

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		P64566	P64567	P64569		
Sampling Date		2009/05/01	2009/05/01	2009/05/01		
	Units	09BOSTON-005	09BOSTON-005DUP	08BOSTONDF-005	RDL	QC Batch

Industrial						
Exposure	days			32	1	3257502
Dustfall Determination						
Total Dustfall	mg			4	1	3285545
Total Dustfall (30 day)	mg/cm2/30day			0.041	0.001	3285546
Total Fixed Dustfall	mg			2	1	3285545
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.021	0.001	3285546
Passive Monitoring						
Calculated NO2	ppb	1.9	0.1		0.1	3278330
Calculated O3	ppb	29.3	6.7		0.1	3275596
Calculated SO2	ppb	<0.1	<0.1		0.1	3280236

RDL = Reportable Detection Limit

Maxxam ID		P64570	P64571		
Sampling Date		2009/04/30	2009/04/30		
	Units	09DORIS-005	09DORISDF-005	RDL	QC Batch

Industrial					
Exposure	days		32	1	3257502
Dustfall Determination					
Total Dustfall	mg		2	1	3285545
Total Dustfall (30 day)	mg/cm2/30day		0.028	0.001	3285546
Total Fixed Dustfall	mg		<1	1	3285545
Total Fixed Dustfall (30 day)	mg/cm2/30day		0.007	0.001	3285546
Passive Monitoring					
Calculated NO2	ppb	0.4		0.1	3278330
Calculated O3	ppb	40.6		0.1	3275596
Calculated SO2	ppb	<0.1		0.1	3280236

RDL = Reportable Detection Limit



Maxxam Job #: A934204
Report Date: 2009/07/23

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials: JT

General Comments

Sample P64567: Sample exposure began on June 21, 09. Noted on chain of custody.

Results relate only to the items tested.

Quality Assurance Report
 Maxxam Job Number: PA934204

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3275596 OZ	Calibration Check	Calculated O3	2009/07/15		100	%	91 - 107
	SPIKE	Calculated O3	2009/07/15		102	%	N/A
	BLANK	Calculated O3	2009/07/15	<0.1		ppb	
3278330 DF4	Calibration Check	Calculated NO2	2009/07/16		99	%	76 - 118
	SPIKE	Calculated NO2	2009/07/16		100	%	N/A
	BLANK	Calculated NO2	2009/07/16	<0.1		ppb	
3280236 DF4	Calibration Check	Calculated SO2	2009/07/17		99	%	95 - 105
	SPIKE	Calculated SO2	2009/07/17		103	%	N/A
	BLANK	Calculated SO2	2009/07/17	<0.1		ppb	
3285545 OZ	Calibration Check	Total Dustfall	2009/07/20		94	%	N/A
	BLANK	Total Dustfall	2009/07/20	<1		mg	
		Total Fixed Dustfall	2009/07/20	<1		mg	

N/A = Not Applicable

Attention: DAN JARRATT
RESCAN ENVIRONMENTAL SERVICES LTD.
SIXTH FLOOR
1111 WEST HASTINGS STREET
VANCOUVER, BC
CANADA V6E 2J3

Report Date: 2009/08/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A942385
Received: 2009/08/12, 10:41

Sample Matrix: Air
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Determination of Dustfall	2	2009/08/20	2009/08/20		
Determination of Dustfall-mg/cm2/30 days	2	2009/08/20	2009/08/20		
Exposure (Number of days)	2	2009/08/15	2009/08/15		
NO2 Passive Analysis (1)	3	2009/08/20	2009/08/21		EDM SOP-0318
O3 Passive Analysis (1)	1	2009/08/13	2009/08/21		EDM SOP-0317
O3 Passive Analysis (1)	2	2009/08/20	2009/08/21		EDM SOP-0317
SO2 Passive Analysis (1)	3	2009/08/20	2009/08/21		EDM SOP-0319

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

 Levi Manchak
21 Aug 2009 11:20:44 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LEVI MANCHAK,
Email:
Phone# (780) 378-8500

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		Q20090	Q20091	Q20093		
Sampling Date		2009/06/28	2009/06/28	2009/06/28		
	Units	09BOSTON-007	09BOSTON-007DUP	08BOSTONDF-007	RDL	QC Batch

Industrial						
Exposure	days			32	1	3350333
Dustfall Determination						
Total Dustfall	mg			4	1	3361383
Total Dustfall (30 day)	mg/cm2/30day			0.048	0.001	3361384
Total Fixed Dustfall	mg			3	1	3361383
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.034	0.001	3361384
Passive Monitoring						
Calculated NO2	ppb	<0.1	<0.1		0.1	3360357
Calculated O3	ppb	20.4	20.0		0.1	3360714
Calculated SO2	ppb	<0.1	<0.1		0.1	3360012

RDL = Reportable Detection Limit

Maxxam ID		Q20094	Q20095		
Sampling Date		2009/06/30	2009/06/30		
	Units	09DORIS-007	09DORISDF-007	RDL	QC Batch

Industrial					
Exposure	days		31	1	3350333
Dustfall Determination					
Total Dustfall	mg		5	1	3361383
Total Dustfall (30 day)	mg/cm2/30day		0.064	0.001	3361384
Total Fixed Dustfall	mg		5	1	3361383
Total Fixed Dustfall (30 day)	mg/cm2/30day		0.057	0.001	3361384
Passive Monitoring					
Calculated NO2	ppb	0.1		0.1	3360357
Calculated O3	ppb	20.7		0.1	3360714
Calculated SO2	ppb	<0.1		0.1	3360012

RDL = Reportable Detection Limit

General Comments

Sample Q20093-01: Field notes state 'No fluid left in container'

Sample Q20095-01: Field Notes state 'dustfall jar tilted over 45 degrees away from prevailing wind direction; most fluid evaporated'

Results relate only to the items tested.

Quality Assurance Report
 Maxxam Job Number: PA942385

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3360012 DF4	Calibration Check	Calculated SO2	2009/08/20		97	%	95 - 105
	Spiked Blank	Calculated SO2	2009/08/20		101	%	N/A
	Method Blank	Calculated SO2	2009/08/20	<0.1		ppb	
3360357 DF4	Calibration Check	Calculated NO2	2009/08/20		99	%	76 - 118
	Spiked Blank	Calculated NO2	2009/08/20		95	%	N/A
	Method Blank	Calculated NO2	2009/08/20	<0.1		ppb	
3360714 OZ	Calibration Check	Calculated O3	2009/08/20		98	%	91 - 107
	Spiked Blank	Calculated O3	2009/08/20		96	%	N/A
	Method Blank	Calculated O3	2009/08/20	<0.1		ppb	
3361383 OZ	Calibration Check	Total Dustfall	2009/08/20		98	%	N/A
	Method Blank	Total Dustfall	2009/08/20	<1		mg	
		Total Fixed Dustfall	2009/08/20	<1		mg	
	RPD [Q20093-01]	Total Dustfall	2009/08/20	NC		%	N/A
		Total Fixed Dustfall	2009/08/20	NC		%	N/A

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: A942385

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



LINDA LIN, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Attention: DAN JARRATT
RESCAN ENVIRONMENTAL SERVICES LTD.
SIXTH FLOOR
1111 WEST HASTINGS STREET
VANCOUVER, BC
CANADA V6E 2J3

Report Date: 2009/10/30

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A960457
Received: 2009/10/26, 14:11

Sample Matrix: Air
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Determination of Dustfall	3	2009/10/29	2009/10/29		
Determination of Dustfall-mg/cm2/30 days	3	2009/10/29	2009/10/29		
Exposure (Number of days)	3	2009/10/29	2009/10/29		
NO2 Passive Analysis (1)	3	2009/10/29	2009/10/30		EDM SOP-0318
O3 Passive Analysis (1)	3	2009/10/28	2009/10/30		EDM SOP-0317
SO2 Passive Analysis (1)	3	2009/10/29	2009/10/30		EDM SOP-0319

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Levi Manchak



30 Oct 2009 11:02:00 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LEVI MANCHAK,
Email:
Phone# (780) 378-8500

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		R45415	R45416	R45418		
Sampling Date		2009/07/30	2009/07/30	2009/07/30		
	Units	09BOSTON-008	09BOSTON-008DUP	08BOSTONDF-008	RDL	QC Batch

Industrial						
Exposure	days			55	1	3525990
Dustfall Determination						
Total Dustfall	mg			10	1	3525987
Total Dustfall (30 day)	mg/cm2/30day			0.068	0.001	3525988
Total Fixed Dustfall	mg			10	1	3525987
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.068	0.001	3525988
Passive Monitoring						
Calculated NO2	ppb	<0.1	0.2		0.1	3525899
Calculated O3	ppb	19.4	19.6		0.1	3521609
Calculated SO2	ppb	<0.1	<0.1		0.1	3525908

RDL = Reportable Detection Limit

Maxxam ID		R45419	R45421	R46854		
Sampling Date		2009/07/31	2009/07/31	2009/08/11		
	Units	09DORIS-008	09DORISDF-008 JUL/AUG	09DORISDF-008 AUG/SEPT	RDL	QC Batch

Industrial						
Exposure	days		11	42	1	3525990
Dustfall Determination						
Total Dustfall	mg		4	16	1	3525987
Total Dustfall (30 day)	mg/cm2/30day		0.140	0.142	0.001	3525988
Total Fixed Dustfall	mg		4	15	1	3525987
Total Fixed Dustfall (30 day)	mg/cm2/30day		0.140	0.131	0.001	3525988
Passive Monitoring						
Calculated NO2	ppb	0.3			0.1	3525899
Calculated O3	ppb	20.1			0.1	3521609
Calculated SO2	ppb	<0.1			0.1	3525908

RDL = Reportable Detection Limit

General Comments

Sample Exposure Dates:

O3/SO2/NO2 Doris-008: July 31/09 - Sept. 23/09
DUSTFALL Doris-008 JUL/AUG: July 31/09 - Aug. 11/09
DUSTFALL Doris-008 AUG/SEPT: Aug.11/09 - Sept. 22/09
O3/SO2/NO2 Boston-008: July 30/09 - Sept. 23/09
O3/SO2/NO2 Boston-DUP: July 30/09 - Sept. 23/09
DUSTFALL Boston-008: July 30/09 - Sept. 23/09

Results relate only to the items tested.

Quality Assurance Report
 Maxxam Job Number: PA960457

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3521609 OZ	Calibration Check	Calculated O3	2009/10/29		103	%	91 - 107
	Spiked Blank	Calculated O3	2009/10/29		100	%	N/A
	Method Blank	Calculated O3	2009/10/29	<0.1		ppb	
3525899 DF4	Calibration Check	Calculated NO2	2009/10/29		100	%	76 - 118
	Spiked Blank	Calculated NO2	2009/10/29		101	%	N/A
	Method Blank	Calculated NO2	2009/10/29	<0.1		ppb	
3525908 DF4	Calibration Check	Calculated SO2	2009/10/29		103	%	95 - 105
	Spiked Blank	Calculated SO2	2009/10/29		105	%	N/A
	Method Blank	Calculated SO2	2009/10/29	<0.1		ppb	
3525987 OZ	Calibration Check	Total Dustfall	2009/10/29		95	%	N/A
	Method Blank	Total Dustfall	2009/10/29	<1		mg	
		Total Fixed Dustfall	2009/10/29	<1		mg	
	RPD [R45418-01]	Total Dustfall	2009/10/29	0		%	N/A
		Total Fixed Dustfall	2009/10/29	0		%	N/A

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Validation Signature Page

Maxxam Job #: A960457

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



LINDA LIN, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Maxxam Job #: A915450
Report Date: 2009/06/02

GOLDER ASSOCIATES LTD
Client Project #: 2009/03/01 - 2009/03/31
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials:

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		O34379	O34380	O34382	O34383	O34384		
Sampling Date		03/01/2009	03/01/2009	03/01/2009	03/01/2009	03/01/2009		
	Units	09BOSTON-003	09BOSTON-003DUP	08BOSTONDF-003	09DORIS-003	09DORISDF-003	RDL	QC Batch
Industrial								
Exposure	days			29		30	1	3046854
Dustfall Determination								
Total Dustfall	mg			<1		<1	1	3064723
Total Dustfall (30 day)	mg/cm2/30day			0.009		0.007	0.001	3064724
Total Dustfall (day)	mg/100cm2/day			0.030	0	0.023	0.003	
Total Fixed Dustfall	mg			<1		<1	1	3064723
Total Fixed Dustfall (30 day)	mg/cm2/30day			<0.001		<0.001	0.001	3064724
Total Fixed Dustfall (day)	mg/100cm2/day			<0.003		<0.003	0.003	
Passive Monitoring								
Calculated NO2	ppb	4.0	4.1		1.0		0.1	3059013
Calculated O3	ppb	15.1	16.6		18.3		0.1	3064278
Calculated SO2	ppb	0.1	0.1		0.2		0.1	3051260

RDL = Reportable Detection Limit

Results relate only to the items tested.

Maxxam Job #: A924670
Report Date: 2009/06/03

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials:

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		O92909	O92910	O92912	O92913	O92914		
Sampling Date		03/30/2009	03/30/2009	03/30/2009	03/31/2009	03/31/2009		
	Units	09BOSTON-004	09BOSTON-004DUP	08BOSTONDF-004	09DORIS-004	09DORISDF-004	RDL	QC Batch
Industrial								
Exposure	days			32		30	1	3161202
Dustfall Determination								
Total Dustfall	mg			4		2	1	3161307
Total Dustfall (30 day)	mg/cm2/30day			0.048		0.029	0.001	3161308
Total Dustfall (day)	mg/100cm2/day			0.160		0.097	0.003	
Total Fixed Dustfall	mg			3		2	1	3161307
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.034		0.022	0.001	3161308
Total Fixed Dustfall (day)	mg/100cm2/day			0.113		0.073	0.003	
Passive Monitoring								
Calculated NO2	ppb	3.2	2.8		0.2		0.1	3161311
Calculated O3	ppb	28.1	23.2		30.7		0.1	3161312
Calculated SO2	ppb	<0.1	<0.1		<0.1		0.1	3161316

RDL = Reportable Detection Limit

Maxxam Job #: A934204
Report Date: 2009/07/23

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials: JT

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		P64566	P64567	P64569	P64570	P64571		
Sampling Date		05/01/2009	05/01/2009	05/01/2009	04/30/2009	04/30/2009		
	Units	09BOSTON-005	09BOSTON-005DUP	08BOSTONDF-005	09DORIS-005	09DORISDF-005	RDL	QC Batch
Industrial								
Exposure	days			32		32	1	3257502
Dustfall Determination								
Total Dustfall	mg			4		2	1	3285545
Total Dustfall (30 day)	mg/cm2/30day			0.041		0.028	0.001	3285546
Total Dustfall (day)	mg/100cm2/day			0.137		0.093	0.003	
Total Fixed Dustfall	mg			2		<1	1	3285545
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.021		0.007	0.001	3285546
Total Fixed Dustfall (day)	mg/100cm2/day			0.070		0.023	0.003	
Passive Monitoring								
Calculated NO2	ppb	1.9	0.1		0.4		0.1	3278330
Calculated O3	ppb	29.3	6.7		40.6		0.1	3275596
Calculated SO2	ppb	<0.1	<0.1		<0.1		0.1	3280236

RDL = Reportable Detection Limit

Maxxam Job #: A934201
Report Date: 2009/07/23

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials: JT

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		P64521	P64522	P64524		P64525	P64526		
Sampling Date		06/02/2009	06/21/2009	06/02/2009		06/01/2009	06/01/2009		
	Units	09BOSTON-006	09BOSTON-006DUP	08BOSTONDF-006	QC Batch	09DORIS-006	09DORISDF-006	RDL	QC Batch
Industrial									
Exposure	days			26	3257502		29	1	3257502
Dustfall Determination									
Total Dustfall	mg			4	3285535		4	1	3285535
Total Dustfall (30 day)	mg/cm2/30day			0.057	3285536		0.046	0.001	3285536
Total Dustfall (day)	mg/100cm2/day			0.190			0.153	0.003	
Total Fixed Dustfall	mg			3	3285535		2	1	3285535
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.045	3285536		0.030	0.001	3285536
Total Fixed Dustfall (day)	mg/100cm2/day			0.150			0.100	0.003	
Passive Monitoring									
Calculated NO2	ppb	<0.1	0.2		3278330	<0.1		0.1	3278330
Calculated O3	ppb	20.7	<0.1		3264513	28.5		0.1	3275596
Calculated SO2	ppb	<0.1	<0.1		3280236	0.1		0.1	3280236

RDL = Reportable Detection Limit

Maxxam Job #: A942385
Report Date: 2009/08/21

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials: JT

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		Q20090	Q20091	Q20093	Q20094	Q20095		
Sampling Date		06/28/2009	06/28/2009	06/28/2009	06/30/2009	06/30/2009		
	Units	09BOSTON-007	09BOSTON-007DUP	08BOSTONDF-007	09DORIS-007	09DORISDF-007	RDL	QC Batch
Industrial								
Exposure	days			32		31	1	3350333
Dustfall Determination								
Total Dustfall	mg			4		5	1	3361383
Total Dustfall (30 day)	mg/cm2/30day			0.048		0.064	0.001	3361384
Total Dustfall (day)	mg/100cm2/day			0.160		0.213	0.003	
Total Fixed Dustfall	mg			3		5	1	3361383
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.034		0.057	0.001	3361384
Total Fixed Dustfall (day)	mg/100cm2/day			0.113		0.190	0.003	
Passive Monitoring								
Calculated NO2	ppb	<0.1	<0.1		0.1		0.1	3360357
Calculated O3	ppb	20.4	20.0		20.7		0.1	3360714
Calculated SO2	ppb	<0.1	<0.1		<0.1		0.1	3360012

RDL = Reportable Detection Limit

Maxxam Job #: A960457
Report Date: 2009/10/30

RESCAN ENVIRONMENTAL SERVICES LTD.
Client Project #: 1009-002-02
Site Reference: BOSTON CAMP/DORIS NORTH
Sampler Initials: JT

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		R45415	R45416	R45418	R45419	R45421	R46854		
Sampling Date		07/30/2009	07/30/2009	07/30/2009	07/31/2009	07/31/2009	08/11/2009		
	Units	09BOSTON-008	09BOSTON-008DUP	08BOSTONDF-008	09DORIS-008	09DORISDF-008 JUL/AUG	09DORISDF-008 AUG/SEPT	RDL	QC Batch
Industrial									
Exposure	days			55		11	42	1	3525990
Dustfall Determination									
Total Dustfall	mg			10		4	16	1	3525987
Total Dustfall (30 day)	mg/cm2/30day			0.068		0.140	0.142	0.001	3525988
Total Dustfall (day)	mg/100cm2/day			0.227		0.467	0.473	0.003	
Total Fixed Dustfall	mg			10		4	15	1	3525987
Total Fixed Dustfall (30 day)	mg/cm2/30day			0.068		0.140	0.131	0.001	3525988
Total Fixed Dustfall (day)	mg/100cm2/day			0.227		0.467	0.437	0.003	
Passive Monitoring									
Calculated NO2	ppb	<0.1	0.2		0.3			0.1	3525899
Calculated O3	ppb	19.4	19.6		20.1			0.1	3521609
Calculated SO2	ppb	<0.1	<0.1		<0.1			0.1	3525908

RDL = Reportable Detection Limit

DORIS NORTH GOLD MINE PROJECT
AIR QUALITY COMPLIANCE REPORT FOR SECTION 4 ITEM 30 OF THE
PROJECT CERTIFICATE

Appendix 3

Dustfall Analysis Results



Environmental Division

Certificate of Analysis

RESCAN ENVIRONMENTAL SERVICES

ATTN: DAN JARRATT

SIXTH FLOOR
1111 WEST HASTINGS STREET
VANCOUVER BC V6E 2J3

Report Date: 14-SEP-09 15:09 (MT)

Version: FINAL

Lab Work Order #: L808988

Date Received: 21-AUG-09

Project P.O. #:

Job Reference: 1009-002-02

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

CofC

GLENYSS WEEKS
Technical Sales Representative

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

CofC

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L808988-1	L808988-2	L808988-3		
		10-AUG-09 10:17 DF-1 (JUL 6, 2009 - AUG 10, 2009)	10-AUG-09 16:45 DF-2 (JUL 6, 2009 - AUG 10, 2009)	10-AUG-09 16:35 DF-3 (JUL 6, 2009 - AUG 10, 2009)		
Grouping	Analyte					
DUSTFALL						
Particulates	Total Dustfall (mg/dm2.day)	0.19	0.23	0.13		
	Total Insoluble Dustfall (mg/dm2.day)	<0.10	<0.10	<0.10		
	Total Soluble Dustfall (mg/dm2.day)	0.15	0.19	0.12		
Anions and Nutrients	Ammonia as N (mg/dm2.day)	0.00088	0.00066	0.00084		
	Chloride (Cl) (mg/dm2.day)	0.0104	0.0135	0.0058		
	Nitrate (as N) (mg/dm2.day)	0.000846	0.000742	0.000707		
	Sulfate (SO4) (mg/dm2.day)	0.0068	0.0044	0.0041		
Metals	Aluminum (Al)-Total (mg/dm2.day)	0.000693	0.00113	0.000484		
	Antimony (Sb)-Total (mg/dm2.day)	<0.0000010	<0.0000010	0.0000013		
	Arsenic (As)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Barium (Ba)-Total (mg/dm2.day)	0.0000159	0.0000276	0.0000119		
	Beryllium (Be)-Total (mg/dm2.day)	<0.0000060	<0.0000060	<0.0000060		
	Bismuth (Bi)-Total (mg/dm2.day)	<0.0000060	<0.0000060	<0.0000060		
	Boron (B)-Total (mg/dm2.day)	<0.00010	<0.00010	<0.00010		
	Cadmium (Cd)-Total (mg/dm2.day)	0.00000198	0.00000199	0.00000494		
	Calcium (Ca)-Total (mg/dm2.day)	0.00290	0.00281	0.00178		
	Chromium (Cr)-Total (mg/dm2.day)	0.0000206	0.0000103	0.0000200		
	Cobalt (Co)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Copper (Cu)-Total (mg/dm2.day)	0.000158	0.000519	0.000283		
	Iron (Fe)-Total (mg/dm2.day)	0.00101	0.00139	0.00057		
	Lead (Pb)-Total (mg/dm2.day)	0.00000226	0.00000295	0.00000706		
	Lithium (Li)-Total (mg/dm2.day)	<0.000060	<0.000060	<0.000060		
	Magnesium (Mg)-Total (mg/dm2.day)	<0.0010	0.0017	<0.0010		
	Manganese (Mn)-Total (mg/dm2.day)	0.0000424	0.0000533	0.0000391		
	Mercury (Hg)-Total (mg/dm2.day)	<0.00000060	<0.00000060	<0.00000060		
	Molybdenum (Mo)-Total (mg/dm2.day)	<0.00000060	0.00000069	0.00000077		
	Nickel (Ni)-Total (mg/dm2.day)	0.0000071	0.0000102	0.0000186		
	Phosphorus (P)-Total (mg/dm2.day)	<0.0030	<0.0030	<0.0030		
	Potassium (K)-Total (mg/dm2.day)	<0.020	<0.020	<0.020		
	Selenium (Se)-Total (mg/dm2.day)	<0.000010	<0.000010	<0.000010		
	Silicon (Si)-Total (mg/dm2.day)	0.00152	0.00227	0.00129		
	Silver (Ag)-Total (mg/dm2.day)	<0.00000010	0.00000105	0.00000015		
	Sodium (Na)-Total (mg/dm2.day)	<0.020	<0.020	<0.020		
	Strontium (Sr)-Total (mg/dm2.day)	0.0000080	0.0000191	0.0000062		
	Thallium (Tl)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Tin (Sn)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Titanium (Ti)-Total (mg/dm2.day)	<0.00010	<0.00010	<0.00010		
	Uranium (U)-Total (mg/dm2.day)	0.00000016	0.00000012	<0.00000010		
	Vanadium (V)-Total (mg/dm2.day)	<0.000010	<0.000010	<0.000010		
	Zinc (Zn)-Total (mg/dm2.day)	0.000062	0.000140	0.000265		

Reference Information

Additional Comments for Sample Listed:

Sample Num	Matrix	Report Remarks	Sample Comments
------------	--------	----------------	-----------------

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Analytical Method Reference(Based On)
---------------	--------	------------------	---------------------------------------

IL-IC-VA Dustfall Dustfall Chloride by Ion Chromatography BC LAB MAN. - PART. - SOLUBLE - ANIONS

The Dustfall analysis is carried out in accordance with the B.C. Laboratory Manual method 'Particulate - Total' and 'Particulate - Soluble - Anions and Cations by Ion Chromatography'. The chloride analysis is specifically carried out using procedures adapted from APHA Method 4110 "Determination of Anions by Ion Chromatography" and EPA Method 300.0 "Determination of Inorganic Anions by Ion Chromatography".

DUSTFALLS-COM-DM2- Dustfall Combined Dustfalls-Total, soluble, insol BC MOE DUSTFALLS

Dustfall analysis is carried out in accordance with procedures published by the B.C. Ministry of Environment Laboratory.

IG-DUST(DM2-CVAFS- Dustfall Total Mercury in Dustfalls by CVAFS EPA 245.7

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry (EPA Method 245.7).

Method:

ICP-DUST(DM2)-ICP-VA Dustfall Total Metals in Dustfalls by ICPOES EPA 6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

IET-DUST(DM2)-MS-VA Dustfall Total Metals in Dustfalls by ICPMS EPA 6020A

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

NH3-COL-VA Dustfall Dustfall Ammonia by Colour BC LAB MAN. - PART. - SOLUBLE - ANIONS

The Dustfall analysis is carried out in accordance with the B.C. Laboratory Manual method 'Particulate - Total' and 'Particulate - Soluble - Anions and Cations by Ion Chromatography'. The ammonia analysis is specifically carried out using procedures adapted from APHA Method 4500-NH3 "Nitrogen Ammonia". Ammonia is determined using the phenate colourimetric method.

NO3-IC-VA Dustfall Dustfall Nitrate by Ion Chromatography BC LAB MAN. - PART. - SOLUBLE - ANIONS

The Dustfall analysis is carried out in accordance with the B.C. Laboratory Manual method 'Particulate - Total' and 'Particulate - Soluble - Anions and Cations by Ion Chromatography'. The nitrate analysis is specifically carried out using procedures adapted from APHA Method 4110 "Determination of Anions by Ion Chromatography" and EPA Method 300.0 "Determination of Inorganic Anions by Ion Chromatography".

SO4-IC-VA Dustfall Dustfall Sulphate by Ion Chromatography BC LAB MAN. - PART. - SOLUBLE - ANIONS

The Dustfall analysis is carried out in accordance with the B.C. Laboratory Manual method 'Particulate - Total' and 'Particulate - Soluble - Anions and Cations by Ion Chromatography'. The sulphate analysis is specifically carried out using procedures adapted from APHA Method 4110 "Determination of Anions by Ion Chromatography" and EPA Method 300.0 "Determination of Inorganic Anions by Ion Chromatography".

* Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

The last two letters of the above ALS Test Code column indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
----------------------------	---------------------	----------------------------	---------------------

IG-DVA ALS LABORATORY GROUP - VANCOUVER, BC, CANADA

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Analytical Method Reference(Based On)
---------------	--------	------------------	---------------------------------------

LOSSARY OF REPORT TERMS

urr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

he reported surrogate recovery value provides a measure of method efficiency.

g/kg (units) - unit of concentration based on mass, parts per million

g/L (units) - unit of concentration based on volume, parts per million

/A - Result not available. Refer to qualifier code and definition for explanation

est results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.



Environmental Division

Certificate of Analysis

RESCAN ENVIRONMENTAL SERVICES

ATTN: DAN JARRATT

SIXTH FLOOR
1111 WEST HASTINGS STREET
VANCOUVER BC V6E 2J3

Report Date: 14-SEP-09 15:09 (MT)

Version: FINAL

Lab Work Order #: L808988

Date Received: 21-AUG-09

Project P.O. #:

Job Reference: 1009-002-02

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

SIX
1111

SIX
1111

GLENYSS WEEKS
Technical Sales Representative

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L808988-1	L808988-2	L808988-3		
		10-AUG-09 10:17 DF-1 (JUL 6, 2009 - AUG 10, 2009)	10-AUG-09 16:45 DF-2 (JUL 6, 2009 - AUG 10, 2009)	10-AUG-09 16:35 DF-3 (JUL 6, 2009 - AUG 10, 2009)		
Grouping	Analyte					
DUSTFALL						
Particulates	Total Dustfall (mg/dm2.day)	0.19	0.23	0.13		
	Total Insoluble Dustfall (mg/dm2.day)	<0.10	<0.10	<0.10		
	Total Soluble Dustfall (mg/dm2.day)	0.15	0.19	0.12		
Anions and Nutrients	Ammonia as N (mg/dm2.day)	0.00088	0.00066	0.00084		
	Chloride (Cl) (mg/dm2.day)	0.0104	0.0135	0.0058		
	Nitrate (as N) (mg/dm2.day)	0.000846	0.000742	0.000707		
	Sulfate (SO4) (mg/dm2.day)	0.0068	0.0044	0.0041		
Metals	Aluminum (Al)-Total (mg/dm2.day)	0.000693	0.00113	0.000484		
	Antimony (Sb)-Total (mg/dm2.day)	<0.0000010	<0.0000010	0.0000013		
	Arsenic (As)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Barium (Ba)-Total (mg/dm2.day)	0.0000159	0.0000276	0.0000119		
	Beryllium (Be)-Total (mg/dm2.day)	<0.0000060	<0.0000060	<0.0000060		
	Bismuth (Bi)-Total (mg/dm2.day)	<0.0000060	<0.0000060	<0.0000060		
	Boron (B)-Total (mg/dm2.day)	<0.00010	<0.00010	<0.00010		
	Cadmium (Cd)-Total (mg/dm2.day)	0.00000198	0.00000199	0.00000494		
	Calcium (Ca)-Total (mg/dm2.day)	0.00290	0.00281	0.00178		
	Chromium (Cr)-Total (mg/dm2.day)	0.0000206	0.0000103	0.0000200		
	Cobalt (Co)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Copper (Cu)-Total (mg/dm2.day)	0.000158	0.000519	0.000283		
	Iron (Fe)-Total (mg/dm2.day)	0.00101	0.00139	0.00057		
	Lead (Pb)-Total (mg/dm2.day)	0.00000226	0.00000295	0.00000706		
	Lithium (Li)-Total (mg/dm2.day)	<0.000060	<0.000060	<0.000060		
	Magnesium (Mg)-Total (mg/dm2.day)	<0.0010	0.0017	<0.0010		
	Manganese (Mn)-Total (mg/dm2.day)	0.0000424	0.0000533	0.0000391		
	Mercury (Hg)-Total (mg/dm2.day)	<0.00000060	<0.00000060	<0.00000060		
	Molybdenum (Mo)-Total (mg/dm2.day)	<0.00000060	0.00000069	0.00000077		
	Nickel (Ni)-Total (mg/dm2.day)	0.0000071	0.0000102	0.0000186		
	Phosphorus (P)-Total (mg/dm2.day)	<0.0030	<0.0030	<0.0030		
	Potassium (K)-Total (mg/dm2.day)	<0.020	<0.020	<0.020		
	Selenium (Se)-Total (mg/dm2.day)	<0.000010	<0.000010	<0.000010		
	Silicon (Si)-Total (mg/dm2.day)	0.00152	0.00227	0.00129		
	Silver (Ag)-Total (mg/dm2.day)	<0.00000010	0.00000105	0.00000015		
	Sodium (Na)-Total (mg/dm2.day)	<0.020	<0.020	<0.020		
	Strontium (Sr)-Total (mg/dm2.day)	0.0000080	0.0000191	0.0000062		
	Thallium (Tl)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Tin (Sn)-Total (mg/dm2.day)	<0.0000010	<0.0000010	<0.0000010		
	Titanium (Ti)-Total (mg/dm2.day)	<0.00010	<0.00010	<0.00010		
	Uranium (U)-Total (mg/dm2.day)	0.00000016	0.00000012	<0.00000010		
	Vanadium (V)-Total (mg/dm2.day)	<0.000010	<0.000010	<0.000010		
	Zinc (Zn)-Total (mg/dm2.day)	0.000062	0.000140	0.000265		