt, grey.



**Remarks:** Sample was taken 02/21/11 for particle size distribution. This proctor reflects

HB-CR-CORE-SP 02-QA-20110222.xls

Reviewed By: \_\_\_\_\_

## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-54

Project No.: E14101162

Sampled By: JO

Client: SRK Consulting (Canada) Inc.

Date Sampled: 30-Jan-12

Attention: Lowell Wade

Test Date: 31-Jan-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

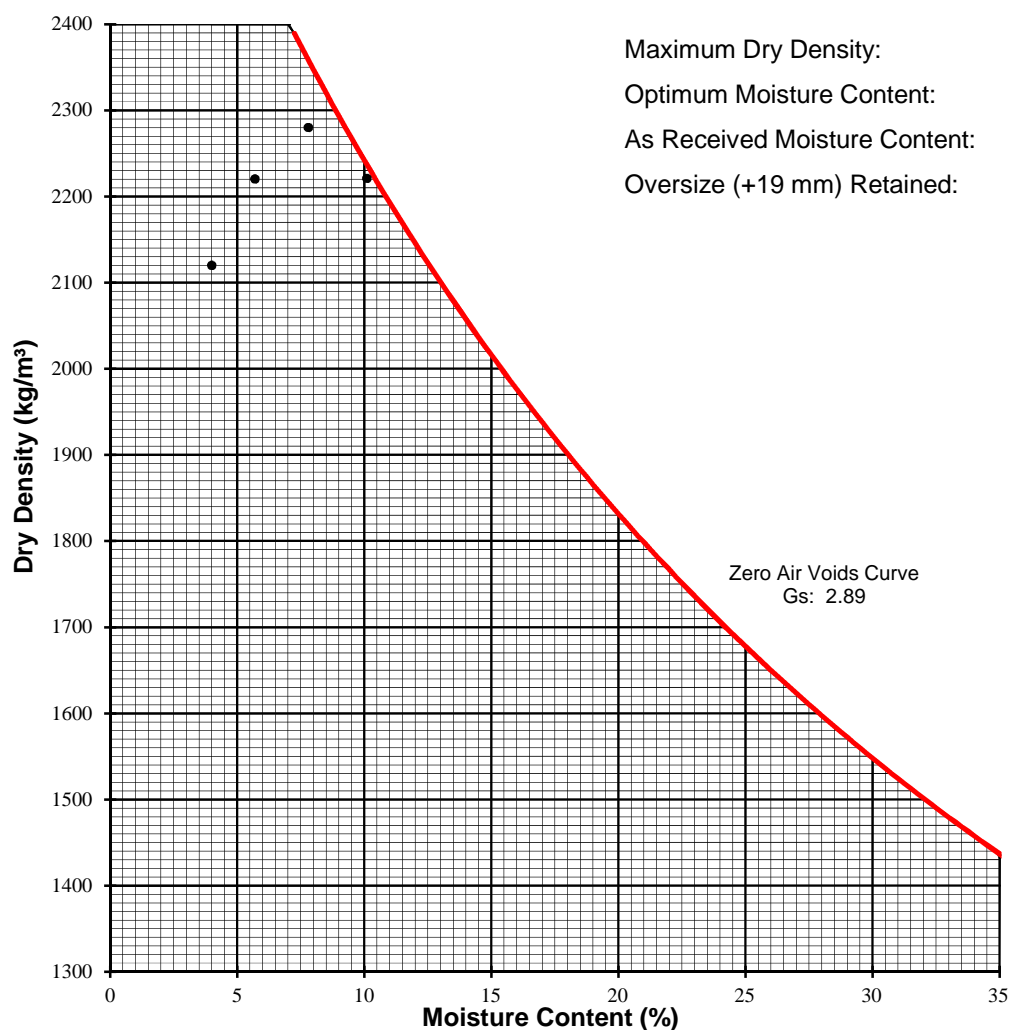
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: FCP Chute

Sample Description: 3:2 blend Frozen Core Material. 3 parts fines, 2 parts core by volume.



Maximum Dry Density: **2280** kg/m³

Optimum Moisture Content: **8.0** %

As Received Moisture Content: 4.0 %

Oversize (+19 mm) Retained: 0.0 %

Zero Air Voids Curve  
Gs: 2.89

Remarks: File name: HB12-FCP-CORE-SP1-QA-20120131

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-112

Project No.: E14101162

Sampled By: TB

Client: SRK Consulting (Canada) Inc.

Date Sampled: 7-Feb-12

Attention: Lowell Wade

Test Date: 10-Feb-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

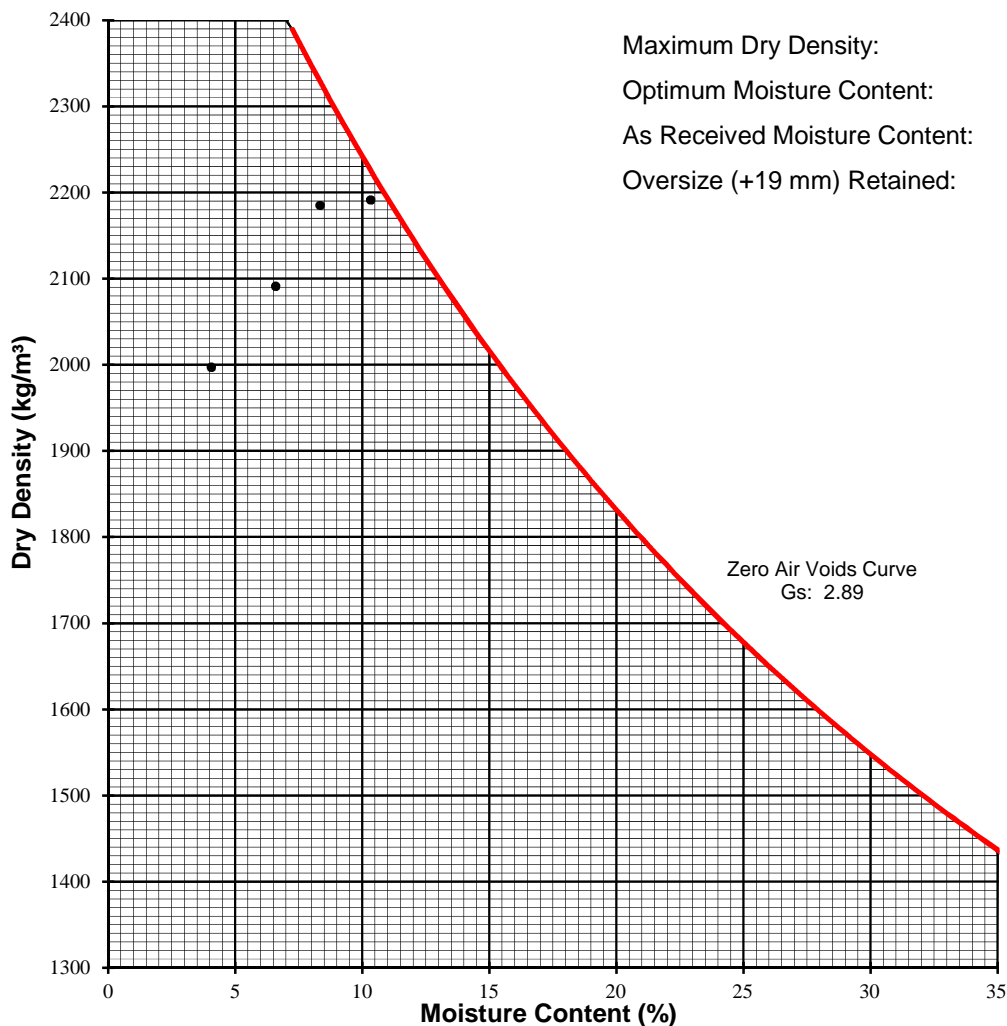
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Clemro Crusher belt

Sample Description: Recrushed 3:2 blend Frozen Core Material. 3 parts fines, 2 parts core by volume.



Maximum Dry Density: **2210** kg/m³

Optimum Moisture Content: **9.4** %

As Received Moisture Content: 0.0 %

Oversize (+19 mm) Retained: 0.0 %

Remarks: SRK File Name: HB12-CR-CORE-SP2-QA-20120210

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-187

Project No.: E14101162

Sampled By: EP

Client: SRK Consulting (Canada) Inc.

Date Sampled: 14-Feb-12

Attention: Lowell Wade

Test Date: 16-Feb-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

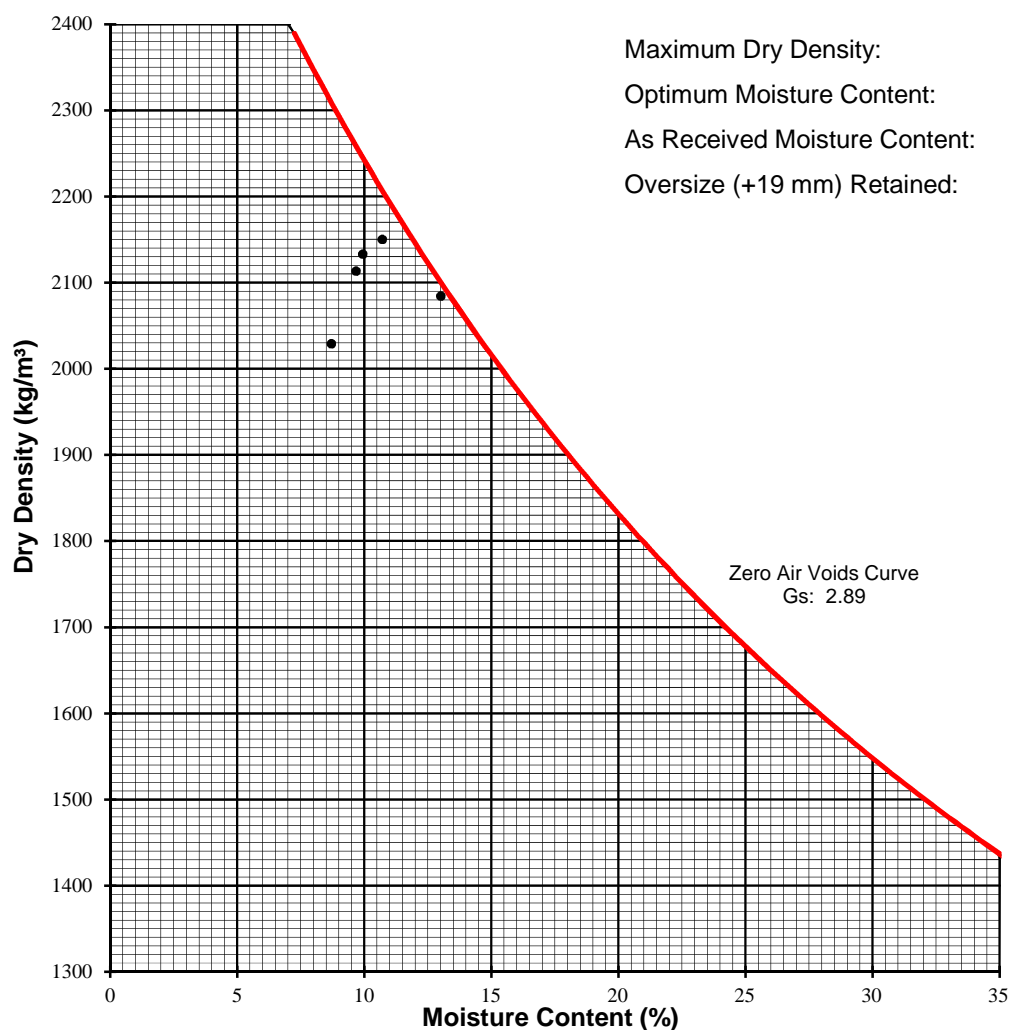
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Clemro Crusher belt

Sample Description: 5 mm Minus Frozen Core Material



Maximum Dry Density: **2160** kg/m³

Optimum Moisture Content: **10.1** %

As Received Moisture Content: 0.0 %

Oversize (+19 mm) Retained: 0.0 %

Remarks: SRK File Name: HB12-CR-CORE-SP3-QA-20120216

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-330

Project No.: E14101162

Sampled By: JO

Client: SRK Consulting (Canada) Inc.

Date Sampled: 26-Feb-12

Attention: Lowell Wade

Test Date: 28-Feb-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

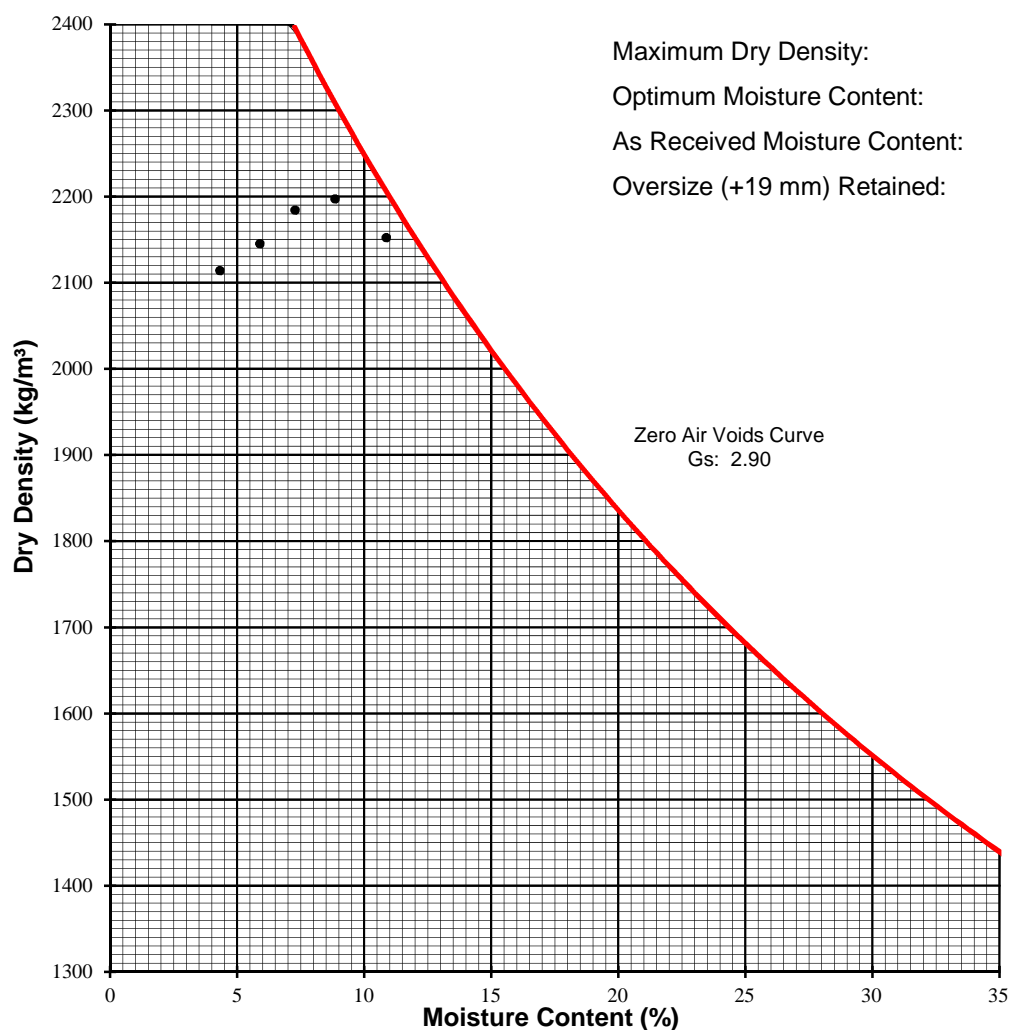
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Clemro Crusher belt

Sample Description: 5 mm Minus Frozen Core Material



Maximum Dry Density: **2205** kg/m³

Optimum Moisture Content: **8.5** %

As Received Moisture Content: 0.0 %

Oversize (+19 mm) Retained: 0.0 %

Zero Air Voids Curve  
Gs: 2.90

Remarks: SRK File Name: HB12-CR-CORE-SP5-QA-20120228

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-393

Project No.: E14101162

Sampled By: JO

Client: SRK Consulting (Canada) Inc.

Date Sampled: 5-Mar-12

Attention: Lowell Wade

Test Date: 5-Mar-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

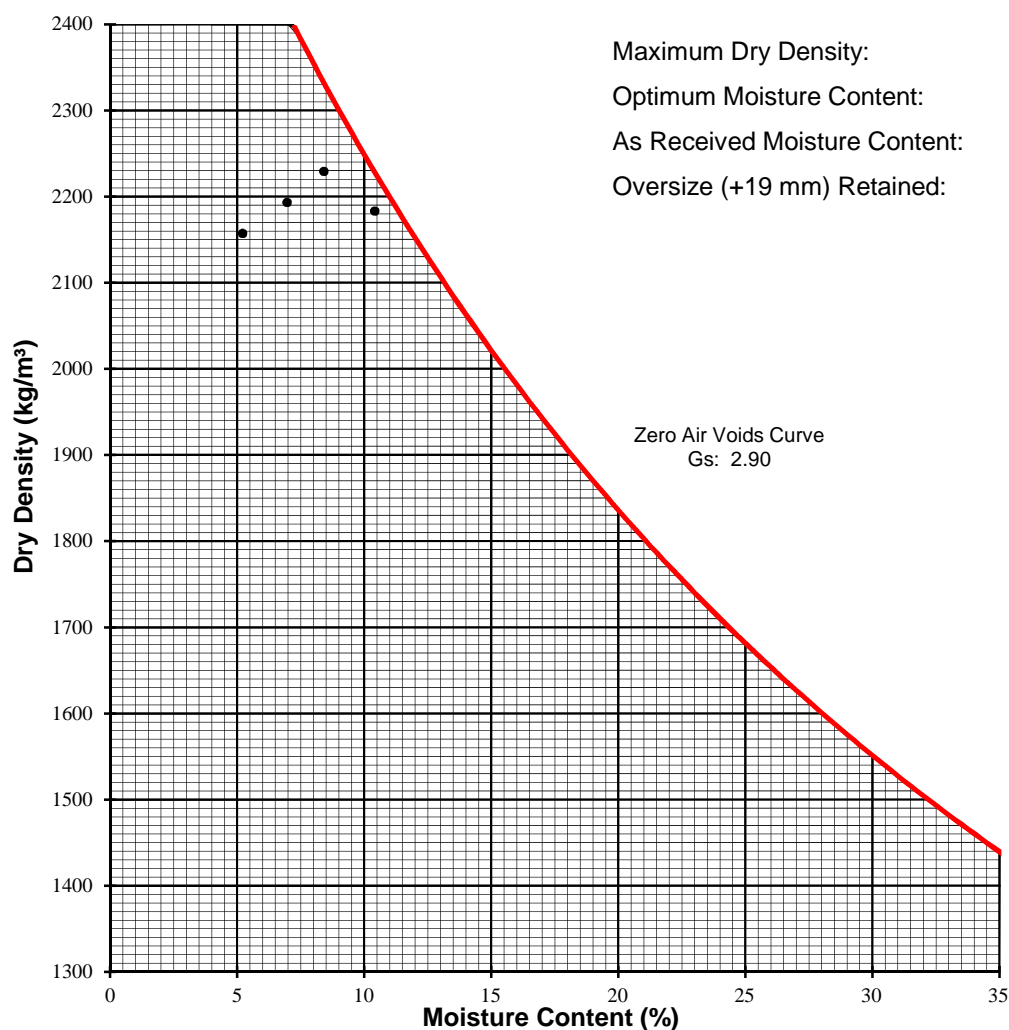
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Stockpile at FCP

Sample Description: 5 mm Minus Frozen Core Material



Maximum Dry Density: **2230** kg/m³

Optimum Moisture Content: **8.7** %

As Received Moisture Content: 1.0 %

Oversize (+19 mm) Retained: 0.0 %

Zero Air Voids Curve  
Gs: 2.90

Remarks: SRK File Name: HB12-FCP-CORE-SP6-QA-20120305

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-479

Project No.: E14101162

Sampled By: JO

Client: SRK Consulting (Canada) Inc.

Date Sampled: 14-Mar-12

Attention: Lowell Wade

Test Date: 14-Mar-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

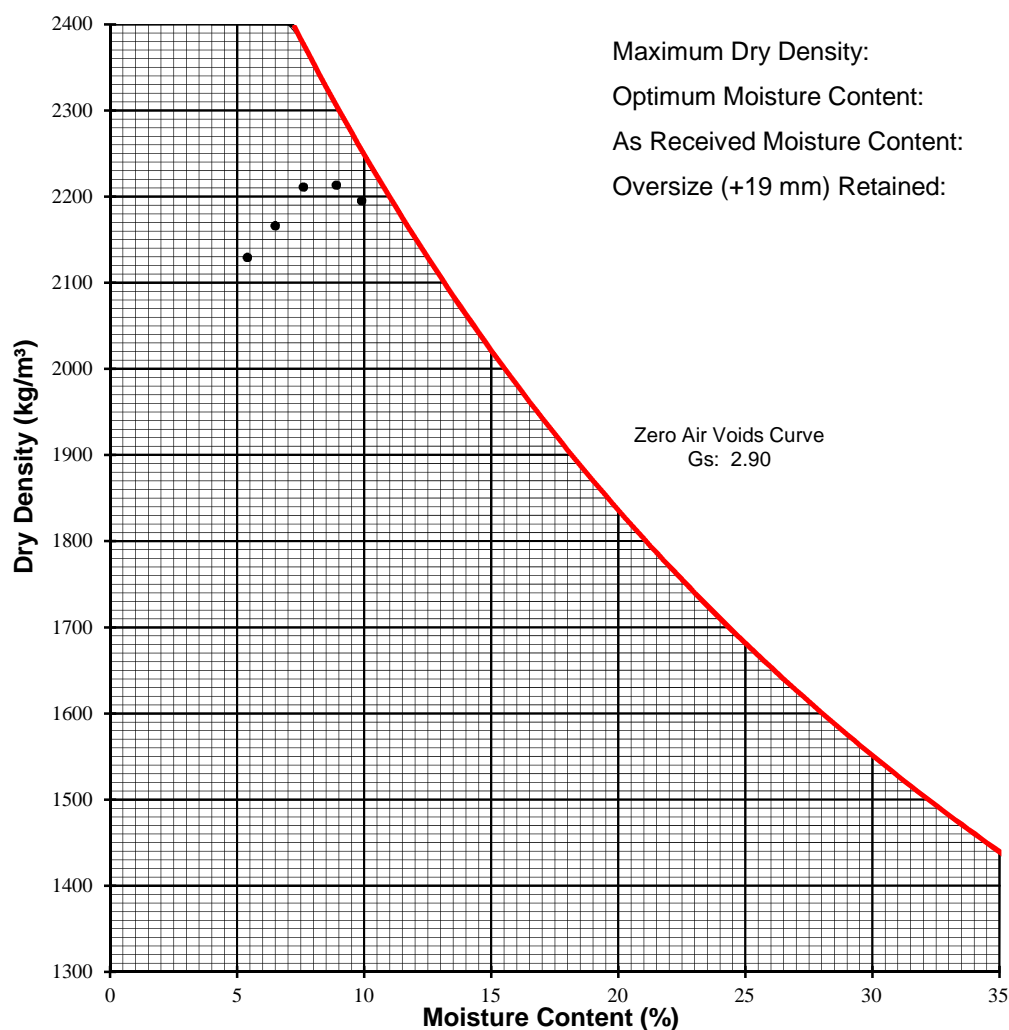
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Stockpile at FCP

Sample Description: 5 mm Minus Frozen Core Material



Maximum Dry Density: **2225** kg/m³

Optimum Moisture Content: **8.5** %

As Received Moisture Content: 0.6 %

Oversize (+19 mm) Retained: 0.0 %

Remarks: SRK File Name: HB12-FCP-CORE-SP7-QA-20120314

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012-502

Project No.: E14101162

Sampled By: EP

Client: SRK Consulting (Canada) Inc.

Date Sampled: 17-Mar-12

Attention: Lowell Wade

Test Date: 18-Mar-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

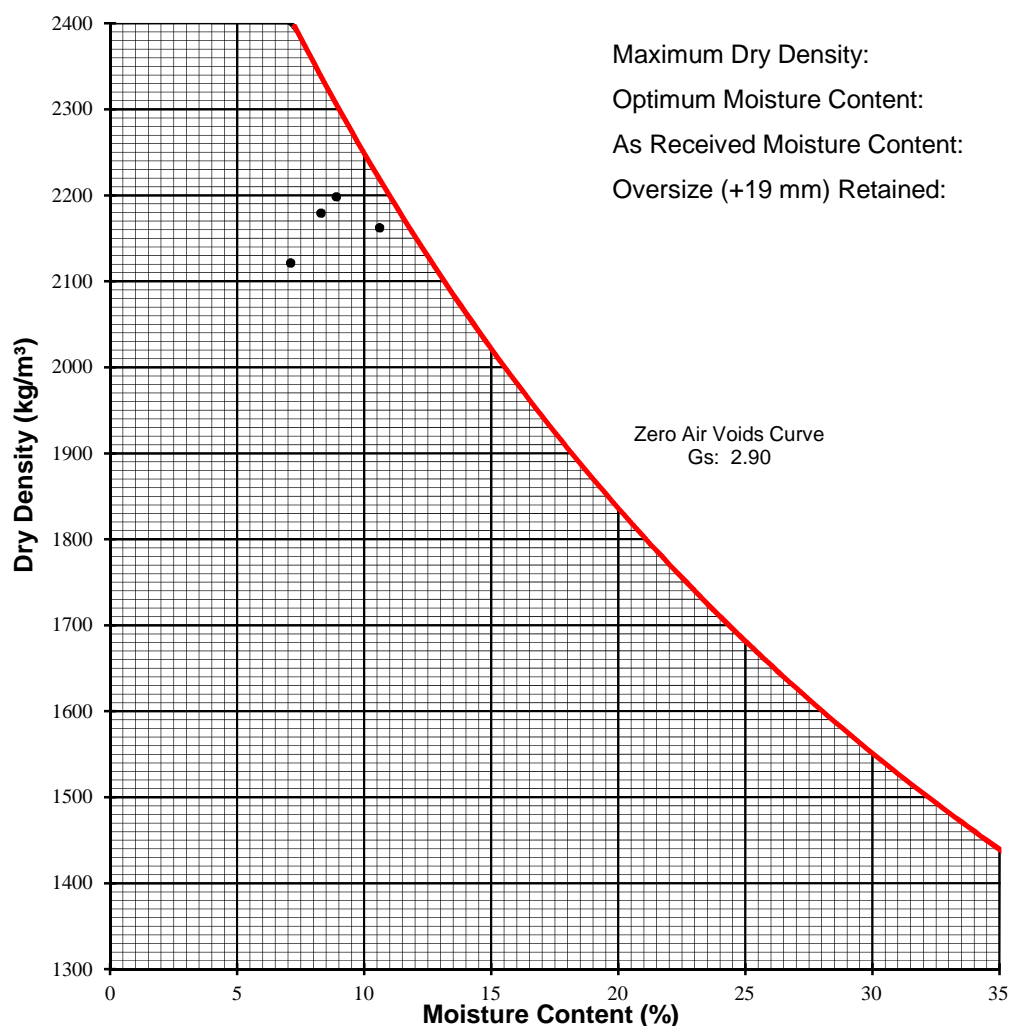
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: Stockpile at FCP and samples from 0+45 U/S and 0+32 U/S

Sample Description: Blend of 5 mm Minus Frozen Core Material



Maximum Dry Density: **2200** kg/m³

Optimum Moisture Content: **8.8** %

As Received Moisture Content: 1.0 %

Oversize (+19 mm) Retained: 0.0 %

Zero Air Voids Curve  
Gs: 2.90

Remarks: SRK File Name: HB12-ND-CORE-SP8-QA-20120318

Reviewed By: \_\_\_\_\_

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## MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT

ASTM D698 (Standard Proctor)

Project: Doris North Dam Construction

Sample No.: EBA 2012 - 547

Project No.: E14101162

Sampled By: TB

Client: SRK Consulting (Canada) Inc.

Date Sampled: 24-Mar-12

Attention: Lowell Wade

Test Date: 24-Mar-12

E-mail: [hopebay@srk.com](mailto:hopebay@srk.com)

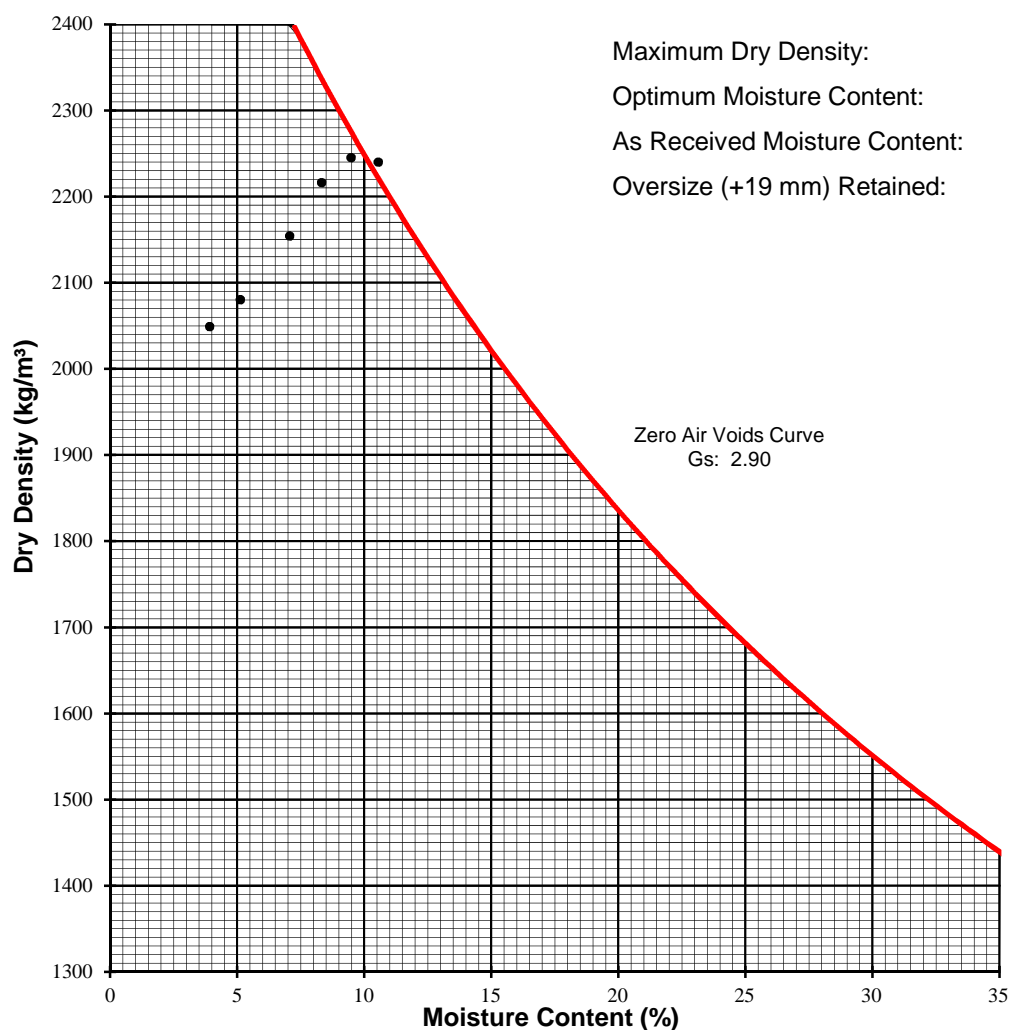
Test Method: Method A

Source: Quarry 2

Compaction: Manual

Sample Location: FCP Chute

Sample Description: GCL Cover Material, 3/4" and 5 mm Minus Blend



Maximum Dry Density: **2250** kg/m³

Optimum Moisture Content: **9.5** %

As Received Moisture Content: 1.0 %

Oversize (+19 mm) Retained: 0.0 %

Zero Air Voids Curve  
Gs: 2.90

Remarks: SRK File Name: HB12-FCP-COVER-SP10-QA-20120324

Reviewed By: \_\_\_\_\_

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**Appendix H.3: Moisture Content Test Results**  
**(includes 2011 Bulk Density and Air Content)**

---

**Moisture Content**  
**Dam Core**

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.	Tested By
2011-02-27			1	Original Core Material	Test Strip outside of Key Trench (Compaction Test 2A)	1147.0	1050.0	10.9	9.3%			1	JO
2011-02-27			2	Original Core Material	Test Strip outside of Key Trench (Compaction Test 2B)	1328.0	1211.1	9.5	9.7%			2	JO
2011-02-27			3	Original Core Material	Test Strip outside of Key Trench (Compaction Test 3A)	1113.8	1042.7	10.3	6.9%			3	JO
2011-02-27			4	Original Core Material	Test Strip outside of Key Trench (Compaction Test 3B)	927.5	865.1	9.7	7.3%			4	JO
2011-02-27			5	Original Core Material	Test Strip outside of Key Trench (Compaction Test 4A)	1123.7	1062.1	12.2	5.9%			5	JO
2011-02-27			6	Original Core Material	Test Strip outside of Key Trench (Compaction Test 4B)	1112.3	1035.4	10.5	7.5%			6	JO
2011-02-27			7	Original Core Material	Test Strip outside of Key Trench (Compaction Test 5A)	1167.0	1072.5	10.2	8.9%			7	JO
2011-02-27			8	Original Core Material	Test Strip outside of Key Trench (Compaction Test 5B)	1205.7	1123.7	10.5	7.4%			8	JO
2011-02-27			9	Original Core Material	Test Strip outside of Key Trench (Compaction Test 6A)	1178.9	1107.5	10.7	6.5%			9	JO
2011-02-27			10	Original Core Material	Test Strip outside of Key Trench (Compaction Test 6B)	1031.4	967.2	10.4	6.7%			10	JO
2011-03-01				Original Core Material	Fillet (Compaction Test 12)	1487.1	1374.8	9.7	8.2%			11	JO
2011-03-01				Original Core Material	Fillet (Compaction Test 14)	1302.6	1217.0	11.5	7.1%			12	JO
2011-03-06			1	Fines	Key Trench (Compaction Test 31)	500.1	447.8	9.7	11.9%			13	JJJ
2011-03-06				Fines	Key Trench (Compaction Test 32)	N/A	N/A	N/A	12.6%			14	JJJ
2011-03-06				Fines	Key Trench (Compaction Test 34)	N/A	N/A	N/A	12.4%			15	JJJ
2011-03-06				Fines	Key Trench (Compaction Test 36)	492.3	436.0	10.0	13.2%			16	JJJ
2011-03-06				Fines	Key Trench (Compaction Test 38)	N/A	N/A	N/A	12.6%			17	JJJ
2011-03-06			14	Fines	Key Trench (Compaction Test 44)	N/A	N/A	N/A	13.2%			18	JJJ
2011-03-07			6	Fines	FCP Chute	1145.3	1070.9	513.0	13.3%			19	JJJ
2011-03-07			1	Fines	FCP Chute	1180.2	1112.3	515.5	11.4%			20	JJJ
2011-03-08			3	1:2 FCM	FCP Chute	Lost due to power outage						21	JJJ

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-05-02	4:45	43.0	224	2:3 FCM	FCP Chute	1652.9	1572.7	518.7	7.6%			HB-FCP-CORE-MC169-QA-20110502
2011-05-02	7:45	45.0	225	2:3 FCM	FCP Chute	1626.3	1546.0	512.2	7.8%			HB-FCP-CORE-MC170-QA-20110502
2011-05-02	8:15	40.0	226	2:3 FCM	FCP Chute	1837.0	1735.7	514.2	8.3%			HB-FCP-CORE-MC171-QA-20110502
2011-05-02	9:30	40.0	227	2:3 FCM	FCP Chute	3941.4	3792.3	2169.9	9.2%			HB-FCP-CORE-MC172-QA-20110502
2011-05-02	10:00	40.0	228	2:3 FCM	FCP Chute	1144.9	1093.2	508.2	8.8%			HB-FCP-CORE-MC173-QA-20110502
2011-05-02	11:45	35.0	229	2:3 FCM	FCP Chute	1142.2	1093.0	515.5	8.5%			HB-FCP-CORE-MC174-QA-20110502
2011-05-02	15:30	35.0	230	2:3 FCM	FCP Chute	1336.0	1274.6	525.9	8.2%			HB-FCP-CORE-MC175-QA-20110502



Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.	Tested By
2011-04-24	8:50	42.0	202	2:3 OMC	FCP Chute	1593.2	1509.9	513.1	8.4%			HB-FCP-CORE-MC151-QA-20110424	JJJ
2011-04-24	12:30	44.0	203	2:3 OMC	FCP Chute	1629.0	1549.4	526.2	7.8%			HB-FCP-CORE-MC152-QA-20110424	JJJ
2011-04-25	13:00	35.0	204	2:3 FCM	FCP Chute	4327.0	4164.5	2128.8	8.0%			HB-FCP-CORE-MC153-QA-20110425	JJJ
2011-04-25	13:35	27.0	205	2:3 FCM	FCP Chute	1511.5	1424.1	515.0	9.6%			HB-FCP-CORE-MC154-QA-20110425	JJJ
2011-04-25	14:10	27.0	206	2:3 FCM	FCP Chute	1583.6	1504.4	515.6	8.0%			HB-FCP-CORE-MC155-QA-20110425	JJJ
2011-04-26	9:05	30.0	207	2:3 FCM	FCP Chute	1546.3	1456.2	514.9	9.6%			HB-FCP-CORE-MC156-QA-20110426	JJJ
2011-04-27	16:00	25.0	208	2:3 FCM	FCP Chute	1486.4	1403.1	511.4	9.3%			HB-FCP-CORE-MC157-QA-20110427	JJJ
2011-04-27	22:15	26.0	209	2:3 FCM	FCP Chute	1792.7	1699.1	515.8	7.9%			HB-FCP-CORE-MC158-QA-20110427	GDV
2011-04-28	1:00	24.0	210	2:3 FCM	FCP Chute	1870.2	1760.3	513.3	8.8%			HB-FCP-CORE-MC159-QA-20110428	GDV
2011-04-28	16:40	22.0	212	2:3 FCM	FCP Chute	1450.6	1374.9	511.4	8.8%			HB-FCP-CORE-MC160-QA-20110428	JJJ
2011-04-28	20:00	24.0	213	2:3 FCM	FCP Chute	3952.0	3810.3	2173.9	8.7%			HB-FCP-CORE-MC161-QA-20110428	GDV
2011-04-28	20:40	25.0	214	2:3 FCM	FCP Chute	2085.6	1957.1	516.1	8.9%			HB-FCP-CORE-MC162-QA-20110429	GDV
2011-04-29	16:00	21.5	215	2:3 FCM	FCP Chute	1315.0	1253.5	511.5	8.3%			HB-FCP-CORE-MC163-QA-20110429	GFL
2011-04-29	16:45	25.0	216	2:3 FCM	FCP Chute	5631.6	5390.8	2166.7	7.5%			HB-FCP-CORE-MC164-QA-20110429	GFL
2011-04-29	17:00	25.0	217	2:3 FCM	FCP Chute	1260.4	1207.6	514.1	7.6%			HB-FCP-CORE-MC165-QA-20110429	GFL
2011-04-29	20:10	19.0	218	2:3 FCM	FCP Chute	1514.2	1442.2	513.9	7.8%			HB-FCP-CORE-MC166-QA-20110429	GDV
2011-05-02	2:00	25.0	222	2:3 FCM	FCP Chute	2006.9	1889.2	514.3	8.6%			HB-FCP-CORE-MC167-QA-20110502	GDV
2011-05-02	3:15	44.0	223	2:3 FCM	FCP Chute	1684.3	1602.2	511.8	7.5%			HB-FCP-CORE-MC168-QA-20110502	GDV

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-04-22	10:30	35.0	192	2:3 OMC	FCP Chute	1686.4	1591.5	513.4	8.8%			HB-FCP-CORE-MC142-QA-20110422
2011-04-22	11:30	N.A.	193	2:3 OMC	DC57	6868.8	6486.8	2167.0	8.8%			HB-FCP-CORE-MC143-QA-20110422
2011-04-22	12:00	N.A.	194	2:3 OMC	DC58	8261.1	7762.6	2174.4	8.9%			HB-FCP-CORE-MC144-QA-20110422
2011-04-22	17:00	N.A.	195	2:3 OMC	DC59	7530.9	7074.5	2168.2	9.3%			HB-FCP-CORE-MC145-QA-20110422
2011-04-22	18:00	N.A.	196	2:3 OMC	DC60	8232.3	7715.2	2008.5	9.1%			HB-FCP-CORE-MC146-QA-20110422
2011-04-22	22:00	35.0	197	2:3 OMC	FCP Chute	1902.2	1796.6	514.4	8.2%			HB-FCP-CORE-MC147-QA-20110422
2011-04-23	1:10	33.0	198	2:3 OMC	FCP Chute	4853.6	4675.7	2157.6	7.1%			HB-FCP-CORE-MC148-QA-20110422
2011-04-23	2:40	34.0	199	2:3 OMC	FCP Chute	1820.9	1726.3	512.4	7.8%			HB-FCP-CORE-MC149-QA-20110422
2011-04-23	13:45	30.0	201	2:3 OMC	FCP Chute	1406.5	1343.7	526.2	7.7%			HB-FCP-CORE-MC150-QA-20110423



Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-04-17	13:30	37.0	168	2:3FCM	FCP Chute	1806.5	1696.6	512.9	9.3%			HB-FCP-CORE-MC118-QA-20110417
2011-04-17	15:35	25.0	169	2:3FCM	FCP Chute	5798.3	5491.9	2158.2	9.2%			HB-FCP-CORE-MC119-QA-20110417
2011-04-18	1:40	40.0	170	2:3FCM	FCP Chute	1895.4	1800.0	514.9	7.4%			HB-FCP-CORE-MC120-QA-20110418
2011-04-18	4:20	35.0	171	2:3FCM	FCP Chute	1766.2	1679.6	513.1	7.4%			HB-FCP-CORE-MC121-QA-20110418
2011-04-18	8:30	37.0	172	2:3FCM	FCP Chute	5593.7	5365.2	2157.6	7.1%			HB-FCP-CORE-MC122-QA-20110418
2011-04-18	9:00	35.0	173	2:3FCM	FCP Chute	1990.2	1878.9	513.2	8.1%			HB-FCP-CORE-MC123-QA-20110418
2011-04-18	14:30	37.0	174	2:3FCM	FCP Chute	1597.7	1517.8	515.2	8.0%			HB-FCP-CORE-MC124-QA-20110418
2011-04-18	17:30	35.0	175	2:3FCM	FCP Chute	1425.2	1347.2	516.3	9.4%			HB-FCP-CORE-MC125-QA-20110418
2011-04-18	20:40	32.5	176	2:3FCM	FCP Chute	1884.6	1775.9	511.6	8.6%			HB-FCP-CORE-MC126-QA-20110418
2011-04-19	1:45	35.0	177	2:3FCM	FCP Chute	1791.8	1697.0	513.1	8.0%			HB-FCP-CORE-MC127-QA-20110419
2011-04-19	2:30	34.0	178	2:3FCM	FCP Chute	1942.7	1823.8	516.0	9.1%			HB-FCP-CORE-MC128-QA-20110419
2011-04-19	16:40	43.0	179	2:3FCM	FCP Chute	6109.9	5773.8	2158.3	9.3%			HB-FCP-CORE-MC129-QA-20110419
2011-04-19	20:00	41.0	180	2:3FCM	FCP Chute	1545.1	1459.5	516.5	9.1%			HB-FCP-CORE-MC130-QA-20110419
2011-04-20	4:15	35.0	181	2:3FCM	FCP Chute	1923.0	1830.7	516.6	7.0%			HB-FCP-CORE-MC131-QA-20110420
2011-04-20	17:00	43.0	182	2:3 OMC	FCP Chute	1527.8	1469.4	515.7	6.1%			HB-FCP-CORE-MC132-QA-20110420
2011-04-20	20:00	42.5	183	2:3 OMC	FCP Chute	1760.3	1688.0	512.6	6.2%			HB-FCP-CORE-MC133-QA-20110420
2011-04-21	1:00	44.0	184	2:3 OMC	FCP Chute	1796.7	1712.1	516.2	7.1%			HB-FCP-CORE-MC134-QA-20110421
2011-04-21	2:10	43.0	185	2:3 OMC	FCP Chute	1929.2	1832.5	525.4	7.4%			HB-FCP-CORE-MC135-QA-20110421
2011-04-21	4:45	45.0	186	2:3 OMC	FCP Chute	1574.2	1504.0	513.2	7.1%			HB-FCP-CORE-MC136-QA-20110421
2011-04-21	10:30	43.0	187	2:3 OMC	FCP Chute	5615.9	5352.5	2157.2	8.2%			HB-FCP-CORE-MC137-QA-20110421
2011-04-21	14:00	33.0	188	2:3 OMC	FCP Chute	1693.7	1605.3	513.1	8.1%			HB-FCP-CORE-MC138-QA-20110421
2011-04-21	17:30	35.0	189	2:3 OMC	FCP Chute	1489.0	1412.3	513.2	8.5%			HB-FCP-CORE-MC139-QA-20110421
2011-04-22	00:15	39.0	190	2:3 OMC	FCP Chute	1961.8	1849.2	516.0	8.4%			HB-FCP-CORE-MC140-QA-20110422
2011-04-22	1:30	38.0	191	2:3 OMC	FCP Chute	1963.2	1858.0	513.2	7.8%			HB-FCP-CORE-MC141-QA-20110422



Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-04-14	9:30	N/A	161	2:3 OMC	Spill-Over Stn0+85	5669.2	5494.9	2168.3	5.2%			HB-FCP-CORE-MC114-QA-20110414
2011-04-14	15:10	33.0	162	2:3FCM	FCP Chute	5269.4	4999.4	2159.1	9.5%			HB-FCP-CORE-MC115-QA-20110414
2011-04-16	3:30	30.0	165	2:3FCM	FCP Chute	2192.8	2062.1	515.0	8.4%			HB-FCP-CORE-MC116-QA-20110415
2011-04-16	4:15	31.0	166	2:3FCM	FCP Chute	5262.7	5035.3	2159.2	7.9%			HB-FCP-CORE-MC117-QA-20110415



Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.	Tested By
2011-04-13	15:00	32.0	157	2:3 FCM	FCP Chute	5342.2	5081.4	2159.3	8.9%			HB-FCP-CORE-MC111-QA-20110413	JJJ
2011-04-13	21:45	33.0	158	2:3 OMC	FCP Chute	1135.7	1077.5	519.4	10.4%			HB-FCP-CORE-MC112-QA-20110413	GFL
2011-04-13	23:30	33.0	154	2:3 OMC	FCP Chute	1237.7	1171.5	508.5	10.0%			HB-FCP-CORE-MC113-QA-20110413	GFL
2011-04-14	9:30	N/A	161	2:3 OMC	Spill-Over Stn0+85	5669.2	5494.9	2168.3	5.2%			HB-FCP-CORE-MC114-QA-20110414	JJJ
2011-04-14	15:10	33.0	162	2:3FCM	FCP Chute	5269.4	4999.4	2159.1	9.5%			HB-FCP-CORE-MC115-QA-20110414	JJJ

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.	Tested By
2011-04-07	16:50	12.5	127	2:3 FCM	FCP Chute	4433.3	4253.6	2129.0	8.5%			HB-FCP-CORE-MC92-QA-20110407	GDV
2011-04-07	22:45	28.0	130	2:3 FCM	FCP Chute	994.7	952.9	517.3	9.6%			HB-FCP-CORE-MC93-QA-20110407	GFL
2011-04-07	23:30	30.0	131	2:3 FCM	FCP Chute	4675.9	4464.9	2167.9	9.2%			HB-FCP-CORE-MC94-QA-20110407	GFL
2011-04-07	23:50	29.0	132	2:3 FCM	FCP Chute	1056.2	1010.7	509.7	9.1%			HB-FCP-CORE-MC95-QA-20110407	GFL
2011-04-09	10:20	19.0	133	2:3 FCM	FCP Chute	5442.4	5178.9	2170.3	8.8%			HB-FCP-CORE-MC96-QA-20110409	JJJ
2011-04-09	13:50	18.0	134	2:3 FCM	FCP Chute	1502.8	1421.3	513.1	9.0%			HB-FCP-CORE-MC97-QA-20110409	JJJ
2011-04-09	22:00	28.0	138	2:3 OMC	FCP Chute	1084.5	1046.5	513.9	7.1%			HB-FCP-CORE-MC98-QA-20110409	GFL
2011-04-10	1:00	30.0	139	2:3 OMC	FCP Chute	4845.0	4649.0	2131.6	7.8%			HB-FCP-CORE-MC99-QA-20110409	GFL
2011-04-10	1:30	29.0	140	2:3 OMC	FCP Chute	1125.6	1082.8	525.5	7.7%			HB-FCP-CORE-MC100-QA-20110409	GFL
2011-04-10	10:00	10.0	141	2:3 FCM	North Dam	1603.1	1494.2	511.4	11.1%			HB-ND-CORE-MC101-QA-20110410	JJJ
2011-04-10	10:00	10.0	142	2:3 FCM	North Dam	1644.9	1536.6	525.3	10.7%			HB-ND-CORE-MC102-QA-20110410	JJJ
2011-04-10	10:00	10.0	143	2:3 FCM	North Dam	1628.7	1518.5	512.9	11.0%			HB-ND-CORE-MC103-QA-20110410	JJJ
2011-04-10	13:00	20.0	144	2:3 FCM	FCP Chute	5214.1	4947.7	2169.9	9.6%			HB-FCP-CORE-MC104-QA-20110410	JJJ
2011-04-10	20:30	28.0	147	2:3 FCM	FCP Chute	1150.9	1102.0	516.6	8.4%			HB-FCP-CORE-MC105-QA-20110410	GFL
2011-04-10	23:00	27.0	148	2:3 OMC	FCP Chute	1125.4	1079.8	526.9	8.2%			HB-FCP-CORE-MC106-QA-20110410	GFL
2011-04-11	16:00	20.0	151	2:3 FCM	FCP Chute	2956.8	2729.4	525.3	10.3%			HB-FCP-CORE-MC107-QA-20110411	JJJ
2011-04-11	11:30	23.0	152	2:3 OMC	FCP Chute	7690.8	7248.6	2168.2	8.7%			HB-FCP-CORE-MC108-QA-20110411	JJJ
2011-04-11	22:30	35.0	153	2:3 FCM	FCP Chute	1139.4	1090.8	528.2	8.6%			HB-FCP-CORE-MC109-QA-20110411	GFL
2011-04-11	23:30	33.0	154	2:3 FCM	FCP Chute	1155.5	1102.4	515.4	9.0%			HB-FCP-CORE-MC110-QA-20110411	GFL

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-04-04	10:50	18.0	104	2:3 FCM	FCP Chute	3036.3	2797.9	515.8	10.4%			HB-FCP-CORE-MC75-20110404
2011-04-04	2:15	30.0	109	2:3 FCM	FCP Chute	5179.0	4895.1	2175.0	10.4%			HB-FCP-CORE-MC76-20110404
2011-04-04	2:45	28.0	110	2:3 FCM	FCP Chute	1028.3	985.5	509.8	9.0%			HB-FCP-CORE-MC77-20110404
2011-04-05	8:35	15.0	111	2:3 FCM	FCP Chute	2183.5	2046.9	514.6	8.9%			HB-FCP-CORE-MC78-20110405
2011-04-05	9:30	15.0	112	2:3 FCM	FCP Chute	4362.8	4170.7	2170.2	9.6%			HB-FCP-CORE-MC79-20110405
2011-04-05	11:40	20.0	113	2:3 FCM	FCP Chute	1952.6	1825.8	527.2	9.8%			HB-FCP-CORE-MC80-20110405
2011-04-05	14:20	28.0	114	2:3 FCM	FCP Chute	1843.0	1732.8	514.6	9.0%			HB-FCP-CORE-MC81-20110405
2011-04-05	23:30	30.0	115	2:3 FCM	FCP Chute	5731.8	5414.7	2131.8	9.7%	3.4%		HB-FCP-CORE-MC82-20110405
2011-04-05	23:45	26.0	116	2:3 FCM	FCP Chute	1113.3	1058.7	519.5	10.1%			HB-FCP-CORE-MC83-20110405
2011-04-05	1:00	29.0	117	2:3 FCM	FCP Chute	1105.2	1054.7	509.4	9.3%			HB-FCP-CORE-MC84-20110405
2011-04-05	1:15	29.0	118	2:3 FCM	FCP Chute	1187.6	1128.3	517.5	9.7%			HB-FCP-CORE-MC85-20110405
2011-04-06	9:10	28.0	119	2:3 FCM	FCP Chute	4283.2	4115.9	2168.6	8.6%			HB-FCP-CORE-MC86-20110406
2011-04-06	10:30	29.0	120	2:3 FCM	FCP Chute	3812.4	3678.4	2160.5	8.8%			HB-FCP-CORE-MC87-20110406
2011-04-06	22:00	30.0	123	2:3 FCM	FCP Chute	1032.2	984.5	516.7	10.2%			HB-FCP-CORE-MC88-20110406
2011-04-06	23:00	30.0	124	2:3 FCM	FCP Chute	4592.0	4365.4	2168.5	10.3%	3.8%	2258	HB-FCP-CORE-MC89-20110406
2011-04-06	23:30	29.0	125	2:3 FCM	FCP Chute	1117.4	1064.4	510.4	9.6%			HB-FCP-CORE-MC90-20110406
2011-04-07	16:15	25.0	126	2:3 FCM	FCP Chute	1953.1	1835.9	516.7	8.9%			HB-FCP-CORE-MC91-20110407
2011-04-07	16:50	12.5	127	2:3 FCM	FCP Chute	4433.3	4253.6	2129.0	8.5%			HB-FCP-CORE-MC92-20110407

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-04-02	21:00	28.0	89	2:3 FCM	FCP Chute	5892.6	5543.8	2007.2	9.9%	3.8%	2193	HB-FCP-CORE-MC64-20110402
2011-04-02	22:00	30.0	90	2:3 FCM	FCP Chute	1513.3	1429.9	514.9	9.1%			HB-FCP-CORE-MC65-20110402
2011-04-03	9:30	32.0	94	2:3 FCM	FCP Chute	2233.5	2080.6	513.1	9.8%			HB-FCP-CORE-MC66-20110403
2011-04-03	9:55	28.0	95	2:3 FCM	FCP Chute	4129.1	3947.3	2131.2	10.0%			HB-FCP-CORE-MC67-20110403
2011-04-03	11:05	32.0	96	2:3 FCM	FCP Chute	2158.2	2025.4	515.1	8.8%			HB-FCP-CORE-MC68-20110403
2011-04-03	13:15	30.0	97	2:3 FCM	FCP Chute	1928.0	1811.0	511.7	9.0%			HB-FCP-CORE-MC69-20110403
2011-04-03	16:00	23.0	98	2:3 FCM	FCP Chute	2019.4	1879.9	527.2	10.3%			HB-FCP-CORE-MC70-20110403
2011-04-03	21:15	28.0	100	2:3 FCM	FCP Chute	5028.8	4804.0	2175.6	8.6%			HB-FCP-CORE-MC71-20110403
2011-04-03	21:45	29.0	101	2:3 FCM	FCP Chute	1056.7	1010.8	515.8	9.3%			HB-FCP-CORE-MC72-20110403
2011-04-03	22:15	26.0	102	2:3 FCM	FCP Chute	1423.0	1340.7	516.9	10.0%			HB-FCP-CORE-MC73-20110403
2011-04-03	22:30	28.0	103	2:3 FCM	FCP Chute	1068.6	1020.3	515.6	9.6%			HB-FCP-CORE-MC74-20110403

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-03-10			4	Fines	North Dam, Stn 0+95	1353.2	1236.7	511.4	16.1%			HB-ND-FINE-MC22-20110310
2011-03-10			5	Fines	North Dam, Stn 0+95	1288.4	1200.4	513.1	12.8%			HB-ND-FINE-MC23-20110310
2011-03-11			11	Fines	North Dam, Stn 0+95	1323.9	1234.9	525.4	12.5%			HB-ND-FINE-MC24-20110311
2011-03-12			12	Fines	North Dam, Stn 0+95	1323.8	1240.9	526.3	11.6%			HB-ND-FINE-MC25-20110312
2011-03-13			17	2:3 FCM	FCP Chute	1570.1	1482.1	511.9	9.1%			HB-FCP-CORE-MC26-20110313
2011-03-13			18	2:3 FCM	FCP Chute	1663.8	1567.8	513.1	9.1%			HB-FCP-CORE-MC27-20110313
2011-03-13			19	2:3 FCM	FCP Chute	1374.5	1297.6	508.9	9.8%			HB-FCP-CORE-MC28-20110313
2011-03-14		44.0	20	2:3 FCM	FCP Chute	1355.0	1282.2	511.5	9.4%			HB-FCP-CORE-MC29-20110314
2011-03-14		43.0	21	2:3 FCM	FCP Chute	1219.9	1154.0	513.4	10.3%			HB-FCP-CORE-MC30-20110314
2011-03-15		34.0	23	2:3 FCM	FCP Chute	1555.5	1444.9	513.0	11.9%			HB-FCP-CORE-MC31-20110315
2011-03-16			24	2:3 FCM	FCP Chute	1598.4	1497.0	513.5	10.3%			HB-FCP-CORE-MC32-20110316
2011-03-16		46.0	27	2:3 FCM	FCP Chute	786.3	724.6	11.6	8.7%			HB-FCP-CORE-MC33-20110317
2011-03-17		44.0	30	2:3 FCM	FCP Chute	1298.8	1235.9	513.0	8.7%			HB-FCP-CORE-MC34-20110317
2011-03-17		43.0	31	2:3 FCM	FCP Chute	569.8	522.7	11.1	9.2%			HB-FCP-CORE-MC35-20110317
2011-03-17		45.0	32	2:3 FCM	FCP Chute	578.0	529.3	11.0	9.4%			HB-FCP-CORE-MC36-20110317

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-03-17		40.0	33	FINES	FCP Chute	682.8	602.3	12.7	13.7%			HB-FCP-FINE-MC37-20110317
2011-03-17		43.0	34	2:3 FCM	FCP Chute	726.3	661.4	10.8	10.0%			HB-FCP-CORE-MC38-20110317
2011-03-18			35	2:3 FCM	FCP Chute	624.6	551.2	10.1	13.6%	2.5%	2348	HB-FCP-CORE-MC39-20110318
2011-03-18			36	2:3 FCM	FCP Chute	1159.4	1092.4	515.4	11.6%			HB-FCP-CORE-MC40-20110318
2011-03-19			37	2:3 FCM	FCP Chute	5110.8	4790.2	2010.2	11.5%	2.9%	2197	HB-FCP-CORE-MC41-20110319
2011-03-19			38	2:3 FCM	FCP Chute	1450.7	1383.5	513.8	7.7%			HB-FCP-CORE-MC42-20110319
2011-03-20			41	2:3 FCM	FCP Chute	4346.5	4128.8	2170.4	11.1%			HB-FCP-CORE-MC43-20110320
2011-03-21	09:00	30.0	46	2:3 FCM	FCP Chute	3720.6	3591.7	2175.5	9.1%			HB-FCP-CORE-MC44-20110321
2011-03-21	17:20	27.5	49	2:3 FCM	FCP Chute	2625.2	2448.1	515.5	9.2%			HB-FCP-CORE-MC45-20110321
2011-03-23		31.0	55	2:3 FCM	FCP Chute	3635.4	3523.5	2167.7	8.3%			HB-FCP-CORE-MC46-20110323
2011-03-23		28.0	57	2:3 FCM	FCP Chute	3983.2	3844.6	2167.5	8.3%			HB-FCP-CORE-MC47-20110323
2011-03-23		27.0	56	2:3 FCM	FCP Chute	4174.9	4010.1	2006.2	8.2%			HB-FCP-CORE-MC48-20110323
2011-03-23			58	2:3 FCM	FCP Chute	1978.7	1859.9	513.2	8.8%			HB-FCP-CORE-MC49-20110323
2011-03-24		25.0	59	2:3 FCM	FCP Chute	4131.6	3976.5	2167.6	8.6%			HB-FCP-CORE-MC50-20110324
2011-03-24		26.0	61	2:3 FCM	FCP Chute	1667.0	1579.0	513.0	8.3%			HB-FCP-CORE-MC51-20110324

Date	Sample Time	Temp at FCP (°C)	Field Sample No.	Material	SAMPLE LOCATION	Wet Soil+Tare	Dry Soil+Tare	Tare	M/C	Air Content	Bulk Density	SRK Sample No.
2011-03-25			62	2:3 FCM	FCP Chute	5186.1	4944.5	2167.1	8.7%	2.0%	2330	HB-FCP-CORE-MC52-20110324
2011-03-26		30.0	67	2:3 FCM	FCP Chute	3697.7	3578.1	2008.9	7.6%			HB-FCP-CORE-MC53-20110325
2011-03-26		20.0	68	2:3 FCM	FCP Chute	4084.4	3933.4	2129.0	8.4%			HB-FCP-CORE-MC54-20110326
2011-03-26		31.0	69	2:3 FCM	FCP Chute	1236.3	1140.3	9.9	8.5%			HB-FCP-CORE-MC55-20110327
2011-03-27		30.0	73	2:3 FCM	FCP Chute	4605.6	4421.3	2176.3	8.2%			HB-FCP-CORE-MC56-20110327
2011-03-27			74	2:3 FCM	FCP Chute	1759.1	1649.6	515.3	9.7%			HB-FCP-CORE-MC57-20110327
2011-03-28		30.0	76	2:3 FCM	FCP Chute	2156.5	2026.2	515.8	8.6%			HB-FCP-CORE-MC58-20110328
2011-03-28			77	2:3 FCM	FCP Chute	6035.4	5750.8	2168.0	7.9%			HB-FCP-CORE-MC59-20110328
2011-03-31		31.0	78	2:3 FCM	FCP Chute	1597.2	1513.0	515.0	8.4%			HB-FCP-CORE-MC60-20110331
2011-03-31		32.5	79	2:3 FCM	FCP Chute	4635.0	4448.6	2175.6	8.2%			HB-FCP-CORE-MC61-20110331
2011-03-31		31.5	80	2:3 FCM	FCP Chute	2685.0	2515.7	511.7	8.4%			HB-FCP-CORE-MC62-20110331
2011-03-31		28.0	81	2:3 FCM	FCP Chute	1654.0	1556.5	513.5	9.3%	4.1%	2183	HB-FCP-CORE-MC63-20110331

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 1	2012-01-15	33	3:2 FCM	Chute	19310.1	17543.0	2009.0	11.4	HB12-FCP-CORE-MC1-QA-20120115	JO
EBA 2012 - 2	2012-01-15	31	3:2 FCM	Chute	1469.9	1384.7	525.5	9.9	HB12-FCP-CORE-MC2-QA-20120115	JO
EBA 2012 - 4	2012-01-17	41	3:2 FCM	Chute	2854.4	2655.0	508.2	9.3	HB12-FCP-CORE-MC3-QA-20120117	JO
EBA 2012 - 5	2012-01-17	28	3:2 FCM	Chute	1220.5	1158.5	525.3	9.8	HB12-FCP-CORE-MC4-QA-20120117	JO
EBA 2012 - 6	2012-01-17	29	3:2 FCM	Chute	1484.0	1399.2	515.4	9.6	HB12-FCP-CORE-MC5-QA-20120117	JO
EBA 2012 - 7	2012-01-18	31	3:2 FCM	Chute	3330.8	3046.8	515.4	11.2	HB12-FCP-CORE-MC6-QA-20120118	JO
EBA 2012 - 10	2012-01-20	30	3:2 FCM	Chute	3554.8	3275.3	515.4	10.1	HB12-FCP-CORE-MC7-QA-20120120	JO
EBA 2012 - 11	2012-01-21	27	3:2 FCM	Chute	3404.0	3147.4	511.6	9.7	HB12-FCP-CORE-MC8-QA-20120121	JO
EBA 2012 - 12	2012-01-21	24	3:2 FCM	Chute	3745.5	3445.6	525.3	10.3	HB12-FCP-CORE-MC9-QA-20120121	JO
EBA 2012 - 13	2012-01-21	37	3:2 FCM	Chute	3958.7	3595.7	525.2	11.8	HB12-FCP-CORE-MC10-QA-20120121	JO
EBA 2012 - 14	2012-01-21	27	3:2 FCM	Chute	3675.3	3375.4	522.5	10.5	HB12-FCP-CORE-MC11-QA-20120121	JO
EBA 2012 - 15	2012-01-22	23	3:2 FCM	Chute	3509.9	3258.6	517.3	9.2	HB12-FCP-CORE-MC12-QA-20120122	JO
EBA 2012 - 16	2012-01-22	22	3:2 FCM	Chute	4078.0	3744.8	515.0	10.3	HB12-FCP-CORE-MC13-QA-20120122	JO
EBA 2012 - 18	2012-01-23	26	3:2 FCM	Chute	3358.8	3123.8	515.3	9.0	HB12-FCP-CORE-MC14-QA-20120123	JS
EBA 2012 - 19	2012-01-23	24	3:2 FCM	Chute	3412.0	3177.6	511.4	8.8	HB12-FCP-CORE-MC15-QA-20120123	JO
EBA 2012 - 20	2012-01-23	27	3:2 FCM	Chute	3429.7	3189.1	514.8	9.0	HB12-FCP-CORE-MC16-QA-20120123	JO
EBA 2012 - 21	2012-01-24	33	3:2 FCM	Chute	3549.4	3300.0	515.1	9.0	HB12-FCP-CORE-MC17-QA-20120124	JS
EBA 2012 - 22	2012-01-24	29	3:2 FCM	Chute	4072.9	3769.9	511.5	9.3	HB12-FCP-CORE-MC18-QA-20120124	JS
EBA 2012 - 26	2012-01-25	25	3:2 FCM	Chute	3648.5	3375.8	518.1	9.5	HB12-FCP-CORE-MC19-QA-20120125	JO
EBA 2012 - 27	2012-01-25	31	3:2 FCM	Chute	2283.0	2134.6	507.6	9.1	HB12-FCP-CORE-MC20-QA-20120125	JO
EBA 2012 - 28	2012-01-25	33	3:2 FCM	Chute	3529.2	3272.5	525.3	9.3	HB12-FCP-CORE-MC21-QA-20120125	JO
EBA 2012 - 29	2012-01-27	33	3:2 FCM	Chute	5378.1	5123.3	2128.6	8.5	HB12-FCP-CORE-MC22-QA-20120127	JS
EBA 2012 - 31	2012-01-27	40	3:2 FCM	Chute	2847.0	2653.5	516.8	9.1	HB12-FCP-CORE-MC23-QA-20120127	JS
EBA 2012 - 33	2012-01-27	38	3:2 FCM	Chute	2753.8	2563.7	511.7	9.3	HB12-FCP-CORE-MC24-QA-20120127	JS
EBA 2012 - 34	2012-01-27	40	3:2 FCM	Chute	3182.0	2969.5	515.4	8.7	HB12-FCP-CORE-MC25-QA-20120127	JS
EBA 2012 - 35	2012-01-27	40	3:2 FCM	Chute	3358.1	3111.5	508.5	9.5	HB12-FCP-CORE-MC26-QA-20120127	JS
EBA 2012 - 36	2012-01-28	33	3:2 FCM	Chute	3346.5	3116.2	508.0	8.8	HB12-FCP-CORE-MC27-QA-20120128	JS
EBA 2012 - 39	2012-01-29	37	3:2 FCM	Chute	3442.7	3232.0	514.0	7.8	HB12-FCP-CORE-MC28-QA-20120129	JS
EBA 2012 - 40	2012-01-29	39	3:2 FCM	Chute	3316.1	3093.4	525.3	8.7	HB12-FCP-CORE-MC29-QA-20120129	JS
EBA 2012 - 41	2012-01-29	40	3:2 FCM	Chute	3514.7	3278.5	514.9	8.5	HB12-FCP-CORE-MC30-QA-20120129	JS
EBA 2012 - 42	2012-01-30	36	3:2 FCM	Chute	3047.1	2860.8	525.5	8.0	HB12-FCP-CORE-MC31-QA-20120130	JS
EBA 2012 - 43	2012-01-30	28	3:2 FCM	Chute	3241.0	3008.2	664.1	9.9	HB12-FCP-CORE-MC32-QA-20120130	JO
EBA 2012 - 44	2012-01-30	31	3:2 FCM	Chute	4064.3	3760.6	656.6	9.8	HB12-FCP-CORE-MC33-QA-20120130	JO
EBA 2012 - 45	2012-01-30	32	3:2 FCM	Chute	3855.2	3578.5	513.3	9.0	HB12-FCP-CORE-MC34-QA-20120130	JO
EBA 2012 - 46	2012-01-30	34	3:2 FCM	Chute	4498.8	4139.1	514.4	9.9	HB12-FCP-CORE-MC35-QA-20120130	JO
EBA 2012 - 47	2012-01-30	32	3:2 FCM	Chute	3584.5	3306.7	508.1	9.9	HB12-FCP-CORE-MC36-QA-20120130	JO
EBA 2012 - 48	2012-01-30	32	3:2 FCM	Chute	3340.6	3092.1	511.6	9.6	HB12-FCP-CORE-MC37-QA-20120130	JO
EBA 2012 - 49	2012-01-30	35	3:2 FCM	Chute	3317.8	3077.4	525.0	9.4	HB12-FCP-CORE-MC38-QA-20120130	JO
EBA 2012 - 51	2012-01-31	36	3:2 FCM	Chute	3218.9	2997.3	515.9	8.9	HB12-FCP-CORE-MC39-QA-20120131	JO
EBA 2012 - 53	2012-01-31	31	3:2 FCM	Chute	3783.3	3507.5	514.7	9.2	HB12-FCP-CORE-MC40-QA-20120131	JO
EBA 2012 - 55	2012-01-31	30	3:2 FCM	Chute	3008.9	2815.7	658.3	9.0	HB12-FCP-CORE-MC41-QA-20120131	JO
EBA 2012 - 56	2012-01-31	35	3:2 FCM	Chute	3453.1	3235.0	508.4	8.0	HB12-FCP-CORE-MC42-QA-20120131	JS
EBA 2012 - 57	2012-01-31	35	3:2 FCM	Chute	3506.1	3249.2	514.7	9.4	HB12-FCP-CORE-MC43-QA-20120131	JS
EBA 2012 - 60	2012-02-01	35	3:2 FCM	Chute	3535.8	3273.9	511.1	9.5	HB12-FCP-CORE-MC44-QA-20120201	JS
EBA 2012 - 61	2012-02-01	36	3:2 FCM	Chute	3403.8	3154.0	525.1	9.5	HB12-FCP-CORE-MC45-QA-20120201	JS
EBA 2012 - 62	2012-02-01	34	3:2 FCM	Chute	3501.0	3269.0	665.2	8.9	HB12-FCP-CORE-MC46-QA-20120201	JS
EBA 2012 - 63	2012-02-01	33	3:2 FCM	Chute	3432.4	3191.0	508.6	9.0	HB12-FCP-CORE-MC47-QA-20120201	JS
EBA 2012 - 70	2012-02-04	39	3:2 FCM	Chute	3375.1	3150.2	512.5	8.5	HB12-FCP-CORE-MC48-QA-20120204	JS
EBA 2012 - 71	2012-02-04	36	3:2 FCM	Chute	3618.0	3374.2	665.3	9.0	HB12-FCP-CORE-MC49-QA-20120204	JS
EBA 2012 - 72	2012-02-04	33	3:2 FCM	Chute	3827.6	3576.3	658.2	8.6	HB12-FCP-CORE-MC50-QA-20120204	JS
EBA 2012 - 73	2012-02-04	34	3:2 FCM	Chute	3624.3	3399.2	661.8	8.2	HB12-FCP-CORE-MC51-QA-20120204	EP
EBA 2012 - 74	2012-02-04	32	3:2 FCM	Chute	3604.3	3358.8	656.5	9.1	HB12-FCP-CORE-MC52-QA-20120204	EP

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 75	2012-02-04	37	3:2 FCM	Chute	3643.2	3391.8	525.4	8.8	HB12-FCP-CORE-MC53-QA-20120204	EP
EBA 2012 - 82	2012-02-06	28	3:2 FCM	Chute	3901.5	3571.5	512.6	10.8	HB12-FCP-CORE-MC54-QA-20120206	EP
EBA 2012 - 83	2012-02-06	35	3:2 FCM	Chute	3560.4	3327.1	515.5	8.3	HB12-FCP-CORE-MC55-QA-20120206	EP
EBA 2012 - 85	2012-02-06	33	3:2 FCM	Chute	4522.3	4147.4	508.6	10.3	HB12-FCP-CORE-MC56-QA-20120206	EP
EBA 2012 - 86	2012-02-06	33	3:2 FCM	Chute	4479.0	4170.6	656.5	8.8	HB12-FCP-CORE-MC57-QA-20120206	EP
EBA 2012 - 88	2012-02-06	33	3:2 FCM	Chute	4402.4	4087.3	663.3	9.2	HB12-FCP-CORE-MC58-QA-20120206	EP
EBA 2012 - 89	2012-02-06	25	3:2 FCM	Chute	3609.4	3326.3	665.4	10.6	HB12-FCP-CORE-MC59-QA-20120206	JS
EBA 2012 - 90	2012-02-06	25	3:2 FCM	Chute	3869.5	3563.0	512.4	10.0	HB12-FCP-CORE-MC60-QA-20120206	JS
EBA 2012 - 91	2012-02-06	27	3:2 FCM	Chute	3420.5	3176.1	515.2	9.2	HB12-FCP-CORE-MC61-QA-20120206	JS
EBA 2012 - 92	2012-02-06	22	3:2 FCM	Chute	3505.4	3265.5	662.5	9.2	HB12-FCP-CORE-MC62-QA-20120206	JS
EBA 2012 - 93	2012-02-06	33	3:2 FCM	Chute	3736.8	3503.8	657.9	8.2	HB12-FCP-CORE-MC63-QA-20120206	JS
EBA 2012 - 98	2012-02-08	33	3:2 FCM	Chute	14187.4	12790.6	1459.3	12.3	HB12-FCP-CORE-MC64-QA-20120208	JS
EBA 2012 - 99	2012-02-08	33	3:2 FCM	Chute	3737.4	3493.2	515.7	8.2	HB12-FCP-CORE-MC65-QA-20120208	JS
EBA 2012 - 100	2012-02-08	32	3:2 FCM	Chute	3404.5	3164.0	527.0	9.1	HB12-FCP-CORE-MC66-QA-20120208	JS
EBA 2012 - 102	2012-02-08	32	3:2 FCM	Chute	4446.8	4125.2	515.4	8.9	HB12-FCP-CORE-MC67-QA-20120208	JS
EBA 2012 - 104	2012-02-08	31	3:2 FCM	Chute	4265.9	3985.7	512.7	8.1	HB12-FCP-CORE-MC68-QA-20120208	JS
EBA 2012 - 105	2012-02-08	31	3:2 FCM	Chute	3684.3	3431.2	656.2	9.1	HB12-FCP-CORE-MC69-QA-20120208	JS
EBA 2012 - 106	2012-02-08	26	3:2 FCM	Chute	3614.8	3367.9	657.4	9.1	HB12-FCP-CORE-MC70-QA-20120208	EP
EBA 2012 - 107	2012-02-08	25	3:2 FCM	Chute	3591.9	3342.5	512.1	8.8	HB12-FCP-CORE-MC71-QA-20120208	EP
EBA 2012 - 108	2012-02-08	29	3:2 FCM	Chute	3824.5	3544.2	515.3	9.3	HB12-FCP-CORE-MC72-QA-20120208	EP
EBA 2012 - 113	2012-02-11	27	3:2 FCM	Chute	4686.4	4362.7	657.1	8.7	HB12-FCP-CORE-MC73-QA-20120211	EP
EBA 2012 - 115	2012-02-11	31	3:2 FCM	Chute	3593.9	3351.4	515.0	8.5	HB12-FCP-CORE-MC74-QA-20120211	EP
EBA 2012 - 116	2012-02-11	35	3:2 FCM	Chute	3760.9	3537.9	511.4	7.4	HB12-FCP-CORE-MC75-QA-20120211	EP
EBA 2012 - 117	2012-02-11	-	3:2 FCM	1+18 D/S (T)	3655.0	3384.0	661.2	10.0	HB12-ND-CORE-MC76-QA-20120211	EP
EBA 2012 - 118	2012-02-11	-	3:2 FCM	1+18 D/S (M)	4112.6	3805.5	655.8	9.8	HB12-ND-CORE-MC77-QA-20120211	EP
EBA 2012 - 119	2012-02-11	-	3:2 FCM	1+18 D/S (B)	4483.0	4159.1	666.6	9.3	HB12-ND-CORE-MC78-QA-20120211	EP
EBA 2012 - 120	2012-02-11	-	3:2 FCM	1+18 U/S (T)	4220.4	3874.0	524.6	10.3	HB12-ND-CORE-MC79-QA-20120211	EP
EBA 2012 - 121	2012-02-11	-	3:2 FCM	1+18 U/S (M)	4523.2	4128.7	514.6	10.9	HB12-ND-CORE-MC80-QA-20120211	EP
EBA 2012 - 122	2012-02-11	-	3:2 FCM	1+18 U/S (B)	5064.0	4622.9	507.4	10.7	HB12-ND-CORE-MC81-QA-20120211	EP
EBA 2012 - 123	2012-02-11	-	3:2 FCM	1+06 D/S (T)	3892.1	3667.5	1462.4	10.2	HB12-ND-CORE-MC82-QA-20120211	TB
EBA 2012 - 124	2012-02-11	-	3:2 FCM	1+06 D/S (M)	4178.2	3946.6	1459.0	9.3	HB12-ND-CORE-MC83-QA-20120211	TB
EBA 2012 - 125	2012-02-11	-	3:2 FCM	1+06 D/S (B)	4147.1	3920.0	1468.1	9.3	HB12-ND-CORE-MC84-QA-20120211	TB
EBA 2012 - 126	2012-02-11	-	3:2 FCM	0+70 D/S (T)	3380.6	3172.0	668.6	8.3	HB12-ND-CORE-MC85-QA-20120211	TB
EBA 2012 - 127	2012-02-11	-	3:2 FCM	0+70 D/S (M)	3326.1	3107.9	659.3	8.9	HB12-ND-CORE-MC86-QA-20120211	TB
EBA 2012 - 128	2012-02-11	-	3:2 FCM	0+70 D/S (B)	3545.1	3306.1	665.1	9.0	HB12-ND-CORE-MC87-QA-20120211	TB
EBA 2012 - 129	2012-02-11	-	3:2 FCM	0+55 CL (T)	3488.5	3285.5	508.6	7.3	HB12-ND-CORE-MC88-QA-20120211	EP
EBA 2012 - 130	2012-02-11	-	3:2 FCM	0+55 CL (M)	3696.1	3477.1	511.3	7.4	HB12-ND-CORE-MC89-QA-20120211	EP
EBA 2012 - 131	2012-02-11	-	3:2 FCM	0+55 CL (B)	3302.2	3097.7	514.8	7.9	HB12-ND-CORE-MC90-QA-20120211	EP
EBA 2012 - 132	2012-02-12	36	3:2 FCM	Chute	3773.9	3506.3	525.2	9.0	HB12-FCP-CORE-MC91-QA-20120212	TB
EBA 2012 - 134	2012-02-12	36	3:2 FCM	Chute	3275.1	3050.9	515.5	8.8	HB12-FCP-CORE-MC92-QA-20120212	TB
EBA 2012 - 135	2012-02-12	36	3:2 FCM	Chute	3456.5	3230.4	656.4	8.8	HB12-FCP-CORE-MC93-QA-20120212	TB
EBA 2012 - 136	2012-02-12	36	3:2 FCM	Chute	3736.8	3502.2	657.0	8.2	HB12-FCP-CORE-MC94-QA-20120212	TB
EBA 2012 - 140	2012-02-13	34	3:2 FCM	Chute	3865.6	3603.5	511.4	8.5	HB12-FCP-CORE-MC95-QA-20120213	TB
EBA 2012 - 141	2012-02-13	37	3:2 FCM	Chute	3655.2	3403.1	515.3	8.7	HB12-FCP-CORE-MC96-QA-20120213	TB
EBA 2012 - 143	2012-02-13	34	3:2 FCM	Chute	3581.9	3337.5	665.0	9.1	HB12-FCP-CORE-MC97-QA-20120213	TB
EBA 2012 - 144	2012-02-13	34	3:2 FCM	Chute	3908.0	3625.1	662.6	9.5	HB12-FCP-CORE-MC98-QA-20120213	TB
EBA 2012 - 145	2012-02-13	34	3:2 FCM	Chute	3178.6	2943.3	657.1	10.3	HB12-FCP-CORE-MC99-QA-20120213	TB
EBA 2012 - 146	2012-02-13	30	3:2 FCM	Chute	4138.4	3822.4	656.6	10.0	HB12-FCP-CORE-MC100-QA-20120213	TB
EBA 2012 - 147	2012-02-13	-	5 mm Minus FCM	Crusher	11860.4	11773.0	1460.6	0.8	HB12-CR-CORE-MC101-QA-20120213	TB
EBA 2012 - 149	2012-02-13	-	5 mm Minus FCM	Crusher	2397.2	2362.8	516.8	1.9	HB12-CR-CORE-MC102-QA-20120213	TB
EBA 2012 - 151	2012-02-13	-	5 mm Minus FCM	Crusher	2109.2	2066.3	526.3	2.8	HB12-CR-CORE-MC103-QA-20120213	TB
EBA 2012 - 153	2012-02-13	-	5 mm Minus FCM	Crusher	2754.8	2701.9	509.7	2.4	HB12-CR-CORE-MC104-QA-20120213	TB

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 155	2012-02-14	-	5 mm Minus FCM	Crusher	2511.3	2470.5	514.9	2.1	HB12-CR-CORE-MC105-QA-20120214	TB
EBA 2012 - 158	2012-02-14	-	5 mm Minus FCM	Crusher	2860.2	2837.9	511.6	1.0	HB12-CR-CORE-MC106-QA-20120214	TB
EBA 2012 - 160	2012-02-14	-	5 mm Minus FCM	Crusher	3013.5	2996.9	508.1	0.7	HB12-CR-CORE-MC107-QA-20120214	TB
EBA 2012 - 162	2012-02-14	-	5 mm Minus FCM	Crusher	2938.1	2915.7	515.5	0.9	HB12-CR-CORE-MC108-QA-20120214	TB
EBA 2012 - 164	2012-02-15	32	5 mm Minus FCM	Chute	3775.7	3482.5	525.2	9.9	HB12-FCP-CORE-MC109-QA-20120215	TB
EBA 2012 - 165	2012-02-15	34	5 mm Minus FCM	Chute	4094.2	3764.9	508.5	10.1	HB12-FCP-CORE-MC110-QA-20120215	TB
EBA 2012 - 166	2012-02-15	32	5 mm Minus FCM	Chute	3007.6	2816.6	511.5	8.3	HB12-FCP-CORE-MC111-QA-20120215	TB
EBA 2012 - 167	2012-02-15	30	5 mm Minus FCM	Chute	3639.8	3408.8	514.8	8.0	HB12-FCP-CORE-MC112-QA-20120215	TB
EBA 2012 - 169	2012-02-15	33	5 mm Minus FCM	Chute	3685.5	3467.9	665.0	7.8	HB12-FCP-CORE-MC113-QA-20120215	TB
EBA 2012 - 170	2012-02-15	-	5 mm Minus FCM	Crusher	2736.2	2711.4	657.3	1.2	HB12-CR-CORE-MC114-QA-20120215	TB
EBA 2012 - 173		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC115-QA-20120215	
EBA 2012 - 174		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC116-QA-20120215	
EBA 2012 - 175		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC117-QA-20120215	
EBA 2012 - 176		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC118-QA-20120215	
EBA 2012 - 177		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC119-QA-20120215	
EBA 2012 - 178		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC120-QA-20120215	
EBA 2012 - 179		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC121-QA-20120215	
EBA 2012 - 180		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC122-QA-20120215	
EBA 2012 - 181		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC123-QA-20120216	
EBA 2012 - 182		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC124-QA-20120216	
EBA 2012 - 183		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC125-QA-20120216	
EBA 2012 - 184		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC126-QA-20120216	
EBA 2012 - 185		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC127-QA-20120216	
EBA 2012 - 186		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-FCP-TEST-MC128-QA-20120216	
EBA 2012 - 188		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC129-QA-20120216	
EBA 2012 - 189		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC130-QA-20120216	
EBA 2012 - 190		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC131-QA-20120216	
EBA 2012 - 191		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC132-QA-20120216	
EBA 2012 - 192		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC133-QA-20120216	
EBA 2012 - 193		DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE							HB12-CORE-TEST-MC134-QA-20120216	
EBA 2012 - 198	2012-02-17	41	5 mm Minus FCM	Chute	3747.5	3426.6	657.1	11.6	HB12-FCP-CORE-MC135-QA-20120217	TB
EBA 2012 - 200	2012-02-17	39	5 mm Minus FCM	Chute	3433.5	3137.6	517.3	11.3	HB12-FCP-CORE-MC136-QA-20120217	TB
EBA 2012 - 201	2012-02-17	38	5 mm Minus FCM	Chute	3705.5	3397.9	657.2	11.2	HB12-FCP-CORE-MC137-QA-20120217	TB
EBA 2012 - 204	2012-02-17	-	5 mm Minus FCM	0+93 D/S	6148.5	5667.1	2007.4	13.2	HB12-ND-CORE-MC138-QA-20120217	TB
EBA 2012 - 205	2012-02-17	-	5 mm Minus FCM	0+86 D/S	5782.1	5383.4	2168.2	12.4	HB12-ND-CORE-MC139-QA-20120217	TB
EBA 2012 - 206	2012-02-17	-	5 mm Minus FCM	1+15 D/S	3870.1	3541.6	663.4	11.4	HB12-ND-CORE-MC140-QA-20120217	TB
EBA 2012 - 207	2012-02-17	-	5 mm Minus FCM	1+00 D/S	3895.7	3511.1	665.3	13.5	HB12-ND-CORE-MC141-QA-20120217	TB
EBA 2012 - 208	2012-02-18	-	5 mm Minus FCM	Crusher	2628.5	2586.4	508.1	2.0	HB12-CR-CORE-MC142-QA-20120218	TB
EBA 2012 - 210	2012-02-18	33	5 mm Minus FCM	Chute	3498.4	3188.4	515.6	11.6	HB12-FCP-CORE-MC143-QA-20120218	TB
EBA 2012 - 211	2012-02-18	37	5 mm Minus FCM	Chute	3630.5	3315.5	511.7	11.2	HB12-FCP-CORE-MC144-QA-20120218	TB
EBA 2012 - 212	2012-02-18	37	5 mm Minus FCM	Chute	3475.7	3172.8	514.6	11.4	HB12-FCP-CORE-MC145-QA-20120218	TB
EBA 2012 - 213	2012-02-18	37	5 mm Minus FCM	Chute	3363.4	3088.3	525.0	10.7	HB12-FCP-CORE-MC146-QA-20120218	TB
EBA 2012 - 214	2012-02-18	-	5 mm Minus FCM	1+15 U/S	4474.6	4071.5	663.6	11.8	HB12-ND-CORE-MC147-QA-20120218	TB
EBA 2012 - 215	2012-02-18	-	5 mm Minus FCM	1+02 U/S	4672.7	4231.4	657.8	12.3	HB12-ND-CORE-MC148-QA-20120218	TB
EBA 2012 - 216	2012-02-18	-	5 mm Minus FCM	0+89 U/S	3643.5	3363.5	665.1	10.4	HB12-ND-CORE-MC149-QA-20120218	TB
EBA 2012 - 217	2012-02-18	-	5 mm Minus FCM	0+78 U/S	4093.3	3739.0	657.6	11.5	HB12-ND-CORE-MC150-QA-20120218	TB
EBA 2012 - 218	2012-02-18	-	5 mm Minus FCM	0+72 D/S	3800.4	3442.0	508.4	12.2	HB12-ND-CORE-MC151-QA-20120218	TB
EBA 2012 - 220	2012-02-18	-	5 mm Minus FCM	Crusher	3116.2	3078.7	657.2	1.5	HB12-CR-CORE-MC152-QA-20120218	TB
EBA 2012 - 222	2012-02-19	-	5 mm Minus FCM	Crusher	3678.4	3659.1	665.1	0.6	HB12-CR-CORE-MC153-QA-20120219	TB
EBA 2012 - 224	2012-02-19	34	5 mm Minus FCM	Chute	2757.0	2531.7	525.1	11.2	HB12-FCP-CORE-MC154-QA-20120219	TB
EBA 2012 - 226	2012-02-19	36	5 mm Minus FCM	Chute	3196.0	2927.9	507.9	11.1	HB12-FCP-CORE-MC155-QA-20120219	TB
EBA 2012 - 227	2012-02-19	-	5 mm Minus FCM	1+28 D/S	4048.1	3634.7	515.3	13.3	HB12-ND-CORE-MC156-QA-20120219	TB

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 228	2012-02-19	-	5 mm Minus FCM	1+11 D/S	3760.4	3398.1	511.4	12.6	HB12-ND-CORE-MC157-QA-20120219	TB
EBA 2012 - 229	2012-02-19	-	5 mm Minus FCM	0+98 D/S	3541.6	3214.9	514.4	12.1	HB12-ND-CORE-MC158-QA-20120219	TB
EBA 2012 - 230	2012-02-19	34	5 mm Minus FCM	Chute	2479.9	2299.6	663.0	11.0	HB12-FCP-CORE-MC159-QA-20120219	TB
EBA 2012 - 231	2012-02-19	34	5 mm Minus FCM	Chute	3539.6	3258.2	657.8	10.8	HB12-FCP-CORE-MC160-QA-20120219	TB
EBA 2012 - 232	2012-02-19	-	5 mm Minus FCM	1+60 D/S	6002.0	5482.1	1467.5	13.0	HB12-ND-CORE-MC161-QA-20120219	TB
EBA 2012 - 237	2012-02-20	37	5 mm Minus FCM	Chute	3726.8	3435.2	525.1	10.0	HB12-FCP-CORE-MC162-QA-20120220	TB
EBA 2012 - 238	2012-02-20	-	5 mm Minus FCM	1+15 U/S	3254.3	2980.4	508.4	11.1	HB12-ND-CORE-MC163-QA-20120220	TB
EBA 2012 - 239	2012-02-20	-	5 mm Minus FCM	1+08 U/S	3384.7	3107.3	515.3	10.7	HB12-ND-CORE-MC164-QA-20120220	TB
EBA 2012 - 240	2012-02-20	37	5 mm Minus FCM	Chute	3710.0	3420.8	662.5	10.5	HB12-FCP-CORE-MC165-QA-20120220	TB
EBA 2012 - 242	2012-02-20	35	5 mm Minus FCM	Chute	3836.6	3535.2	665.2	10.5	HB12-FCP-CORE-MC166-QA-20120220	TB
EBA 2012 - 243	2012-02-20	34	5 mm Minus FCM	Chute	3863.5	3552.1	656.8	10.8	HB12-FCP-CORE-MC167-QA-20120220	TB
EBA 2012 - 244	2012-02-20	-	5 mm Minus FCM	0+90 U/S	3828.1	3505.9	511.3	10.8	HB12-ND-CORE-MC168-QA-20120220	TB
EBA 2012 - 245	2012-02-20	-	5 mm Minus FCM	0+80 D/S	4550.4	4215.4	1458.9	12.2	HB12-ND-CORE-MC169-QA-20120220	TB
EBA 2012 - 246	2012-02-20	-	5 mm Minus FCM	0+65 D/S	3446.8	3257.7	1459.3	10.5	HB12-ND-CORE-MC170-QA-20120220	TB
EBA 2012 - 249	2012-02-21	34	5 mm Minus FCM	Chute	2140.7	1992.3	525.1	10.1	HB12-FCP-CORE-MC171-QA-20120221	TB
EBA 2012 - 251	2012-02-21	37	5 mm Minus FCM	Chute	3623.3	3337.3	656.9	10.7	HB12-FCP-CORE-MC172-QA-20120221	TB
EBA 2012 - 252	2012-02-21	36	5 mm Minus FCM	Chute	3722.4	3439.8	662.7	10.2	HB12-FCP-CORE-MC173-QA-20120221	TB
EBA 2012 - 253	2012-02-21	-	5 mm Minus FCM	1+10 D/S	3284.7	3015.7	515.3	10.8	HB12-ND-CORE-MC174-QA-20120221	TB
EBA 2012 - 254	2012-02-21	-	5 mm Minus FCM	1+25 U/S	3534.1	3210.5	508.1	12.0	HB12-ND-CORE-MC175-QA-20120221	TB
EBA 2012 - 255	2012-02-21	36	5 mm Minus FCM	Chute	3993.2	3677.2	665.2	10.5	HB12-FCP-CORE-MC176-QA-20120221	TB
EBA 2012 - 256	2012-02-21	-	5 mm Minus FCM	1+45 D/S	3177.2	2906.3	511.7	11.3	HB12-ND-CORE-MC177-QA-20120221	TB
EBA 2012 - 257	2012-02-21	-	5 mm Minus FCM	1+70 CL	2546.3	2317.3	514.6	12.7	HB12-ND-CORE-MC178-QA-20120221	TB
EBA 2012 - 263	2012-02-22	37	5 mm Minus FCM	Chute	3780.1	3501.2	665.2	9.8	HB12-FCP-CORE-MC179-QA-20120222	TB
EBA 2012 - 265	2012-02-22	37	5 mm Minus FCM	Chute	3911.3	3620.7	662.7	9.8	HB12-FCP-CORE-MC180-QA-20120222	TB
EBA 2012 - 266	2012-02-22	37	5 mm Minus FCM	Chute	3908.4	3623.3	656.8	9.6	HB12-FCP-CORE-MC181-QA-20120222	TB
EBA 2012 - 267	2012-02-22	37	5 mm Minus FCM	Chute	2948.5	2747.1	657.8	9.6	HB12-FCP-CORE-MC182-QA-20120222	TB
EBA 2012 - 269	2012-02-22	-	5 mm Minus FCM	1+08 U/S	3481.8	3195.6	525.2	10.7	HB12-ND-CORE-MC183-QA-20120222	TB
EBA 2012 - 270	2012-02-22	-	5 mm Minus FCM	0+95 D/S	3388.1	3102.1	515.4	11.1	HB12-ND-CORE-MC184-QA-20120222	TB
EBA 2012 - 271	2012-02-22	36	5 mm Minus FCM	Chute	3791.8	3491.0	508.1	10.1	HB12-FCP-CORE-MC185-QA-20120222	TB
EBA 2012 - 272	2012-02-22	-	5 mm Minus FCM	0+75 U/S	4214.9	3872.6	520.2	10.2	HB12-ND-CORE-MC186-QA-20120222	TB
EBA 2012 - 273	2012-02-22	-	5 mm Minus FCM	0+70 D/S	2969.7	2737.0	516.2	10.5	HB12-ND-CORE-MC187-QA-20120222	TB
EBA 2012 - 274	2012-02-22	33	5 mm Minus FCM	Chute	4543.8	4191.0	668.9	10.0	HB12-FCP-CORE-MC188-QA-20120222	TB
EBA 2012 - 276	2012-02-22	-	5 mm Minus FCM	1+25 U/S	4124.1	3794.3	660.0	10.5	HB12-ND-CORE-MC189-QA-20120222	TB
EBA 2012 - 277	2012-02-22	33	5 mm Minus FCM	Chute	4326.6	3993.3	658.8	10.0	HB12-FCP-CORE-MC190-QA-20120222	TB
EBA 2012 - 278	2012-02-22	-	5 mm Minus FCM	1+25 CL	4137.4	3808.2	664.2	10.5	HB12-ND-CORE-MC191-QA-20120222	TB
EBA 2012 - 279	2012-02-22	35	5 mm Minus FCM	Chute	4217.0	3872.4	525.6	10.3	HB12-FCP-CORE-MC192-QA-20120222	TB
EBA 2012 - 282	2012-02-22	-	5 mm Minus FCM	1+30 D/S	13940.4	12675.5	1468.6	11.3	HB12-ND-CORE-MC193-QA-20120222	TB
EBA 2012 - 289	2012-02-24	32	5 mm Minus FCM	Chute	2568.6	2398.2	666.4	9.8	HB12-FCP-CORE-MC194-QA-20120224	TB
EBA 2012 - 290	2012-02-24	-	5 mm Minus FCM	1+30 U/S	3460.0	3206.6	665.3	10.0	HB12-ND-CORE-MC195-QA-20120224	TB
EBA 2012 - 291	2012-02-24	-	5 mm Minus FCM	1+20 U/S	2938.0	2725.7	660.0	10.3	HB12-ND-CORE-MC196-QA-20120224	TB
EBA 2012 - 292	2012-02-24	33	5 mm Minus FCM	Chute	2718.3	2540.3	656.8	9.5	HB12-FCP-CORE-MC197-QA-20120224	TB
EBA 2012 - 293	2012-02-24	-	5 mm Minus FCM	1+08 U/S	3248.4	3011.1	515.0	9.5	HB12-ND-CORE-MC198-QA-20120224	TB
EBA 2012 - 294	2012-02-24	-	5 mm Minus FCM	1+00 D/S	2781.9	2584.7	508.4	9.5	HB12-ND-CORE-MC199-QA-20120224	TB
EBA 2012 - 295	2012-02-24	27	5 mm Minus FCM	Chute	1753.0	1595.0	10.0	10.0	HB12-FCP-CORE-MC200-QA-20120224	TB
EBA 2012 - 296	2012-02-24	32	5 mm Minus FCM	Chute	1297.0	1176.1	10.1	10.4	HB12-FCP-CORE-MC201-QA-20120224	TB
EBA 2012 - 298	2012-02-24	-	5 mm Minus FCM	0+79 D/S	4038.7	3727.9	665.8	10.1	HB12-ND-CORE-MC202-QA-20120224	TB
EBA 2012 - 299	2012-02-24	-	5 mm Minus FCM	0+70 U/S	4117.6	3810.9	663.4	9.7	HB12-ND-CORE-MC203-QA-20120224	TB
EBA 2012 - 307	2012-02-26	32	5 mm Minus FCM	Chute	3959.5	3656.0	508.3	9.6	HB12-FCP-CORE-MC204-QA-20120226	JO
EBA 2012 - 308	2012-02-26	-	5 mm Minus FCM	1+10 CL	3413.6	3140.3	657.1	11.0	HB12-ND-CORE-MC205-QA-20120226	JO
EBA 2012 - 309	2012-02-26	-	5 mm Minus FCM	0+90 U/S	3758.1	3465.3	665.4	10.5	HB12-ND-CORE-MC206-QA-20120226	JO
EBA 2012 - 310	2012-02-26	-	5 mm Minus FCM	0+85 CL	3555.2	3287.0	662.9	10.2	HB12-ND-CORE-MC207-QA-20120226	JO
EBA 2012 - 311	2012-02-26	32	5 mm Minus FCM	Chute	3633.2	3351.8	525.2	10.0	HB12-FCP-CORE-MC208-QA-20120226	JO

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 312	2012-02-26	-	5 mm Minus FCM	0+75 D/S	4129.4	3810.4	658.1	10.1	HB12-ND-CORE-MC209-QA-20120226	JO
EBA 2012 - 313	2012-02-26	32	5 mm Minus FCM	Chute	4373.5	4021.4	511.5	10.0	HB12-FCP-CORE-MC210-QA-20120226	JO
EBA 2012 - 314	2012-02-26	-	5 mm Minus FCM	0+45 D/S	3763.6	3461.6	514.7	10.2	HB12-ND-CORE-MC211-QA-20120226	JO
EBA 2012 - 319	2012-02-27	30	5 mm Minus FCM	Chute	4454.3	4100.3	656.9	10.3	HB12-FCP-CORE-MC212-QA-20120227	JO
EBA 2012 - 320	2012-02-27	-	5 mm Minus FCM	1+93 CL	4790.6	4420.8	657.9	9.8	HB12-ND-CORE-MC213-QA-20120227	JO
EBA 2012 - 321	2012-02-27	38	5 mm Minus FCM	Chute	4727.1	4365.5	662.8	9.8	HB12-FCP-CORE-MC214-QA-20120227	JO
EBA 2012 - 322	2012-02-27	-	5 mm Minus FCM	1+74 U/S	4218.1	3876.8	668.4	10.6	HB12-ND-CORE-MC215-QA-20120227	JO
EBA 2012 - 324	2012-02-27	32	5 mm Minus FCM	Chute	4768.2	4380.1	525.3	10.1	HB12-FCP-CORE-MC216-QA-20120227	JO
EBA 2012 - 325	2012-02-27	-	5 mm Minus FCM	1+11 CL	4667.9	4277.2	515.5	10.4	HB12-ND-CORE-MC217-QA-20120227	JO
EBA 2012 - 326	2012-02-27	33	5 mm Minus FCM	Chute	5108.2	4676.7	508.1	10.4	HB12-FCP-CORE-MC218-QA-20120227	JO
EBA 2012 - 327	2012-02-27	-	5 mm Minus FCM	1+04 CL	5207.0	4725.3	511.3	11.4	HB12-ND-CORE-MC219-QA-20120227	JO
EBA 2012 - 328	2012-02-27	-	5 mm Minus FCM	0+90 U/S	1594.4	1431.8	10.9	11.4	HB12-ND-CORE-MC220-QA-20120227	JO
EBA 2012 - 332	2012-02-28	42	5 mm Minus FCM	Chute	4665.3	4303.9	525.0	9.6	HB12-FCP-CORE-MC221-QA-20120228	TB
EBA 2012 - 333	2012-02-28	-	5 mm Minus FCM	1+86 CL	4510.0	4149.5	667.7	10.4	HB12-ND-CORE-MC222-QA-20120228	TB
EBA 2012 - 334	2012-02-28	43	5 mm Minus FCM	Chute	4430.1	4089.6	660.0	9.9	HB12-FCP-CORE-MC223-QA-20120228	TB
EBA 2012 - 335	2012-02-28	-	5 mm Minus FCM	1+41 U/S	4428.9	4095.6	659.3	9.7	HB12-ND-CORE-MC224-QA-20120228	TB
EBA 2012 - 338	2012-02-29	32	5 mm Minus FCM	Chute	4388.0	4014.2	508.9	10.7	HB12-FCP-CORE-MC225-QA-20120229	JO
EBA 2012 - 339	2012-02-29	-	5 mm Minus FCM	1+05 D/S	3762.3	3458.2	511.5	10.3	HB12-ND-CORE-MC226-QA-20120229	JO
EBA 2012 - 340	2012-02-29	-	5 mm Minus FCM	0+95 U/S	3299.1	3053.7	525.6	9.7	HB12-ND-CORE-MC227-QA-20120229	JO
EBA 2012 - 341	2012-02-29	37	5 mm Minus FCM	Chute	5027.6	4625.7	660.4	10.1	HB12-FCP-CORE-MC228-QA-20120229	JO
EBA 2012 - 342	2012-02-29	-	5 mm Minus FCM	0+85 CL	4075.5	3750.3	670.7	10.6	HB12-ND-CORE-MC229-QA-20120229	JO
EBA 2012 - 343	2012-02-29	-	5 mm Minus FCM	0+75 D/S	3614.4	3328.9	664.1	10.7	HB12-ND-CORE-MC230-QA-20120229	JO
EBA 2012 - 344	2012-02-29	41	5 mm Minus FCM	Chute	4676.0	4304.8	663.3	10.2	HB12-FCP-CORE-MC231-QA-20120229	JO
EBA 2012 - 345	2012-02-29	41	5 mm Minus FCM	Chute	1303.4	1180.6	11.4	10.5	HB12-FCP-CORE-MC232-QA-20120229	JO
EBA 2012 - 346	2012-02-29	-	5 mm Minus FCM	0+75 U/S	1884.3	1681.4	10.3	12.1	HB12-ND-CORE-MC233-QA-20120229	JO
EBA 2012 - 349	2012-02-29	37	5 mm Minus FCM	Chute	6285.7	5914.3	2167.1	9.9	HB12-FCP-CORE-MC234-QA-20120229	TB
EBA 2012 - 350	2012-02-29	-	5 mm Minus FCM	1+14 U/S	8218.6	7720.9	2129.8	8.9	HB12-ND-CORE-MC235-QA-20120229	TB
EBA 2012 - 351	2012-02-29	-	5 mm Minus FCM	1+28 CL	6052.7	5646.6	2007.1	11.2	HB12-ND-CORE-MC236-QA-20120229	TB
EBA 2012 - 352	2012-03-01	38	5 mm Minus FCM	Chute	3698.6	3403.1	515.6	10.2	HB12-FCP-CORE-MC237-QA-20120301	JO
EBA 2012 - 353	2012-03-01	-	5 mm Minus FCM	0+45 CL	3944.6	3630.9	508.7	10.0	HB12-ND-CORE-MC238-QA-20120301	JO
EBA 2012 - 355	2012-03-01	36	5 mm Minus FCM	Chute	3656.9	3356.8	514.8	10.6	HB12-FCP-CORE-MC239-QA-20120301	JS
EBA 2012 - 356	2012-03-01	-	5 mm Minus FCM	1+40 U/S	5046.9	4590.3	515.9	11.2	HB12-ND-CORE-MC240-QA-20120301	JS
EBA 2012 - 357	2012-03-01	-	5 mm Minus FCM	1+70 U/S	3899.7	3530.0	508.5	12.2	HB12-ND-CORE-MC241-QA-20120301	JS
EBA 2012 - 360	2012-03-02	37	5 mm Minus FCM	Chute	3604.5	3328.2	514.6	9.8	HB12-FCP-CORE-MC242-QA-20120302	JS
EBA 2012 - 361	2012-03-02	-	5 mm Minus FCM	1+20 U/S	3731.0	3415.4	508.3	10.9	HB12-ND-CORE-MC243-QA-20120302	JS
EBA 2012 - 362	2012-03-02	-	5 mm Minus FCM	0+95 CL	3814.1	3483.6	511.4	11.1	HB12-ND-CORE-MC244-QA-20120302	JS
EBA 2012 - 363	2012-03-02	38	5 mm Minus FCM	Chute	4212.8	3870.8	663.6	10.7	HB12-FCP-CORE-MC245-QA-20120302	JS
EBA 2012 - 364	2012-03-02	-	5 mm Minus FCM	0+80 U/S	6032.7	5651.2	2168.4	11.0	HB12-ND-CORE-MC246-QA-20120302	JS
EBA 2012 - 365	2012-03-02	36	5 mm Minus FCM	Chute	3991.3	3660.9	657.0	11.0	HB12-FCP-CORE-MC247-QA-20120302	JS
EBA 2012 - 366	2012-03-02	35	5 mm Minus FCM	Chute	4549.5	4190.3	666.2	10.2	HB12-FCP-CORE-MC248-QA-20120302	JS
EBA 2012 - 367	2012-03-02	-	5 mm Minus FCM	0+75 CL	5202.9	4900.6	2008.2	10.5	HB12-ND-CORE-MC249-QA-20120302	JS
EBA 2012 - 368	2012-03-02	-	5 mm Minus FCM	0+70 CL	5289.2	4984.7	2174.7	10.8	HB12-ND-CORE-MC250-QA-20120302	JS
EBA 2012 - 372	2012-03-03	37	5 mm Minus FCM	Chute	4774.0	4395.9	518.1	9.8	HB12-FCP-CORE-MC251-QA-20120303	JO
EBA 2012 - 373	2012-03-03	-	5 mm Minus FCM	1+40 U/S	3401.0	3128.9	514.6	10.4	HB12-ND-CORE-MC252-QA-20120303	JO
EBA 2012 - 374	2012-03-03	-	5 mm Minus FCM	1+60 U/S	3639.2	3332.7	508.2	10.9	HB12-ND-CORE-MC253-QA-20120303	JO
EBA 2012 - 377	2012-03-04	29	5 mm Minus FCM	Chute	1664.9	1512.7	12.1	10.1	HB12-FCP-CORE-MC254-QA-20120304	JO
EBA 2012 - 378	2012-03-04	-	5 mm Minus FCM	1+25 U/S	3908.9	3611.2	666.3	10.1	HB12-ND-CORE-MC255-QA-20120304	JO
EBA 2012 - 379	2012-03-04	-	5 mm Minus FCM	1+20 D/S	3565.7	3288.7	668.7	10.6	HB12-ND-CORE-MC256-QA-20120304	JO
EBA 2012 - 380	2012-03-04	31	5 mm Minus FCM	Chute	4398.9	4042.5	658.4	10.5	HB12-FCP-CORE-MC257-QA-20120304	JO
EBA 2012 - 381	2012-03-04	-	5 mm Minus FCM	1+10 CL	4060.2	3735.9	658.9	10.5	HB12-ND-CORE-MC258-QA-20120304	JO
EBA 2012 - 382	2012-03-04	32	5 mm Minus FCM	Chute	4042.7	3714.2	511.5	10.3	HB12-FCP-CORE-MC259-QA-20120304	JO
EBA 2012 - 383	2012-03-04	31	5 mm Minus FCM	Chute	4295.3	3952.4	514.8	10.0	HB12-FCP-CORE-MC260-QA-20120304	JO

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 384	2012-03-04	—	5 mm Minus FCM	1+100 D/S	3585.6	3265.9	515.6	11.6	HB12-ND-CORE-MC261-QA-20120304	JO
EBA 2012 - 385	2012-03-04	32	5 mm Minus FCM	Chute	4067.7	3721.5	508.4	10.8	HB12-FCP-CORE-MC262-QA-20120304	JO
EBA 2012 - 386	2012-03-04	—	5 mm Minus FCM	Chute	4220.5	3862.3	525.9	10.7	HB12-FCP-CORE-MC263-QA-20120304	JO
EBA 2012 - 387	2012-03-04	30	5 mm Minus FCM	Chute	6209.6	5767.8	1457.7	10.3	HB12-FCP-CORE-MC264-QA-20120304	JO
EBA 2012 - 388	2012-03-04	—	5 mm Minus FCM	0+80 D/S	4466.7	4173.6	1458.5	10.8	HB12-ND-CORE-MC265-QA-20120304	JO
EBA 2012 - 389	2012-03-04	40	5 mm Minus FCM	Chute	3538.7	3223.6	511.3	11.6	HB12-FCP-CORE-MC266-QA-20120304	JS
EBA 2012 - 390	2012-03-04	—	5 mm Minus FCM	1+60 U/S	3566.4	3250.0	515.4	11.6	HB12-ND-CORE-MC267-QA-20120304	JS
EBA 2012 - 391	2012-03-04	—	5 mm Minus FCM	1+35 U/S	3368.1	3078.1	514.8	11.3	HB12-ND-CORE-MC268-QA-20120304	JS
EBA 2012 - 397	2012-03-06	36	5 mm Minus FCM	Chute	3507.3	3244.3	664.6	10.2	HB12-FCP-CORE-MC269-QA-20120306	JO
EBA 2012 - 398	2012-03-06	—	5 mm Minus FCM	0+70 U/S	3894.0	3588.6	658.8	10.4	HB12-ND-CORE-MC270-QA-20120306	JO
EBA 2012 - 399	2012-03-06	—	5 mm Minus FCM	0+70 D/S	4267.4	3913.0	658.3	10.9	HB12-ND-CORE-MC271-QA-20120306	JO
EBA 2012 - 400	2012-03-06	34	5 mm Minus FCM	Chute	4363.4	4021.0	667.6	10.2	HB12-FCP-CORE-MC272-QA-20120306	JO
EBA 2012 - 401	2012-03-06	—	5 mm Minus FCM	0+85 D/S	4241.0	3875.2	527.0	10.9	HB12-ND-CORE-MC273-QA-20120306	JO
EBA 2012 - 402	2012-03-06	—	5 mm Minus FCM	0+85 U/S	3920.5	3581.1	515.6	11.1	HB12-ND-CORE-MC274-QA-20120306	JO
EBA 2012 - 403	2012-03-06	44	5 mm Minus FCM	Chute	3153.8	2915.0	517.2	10.0	HB12-FCP-CORE-MC275-QA-20120306	JO
EBA 2012 - 404	2012-03-06	—	5 mm Minus FCM	0+98 CL	1769.8	1586.4	11.4	11.6	HB12-ND-CORE-MC276-QA-20120306	JO
EBA 2012 - 405	2012-03-06	—	5 mm Minus FCM	1+12 D/S	1667.2	1499.0	10.0	11.3	HB12-ND-CORE-MC277-QA-20120306	JO
EBA 2012 - 406	2012-03-06	35	5 mm Minus FCM	Chute	4460.6	4113.3	665.7	10.1	HB12-FCP-CORE-MC278-QA-20120306	JS
EBA 2012 - 407	2012-03-06	—	5 mm Minus FCM	1+28 U/S	4186.3	3845.4	658.7	10.7	HB12-ND-CORE-MC279-QA-20120306	JS
EBA 2012 - 408	2012-03-06	40	5 mm Minus FCM	Chute	4001.9	3663.3	664.2	11.3	HB12-FCP-CORE-MC280-QA-20120306	JS
EBA 2012 - 409	2012-03-06	—	5 mm Minus FCM	1+38 CL	5568.2	5239.0	2157.9	10.7	HB12-ND-CORE-MC281-QA-20120306	JS
EBA 2012 - 410	2012-03-06	—	5 mm Minus FCM	1+50 D/S	4988.5	4708.7	2174.5	11.0	HB12-ND-CORE-MC282-QA-20120306	JS
EBA 2012 - 414	2012-03-08	31	5 mm Minus FCM	Chute	1735.0	1573.9	11.3	10.3	HB12-FCP-CORE-MC283-QA-20120308	JO
EBA 2012 - 415	2012-03-08	—	5 mm Minus FCM	1+85 CL	1888.0	1674.7	11.3	12.8	HB12-ND-CORE-MC284-QA-20120308	JO
EBA 2012 - 416	2012-03-08	—	5 mm Minus FCM	1+73 CL	1804.0	1620.0	11.9	11.4	HB12-ND-CORE-MC285-QA-20120308	JO
EBA 2012 - 417	2012-03-08	41	5 mm Minus FCM	Chute	4959.1	4539.8	667.6	10.8	HB12-FCP-CORE-MC286-QA-20120308	JO
EBA 2012 - 418	2012-03-08	40	5 mm Minus FCM	Chute	4896.6	4491.8	668.2	10.6	HB12-FCP-CORE-MC287-QA-20120308	JO
EBA 2012 - 419	2012-03-08	—	5 mm Minus FCM	1+55 CL	1670.8	1493.9	10.8	11.9	HB12-ND-CORE-MC288-QA-20120308	JO
EBA 2012 - 420	2012-03-08	35	5 mm Minus FCM	Chute	1762.3	1601.6	10.7	10.1	HB12-FCP-CORE-MC289-QA-20120308	JS
EBA 2012 - 421	2012-03-08	—	5 mm Minus FCM	1+35 D/S	4093.0	3878.8	2006.4	11.4	HB12-ND-CORE-MC290-QA-20120308	JS
EBA 2012 - 422	2012-03-08	—	5 mm Minus FCM	1+20 U/S	4006.6	3816.5	2158.4	11.5	HB12-ND-CORE-MC291-QA-20120308	JS
EBA 2012 - 423	2012-03-08	40	5 mm Minus FCM	Chute	4041.3	3689.3	511.5	11.1	HB12-FCP-CORE-MC292-QA-20120308	JS
EBA 2012 - 424	2012-03-08	—	5 mm Minus FCM	1+05 D/S	3922.9	3727.5	2166.2	12.5	HB12-ND-CORE-MC293-QA-20120308	JS
EBA 2012 - 425	2012-03-09	33	5 mm Minus FCM	Chute	1500.7	1361.8	12.5	10.3	HB12-FCP-CORE-MC294-QA-20120309	JO
EBA 2012 - 426	2012-03-09	—	5 mm Minus FCM	0+90 U/S	3671.1	3342.4	515.3	11.6	HB12-ND-CORE-MC295-QA-20120309	JO
EBA 2012 - 427	2012-03-09	36	5 mm Minus FCM	Chute	4092.3	3752.6	526.0	10.5	HB12-FCP-CORE-MC296-QA-20120309	JO
EBA 2012 - 428	2012-03-09	—	5 mm Minus FCM	0+81 CL	3000.3	2737.6	511.5	11.8	HB12-ND-CORE-MC297-QA-20120309	JO
EBA 2012 - 429	2012-03-09	—	5 mm Minus FCM	0+72 U/S	3922.8	3561.3	516.4	11.9	HB12-ND-CORE-MC298-QA-20120309	JO
EBA 2012 - 430	2012-03-09	38	5 mm Minus FCM	Chute	4408.2	4014.7	511.5	11.2	HB12-FCP-CORE-MC299-QA-20120309	JS
EBA 2012 - 431	2012-03-09	—	5 mm Minus FCM	0+60 D/S	3686.0	3522.1	2157.4	12.0	HB12-ND-CORE-MC300-QA-20120309	JS
EBA 2012 - 432	2012-03-09	—	5 mm Minus FCM	0+50 U/S	3530.4	3378.8	2005.8	11.0	HB12-ND-CORE-MC301-QA-20120309	JS
EBA 2012 - 434	2012-03-10	34	5 mm Minus FCM	Chute	4765.6	4322.7	525.7	11.7	HB12-FCP-CORE-MC302-QA-20120310	JO
EBA 2012 - 435	2012-03-10	—	5 mm Minus FCM	0+48 U/S	3362.3	3066.4	517.2	11.6	HB12-ND-CORE-MC303-QA-20120310	JO
EBA 2012 - 436	2012-03-10	—	5 mm Minus FCM	0+27 CL	3040.0	2768.6	515.6	12.0	HB12-ND-CORE-MC304-QA-20120310	JO
EBA 2012 - 437	2012-03-10	40	5 mm Minus FCM	Chute	4486.6	4081.4	515.6	11.4	HB12-FCP-CORE-MC305-QA-20120310	JO
EBA 2012 - 439	2012-03-10	—	5 mm Minus FCM	0+39 D/S	3522.2	3233.5	663.8	11.2	HB12-ND-CORE-MC306-QA-20120310	JO
EBA 2012 - 440	2012-03-10	—	5 mm Minus FCM	1+68 CL	3172.7	2906.1	667.6	11.9	HB12-ND-CORE-MC307-QA-20120310	JO
EBA 2012 - 441	2012-03-10	—	5 mm Minus FCM	1+57 CL	2560.1	2357.6	659.7	11.9	HB12-ND-CORE-MC308-QA-20120310	JO
EBA 2012 - 442	2012-03-10	35	5 mm Minus FCM	Chute	3543.5	3257.7	509.0	10.4	HB12-FCP-CORE-MC309-QA-20120310	JS
EBA 2012 - 443	2012-03-10	—	5 mm Minus FCM	1+25 D/S	3706.9	3545.9	2005.9	10.5	HB12-ND-CORE-MC310-QA-20120310	JS
EBA 2012 - 444	2012-03-10	—	5 mm Minus FCM	1+15 U/S	3968.1	3784.6	2157.5	11.3	HB12-ND-CORE-MC311-QA-20120310	JS
EBA 2012 - 445	2012-03-10	37	5 mm Minus FCM	Chute	3302.7	3040.7	511.3	10.4	HB12-FCP-CORE-MC312-QA-20120310	JS

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 446	2012-03-10	37	5 mm Minus FCM	Chute	3214.5	2953.7	515.5	10.7	HB12-FCP-CORE-MC313-QA-20120310	JS
EBA 2012 - 447	2012-03-10	—	5 mm Minus FCM	1+05 D/S	3755.5	3429.7	666.5	11.8	HB12-ND-CORE-MC314-QA-20120310	JS
EBA 2012 - 448	2012-03-10	—	5 mm Minus FCM	0+95 U/S	3987.3	3649.6	658.9	11.3	HB12-ND-CORE-MC315-QA-20120310	JS
EBA 2012 - 450	2012-03-11	26	5 mm Minus FCM	Chute	4791.3	4358.3	664.5	11.7	HB12-FCP-CORE-MC316-QA-20120311	JO
EBA 2012 - 451	2012-03-11	—	5 mm Minus FCM	0+85 U/S	3320.9	3045.4	521.0	10.9	HB12-ND-CORE-MC317-QA-20120311	JO
EBA 2012 - 452	2012-03-11	—	5 mm Minus FCM	0+72 CL	3472.6	3187.0	685.7	11.4	HB12-ND-CORE-MC318-QA-20120311	JO
EBA 2012 - 453	2012-03-11	—	5 mm Minus FCM	0+63 U/S	3128.4	2883.7	658.0	11.0	HB12-ND-CORE-MC319-QA-20120311	JO
EBA 2012 - 455	2012-03-11	—	5 mm Minus FCM	0+45 U/S	3665.6	3342.0	511.3	11.4	HB12-ND-CORE-MC320-QA-20120311	JS
EBA 2012 - 456	2012-03-12	25	5 mm Minus FCM	Chute	4667.0	4323.4	509.8	9.0	HB12-FCP-CORE-MC321-QA-20120312	JO
EBA 2012 - 457	2012-03-12	—	5 mm Minus FCM	0+25 U/S	3136.0	2888.9	665.1	11.1	HB12-ND-CORE-MC322-QA-20120312	JO
EBA 2012 - 458	2012-03-12	—	5 mm Minus FCM	0+45 U/S	3531.0	3250.3	683.1	10.9	HB12-ND-CORE-MC323-QA-20120312	JO
EBA 2012 - 459	2012-03-12	32	5 mm Minus FCM	Chute	3132.7	2881.1	516.0	10.6	HB12-FCP-CORE-MC324-QA-20120312	JO
EBA 2012 - 461	2012-03-12	—	5 mm Minus FCM	1+56 D/S	3181.6	2925.9	667.7	11.3	HB12-ND-CORE-MC325-QA-20120312	JO
EBA 2012 - 462	2012-03-12	—	5 mm Minus FCM	1+35 U/S	3171.9	2916.4	671.6	11.4	HB12-ND-CORE-MC326-QA-20120312	JO
EBA 2012 - 463	2012-03-12	33	5 mm Minus FCM	Chute	3289.3	3007.2	518.0	11.3	HB12-FCP-CORE-MC327-QA-20120312	JO
EBA 2012 - 464	2012-03-12	—	5 mm Minus FCM	1+10 D/S	3396.0	3104.5	531.2	11.3	HB12-ND-CORE-MC328-QA-20120312	JO
EBA 2012 - 466	2012-03-13	32	5 mm Minus FCM	Chute	4307.8	3941.8	518.1	10.7	HB12-FCP-CORE-MC329-QA-20120313	JO
EBA 2012 - 467	2012-03-13	—	5 mm Minus FCM	0+80 U/S	3662.1	3342.1	508.4	11.3	HB12-ND-CORE-MC330-QA-20120313	JO
EBA 2012 - 468	2012-03-13	—	5 mm Minus FCM	0+76 D/S	3988.5	3643.2	512.3	11.0	HB12-ND-CORE-MC331-QA-20120313	JO
EBA 2012 - 469	2012-03-13	24	5 mm Minus FCM	Chute	4950.0	4538.5	661.5	10.6	HB12-FCP-CORE-MC332-QA-20120313	JO
EBA 2012 - 470	2012-03-13	—	5 mm Minus FCM	0+57 U/S	2944.3	2711.3	662.2	11.4	HB12-ND-CORE-MC333-QA-20120313	JO
EBA 2012 - 473	2012-03-13	30	5 mm Minus FCM	Chute	2821.6	2603.7	525.8	10.5	HB12-FCP-CORE-MC334-QA-20120313	JO
EBA 2012 - 474	2012-03-13	—	5 mm Minus FCM	1+40 CL	5092.7	4792.5	2158.1	11.4	HB12-ND-CORE-MC335-QA-20120313	JS
EBA 2012 - 475	2012-03-13	—	5 mm Minus FCM	1+15 U/S	5140.1	4823.0	2006.1	11.3	HB12-ND-CORE-MC336-QA-20120313	JS
EBA 2012 - 476	2012-03-13	26	5 mm Minus FCM	Chute	4543.0	4133.6	508.3	11.3	HB12-FCP-CORE-MC337-QA-20120313	JS
EBA 2012 - 477	2012-03-13	—	5 mm Minus FCM	0+55 CL	4256.8	4034.8	2169.0	11.9	HB12-ND-CORE-MC338-QA-20120313	JS
EBA 2012 - 478	2012-03-13	—	5 mm Minus FCM	0+32 U/S	4071.3	3873.6	2129.1	11.3	HB12-ND-CORE-MC339-QA-20120313	JS
EBA 2012 - 480	2012-03-15	26	5 mm Minus FCM	Chute	4584.6	4215.8	515.0	10.0	HB12-FCP-CORE-MC340-QA-20120315	JO
EBA 2012 - 481	2012-03-15	—	5 mm Minus FCM	0+95 U/S	2919.6	2693.1	526.9	10.5	HB12-ND-CORE-MC341-QA-20120315	JO
EBA 2012 - 482	2012-03-15	—	5 mm Minus FCM	0+82 U/S	2769.3	2549.8	511.5	10.8	HB12-ND-CORE-MC342-QA-20120315	JO
EBA 2012 - 483	2012-03-15	—	5 mm Minus FCM	0+70 U/S	2811.7	2591.6	512.0	10.6	HB12-ND-CORE-MC343-QA-20120315	JO
EBA 2012 - 484	2012-03-15	39	5 mm Minus FCM	Chute	3120.0	2870.6	660.6	11.3	HB12-FCP-CORE-MC344-QA-20120315	JO
EBA 2012 - 487	2012-03-16	28	5 mm Minus FCM	Chute	4653.1	4222.7	511.5	11.6	HB12-FCP-CORE-MC345-QA-20120316	EP
EBA 2012 - 488	2012-03-16	30	5 mm Minus FCM	Chute	3665.6	3358.8	515.2	10.8	HB12-FCP-CORE-MC346-QA-20120316	EP
EBA 2012 - 490	2012-03-16	—	5 mm Minus FCM	1+35 D/S	5358.6	5029.2	2157.8	11.5	HB12-ND-CORE-MC347-QA-20120316	JS
EBA 2012 - 491	2012-03-16	—	5 mm Minus FCM	1+20 U/S	5129.2	4836.6	2129.3	10.8	HB12-ND-CORE-MC348-QA-20120316	JS
EBA 2012 - 494	2012-03-17	31	5 mm Minus FCM	Chute	4569.9	4346.1	2168.5	10.3	HB12-FCP-CORE-MC349-QA-20120317	JS
EBA 2012 - 495	2012-03-17	32	5 mm Minus FCM	Chute	3217.8	2955.1	515.2	10.8	HB12-FCP-CORE-MC350-QA-20120317	EP
EBA 2012 - 496	2012-03-17	32	5 mm Minus FCM	Chute	4454.0	4063.8	511.7	11.0	HB12-FCP-CORE-MC351-QA-20120317	EP
EBA 2012 - 497	2012-03-17	—	5 mm Minus FCM	1+00 D/S	4995.3	4688.9	2167.8	12.2	HB12-ND-CORE-MC352-QA-20120317	JS
EBA 2012 - 498	2012-03-17	—	5 mm Minus FCM	0+70 U/S	5279.9	4954.1	2169.3	11.7	HB12-ND-CORE-MC353-QA-20120317	JS
EBA 2012 - 499	2012-03-17	31	5 mm Minus FCM	Chute	4070.8	3723.0	515.8	10.8	HB12-FCP-CORE-MC354-QA-20120317	EP
EBA 2012 - 500	2012-03-17	—	5 mm Minus FCM	0+45 U/S	4479.4	4059.9	659.5	12.3	HB12-ND-CORE-MC355-QA-20120317	EP
EBA 2012 - 501	2012-03-17	—	5 mm Minus FCM	0+32 U/S	4597.0	4180.8	659.1	11.8	HB12-ND-CORE-MC356-QA-20120317	EP
EBA 2012 - 505	2012-03-19	30	5 mm Minus FCM	Chute	3608.7	3295.3	514.9	11.3	HB12-FCP-CORE-MC357-QA-20120319	JS
EBA 2012 - 506	2012-03-19	30	5 mm Minus FCM	Chute	4318.1	3915.6	658.1	12.4	HB12-FCP-CORE-MC358-QA-20120319	EP
EBA 2012 - 507	2012-03-19	—	5 mm Minus FCM	1+20 CL	4971.4	4666.1	2167.9	12.2	HB12-ND-CORE-MC359-QA-20120319	JS
EBA 2012 - 508	2012-03-19	—	5 mm Minus FCM	0+90 U/S	4908.2	4589.9	2167.3	13.1	HB12-ND-CORE-MC360-QA-20120319	JS
EBA 2012 - 509	2012-03-19	30	5 mm Minus FCM	Chute	4232.8	3995.2	2006.0	11.9	HB12-FCP-CORE-MC361-QA-20120319	JS
EBA 2012 - 510	2012-03-19	—	5 mm Minus FCM	0+55 D/S	4100.7	3699.5	657.6	13.2	HB12-ND-CORE-MC362-QA-20120319	EP
EBA 2012 - 511	2012-03-19	—	5 mm Minus FCM	0+45 U/S	4584.2	4160.2	671.2	12.2	HB12-ND-CORE-MC363-QA-20120319	EP
EBA 2012 - 513	2012-03-20	26	GCL Cover	Chute	3301.7	3100.4	525.3	7.8	HB12-FCP-COVER-MC364-QA-20120320	JS

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 514	2012-03-20	28	GCL Cover	Chute	4678.4	4478.2	2005.9	8.1	HB12-FCP-COVER-MC365-QA-20120320	JS
EBA 2012 - 515	2012-03-20	27	GCL Cover	Chute	3720.7	3452.8	511.4	9.1	HB12-FCP-COVER-MC366-QA-20120320	JS
EBA 2012 - 516	2012-03-20	-	GCL Cover	1+80 T	4822.5	4598.7	2168.7	9.2	HB12-ND-COVER-MC367-QA-201203120	JS
EBA 2012 - 517	2012-03-20	-	GCL Cover	1+65 S	4858.6	4628.1	2168.0	9.4	HB12-ND-COVER-MC368-QA-201203120	JS
EBA 2012 - 518	2012-03-20	27	GCL Cover	Chute	4634.5	4433.9	2158.9	8.8	HB12-FCP-COVER-MC369-QA-20120320	JS
EBA 2012 - 519	2012-03-20	27	GCL Cover	Chute	4307.3	3985.7	525.2	9.3	HB12-FCP-COVER-MC370-QA-20120320	EP
EBA 2012 - 520	2012-03-20	-	GCL Cover	1+85 B	4247.0	3918.3	508.1	9.6	HB12-ND-COVER-MC371-QA-201203120	EP
EBA 2012 - 521	2012-03-20	-	GCL Cover	1+60 B	3902.4	3578.0	515.5	10.6	HB12-ND-COVER-MC372-QA-201203120	EP
EBA 2012 - 522	2012-03-21	30	5 mm Minus FCM	Chute	4315.0	3921.7	515.4	11.5	HB12-FCP-CORE-MC373-QA-20120321	JS
EBA 2012 - 523	2012-03-21	-	5 mm Minus FCM	0+35 CL	4578.4	4302.0	2167.4	12.9	HB12-ND-CORE-MC374-QA-201203121	JS
EBA 2012 - 524	2012-03-21	-	5 mm Minus FCM	0+50 D/S	4685.8	4407.1	2169.0	12.5	HB12-ND-CORE-MC375-QA-201203121	JS
EBA 2012 - 525	2012-03-21	-	5 mm Minus FCM	0+70 D/S	4592.0	4298.4	2005.9	12.8	HB12-ND-CORE-MC376-QA-201203121	JS
EBA 2012 - 528	2012-03-22	32	GCL Cover	Chute	5343.7	4933.9	516.6	9.3	HB12-FCP-COVER-MC377-QA-20120322	EP
EBA 2012 - 529	2012-03-22	34	GCL Cover	Chute	4618.4	4243.7	511.4	10.0	HB12-FCP-COVER-MC378-QA-20120322	EP
EBA 2012 - 530	2012-03-22	31	GCL Cover	Chute	5385.9	4920.3	525.3	10.6	HB12-FCP-COVER-MC379-QA-20120322	EP
EBA 2012 - 531	2012-03-22	-	GCL Cover	1+80 U/S	6803.9	6018.8	510.8	14.3	HB12-ND-COVER-MC380-QA-20120322	EP
EBA 2012 - 532	2012-03-22	38	GCL Cover	Chute	4805.8	4463.7	663.9	9.0	HB12-FCP-COVER-MC381-QA-20120322	EP
EBA 2012 - 533	2012-03-22	35	GCL Cover	Chute	4521.4	4187.4	515.0	9.1	HB12-FCP-COVER-MC382-QA-20120322	EP
EBA 2012 - 534	2012-03-22	-	GCL Cover	1+55 CL	5251.1	4772.4	661.5	11.6	HB12-ND-COVER-MC383-QA-20120322	EP
EBA 2012 - 537	2012-03-23	28	5 mm Minus FCM	Chute	4257.1	3884.2	525.0	11.1	HB12-FCP-CORE-MC384-QA-20120323	EP
EBA 2012 - 539	2012-03-23	-	5 mm Minus FCM	0+50 CL	6020.2	5333.3	514.7	14.3	HB12-ND-CORE-MC385-QA-20120323	EP
EBA 2012 - 540	2012-03-23	26	GCL Cover	Chute	4820.6	4495.1	508.1	8.2	HB12-FCP-COVER-MC386-QA-20120323	EP
EBA 2012 - 541	2012-03-23	26	GCL Cover	Chute	4699.7	4386.4	510.8	8.1	HB12-FCP-COVER-MC387-QA-20120323	EP
EBA 2012 - 542	2012-03-23	-	GCL Cover	1+35 CL	5939.7	5527.1	663.3	8.5	HB12-ND-COVER-MC388-QA-20120323	EP
EBA 2012 - 543	2012-03-23	26	GCL Cover	Chute	4783.2	4444.8	515.8	8.6	HB12-FCP-COVER-MC389-QA-20120323	EP
EBA 2012 - 544	2012-03-23	-	GCL Cover	1+29 U/S	5245.0	4892.6	658.0	8.3	HB12-ND-COVER-MC390-QA-20120323	EP
EBA 2012 - 546	2012-03-24	28	GCL Cover	Chute	4075.0	3838.4	525.2	7.1	HB12-FCP-COVER-MC391-QA-20120324	EP
EBA 2012 - 548	2012-03-24	27	GCL Cover	Chute	4608.4	4317.3	515.6	7.7	HB12-FCP-COVER-MC392-QA-20120324	EP
EBA 2012 - 549	2012-03-24	27	GCL Cover	Chute	4705.6	4384.2	508.5	8.3	HB12-FCP-COVER-MC393-QA-20120324	EP
EBA 2012 - 550	2012-03-24	27	GCL Cover	Chute	5071.0	4727.3	511.4	8.2	HB12-FCP-COVER-MC394-QA-20120324	EP
EBA 2012 - 551	2012-03-24	-	GCL Cover	1+15 U/S	5810.0	5392.9	663.4	8.8	HB12-ND-COVER-MC395-QA-20120324	EP
EBA 2012 - 552	2012-03-24	-	GCL Cover	1+08 CL	5342.5	4907.2	658.4	10.2	HB12-ND-COVER-MC396-QA-20120324	EP
EBA 2012 - 554	2012-03-25	26	GCL Cover	Chute	4805.4	4516.7	525.2	7.2	HB12-FCP-COVER-MC397-QA-20120325	TB
EBA 2012 - 555	2012-03-25	-	GCL Cover	0+85 U/S	4833.8	4539.4	658.4	7.6	HB12-ND-COVER-MC398-QA-20120325	TB
EBA 2012 - 556	2012-03-25	25	GCL Cover	Chute	3458.4	3253.8	515.5	7.5	HB12-FCP-COVER-MC399-QA-20120325	TB
EBA 2012 - 557	2012-03-25	-	GCL Cover	0+82 CL	4404.8	4143.1	663.6	7.5	HB12-ND-COVER-MC400-QA-20120325	TB
EBA 2012 - 559	2012-03-26	30	5 mm Minus FCM	Chute	4760.6	4404.6	517.5	9.2	HB12-FCP-CORE-MC401-QA-20120326	EP
EBA 2012 - 560	2012-03-26	30	5 mm Minus FCM	Chute	4922.6	4552.0	508.0	9.2	HB12-FCP-CORE-MC402-QA-20120326	EP
EBA 2012 - 561	2012-03-26	-	5 mm Minus FCM	0+60 CL	5068.3	4713.4	511.5	8.4	HB12-ND-CORE-MC403-QA-20120326	EP
EBA 2012 - 562	2012-03-26	-	5 mm Minus FCM	0+62 CL	4650.3	4318.6	515.3	8.7	HB12-ND-CORE-MC404-QA-20120326	EP
EBA 2012 - 563	2012-03-27	28	GCL Cover	Chute	5061.1	4747.9	515.7	7.4	HB12-FCP-COVER-MC405-QA-20120327	TB
EBA 2012 - 564	2012-03-27	27	GCL Cover	Chute	4968.1	4655.7	508.3	7.5	HB12-FCP-COVER-MC406-QA-20120327	TB
EBA 2012 - 565	2012-03-27	-	GCL Cover	0+38 U/S	5183.0	4870.5	511.6	7.2	HB12-ND-COVER-MC407-QA-20120327	TB
EBA 2012 - 566	2012-03-27	-	GCL Cover	0+29 CL	5608.3	5265.7	515.3	7.2	HB12-ND-COVER-MC408-QA-20120327	TB
EBA 2012 - 568	2012-03-30	33	GCL Cover	Chute	4024.6	3787.9	514.6	7.2	HB12-FCP-COVER-MC409-QA-20120330	EP
EBA 2012 - 569	2012-03-30	33	GCL Cover	Chute	3670.7	3465.0	507.8	7.0	HB12-FCP-COVER-MC410-QA-20120330	EP
EBA 2012 - 570	2012-03-30	32	GCL Cover	Chute	3394.1	3201.2	510.5	7.2	HB12-FCP-COVER-MC411-QA-20120330	EP
EBA 2012 - 571	2012-03-30	-	GCL Cover	0+65 D/S	3930.6	3720.7	514.2	6.5	HB12-ND-COVER-MC412-QA-20120330	EP
EBA 2012 - 572	2012-03-30	-	GCL Cover	0+70 U/S	3702.3	3508.6	664.0	6.8	HB12-ND-COVER-MC413-QA-20120330	EP
EBA 2012 - 573	2012-03-30	-	GCL Cover	0+65 U/S	3815.8	3617.4	658.7	6.7	HB12-ND-COVER-MC414-QA-20120330	EP
EBA 2012 - 574	2012-03-31	32	GCL Cover	Chute	3442.7	3247.6	524.5	7.2	HB12-FCP-COVER-MC415-QA-20120331	EP
EBA 2012 - 575	2012-03-31	32	GCL Cover	Chute	4437.1	4168.9	515.6	7.3	HB12-FCP-COVER-MC416-QA-20120331	EP

STATISTIC	Moisture Content (%)
Average	9.9
Minimum	0.6
Maximum	14.3
Standard Deviation	2.0

MOISTURE CONTENT SUMMARY									DORIS NORTH DAM CONSTRUCTION, HOPE BAY	
EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 576	2012-03-31	32	GCL Cover	Chute	4211.6	3939.9	509.7	7.9	HB12-FCP-COVER-MC417-QA-20120331	EP
EBA 2012 - 577	2012-03-31	-	GCL Cover	0+58 D/S	3689.3	3484.5	513.2	6.9	HB12-ND-COVER-MC418-QA-20120331	EP
EBA 2012 - 578	2012-03-31	-	GCL Cover	0+55 CL	3343.2	3174.9	514.8	6.3	HB12-ND-COVER-MC419-QA-20120331	EP
EBA 2012 - 579	2012-03-31	-	GCL Cover	0+45 U/S	4197.1	3932.7	663.7	8.1	HB12-ND-COVER-MC420-QA-20120331	EP

**Moisture Content  
Test Pads**

STATISTIC	Moisture Content (%)
Average	8.4
Minimum	4.7
Maximum	11.4
Standard Deviation	1.9

# MOISTURE CONTENT SUMMARY

# FCM TEST PADS, DORIS NORTH, HOPE BAY

EBA SAMPLE NO.	DATE	TEMPERATURE AT CHUTE (°C)	MATERIAL	LOCATION	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	MOISTURE CONTENT (%)	SRK SAMPLE NO.	TESTED BY
EBA 2012 - 173	2012-02-15	-	5 mm Minus FCM	Test Batch 1	3229.9	3108.9	515.4	4.7	HB12-TEST-CORE-MC115-20120215	TB
EBA 2012 - 174	2012-02-15	-	5 mm Minus FCM	Test Batch 2	3394.2	3253.5	656.7	5.4	HB12-TEST-CORE-MC116-20120215	TB
EBA 2012 - 175	2012-02-15	-	5 mm Minus FCM	Test Batch 3	3210.4	3075.3	662.2	5.6	HB12-TEST-CORE-MC117-20120215	TB
EBA 2012 - 176	2012-02-15	-	5 mm Minus FCM	Test Batch 4	3769.0	3559.6	525.5	6.9	HB12-TEST-CORE-MC118-20120215	TB
EBA 2012 - 177	2012-02-15	-	5 mm Minus FCM	Test Batch 5	3692.4	3484.7	508.2	7.0	HB12-TEST-CORE-MC119-20120215	TB
EBA 2012 - 178	2012-02-15	-	5 mm Minus FCM	Test Batch 6	4100.6	3820.6	511.4	8.5	HB12-TEST-CORE-MC120-20120215	TB
EBA 2012 - 179	2012-02-15	-	5 mm Minus FCM	Test Batch 7	4027.2	3761.2	514.7	8.2	HB12-TEST-CORE-MC121-20120215	TB
EBA 2012 - 180	2012-02-15	-	5 mm Minus FCM	Test Batch 7b	4456.5	4133.0	657.2	9.3	HB12-TEST-CORE-MC122-20120215	TB
EBA 2012 - 181	2012-02-16	-	5 mm Minus FCM	Chute	3944.3	3679.4	656.5	8.8	HB12-FCP-CORE-MC123-210120216	TB
EBA 2012 - 182	2012-02-16	-	5 mm Minus FCM	Chute	3743.3	3524.6	665.0	7.6	HB12-FCP-CORE-MC124-210120216	TB
EBA 2012 - 183	2012-02-16	-	5 mm Minus FCM	Chute	4095.4	3821.7	657.9	8.7	HB12-FCP-CORE-MC125-210120216	TB
EBA 2012 - 184	2012-02-16	-	5 mm Minus FCM	Chute	4068.6	3792.0	662.4	8.8	HB12-FCP-CORE-MC126-210120216	TB
EBA 2012 - 185	2012-02-16	-	5 mm Minus FCM	Chute	8004.4	7334.9	1463.7	11.4	HB12-FCP-CORE-MC127-210120216	TB
EBA 2012 - 186	2012-02-16	-	5 mm Minus FCM	Chute	3688.6	3504.7	1458.8	9.0	HB12-FCP-CORE-MC128-210120216	TB
EBA 2012 - 188	2012-02-16	-	5 mm Minus FCM	Test Batch 13	4551.4	4150.1	526.5	11.1	HB12-TEST-CORE-MC129-20120216	TB
EBA 2012 - 189	2012-02-16	-	5 mm Minus FCM	Test Batch 12	4456.4	4060.9	508.4	11.1	HB12-TEST-CORE-MC130-20120216	TB
EBA 2012 - 190	2012-02-16	-	5 mm Minus FCM	Test Batch 10	4886.7	4481.5	511.8	10.2	HB12-TEST-CORE-MC131-20120216	TB
EBA 2012 - 191	2012-02-16	-	5 mm Minus FCM	Test Batch 9	4497.1	4160.8	515.3	9.2	HB12-TEST-CORE-MC132-20120216	TB
EBA 2012 - 192	2012-02-16	-	5 mm Minus FCM	Test Batch 8	4693.9	4467.0	1475.5	7.6	HB12-TEST-CORE-MC133-20120216	EP
EBA 2012 - 193	2012-02-16	-	5 mm Minus FCM	Test Batch 11	6000.2	5603.1	1461.1	9.6	HB12-TEST-CORE-MC134-20120216	EP

## **Appendix H.4:      Compaction Testing Results (Troxler)**

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This appendix contains data collected using the Troxler Nuclear Density gauge, including:

- Dry Density
- Moisture Content
- Degree of Compaction
- Degree of Saturation

**Compaction Test Results**  
**Dam Core**

# COMPACTION TESTING SUMMARY - KEY TRENCH

SG	CM (core material)	2.90								
	F (fines)	2.88								
	1:2 FCM	2.89								
	1:1 FCM	2.91								
	2:3 FCM	2.89								
MDD	CM (core material)	2230	at 7.5%	Avg.:	2154	11.0%	95.2	92.0		
	F (fines)	2145	at 9.5%	Min.:	1856	6.6%	83.8	48.5		
	1:2 FCM	2255	at 8.4%	Max.:	2322	15.9%	102.8	108.6		
	1:1 FCM	2290	at 8.0%	Stdev.:	65	1.4%	2.5	8.3		
	2:3 FCM	2275	at 9.0%							

# COMPACTION TESTING SUMMARY - KEY TRENCH

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
1	2011-03-01	1+10	U/S	CM	LC Lift 1	Fillet	2146	10.3	96.2	85.0	
2	2011-03-01	1+13	U/S	CM	LC Lift 1	Fillet	2103	7.6	94.3	58.2	
3	2011-03-01	1+17	U/S	CM	LC Lift 1	Fillet	2144	11.8	96.1	97.0	
4	2011-03-01	1+21	U/S	CM	LC Lift 1	Fillet	2130	13.1	95.5	105.1**	
5	2011-03-01	1+25	U/S	CM	LC Lift 1	Fillet	2143	11.0	96.1	90.3	
6	2011-03-01	1+25	U/S	CM	LC Lift 1	Fillet	2138	9.8	95.9	79.7	
7	2011-03-01	1+30	U/S	CM	LC Lift 1	Fillet	2143	12.8	96.1	105.1**	
8	2011-03-01	1+45	U/S	CM	LC Lift 1	Fillet	2124	10.9	95.2	86.5	
9	2011-03-01	1+50	U/S	CM	LC Lift 1	Fillet	2110	10.3	94.6	79.8	
10	2011-03-01	1+17	U/S	CM	LC Lift 1	Fillet	2144	11.8	96.1	97.0	
11	2011-03-01	1+25	U/S	CM	LC Lift 1	Fillet	2143	11.0	96.1	90.3	
12	2011-03-01	1+25	U/S	CM	LC Lift 1	Fillet	2138	9.8	95.9	79.7	
13	2011-03-01	1+45	U/S	CM	LC Lift 1	Fillet	2124	10.9	95.2	86.5	
14	2011-03-01	1+50	U/S	CM	LC Lift 1	Fillet	2110	10.3	94.6	79.8	
15	2011-03-01	1+70	U/S	CM	LC Lift 1	Fillet	2097	13.0	94.0	98.5	
16***	2011-03-02	1+10		CM	LC Lift 1	K.T.	1834	14.3	82.2	71.5	Material removed
17***	2011-03-02	1+10		CM	LC Lift 1	K.T.	1790	15.6	80.3	73.0	Material removed
18	2011-03-03	1+15		CM	LC Lift 1	K.T.	2102	12.1	94.3	92.7	Area not meeting spec
19	2011-03-03	1+15		CM	LC Lift 1	K.T.	1918	11.2	86.0	63.6	Area not meeting spec
20	2011-03-03	1+15		CM	LC Lift 1	K.T.	2141	9.2	96.0	75.6	Area not meeting spec
21	2011-03-03	1+15		CM	LC Lift 1	K.T.	2165	11.0	97.1	93.7	Area not meeting spec
22	2011-03-03	1+25		CM	LC Lift 1	K.T.	2101	12.8	94.2	97.8	Area not meeting spec
23	2011-03-03	1+30		CM	LC Lift 1	K.T.	2129	8.3	95.5	66.5	Area not meeting spec
24	2011-03-03	1+35		CM	LC Lift 1	K.T.	2109	10.1	94.6	78.4	Area not meeting spec
25	2011-03-03	1+40		CM	LC Lift 1	K.T.	2143	10.7	96.1	88.1	Area not meeting spec
26	2011-03-03	1+45		CM	LC Lift 1	K.T.	2092	10.5	93.8	79.2	Area not meeting spec
27	2011-03-03	1+40		CM	LC Lift 1	K.T.	2105	11.3	94.4	86.9	Area not meeting spec
28	2011-03-03	1+45		CM	LC Lift 1	K.T.	2142	10.6	96.1	86.6	Area not meeting spec
29	2011-03-03	1+60		CM	LC Lift 1	K.T.	1978	8.1	88.7	48.5	Area not meeting spec
30	2011-03-03	1+60		CM	LC Lift 1	K.T.	2108	10.2	94.5	78.8	Area not meeting spec
31	2011-03-06	1+30		F	LC Lift 2	K.T.	2138	11.3	99.7	93.4	Trial - only fines
32	2011-03-06	1+30		F	LC Lift 2	K.T.	2097	12.3	97.8	94.9	Trial - only fines
33	2011-03-06	1+30		F	LC Lift 2	K.T.	2068	12.8	96.4	94.0	Trial - only fines
34	2011-03-06	1+35		F	LC Lift 2	K.T.	2071	12.4	96.6	91.1	Trial - only fines
35	2011-03-06	1+35		F	LC Lift 2	K.T.	2072	13.3	96.6	97.5	Trial - only fines
36	2011-03-06	1+55		F	LC Lift 2	K.T.	2018	13.8	94.1	93.0	Trial - only fines
37	2011-03-06	1+55		F	LC Lift 2	K.T.	2111	12.5	98.4	98.9	Trial - only fines
38	2011-03-06	1+55		F	LC Lift 2	K.T.	2056	13.1	95.9	93.7	Trial - only fines
39	2011-03-06	1+60		F	LC Lift 2	K.T.	2037	13.2	95.0	91.8	Trial - only fines
40	2011-03-06	1+60		F	LC Lift 2	K.T.	2033	14.3	94.8	98.3	Trial - only fines
41	2011-03-06	1+60		F	LC Lift 2	K.T.	2027	13.3	94.5	90.6	Trial - only fines
42	2011-03-06	1+70		F	LC Lift 2	K.T.	2122	11.4	98.9	91.6	Trial - only fines
43	2011-03-06	1+70		F	LC Lift 2	K.T.	2205	10.2	102.8	95.7	Trial - only fines
44	2011-03-06	1+70		F	LC Lift 2	K.T.	2040	14.1	95.1	98.3	Trial - only fines
45	2011-03-06	1+55		1:1 FCM	LC Lift 2	K.T.	1920	11.8	83.8	66.7	Trial - less fines On the D/S edge of spread load
46	2011-03-06	1+55		1:1 FCM	LC Lift 2	K.T.	2120	12.7	92.6	99.6	Trial - less fines
47	2011-03-06	1+55		1:1 FCM	LC Lift 2	K.T.	2081	13.6	90.9	99.6	Trial - less fines
48	2011-03-06	1+55		1:1 FCM	LC Lift 2	K.T.	2129	10.1	93.0	80.5	Trial - less fines
49	2011-03-06	1+55		1:1 FCM	LC Lift 2	K.T.	2075	12.0	90.6	87.4	Trial - less fines
50	2011-03-06	1+60		1:1 FCM	LC Lift 2	K.T.	2128	10.6	92.9	84.0	Trial - less fines
51	2011-03-06	1+60		1:1 FCM	LC Lift 2	K.T.	2160	11.1	94.3	93.0	Trial - less fines
52	2011-03-06	1+60		1:1 FCM	LC Lift 2	K.T.	2140	10.6	93.4	85.9	Trial - less fines

**COMPACTION TESTING SUMMARY - KEY TRENCH**

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
53	2011-03-06	1+60		1:1 FCM	LC Lift 2	K.T.	2142	11.1	93.5	90.5	Trial - less fines
54	2011-03-06	1+75		1:1 FCM	LC Lift 2	K.T.	2193	10.3	95.8	91.8	Trial - less fines
55	2011-03-06	1+75		1:1 FCM	LC Lift 2	K.T.	2161	11.6	94.4	98.0	Trial - less fines
56	2011-03-06	1+75		1:1 FCM	LC Lift 2	K.T.	2157	9.6	94.2	80.2	Trial - less fines
57	2011-03-06	1+75		1:1 FCM	LC Lift 2	K.T.	2192	10.3	95.7	91.5	Trial - less fines
58	2011-03-06	1+85		1:1 FCM	LC Lift 2	K.T.	2095	9.3	91.5	69.6	Trial - less fines
59	2011-03-07	1+85		1:1 FCM	LC Lift 2	K.T.	2114	9.4	92.3	72.9	Trial - less fines
60	2011-03-08	1+85		1:1 FCM	LC Lift 2	K.T.	1940	8.6	84.7	50.3	Trial - less fines
61	2011-03-07	0+80	South of peathole	F	LC Lift 1	K.T.	2058	13.1	95.9	92.5	
62	2011-03-07	0+81	South of peathole	F	LC Lift 1	K.T.	2094	12.0	97.6	90.0	
63	2011-03-07	0+75	South of peathole	F	LC Lift 1	K.T.	2052	13.1	95.7	91.2	
64	2011-03-07	0+78	South of peathole	F	LC Lift 1	K.T.	2053	12.7	95.7	88.4	
65	2011-03-07	0+71	South of peathole	F	LC Lift 1	K.T.	2088	13.1	97.3	97.2	
66	2011-03-07	0+65	South of peathole	F	LC Lift 1	K.T.	2095	12.1	97.7	90.7	
67	2011-03-08	1+32	U/S	1:2 FCM	LC Lift 2	Fillet	2175	10.6	96.5	93.5	Dial setting 23.0 - preferred
68	2011-03-08	1+32	U/S	1:2 FCM	LC Lift 2	Fillet	2194	10.8	97.3	98.3	Dial setting 23.0 - preferred
69	2011-03-08	1+32	U/S	1:2 FCM	LC Lift 2	Fillet	2113	10.7	93.7	84.0	Dial setting 23.0 - preferred
70	2011-03-08	1+38	U/S	1:2 FCM	LC Lift 2	Fillet	2216	10.2	98.3	97.0	Dial setting 23.0 - preferred
71	2011-03-08	1+38	U/S	1:2 FCM	LC Lift 2	Fillet	2104	12.2	93.3	94.1	Dial setting 23.0 - preferred
72	2011-03-08	1+38	U/S	1:2 FCM	LC Lift 2	Fillet	2164	10.8	96.0	93.2	Dial setting 23.0 - preferred
73	2011-03-08	1+48	U/S	2:3 FCM	LC Lift 2	Fillet	2129	11.2	93.6	90.9	Dial setting 23.0 - less preferred
74	2011-03-08	1+48	U/S	2:3 FCM	LC Lift 2	Fillet	2120	12.1	93.2	95.9	Dial setting 23.0 - less preferred
75	2011-03-08	1+48	U/S	2:3 FCM	LC Lift 2	Fillet	2102	11.1	92.4	85.3	Dial setting 23.0 - less preferred
76	2011-03-08	1+50	U/S	2:3 FCM	LC Lift 2	Fillet	2136	11.6	93.9	95.0	Dial setting 23.3 - preferred
77	2011-03-08	1+50	U/S	2:3 FCM	LC Lift 2	Fillet	2112	12.2	92.8	95.5	Dial setting 23.3 - preferred
78	2011-03-08	1+50	U/S	2:3 FCM	LC Lift 2	Fillet	2127	11.4	93.5	92.0	Dial setting 23.3 - preferred
79	2011-03-09	Peathole		F	Lift 1	K.T.	1898	15.9	88.5	88.3	Dial setting 27.0
80	2011-03-09	Peathole		F	Lift 1	K.T.	1856	15.3	86.5	80.2	Dial setting 27.0
81	2011-03-11	Peathole		F	Lift 2	K.T.	1972	13.9	91.9	87.0	Concrete vibrator used
82	2011-03-11	Peathole		F	Lift 2	K.T.	1942	13.7	90.5	84.2	Concrete vibrator used
83	2011-03-11	Peathole		F	Lift 2	K.T.	2000	12.8	93.2	83.7	Concrete vibrator used
84	2011-03-11	Peathole		F	Lift 2	K.T.	1987	14.1	92.6	90.0	Concrete vibrator used
85	2011-03-12	Peathole		F	Lift 3	K.T.	2102	10.7	98.0	83.4	Concrete vibrator and roller
86	2011-03-12	Peathole		F	Lift 3	K.T.	2102	10.5	98.0	81.2	Concrete vibrator and roller
87	2011-03-12	Peathole		F	Lift 3	K.T.	2090	11.3	97.4	88.8	Concrete vibrator and roller
88	2011-03-12	0+90		F	LC	K.T.	2057	10.2	95.9	73.4	Material removed
89	2011-03-13	1+58		2:3 FCM	LC Lift 2	K.T.	2132	12.0	93.7	97.7	
90	2011-03-13	1+63		2:3 FCM	LC Lift 2	K.T.	2089	12.2	91.8	91.7	
91	2011-03-13	1+59		2:3 FCM	LC Lift 2	K.T.	2076	12.3	91.3	90.4	
92	2011-03-13	1+55		2:3 FCM	LC Lift 2	K.T.	2070	12.1	91.0	88.3	
93	2011-03-13	1+51		2:3 FCM	LC Lift 2	K.T.	2073	11.8	91.1	89.4	
94	2011-03-13	1+45		2:3 FCM	LC Lift 2	K.T.	2099	12.6	92.3	97.1	
95	2011-03-13	1+40		2:3 FCM	LC Lift 2	K.T.	2121	11.0	93.2	87.2	
96	2011-03-13	1+36		2:3 FCM	LC Lift 2	K.T.	2135	11.4	93.8	93.1	
97	2011-03-13	1+30	D/S	2:3 FCM	LC Lift 2	K.T.	2157	11.0	94.8	93.7	
98	2011-03-13	1+25	D/S	2:3 FCM	LC Lift 2	K.T.	2081	12.6	91.5	93.9	
99	2011-03-13	1+15	D/S	2:3 FCM	LC Lift 1	K.T.	2218	10.1	97.5	96.6	Thin lift (150mm aprox.)
100	2011-03-14	Peathole	East	2:3 FCM	LC Lift 4	K.T.	2097	12.9	92.2	98.2	
101	2011-03-14	Peathole	West	2:3 FCM	LC Lift 4	K.T.	2133	11.1	93.8	90.5	

## COMPACTION TESTING SUMMARY - KEY TRENCH

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
102	2011-03-14	Peathole	Center	2:3 FCM	LC Lift 4	K.T.	2087	12.6	91.7	94.6	
103	2011-03-14	1+68	D/S	2:3 FCM	LC Lift 3	K.T.	2166	12.1	95.2	96.0	
104	2011-03-14	1+62	D/S	2:3 FCM	LC Lift 3	K.T.	2154	11.8	94.7	98.4	
105	2011-03-14	1+55	D/S	2:3 FCM	LC Lift 3	K.T.	2162	11.4	95.0	98.4	
106	2011-03-14	1+50	D/S	2:3 FCM	LC Lift 3	K.T.	2154	10.8	94.7	91.3	
107	2011-03-14	1+40	D/S	2:3 FCM	LC Lift 3	K.T.	2093	11.9	92.0	90.2	
108	2011-03-14	1+32	D/S	2:3 FCM	LC Lift 3	K.T.	2136	11.9	93.9	97.7	
109	2011-03-14	1+25	D/S	2:3 FCM	LC Lift 3	K.T.	2106	11.8	92.6	91.9	
110	2011-03-14	1+12	D/S	2:3 FCM	LC Lift 1	K.T.	2086	13.4	91.7	98.9	
111	2011-03-15	0+75	U/S	2:3 FCM	LC Lift 2	K.T.	2134	11.5	93.8	93.8	44°C, 43°C at FCP chute
112	2011-03-15	0+62	U/S	2:3 FCM	LC Lift 2	K.T.	2142	12.0	94.2	99.3	39°C, 30°C, 36°C after dumping
113	2011-03-15	0+65	U/S	2:3 FCM	LC Lift 2	K.T.	2087	12.7	91.7	95.4	19°C after spreading
114	2011-03-15	0+75	D/S	2:3 FCM	LC Lift 2	K.T.	2145	11.9	94.3	99.0	
115	2011-03-15	0+70	D/S	2:3 FCM	LC Lift 2	K.T.	2118	11.3	93.1	89.5	
116	2011-03-15	0+90	D/S	2:3 FCM	LC Lift 1	K.T.	2106	12.1	92.6	94.5	
117	2011-03-15	0+87	D/S	2:3 FCM	LC Lift 1	K.T.	2160	12.0	94.9	97.7	
118	2011-03-15	0+85	D/S	2:3 FCM	LC Lift 1	K.T.	2107	12.2	92.6	94.8	
119	2011-03-15	0+85	U/S	2:3 FCM	LC Lift 5	K.T.	2127	11.8	93.5	95.5	
120	2011-03-16	1+35	D/S	2:3 FCM	LC Lift 3	K.T.	2262	8.1	99.4	84.8	Too dry - stopped
121	2011-03-17	1+40	D/S	2:3 FCM	LC Lift 3	K.T.	2102	12.9	92.4	98.5	
122	2011-03-17	1+45	D/S	2:3 FCM	LC Lift 3	K.T.	2131	12.0	93.7	96.6	
123	2011-03-17	1+50	D/S	2:3 FCM	LC Lift 3	K.T.	2238	10.0	98.4	97.4	
124	2011-03-17	1+50	U/S	2:3 FCM	LC Lift 3	K.T.	2142	10.5	94.2	85.8	
125	2011-03-17	1+52	Centerline	2:3 FCM	LC Lift 3	K.T.	2231	10.0	98.1	96.5	
126	2011-03-17	1+57	D/S	2:3 FCM	LC Lift 3	K.T.	2095	12.4	92.1	93.5	
127	2011-03-17	1+65	Centerline	2:3 FCM	LC Lift 3	K.T.	2200	10.8	96.7	97.9	
128	2011-03-17	Peathole	D/S	2:3 FCM	LC Lift 6	K.T.	2245	9.6	98.7	95.6	
129	2011-03-17	Peathole	D/S	2:3 FCM	LC Lift 6	K.T.	2225	10.3	97.8	98.7	
130	2011-03-17	Peathole	Centerline	2:3 FCM	LC Lift 6	K.T.	2108	11.9	92.7	92.3	
131	2011-03-17	Peathole	U/S	2:3 FCM	LC Lift 6	K.T.	2137	11.2	93.9	90.9	
132	2011-03-17	1+15	U/S	2:3 FCM	LC Lift 2	K.T.	2225	10.0	97.8	95.3	
133	2011-03-17	0+55	Centerline	F	LC Lift 1	K.T.	2049	14.0	95.5	99.7	Concrete Vibrator.
134	2011-03-17	0+55	U/S	F	LC Lift 1	K.T.	2039	14.2	95.1	99.0	Concrete Vibrator.
135	2011-03-17	0+60	U/S	F	LC Lift 1	K.T.	2070	15.3	96.5	92.4	Concrete Vibrator.
136	2011-03-17	0+65	U/S	2:3 FCM	LC Lift 2	K.T.	2244	10.0	98.6	99.1	
137	2011-03-17	0+70	U/S	2:3 FCM	LC Lift 3	K.T.	2222	10.6	97.7	98.8	
138	2011-03-17	0+65	D/S	2:3 FCM	LC Lift 3	K.T.	2162	12.5	95.0	99.6	
139	2011-03-17	0+70	D/S	2:3 FCM	LC Lift 3	K.T.	2229	10.9	98.0	99.2	
140	2011-03-17	0+60	D/S	2:3 FCM	LC Lift 3	K.T.	2080	11.3	91.4	83.0	
141	2011-03-17	0+70	D/S	2:3 FCM	LC Lift 3	K.T.	2138	11.3	94.0	92.0	
142	2011-03-17	0+65	D/S	2:3 FCM	LC Lift 3	K.T.	2184	12.0	96.0	99.2	
143	2011-03-17	0+55	U/S	2:3 FCM	LC Lift 1	K.T.	2145	10.4	94.3	85.4	
144	2011-03-17	0+45	D/S	2:3 FCM	LC Lift 2	K.T.	2298	8.7	101.0	96.1	
145	2011-03-18	0+65	U/S	2:3 FCM	LC Lift 4	K.T.	2103	12.9	92.4	98.5	Dial setting 38
146	2011-03-18	0+60	D/S	2:3 FCM	LC Lift 4	K.T.	2096	11.6	92.1	87.7	
147	2011-03-18	0+40	D/S	2:3 FCM	LC Lift 1	K.T.	2130	12.2	93.6	98.8	Dial setting 36.5
148	2011-03-19	1+00	D/S	2:3 FCM	LC Lift 2	K.T.	2086	11.8	91.7	87.9	Dial setting 28.5
149	2011-03-19	0+90	D/S	2:3 FCM	LC Lift 2	K.T.	2061	12.1	90.6	86.2	
150	2011-03-19	1+20	D/S	2:3 FCM	LC Lift 5	K.T.	2031	12.8	89.3	86.7	
151	2011-03-19	Peathole	D/S	2:3 FCM	LC Lift 7	K.T.	2095	12.2	92.1	92.1	
152	2011-03-19	Peathole	D/S	2:3 FCM	LC Lift 7	K.T.	2205	10.8	96.9	99.2	
153	2011-03-19	Peathole	Centerline	2:3 FCM	LC Lift 7	K.T.	2134	12.3	93.8	99.6	
154	2011-03-19	Peathole	U/S	2:3 FCM	LC Lift 7	K.T.	2131	12.8	93.7	100.0	
155	2011-03-19	1+30	D/S	2:3 FCM	LC Lift 5	K.T.	2153	10.5	94.6	88.0	Dial setting 28.0
156	2011-03-19	1+40	D/S	2:3 FCM	LC Lift 5	K.T.	2096	12.5	92.1	94.2	
157	2011-03-19	1+47	D/S	2:3 FCM	LC Lift 4	K.T.	2129	12.7	93.6	98.2	
158	2011-03-19	1+56	D/S	2:3 FCM	LC Lift 4	K.T.	2122	11.5	93.3	91.1	
159	2011-03-19	1+55	D/S	2:3 FCM	LC Lift 4	K.T.	2088	10.1	91.8	85.0	
160	2011-03-19	1+68	D/S	2:3 FCM	LC Lift 4	K.T.	2170	11.8	95.4	85.7	
161	2011-03-19	0+70	D/S	2:3 FCM	LC Lift 4	K.T.	2010	15.0	88.4	88.9	
162	2011-03-19	0+75	D/S	2:3 FCM	LC Lift 4	K.T.	2145	12.2	94.3	98.0	
163	2011-03-19	0+75	D/S	2:3 FCM	LC Lift 4	K.T.	2302	8.8	101.2	99.0	
164	2011-03-19	0+55	Centerline	2:3 FCM	LC Lift 2	K.T.	2191	12.6	96.3	98.9	

**COMPACTION TESTING SUMMARY - KEY TRENCH**

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
165	2011-03-19	0+35	U/S	2:3 FCM	LC Lift 1	K.T.	2118	11.5	93.1	91.0	
166	2011-03-20	0+95	"peat zone", D/S side	2:3 FCM	LC Lift 3	K.T.	2230	10.2	98.0	99.1	
167	2011-03-20	0+90	"peat zone", D/S side	2:3 FCM	LC Lift 3	K.T.	2243	10.0	98.6	99.6	
168	2011-03-20	Peathole	D/S	2:3 FCM	LC Lift 7	K.T.	2256	9.5	99.2	98.2	
169	2011-03-20	Peathole	Centerline	2:3 FCM	LC Lift 7	K.T.	2278	9.2	100.1	95.9	
170	2011-03-20	Peathole	U/S	2:3 FCM	LC Lift 7	K.T.	2218	10.3	97.5	98.3	
171	2011-03-20	Peathole	U/S	2:3 FCM	LC Lift 7	K.T.	2219	10.2	97.5	97.8	
172	2011-03-20	0+40	U/S	2:3 FCM	LC Lift 1	Fillet	2247	10.1	98.8	98.3	
173	2011-03-20	0+50	U/S	2:3 FCM	LC Lift 1	Fillet	2133	11.1	93.8	90.5	
174	2011-03-20	0+50	D/S	2:3 FCM	LC	K.T.	2276	9.0	100.0	96.7	
175	2011-03-20	1+05	D/S, north end	2:3 FCM	Lift 1	K.T.	2245	9.6	98.7	96.4	
176	2011-03-20	1+05	D/S, south end	2:3 FCM	Lift 1	K.T.	2241	10.7	98.5	93.8	
177	2011-03-20	1+10	D/S	2:3 FCM	Lift 1	K.T.	2229	12.0	98.0	87.0	
178	2011-03-20	1+15	Centerline	2:3 FCM	Lift 1	K.T.	2213	10.6	97.3	99.6	
179	2011-03-20	1+15	D/S	2:3 FCM	Lift 1	K.T.	2240	11.5	98.5	88.9	
180	2011-03-21	0+95	"peat zone", D/S	2:3 FCM	LC Lift 4	K.T.	2246	10.5	98.7	95.1	
181	2011-03-21	0+95	"peat zone", D/S	2:3 FCM	LC Lift 4	K.T.	2185	9.5	96.0	85.2	
182	2011-03-21	0+95	"peat zone", centerline	2:3 FCM	LC Lift 4	K.T.	2226	9.6	97.8	93.0	
183	2011-03-21	0+85	D/S	2:3 FCM	LC	K.T.	2146	9.8	94.3	81.7	
184	2011-03-21	0+85	Centerline	2:3 FCM	LC	K.T.	2280	10.7	100.2	88.4	
185	2011-03-21	1+10	D/S	2:3 FCM	LC	K.T.	2154	11.6	94.7	98.4	
186	2011-03-21	1+20	Centerline	2:3 FCM	LC	K.T.	2182	10.8	95.9	95.9	
187	2011-03-21	1+10	U/S	2:3 FCM	LC Lift 2	Fillet	2186	13.3	96.1	86.6	
188	2011-03-21	1+20	Centerline	2:3 FCM	LC	K.T.	2096	13.4	92.1	98.2	
189	2011-03-21	1+25	U/S	2:3 FCM	LC Lift 2	Fillet	2245	11.1	98.7	90.3	
190	2011-03-21	1+35	Centerline	2:3 FCM	LC	K.T.	2140	12.5	94.1	96.8	
191	2011-03-23	0+23	D/S	2:3 FCM	LC	K.T.	2182	9.6	95.9	85.7	
192	2011-03-23	0+25	D/S	2:3 FCM	LC	K.T.	2228	9.5	97.9	92.6	
193	2011-03-23	0+26	D/S	2:3 FCM	LC	K.T.	2239	10.1	98.4	100.0	
194	2011-03-23	0+31	D/S	2:3 FCM	LC	K.T.	2201	9.5	96.7	88.2	
195	2011-03-23	0+35	D/S	2:3 FCM	LC	K.T.	2174	9.9	95.6	86.3	
196	2011-03-23	0+38	D/S	2:3 FCM	LC	K.T.	2149	12.3	94.5	97.4	
197	2011-03-23	0+35	Centerline	2:3 FCM	LC	K.T.	2223	8.9	97.7	85.3	
198	2011-03-23	0+28	U/S	2:3 FCM	LC	K.T.	2262	9.6	99.4	100.0	
199	2011-03-23	0+48	U/S	2:3 FCM	LC	K.T.	2209	10.0	97.1	94.1	
200	2011-03-23	0+55	D/S	2:3 FCM	LC	K.T.	2184	10.2	96.0	91.4	
201	2011-03-23	0+69	U/S	2:3 FCM	LC	K.T.	2256	9.7	99.2	99.5	
202	2011-03-24	1+25	Centerline	2:3 FCM	LC	K.T.	2231	10.2	98.1	99.6	
203	2011-03-24	1+25	Centerline	2:3 FCM	LC	K.T.	2201	10.5	96.7	96.6	
204	2011-03-24	1+25	Centerline	2:3 FCM	LC	K.T.	2235	10.5	98.2	97.9	
205	2011-03-24	1+41	D/S	2:3 FCM	LC	K.T.	2217	11.2	97.5	94.3	
206	2011-03-24	1+41	D/S	2:3 FCM	LC	K.T.	2188	11.6	96.2	95.8	
207	2011-03-24	1+41	D/S	2:3 FCM	LC	K.T.	2217	11.1	97.5	95.3	
208	2011-03-24	1+53	D/S	2:3 FCM	LC	K.T.	2171	12.4	95.4	93.1	
209	2011-03-24	1+53	D/S	2:3 FCM	LC	K.T.	2193	11.5	96.4	95.8	
210	2011-03-24	1+15	'soft spot', centerline	2:3 FCM	LC Lift 1	K.T.	2217	10.0	97.5	95.3	
211	2011-03-24	1+05	'soft spot', centerline	2:3 FCM	LC Lift 1	K.T.	2208	9.7	97.1	91.1	
212	2011-03-24	1+15	'soft spot', D/S	2:3 FCM	LC Lift 1	K.T.	2258	9.6	99.3	98.6	
213	2011-03-24	1+05	'soft spot', D/S	2:3 FCM	LC Lift 1	K.T.	2245	9.7	98.7	97.3	
214	2011-03-24	0+95	peat zone', D/S	2:3 FCM	LC	K.T.	2258	10.9	99.3	95.1	
215	2011-03-24	0+85	peat zone', D/S	2:3 FCM	LC	K.T.	2236	10.0	98.3	98.7	
216	2011-03-24	0+90	peat zone', centerline	2:3 FCM	LC	K.T.	2249	9.4	98.9	95.5	
217	2011-03-24	0+85	peat zone', U/S	2:3 FCM	LC	K.T.	2219	9.9	97.5	94.8	
218	2011-03-24	0+95	peat zone', U/S	2:3 FCM	LC	K.T.	2215	10.4	97.4	93.0	
219	2011-03-26	1+14	'soft spot', centerline	2:3 FCM	LC	K.T.	2172	10.8	95.5	94.8	
220	2011-03-26	1+13	'soft spot', D/S	2:3 FCM	LC	K.T.	2195	10.0	96.5	90.9	
221	2011-03-26	1+05	'soft spot', D/S	2:3 FCM	LC	K.T.	2149	11.4	94.5	95.7	
222	2011-03-26	1+05		2:3 FCM	LC	K.T.	2217	9.9	97.5	94.0	
223	2011-03-26	1+20		2:3 FCM	LC	K.T.	2184	10.5	96.0	93.4	
224	2011-03-27	1+84	U/S (Lift 1 of 2)	2:3 FCM	LC	K.T.	2192	10.2	96.4	92.5	
225	2011-03-27	1+93	U/S (Lift 1 of 2)	2:3 FCM	LC	K.T.	2181	11.1	95.9	98.4	
226	2011-03-27	1+97	D/S	2:3 FCM	LC	K.T.	2176	10.4	95.6	91.9	
227	2011-03-27	1+85	D/S	2:3 FCM	LC	K.T.	2215	10.1	97.4	95.7	
228	2011-03-28	0+35	D/S	2:3 FCM	LC	K.T.	2220	9.2	97.6	87.9	
229	2011-03-28	0+25	U/S	2:3 FCM	LC	K.T.	2199	10.5	96.7	97.1	

COMPACTION TESTING SUMMARY - KEY TRENCH											
Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
230	2011-03-28	0+34	Centerline	2:3 FCM	LC	K.T.	2216	9.6	97.4	90.6	
231	2011-03-28	0+26	D/S	2:3 FCM	LC	K.T.	2212	10.5	97.2	98.7	
232	2011-03-28	0+67	D/S	2:3 FCM	LC	K.T.	2178	10.0	95.7	88.6	
233	2011-03-31	1+16	D/S	2:3 FCM	LC	K.T.	2177	10.6	95.7	93.1	
234	2011-03-31	0+89	'peat zone', U/S	2:3 FCM	LC	K.T.	2176	11.3	95.6	99.2	
235	2011-03-31	1+07	ramp by 'soft spot', U/S	2:3 FCM	LC	K.T.	2169	10.7	95.3	92.8	
236	2011-03-31	1+23	ramp by 'soft spot', U/S	2:3 FCM	LC	K.T.	2200	10.8	96.7	100.0	
237	2011-03-31	1+33	U/S	2:3 FCM	Lift 1	Fillet	2186	9.6	96.1	86.1	
238	2011-03-31	1+40	U/S	2:3 FCM	Lift 1	Fillet	2231	10.6	98.1	96.3	
239	2011-03-31	1+50	U/S	2:3 FCM	Lift 1	Fillet	2230	10.6	98.0	96.7	
240	2011-03-31	1+55	U/S	2:3 FCM	Lift 1	Fillet	2245	10.8	98.7	92.4	
241	2011-03-31	1+60	U/S	2:3 FCM	Lift 1	Fillet	2225	11.3	97.8	92.0	
242	2011-03-31	1+75	U/S	2:3 FCM	Lift 1	Fillet	2254	10.8	99.1	91.4	
243	2011-03-31	1+80	U/S	2:3 FCM	Lift 1	Fillet	2224	11.0	97.8	94.2	
244	2011-03-31	1+90	U/S	2:3 FCM	Lift 1	Fillet	2173	12.2	95.5	94.0	
245	2011-03-31	1+93	U/S	2:3 FCM	Lift 1	Fillet	2173	12.4	95.5	92.5	
246	2011-03-31	1+85	north access ramp	2:3 FCM	LC	K.T.	2182	10.2	95.9	90.6	
247	2011-04-02	0+70	U/S	2:3 FCM	Lift 1	Fillet	2121	12.0	93.2	95.9	
248	2011-04-02	0+50	U/S	2:3 FCM	Lift 1	Fillet	2201	10.3	96.7	95.0	
249	2011-04-02	0+30	U/S	2:3 FCM	Lift 1	Fillet	2134	12.0	93.8	97.7	
250	2011-04-02	0+25	U/S	2:3 FCM	Lift 1	Fillet	2163	10.6	95.1	91.3	
251	2011-04-03	1+10	'soft spot', D/S	2:3 FCM	LC	K.T.	2139	11.7	94.0	96.2	
252	2011-04-03	1+05	'soft spot', D/S	2:3 FCM	LC	K.T.	2114	12.5	92.9	98.1	
253	2011-04-03	0+85	'peat zone', D/S	2:3 FCM	LC	K.T.	2173	10.7	95.5	94.3	
254	2011-04-03	0+86	'peat zone', U/S	2:3 FCM	LC	K.T.	2193	10.6	96.4	96.3	
255	2011-04-03	1+07	ramp by 'soft spot', U/S	2:3 FCM	LC	K.T.	2180	10.3	95.8	91.5	
256	2011-04-03	1+53	U/S	2:3 FCM	Lift 2	Fillet	2129	11.6	93.6	93.6	
257	2011-04-03	1+35	U/S	2:3 FCM	Lift 2	Fillet	2129	11.5	93.6	93.2	
258	2011-04-03	1+38	U/S	2:3 FCM	Lift 2	Fillet	2124	12.2	93.4	98.1	
259	2011-04-03	1+60	U/S	2:3 FCM	Lift 2	Fillet	2203	10.9	96.8	98.8	
260	2011-04-03	1+70	U/S	2:3 FCM	Lift 2	Fillet	2154	10.8	94.7	91.7	
261	2011-04-03	1+80	U/S	2:3 FCM	Lift 2	Fillet	2175	11.9	95.6	95.9	
262	2011-04-03	1+90	U/S	2:3 FCM	Lift 2	Fillet	2170	11.6	95.4	98.8	
263	2011-04-03	0+70	U/S	2:3 FCM	Lift 2	Fillet	2183	10.8	96.0	96.3	
264	2011-04-03	0+60	U/S	2:3 FCM	Lift 2	Fillet	2150	11.6	94.5	97.7	
265	2011-04-03	0+50	U/S	2:3 FCM	Lift 2	Fillet	2156	11.2	94.8	95.3	
266	2011-04-03	0+40	U/S	2:3 FCM	Lift 2	Fillet	2182	9.9	95.9	87.8	
267	2011-04-03	0+30	U/S	2:3 FCM	Lift 2	Fillet	2091	12.0	91.9	90.6	
268	2011-04-03	0+25	U/S	2:3 FCM	Lift 2	Fillet	2138	11.1	94.0	91.2	
269	2011-04-04	1+85	north access ramp	2:3 FCM	LC	K.T.	2122	12.5	93.3	99.6	
270	2011-04-04	1+92	north access ramp	2:3 FCM	LC	K.T.	2135	11.9	93.8	97.3	
271	2011-04-04	1+10	'soft spot', D/S	2:3 FCM	LC	K.T.	2202	10.0	96.8	92.4	
272	2011-04-04	1+05	'soft spot', D/S	2:3 FCM	LC	K.T.	2098	11.8	92.2	90.1	
273	2011-04-04	0+95	'peat zone', D/S	2:3 FCM	LC	K.T.	2128	12.4	93.5	100.0	
274	2011-04-04	0+85	'peat zone', D/S	2:3 FCM	LC	K.T.	2103	12.1	92.4	93.8	
275	2011-04-05	0+84	'peat zone', centerline	2:3 FCM	LC	K.T.	2178	11.0	95.7	97.6	
276	2011-04-05	0+92	'peat zone', U/S	2:3 FCM	LC	K.T.	2131	11.5	93.7	93.2	
277	2011-04-05	1+08	ramp by 'soft spot', U/S	2:3 FCM	LC	K.T.	2123	11.4	93.3	91.3	
278	2011-04-05	1+30	U/S	2:3 FCM	Lift 3	Fillet	2147	11.3	94.4	94.2	
279	2011-04-05	1+78	north access ramp	2:3 FCM	LC	K.T.	2181	11.1	95.9	94.2	
280	2011-04-05	1+90	north access ramp	2:3 FCM	LC	K.T.	2153	11.1	94.6	93.3	
281	2011-04-05	0+70	U/S	2:3 FCM	Lift 3	Fillet	2115	12.1	93.0	95.9	
282	2011-04-05	0+60	U/S	2:3 FCM	Lift 3	Fillet	2149	11.9	94.5	99.6	
283	2011-04-05	0+50	U/S	2:3 FCM	Lift 3	Fillet	2178	10.7	95.7	95.1	
284	2011-04-05	0+40	U/S	2:3 FCM	Lift 3	Fillet	2185	10.5	96.0	94.3	
285	2011-04-05	0+30	U/S	2:3 FCM	Lift 3	Fillet	2129	10.8	93.6	87.5	
286	2011-04-06	0+91	'peat zone', D/S	2:3 FCM	LC	K.T.	2120	12.5	93.2	99.6	
287	2011-04-06	1+15	'soft spot', D/S	2:3 FCM	LC	K.T.	2137	12.0	93.9	98.6	
288	2011-04-06	0+88	'peat zone' U/S	2:3 FCM	LC	K.T.	2186	11.0	96.1	98.6	
289	2011-04-06	1+00	ramp by 'soft spot', U/S	2:3 FCM	LC	K.T.	2120	12.5	93.2	99.4	

COMPACTION TESTING SUMMARY - KEY TRENCH											
Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
290	2011-04-06	1+20	ramp by 'soft spot', U/S	2:3 FCM	Lift 4	Fillet	2127	12.4	93.5	99.6	
291	2011-04-06	1+42	U/S	2:3 FCM	Lift 4	Fillet	2140	12.1	94.1	99.6	
292	2011-04-06	0+77	ramp to 'peat zone'	2:3 FCM	Lift 4	Fillet	2051	13.5	90.2	95.5	
293	2011-04-06	0+60	U/S	2:3 FCM	Lift 4	Fillet	2080	13.4	91.4	99.3	
294	2011-04-06	0+50	U/S	2:3 FCM	Lift 4	Fillet	2050	12.8	90.1	90.4	
295	2011-04-06	0+30	U/S	2:3 FCM	Lift 4	Fillet	2036	13.4	89.5	91.9	
296	2011-04-07	1+12	Soft Spot	2:3 FCM	LC	K.T.	2155	10.9	94.7	92.5	
297	2011-04-07	1+09	Soft Spot	2:3 FCM	LC	K.T.	2162	11.7	95.0	100.0	
298	2011-04-07	1+11	Soft Spot	2:3 FCM	LC	K.T.	2144	10.9	94.2	90.7	
299	2011-04-07	1+19	Soft Spot	2:3 FCM	LC	K.T.	2127	11.7	93.5	93.9	
300	2011-04-07	0+80	Peat zone D/S	2:3 FCM	LC	K.T.	2092	12.7	92.0	96.4	
301	2011-04-07	0+85	Peat zone D/S	2:3 FCM	LC	K.T.	2193	10.8	96.4	97.5	
302	2011-04-07	0+80	Peat zone centerline	2:3 FCM	LC	K.T.	2034	13.5	89.4	92.3	
303	2011-04-07	0+78	u/s	2:3 FCM	LC	K.T.	2155	11.3	94.7	95.7	
304	2011-04-07	0+95	u/s	2:3 FCM	LC	K.T.	2096	12.5	92.1	95.6	
305	2011-04-07	1+15	u/s	2:3 FCM	Lift 5	Fillet	2134	12.2	93.8	100.0	
306	2011-04-07	1+60	u/s	2:3 FCM	Lift 5	Fillet	2087	12.6	91.7	94.6	
307	2011-04-09	1+17	Soft Spot- Center	2:3 FCM	LC	K.T.	2107	13.1	92.6	101.5	
308	2011-04-09	1+15	Soft Spot D/S	2:3 FCM	LC	K.T.	2149	12.3	94.5	103.1	
309	2011-04-09	1+05	Soft Spot D/S	2:3 FCM	LC	K.T.	2114	13.8	92.9	108.6	DC48
310	2011-04-09	0+95	Peat zone U/S	2:3 FCM	LC	K.T.	2164	11.8	95.1	101.6	
311	2011-04-09	0+80	Peat zone U/S	2:3 FCM	LC	K.T.	2162	11.6	95.0	99.2	
312	2011-04-09	1+20	U/S	Un-Saturated	Lift 6	Fillet	2203	10.8	96.8	100.0	
313	2011-04-09	1+40	U/S	Un-Saturated	Lift 6	Fillet	2182	9.8	95.9	87.3	
314	2011-04-09	1+65	U/S	Un-Saturated	Lift 6	Fillet	2189	12.0	96.2	100.0	
315	2011-04-09	1+25	U/S	Un-Saturated	Lift 7	Fillet	2200	9.7	96.7	89.5	
316	2011-04-09	1+60	U/S	Un-Saturated	Lift 7	Fillet	2161	11.4	95.0	88.3	
317	2011-04-09	1+30	U/S	Un-Saturated	Lift 8	Fillet	2180	10.2	95.8	90.7	
318	2011-04-09	1+65	U/S	Un-Saturated	Lift 8	Fillet	2178	7.9	95.7	82.5	
319	2011-04-10	1+15	Soft Spot- Center	2:3 FCM	LC	K.T.	2144	11.2	94.2	93.4	
320	2011-04-10	1+20	Soft Spot D/S	2:3 FCM	LC	K.T.	2175	10.6	95.6	93.1	
321	2011-04-10	1+15	Soft Spot D/S	2:3 FCM	LC	K.T.	2175	11.7	95.6	102.8	
322	2011-04-10	1+10	Soft Spot- Center	2:3 FCM	LC	K.T.	2126	11.8	93.5	94.7	
323	2011-04-10	0+90	U/S	2:3 FCM	LC	Fillet	2164	11.1	95.1	96.0	
324	2011-04-10	0+80	U/S	2:3 FCM	LC	Fillet	2142	10.4	94.2	86.1	
325	2011-04-10	1+10	U/S	Un-Saturated	Lift 5	Fillet	2203	7.3	96.8	68.1	
326	2011-04-10	1+25	U/S	Un-Saturated	Lift 8	Fillet	2180	8.5	95.8	75.5	
327	2011-04-10	1+20	U/S	Un-Saturated	Lift 9	Fillet	2176	7.7	95.6	67.6	
328	2011-04-10	1+40	U/S	Un-Saturated	Lift 9	Fillet	2255	7.9	99.1	80.9	
329	2011-04-10	0+70	U/S	Un-Saturated	Lift 5	Fillet	2209	9.4	97.1	68.8	
330	2011-04-10	0+45	U/S	Un-Saturated	Lift 6	Fillet	2169	10.5	95.3	90.8	
331	2011-04-11	1+15	Soft Spot	2:3 FCM	LC	K.T.	2105	11.0	92.5	85.6	
332	2011-04-11	1+07	Soft Spot	2:3 FCM	LC	K.T.	2144	11.7	94.2	97.3	
333	2011-04-11	1+10	U/S	Un-Saturated	Lift 6	Fillet	2200	8.8	96.7	81.5	
334	2011-04-11	1+30	U/S	Un-Saturated	Lift 8	Fillet	2211	9.4	97.2	88.9	
335	2011-04-11	0+70	U/S	Un-Saturated	Lift1	Fillet	2162	9.8	95.0	84.1	
336	2011-04-11	0+85	U/S	2:3 FCM	LC	K.T.	2080	13.9	91.4	102.9	
337	2011-04-12	1+25	U/S	Un-Saturated	Lift 8	Fillet	2197	8.2	96.6	75.0	
338	2011-04-13	1+10	D/S	2:3 FCM	LC	Fillet	2073	13.7	91.1	100.7	DC55
339	2011-04-13	1+05	Soft Spot-Center	2:3 FCM	LC	K.T.	2049	13.8	90.1	97.3	
340	2011-04-13	0+90	U/S	2:3 FCM	LC	Fillet	2134	11.5	93.8	93.7	
341	2011-04-13	0+80	U/S	2:3 FCM	LC	Fillet	2118	11.0	93.1	87.1	
342	2011-04-13	0+80	Nose of the Core	Un-Saturated	Lift 1	S.O.	2100	8.5	92.3	65.2	
343	2011-04-13	0+85	Nose of the Core	Un-Saturated	Lift 1	S.O.	2118	7.1	93.1	56.5	
344	2011-04-13	0+90	Nose of the Core	Un-Saturated	Lift 1	S.O.	2074	7.1	91.2	52.1	
345	2011-04-13	0+80	Nose of the Core	Un-Saturated	Lift 1	S.O.	2186	8.2	96.1		Data N.A. for Degree of Saturation
346	2011-04-13	0+85	Nose of the Core	Un-Saturated	Lift 1	S.O.	1991	6.6	87.5		Data N.A. for Degree of Saturation
347	2011-04-13	0+90	Nose of the Core	Un-Saturated	Lift 1	S.O.	2095	7.5	92.1		Data N.A. for Degree of Saturation
348	2011-04-13	0+95	Nose of the Core	Un-Saturated	Lift 1	S.O.	2088	7.3	91.8		Data N.A. for Degree of Saturation
349	2011-04-13	1+05	U/S	Un-Saturated	Lift 1	S.O.	2199	10.5	96.7	83.6	

COMPACTION TESTING SUMMARY - KEY TRENCH											
Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
350	2011-04-13	1+15	U/S	Un-Saturated	Lift 1	S.O.	2232	9.3	98.1	93.4	
351	2011-04-13	1+25	U/S	Un-Saturated	Lift 1	S.O.	2170	9.0	95.4	76.3	
352	2011-04-13	1+05	U/S	Un-Saturated	Lift 2	S.O.	2199	10.2	96.7	93.7	
353	2011-04-13	1+10	U/S	Un-Saturated	Lift 2	S.O.	2167	9.4	95.3	81.6	
354	2011-04-13	1+25	U/S	Un-Saturated	Lift 2	S.O.	2238	9.7	98.4	96.4	
355	2011-04-14	1+15	D/S	2:3 FCM	LC	K.T.	2144	11.9	94.2	98.8	
356	2011-04-14	1+10	U/S	2:3 FCM	LC	K.T.	2129	11.8	93.6	95.5	
357	2011-04-14	0+85	U/S	2:3 FCM	LC	Fillet	2115	11.4	93.0	89.9	
358	2011-04-15	0+73	U/S	2:3 FCM	LC	Fillet	2143	10.9	94.2	90.7	
359	2011-04-15	0+82	U/S	2:3 FCM	LC	Fillet	2151	11.7	94.5	98.4	
360	2011-04-15	0+80	U/S	Un-Saturated	Lift 1	Fillet	2141	11.5	94.1	95.4	
361	2011-04-15	0+90	U/S	Un-Saturated	Lift 1	Fillet	2126	11.5	93.5	92.5	
362	2011-04-17	0+35	Center Line	2:3 FCM	GCL Grade	K.T.	2147	11.7	94.4	97.3	
363	2011-04-17	0+40	D/S	2:3 FCM	GCL Grade	K.T.	2131	12.8	93.7	104.2	
364	2011-04-17	0+50	U/S	2:3 FCM	GCL Grade	K.T.	2150	11.5	94.5	96.1	
365	2011-04-17	0+34	U/S	2:3 FCM	GCL Grade	K.T.	2158	10.3	94.9	88.1	
366	2011-04-17	0+26	U/S	2:3 FCM	GCL Grade	K.T.	2143	11.3	94.2	93.8	
367	2011-04-17	0+61	Center Line	2:3 FCM	GCL Grade	K.T.	2235	9.3	98.2	91.2	
368	2011-04-17	0+66	U/S	2:3 FCM	GCL Grade	K.T.	2236	9.9	98.3	97.8	
369	2011-04-18	0+75	U/S	2:3 FCM	GCL Grade	K.T.	2190	9.9	96.3	89.7	
370	2011-04-18	0+85	U/S	2:3 FCM	GCL Grade	K.T.	2218	11.1	97.5	106.0	
371	2011-04-18	1+00	U/S	2:3 FCM	GCL Grade	K.T.	2169	12.0	95.3	104.4	
372	2011-04-18	0+90	D/S	2:3 FCM	GCL Grade	K.T.	2163	10.1	95.1	86.5	
373	2011-04-18	1+07	U/S	2:3 FCM	GCL Grade	K.T.	2225	10.2	97.8	98.7	
374	2011-04-18	1+22	D/S	2:3 FCM	GCL Grade	K.T.	2217	10.0	97.5	94.8	
375	2011-04-18	1+35	U/S	2:3 FCM	GCL Grade	K.T.	2221	10.5	97.6	100.0	
376	2011-04-18	1+50	D/S	2:3 FCM	GCL Grade	K.T.	2154	11.9	94.7	100.0	
377	2011-04-19	1+70	D/S	2:3 FCM	GCL Grade	K.T.	2217	10.5	97.5	99.6	
378	2011-04-19	1+80	Center Line	2:3 FCM	GCL Grade	K.T.	2146	10.6	94.3	88.8	
379	2011-04-19	1+63	Center Line	2:3 FCM	GCL Grade	K.T.	2214	9.6	97.3	91.8	
380	2011-04-19	1+90	U/S	2:3 FCM	GCL Grade	K.T.	2234	9.2	98.2	91.5	
381	2011-04-19	1+88	Center Line	2:3 FCM	GCL Grade	K.T.	2249	9.8	98.9	100.0	
382	2011-04-19	0+79	U/S	Un-Saturated	Lift 2	Fillet	2195	9.5	96.5	87.8	
383	2011-04-19	0+94	U/S	Un-Saturated	Lift 2	Fillet	2271	10.6	99.8	87.7	
384	2011-04-20	0+92	U/S	Un-Saturated	Lift 3	Fillet	2289	8.7	100.6	97.6	
385	2011-04-20	0+77	U/S	Un-Saturated	Lift 3	Fillet	2167	9.4	95.3	82.2	
386	2011-04-20	0+80	U/S	Un-Saturated	Lift 4	Fillet	2183	8.6	96.0	78.1	
387	2011-04-20	0+85	U/S	Un-Saturated	Lift 4	Fillet	2179	8.7	95.8	77.5	
388	2011-04-20	0+22	U/S	Un-Saturated	GCL Grade	Fillet	2160	8.2	94.9	70.4	Plate tamper used
389	2011-04-20	0+40	U/S	Un-Saturated	GCL Grade	Fillet	2179	7.9	95.8	70.9	Plate tamper used
390	2011-04-20	0+63	U/S	Un-Saturated	Lift 4	Fillet	2196	10.5	96.5	97.0	
391	2011-04-20	0+72	U/S	Un-Saturated	Lift 4	Fillet	2183	9.9	96.0	89.3	
392	2011-04-20	0+95	U/S	Un-Saturated	Lift 4	Fillet	2183	9.6	96.0	86.4	
393	2011-04-20	1+05	U/S	Un-Saturated	Lift 4	Fillet	2151	10.4	94.5	88.1	
394	2011-04-20	1+05	U/S	Un-Saturated	Lift 5	Fillet	2186	9.3	96.1	84.2	
395	2011-04-21	1+57	U/S	2:3 FCM	GCL Grade	K.T.	2210	9.8	97.1	93.5	
396	2011-04-21	1+51	D/S	2:3 FCM	GCL Grade	K.T.	2131	12.1	93.7	98.8	
397	2011-04-21	1+35	D/S	2:3 FCM	GCL Grade	K.T.	2082	13.1	91.5	98.2	
398	2011-04-21	1+15	D/S	2:3 FCM	GCL Grade	K.T.	2167	10.0	95.3	87.9	
399	2011-04-21	1+00	D/S	2:3 FCM	GCL Grade	K.T.	2127	11.3	93.5	92.3	
400	2011-04-21	0+90	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2164	10.4	95.1	90.4	
401	2011-04-21	0+95	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2159	10.8	94.9	92.8	
402	2011-04-21	0+90	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2254	9.1	99.1	94.5	
403	2011-04-21	0+66	U/S	Un-Saturated	Lift 6	Fillet	2225	9.8	97.8	95.6	
404	2011-04-21	0+90	U/S	Un-Saturated	Lift 6	Fillet	2207	10.1	97.0	95.7	
405	2011-04-22	1+20	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2148	10.1	94.4	85.8	
406	2011-04-22	1+32	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2192	11.4	96.4	100.0	
407	2011-04-22	1+50	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2164	9.8	95.1	85.5	
408	2011-04-22	1+62	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2199	8.7	96.7	81.4	
409	2011-04-22	0+98	U/S Plug	Un-Saturated	Lift 3	Transition	2204	10.6	96.9	99.6	
410	2011-04-22	0+98	U/S Plug	Un-Saturated	Lift 4	Transition	2190	10.7	96.3	97.5	
411	2011-04-22	0+88	U/S Plug	Un-Saturated	Lift 3	Transition	2235	9.4	98.2	94.2	
412	2011-04-22	0+88	U/S Plug	Un-Saturated	Lift 4	Transition	2166	10.3	95.2	89.9	
413	2011-04-23	0+55	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2151	11.4	94.5	96.8	
414	2011-04-23	0+65	U/S SLOPE	Un-Saturated	GCL Grade	Fillet	2149	11.2	94.5	94.9	

**COMPACTION TESTING SUMMARY - KEY TRENCH**

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
415	2011-04-23	0+40	U/S	Un-Saturated	GCL Grade	Fillet	2204	10.8	96.9	100.0	
416	2011-04-23	0+88	U/S TOP OF SLOPE	Un-Saturated	GCL Grade	Fillet	2159	9.0	94.9	77.6	
417	2011-04-23	0+60	U/S Plug	Un-Saturated	Lift 5	Fillet	2214	10.6	97.3	100.0	
418	2011-04-23	0+72	U/S Plug	Un-Saturated	Lift 5	Fillet	2196	11.2	96.5	100.0	
419	2011-04-23	0+65	D/S	2:3 FCM	GCL Grade	K.T.	2236	10.0	98.3	99.6	
420	2011-04-23	0+80	U/S Plug	Un-Saturated	Lift 6	Fillet	2229	10.0	98.0	98.7	
421	2011-04-23	0+80	U/S Plug	Un-Saturated	Lift 7	Fillet	2203	9.5	96.8	88.9	
422	2011-04-24	1+38	U/S	Un-Saturated	GCL Grade	Fillet	2322	10.0	102.1	100.0	
423	2011-04-24	1+80	U/S	Un-Saturated	GCL Grade	Fillet	2216	9.2	97.4	88.3	
424	2011-04-24	0+85	U/S	Un-Saturated	GCL Grade	Fillet	2169	9.5	95.3	83.8	
425	2011-04-24	0+70	U/S	Un-Saturated	GCL Grade	Fillet	2101	11.7	92.4	90.4	
426	2011-04-24	0+85	U/S	Un-Saturated	GCL Grade	Fillet	2235	11.2	98.2	100.0	
427	2011-04-24	0+75	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2075	8.1	91.2	60.1	
428	2011-04-24	0+85	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2101	8.4	92.4	65.3	
429	2011-04-24	0+95	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2147	9.1	94.4	76.7	
430	2011-04-24	0+88	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2171	9.2	95.4	81.1	
431	2011-04-24	0+92	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2194	8.4	96.4	77.4	
432	2011-04-24	0+90	U/S Top of Slope	Un-Saturated	GCL Grade	Fillet	2181	8.9	95.9	80.0	
433	2011-04-25	1+95	Centre Line	2:3 FCM	GCL Grade+0.3m	K.T.	2197	10.6	96.6	98.7	
434	2011-04-25	1+80	Centre Line	2:3 FCM	GCL Grade+0.3m	K.T.	2267	9.0	99.6	95.3	
435	2011-04-25	1+65	Centre Line	2:3 FCM	GCL Grade+0.3m	K.T.	2269	10.0	99.7	100.0	
436	2011-04-25	1+50	Centre Line	2:3 FCM	GCL Grade+0.3m	K.T.	2160	10.0	94.9	86.4	
437	2011-04-26	1+45	Centre Line	2:3 FCM	GCL Grade+0.3m	K.T.	2259	9.7	99.3	100.0	
438	2011-04-26	1+46	U/S Top of Slope	2:3 FCM	GCL Grade+0.3m	Fillet	2175	9.6	95.6	85.3	
439	2011-04-27	1+35	Centre Line	2:3 FCM	GCL Grade+0.4m	K.T.	2120	13.7	93.2	100.0	
440	2011-04-27	1+33	U/S Top of Slope	2:3 FCM	GCL Grade+0.3m	Fillet	2104	11.0	92.5	85.9	
441	2011-04-27	1+00	U/S	2:3 FCM	GCL Grade+0.3m	K.T.	2194	9.8	96.4	89.9	
442	2011-04-27	1+00	U/S Middle of Slope	2:3 FCM	GCL Grade+0.3m	Fillet	2147	10.8	94.4	91.3	
443	2011-04-27	0+95	Centerline	2:3 FCM	GCL Grade+0.3m	K.T.	2194	10.1	96.4	92.9	
444	2011-04-27	0+95	U/S Top of Slope	2:3 FCM	GCL Grade+0.3m	K.T.	2209	10.3	97.1	98.3	
445	2011-04-28	0+55	U/S	2:3 FCM	GCL Grade+0.3m	K.T.	2132	11.6	93.7	95.0	
446	2011-04-28	0+38	Centerline	2:3 FCM	GCL Grade+0.3m	K.T.	2070	13.5	91.0	99.3	
447	2011-04-28	0+73	D/S	2:3 FCM	GCL Grade+0.3m	K.T.	2144	10.6	94.2	88.7	
448	2011-04-28	0+71	U/S Middle of Slope	2:3 FCM	GCL Grade+0.3m	K.T.	2155	10.1	94.7	98.7	
449	2011-04-29	0+86	D/S	2:3 FCM	GCL Grade+0.3m	K.T.	2189	10.2	96.2	92.9	
450	2011-04-29	0+85	Centerline	2:3 FCM	GCL Grade+0.3m	K.T.	2157	10.8	94.8	93.2	
451	2011-04-29	0+86	Centerline	2:3 FCM	GCL Grade+0.3m	K.T.	2253	9.6	99.0	99.1	
452	2011-04-29	0+80	U/S Slope	2:3 FCM	GCL Grade+0.3m	K.T.	2204	10.5	96.9	98.3	
453	2011-04-29	1+57	D/S	2:3 FCM	GCL Grade+0.6m	K.T.	2162	11.2	95.0	96.8	
454	2011-04-29	1+60	U/S	2:3 FCM	GCL Grade+0.6m	K.T.	2160	11.3	94.9	98.0	
455	2011-05-01	1+48	D/S	2:3 FCM	GCL Grade+0.6m	K.T.	2084	12.9	91.6	97.1	

**COMPACTION TESTING SUMMARY - KEY TRENCH**

Test No.	Date Tested	Station	Location	Material	Elevation (approx.)	Area	Dry Density (kg/m3)	Moisture Content (%)	Compaction (%)	Degree Saturation (%)	Comments
456	2011-05-01	1+40	Centerline	2:3 FCM	GCL Grade+0.6m	K.T.	2124	11.9	93.4	96.6	
457	2011-05-01	1+25	D/S	2:3 FCM	GCL Grade+0.6m	K.T.	2166	10.9	95.2	95.2	
458	2011-05-01	1+25	U/S	2:3 FCM	GCL Grade+0.6m	K.T.	2102	12.6	92.4	98.3	
459	2011-05-02	1+00	D/S	2:3 FCM	GCL Grade+0.6m	K.T.	2144	11.1	94.2	93.0	
460	2011-05-02	0+80	U/S	2:3 FCM	GCL Grade+0.6m	K.T.	2190	10.9	96.3	99.3	
461	2011-05-02	0+60	D/S	2:3 FCM	GCL Grade+0.6m	K.T.	2243	9.5	98.6	96.8	
462	2011-05-02	0+45	Centerline	2:3 FCM	GCL Grade+0.6m	K.T.	2238	9.8	98.4	98.3	

\* 1:2 FCM indicates proportion by volume of core material to fines

\*\* To be reviewed

\*\*\* Placement removed

Shaded areas not included in statistical calculations

Fines = 5 mm minus material

U/S = Upstream

SG= Specific Gravity

MDD = Maximum Dry Density

CM = Core Material

F = Fines

LC = Levelling Course

FCM = Frozen Core Material

D/S = Downstream

S.O= Spill Over

K.T.= Key Trench

**COMPACTION AND SATURATION TESTING SUMMARY**

**DORIS NORTH DAM CONSTRUCTION, HOPE BAY**

MATERIAL ID	MATERIAL DESCRIPTION	STANDARD PROCTOR ID	MAXIMUM DRY DENSITY (kg/m <sup>3</sup> )	OPTIMUM MOISTURE CONTENT (%)	SPECIFIC GRAVITY
M1	3:2 FCM	-	2275	9.0	2.890
M2	F	-	2145	9.5	2.882
M3	1:2 FCM	-	2255	8.4	2.888
M4	1:1 FCM	-	2290	8.0	2.906
M5	3:2 FCM	SP1	2280	8.0	2.890
M6	Recrushed 3:2 FCM	SP2	2210	9.4	2.890
M7	5 mm Minus FCM	SP3	2160	10.1	2.901
M8	5 mm Minus FCM	SP5	2205	8.5	2.901
M9	5 mm Minus FCM	SP6	2230	8.7	2.901
M10	5 mm Minus FCM	SP8	2200	8.8	2.901
M11	GCL Cover Blend	SP10	2250	9.5	2.901

	DRY DENSITY (kg/m <sup>3</sup> )	MOISTURE CONTENT(****) (%)	COMPACTION (%)	SATURATION (****) (%)
Average (****):	2121.2	11.2	96.3	87.0
Minimum(****):	2014.3	9.5	91.3	80.0
Maximum (****):	2295.8	13.5	102.0	100.0
St. Deviation (****):	49.5	0.8	2.5	4.5

STANDARDS:	COMPACTION: SATURATION:	NOT LESS THAN 90% OF SPMD AVERAGE NOT LESS THAN 85%, NO TEST BELOW 80%
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**COMPACTION AND SATURATION TESTING SUMMARY**

**DORIS NORTH DAM CONSTRUCTION, HOPE BAY**

TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY (kg/m <sup>3</sup> )	MOISTURE CONTENT (%) (***)	COMPACTION (%)	SATURATION (**)(**)
1	1/15/12	0+90	U/S	M1	Lift 1	2120	12.5	93.2	99.5
2	1/15/12	0+85	D/S	M1	Lift 1	2137	12.0	93.9	98.4
3	1/15/12	0+92	D/S	M1	Lift 1	2186	11.0	96.1	98.7
4	1/17/12	0+90	D/S	M1	Lift 2	2066	13.3	90.8	96.4
5	1/17/12	0+93	D/S	M1	Lift 2	2124	12.7	93.4	100.0
6	1/17/12	0+85	U/S	M1	Lift 2	2103	12.2	92.4	94.2
7	1/17/12	0+98	D/S	M1	Lift 2	2141	11.6	94.1	95.8
8	1/18/12	0+82	D/S	M1	Lift 2	2106	11.7	92.6	90.8
9	1/18/12	0+93	D/S	M1	Lift 2	2146	11.9	94.3	99.2
10	1/20/2012	0+80	U/S	M1	Lift 2	2134	11.4	93.8	93.0
11	1/20/2012	0+98	D/S	M1	Lift 2	2145	11.2	94.3	93.2
12	1/21/2012	0+75	U/S	M1	Lift 3	2084	13.1	91.6	97.9
13	1/21/2012	0+73	D/S	M1	Lift 3	2096	12.6	92.1	96.1
14	1/21/2012	0+82	C/L	M1	Lift 3	2091	13.4	91.9	100.0
15	1/21/2012	0+87	D/S	M1	Lift 3	2099	11.8	92.3	90.5
16	1/21/2012	0+85	U/S	M1	Lift 3	2103	12.5	92.4	96.5
17	1/21/2012	0+95	D/S	M1	Lift 3	2083	13.9	91.6	100.0
18	1/21/2012	0+100	U/S	M1	Lift 3	2092	13.7	92.0	100.0
19	1/21/2012	0+105	D/S	M1	Lift 3	2090	12.9	91.9	97.4
20	1/21/2012	0+100	U/S	M1	Lift 1	2051	12.3	90.2	86.9
21	1/21/2012	0+120	D/S	M1	Lift 1	2048	13.5	90.0	94.9
22	1/21/2012	0+100	D/S	M1	Lift 1	2059	12.4	90.5	88.8
23	1/21/2012	0+120	U/S	M1	Lift 1	2063	12.4	90.7	89.4
24	1/22/2012	0+72	D/S	M1	Lift 1	2080	13.0	91.4	96.5
25	1/22/2012	0+60	D/S	M1	Lift 1	2085	12.1	91.6	90.6
26	1/22/2012	0+63	U/S	M1	Lift 1	2090	11.7	91.9	88.3
27	1/22/2012	0+45	U/S	M1	Lift 1	2091	11.9	91.9	90.0
28	1/23/2012	0+69	D/S	M1	Lift 2	2101	12.0	92.4	92.3
29	1/23/2012	0+63	U/S	M1	Lift 2	2184	11.7	96.0	100.0
30	1/23/2012	0+60	D/S	M1	Lift 2	2183	11.2	96.0	99.9
31	1/23/2012	0+49	U/S	M1	Lift 2	2120	11.7	93.2	93.1
32	1/23/2012	0+90	C/L	M1	Lift 3	2077	12.5	91.3	92.3
33	1/23/2012	1+00	U/S	M1	Lift 2	2085	11.3	91.6	84.6
34	1/23/2012	1+10	U/S	M1	Lift 2	2050	13.9	90.1	98.0
35	1/23/2012	1+15	D/S	M1	Lift 2	2052	12.5	90.2	88.5
36	1/23/2012	1+25	U/S	M1	Lift 2	2063	12.6	90.7	90.8
37	1/23/2012	1+30	D/S	M1	Lift 2	2062	12.6	90.6	90.7
38	1/24/2012	1+38	D/S	M1	Lift 1	2128	12.4	93.5	100.0
39	1/24/2012	1+47	U/S	M1	Lift 1	2103	12.1	92.4	93.4
40	1/24/2012	1+60	D/S	M1	Lift 1	2178	11.0	95.7	97.2
41	1/24/2012	1+65	U/S	M1	Lift 1	2131	11.5	93.7	93.3
42	1/24/2012	1+74	D/S	M1	Lift 1	2123	11.4	93.3	91.2
43	1/25/2012	1+10	D/S	M1	Lift 3	2115	12.3	93.0	97.0
44	1/25/2012	1+05	U/S	M1	Lift 3	2083	12.7	91.6	94.7
45	1/25/2012	0+90	C/L	M1	Lift 3	2132	12.3	93.7	100.0
46	1/25/2012	0+80	D/S	M1	Lift 3	2064	13.3	90.7	96.0

COMPACTION AND SATURATION TESTING SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY			
TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (%) (**)	COMPACTION	SATURATION (%) (***)
						(kg/m <sup>3</sup> )	(%)	(%)	(%)
47	1/25/2012	0+80	U/S	M1	Lift 3	2052	12.7	90.2	89.9
48	1/25/2012	0+70	D/S	M1	Lift 3	2073	12.6	91.1	92.4
49	1/25/2012	0+65	U/S	M1	Lift 3	2057	12.7	90.4	90.6
50	1/25/2012	0+55	D/S	M1	Lift 3	2072	13.2	91.1	96.6
51	1/25/2012	0+45	U/S	M1	Lift 3	2055	13.2	90.3	93.9
52	1/27/2012	0+85	D/S	M1	Lift 4	2117	12.4	93.1	98.1
53	1/27/2012	0+95	U/S	M1	Lift 4	2109	12.1	92.7	94.4
54	1/27/2012	1+05	CL	M1	Lift 4	2094	12.5	92.0	95.0
55	1/27/2012	1+15	U/S	M1	Lift 4	2103	12.2	92.4	94.2
56	1/27/2012	1+15	D/S	M1	Lift 3	2059	12.4	90.5	88.8
57	1/27/2012	1+20	U/S	M1	Lift 3	2060	12.5	90.5	89.7
58	1/27/2012	1+30	D/S	M1	Lift 3	2062	12.0	90.6	86.4
59	1/27/2012	1+35	U/S	M1	Lift 3	2081	13.0	91.5	96.6
60	1/27/2012	1+45	D/S	M1	Lift 3	2064	12.0	90.7	86.7
61	1/27/2012	1+52	U/S	M1	Lift 3	2053	12.5	90.2	88.6
62	1/28/2012	1+57	D/S	M1	Lift 2	2067	12.0	90.9	87.1
63	1/28/2012	1+62	U/S	M1	Lift 2	2096	13.5	92.1	100.0
64	1/28/2012	1+63	CL	M1	Lift 2	2070	11.9	91.0	86.8
65	1/28/2012	1+68	U/S	M1	Lift 2	2087	12.5	91.7	93.9
66	1/28/2012	1+69	D/S	M1	Lift 2	2094	12.2	92.0	92.8
67	1/29/2012	0+75	CL	M1	Lift 4	2106	11.2	92.6	86.9
68	1/29/2012	0+68	U/S	M1	Lift 4	2107	11.3	92.6	87.9
69	1/29/2012	0+60	D/S	M1	Lift 4	2128	10.8	93.5	87.2
70	1/29/2012	0+52	U/S	M1	Lift 4	2102	12.0	92.4	92.5
71	1/29/2012	0+45	D/S	M1	Lift 4	2142	10.8	94.2	89.4
72	1/30/2012	0+80	D/S	M1	Lift 5	2104	12.0	92.5	92.8
73	1/30/2012	0+75	D/S	M1	Lift 5	2082	11.9	91.5	88.6
74	1/30/2012	0+85	U/S	M1	Lift 5	2078	13.1	91.3	96.9
75	1/30/2012	1+00	CL	M1	Lift 5	2114	11.9	92.9	93.7
76	1/30/2012	0+95	D/S	M1	Lift 5	2093	13.0	92.0	98.7
77	1/30/2012	1+10	U/S	M1	Lift 4	2188	10.7	96.2	96.4
78	1/30/2012	1+15	D/S	M1	Lift 4	2166	11.3	95.2	97.7
79	1/30/2012	1+20	U/S	M1	Lift 4	2188	11.6	96.2	100.0
80	1/30/2012	1+25	U/S	M1	Lift 4	2049	13.7	90.1	96.5
81	1/30/2012	1+35	CL	M1	Lift 4	2081	11.5	91.5	85.5
82	1/30/2012	1+45	D/S	M1	Lift 4	2067	13.3	90.9	96.5
83	1/30/2012	1+58	U/S	M1	Lift 3	2061	13.4	90.6	96.3
84	1/30/2012	1+70	D/S	M1	Lift 3	2059	12.9	90.5	92.4
85	1/31/2012	1+10	D/S	M5	Lift 5	2148	10.7	94.2	89.5
86	1/31/2012	1+08	U/S	M5	Lift 5	2083	13.5	91.4	100.0
87	1/31/2012	1+00	CL	M5	Lift 5	2092	13.3	91.8	100.0
88	1/31/2012	0+94	D/S	M5	Lift 5	2163	11.6	94.9	99.7
89	1/31/2012	0+95	U/S	M5	Lift 5	2114	12.0	92.7	94.5
90	1/31/2012	0+82	D/S	M5	Lift 5	2086	12.2	91.5	91.5
91	1/31/2012	0+80	U/S	M5	Lift 5	2060	12.5	90.4	89.7
92	1/31/2012	0+70	D/S	M5	Lift 5	2096	11.7	91.9	89.3
93	1/31/2012	0+55	U/S	M5	Lift 5	2058	12.0	90.3	85.8
94	1/31/2012	0+52	D/S	M5	Lift 5	2097	11.6	92.0	88.7
95	1/31/2012	0+45	CL	M5	Lift 5	2097	12.1	92.0	92.5
96	2/01/2012	1+30	D/S	M5	Lift 4	2062	12.7	90.4	91.4
97	2/01/2012	1+35	U/S	M5	Lift 4	2052	13.7	90.0	97.0
98	2/01/2012	1+43	U/S	M5	Lift 4	2066	12.8	90.6	92.7
99	2/01/2012	1+50	D/S	M5	Lift 4	2093	11.4	91.8	86.5
100	2/01/2012	1+50	U/S	M5	Lift 4	2060	13.8	90.4	99.0
101	2/01/2012	1+57	D/S	M5	Lift 4	2091	12.0	91.7	90.8
102	2/01/2012	1+65	D/S	M5	Lift 4	2054	12.5	90.1	88.8
103	2/01/2012	1+70	U/S	M5	Lift 4	2085	13.1	91.4	98.1
104	2/01/2012	1+75	CL	M5	Lift 4	2085	12.4	91.4	92.8
105	2/04/2012	0+65	D/S	M5	Lift 6	2139	11.4	93.8	93.8
106	2/04/2012	0+70	CL	M5	Lift 6	2092	12.0	91.8	90.9
107	2/04/2012	0+75	U/S	M5	Lift 6	2112	11.5	92.6	90.2
108	2/04/2012	0+80	CL	M5	Lift 6	2071	12.9	90.8	94.3
109	2/04/2012	0+90	D/S	M5	Lift 6	2078	12.0	91.1	88.8
110	2/04/2012	0+100	U/S	M5	Lift 6	2080	11.9	91.2	88.3
111	2/04/2012	1+10	CL	M5	Lift 6	2116	12.3	92.8	97.2
112	2/04/2012	1+15	D/S	M5	Lift 6	2062	13.3	90.4	95.7
113	2/06/2012	TEST DID NOT MEET SATURATION REQUIREMENT. AREA WAS RECOMPACTED AND RETESTED (TESTS 116, 117, 119, 120 AND 121)							
114	2/06/2012	TEST DID NOT MEET SATURATION REQUIREMENT. AREA WAS RECOMPACTED AND RETESTED (TESTS 116, 117, 119, 120 AND 121)							
115	2/06/2012	TEST DID NOT MEET SATURATION REQUIREMENT. AREA WAS RECOMPACTED AND RETESTED (TESTS 116, 117, 119, 120 AND 121)							
116	2/06/2012	0+98	D/S	M5	Lift 7	2091	13.0	91.7	98.3
117	2/06/2012	0+98	CL	M5	Lift 7	2141	12.6	93.9	100.0
118	2/06/2012	TEST DID NOT MEET SATURATION REQUIREMENT. AREA WAS RECOMPACTED AND RETESTED (TESTS 116, 117, 119, 120 AND 121)							
119	2/06/2012	0+97	U/S	M5	Lift 7	2093	13.2	91.8	100.0
120	2/06/2012	1+02	CL	M5	Lift 7	2162	10.2	94.8	87.5
121	2/06/2012	1+02	D/S	M5	Lift 7	2159	11.0	94.7	93.9
122	2/06/2012	0+85	D/S	M5	Lift 7	2120	12.8	93.0	100.0
123	2/06/2012	0+85	CL	M5	Lift 7	2154	12.0	94.5	100.0

COMPACTION AND SATURATION TESTING SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY			
TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (%) (**)	COMPACTION (%)	SATURATION (%) (***)
						(kg/m <sup>3</sup> )	(%)	(%)	(%)
124	2/06/2012	0+80	U/S	M5	Lift 7	2173	12.3	95.3	100.0
125	2/06/2012	0+76	CL	M5	Lift 7	2136	12.1	93.7	99.1
126	2/06/2012	0+74	U/S	M5	Lift 7	2129	12.7	93.4	100.0
127	2/06/2012	0+70	D/S	M5	Lift 7	2059	13.2	90.3	94.5
128	2/06/2012	0+62	D/S	M5	Lift 7	2102	13.0	92.2	100.0
129	2/06/2012	0+58	U/S	M5	Lift 7	2073	14.0	90.9	100.0
130	2/06/2012	1+25	D/S	M5	Lift 5	2109	12.4	92.5	96.8
131	2/06/2012	1+30	U/S	M5	Lift 5	2080	13.0	91.2	96.5
132	2/06/2012	1+35	D/S	M5	Lift 5	2114	11.8	92.7	92.9
133	2/06/2012	1+45	CL	M5	Lift 5	2100	11.3	92.1	86.8
134	2/08/2012	1+17	U/S	M5	Lift 7	2144	11.7	94.0	97.2
135	2/08/2012	1+17	D/S	M5	Lift 7	2121	10.3	93.0	82.1
136	2/08/2012	1+11	D/S	M5	Lift 8	2102	11.9	92.2	91.7
137	2/08/2012	1+09	C/L	M5	Lift 8	2137	11.1	93.7	91.0
138	2/08/2012	0+92	U/S	M5	Lift 8	2063	13.1	90.5	94.4
139	2/08/2012	0+95	U/S	M5	Lift 8	2098	13.2	92.0	100.0
140	2/08/2012	0+98	D/S	M5	Lift 8	2065	11.4	90.6	82.5
141	2/08/2012	0+98	C/L	M5	Lift 8	2154	9.8	94.5	82.9
142	2/08/2012	0+96	D/S	M5	Lift 8	2078	12.0	91.1	88.8
143	2/08/2012	0+85	D/S	M5	Lift 8	2136	12.4	93.7	100.0
144	2/08/2012	0+80	U/S	M5	Lift 8	2120	13.2	93.0	100.0
145	2/08/2012	0+75	CL	M5	Lift 8	2083	12.7	91.4	94.7
146	2/08/2012	0+68	D/S	M5	Lift 8	2060	14.6	90.4	100.0
147	2/08/2012	0+62	U/S	M5	Lift 8	2101	12.7	92.1	97.7
148	2/11/2012	1+18	D/S	M6	Lift 8	2139	12.7	96.8	100.0
149	2/11/2012	1+18	U/S	M6	Lift 8	2126	12.7	96.2	100.0
150	2/11/2012	1+07	D/S	M6	Lift 9	2156	12.7	97.6	100.0
151	2/11/2012	0+93	D/S	M6	Lift 9	2153	12.7	97.4	100.0
152	2/11/2012	0+90	U/S	M6	Lift 9	2165	10.3	98.0	88.9
153	2/11/2012	0+70	D/S	M6	Lift 9	2159	10.6	97.7	90.5
154	2/11/2012	0+69	D/S	M6	Lift 9	2230	8.6	100.9	84.0
155	2/11/2012	0+60	D/S	M6	Lift 9	2258	9.5	102.2	98.1
156	2/11/2012	0+62	D/S	M6	Lift 9	2239	9.8	101.3	97.4
157	2/11/2012	0+55	CL	M6	Lift 9	2279	9.8	103.1	100.0
158	2/12/2012	1+27	D/S	M6	Lift 6	2182	10.6	98.7	94.4
159	2/12/2012	1+27	U/S	M6	Lift 6	2066	11.6	93.5	84.1
160	2/12/2012	1+40	D/S	M6	Lift 6	2164	9.8	97.9	84.4
161	2/12/2012	1+40	U/S	M6	Lift 6	2103	11.4	95.2	88.0
162	2/12/2012	1+48	D/S	M6	Lift 6	2132	12.4	96.5	100.0
163	2/12/2012	1+55	U/S	M6	Lift 6	2106	12.7	95.3	98.6
164	2/12/2012	1+63	CL	M6	Lift 6	2098	13.4	94.9	100.0
165	2/12/2012	1+55	D/S	M6	Lift 6	2107	12.8	95.3	99.5
166	2/13/2012	1+18	D/S	M6	Lift 9	2185	9.4	98.9	84.1
167	2/13/2012	1+15	U/S	M6	Lift 9	2202	9.5	99.6	87.8
168	2/13/2012	1+05	U/S	M6	Lift 10	2171	11.0	98.2	96.0
169	2/13/2012	0+97	D/S	M6	Lift 10	2145	11.4	97.1	94.9
170	2/13/2012	0+93	U/S	M6	Lift 10	2199	10.3	99.5	94.6
171	2/13/2012	0+90	CL	M6	Lift 10	2098	13.5	94.9	100.0
172	2/13/2012	0+85	D/S	M6	Lift 10	2148	12.2	97.2	100.0
173	2/13/2012	0+79	D/S	M6	Lift 10	2152	11.6	97.4	97.8
174	2/13/2012	0+80	U/S	M6	Lift 10	2119	11.7	95.9	92.9
175	2/13/2012	0+66	CL	M6	Lift 10	2092	13.3	94.7	100.0
176	2/13/2012	0+59	CL	M6	Lift 10	2064	13.3	93.4	96.1
177	2/13/2012	0+51	CL	M6	Lift 10	2075	14.0	93.9	100.0
178	2/15/2012	1+25	D/S	M6	Lift 7	2113	13.5	95.6	100.0
179	2/15/2012	1+00	U/S	M6	Lift 7	2068	13.9	93.6	100.0
180	2/15/2012	1+13	U/S	M6	Lift 7	2141	11.7	96.9	96.6
181	2/15/2012	1+25	U/S	M6	Lift 7	2143	11.0	97.0	91.2
182	2/15/2012	1+55	CL	M6	Lift 7	2141	11.0	96.9	90.9
183	2/15/2012	1+70	CL	M6	Lift 7	2155	9.9	97.5	83.8
184	2/15/2012	1+75	CL	M6	Lift 7	2215	9.6	100.2	91.1
185	2/15/2012	1+81	D/S	M6	Lift 7	2235	10.8	101.1	100.0
186	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
187	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
188	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
189	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
190	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
191	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
192	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
193	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
194	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
195	2/15/2012	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
196	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
197	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
198	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
199	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
200	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							

COMPACTION AND SATURATION TESTING SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY			
TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (*) (***)	COMPACTION	SATURATION (**) (***)
						(kg/m <sup>3</sup> )	(%)		
201	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
202	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
203	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
204	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
205	2/16/12	TEST DONE ON FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF THE DAM STRUCTURE							
206	2/17/12	1+15	D/S	M6	Lift 8	2118	11.4	95.8	90.3
207	2/17/12	1+00	D/S	M6	Lift 8	2078	13.5	94.0	99.8
208	2/17/12	0+93	D/S	M6	Lift 11	2083	13.2	94.3	98.5
209	2/17/12	0+86	D/S	M6	Lift 11	2076	12.4	93.9	91.3
210	2/18/12	1+15	U/S	M7	Lift 8	2113	11.8	97.8	92.0
211	2/18/12	1+02	U/S	M7	Lift 8	2090	12.3	96.8	92.3
212	2/18/12	0+89	U/S	M7	Lift 11	2113	10.4	97.8	80.9
213	2/18/12	0+78	U/S	M7	Lift 11	2109	11.5	97.7	88.9
214	2/18/12	0+71	D/S	M7	Lift 11	2089	12.2	96.7	91.1
215	2/19/12	0+98	D/S	M7	Lift 8	2059	12.1	95.3	85.8
216	2/19/12	1+11	D/S	M7	Lift 8	2057	12.6	95.2	88.7
217	2/19/12	1+28	D/S	M7	Lift 9	2070	13.3	95.8	95.7
218	2/19/12	1+60	D/S	M7	Lift 9	2059	13.0	95.3	91.9
219	2/20/12	1+15	U/S	M7	Lift 9	2086	11.1	96.6	82.5
220	2/20/12	1+08	U/S	M7	Lift 9	2134	10.7	98.8	86.3
221	2/20/12	0+90	U/S	M7	Lift 12	2117	10.8	98.0	84.6
222	2/20/12	0+80	D/S	M7	Lift 12	2099	12.2	97.2	92.6
223	2/20/12	0+65	D/S	M7	Lift 12	2116	10.5	98.0	82.1
224	2/21/12	1+25	U/S	M7	Lift 10	2081	12.0	96.3	88.1
225	2/21/12	1+10	D/S	M7	Lift 10	2093	10.8	96.9	80.8
226	2/21/12	1+45	CL	M7	Lift 10	2116	11.3	97.9	88.4
227	2/21/12	1+70	CL	M7	Lift 10	2077	12.7	96.2	92.9
228	2/22/12	1+08	U/S	M7	Lift 10	2131	10.7	98.6	86.0
229	2/22/12	0+95	D/S	M7	Lift 13	2114	11.1	97.9	86.2
230	2/22/12	0+75	U/S	M7	Lift 11	2190	10.2	101.4	91.3
231	2/22/12	0+70	D/S	M7	Lift 11	2112	10.5	97.8	81.3
232	2/22/12	1+25	U/S	M7	Lift 11	2147	10.5	99.4	86.9
233	2/22/12	1+30	U/S	M7	Lift 11	2136	10.5	98.9	85.0
234	2/22/12	1+25	CL	M7	Lift 11	2149	10.5	99.5	86.8
235	2/22/12	1+36	CL	M7	Lift 11	2140	10.5	99.1	85.4
236	2/22/12	1+30	D/S	M7	Lift 11	2168	11.3	100.4	96.9
237	2/22/12	1+50	D/S	M7	Lift 11	2115	11.3	97.9	88.2
238	2/24/12	0+79	D/S	M7	Lift 12	2192	10.2	101.5	91.0
239	2/24/12	0+70	U/S	M7	Lift 12	2202	9.7	101.9	88.9
240	2/24/12	1+30	U/S	M7	Lift 12	2173	10.0	100.6	86.5
241	2/24/12	1+20	D/S	M7	Lift 12	2150	10.3	99.6	85.6
242	2/24/12	1+08	U/S	M7	Lift 12	2191	9.5	101.4	85.0
243	2/24/12	1+00	D/S	M7	Lift 12	2166	9.5	100.3	81.2
244	2/26/12	1+100	CL	M7	Lift 13	2141	11.0	99.1	89.8
245	2/26/12	0+90	U/S	M7	Lift 13	2185	10.5	101.1	92.5
246	2/26/12	0+85	CL	M7	Lift 13	2138	10.2	99.0	83.1
247	2/26/12	0+75	D/S	M7	Lift 13	2122	10.1	98.3	80.0
248	2/26/12	0+45	D/S	M7	Lift 13	2150	10.3	99.5	85.1
249	2/27/12	1+93	CL	M7	Lift 14	2167	10.3	100.3	88.2
250	2/27/12	1+74	U/S	M7	Lift 14	2114	10.6	97.9	82.6
251	2/27/12	1+11	CL	M7	Lift 14	2117	10.4	98.0	81.4
252	2/27/12	1+04	U/S	M7	Lift 14	2129	11.4	98.6	91.2
253	2/27/12	0+90	U/S	M7	Lift 14	2148	10.9	99.4	90.2
254	2/28/12	1+86	CL	M8	Lift 15	2107	10.4	95.6	80.0
255	2/28/12	1+41	U/S	M8	Lift 15	2168	9.7	98.3	83.2
256	2/29/12	1+05	D/S	M8	Lift 16	2116	10.3	95.9	80.7
257	2/29/12	0+95	U/S	M8	Lift 16	2147	9.7	97.4	80.3
258	2/29/12	0+85	CL	M8	Lift 16	2136	10.6	96.9	85.6
259	2/29/12	0+75	D/S	M8	Lift 16	2145	10.7	97.3	88.2
260	2/29/12	0+75	U/S	M8	Lift 16	2098	12.1	95.2	92.1
261	2/29/12	TEST DID NOT MEET SATURATION REQUIREMENT AND MATERIAL WAS REMOVED							
262	2/29/12	1+28	CL	M8	Lift 16	2101	11.2	95.3	85.1
263	3/1/12	0+45	CL	M8	Lift 16	2141	10.0	97.1	81.7
264	3/1/12	1+40	U/S	M8	Lift 16	2076	11.2	94.2	81.8
265	3/1/12	1+70	U/S	M8	Lift 16	2014	12.2	91.3	80.4
266	3/2/12	1+20	U/S	M8	Lift 17	2086	10.9	94.6	80.9
267	3/2/12	0+95	CL	M8	Lift 17	2075	11.1	94.1	80.9
268	3/2/12	0+80	U/S	M8	Lift 17	2082	11.0	94.4	81.1
269	3/2/12	0+75	CL	M8	Lift 17	2106	10.5	95.5	80.7
270	3/2/12	0+70	CL	M8	Lift 17	2086	10.8	94.6	80.2
271	3/3/12	1+40	U/S	M8	Lift 16	2133	10.4	96.7	83.8
272	3/3/12	1+60	U/S	M8	Lift 16	2168	10.9	98.3	93.5
273	3/4/12	1+25	U/S	M8	Lift 18	2166	10.1	98.2	86.4
274	3/4/12	1+20	D/S	M8	Lift 18	2137	10.6	96.9	85.9

COMPACTION AND SATURATION TESTING SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY			
TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (%) (**)	COMPACTION (%)	SATURATION (%) (***)
						(kg/m <sup>3</sup> )	(%)	(%)	(%)
275	3/4/12	1+10	CL	M8	Lift 18	2157	10.5	97.8	88.4
276	3/4/12	1+00	D/S	M8	Lift 18	2096	11.6	95.1	87.6
277	3/4/12	0+90	U/S	M8	Lift 18	2149	10.7	97.5	88.7
278	3/4/12	0+80	D/S	M8	Lift 18	2119	10.8	96.1	84.9
279	3/4/12	1+60	U/S	M8	Lift 17	2064	11.6	93.6	82.9
280	3/4/12	1+35	U/S	M8	Lift 17	2081	11.3	94.4	83.2
281	3/6/12	0+70	U/S	M8	Lift 19	2118	10.4	96.0	81.6
282	3/6/12	0+70	D/S	M8	Lift 19	2109	10.9	95.7	84.2
283	3/6/12	0+85	D/S	M8	Lift 19	2120	10.9	96.1	85.8
284	3/6/12	0+85	U/S	M8	Lift 19	2113	11.1	95.8	86.3
285	3/6/12	0+98	CL	M8	Lift 19	2070	11.6	93.9	83.8
286	3/6/12	1+12	D/S	M8	Lift 19	2093	11.3	94.9	84.8
287	3/6/12	1+28	U/S	M8	Lift 19	2116	10.7	95.9	83.6
288	3/6/12	1+38	CL	M8	Lift 19	2108	10.7	95.6	82.6
289	3/6/12	1+50	D/S	M8	Lift 19	2084	11.0	94.5	81.4
290	3/8/12	1+85	CL	M8	Lift 20	2068	12.8	93.8	92.2
291	3/8/12	1+73	CL	M8	Lift 20	2114	11.2	95.9	87.3
292	3/8/12	1+50	CL	M8	Lift 20	2066	11.9	93.7	85.4
293	3/8/12	1+35	D/S	M9	Lift 20	2097	11.4	94.0	86.3
294	3/8/12	1+20	U/S	M9	Lift 20	2100	11.5	94.2	87.5
295	3/8/12	1+05	D/S	M9	Lift 20	2084	12.5	93.5	92.5
296	3/9/12	0+90	U/S	M9	Lift 20	2097	11.6	94.0	87.8
297	3/9/12	0+81	CL	M9	Lift 20	2080	11.8	93.3	86.7
298	3/9/12	0+72	U/S	M9	Lift 20	2082	11.9	93.4	87.8
299	3/9/12	0+60	D/S	M8	Lift 20	2069	12.0	93.8	86.6
300	3/9/12	0+50	U/S	M8	Lift 20	2125	11.0	96.4	87.4
301	3/10/12	0+48	D/S	M9	Lift 20	2075	11.6	93.0	84.5
302	3/10/12	0+27	CL	M9	Lift 20	2062	12.0	92.5	85.6
303	3/10/12	0+39	D/S	M9	Lift 20	2101	11.2	94.2	85.3
304	3/10/12	1+68	CL	M9	Lift 20	2084	11.9	93.5	88.1
305	3/10/12	1+57	CL	M9	Lift 20	2064	11.9	92.6	85.1
306	3/10/12	1+25	D/S	M9	Lift 20	2140	10.5	96.0	85.7
307	3/10/12	1+15	U/S	M9	Lift 20	2076	11.3	93.1	82.5
308	3/10/12	1+05	D/S	M9	Lift 20	2070	11.8	92.8	85.3
309	3/10/12	0+95	U/S	M9	Lift 20	2101	11.3	94.2	86.1
310	3/11/12	0+85	U/S	M9	Lift 21	2091	10.9	93.8	81.6
311	3/11/12	0+72	CL	M9	Lift 21	2067	11.4	92.7	82.0
312	3/11/12	0+63	U/S	M9	Lift 21	2092	11.0	93.8	82.5
313	3/11/12	0+45	U/S	M9	Lift 21	2100	11.4	94.2	86.7
314	3/12/12	0+25	U/S	M9	Lift 21	2080	11.1	93.3	81.6
315	3/12/12	0+45	D/S	M9	Lift 21	2102	10.9	94.3	83.2
316	3/12/12	1+56	D/S	M9	Lift 21	2113	11.3	94.8	87.9
317	3/12/12	1+35	U/S	M9	Lift 21	2101	11.4	94.2	86.9
318	3/12/12	1+10	D/S	M9	Lift 21	2094	11.3	93.9	85.1
319	3/13/12	1+10	U/S	M9	Lift 22	2112	11.3	94.7	87.7
320	3/13/12	0+80	U/S	M9	Lift 22	2103	11.3	94.3	86.4
321	3/13/12	0+76	D/S	M9	Lift 22	2134	11.0	95.7	88.8
322	3/13/12	1+40	CL	M9	Lift 22	2126	11.4	95.3	90.7
323	3/13/12	1+15	U/S	M9	Lift 22	2141	11.3	96.0	92.3
324	3/13/12	0+55	CL	M9	Lift 22	2099	11.9	94.1	90.4
325	3/13/12	0+32	U/S	M9	Lift 22	2127	11.3	95.4	90.1
326	3/15/12	0+95	U/S	M9	Lift 23	2169	10.5	97.3	90.3
327	3/15/12	0+82	U/S	M9	Lift 23	2167	10.8	97.2	92.5
328	3/15/12	0+70	U/S	M9	Lift 23	2152	10.6	96.5	88.4
329	3/16/12	1+35	D/S	M9	Lift 24	2123	11.5	95.2	91.0
330	3/16/12	1+20	U/S	M9	Lift 24	2096	10.8	94.0	81.6
331	3/17/12	1+00	D/S	M9	Lift 24	2058	12.2	92.3	86.4
332	3/17/12	0+70	U/S	M9	Lift 24	2107	11.7	94.5	90.1
333	3/17/12	0+45	U/S	M9	Lift 24	2085	12.3	93.5	91.2
334	3/17/12	0+32	U/S	M9	Lift 24	2108	11.8	94.5	91.0
335	3/19/12	1+20	CL	M9	Lift 24	2066	12.2	92.6	87.6
336	3/19/12	0+90	U/S	M9	Lift 24	2075	13.1	93.1	95.5
337	3/19/12	0+55	D/S	M9	Lift 24	2100	13.2	94.2	100.0
338	3/19/12	0+45	U/S	M9	Lift 24	2080	12.2	93.3	89.7
339	3/21/12	0+35	CL	M10	Lift 25	2058	12.9	93.5	91.3
340	3/21/12	0+50	D/S	M10	Lift 25	2071	12.5	94.1	90.5
341	3/21/12	0+70	D/S	M10	Lift 25	2070	12.8	94.1	92.5
342	3/22/12	1+80	U/S	M11	Lift 26	2086	14.3	92.7	100.0
343	3/22/12	1+55	CL	M10	Lift 26	2211	11.6	100.5	100.0
344	3/23/12	0+50	CL	M11	Lift 26	2062	14.3	91.6	100.0
345	3/23/12	1+35	CL	M11	Lift 26	2209	8.5	98.2	78.7
346	3/23/12	1+29	U/S	M11	Lift 26	2240	8.3	99.6	81.6
347	3/24/12	1+15	U/S	M11	Lift 26	2286	8.8	101.6	94.9
348	3/24/12	1+08	CL	M11	Lift 26	2229	10.2	99.1	98.1
349	3/25/12	0+85	U/S	M11	Lift 26	2296	7.6	102.0	83.5
350	3/25/12	0+82	CL	M11	Lift 26	2246	7.5	99.8	74.8
351	3/26/12	0+60	CL	M10	Lift 27	2145	8.4	97.5	69.5

COMPACTION AND SATURATION TESTING SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY			
TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (*) (***)	COMPACTION	SATURATION (**) (***)
						(kg/m <sup>3</sup> )	(%)	(%)	(%)
352	3/26/12	0+62	CL	M10	Lift 28	2205	8.7	100.2	80.1
353	3/27/12	0+38	U/S	M11	Lift 28	2225	7.2	98.9	68.5
354	3/27/12	0+29	CL	M11	Lift 28	2213	7.2	98.4	67.3
355	3/30/12	0+65	D/S	M11	Lift 29	2149	6.5	95.5	53.9
356	3/30/12	0+70	U/S	M11	Lift 29	2151	6.8	95.6	56.6
357	3/30/12	0+65	U/S	M11	Lift 29	2172	6.7	96.6	58.0
358	3/31/12	0+58	D/S	M11	Lift 30	2200	6.9	97.8	62.8
359	3/31/12	0+55	CL	M11	Lift 30	2220	6.3	98.7	59.6
360	3/31/12	0+45	U/S	M11	Lift 30	2289	8.1	101.7	87.8

- Notes:
- (\*) Moisture content from Troxler nuclear gauge is inaccurate
  - (\*\*) Degree saturation calculated based on moisture content from Troxler gauge is not accurate
  - (\*\*\*) Moisture contents on and after February 17, 2012 are from grab samples taken from compaction test locations
  - (\*\*\*\*) Calculations for results on and after February 17, 2012
  - (\*\*\*\*\*) Results for GCL Cover Blend and lift placed on March 26 are excluded from calculations
  - 1) Tests that failed and were retested were removed from calculation of averages
  - 2) 100% degree saturation indicates that material is oversaturated
  - 3) Red indicates a degree of saturation below 80%
  - 4) D/S Downstream U/S Upstream CL Centerline
  - 5) Test Nos. 116, 117, 119, 120, and 121 are retests for the failed tests after further compaction
  - 6) Yellow indicates results for GCL Cover Blend

**Compaction Test Results**  
**Test Pads**

**COMPACTION AND SATURATION TESTING SUMMARY**

**FCM TEST PADS, DORIS NORTH, HOPE BAY**

MATERIAL ID	MATERIAL DESCRIPTION	STANDARD PROCTOR ID	MAXIMUM DRY DENSITY	OPTIMUM MOISTURE CONTENT	SPECIFIC GRAVITY
			(kg/m <sup>3</sup> )	(%)	
M1	3:2 FCM	-	2275	9.0	2.890
M2	F	-	2145	9.5	2.882
M3	1:2 FCM	-	2255	8.4	2.888
M4	1:1 FCM	-	2290	8.0	2.906
M5	3:2 FCM	SP1	2280	8.0	2.890
M6	Recrushed 3:2 FCM	SP2	2210	9.4	2.890
M7	5 mm Minus FCM	SP3	2160	10.1	2.901
M8	5 mm Minus FCM	SP5	2205	8.5	2.901
M9	5 mm Minus FCM	SP6	2230	8.7	2.901
M10	5 mm Minus FCM	SP8	2200	8.8	2.901
M11	GCL Cover Blend	SP10	2250	9.5	2.901

	DRY DENSITY	MOISTURE CONTENT	COMPACTION	SATURATION
	(kg/m <sup>3</sup> )	(%)	(%)	(%)
Average:	2145	8.3	97.3	69.8
Minimum:	2053	4.7	93.1	33.0
Maximum:	2217	11.1	100.6	97.4
St. Deviation:	48	2.3	2.2	22.0

STANDARDS:	COMPACTION: SATURATION:	NOT LESS THAN 90% OF SPMD AVERAGE NOT LESS THAN 85%, NO TEST BELOW 80%
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**COMPACTION AND SATURATION TESTING SUMMARY**

**FCM TEST PADS, DORIS NORTH, HOPE BAY**

TEST NO.	DATE TESTED	AREA	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (†)	COMPACTION	SATURATION (°)
						(kg/m <sup>3</sup> )	(%)	(%)	(%)
186	2/15/2012	1	Test Batch 1	5 mm Minus	Lift 1	2053	4.7	93.1	33.0
187	2/15/2012	1	Test Batch 1	5 mm Minus	Lift 1	2086	4.7	94.6	34.9
188	2/15/2012	2	Test Batch 2	5 mm Minus	Lift 1	2074	5.4	94.1	39.3
189	2/15/2012	2	Test Batch 2	5 mm Minus	Lift 1	2099	5.4	95.2	41.0
190	2/15/2012	3	Test Batch 3	5 mm Minus	Lift 1	2129	5.6	96.5	44.8
191	2/15/2012	4	Test Batch 4	5 mm Minus	Lift 1	2165	6.9	98.2	58.8
192	2/15/2012	5	Test Batch 5	5 mm Minus	Lift 1	2081	7.0	94.4	51.6
193	2/15/2012	6	Test Batch 6	5 mm Minus	Lift 1	2164	8.5	98.1	72.4
194	2/15/2012	7	Test Batch 7	5 mm Minus	Lift 1	2217	8.2	100.6	77.1
195	2/15/2012	7	Test Batch 7	5 mm Minus	Lift 1	2176	9.3	98.7	80.9
196	2/16/12	8	Test Batch 8	5 mm Minus	Lift 2	2186	7.6	99.1	67.4
197	2/16/12	9	Test Batch 9	5 mm Minus	Lift 2	2104	9.2	95.4	70.5
198	2/16/12	10	Test Batch 10	5 mm Minus	Lift 2	2142	10.2	97.2	83.6
199	2/16/12	10	Test Batch 10	5 mm Minus	Lift 2	2186	10.2	99.1	90.5
200	2/16/12	11	Test Batch 11	5 mm Minus	Lift 2	2203	9.6	99.9	88.0
201	2/16/12	11	Test Batch 11	5 mm Minus	Lift 2	2205	9.6	100.0	88.3
202	2/16/12	12	Test Batch 12	5 mm Minus	Lift 2	2136	11.1	96.9	89.9
203	2/16/12	12	Test Batch 12	5 mm Minus	Lift 2	2171	11.1	98.5	95.8
204	2/16/12	13	Test Batch 13	5 mm Minus	Lift 2	2144	11.1	97.2	91.2
205	2/16/12	13	Test Batch 13	5 mm Minus	Lift 2	2180	11.1	98.9	97.4

- Notes:
- (°) Calculated using moisture contents from grab samples taken from compaction test locations
  - (†) Moisture contents are from grab samples taken from compaction test locations
  - 2) 100% degree saturation indicates that material is oversaturated
  - 3) Red indicates a degree of saturation below 80%

**Compaction Test Results**  
**Failed Tests**

COMPACTION AND SATURATION TESTING SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

MATERIAL ID	MATERIAL DESCRIPTION	STANDARD PROCTOR ID	MAXIMUM DRY DENSITY	OPTIMUM MOISTURE CONTENT	SPECIFIC GRAVITY
			(kg/m <sup>3</sup> )	(%)	
M1	3:2 FCM	-	2275	9.0	2.890
M2	F	-	2145	9.5	2.882
M3	1:2 FCM	-	2255	8.4	2.888
M4	1:1 FCM	-	2290	8.0	2.906
M5	3:2 FCM	SP1	2280	8.0	2.890
M6	Recrushed 3:2 FCM	SP2	2210	9.4	2.890
M7	5 mm Minus FCM	SP3	2160	10.1	2.901
M8	5 mm Minus FCM	SP5	2205	8.5	2.901
M9	5 mm Minus FCM	SP6	2230	8.7	2.901
M10	5 mm Minus FCM	SP8	2200	8.8	2.901
M11	GCL Cover Blend	SP10	2250	9.5	2.901

STANDARDS:	COMPACTION: SATURATION:	NOT LESS THAN 90% OF SPMD AVERAGE NOT LESS THAN 85%, NO TEST BELOW 80%
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COMPACTION AND SATURATION TESTING SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

TEST NO.	DATE TESTED	STATION	LOCATION	MATERIAL ID	ELEVATION (APPROX.)	DRY DENSITY	MOISTURE CONTENT (*) (**)	COMPACTION	SATURATION (**) (***)
						(kg/m <sup>3</sup> )	(%)		
113	2/06/2012	1+00	D/S	M5	Lift 7	2143	8.8	94.0	73.0
114	2/06/2012	1+00	CL	M5	Lift 7	2182	8.4	95.7	74.8
115	2/06/2012	1+00	U/S	M5	Lift 7	2208	8.3	96.8	77.7
118	2/06/2012	0+98	U/S	M5	Lift 7	2173	8.5	95.3	74.4
261	2/29/12	1+14	U/S	M8	Lift 16	2166	8.9	98.2	76.1

- Notes:
- (\*) Moisture content from Troxler nuclear gauge is inaccurate
  - (\*\*) Degree saturation calculated based on moisture content from Troxler gauge is not accurate
  - (\*\*\*) Moisture contents on and after February 17, 2012 are from grab samples taken from compaction test locations
  - 1) Red indicates a degree of saturation below 80%
  - 2) D/S Downstream U/S Upstream CL Centerline
  - 3) Test Nos. 113, 114, 115, 118 failed saturation and the areas was recompact and retested
  - 4) Test No. 261 failed saturation and the material was removed

## **Appendix H.5:      Core Saturation Test Results**

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This appendix contains all data collected during ice saturation testing of drilled core samples, including

- Moisture content
- Frozen bulk density
- Frozen dry density
- Percent Compaction
- Ice saturation

CORE ICE SATURATION SUMMARY - CORE MATERIAL - KEY TRENCH									
					Moisture Content (%)	Bulk Density (frozen) (kg/m <sup>3</sup> )	Dry Density (frozen) (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
Max. Dry Density (kg/m <sup>3</sup> ):	2145	Avg.:			10.9%	2318.2	2092.1	92.5	89.4%
Max. Dry Density (kg/m <sup>3</sup> ):	2275	Min.:			8.6%	2191.1	1917.5	84.3	78.5%
Specific Gravity:	2.88	Max.:			15.1%	2398.3	2201.8	98.9	100.0%
Specific Gravity:	2.89	Stdev.:			1.5%	51.7	71.7	3.2	3.9%
CORE ICE STAURATION SUMMARY - CORE MATERIAL - KEY TRENCH									
SRK Sample No.	Test Date	Location (Station/Offset)	Elevation/Lift (approx.)	Core State	Moisture Content (%)	Bulk Density (frozen) (kg/m <sup>3</sup> )	Dry Density (frozen) (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB-ND-CORE-DC01-QA-20110310	2011-03-10	Sta 1+35, trial on fines	LC Lift 2		10.5%	2299	2080	97.0	85.9%
HB-ND-CORE-DC02-QA-20110310	2011-03-10	Sta 1+50, trial on fines	LC Lift 2		10.7%	2302	2079	96.9	87.3%
HB-ND-CORE-DC03-QA-20110310	2011-03-10	Sta 1+60, trial on fines	LC Lift 2		9.8%	2328	2120	98.9	85.9%
HB-ND-CORE-DC04-QA-20110310	2011-03-10	Sta 0+70, fines	LC Lift 2		13.9%	2240	1967	91.7	93.7%
HB-ND-CORE-DC05-QA-20110314	2011-03-14	Sta 1+40	LC Lift 2		12.6%	2231	1981	92.3	86.7%
HB-ND-CORE-DC06-QA-20110316	2011-03-16	Sta 1+50	LC Lift 2		10.0%	2398	2179	95.8	96.9%
HB-ND-CORE-DC07-QA-20110316	2011-03-16	"peat zone"	Lift 5		10.7%	2340	2113	92.9	92.1%
HB-ND-CORE-DC08-QA-20110319	2011-03-19	0+45 D/S	Lift 2		10.0%	2322	2111	92.8	85.5%
HB-ND-CORE-DC09-QA-20110319	2011-03-19	0+45 D/S	Lift 2		10.6%	2323	2101	92.3	88.8%
HB-ND-CORE-DC10-QA-20110320	2011-03-20	1+31, near center line	Lift 5		11.0%	2302	2075	91.2	87.9%
HB-ND-CORE-DC11-QA-20110320	2011-03-20	1+45 D/S, adjacent to the wall	Lift 3		11.4%	2257	2027	89.1	84.1%
HB-ND-CORE-DC12-QA-20110320	2011-03-20	1+55 D/S	Lift 1 & 2		9.9%	2365	2152	94.6	91.2%
HB-ND-CORE-DC13-QA-20110321	2011-03-21	1+09 D/S	Lift 1		9.7%	2373	2162	95.0	91.2%
HB-ND-CORE-DC14-QA-20110321	2011-03-21	0+70 D/S	Lift 4		9.6%	2288	2089	91.8	78.5%
HB-ND-CORE-DC15-QA-20110322	2011-03-22	0+70 U/S	Lift 4		11.6%	2255	2021	88.9	84.9%
HB-ND-CORE-DC16-QA-20110323	2011-03-23	Sta 1+50 U/S	Lift 3		15.1%	2263	1966	86.4	100.0%
HB-ND-CORE-DC17-QA-20110323	2011-03-23	Sta 1+65 U/S	Lift 3		15.1%	2209	1920	84.4	94.1%
HB-ND-CORE-DC18-QA-20110323	2011-03-23	Sta 0+50 U/S	Lift 3		12.5%	2253	2003	88.1	88.8%
HB-ND-CORE-DC19-QA-20110324	2011-03-24	Sta 0+89 Centerline	Lift 3	1	Core damaged due to thawing-no test				
HB-ND-CORE-DC20-QA-20110325	2011-03-25	Sta 0+40 Centerline	Lift 3	1	Core thawed in water weigh- no test				
HB-ND-CORE-DC21-QA-20110325	2011-03-25	Sta 0+53 U/S	Lift 3	1	Core damaged due to thawing-no test				
HB-ND-CORE-DC22-QA-20110326	2011-03-26	Sta 0+80 U/S	Lift 4	1	Core damaged due to thawing-no test				
HB-ND-CORE-DC23-QA-20110327	2011-03-26	Sta 1+60 D/S	Top of Levelling Course		10.3%	2359	2139	94.0	92.5%
HB-ND-CORE-DC24-QA-20110327	2011-03-26	Sta 1+30 D/S	Top of Levelling Course		10.1%	2350	2134	93.8	90.1%
HB-ND-CORE-DC25-QA-20110327	2011-03-26	Sta 1+27 D/S (approx. 1 m from the edge of placement)	Top of Levelling Course		10.1%	2332	2118	93.1	87.4%
HB-ND-CORE-DC26-QA-20110327	2011-03-27	Sta 0+33	Top of Levelling Course		14.3%	2191	1918	84.3	88.7%
HB-ND-CORE-DC27-QA-20110329	2011-03-29	Sta 1+05	Top of Levelling Course	1	Core damaged during sampling				

CORE ICE SATURATION SUMMARY - CORE MATERIAL - KEY TRENCH									
SRK Sample No.	Test Date	Location (Station/Offset)	Elevation/Lift (approx.)	Core State	Moisture Content (%)	Bulk Density (frozen) (kg/m <sup>3</sup> )	Dry Density (frozen) (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB-ND-CORE-DC28-QA-20110329	2011-03-29	Sta 1+86	Top of Levelling Course		10.6%	2306	2086	91.7	86.3%
HB-ND-CORE-DC29-QA-20110330	2011-03-30	Sta 0+32 Upstream	Top of Levelling Course		11.6%	2270	2034	89.4	87.2%
HB-ND-CORE-DC30-QA-20110330	2011-03-30	Sta 1+11 Centerline	~0.80m to final levelling course		8.6%	2366	2180	95.8	82.8%
HB-ND-CORE-DC31-QA-20110330	2011-03-30	Sta 0+87 Centerline	~1.0m to final levelling course		13.0%	2215	1959	86.1	86.5%
HB-ND-CORE-DC32-QA-20110402	2011-04-02	Sta 0+90, 4m of U/S	~0.8m to final leveling course	3	13.9%	2236	1964	86.3	92.7%
HB-ND-CORE-DC33-QA-20110402	2011-04-02	Sta 1+55, 2m of U/S	Top of fillet leveling course	3	8.9%	2398	2202	96.8	90.0%
HB-ND-CORE-DC34-QA-20110402	2011-04-02	Sta 1+87, 11m of U/S	~0.3m to final leveling course	3	11.0%	2287	2059	90.5	86.3%
HB-ND-CORE-DC35-QA-20110403	2011-04-03	Sta 0+38 U/S Fillet	First lift of South Fillet	3	9.9%	2361	2148	94.4	90.3%
HB-ND-CORE-DC36-QA-20110403	2011-04-03	Sta 0+55 U/S Fillet	First lift of South Fillet	2	10.4%	2337	2116	93.0	89.9%
HB-ND-CORE-DC37-QA-20110404	2011-04-04	Sta 1+77 U/S Fillet	N=7559192.9 E=434424.8 Elev.=32.6m	2	9.3%	2391	2187	96.2	91.3%
HB-ND-CORE-DC38-QA-20110404	2011-04-04	Sta 1+83 C/L near North Entrance	N=7559201.0 E=434424.3 Elev.=32.5m	2	9.5%	2352	2147	94.4	86.8%
HB-ND-CORE-DC39-QA-20110404	2011-04-04	Sta 1+10 Peat zone	~0.7m to final levelling grade	2	10.8%	2348	2120	93.2	93.4%
HB-ND-CORE-DC40-QA-20110404	2011-04-04	Sta 0+47 South Fillet	N=7559097.9 E=434337.3 Elev.=30.5m	1	Core damaged during sampling				
HB-ND-CORE-DC41-QA-20110405	2011-04-05	STN 0+85 13m of U/S Peat Zone	1st Lift	2	10.1%	2360	2144	94.2	91.6%
HB-ND-CORE-DC42-QA-20110405	2011-04-05	STN 1+35 1m of U/S North Fillet	1st Lift	2	10.6%	2367	2140	94.1	95.3%
HB-ND-CORE-DC43-QA-20110407	2011-04-07	STN 1+06 soft spot	N=7559145.0 E=434369.7 Elev.=25.5m	2	9.7%	2387	2175	95.6	93.4%
HB-ND-CORE-DC44-QA-20110407	2011-04-07	STN 1+15 soft spot ramp	N=7559145.2 E=434388.1 Elev.=28.2m	3	11.3%	2298	2065	90.8	89.3%
HB-ND-CORE-DC45-QA-20110409	2011-04-09	STN 1+05 soft spot center	N=7559138.4 E=434368.4 Elev.=25.4m	1	Core damaged during sampling				
HB-ND-CORE-DC46-QA-20110409	2011-04-09	STN 1+30 U/S	N=7559147.7 E=434390.3 Elev.=28.6m	2	11.5%	2275	2040	89.7	87.1%
HB-ND-CORE-DC47-QA-20110409	2011-04-09	STN 0+60 2m of U/S South Fillet	2nd Lift	3	11.8%	2300	2058	90.5	91.7%
HB-ND-CORE-DC48-QA-20110410	2011-04-10	STN 1+05 soft spot D/S - CT310	N=7559145.51 E=434370.72 Elev.=25.98m	3	9.9%	2339	2127	93.5	87.4%

CORE ICE SATURATION SUMMARY - CORE MATERIAL - KEY TRENCH									
SRK Sample No.	Test Date	Location (Station/Offset)	Elevation/Lift (approx.)	Core State	Moisture Content (%)	Bulk Density (frozen) (kg/m <sup>3</sup> )	Dry Density (frozen) (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB-ND-CORE-DC50-QA-20110411	2011-04-11	STN 0+85 U/S Peat Zone		2	10.2%	2378	2158	94.9	94.6%
HB-ND-CORE-DC51-QA-20110411	2011-04-11	STN 1+00 D/S		1	Core damaged during sampling				
HB-ND-CORE-DC52-QA-20110412	2011-04-12	STN 0+95 U/S Fillet		2	11.4%	2351	2110	92.8	97.1%
HB-ND-CORE-DC53-QA-20110412	2011-04-12	STN 1+16 U/S Peat Zone 6m of D/S		3	10.7%	2309	2086	91.7	87.6%
HB-ND-CORE-DC54-QA-20110413	2011-04-13	STN 0+92 U/S Fillet 3m of U/S		2	11.0%	2343	2111	92.8	93.8%
HB-ND-CORE-DC55-QA-20110414	2011-04-15	STN 1+10 D/S(CT#343)		3	11.3%	2302	2069	91.0	89.5%
HB-ND-CORE-DC56-QA-20110415	2011-04-16	STN 0+85 U/S Fillet		3	9.4%	2351	2148	94.4	86.1%
HB-ND-CORE-DC57-QA-20110422	2011-04-23	STN 0+74 U/S	N=7559116.0 E=434353.6 Elev.=27.2m	3	9.1%	2360	2163	95.1	86.2%
HB-ND-CORE-DC58-QA-20110422	2011-04-23	STN 0+45 C/L	N=7559100 E=434329.0 Elev.=31.3m	3	8.9%	2369	2175	95.6	86.5%
HB-ND-CORE-DC59-QA-20110422	2011-04-23	STN 1+66 U/S	N=7559187 E=434413.5 Elev.=31.6m	3	9.3%	2361	2160	94.9	87.6%
HB-ND-CORE-DC60-QA-20110422	2011-04-23	STN 1+20 C/L	N=7559156 E=434383.9 Elev.=28.1m	3	9.1%	2373	2176	95.7	88.0%
HB-ND-CORE-DC61-QA-20110430	2011-04-30	STN 0+85 D/S	GCL + 0.3m	2	10.3%	2322	2105	92.5	87.9%
HB-ND-CORE-DC62-QA-20110505	2011-05-05	STN 0+35 D/S	GCL + 0.6m	3	11.5%	2292	2056	90.4	89.9%
HB-ND-CORE-DC63-QA-20110505	2011-05-05	STN 0+85 Fillet	GCL	3	11.9%	2296	2051	90.2	92.6%

Notes: Condition of cores	1	Poor/ Damaged
	2	Good
	3	Excellent

CORE ICE SATURATION SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

MATERIAL ID	MATERIAL DESCRIPTION	STANDARD PROCTOR ID	MAXIMUM DRY DENSITY	OPTIMUM MOISTURE CONTENT	SPECIFIC GRAVITY
			(kg/m <sup>3</sup> )	(%)	
M1	3:2 FCM	2011	2275	9.0	2.890
M2	F	2011	2145	9.5	2.882
M3	1:2 FCM	2011	2255	8.4	2.888
M4	1:1 FCM	2011	2290	8.0	2.906
M5	3:2 FCM	SP1	2280	8.0	2.890
M6	Recrushed 3:2 FCM	SP2	2210	9.4	2.890
M7	5 mm Minus	SP3	2160	10.1	2.901
M8	5 mm Minus	SP5	2205	8.5	2.901
M9	5 mm Minus	SP6	2230	8.7	2.901
M10	5 mm Minus	SP8	2200	8.8	2.901

STATISTIC	Moisture Content	Frozen Bulk Density	Frozen Dry Density	Compaction	Ice Saturation
	(%)	(kg/m <sup>3</sup> )	(kg/m <sup>3</sup> )	(%)	(%)
Average	11.0%	2305	2076	93.3%	88.5%
Minimum	8.6%	2180	1918	86.0%	80.1%
Maximum	13.7%	2435	2230	99.0%	97.9%
Standard Deviation	1.3%	53	70	3.0%	3.9%

Core Conditions	
1	Poor / Damaged
2	Good
3	Excellent

Density of Ice:	0.9167
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CORE ICE SATURATION SUMMARY

DORIS NORTH DAM CONSTRUCTION, HOPE BAY

SRK Sample No.	Test Date	Location (Station/Offset)	Material ID	Elevation/Lift (approx.)	Core Condition	Moisture Content (%)	Frozen Bulk Density (kg/m <sup>3</sup> )	Frozen Dry Density (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB12-ND-CORE-DC1-QA-20120116	Jan 27, 2012	1+30 D/S	M1	Lift 1	2	11.2%	2329	2094	92.0%	93.0%
HB12-ND-CORE-DC2-QA-20120119	Jan 27, 2012	1+00 D/S	M1	Lift 1	1	11.2%	2343	2107	92.6%	95.1%
HB12-ND-CORE-DC3-QA-20120119	Jan 27, 2012	0+85 CL	M1	Lift 2	2	9.3%	2402	2197	96.6%	93.0%
HB12-ND-CORE-DC4-QA-20120122	Jan 27, 2012	1+28 D/S	M1	Lift 2	2	9.4%	2381	2176	95.6%	90.4%
HB12-ND-CORE-DC5-QA-20120124	Jan 27, 2012	0+50 CL	M1	Lift 2	2	9.8%	2317	2111	92.8%	83.3%
HB12-ND-CORE-DC6-QA-20120124	Jan 27, 2012	0+95 CL	M1	Lift 3	2	9.5%	2344	2141	94.1%	85.5%
HB12-ND-CORE-DC7-QA-20120124	Jan 27, 2012	1+20 D/S	M1	Lift 2	2	8.8%	2377	2184	96.0%	86.2%
HB12-ND-CORE-DC8-QA-20120127	Jan 30, 2012	1+60 D/S	M1	Lift 2	2	9.2%	2435	2230	98.0%	97.9%
HB12-ND-CORE-DC9-QA-20120127	Jan 30, 2012	0+55 U/S	M1	Lift 2	3	9.1%	2370	2172	95.5%	87.0%
HB12-ND-CORE-DC10-QA-20120129	Jan 30, 2012	0+92 CL	M1	Lift 3	2	9.9%	2312	2104	92.5%	83.5%
HB12-ND-CORE-DC11-QA-20120129	Jan 30, 2012	1+25 U/S	M1	Lift 2	1	8.9%	2331	2140	94.1%	80.1%
HB12-ND-CORE-DC12-QA-20120130	Feb 1, 2012	0+55 D/S	M5	Lift 5	1	9.7%	2353	2145	94.1%	87.7%
HB12-ND-CORE-DC13-QA-20120131	Feb 1, 2012	1+15 U/S	M5	Lift 4	2	8.7%	2363	2174	95.3%	83.5%
HB12-ND-CORE-DC14-QA-20120201	Feb 1, 2012	1+60 CL	M5	Lift 3	1	11.4%	2279	2046	89.7%	87.1%
HB12-ND-CORE-DC15-QA-20120201	Feb 1, 2012	1+75 D/S	M5	Lift 3	2	8.6%	2379	2191	96.1%	85.1%
HB12-ND-CORE-DC16-QA-20120201	Feb 1, 2012	1+65 U/S	M5	Lift 3	2	10.2%	2345	2128	93.3%	89.7%
HB12-ND-CORE-DC17-QA-20120203	Feb 3, 2012	1+10 U/S	M5	Lift 5	1	11.3%	MASS OF ICE COATING > 500 g (UNREASONABLE)			
HB12-ND-CORE-DC18-QA-20120203	Feb 3, 2012	0+90 D/S	M5	Lift 5	2	11.2%	MASS OF ICE COATING > 500 g (UNREASONABLE)			
HB12-ND-CORE-DC19-QA-20120203	Feb 3, 2012	0+45 CL	M5	Lift 5	2	9.4%	MASS OF ICE COATING > 500 g (UNREASONABLE)			
HB12-ND-CORE-DC20-QA-20120204	Feb 4, 2012	1+60 CL	M5	Lift 4	1	10.2%	MASS OF ICE COATING > 500 g (UNREASONABLE)			
HB12-ND-CORE-DC21-QA-20120204	Feb 4, 2012	1+54 CL	M5	Lift 4	2	10.2%	MASS OF ICE COATING > 500 g (UNREASONABLE)			
HB12-ND-CORE-DC22-QA-20120205	Feb 5, 2012	1+68 D/S	M5	Lift 3	1	10.9%	2344	2114	92.7%	93.6%
HB12-ND-CORE-DC23-QA-20120205	Feb 5, 2012	1+58 U/S	M5	Lift 3	1	10.8%	2342	2113	92.7%	92.9%
HB12-ND-CORE-DC24-QA-20120206	Feb 6, 2012	0+95 CL	M5	Lift 5	1	9.6%	2391	2182	95.7%	93.2%
HB12-ND-CORE-DC25-QA-20120206	Feb 6, 2012	0+80 U/S	M5	Lift 5	1	9.8%	2409	2194	96.2%	97.4%

**CORE ICE SATURATION SUMMARY** **DORIS NORTH DAM CONSTRUCTION, HOPE BAY**

SRK Sample No.	Test Date	Location (Station/Offset)	Material ID	Elevation/Lift (approx.)	Core Condition	Moisture Content (%)	Frozen Bulk Density (kg/m <sup>3</sup> )	Frozen Dry Density (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB12-ND-CORE-DC26-QA-20120208	Feb 8, 2012	0+72 D/S	M5	Lift 6	2	9.4%	2368	2164	94.9%	88.7%
HB12-ND-CORE-DC27-QA-20120208	Feb 8, 2012	0+92 CL	M5	Lift 6	2	11.1%	2331	2098	92.0%	92.7%
HB12-ND-CORE-DC28-QA-20120208	Feb 8, 2012	1+14 U/S	M5	Lift 6	3	12.8%	2288	2029	89.0%	94.8%
HB12-ND-CORE-DC29-QA-20120209	Feb 9, 2012	1+00 CL	M5	Lift 6	1	12.6%	2273	2018	88.5%	92.1%
HB12-ND-CORE-DC30-QA-20120210	Feb 10, 2012	0+87 U/S	M5	Lift 6	2	12.5%	2237	1989	87.2%	86.9%
HB12-ND-CORE-DC31-QA-20120210	Feb 10, 2012	0+88 D/S	M5	Lift 6	1	12.3%	2236	1991	87.3%	86.1%
HB12-ND-CORE-DC32-QA-20120212	Feb 12, 2012	0+70 D/S	M6	Lift 7	2	13.2%	2243	1981	89.6%	90.7%
HB12-ND-CORE-DC33-QA-20120212	Feb 12, 2012	1+00 U/S	M6	Lift 7	2	9.5%	2357	2154	97.5%	87.2%
HB12-ND-CORE-DC34-QA-20120212	Feb 12, 2012	0+50 U/S	M6	Lift 6	2	8.8%	2382	2189	99.0%	87.0%
HB12-ND-CORE-DC35-QA-20120214	Feb 14, 2012	0+50 U/S	M6	Lift 6	2	10.1%	2338	2124	96.1%	88.3%
HB12-ND-CORE-DC36-QA-20120217	Feb 17, 2012	1+68 CL	M6	Lift 6	3	9.0%	ICE SATURATION 109.2 % (UNREASONABLE)			
HB12-ND-CORE-DC37-QA-20120217	Feb 17, 2012	1+44 CL	M6	Lift 6	3	9.3%	2346	2147	97.1%	84.4%
HB12-ND-CORE-DC38-QA-20120217	Feb 17, 2012	0+91 U/S	M6	Lift 6	3	9.3%	2331	2133	96.5%	82.5%
HB12-ND-CORE-DC39-QA-20120217	Feb 17, 2012	0+50 CL	M6	Lift 6	3	11.0%	2283	2058	93.1%	85.5%
HB12-TEST-CORE-DC40-QA-20120217	Feb 17, 2012	COLLECTED FROM FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE								
HB12-ND-CORE-DC41-QA-20120219	Feb 19, 2012	1+10 D/S	M7	Lift 6	3	13.1%	2238	1980	91.7%	88.9%
HB12-TEST-CORE-DC42-QA-20120219	Feb 19, 2012	COLLECTED FROM FCM TEST PADS AND REPORTED SEPARATELY AS NOT PART OF DAM STRUCTURE								
HB12-ND-CORE-DC43-QA-20120219	Feb 19, 2012	0+85 U/S	M7	Lift 6	3	11.8%	2268	2028	93.9%	87.0%
HB12-ND-CORE-DC44-QA-20120221	Feb 21, 2012	1+15 D/S	M7	From Feb 19	2	13.5%	2244	1977	91.5%	91.5%
HB12-ND-CORE-DC45-QA-20120221	Feb 21, 2012	1+37 D/S	M7	From Feb 19	2	12.2%	2284	2035	94.2%	90.8%
HB12-ND-CORE-DC46-QA-20120221	Feb 21, 2012	1+02 U/S	M7	From Feb 20	2	11.5%	2353	2109	97.7%	97.3%
HB12-ND-CORE-DC47-QA-20120221	Feb 21, 2012	0+78 CL	M7	From Feb 20	2	12.4%	2266	2016	93.3%	89.3%
HB12-ND-CORE-DC48-QA-20120222	Feb 22, 2012	1+26 U/S	M7	From Feb 21	2	11.1%	2315	2085	96.5%	89.3%
HB12-ND-CORE-DC49-QA-20120222	Feb 22, 2012	1+72 D/S	M7	From Feb 21	2	11.0%	2354	2121	98.2%	94.6%
HB12-ND-CORE-DC50-QA-20120223	Feb 23, 2012	1+00 U/S	M7	From Feb 22	2	10.7%	2335	2109	97.6%	90.4%
HB12-ND-CORE-DC51-QA-20120223	Feb 23, 2012	0+79 D/S	M7	From Feb 22	2	11.0%	2338	2106	97.5%	92.4%
HB12-ND-CORE-DC52-QA-20120224	Feb 24, 2012	1+55 D/S	M7	From Feb 22	2	11.5%	2310	2073	96.0%	90.8%
HB12-ND-CORE-DC53-QA-20120224	Feb 24, 2012	1+27 D/S	M7	From Feb 22	2	11.7%	2265	2027	93.9%	86.1%
HB12-ND-CORE-DC54-QA-20120225	Feb 25, 2012	1+23 U/S	M7	From Feb 24	2	11.1%	2282	2053	95.0%	85.4%
HB12-ND-CORE-DC55-QA-20120225	Feb 25, 2012	0+84 CL	M7	From Feb 24	3	11.8%	2266	2026	93.8%	86.7%
HB12-ND-CORE-DC56-QA-20120226	Feb 26, 2012	0+52 CL	M7	From Feb 25	2	10.4%	2351	2129	98.6%	91.0%
HB12-ND-CORE-DC57-QA-20120227	Feb 28, 2012	0+88 CL	M7	From Feb 26	3	11.0%	2304	2075	96.1%	87.7%
HB12-ND-CORE-DC58-QA-20120228	Feb 28, 2012	1+92 CL	M8	From Feb 27	2	10.6%	2282	2063	93.6%	82.8%
HB12-ND-CORE-DC59-QA-20120229	Feb 28, 2012	0+80 U/S	M8	From Feb 28	2	11.7%	2314	2072	94.0%	92.3%
HB12-ND-CORE-DC60-QA-20120302	March 2, 2012	1+10 U/S	M8	From Feb 29	3	10.7%	ICE SATURATION 107.4 % (UNREASONABLE)			
HB12-ND-CORE-DC61-QA-20120302	March 2, 2012	0+80 D/S	M8	From Feb 29	2	11.6%	2306	2067	93.7%	90.9%
HB12-ND-CORE-DC62-QA-20120303	March 3, 2012	1+55 U/S	M8	From Mar 2	2	10.5%	2281	2064	93.6%	81.8%
HB12-ND-CORE-DC63-QA-20120303	March 3, 2012	0+55 CL	M8	From Mar 2	2	9.9%	2323	2113	95.8%	84.4%
HB12-ND-CORE-DC64-QA-20120304	March 4, 2012	1+05 U/S	M8	From Mar 2	2	11.7%	2295	2054	93.1%	90.0%
HB12-ND-CORE-DC65-QA-20120304	March 5, 2012	1+40 U/S	M8	From Mar 3	2	12.0%	2227	1988	90.2%	83.0%
HB12-ND-CORE-DC66-QA-20120305	March 6, 2012	1+10 U/S	M8	From Mar 4	2	11.1%	2320	2088	94.7%	90.3%
HB12-ND-CORE-DC67-QA-20120305	March 6, 2012	0+85 CL	M8	From Mar 4	2	10.6%	2352	2126	96.4%	92.4%
HB12-ND-CORE-DC68-QA-20120307	Mar 7, 2012	1+31 CL	M9	From Mar 6	2	10.6%	2303	2081	93.3%	85.5%
HB12-ND-CORE-DC69-QA-20120307	Mar 7, 2012	0+86 CL	M9	From Mar 6	2	11.7%	2298	2057	92.3%	90.2%
HB12-ND-CORE-DC70-QA-20120310	Mar 10, 2012	1+50 CL	M9	From Mar 8	2	12.2%	2250	2006	90.0%	86.2%
HB12-ND-CORE-DC71-QA-20120310	Mar 10, 2012	1+29 CL	M9	From Mar 8	2	12.4%	2280	2028	90.9%	91.3%
HB12-ND-CORE-DC72-QA-20120310	Mar 11, 2012	0+95 D/S	M9	From Mar 8	2	11.8%	2222	1987	89.1%	81.5%

CORE ICE SATURATION SUMMARY						DORIS NORTH DAM CONSTRUCTION, HOPE BAY				
SRK Sample No.	Test Date	Location (Station/Offset)	Material ID	Elevation/Lift (approx.)	Core Condition	Moisture Content (%)	Frozen Bulk Density (kg/m <sup>3</sup> )	Frozen Dry Density (kg/m <sup>3</sup> )	Compaction (%)	Ice Saturation (%)
HB12-ND-CORE-DC73-QA-20120311	Mar 12, 2012	1+58 CL	M9	From Mar 10	2	13.1%	2210	1954	87.6%	85.7%
HB12-ND-CORE-DC74-QA-20120312	Mar 12, 2012	1+17 CL	M9	From Mar 10	2	12.7%	2236	1985	89.0%	86.9%
HB12-ND-CORE-DC75-QA-20120313	Mar 13, 2012	0+75 CL	M9	From Mar 11	2	13.5%	2188	1928	86.4%	84.7%
HB12-ND-CORE-DC76-QA-20120313	Mar 13, 2012	1+58 U/S	M9	From Mar 12	2	11.9%	2304	2059	92.3%	92.2%
HB12-ND-CORE-DC77-QA-20120313	Mar 13, 2012	0+48 CL	M9	From Mar 12	2	10.7%	2293	2071	92.9%	84.7%
HB12-ND-CORE-DC78-QA-20120315	Mar 15, 2012	0+65 D/S	M9	From Mar 13	2	11.8%	2267	2027	90.9%	86.7%
HB12-ND-CORE-DC79-QA-20120315	Mar 15, 2012	1+15 D/S	M9	From Mar 13	2	12.9%	2269	2010	90.1%	91.9%
HB12-ND-CORE-DC80-QA-20120316	Mar 16, 2012	0+75 CL	M9	From Mar 15	2	10.7%	2337	2111	94.7%	90.4%
HB12-ND-CORE-DC81-QA-20120317	Mar 17, 2012	0+55 U/S	M9	From Mar 13	2	13.7%	2180	1918	86.0%	84.5%
HB12-ND-CORE-DC82-QA-20120317	Mar 17, 2012	1+20 CL	M9	From Mar 16	2	11.9%	2267	2026	90.8%	87.4%
HB12-ND-CORE-DC83-QA-20120318	Mar 18, 2012	0+90 CL	M9	From Mar 17	2	11.2%	2322	2089	93.7%	90.9%
HB12-ND-CORE-DC84-QA-20120319	Mar 19, 2012	0+30 D/S	M10	From Mar 18	2	11.2%	2282	2053	93.3%	85.5%
HB12-ND-CORE-DC85-QA-20120321	Mar 21, 2012	0+90 CL	M10	From Mar 20	2	12.3%	2249	2002	91.0%	87.0%
HB12-ND-CORE-DC86-QA-20120321	Mar 21, 2012	1+20 U/S	M10	From Mar 20	2	12.2%	2242	1998	90.8%	85.6%
HB12-ND-CORE-DC87-QA-20120323	Mar 23, 2012	0+55 CL	M10	From Mar 21	2	13.1%	2206	1951	88.7%	84.9%
HB12-ND-CORE-DC88-QA-20120326	Mar 26, 2012	0+65 CL	M10	From Mar 23	2	11.5%	2306	2068	94.0%	90.6%
HB12-ND-CORE-DC89-QA-20120329	Mar 29, 2012	0+65 CL	M10	From Mar 26	2	10.9%	2295	2070	94.1%	85.7%

**Appendix H.6: Bulk Density and Air Content Test  
Results (2012 Data Only)**

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## BULK DENSITY AND AIR CONTENT SUMMARY

## DORIS NORTH DAM CONSTRUCTION, HOPE BAY

Volume of Mold (L)	7.068
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Test Date	Sample No.	Mass of Soil + Tare	Tare	Mass of Soil	Bulk Density	Air Content
		(g)	(g)	(g)	(kg/m <sup>3</sup> )	(%)
2012-02-06	HB12-FCP-CORE-BDA1-QA-20120206	19,975.5	3,420.2	16,555.3	2342	
2012-02-06	HB12-FCP-CORE-BDA2-QA-20120206	19,496.4	3,416.5	16,079.9	2275	
2012-02-08	HB12-FCP-CORE-BDA3-QA-20120208	19,127.2	3,420.5	15,706.7	2222	
2012-02-08	HB12-FCP-CORE-BDA4-QA-20120208	20,316.7	3,423.3	16,893.4	2390	
2012-02-11	HB12-FCP-CORE-BDA5-QA-20120211	20,487.6	3,415.5	17,072.1	2415	
2012-02-12	HB12-FCP-CORE-BDA6-QA-20120212	19,734.6	3,415.1	16,319.5	2309	
2012-02-13	HB12-FCP-CORE-BDA7-QA-20120213	19,697.5	3,414.4	16,283.1	2304	
2012-02-15	HB12-FCP-CORE-BDA8-QA-20120215	20,255.5	3,414.4	16,841.1	2383	
2012-02-17	HB12-FCP-CORE-BDA9-QA-20120217	20,116.0	3,414.8	16,701.2	2363	
2012-02-20	HB12-FCP-CORE-BDA10-QA-20120220	19,561.6	3,416.1	16,145.5	2284	6.6
2012-02-22	HB12-FCP-CORE-BDA11-QA-20120222	19,678.6	3,414.8	16,263.8	2301	6.6
2012-02-24	HB12-FCP-CORE-BDA12-QA-20120224	19,030.2	3,577.4	15,452.8	2186	
2012-03-06	HB12-FCP-CORE-BDA13-QA-20120306	19,230.0	3,577.4	15,652.6	2214	7.8
2012-03-15	HB12-FCP-CORE-BDA14-QA-20120315	19,850.9	3,577.4	16,273.5	2302	3.5
2012-03-23	HB12-FCP-CORE-BDA15-QA-20120323	N/A	N/A	N/A	2132	5.1

## **Appendix H.7:      Specific Gravity Test Certificates**

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## Relative Density and Absorption of Aggregate

<b>Project:</b> Doris North Dam	<b>Sample No.:</b> 5488
<b>Client:</b>	<b>Date Sampled:</b> n/a
<b>Project No:</b> E14101112	<b>Date Tested:</b> March 1-2, 2011
<b>Source:</b> n/a	<b>Tested By:</b> NR
<b>Description:</b> Aggregate ( Fine and Coarse)	<b>Lab Location :</b> YK

### Fine Aggregate

CSA Designation A23.2-6A

Pycnometer Number		1	2	3	AVG.
Mass of oven-dry specimen & tare (g)		1188.5	1223.5		
Mass of tare (g)		695.0	730.3		
Mass of oven-dry specimen in air (g)	A	493.5	493.2		
Mass of pycnometer & water @ 23 ± 2C (g)	B	655.8	657.6		
Mass of pycnometer with specimen & water (g)	C	978.2	979.5		
Bulk Relative Density = $A/(B+500-C)$		2.779	2.768		2.774
Bulk Relative Density (SSD) = $500/(B+500-C)$		2.816	2.806		2.811
Apparent Relative Density = $A/(B+A-C)$		2.885	2.879		2.882
Absorption (%) = $[(500-A)/A]*100$		1.32	1.37		1.34

### Coarse Aggregate

CSA Designation A23.2-12A

Mass of oven-dry specimen in air (g)	A	977.3	957.4		AVG.
Mass of saturated surface-dry specimen in air (g)	B	979.7	960.2		
Mass of saturated specimen in water (g)	C	645.4	629.0		
Bulk Relative Density = $A/(B-C)$		2.923	2.891		2.907
Bulk Relative Density (SSD) = $B/(B-C)$		2.931	2.899		2.915
Apparent Relative Density = $A/(A-C)$		2.945	2.915		2.930
Absorption (%) = $[(B-A)/A]*100$		0.25	0.29		0.27

**Remarks:** \_\_\_\_\_

**Checked by:** \_\_\_\_\_

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## Relative Density and Absorption of Coarse and Fine Aggregate

ASTM C127 / ASTM C128

<b>Project:</b>	Doris N. Dam - Design & Const. Assist	<b>Sample No.:</b>	6207
<b>Client:</b>	SRK Consulting Engineer & Scientist	<b>Date Sampled:</b>	April 7/2011
<b>Project No:</b>	E14101112	<b>Date Tested:</b>	April 25/2011
<b>Source:</b>	Hope Bay	<b>Tested By:</b>	MC
<b>Description:</b>	Sand, Some Gravel, Tr. Silt, Clay - Grey	<b>Lab Location :</b>	Edmonton

### Fine Aggregate

ASTM C128-07a

Pycnometer Number	1	2	3	
Mass of oven-dry specimen & tare (g)	1182.0 /	1126.5 /	/	AVG.
Mass of tare (g)	692.3 /	636.5 /	/	
Mass of oven-dry specimen in air (g) A	489.7 /	490.0 /	/	
Mass of pycnometer & water @ 23 ± 2C (g) B	664.3	663.2		
Mass of pycnometer w/specimen & water (g) C	984.9	983.7		
Mass saturated surface dry specimen (g) S	500.1 /	500.2 /	/	
Relative Density (OD) = $A/(B+S-C)$	2.73	2.73		2.73
Relative Density (SSD) = $S/(B+500-C)$	2.79	2.78		2.78
Apparent Relative Density = $A/(B+A-C)$	2.90	2.89		2.89
Absorption (%) = $[(500-A)/A]*100$	2.1	2.1		2.1
Sample Oven Dried at 110° ± 5° C prior to testing?	Yes	Yes		

### Coarse Aggregate

ASTM C127-07

Mass of oven-dry specimen & tare (g)	1294.6	1094.5		AVG.
Mass of tare (g)	865.5	692.1		
Mass of oven-dry specimen in air (g) A	429.1	402.4		
Mass of SSD specimen in air (g) B	431.6	404.5		
Mass of saturated specimen in water (g) C	285.7	267.1		
Relative Density (OD) = $A/(B-C)$	2.94	2.93		2.93
Relative Density (SSD) = $B/(B-C)$	2.96	2.94		2.95
Apparent Relative Density = $A/(A-C)$	2.99	2.97		2.98
Absorption (%) = $[(B-A)/A]*100$	0.6	0.5		0.6
Sample Oven Dried at 110° ± 5° C prior to testing?	No	No		

Remarks:

Checked by:

AS

# RELATIVE DENSITY AND ABSORPTION OF COARSE AGGREGATE

CSA A23.2-12A

<b>Project No:</b>	E14101162	<b>Sample No.:</b>	6835.1
<b>Project:</b>	Doris North Dam Project, Hope Bay	<b>Date Received:</b>	17-Feb-12
<b>Client:</b>	SRK Consulting Engineer & Scientist	<b>Sampled By:</b>	Client
		<b>Date Tested:</b>	22-Feb-12
<b>Attention:</b>	Lowell Wade	<b>Tested By:</b>	MN
<b>Email:</b>		<b>Office:</b>	Edmonton
<b>Fax:</b>	604-687-5532		

<b>Description:</b>	Quarry Rock (Plus 5mm Fraction )
<b>Source:</b>	Quarry #2
<b>Sample Location:</b>	SO # 07277
<b>Supplier</b>	Client

## Specific Gravity (+5000 µm)

Trial No.	1	2
Mass of Oven Dried Aggregate + Tare, g	3549.4	3248.4
Mass of Tare, g	1284.4	970.8
Mass of Oven Dried Aggregate, g A	2265.0	2277.6
Mass of SSD* Aggregate & Tare, g	3559.5	3259.0
Mass of Tare, g	1284.4	970.8
Mass of SSD Aggregate in Air, g B	2275.1	2288.2
Mass of SSD Aggregate in Water, g C	1488.6	1495.9

	Trial 1	Trial 2	Average
Bulk Relative Density A/(B-C)	2.880	2.875	2.88
Bulk Relative Density SSD B/(B-C)	2.893	2.888	2.89
Apparent Relative Density A/(A-C)	2.917	2.914	2.92
Absorption (B-A)/A*100	0.45%	0.47%	0.5%

\*Saturated Surface Dry

**Remarks:** Moisture content of combined sample was 9.3%

**Reviewed By:**  P.Eng.



**For Internal Use Only**

# RELATIVE DENSITY AND ABSORPTION OF FINE AGGREGATE

CSA A23.2-6A

<b>Project No:</b> E14101162 <b>Project:</b> Doris North Dam Project, Hope Bay <b>Client:</b> SRK Consulting Engineer & Scientist  <b>Attention:</b> Lowell Wade <b>Fax:</b> 604-687-5532 <b>Email:</b> _____	<b>Sample No.:</b> 6835.2 <b>Date Received:</b> 17-Feb-12 <b>Sampled By:</b> Client <b>Date Tested:</b> 22-Feb-12 <b>Tested By:</b> MN <b>Office:</b> Edmonton
--	---

**Description:** Quarry Rock (Minus 5mm Fraction )  
**Source:** Quarry #2  
**Sample Location:** SO # 07277  
**Supplier:** Client

## Specific Gravity (-5000 mm)

Trial No.	1	2
Pycnometer	6	7
Mass of Pycnometer, g	167.2	164.6
Mass of Pycnometer filled with Water, g      B	664.2	662.8
Mass of Pycnometer, SSD Fine Aggregate, g	666.1	664.8
Mass of Saturated Surface-Dry Fine Aggregate, g      Mf	498.9	500.2
Mass of Pycnometer, Aggregate and Water, g      C	978.0	976.9
Tare I.D.	EZ	5S
Mass of Oven Dry Aggregate & Tare, g	1076.5	1099.3
Tare, g	598.2	619.8
Mass of Oven Dry Aggregate, g      A	478.3	479.5

		Trial 1	Trial 2	Average
Bulk Relative Density	$A/(B+M_f-C)$	2.584	2.577	2.58
Bulk Relative Density, Saturated Surface Dry	$M_f/(B+M_f-C)$	2.695	2.688	2.69
Apparent Relative Density	$A/(B+A-C)$	2.908	2.899	2.90
Absorption	$(M_f-A)/A \times 100$	4.31%	4.32%	4.3%

**Remarks:** \_\_\_\_\_



Reviewed By: JOR P.Eng.

**For Internal Use Only**

## **Appendix H.8:      Salinity Test Certificates**

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## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North - North Dam, Hope Bay, NU  
**Client:** SRK Consulting ( Canada) Inc.  
**Attention:** \_\_\_\_\_  
**Fax:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** As Shown  
**Date Sampled:** \_\_\_\_\_  
**Sampled By:** \_\_\_\_\_  
**Date Tested:** 28-Feb-11  
**Tested By:** KP  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
1	Soft Spot		CLAY: silty, trace sand	85.0
2	Soft Spot		CLAY: silty, trace sand	90.0

**Remarks:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Reviewed By:** \_\_\_\_\_

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**EBA Engineering  
Consultants Ltd.**



## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North - North Dam, Hope Bay, NU  
**Client:** SRK Consulting ( Canada) Inc.  
**Attention:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** PH - P3  
**Date Sampled:** 7-Mar-11  
**Sampled By:** Garry D  
**Date Tested:** 14-Mar-11  
**Tested By:** KP  
**Office:** Edmonton

Borehole Number	Location	Depth (m)	Soil Type	Salinity (ppt)
SRK-11-HB-DHP3	As per plan	1.0 - 1.5	CLAY: trace sand	39.0
SRK-11-HB-DHP3	As per plan	1.5 - 2.0	CLAY: trace sand	36.0
SRK-11-HB-DHP3	As per plan	3.0 - 4.0	SAND	30.0
SRK-11-HB-DHP3	As per plan	4.0 - 5.0	SAND	8.0
SRK-11-HB-DHP3	As per plan	5.0 - 6.0	SAND	5.0
SRK-11-HB-DHP3	As per plan	6.0 - 7.0	SAND	4.0
SRK-11-HB-DHP3	As per plan	7.0 - 8.5	SAND	4.0

Remarks:

**Reviewed By:** \_\_\_\_\_

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**EBA Engineering Consultants Ltd.** 

## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North - North Dam, Hope Bay, NU  
**Client:** SRK Consulting ( Canada) Inc.  
**Attention:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** PH - P16  
**Date Sampled:** 7-Mar-11  
**Sampled By:** Garry D  
**Date Tested:** 8-Mar-11  
**Tested By:** KP  
**Office:** Edmonton

Borehole Number	Location	Depth (m)	Soil Type	Salinity (ppt)
SRK-11-HB-DHP16	As per plan	0.5 -1.0	SAND: some clay	N/A
SRK-11-HB-DHP16	As per plan	1.0 -1.5	CLAY: trace silt and sand	22.0
SRK-11-HB-DHP16	As per plan	1.5 - 2.0	CLAY	38.0
SRK-11-HB-DHP16	As per plan	2.0 - 3.0	CLAY: trace sand	29.0
SRK-11-HB-DHP16	As per plan	3.0 - 4.0	CLAY: trace sand	28.0
SRK-11-HB-DHP16	As per plan	4.0 - 5.0	CLAY	23.0
SRK-11-HB-DHP16	As per plan	5.0 - 6.0	CLAY	37.0
SRK-11-HB-DHP16	As per plan	6.0 - 7.0	CLAY	41.0
SRK-11-HB-DHP16	As per plan	7.0 - 8.0	CLAY: some sand	38.0
SRK-11-HB-DHP16	As per plan	8.0 - 9.0	CLAY: some sand	39.0

Remarks:

**Reviewed By:** \_\_\_\_\_

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## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North - North Dam, Hope Bay, NU  
**Client:** SRK Consulting ( Canada) Inc.  
**Attention:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** PH - P17  
**Date Sampled:** 7-Mar-11  
**Sampled By:** Garry D  
**Date Tested:** 14-Mar-11  
**Tested By:** KP  
**Office:** Edmonton

Borehole Number	Location	Depth (m)	Soil Type	Salinity (ppt)
SRK-11-HB-DHP17	As per plan	2.0 - 3.0	CLAY: trace sand	64.0
SRK-11-HB-DHP17	As per plan	5.0 - 6.0	CLAY	45.0

Remarks:

**Reviewed By:** \_\_\_\_\_

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## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North - North Dam, Hope Bay, NU  
**Client:** SRK Consulting ( Canada) Inc.  
**Attention:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** PH - P18  
**Date Sampled:** 7-Mar-11  
**Sampled By:** Garry D  
**Date Tested:** 14-Mar-11  
**Tested By:** KP  
**Office:** Edmonton

Borehole Number	Location	Depth (m)	Soil Type	Salinity (ppt)
SRK-11-HB-DHP18	As per plan	3.0 - 4.0	CLAY: trace sand	65.0
SRK-11-HB-DHP18	As per plan	5.0 - 6.0	CLAY: trace sand	51.0

Remarks:

**Reviewed By:** \_\_\_\_\_

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EBA Engineering  
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# Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam, Hope Bay, NU  
**Client:** \_\_\_\_\_  
**Attention:** \_\_\_\_\_  
**Fax:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** 25  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 19-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
25		0 - 0.5		52.0
		0.5 - 1.0		50.0
		1.0 - 1.5		56.0
		1.5 - 2.0		42.0
		2.0 - 2.5		44.0
		2.5 - 3.0		20.0

**Remarks:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Reviewed By:** \_\_\_\_\_

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**EBA Engineering  
Consultants Ltd.**



# Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam; Hope, NU  
**Client:**  
**Attention:**  
**Fax:**  
**Ph:**

**Sample No.:** 26  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 19-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
26		0.0 - 0.5		58.0
		0.5 - 1.0		48.0
		1.0 - 1.5		42.0
		1.5 - 2.0		40.0
		2.0 - 2.5		40.0
		2.5 - 3.0		40.0

**Remarks:**

**Reviewed By:**

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**EBA Engineering  
Consultants Ltd.**



# Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam; Hope, NU  
**Client:**  
**Attention:**  
**Fax:**  
**Ph:**

**Sample No.:** 27  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 19-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
27		0.0 - 0.5		38.0
		0.5 - 1.0		48.0
		1.0 - 1.5		52.0
		1.5 - 2.0		50.0
		2.0 - 2.5		44.0
		2.5 - 3.0		38.0

**Remarks:**

**Reviewed By:**

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Consultants Ltd.**



# Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam; Hope, NU  
**Client:**  
**Attention:**  
**Fax:**  
**Ph:**

**Sample No.:** 28  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 21-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
28		0.0 - 0.5		65.0
		0.5 - 1.0		86.0

**Remarks:**

**Reviewed By:**

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## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam; Hope, NU  
**Client:** \_\_\_\_\_  
**Attention:** \_\_\_\_\_  
**Fax:** \_\_\_\_\_  
**Ph:** \_\_\_\_\_

**Sample No.:** 29  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 20-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
29		0.0 - 0.5		34.0
		0.5 - 1.0		48.0
		1.0 - 1.5		42.0
		1.5 - 2.0		38.0
		2.0 - 2.5		44.0
		2.5 - 3.0		28.0

**Remarks:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Reviewed By:** \_\_\_\_\_

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## Determination of the Soluble Salt Content of Soils by Refractometer

ASTM D4542

**Project No:** E14101112  
**Project:** Doris North-North Dam; Hope, NU  
**Client:**  
**Attention:**  
**Fax:**  
**Ph:**

**Sample No.:** 30  
**Date Sampled:** 17-Mar-11  
**Sampled By:** R.K  
**Date Tested:** 20-Mar-11  
**Tested By:** MA  
**Office:** Edmonton

Sample No.	Location	Depth (m)	Soil Type	Salinity (ppt)
		0.0 - 0.5		8.0
		0.5 - 1.0		34.0
		1.0 - 1.5		48.0
		1.5 - 2.0		42.0
		2.0 - 2.5		36.0
		2.5 - 3.0		34.0

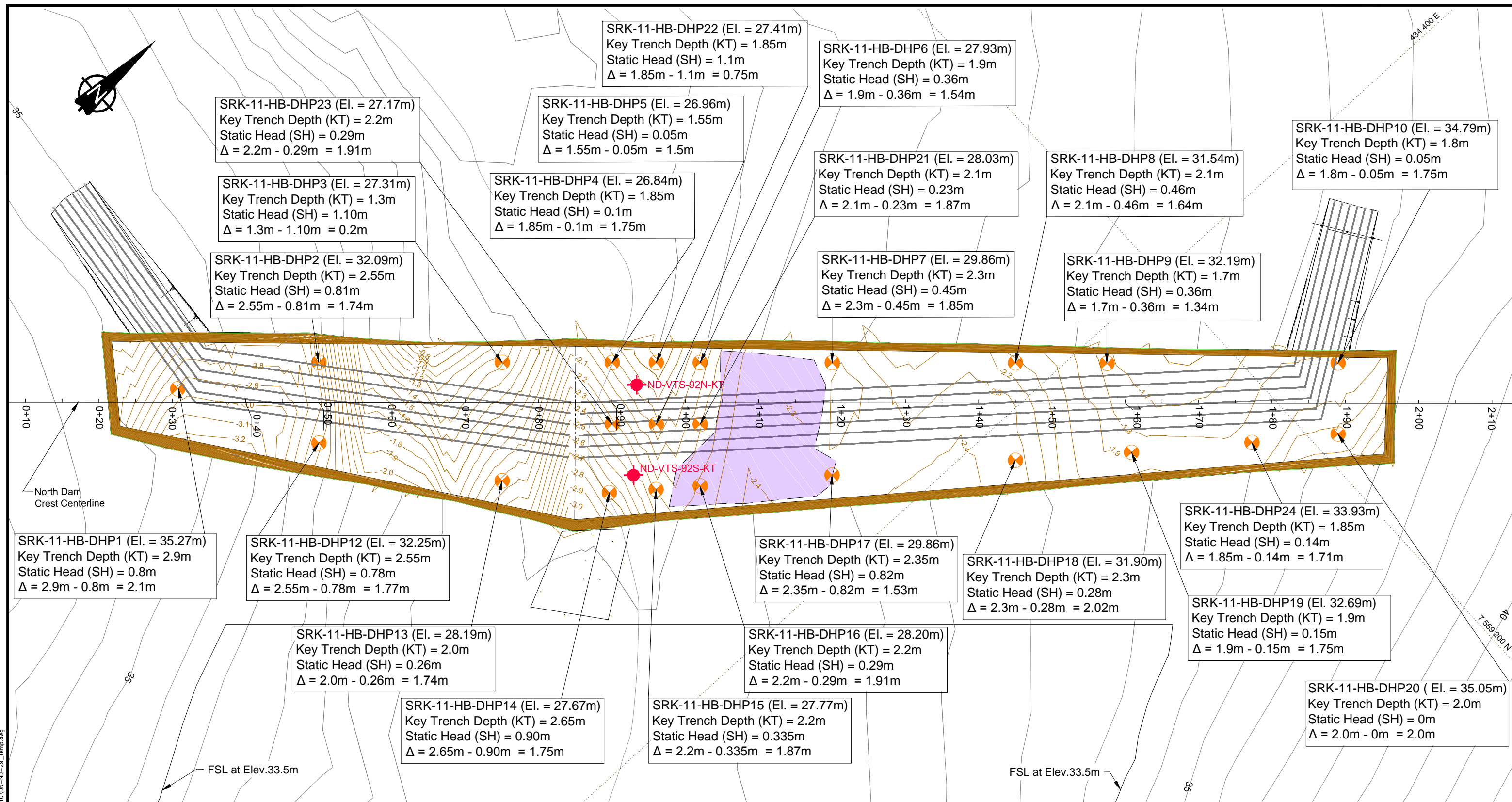
**Remarks:**

**Reviewed By:**

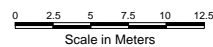
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GROUND TEMPERATURE CABLE DETAILS															
STRING #	STRING NAME	SERIES #	STRING TYPE	CHAINGE (m)	ELEVATION (m)	OVERALL CABLE LENGTH (m)	CABLE LOCATION	BEAD LOCATION IN METERS (MEASURED FROM END)							
								#1	#2	#3	#4	#5	#6	#7	#8
25	ND-VTS-92N-KT	H	Vertical	92	n/a	128	Additional Keytrench Excavation	0	2.5	3.5	4	4.5	5	5.6	-
26	ND-VTS-92S-KT	H	Vertical	92	n/a	128	Additional Keytrench Excavation	0	2.5	3.5	4	4.5	5	5.6	-



ADDITIONAL VERTICAL GROUND TEMPERATURE CABLE STRING STAKE OUT POINTS		
ID	NORTHING	EASTING
ND-VTS-92N-KT	7559137.11	434362.88
ND-VTS-92S-KT	7559128.50	434371.70

 'SOFT SPOT AREA' (Based on February 16th, 2011 Field Survey)



SRK JOB NO.: 1CH008.033  
FILE NAME: DN-ND-29\_Temp.dwg



HOPE BAY MINING LTD.

Doris North Project		
North Dam Percolation Boreholes and 'Soft Spot' Location		
DATE:	APPROVED:	FIGURE:
March, 2011	EMR/LW/JK	1

## **Appendix H.9:      Correlation of Test Results**

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Date Lift Placed	Sample ID					
	Chute Moisture Content	In-Situ Moisture Content	Chute PSD	BDA	Drilled Core	In-Situ PSD
15-Jan-12	HB12-FCP-CORE-MC1-QA-20120115		HB12-FCP-CORE-PSD1-QA-20120115			
2011					HB-ND-CORE-DC57-QA-20110422	HB-ND-CORE-PSD88-QA-20110422
2011					HB-ND-CORE-DC58-QA-20110422	HB-ND-CORE-PSD89-QA-20110422
2011					HB-ND-CORE-DC59-QA-20110422	HB-ND-CORE-PSD90-QA-20110422
2011					HB-ND-CORE-DC60-QA-20110422	HB-ND-CORE-PSD91-QA-20110422
2011					HB-ND-CORE-DC62-QA-20110422	HB-ND-CORE-PSD95-QA-20110505
2011					HB-ND-CORE-DC55-QA-20110414	HB-ND-CORE-PSD82-QA-20110414
18-Mar-11	HB-FCP-CORE-MC38-20110318			HB-FCP-CORE-MC38-20110318		
19-Mar-11	HB-FCP-CORE-MC41-20110319			HB-FCP-CORE-MC41-20110319		
24-Mar-11	HB-FCP-CORE-MC52-20110324			HB-FCP-CORE-MC52-20110324		
31-Mar-11	HB-FCP-CORE-MC63-20110331			HB-FCP-CORE-MC63-20110331		
2-Apr-11	HB-FCP-CORE-MC64-20110402			HB-FCP-CORE-MC64-20110402		
5-Apr-11	HB-FCP-CORE-MC82-20110405			HB-FCP-CORE-MC82-20110405		
6-Apr-11	HB-FCP-CORE-MC89-20110406			HB-FCP-CORE-MC89-20110406		
15-Jan-12	HB12-FCP-CORE-MC1-QA-20120115		HB12-FCP-CORE-PSD1-QA-20120115			
15-Jan-12					HB12-ND-CORE-DC1-QA-20120116	
17-Jan-12	HB12-FCP-CORE-MC3-QA-20120117		HB12-FCP-CORE-PSD2-QA-20120117			
18-Jan-12	HB12-FCP-CORE-MC6-QA-20120118		HB12-FCP-CORE-PSD3-QA-20120118			
20-Jan-12	HB12-FCP-CORE-MC7-QA-20120120		HB12-FCP-CORE-PSD4-QA-20120120			
21-Jan-12	HB12-FCP-CORE-MC8-QA-20120121		HB12-FCP-CORE-PSD5-QA-20120121			
21-Jan-12					HB12-ND-CORE-DC4-QA-20120122	
22-Jan-12	HB12-FCP-CORE-MC12-QA-20120122		HB12-FCP-CORE-PSD6-QA-20120122			
23-Jan-12	HB12-FCP-CORE-MC14-QA-20120123		HB12-FCP-CORE-PSD7-QA-20120123			
23-Jan-12					HB12-ND-CORE-DC5-QA-20120124	
23-Jan-12					HB12-ND-CORE-DC6-QA-20120124	
23-Jan-12					HB12-ND-CORE-DC7-QA-20120124	
24-Jan-12	HB12-FCP-CORE-MC17-QA-20120124		HB12-FCP-CORE-PSD8-QA-20120124			
24-Jan-12					HB12-ND-CORE-DC8-QA-20120127	
25-Jan-12	HB12-FCP-CORE-MC19-QA-20120125		HB12-FCP-CORE-PSD9-QA-20120125			
25-Jan-12					HB12-ND-CORE-DC9-QA-20120127	
27-Jan-12	HB12-FCP-CORE-MC22-QA-20120127		HB12-FCP-CORE-PSD10-QA-20120127			
27-Jan-12					HB12-ND-CORE-DC10-QA-20120129	
27-Jan-12					HB12-ND-CORE-DC11-QA-20120129	HB12-ND-CORE-PSD12-QA-20120129
29-Jan-12	HB12-FCP-CORE-MC30-QA-20120129		HB12-FCP-CORE-PSD11-QA-20120129			
29-Jan-12					HB12-ND-CORE-DC12-QA-20120130	
30-Jan-12					HB12-ND-CORE-DC13-QA-20120131	
30-Jan-12					HB12-ND-CORE-DC14-QA-20120201	
30-Jan-12					HB12-ND-CORE-DC15-QA-20120201	
30-Jan-12					HB12-ND-CORE-DC16-QA-20120201	
31-Jan-12	HB12-FCP-CORE-MC39-QA-20120131		HB12-FCP-CORE-PSD13-QA-20120131			
31-Jan-12					HB12-ND-CORE-DC17-QA-20120203	
31-Jan-12					HB12-ND-CORE-DC18-QA-20120203	HB12-ND-CORE-PSD15-QA-20120204
31-Jan-12					HB12-ND-CORE-DC19-QA-20120203	
1-Feb-12	HB12-FCP-CORE-MC44-QA-20120201		HB12-FCP-CORE-PSD14-QA-20120201			
1-Feb-12	HB12-FCP-CORE-MC47-QA-20120201					
1-Feb-12					HB12-ND-CORE-DC20-QA-20120204	
1-Feb-12					HB12-ND-CORE-DC21-QA-20120204	HB12-ND-CORE-PSD16-QA-20120204
1-Feb-12					HB12-ND-CORE-DC22-QA-20120205	
1-Feb-12					HB12-ND-CORE-DC23-QA-20120205	
4-Feb-12					HB12-ND-CORE-DC24-QA-20120206	
4-Feb-12					HB12-ND-CORE-DC25-QA-20120206	
6-Feb-12	HB12-FCP-CORE-MC61-QA-20120206		HB12-FCP-CORE-PSD19-QA-20120206			
6-Feb-12					HB12-ND-CORE-DC26-QA-20120208	HB12-ND-CORE-PSD-QA-20120208
6-Feb-12					HB12-ND-CORE-DC27-QA-20120208	
6-Feb-12					HB12-ND-CORE-DC28-QA-20120208	

Date Lift Placed	Sample ID					
	Chute Moisture Content	In-Situ Moisture Content	Chute PSD	BDA	Drilled Core	In-Situ PSD
8-Feb-12	HB12-FCP-CORE-MC67-QA-20120208		HB12-FCP-CORE-PSD21-QA-20120208			
8-Feb-12					HB12-ND-CORE-DC29-QA-20120209	
8-Feb-12					HB12-ND-CORE-DC30-QA-20120210	
8-Feb-12					HB12-ND-CORE-DC31-QA-20120210	
11-Feb-12	HB12-FCP-CORE-MC73-QA-20120211		HB12-FCP-CORE-PSD23-QA-20120211			
11-Feb-12		HB12-ND-CORE-MC87-QA-20120211			HB12-ND-CORE-DC32-QA-20120212	Drilled core sample taken with 2 m of moisture content sample
11-Feb-12					HB12-ND-CORE-DC33-QA-20120212	HB12-ND-CORE-PSD25-20120212
11-Feb-12					HB12-ND-CORE-DC34-QA-20120212	
12-Feb-12	HB12-FCP-CORE-MC91-QA-20120212		HB12-FCP-CORE-PSD24-QA-20120212			
13-Feb-12					HB12-ND-CORE-DC35-QA-20120214	
13-Feb-12					HB12-ND-CORE-DC38-QA-20120217	
13-Feb-12					HB12-ND-CORE-DC39-QA-20120217	
15-Feb-12					HB12-ND-CORE-DC36-QA-20120217	
15-Feb-12					HB12-ND-CORE-DC37-QA-20120217	
17-Feb-12		HB12-ND-CORE-MC138-QA-20120217				HB12-ND-CORE-PSD28-20120218
17-Feb-12					HB12-ND-CORE-DC41-QA-20120219	
18-Feb-12					HB12-ND-CORE-DC43-QA-20120219	
19-Feb-12					HB12-ND-CORE-DC44-QA-20120219	HB12-ND-CORE-PSD44-QA-20120221
19-Feb-12					HB12-ND-CORE-DC45-QA-20120219	
20-Feb-12					HB12-ND-CORE-DC46-QA-20120221	HB12-ND-CORE-PSD48-QA-20120221
20-Feb-12					HB12-ND-CORE-DC47-QA-20120221	HB12-ND-CORE-PSD48-QA-20120221
21-Feb-12					HB12-ND-CORE-DC48-QA-20120222	
21-Feb-12					HB12-ND-CORE-DC49-QA-20120222	
22-Feb-12					HB12-ND-CORE-DC50-QA-20120223	HB12-ND-CORE-PSD51-QA-20120223
22-Feb-12					HB12-ND-CORE-DC51-QA-20120223	
23-Feb-12					HB12-ND-CORE-DC52-QA-20120224	
23-Feb-12					HB12-ND-CORE-DC53-QA-20120224	
24-Feb-12					HB12-ND-CORE-DC54-QA-20120225	
24-Feb-12					HB12-ND-CORE-DC55-QA-20120225	HB12-ND-CORE-PSD56-QA-20120225
26-Feb-12					HB12-ND-CORE-DC56-QA-20120226	
26-Feb-12					HB12-ND-CORE-DC57-QA-20120227	
26-Feb-12					HB12-ND-CORE-DC59-QA-20120229	
27-Feb-12					HB12-ND-CORE-DC58-QA-20120228	
27-Feb-12					HB12-ND-CORE-DC62-QA-20120303	
28-Feb-12	HB12-FCP-CORE-MC221-QA-20120228		HB12-FCP-CORE-PSD59-QA-20120228			
29-Feb-12					HB12-ND-CORE-DC60-QA-20120302	HB12-ND-CORE-PSD63-QA-20120302
29-Feb-12					HB12-ND-CORE-DC61-QA-20120302	
2-Mar-12	HB12-FCP-CORE-MC245-QA-20120302		HB12-FCP-CORE-PSD64-QA-20120302			
2-Mar-12					HB12-ND-CORE-DC63-QA-20120303	
2-Mar-12					HB12-ND-CORE-DC64-QA-20120304	
3-Mar-12					HB12-ND-CORE-DC65-QA-20120304	HB12-ND-CORE-PSD65-20120304
4-Mar-12					HB12-ND-CORE-DC66-QA-20120305	
4-Mar-12					HB12-ND-CORE-DC67-QA-20120305	
6-Mar-12	HB12-FCP-CORE-MC275-QA-20120306			HB12-FCP-CORE-BDA13-QA-20120306		
6-Mar-12					HB12-ND-CORE-DC68-QA-20120307	
6-Mar-12					HB12-ND-CORE-DC69-QA-20120307	
7-Mar-12					HB12-ND-CORE-DC70-QA-20120310	
7-Mar-12					HB12-ND-CORE-DC71-QA-20120310	
8-Mar-12					HB12-ND-CORE-DC72-QA-20120310	HB12-ND-CORE-PSD67-QA-20120309
9-Mar-12		HB12-ND-CORE-MC298-QA-20120309				HB12-ND-CORE-PSD67-QA-20120309
9-Mar-12					HB12-ND-CORE-DC73-QA-20120311	
9-Mar-12					HB12-ND-CORE-DC74-QA-20120312	
10-Mar-12		HB12-ND-CORE-MC303-QA-20120310				HB12-ND-CORE-PSD68-QA-20120310
10-Mar-12					HB12-ND-CORE-DC76-QA-20120313	
10-Mar-12					HB12-ND-CORE-DC77-QA-20120313	
11-Mar-12		HB12-ND-CORE-MC317-QA-20120311				HB12-ND-CORE-PSD69-QA-20120311
11-Mar-12					HB12-ND-CORE-DC75-QA-20120313	
12-Mar-12	HB12-FCP-CORE-MC324-QA-20120312		HB12-FCP-CORE-PSD70-QA-20120312			
12-Mar-12	HB12-FCP-CORE-MC327-QA-20120312					

Date Lift Placed	Sample ID					
	Chute Moisture Content	In-Situ Moisture Content	Chute PSD	BDA	Drilled Core	In-Situ PSD
13-Mar-12					HB12-ND-CORE-DC78-QA-20120315	
13-Mar-12					HB12-ND-CORE-DC79-QA-20120315	HB12-ND-CORE-PSD71-QA-20120315
13-Mar-12					HB12-ND-CORE-DC81-QA-20120317	
15-Mar-12	HB12-FCP-CORE-MC340-QA-20120315			HB12-FCP-CORE-BDA14-QA-20120315		
15-Mar-12					HB12-ND-CORE-DC80-QA-20120316	
16-Mar-12					HB12-ND-CORE-DC82-QA-20120317	
17-Mar-12		HB12-ND-CORE-MC356-QA-20120317				HB12-ND-CORE-PSD72-QA-20120317
17-Mar-12					HB12-ND-CORE-DC83-QA-20120318	
18-Mar-12					HB12-ND-CORE-DC84-QA-20120319	
20-Mar-12		HB12-ND-COVER-MC372-QA-201203120				HB12-ND-COVER-PSD73-QA-20120320
20-Mar-12					HB12-ND-CORE-DC85-QA-20120321	
20-Mar-12					HB12-ND-CORE-DC86-QA-20120321	HB12-ND-CORE-PSD75-QA-20120321
21-Mar-12	HB12-FCP-COVER-MC373-QA-20120321		HB12-FCP-CORE-PSD74-QA-20120321			
21-Mar-12					HB12-ND-CORE-DC87-QA-20120322	
22-Mar-12	HB12-FCP-COVER-MC378-QA-20120322		HB12-FCP-COVER-PSD76-QA-20120322			
23-Mar-12	HB12-FCP-COVER-MC384-QA-20120323		HB12-FCP-CORE-PSD77-QA-20120323			
23-Mar-12					HB12-ND-CORE-DC88-QA-20120326	
24-Mar-12	HB12-FCP-COVER-MC391-QA-20120324		HB12-FCP-COVER-PSD78-QA-20120324			
26-Mar-12					HB12-ND-CORE-DC89-QA-20120329	