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Stantec

March 16, 2011
File: 121410955.210

Sydney Tar Ponds Agency
1 Inglis Street
PO Box 1028, Stn. A
Sydney, NS B1P 6J7

Attention: Ms. Diane Ingraham, PhD., PMP, Quality Contracts Manager

Dear Ms. Ingraham:

**Reference: STPA Project Element CO1 – Coke Oven Brook Connector
Independent Quality Assurance (IQA) December 2010 Monthly Summary Report –
Revision 1**

At the request of Sydney Tar Ponds Agency (STPA), Stantec Consulting Ltd (Stantec) has completed the following quality assurance inspection/testing services and meetings in accordance with project requirements at the above mentioned site between December 1 and December 31, 2010:

- Project Item PM02: One monthly QA report (December 2010) completed in the month of March 2011.
- Project Item PM-05: Other meetings and frequent opinions and emails were provided in the month of December 2010.
- Project Item PM-19: Review of and data entry into CO1 September 2010 QC/QA testing summary tables.
- Project Item QCP-02: Submittal reviews (Contractor's December 2010 QC report including daily/test reports).
- Project Items Env-I-01, Env-I-02, Env-I-03, Env-I-04, Env-I-05, Env-I-06, Env-I-08, ENV-T-01, ENV-T-02 and ENV-T-03: The IQAC was directed by the STPA to cease QA activities on November 24, 2010 the QA environmental activities due to the completion of the project. Therefore, environmental inspections and testing were not performed in December 2010.

We trust this information meets your present requirements. If you have any questions, please do not hesitate to contact us.

Sincerely,

STANTEC CONSULTING LTD

Rabi Morelly, M.Sc., P.Eng.
Geotechnical and Materials Engineer
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Willie McNeil, B.Tech. (Env.), CET
Project Manager
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March 14, 2011
File: 121410955.210

Sydney Tar Ponds Agency
1 Inglis Street
PO Box 1028, Stn. A
Sydney, NS B1P 6J7

Attention: Ms. Diane Ingraham, Ph.D., PMP, Quality Contract Manager

Dear: Ms. Ingraham

**Reference: Environmental Quality Assurance of Quality Control Program
Element CO1, Sydney Tar Ponds Project, Sydney, NS
Review of Contractor's December 2010 Quality Control (QC) Report – Revision 2**

At the request of the Sydney Tar Ponds Agency (STPA), Stantec Consulting Limited (Stantec), acting as the project Independent Quality Assurance Consultant (IQAC), has completed a Quality Assurance Review of the Contractor's (Nordlys and their quality control consultant (ADI Limited)), Monthly Quality Control (QC) Report for the month of December 2010 – Revision 2 for project element CO1.

Comments are prepared using a three tier system as requested by the STPA:

Level 1 - Critical comments which need to be addressed promptly. The IQAC requests responses on any critical comments within one week.

Level 2 - Comments for which a response is required. All comments for which a response is required should be responded to in the form of a written response or by providing the necessary information as requested.

Level 3 - Comments that would improve the quality of the work but for which the agency need not respond to.

Based on our review of the QC information provided from the referenced period, the IQAC does not offers any comments for your consideration. It should be noted that the IQAC received notification from STPA on November 18, 2010, to cease Environmental Inspections and Environmental Testing on or before November 24, 2010.

We trust this information meets your present needs. If you have any questions, or if we can be of further assistance, please do not hesitate to contact us at your convenience.

Sincerely,

STANTEC CONSULTING LIMITED

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March 14, 2011
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Sydney Tar Ponds Agency
1 Inglis Street
PO Box 1028, Stn. A
Sydney, NS B1P 6J7

Attention: Ms. Diane Ingraham, Ph.D., PMP, Quality Contract Manager

Dear Ms. Ingraham:

**Reference: Concrete and Geotechnical Quality Assurance of Quality Control Program
Element CO1, Sydney Tar Ponds Project, Sydney, NS
Review of Contractor's December 2010 Quality Control (QC) Report**

At the request of the Sydney Tar Ponds Agency (STPA), Stantec Consulting Ltd (Stantec), acting as the project Independent Quality Assurance Consultant (IQAC), has completed a Quality Assurance Review of the Contractor's (MB2/Beaver Joint Venture (MBJV) and their quality control consultant (ADI Group Inc)) Monthly Quality Control (QC) Report for the month of December 2010 for project Element CO1.

Comments are prepared using a three tier system as requested by the STPA:

Level 1 - Critical comments which need to be addressed promptly. The IQAC requests responses on any critical comments within one week.

Level 2 - Comments for which a response is required. All comments for which a response is required should be responded to in the form of a written response or by providing the necessary information as requested.

Level 3 - Comments that would improve the quality of the work but for which the agency need not respond to.

Based on our review of the QC information provided from the referenced period, the IQAC offers the following comments for your considerations:

SOILS/ MATERIALS TESTING

Level 1	Sand samples 1 and 2 collected on April 12 and 23, 2010 respectively, did not meet the project specified gradation requirements. Also, sample 1 collected on May 28, 2010 for retesting purpose did not meet the project specifications.
Level 1	This monthly report still does not include Bursting Strength, Thickness, Burst and Filtration Opening test results of SKAPS GT110 Geotextile that were performed by the manufacturer quality control.

March 14, 2011

Ms. Diane Ingraham, Ph.D., PMP, Quality Contract Manager

Page 2 of 2

**Reference: Concrete and Geotechnical Quality Assurance of Quality Control Program
Element CO1, Sydney Tar Ponds Project, Sydney, NS
Review of Contractor's December 2010 Quality Control (QC) Report**

Level 2	Type II Slag sample 1 collected on May 17, 2010 did not meet the project specified gradation requirements.
Level 2	Clear stone samples 1 and 2 collected on April 12 and 23, 2010 respectively did not meet the project specified gradation requirements. However, sample 1 collected on May 28, 2010 for retesting purpose met the project specifications.
Level 2	The IQAC recommends the replacement of report authorization phrase "released by", which is accompanied by reviewer name and signature, in test reports with "checked by" or "reviewed by" phrase.
Level 3	All reports should be signed by the applicable QC testing and review personnel, with names clearly printed, and dated once they are completed and reviewed.

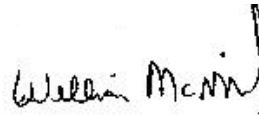
This report covers the quality control aspects for both the geotechnical and materials portions of the project. We trust this information meets your present needs. If you have any questions, or if we can be of further assistance, please do not hesitate to contact us at your convenience.

Sincerely,

STANTEC CONSULTING LTD



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Quality Control (QC) and Quality Assurance (QA) Testing Summary Table

Contractor:	McNally	Client:	STPA	Form Number:	97918-QAF-059
Element:	CO1	Oversight:	AECOM/CBCL	Project:	Remediation of the Tar Ponds and Coke Ovens Sites
		IQAC:	Stantec		

Daily
 Monthly
 From: 28-Nov-10 To: 23-Dec-10

SPECIFIED REQUIREMENTS						RESULTS												NOTES	
Spec Section	Spec Description	Test Type	Standard	QC Frequency	QA Frequency	Date Collected	QC Sample ID	Criteria	Date QC Result Received	QC Test Result	QC Pass/Fail	QC Frequency Met? Y/N	QA Sample ID	Date QA Result Received	QA Test Result	QA Pass/Fail	QA Frequency Met? Y/N	QC	QA
31 23 10	Excavating, Trenching & Backfilling	Moisture Content	ASTM D2216	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	Various low permeable fill	Not Specified	6-Apr-10	Various (See ADI Moisture Testing Worksheet)	See QC Note	Y	Clay Fill TP-01 Sa2 TP-02 Sa1 TP-03 Sa1 Former Burns' Pit 5-Apr-10	7-Apr-10	Natural Moisture Contents were: 14.8% 10.1% 15.7%	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Atterberg Limits	ASTM D4318	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-01	Not Specified	8-Apr-10	Liquid Limit = 26.2 Plastic Limit = 16.6 Plastic Index = 9.6	See QC Note	Y	Clay Fill TP-01 Sa2 Former Burns' Pit 5-Apr-10	8-Apr-10	LL=27.7 PL=18.8 PI=8.9	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Atterberg Limits	ASTM D4318	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-02	Not Specified	8-Apr-10	Liquid Limit = 24.9 Plastic Limit = 18.6 Plastic Index = 6.4	See QC Note	Y	Clay Fill TP-02 Sa2 Former Burns' Pit 5-Apr-10	8-Apr-10	LL=27.2 PL=16.1 PI=11.1	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Atterberg Limits	ASTM D4318	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-03	Not Specified	8-Apr-10	Liquid Limit = 23.1 Plastic Limit = 17.7 Plastic Index = 5.5	See QC Note	Y	Clay Fill TP-03 Sa1 Former Burns' Pit 5-Apr-10	8-Apr-10	LL=24.5 PL=16.1 PI=8.4	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Permeability	ASTM D5084	Each lift, every 100m placed. A minimum of 1 per lift.	1 test per source or if material properties change	5-Apr-10	TP10-01 low permeable fill	Less than 1.0 x 10 ⁻⁶ cm/sec	14-Apr-10	2.1 x 10 ⁻⁸ cm/sec	Pass	Y	Clay Fill TP-01 Sa2 Former Burns' Pit 5-Apr-10	23-Apr-10	3.2x10 ⁻⁷ cm/s	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Met the requirements of the specification section pertaining to permeability. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Permeability	ASTM D5084	Each lift, every 100m placed. A minimum of 1 per lift.	1 test per source or if material properties change	5-Apr-10	TP10-02 low permeable fill	Less than 1.0 x 10 ⁻⁶ cm/sec	14-Apr-10	1.8 x 10 ⁻⁸ cm/sec	Pass	Y						Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-01 low permeable fill	None Specified	21-Apr-10	Various (See ADI Gradation Testing Worksheet)	See QC Note	Y	Clay Fill TP-01 Sa2 Former Burns' Pit 5-Apr-10	7-Apr-10	26% Gravel 39% Sand 35% Silt/Clay	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-02 low permeable fill	None Specified	21-Apr-10	Various (See ADI Gradation Testing Worksheet)	See QC Note	Y	Clay Fill TP-02 Sa1 Former Burns' Pit 5-Apr-10	7-Apr-10	24% Gravel 36% Sand 40% Silt/Clay	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	5-Apr-10	TP10-03 low permeable fill	None Specified	21-Apr-10	Various (See ADI Gradation Testing Worksheet)	See QC Note	Y	Clay Fill TP-03 Sa1 Former Burns' Pit 5-Apr-10	7-Apr-10	16% Gravel 45% Sand 39% Silt/Clay	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	12-Apr-10	Sa 1 (C4) clear stone	100% passing 112mm 90-100% passing 80mm 0-10% passing 28mm	12-Apr-10	100% passing 112mm 82.9% passing 80mm 17.4% passing 28mm	Fail	Y	C4 Clear Stone 7-Apr-10	15-Apr-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.3, of the project specifications. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	12-Apr-10	Sa 1 (Sand)	100% passing 5mm 0-5% passing 0.16mm	12-Apr-10	88.5% passing 5mm 2.3% passing 0.16mm	Fail	Y	Sand 7-Apr-10	15-Apr-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.2, of the project specifications. Test report was included in May 2010 QA report.
31 23 10	Excavation, Trenching and Backfilling	Gradation	ASTM C136 / ASTM C117	Each source or when material properties change	1 test per source or if material properties change								Pea Gravel 7-Apr-10	15-Apr-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.5, of the project specifications. Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R2 and R25)	Specific Gravity/ Relative Density	ASTM C127	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	F 10011 rip rap/aggregate	Not less than 2.65	21-Jul-10	2.86	Pass	Y	RR (13-APR-10)	28/4/2010	Apparent Specific Gravity=2.75 Bulk Specific Gravity (SSD)=2.73 Bulk Specific Gravity (OD)=2.72	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Specification is ≥ 2.65. Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R2 and R25)	Absorption	ASTM C127	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	F 10011 rip rap/aggregate	Not greater than 1.5%	21-Jul-10	0.63%	Pass	Y	RR (13-APR-10)	28/4/2010	Absorption (%)=0.4	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Specification is ≤ 1.5%. Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R2 and R25)	Degradation/ Micro Deval	ASTM C535	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	F 10011 rip rap/aggregate	35% or less	21-Jul-10	12%	Pass	Y	RR (13-APR-10)	28/4/2010	% Loss=10.2 % Loss=21.3	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Specification is ≤ 35%. Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R2 and R25)	Freeze Thaw	MTO LS-614	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	F 10011 rip rap/aggregate	Not greater than 15%	21-Jul-10	6.27%	Pass	Y	RR (13-APR-10)	28/4/2010	% Loss=4.0	Refer to comment section	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Acceptance criterion is not specified (informative test). Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R2 and R25)	Dimensions/Flat & Elongated Particles	MTO LS-608	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	F 10011 rip rap/aggregate	Not Specified	21-Jul-10	9.90%	See QC Note	Y						Samples were collected in accordance to the ADI QCP. The greatest dimension of each rock shall not exceed two times the least dimension. Please refer to the job report submissions for specific testing results.	
31 05 17	Aggregate Materials (Clear Stone (C-4))	Dimensions/Flat & Elongated Particles	ASTM D4791	One per 1000m ³ or when material properties change	1 test per source or if material properties change	12-Apr-10	Sa 1 Clear Stone C4 2010 04 12	Not Specified	21-Jul-10	9.90%	See QC Note	Y						Samples were collected in accordance to the ADI QCP. The greatest dimension of each rock shall not exceed two times the least dimension. Please refer to the job report submissions for specific testing results.	
31 05 17	Aggregate Materials (Sand)	Dimensions/Flat & Elongated Particles	ASTM D4791	Each source or when material properties change	1 test per source or if material properties change	12-Apr-10	Sa 2 Sand 2010 04 12	Not Specified	21-Jul-10	9.90%	See QC Note	Y						Samples were collected in accordance to the ADI QCP. The greatest dimension of each rock shall not exceed two times the least dimension. Please refer to the job report submissions for specific testing results.	
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	23-Apr-10	Sa 2 (C4) clear stone	100% passing 112mm 90-100% passing 80mm 0-10% passing 28mm	23-Apr-10	100% passing 112mm 85.7% passing 80mm 15.5% passing 28mm	Fail	Y	C4 Clear Stone 23-Apr-10	27-Apr-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.3, of the project specifications. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	C136	Each source or when material properties change	1 test per source or if material properties change	23-Apr-10	Sa2 (Sand)	100% passing 5mm 0-5% passing 0.16mm	23-Apr-10	92.5% passing 5mm 1.6% passing 0.16mm	Fail	Y	Sand 23-Apr-10	27-Apr-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.2, of the project specifications. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	0 test per source or if material properties change	17-May-10	SA#1 (Type 2) slag	Common fill is free from deleterious materials larger than 50 mm.	17-May-10	Material greater than 50mm = 6% (See QC Note)	Fail	Y	Type II Slag (Screened) 17-May-10	11-Jun-10	Various (As Shown in the Test Report)	Pass	Y	Samples were collected in accordance to the QCP. The test sample contained sizes greater than the 50mm specification. Please refer to the job report submissions for specific testing results.	Sample met the gradation requirements of Table 3.3.1 of NSTIR specifications. Test report was included in May 2010 QA report.

Quality Control (QC) and Quality Assurance (QA) Testing Summary Table

Contractor:	McNally	Client:	STPA	Form Number:	97918-QAF-059
Element:	CO1	Oversight:	AECOM/CBCL	Project:	Remediation of the Tar Ponds and Coke Ovens Sites
		IQAC:	Stantec		

Daily
 Monthly From: 28-Nov-10 To: 23-Dec-10

SPECIFIED REQUIREMENTS						RESULTS											NOTES		
Spec Section	Spec Description	Test Type	Standard	QC Frequency	QA Frequency	Date Collected	QC Sample ID	Criteria	Date QC Result Received	QC Test Result	QC Pass/Fail	QC Frequency Met? Y/N	QA Sample ID	Date QA Result Received	QA Test Result	QA Pass/Fail	QA Frequency Met? Y/N	QC	QA
31 23 10	Excavating, Trenching & Backfilling	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	1 test per source or if material properties change	17-May-10	SA#1 (Screened Type 1 slag)	Common fill is free from deleterious materials larger than 50 mm.	18-May-10	Material greater than 50mm = 0%	Pass	Y	Type I Slag (Screened) 17-May-10	11-Jun-10	Various (As Shown in the Test Report)	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample met the gradation requirements of Table 3.3.1 of NSTIR specifications. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	1 test per source or if material properties change	17-May-10	SA #1 (crusher: Type 1 slag)	Common fill is free from deleterious materials larger than 50 mm.	19-May-10	Material greater than 50mm = 0%	Pass	Y	Type I Slag (Screened & Crushed) 17-May-10	11-Jun-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample did not meet the gradation requirements of Table 3.2.1 of NSTIR specifications. Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling (Clay Fill)	Atterberg Limits	ASTM D4318	Each source or when material properties change	1 test per source or if material properties change	17-May-10	SA 1 Peter's Pit low permeable fill	Not Specified	17-Jun-10	Liquid Limit = 32.4 Plastic Limit = 19.9 Plastic Index = 12.6	See QC Note	Y	Clay Fill Peter's Pit, Frenchvale 17-May-10	7-Jun-10	LL=32.5 PL=16.4 PI=16.1	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 23 10	Excavating, Trenching & Backfilling (Clay Fill)	Permeability	ASTM D5084	Each lift, every 100m placed. A minimum of 1 per lift.		17-May-10	SA #1 (Retest) Peter's Pit low permeable fill	Less than 1.0 x 10 ⁻⁶ cm/sec	17-Jun-10	3.8 x 10 ⁻⁸ cm/sec	Pass	Y						Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	
31 23 10	Excavating, Trenching & Backfilling (Clay Fill)	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	1 test per source or if material properties change	19-May-10	SA #1 Peter's Pit low permeable fill	Not Specified	19-May-10	Gravel = 21% Sand = 38% Fines = 40%	See QC Note	Y	Clay Fill Peter's Pit, Frenchvale 17-May-10	11-Jun-10	24% Gravel 37% Sand 39% Silt/Clay	Refer to comment section	Y	Samples were collected in accordance to the QCP. Testing completed to classify material. Please refer to the job report submissions for specific testing results.	Acceptance criteria are not specified (informative tests). Test report was included in May 2010 QA report.
31 37 10	Rip Rap and Scour Protection (R25)	Gradation	ASTM C136	One per 1000m ³ or when material properties change	1 test per source or if material properties change	26-May-10	Sa 1 : R-25 Rip Rap	100% pass 300mm 70-100% pass 260mm 40-55% pass 220mm 0-15% pass 120mm	21-Jun-10	100% pass 300mm 84% pass 260mm 50% pass 220mm 12% pass 120mm	Pass	Y	RR 25 (26-May-10)	3-Jun-10	100% pass 300mm 84% pass 260mm 50% pass 220mm 12% pass 120mm	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results.	Sample met the gradation requirements.
31 37 10	Rip Rap and Scour Protection (R2)	Gradation	ASTM C136	One per 1000m ³ or when material properties change	1 test per source or if material properties change	26-May-10	Sa 1 : R-2 Rip Rap	100% pass 850mm 0-50% pass 550mm 0-15% pass 230mm 0-15% pass 120mm	21-Jun-10	See QC Note	See QC Note	Y	RR 2 (26-May-10)	3-Jun-10	See QA Note	See QA Note	Y	Samples were collected in accordance to the QCP. The gradational testing of the Rip Rap R-2 was not possible using a sieve technique due to the weight and the bulkiness of this product. Please refer to the job report submissions for specific testing results.	Test could not be performed due to due to the weight and the bulkiness of this product. This was Conveyed to the STPA during the test attempt. Test report was included in May 2010 QA report.
31 05 17	Excavating, Trenching & Backfilling (Sand)	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	1 test per source or if material properties change	28-May-10	Sa 1 Sand 2010 05 23 (Re-Test)	100% passing 5mm 0-5% passing 0.16mm	21-Jul-10	94% passing 5mm 3% passing 0.15mm	Fail	Y	Sand 28-May-10	3-Jun-10	Various (As Shown in the Test Report)	Fail	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results. A letter of recommendation for acceptance of this product was previously submitted.	Sample did not meet the gradation requirements of Section 31 23 10, clause 2.1.2. of the project specifications. Test report was included in May 2010 QA report.
31 05 17	Excavating, Trenching & Backfilling (Sand)	Gradation	ASTM C117 ASTM C136 ASTM D422	Each source or when material properties change	1 test per source or if material properties change	28-May-10	Sa 1 280510 (Clear Stone C4 Re-Test)	100% passing 112mm 90-100% passing 80mm 0-10% passing 28mm	21-Jul-10	100% passing 112mm 100% passing 80mm 0.3% passing 28mm	Pass	Y	C4 Clear Stone 28-May-10	10-Jun-10	Various (As Shown in the Test Report)	Pass	Y	Samples were collected in accordance to the QCP. Please refer to the job report submissions for specific testing results. A letter of recommendation for acceptance of this product was previously submitted.	Sample met the gradation requirements of Section 31 23 10, clause 2.1.3, of the project specifications. Test report was included in May 2010 QA report.

Quality Control (QC) and Quality Assurance (QA) Environmental Testing Summary Table

Weekly
 Monthly

From: 2010-11-28 To: 2010-12-23

Contractor:	MCNALLY	Client:	STPA	Form Number:	97918-QAF-073
Element:	CO1	Oversight:	AECOM/CBCL	Project: Remediation of the Tar Ponds and Coke Ovens Sites	
		IQAC:	Stantec		

Note: This summary table shall be submitted with the Contractor's Monthly QC Report only after all revisions are made to the data here contained based on any DE Environmental comments of the information submitted weekly.

SPECIFIED REQUIREMENTS						RESULTS										NOTES			
Spec Section	Spec Description	Test Type	Standard	QC Frequency	QA Frequency	Date Collected	QC Sample ID	Criteria	Date QC Result Received	QC Test Result	QC Pass/Fail	QC Frequency Met? Y/N	QA Sample ID	Date QA Result Received	QA Test Result	QA Pass/Fail	QA Frequency Met? Y/N	QC	QA
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours	SEE NOTES	2010-11-29	CO1-COB-US-0750-2010-11-29 CO1-COB-MS-0750-2010-11-29 CO1-COB-DS-0750-2010-11-29	As per EPP	2010-11-29	3.2 NTU 3.5 NTU 4.3 NTU	Background Pass Pass	Y						SEE NOTES	IQAC received notification from STPA to cease QA activities either on or before November 24, 2010. Email received from STPA included in this report.
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-11-29	CO1-COB-US-1130-2010-11-29 CO1-COB-MS-1130-2010-11-29 CO1-COB-DS-1130-2010-11-29	As per EPP	2010-11-29	11.2 NTU 10.4 NTU 5.6 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-11-29	CO1-COB-US-1530-2010-11-29 CO1-COB-MS-1530-2010-11-29 CO1-COB-DS-1530-2010-11-29	As per EPP	2010-11-29	9.3 NTU 7.6 NTU 7.7 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-11-30	CO1-COB-US-0750-2010-11-30 CO1-COB-MS-0750-2010-11-30 CO1-COB-DS-0750-2010-11-30	As per EPP	2010-11-30	4.9 NTU 5.1 NTU 4.4 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-11-30	CO1-COB-US-1130-2010-11-30 CO1-COB-MS-1130-2010-11-30 CO1-COB-DS-1130-2010-11-30	As per EPP	2010-11-30	6.2 NTU 5.9 NTU 5.4 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-11-30	CO1-COB-US-1530-2010-11-30 CO1-COB-MS-1530-2010-11-30 CO1-COB-DS-1530-2010-11-30	As per EPP	2010-11-30	3.0 NTU 3.6 NTU 2.9 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-01	CO1-COB-US-0750-2010-12-01 CO1-COB-MS-0750-2010-12-01 CO1-COB-DS-0750-2010-12-01	As per EPP	2010-12-01	2.9 NTU 3.2 NTU 3.0 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-01	CO1-COB-US-1130-2010-12-01 CO1-COB-MS-1130-2010-12-01 CO1-COB-DS-1130-2010-12-01	As per EPP	2010-12-01	3.1 NTU 3.5 NTU 2.9 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-02	CO1-COB-US-0750-2010-12-02 CO1-COB-MS-0750-2010-12-02 CO1-COB-DS-0750-2010-12-02	As per EPP	2010-12-02	3.3 NTU 3.1 NTU 6.5 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-02	CO1-COB-US-1130-2010-12-02 CO1-COB-MS-1130-2010-12-02 CO1-COB-DS-1130-2010-12-02	As per EPP	2010-12-02	3.0 NTU 3.2 NTU 3.6 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-03	CO1-COB-US-0750-2010-12-03 CO1-COB-MS-0750-2010-12-03 CO1-COB-DS-0750-2010-12-03	As per EPP	2010-12-03	5.1 NTU 5.4 NTU 4.8 NTU	Background Pass Pass	Y							
ENV-T-02	Surface Water Turbidity Sampling	Turbidity Sampling with portable turbidity meter	As per EPP	Every 4 Hours		2010-12-03	CO1-COB-US-1130-2010-12-03 CO1-COB-MS-1130-2010-12-03 CO1-COB-DS-1130-2010-12-03	As per EPP	2010-12-03	4.8 NTU 5.3 NTU 5.0 NTU	Background Pass Pass	Y							



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Stantec

March 3, 2011
File: 121410955.210

Sydney Tar Ponds Agency
1 Inglis Street
PO Box 1028, Stn. A
Sydney, NS B1P 6J7

Attention: Ms. Diane Ingraham, PhD., PMP, Quality Contracts Manager

Dear Ms. Ingraham:

**Reference: Extras Section - STPA Project Element CO1
Independent Quality Assurance (IQA) December 2010 Monthly Summary Report**

At the request of Sydney Tar Ponds Agency (STPA), Stantec Consulting Ltd (Stantec) has no reportable extra items to include in the EXTRAS section of the (IQA) December 2010 Monthly Summary Report.

We trust this information meets your present requirements. If you have any questions, please do not hesitate to contact us.

Sincerely,

STANTEC CONSULTING LTD

Willie McNeil, B.Tech. (Env.), CET
Project Manager
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Fax: (902) 564-8756
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Sydney Tar Ponds Agency
1 Inglis Street
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Sydney, NS B1P 6J7

Attention: Ms. Diane Ingraham, PhD., PMP, Quality Contracts Manager

Dear Ms. Ingraham:

Reference: Monthly Invoices

As per the request of the Sydney Tar Ponds Agency, monthly invoices will be submitted in a separate submittal.

Sincerely,

STANTEC CONSULTING LTD

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