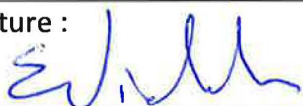


Document Front Sheets



NE-LCP Contractor/Supplier	Contract or Purchase Number and Description: CH0007-001 – Construction of Powerhouse, Spillway and Transition Dams		Contractor/Supplier Name: ASTALDI CANADA INC.	
	Document Title: Monthly Progress Report NO. 011 – Reporting Period 26-Nov-2014 – 25-Dec-2014		Total Number of Pages Incl. Front Sheet: 183	
	Contractor Document Number: MFA-AT-SD-0000-PM-A06-0011-01		Revision Number : B2	
	Supplier Document Number :		Revision Number :	
	NE-LCP Document Number : MFA-AT-SD-0000-PM-A06-0011-01		NE-LCP Issue Number : B2	
	Approver's Signature : 		Date (dd-mmm-yyyy): 04-Feb-2015	Review Class:
<u>Comments:</u>		Equipment Tag or Model Number:		

NE-LCP	REVIEW DOES NOT CONSTITUTE APPROVAL OF DESIGN DETAILS, CALCULATIONS, TEST METHODS OR MATERIAL DEVELOPED AND/OR SELECTED BY THE CONTRACTOR, NOR DOES IT RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH CONTRACTUAL OR OTHER OBLIGATIONS. <input type="checkbox"/> 01 – REVIEWED AND ACCEPTED – NO COMMENTS <input type="checkbox"/> 02 – REVIEWED – INCORPORATE COMMENTS, REVISE AND RESUBMIT <input type="checkbox"/> 03 – REVIEWED - NOT ACCEPTED <input type="checkbox"/> 04 – INFORMATION ONLY <input type="checkbox"/> 05 – NOT REVIEWED			
	Lead Reviewer:	Date (dd-mmm-yyyy):	Project Manager:	Date (dd-mmm-yyyy):
	NE-LCP Management:	Date (dd-mmm-yyyy):		
	<u>General Comments:</u>			



**DOCUMENT REVIEW
Comment Sheet**

Completed by LCP Representative				Completed by LCPDCC	
Document Title:				Record Number:	
Monthly Progress Report No. 011 – December 2014				Workflow	
NE-LCP Document Number:	Revision:	3 RD Party Document Number:	Revision:	Transmittal Number:	
MFE-AT-SD-0000-PM-A06-0011-01	B2				
LCP Department of Origin:			Purchase Order/Contract Number:		Transmittal Date:
Project Controls			CH0007		
Distribute Comment Sheet to:			Date returned to LCPDCC		

Comments:

LCP Representative: Mike Collins			Lead Reviewer: Peter Mulcahy		
Item No.	Section/Paragraph /Page/Sheet	Comment	Response	Status	
	1 - Executive Summary	Concrete Volume placed during period says 6,142m3 which contradicts Page 17 which says 1,699m3, page 18 says 2,125m3, and Page 51 says 3,726m3. LCP again requests contractor to review reports for consistency, and ensure each group reports for their discipline only. Quantities should be tracked by one discipline only			
	3 - Environmental	Appendix B – Please include Cumulative to Date Curve for Fuel Consumption			
	4 - QA / QC	Appendix C – Focus on Open Issues only. Do not need to show entire list. Ensure there is a plan to close out QA issues			
	5 - Planning	Is Astaldi planning updating the current Project Schedule			
	7 - Construction	Figure 9 (Page 17) – Executive Physical Progress Summary Table			



**DOCUMENT REVIEW
Comment Sheet (Cont'd)**

Comments:

Item No.	Section/Paragraph /Page/Sheet	Comment	Response	Status
		is very useful, and would be beneficial in the Executive Summary (as title would suggest)		
	9 - Contract Admin	<p>Good to see the Contract Administration Statistics in this month's report. Please add another column that shows # of Open Items. Reflect the open items in Appendix G for Contract Admin logs. No need to report on closed items. (Try to shorten Monthly Report. Logs are available if required)</p> <p>Contract Admin logs are duplicated in this month's report.</p>		
	10 - Project Controls & Financial Status	<p>LCP recognizes the considerable effort Astaldi has put into using Cost Reporting Templates provided by LCP. LCP suggests to incorporate the "Earned Value" Column from the original reporting structure (first 3 pages of Appendix H) into the new format, and this would eliminate another report.</p> <p>It has come to LCP's attention that Astaldi "may" be reporting on the Actual Cost of staff in this report. Please confirm that the Actual Cost and Forecast to complete for Staff are based on the contractual hourly rates, and not the actual cost of the staff.</p> <p>Labour Earned Value Analysis Narrative and Report in Appendix H Cumulative to Date Cost Variance do not match. Narrative shows -\$104,594,924 & Report shows -\$99,594,925. It appears Attendant Labour has the correct hrs, but not cost forecast. LCP recognizes the labour forecasting tools to determine the cost forecast, but must remind Astaldi of Lmax = Target Cost of Labour (defined in Contract & Change Orders) + 64.3M.</p>		



**DOCUMENT REVIEW
Comment Sheet (Cont'd)**

Comments:

Item No.	Section/Paragraph /Page/Sheet	Comment	Response	Status
		<p>Actual hours up to Dec 27, 2014 shows 2,296,490 hrs. Incurred Cost Report submitted in December (estimate) had 2,493,836 hrs + "Extras / Others" for a total of 2,554,690 hrs. There is a current variance of 258,200 hrs. LCP was of the understanding that the Cumulative to Date hours would be the Incurred hours which is a combination of Actual + forecast (accrued) hours, and would not change between Incurred Cost (prior to month end) and Cost Forecast (post month end). Submitting very similar documents with different #'s is very confusing. Incurred hrs in the report are Actual hrs + a few weeks of accruals. These are "trued" up or corrected every month, and should be very accurate for reporting purposes.</p> <p>LCP has noticed that Astaldi is approximately \$30.2M over budget to date for Direct Labour, and forecasting to be \$30.2M over budget at completion. While we agree measures are being put in place to drastically revamp construction performance, increasing Performance from a current PF of 0.275 (To Date) to 1.0 going forward (remaining work gets completed on budget) is a monumental task and we must remain vigilant to track against this assumption and revise forecasts when Astaldi gets some run-time against the changes.</p> <p>Page 3 of Appendix H has a couple of math errors in the Contractual hours column and thus in the Estimate at Completion and Variance columns. This sheet summarizes Direct hrs by Structure, which is also incorporated into template provided by Nalcor</p>		



**DOCUMENT REVIEW
Comment Sheet (Cont'd)**

Comments:

Item No.	Section/Paragraph /Page/Sheet	Comment	Response	Status
		<p>Nalcor does not necessarily agree with Items termed “Changes” with the exception of Approved Change Orders. This will be determined by LCP & Astaldi Contract Administration, and should be reported in a similar fashion. Approved Change Orders have a Labour and Non-Labour component and can be added to the Contractual Amount.</p> <p>Going forward LCP and Astaldi should work towards properly reporting on the costs termed “changes.”</p> <p>Productivity Chart showing the productivity forecast (Hashed line) looks aggressive in the near term of 2015</p> <p>No need to include the data sheet for the Productivity charts</p>		
	Appendix A Org Charts	Org Chart does not reflect Astaldi’s organization as of the end of December. Please update for January but do not include in Monthly Report in Future.		
	Appendix D – Planning	<p><i>Section 1</i> – Concrete volume poured is mentioned with no mention of planned to date volume. Should be addressed in Future Submissions.</p> <p><i>Section 1.1 Schedule Performance Index</i></p> <ul style="list-style-type: none"> • Need to have a “Notes” Column populated with comments on effect on schedule dates dues to change from previous month. Planned and Actual Direct hrs to be reflected in table. <p><i>Section 1.3 Status & Mitigation / Acceleration</i></p> <ul style="list-style-type: none"> • For each issue, need to address <ul style="list-style-type: none"> ○ Status 		

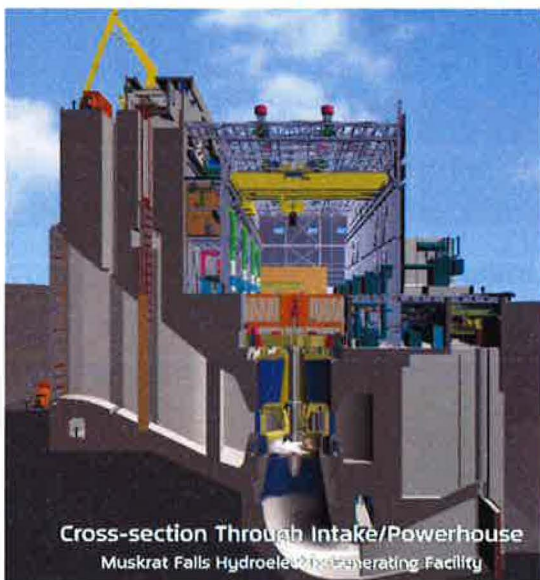
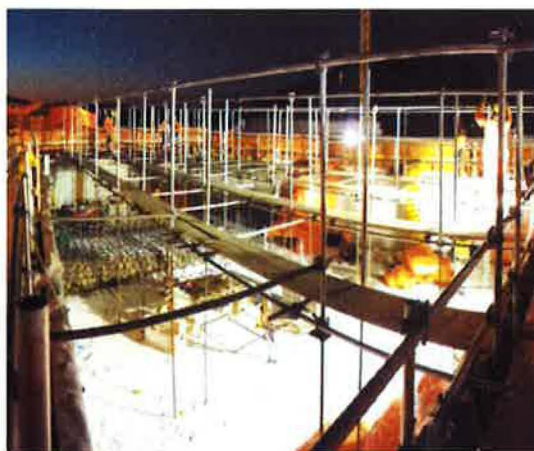


Lower Churchill Project | Muskrat Falls
 CH0007: Civil Works
MONTHLY PROGRESS REPORT
 Period Ending 25 December 2014

(MFA-AT-SD-0000-PM-
 A06-0011-01)
 REV: B2
 Issued for use

MONTHLY PROGRESS REPORT NO. 011

Reporting Period: November 26th – December 25th, 2014



Document No.: MFA-AT-SD-0000-PM-A06-0011-01

REV: B2

Issued for use.

	Name	Date	Signature
Prepared	Michael St. George	04 - February - 2015	
Checked	Enrico Violato	04 - February - 2015	
Checked	Erasmo Bassano	04 - February - 2015	
Checked	Roger Hopkins	04 - February - 2015	
Approved (Astaldi):	Giacomo Orsatti	04 - February - 2015	
Approved (Nalcor):			


	<p align="center"> Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014 </p>	<p align="center"> (MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use </p>
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Table of Contents

1. EXECUTIVE SUMMARY 3

2. HEALTH AND SAFETY 5

3. ENVIRONMENTAL COMPLIANCE 8

4. QUALITY ASSURANCE & CONTROL 10

5. PLANNING 11

6. ENGINEERING 16

7. CONSTRUCTION 17

8. PROCUREMENT AND MATERIAL MANAGEMENT 21

9. CONTRACT ADMINISTRATION 21


10. PROJECT CONTROLS & FINANCIAL STATUS 22

11. HUMAN RESOURCES & LABOUR RELATIONS 28

12. RISK MANAGEMENT 29

List of Appendices

- Appendix A: Updated Organization Chart
- Appendix B: Monthly Fuel Consumption Log
- Appendix C: Quality Department Register
- Appendix D: Planning Report
- Appendix E: Purchase Order Register
- Appendix F: List of Equipment
- Appendix G: Contract Administration Register
- Appendix H: Cost Report
- Appendix I: Risk Register

	<p align="center">Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014</p>	<p align="center">(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use</p>
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1. EXECUTIVE SUMMARY

At the end of the current reporting period, Astaldi employed **1,676** employees that were working on Logistics, Procurement, Engineering, Construction and supervision of the work. They are divided into the following categories: 198 Staff, 988 Union direct workforce for the various construction activities, 475 employees working for the Subcontractors and 15 Consultant employees, as shown in the figures below. The Astaldi Organization Chart can be found in *Appendix A*. Please note that the Human Recourses Department is current in the process of developing a new style of organization chart that will be available in the New Year.

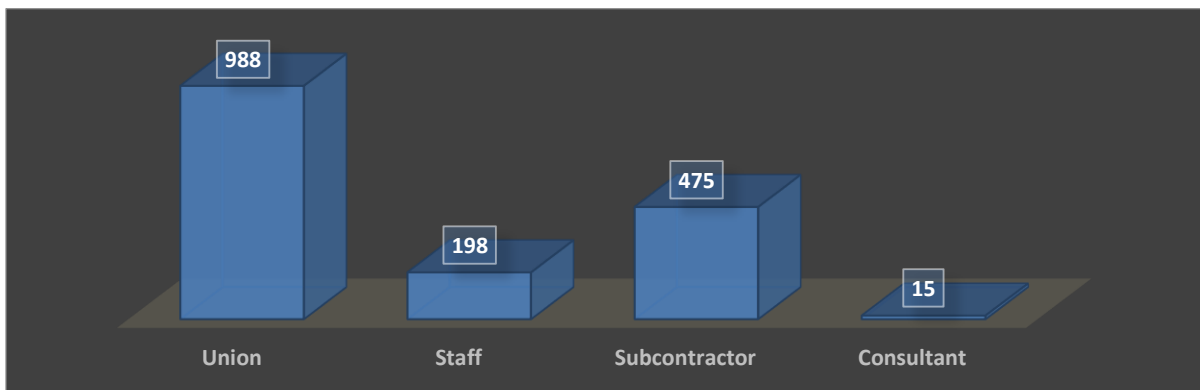


Figure 1: Number of employees at the end of reporting period

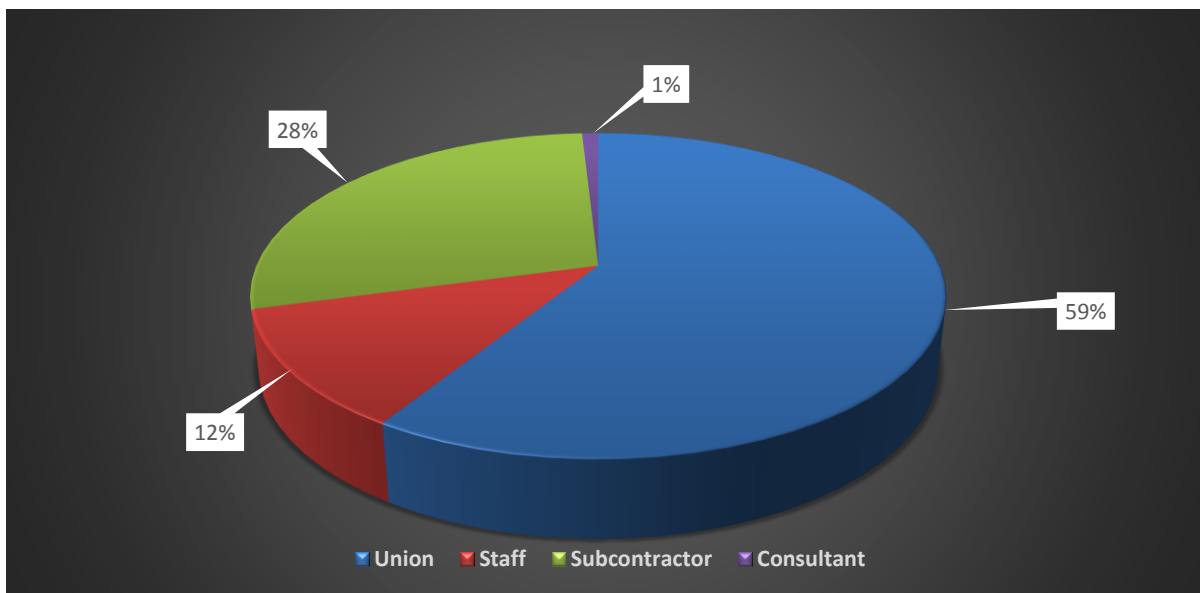



Figure 2: Astaldi workforce distribution

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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Concrete Volume poured during this period: **6,142 cubic meters**

Spillway Progress:

The following pier pours were completed: SWP1A-03, SWP3A-02, SWP4A-03, SWPSC-03, SWPSA-02, SWPSB-01, SWPNA-03, and SWPNB-01.

Planned activities for next month: Continue Pours of the spillway piers with a primary focus on upstream pours. This will allow the progression of the north and center transition dams.

Powerhouse Progress:

The following pours were completed: SBBNB/C-19 (Overbreak), SBB2B/C (Mubslab).

Planned activities for next month: I1BNB-00, I3BSA-00. Rock cleaning for upstream and downstream shafts is being planned and construction activities will progress with completion of two crane pads, one at Unit 1 D/S (at SE corner) and second at El. +15.20m. SBB1B-00 will be casted after cleaning of ice and snow from the area and completion of 1st crane pad. The remaining work will continue with 2nd crane pad. SBB1A-00 will be casted after cleaning of ice and snow from the area.

Transition Dams Progress:

The following pours were completed: STU1A-01, CTU4A-04 (1/2)

Planned activities for next month: Work on the south and center transition dams will be temporarily halted once the active pours have been completed in order to aim our focus on critical activities. Upon completion of these critical activities, work in the transition dams will resume.

Separation Wall Progress:

The following pours were completed: WLW4A-03, WLW6A-03.

Planned activities for next month: Work on the separation wall will be temporarily halted once the active pours have been completed in order to aim our focus on critical activities. Upon completion of these critical activities, work on the separation wall will resume.


Integrated Cover Structure (ICS) Progress (Units 1 & 2 Only):

Structural Steel Fabrication Completed: **100%**

Cladding Completed (modified scope): **100%**

Decking Completed: **100%**

For detailed information related to the progression of the project as well as updates on milestones and issues we have encountered please refer to *Appendix D – Planning Report*

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM-A06-0011-01) REV: B2 Issued for use
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2. HEALTH AND SAFETY

The following charts & tables summarize health and safety performance indicators and statistics.

Table 1: Health and Safety performance indicators

Health and Safety Performance		Period	YTD	Project
Lagging Indicators	Number of First Aid & Medical Aid Incidents	4	136	136
	Orientations Completed	87	2,652	2,652
	JSA's Completed	20	162	162
	Number of Property Damage Incidents	7	75	75
	Number of Near-Miss Incidents	1	28	28
	Number of JHA's/JSA's/FLHA's Conducted	14,439	94,915	94,915
Leading Indicators	Number of High Potential Near Misses	2	39	39
	Number of Tool Box Meetings	1,584	8,005	8,005
	Number of Management Inspections	5	36	36
	Number of Safety Inspections	629	2,220	2,220
	Number of Weekly Safety Meetings	175	581	581

Table 2: Health and Safety performance indicators

Entire Project	
First Aid Cases	126
Medical Aid Cases	10
Modified Duty Cases	24
LTI's	1
Fatalities	0
Modified Work Days	295
Property/Equipment Damage	75
Vehicle Incidents	1
Security Incidents	6

	<p>Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01) REV: B2 Issued for use</p>
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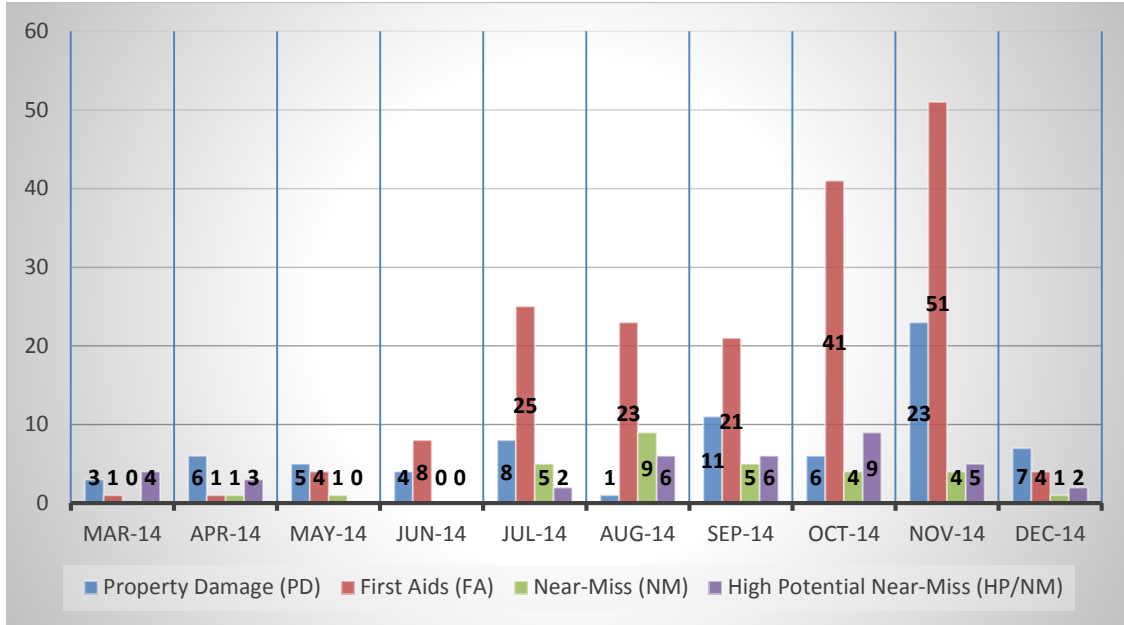


Figure 3: Health and safety statistics

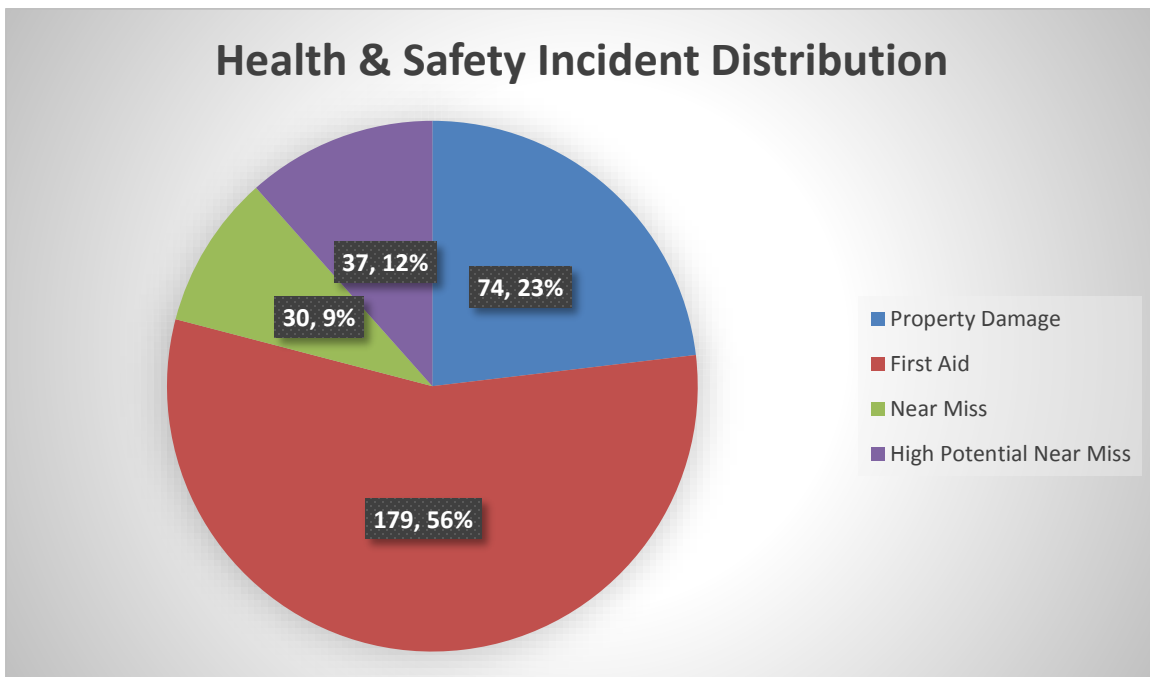


Figure 4: Incidents distribution


	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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Table 3: First Aid Incident Log

#	Case No.	Date	Description
1	2014-383	29-11-2014	Worker struck thumb.
2	2014-387	04-12-2014	Worker slipped exiting crawler crane.
3	2014-397	14-12-2014	Worker twisted back installing/aligning tire.
4	2014-402	17-12-2014	Worker slipped, causing an abrasion to palm of hand.

Table 4: Medical Aid Incident Log

#	Case No.	Date	Description
1	2014-391	07-12-2014	Worker strikes chin on plywood.
2	2014-400	15-12-2014	Worker stuck head on cross bar.

Table 5: High Potential Near Miss Log


#	Case No.	Date	Description
1	2014-389	03-12-2104	Crane outrigger came off pad.
2	2014-394	09-12-2014	Ice chipper makes contact with 240 volt neutral line.

Table 6: Near Miss Log

#	Case No.	Date	Description
1	2014-388	04-12-2014	Dropped Purlin.

Table 7: Property Damage Log

#	Case No.	Date	Description
1	2014-378	26-11-2014	AWP hits ceiling (ISK-LRM)
2	2014-382	28-11-2014	Damaged 35 ton spreader bar.
3	2014-386	01-12-2014	Trailer slipped making contact with steel beam
4	2014-390	07-12-2014	While backing trailer, roof truss makes contact with headache rack.
5	2014-392	07-12-2014	Jib of crane makes contact with steel knocking off red reflector
6	2014-396	10-12-2014	Bobcat runs over buried "dead" 120 volt cable
7	2014-398	14-12-2014	Bent fork rack on bobcat after moving scaffold rack.

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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3. ENVIRONMENTAL COMPLIANCE

The following tables provide statistics on key performance indicators, reportable spills, hazardous & non-hazardous waste disposal, non-conformities, water usage and aggregate usage for the purpose of road maintenance. The monthly fuel consumption log can be found in *Appendix B*.

Table 8: Environmental Key Performance Indicators

	Project Total
Environmental Incidents	113
Environmental Inspections	331
Environmental Non-Conformities	7

Table 9: Summary of Reportable Spills (Nov 25 to Dec 31, 2014)

Date of Incident	Description of Incident (quantity, product type, location)	Clean-up Completed (Y/N)	Report Submitted (Y/N)
2014-11-27	MAIN GATE - truck park area, 500ml of engine oil from a transport truck working for AGF.	Y	Y
2014-11-28	DD LAYDOWN & SOUTH SEPARATION WALL - 1L of diesel fuel in various locations caused by failure to follow refuelling procedures.	Y	Y
2014-11-28	LAYDOWN AREA E- Astaldi Fuel truck had a fuel leak, losing about 1L of diesel to the ground.	Y	Y
2014-11-28	SPILLWAY UPSTREAM - Suspected to have occurred during refuelling, 1 L of diesel lost to the ground next to welding machine.	Y	Y
2014-11-29	SOUTH SEPARATION WALL - 250ml of engine oil lost to the ground from a Sullair Compressor.	Y	Y
2014-12-04	INTAKE - 250ml of hydraulic fluid from vacuum truck, tank overfilled with fluid.	Y	Y
2014-12-06	MAIN ACCESS ROAD, KM 1 - 1L of antifreeze to the road from sand truck.	Y	Y
2014-12-06	CONVERTER YARD - 10L of diesel fuel to the ground from 45kw generator, fuel return line dislocated.	Y	Y
2014-12-07	CONCRETE TRUCK WASH - 2L of glycol from Wacker Neuson Glycol ground heater.	Y	Y
2014-12-08	MAIN ACCESS ROAD, KM 6 Laydown - 1 L of blue diesel exhaust Fluid from busted tank of sand truck.	Y	Y
2014-12-12	POWERHOUSE D-LINE - <1L Hydraulic Fluid from a JLG to the ground, cause by damaged O ring in an accumulation valve.	Y	Y
2015-12-15	LAYDOWN J-1.5 L Hydraulic Fluid from Pen Cal Roll Off Truck-Broken Hydraulic Line causing spill to ground-1.5 l.	Y	Y
2014-12-18	AREA J - 3L diesel-fuel spill underneath a generator discovered possibly from refueling error-3L.	Y	Y


	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM-A06-0011-01) REV: B2 Issued for use
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Table 10: Record of Waste Disposal, Hazardous & Non-Hazardous (Nov 25 to Dec 31, 2014)

Date of Disposal	Description of Waste (quantity & type)	Disposal Facility/Contractor	Disposal Record Submitted (Y/N)
NON HAZARDOUS WASTE			
Nov-25	1 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Nov-27	4 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Nov-28	1 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-01	7 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-02	1 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-03	4 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-05	3 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-09	4 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-11	3 x 40m ³ roll off bins (wood/general waste))	PenCal → HV-GB Landfill	n/a
Dec-14	12 x 40m ³ roll off bins (wood/general waste)	PenCal → HV-GB Landfill	n/a
Dec-18	7 x 40m ³ roll off bins (wood/general waste/used tires)	PenCal → HV-GB Landfill	n/a
HAZARDOUS WASTE			
Dec-6	1200L of waste oil	Pardy's → Pardy's Waste Facility	Requested
Dec-16	32 drums of assorted hazardous waste solids	Pardy's → Pardy's Waste Facility	Requested
Dec-17	~10t of contaminated soils	Pardy's → Universal Environmental	Requested
Dec-19	16 drums of assorted hazardous waste solids	Pardy's → Pardy's Waste Facility	Requested

Table 11: Summary of Non-compliances & Corrective Actions

Non Compliance	Corrective action	Date Finalized
Nov 29, 2015 NCR external CH0007-AST-CAN-NCR-057-01- Failure to Report Spills	Remediate affected areas, removed contaminated waste and place at Hazardous Waste Management Area for removal by a licensed vendor (Incident reports LCP-ACI-2014-11-28-0102, LCP-ACI-2014-11-28-0103 & LCP-ACI-2014-11-28-0104). Review spill reporting and response procedures with all crews, site wide. Review Fuel Handling Procedures with all labourers performing refueling duties. Purchase adequate numbers of jerry cans, proper sized diesel nozzles, spill kits, drip pans.	In progress


	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use

Table 12: Water Withdrawn for Project Processes (Nov 25-Dec 31)

	Approximate Volume Withdrawn (L)	Process/Purpose
NOV-2014	284207L from Churchill River	Batch Plant for concrete production
	96700 from McKenzie Brook	Concrete Curing

Table 13: Quarrying and Aggregate Usage (Nov 30-Dec 31)

Quarry/Borrow Source Location	Description of Material Extracted	Quantity Extracted	Process/Purpose
GD-8	Sand	0m ³	

4. QUALITY ASSURANCE & CONTROL

Table 14 depicts the Inspection Test Plans (ITPs) status. No new ITPs have been generated during the reporting period though more ITP's will follow as work progresses.

The hold and witness point for the upcoming three weeks will be for foundation, formwork, reinforcement & waterstop inspections, and concrete placement, monitoring and testing.

Fifteen new NCR's have been issued by Astaldi Canada during the reporting period. Astaldi Canada did not receive any NCRs from LCP. Twenty-six NCRs generated by Astaldi Canada remain open while three NCR's from LCP remain open. See *Appendix C – Quality Department Register* for the ITP and NCR logs.

Table 14: Quality Department ITPs Status


ITP Status	Previous Reporting Period	Current Reporting Period	Total To Date
Number of ITPs Submitted	0	0	8
Number of ITPs Approved	1	0	3

Table 15: Quality Department NCRs, CARs, PARs Status

	Previous Reporting Period	Current Reporting Period	Total To Date	Closed To Date
NCR from LCP	0	0	11	8
NCR from Astaldi Canada	15	11	58	13
PAR/CAR/OFI	1	0	6	2

Table 16: Quality Inspections Performed

Quality Inspections Performed	Previous Reporting Period	Current Reporting Period	Total to Date
	192	210	2379

	<p style="text-align: center;">Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014</p>	<p style="text-align: center;">(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use</p>
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5. PLANNING


Refer to *Appendix D – Planning Report* for a detailed monthly narrative regarding the status of the project and issues we have encountered. Figure 5 and 6 present a summary level of the overall project schedule.

We are preparing a template for Procurement progress tracking. This template will be used for offline detailed tracking of procurement packages.

Figures 7 and 8 show the overall man-hours and concrete commodity resources histograms respectively. Please note that the primavera schedule files (.xer files) have been submitted along with the monthly report as a separate file.

Appendix D – Planning Report contains the following information:

- Planning Monthly Narrative Report
- Three Month Look Ahead Schedule
- Progress & Commodity Curves and Summary Tables
- Concrete Pour Curves
- Milestone Variance Analysis
- Multiple Float Path Analysis

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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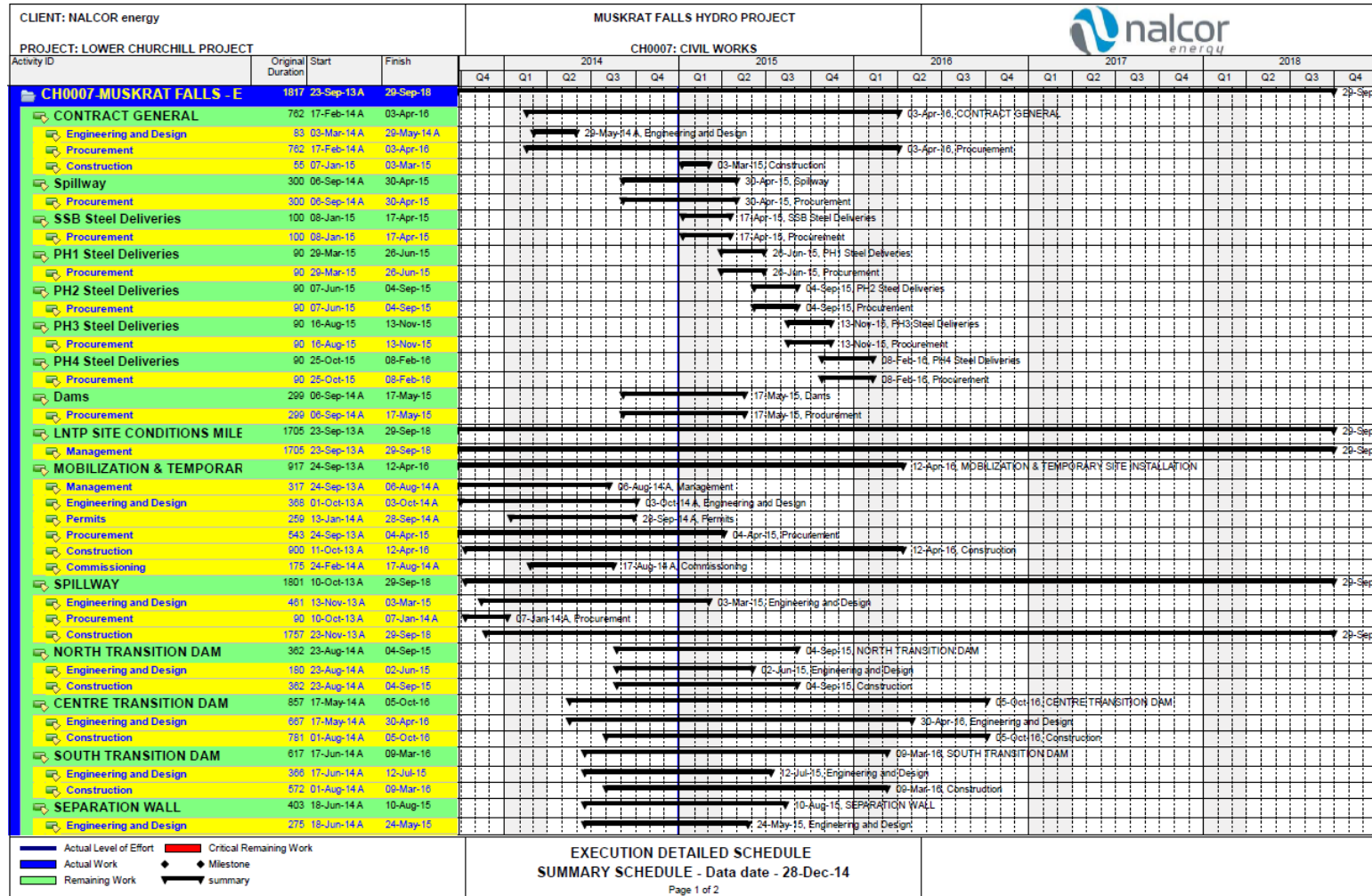



Figure 5: Summary Level for Overall Project Schedule (Part 1 of 2)

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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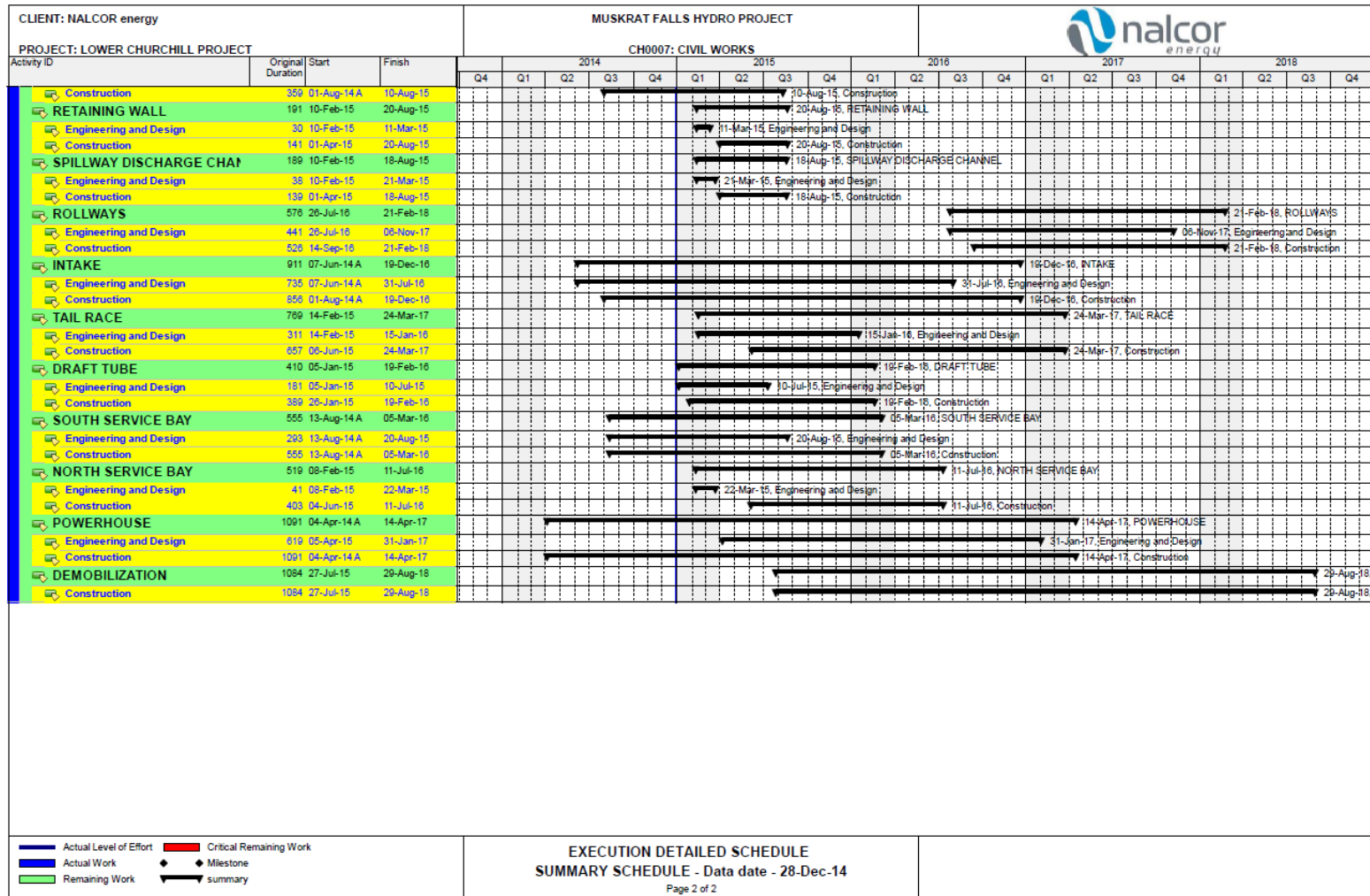



Figure 6: Summary Level for Overall Project Schedule (Part 2 of 2)

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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CH007 - MFP Construction - Overall Progress Curve & Manpower Histogram

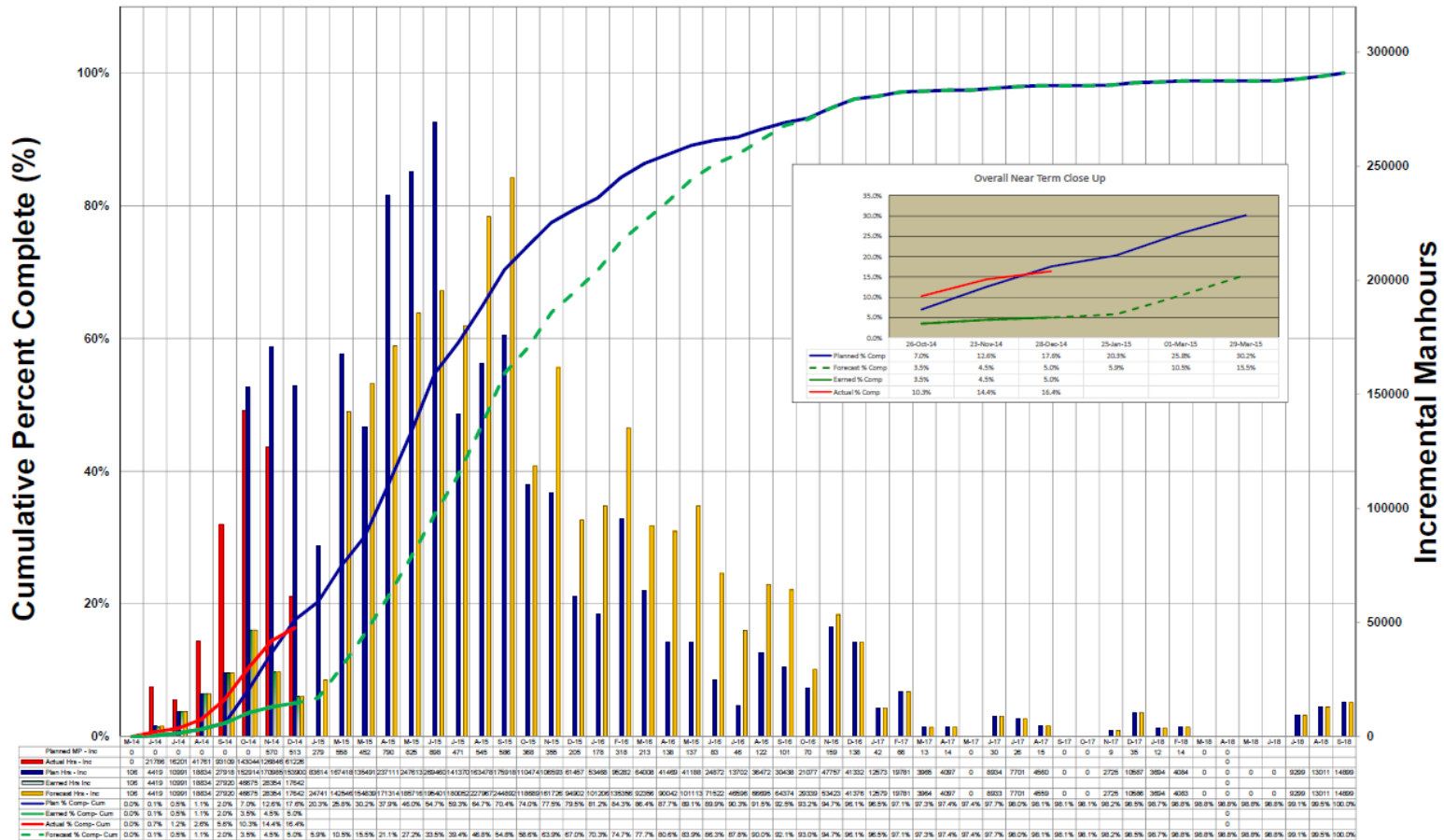



Figure 7: Man-Hours Histogram

	Lower Churchill Project Muskrat Falls	(MFA-AT-SD-0000-PM-A06-0011-01)
	CH0007: Civil Works	
	MONTHLY PROGRESS REPORT	
	Period Ending 25 December 2014	
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CH0007 - MFP Construction - Overall Concrete Curve

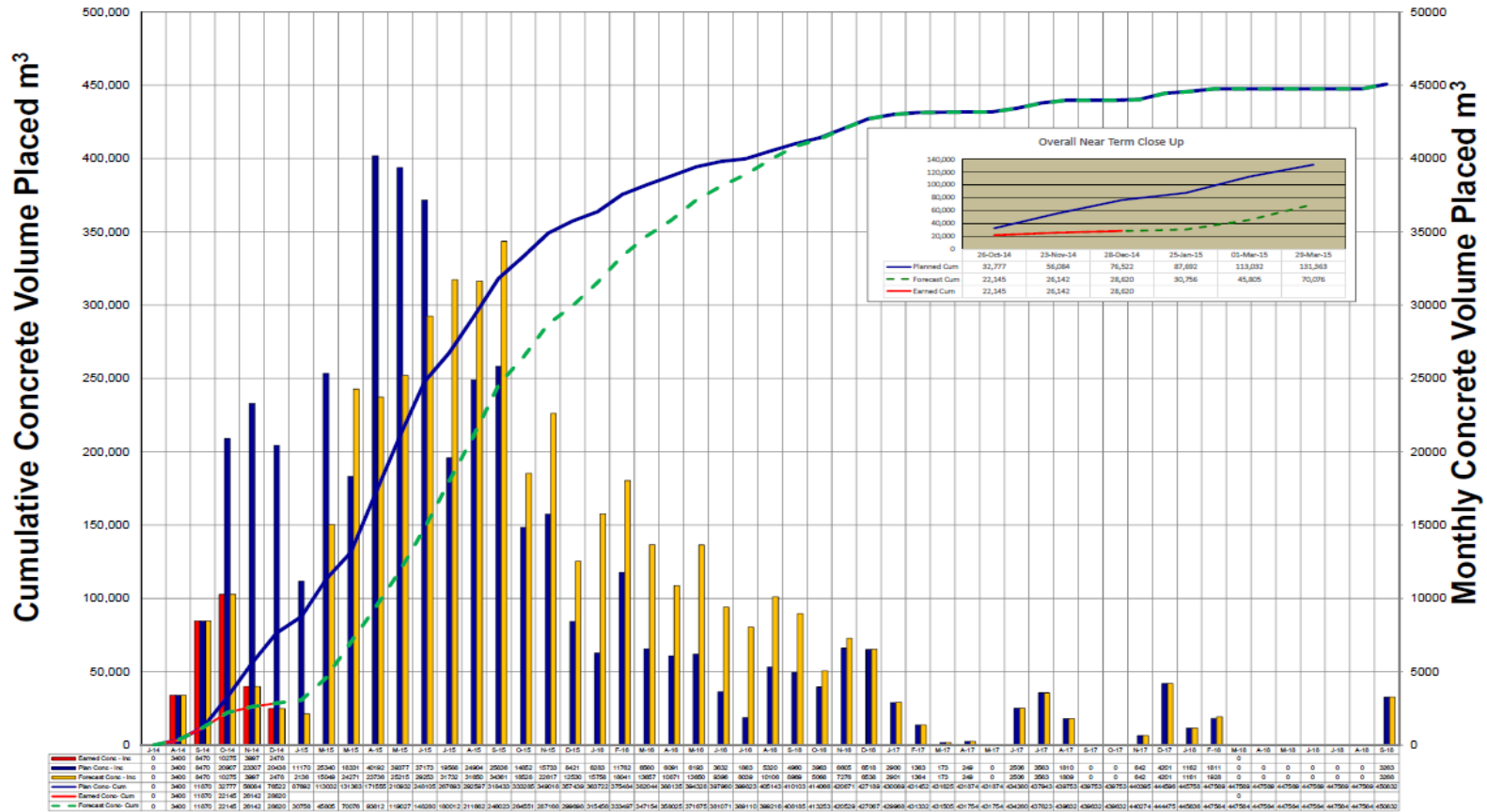



Figure 8: Concrete Quantity Histogram

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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6. ENGINEERING

Highlights of the Period

- Review of AGF drawings for Centre Transition Dam, monolith 1, Draft tube unit 1, Intake unit 1 (base slab and walls).
- Review of SWS drawings for Intake unit 3 base slab, North transition dam, Service Bay, Centre transition dam, Spillway and Draft tube unit 1.
- Review of DOKA drawings for South and Centre transition dams.
- Wood formwork design and drawings submitted to DCMF.
- Finalization of concrete distribution system in the powerhouse (alternative solution in order to avoid any embedment in the concrete).
- Interface with DPHV for Ladders design inside ICS structure and ICS dismantling sequences.
- Concession issued for ICS clashes in Powerhouse.
- Technical support for fall arrest line for the powerhouse crew.
- Technical interface with Norseman for tarp cover of the ICS structure.
- Technical review of the lighting system in the ICS structure.
- Precast solution for permanent bridges in the spillway structure: finalization and agreement with Astaldi's supplier.
- Finalization and delivery of the Technical Department Management plan.
- Completion of analysis of erection of permanent bridges (upstream and downstream) in the spillway structure.

Three Month Look Ahead

- Submission of Construction Sequences document to the Company.
- Shop drawings submission (main area will be draft tube units 1 & 2, Intake units 1 & 2 and South Service Bay).
- Submission of CON regarding the CJ modification of the intake structure.
- Submission of CON ask for sleeves to embed in the South Service Bay – Slab on the rock area.
- Submission of all the bridges in Spillway structure to the Company.
- Submission of Concession Request for ICS clashes resolution.
- Creation of Document list for all shop drawings and develop tools for the engineering management and progress evaluation.
- Activity of red lines on IFC drawings.

Table 17: Engineering Department Document Status Statistics

	Issued	Open	Closed
Engineering Change Notice (ECN)	8	2	6
Change Request (CR)	2	2	0
Site Instruction (SI)	2	0	2
Site Query's (SQ)	21	2	19
Concession Requests (CON)	15	0	15



Lower Churchill Project | Muskrat Falls
CH0007: Civil Works
MONTHLY PROGRESS REPORT
Period Ending 25 December 2014

(MFA-AT-SD-0000-PM-
 A06-0011-01)
 REV: B2
 Issued for use

7. CONSTRUCTION

The following tables and figures detail the monthly progress in regards to construction.

Executive Physical Progress Summary

December 2014 (Week Ending 27-12-2014)

		ESTIMATED QTY	Previous	Current	Cumulate	% Complete	
CH0007	ALL PROJECT						
	Concrete	m3	454,063	28,069	1,699	29,767	6.6%
	Rebar	kg	26,534,531	1,889,756	49,662	1,939,418	7.3%
	Structural and misc steel	kg	5,368,656	22,585	3,492	26,078	0.5%
DAMS & WALL	Total DAMS&WALL						
	Concrete	m3	59,830	6,204	471	6,675	11%
	Rebar	kg	483,300	54,692	2,282	56,974	12%
	Structural and misc steel	kg	172,830	70	0	70	0%
	NORTH TRANSITION DAM						
	Concrete	m3	9,200	0	0	0	0%
	Rebar	kg	55,000	0	0	0	0%
	Structural and misc steel	kg	16,425	0	0	0	0%
	CENTRE TRANSITION DAM						
	Concrete	m3	29,815	3,132	230	3,362	11%
	Rebar	kg	145,000	13,125	2,282	15,407	11%
	Structural and misc steel	kg	139,865	70	0	70	0%
	SOUTH TRANSITION DAM						
	Concrete	m3	9,835	1,189	0	1,189	12%
	Rebar	kg	283,300	41,967	0	41,967	15%
	Structural and misc steel	kg	16,540	0	0	0	0%
	SEPARATION WALL						
	Concrete	m3	10,980	1,863	241	2,124	19%
	SPILLWAY	Total SPILLWAY					
		Concrete	m3	78,935	19,771	1,228	20,999
Rebar		kg	4,484,150	1,730,798	40,558	1,771,356	40%
Structural and misc steel		kg	600,814	22,515	3,492	26,008	4%
SPILLWAY STRUCTURE							
Concrete		m3	49,000	19,380	1,228	20,607	42%
Rebar		kg	3,967,000	1,730,798	40,558	1,771,356	45%
Structural and misc steel		kg	236,044	22,515	3,492	26,008	11%
SPILLWAY ROLLWAY							
Concrete		m3	19,500	0	0	0	0%
Structural and misc steel		kg	13,500	0	0	0	0%
SPILLWAY BRIDGES							
Concrete		m3	460	0	0	0	0%
Rebar		kg	122,150	0	0	0	0%
Structural and misc steel		kg	351,270	0	0	0	0%
SPILLWAY DISCHARGE CHANNEL - PHASE 1							
Concrete		m3	4,025	391	0	391	10%
Rebar		kg	145,000	0	0	0	0%
SPILLWAY DISCHARGE CHANNEL - PHASE 2 - OPTIONAL							
Concrete		m3	1,750	0	0	0	0%
Rebar	kg	90,000	0	0	0	0%	
SPILLWAY DISCHARGE CHANNEL - PHASE 3 - OPTIONAL							
Concrete	m3	4,200	0	0	0	0%	
Rebar	kg	160,000	0	0	0	0%	
INTAKE	INTAKE						
	Concrete	m3	147,951	1,360	0	1,360	1%
Rebar	kg	10,647,650	102,923	6,822	109,745	1%	
POWER HOUSE	POWER HOUSE						
	Concrete	m3	167,347	734	0	734	0%
Rebar	kg	10,919,431	1,343	0	1,343	0%	
SUPERSTRUCTURES INTAKE AND POWER HOUSE							
Structural and misc steel	kg	4,595,012	0	0	0	0%	

Figure 9: Executive Physical Progress Summary


	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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Table 18: Monthly Concrete Production

POUR #	Start Date of Pour	Mix2	Qty (m ³)
SWPSA-02	26-Nov-14	35420A3	32
SWPSA-02	26-Nov-14	35440A2-5	184
SBB2B/2C (Mudslab)	27-Nov-14	35420A3	104
SWPSC-03	02-Dec-14	35420A3	24
SWPSC-03	02-Dec-14	35440A2-5	230
WLW6A-03	02-Dec-14	2520001BC-3	28
WLW6A-03	02-Dec-14	2544001BC-2	224
SWP4A-03	03-Dec-14	35420A3	24
SWP4A-03	03-Dec-14	35440A2-5	216
SWP1A-03	04-Dec-14	35420A3	32
SWP1A-03	04-Dec-14	35440A2-5	200
SWPNA-03	07-Dec-14	35420A3	32
SWPNA-03	07-Dec-14	35440A2-5	168
SWPNB-01	10-Dec-14	35420A3	48
SWPNB-01	10-Dec-14	35440A2-5	164
CTU4A-04	12-Dec-14	25440BC-2	6
CTU4A-04	11-Dec-14	2520001BC-3	8
CTU4A-04	11-Dec-14	35420A3	24
CTU4A-04	11-Dec-14	35440A2-5	168
SWPSB-01	13-Dec-14	35420A3	32
SWPSB-01	13-Dec-14	35440A2-5	176
Total			2,124

Table 19: Cumulative Production (Powerhouse & Dams)

Structure & Location	Item Installed	To Date Quantity (m ²)
Intake [I4BSA-00]	Formwork	135.396 (90%)
South Transition Dam [STU1A-01]	Formwork	104.4 (75%)
Separation Wall [WLW2A-01]	Formwork	42.70 (35%)
Separation Wall [WLW3A-01]	Formwork	30.7 m2 (80%)
Separation Wall [WLW3A-02]	Formwork	91.1 (75%)
Separation Wall [WLW4A-01]	Formwork	32.1 m2 (80%)
Separation Wall [WLW4A-02]	Formwork	54.75 (75%)



Lower Churchill Project | Muskrat Falls
CH0007: Civil Works
MONTHLY PROGRESS REPORT
Period Ending 25 December 2014

(MFA-AT-SD-0000-PM-
A06-0011-01)
REV: B2
Issued for use

Structure & Location	Item Installed	To Date Quantity (m ²)
Separation Wall [WLW4A-03]	Formwork	75.7 (75%)
Separation Wall [WLW5A-01/02]	Formwork	70.5 (75%)
Separation Wall [WLW6A-01]	Formwork	104.7 (75%)
Separation Wall [WLW6A-02]	Formwork	89.97 (75%)
Separation Wall [WLW6A-03]	Formwork	88.1 (75%)
Separation Wall [WLW7A-01]	Formwork	28.3 (75%)
Separation Wall [WLW7A-02]	Formwork	25.8 (75%)
South Service Bay [SBBNA-18]	Inverse Formwork	0.9 (100%)
South Service Bay [SBB1A-18]	Inverse Formwork	28.111 (100%)
South Service Bay [SBBSA-18]	Inverse Formwork	27.7 (19%)
South Service Bay [SBBNB-18]	Inverse Formwork	17.76 (100%)
South Service Bay [SBBNC-18]	Inverse Formwork	8.4 (75%)
South Service Bay [SBB1B-18]	Inverse Formwork	68.7 (75%)
Center Transition Dam [CTU2A-03]	Formwork	80.91 (75%)
Center Transition Dam [CTU2B-03]	Formwork	94.1 (75%)
Center Transition Dam [CTU2B-03]	Formwork	94.1 (75%)
Center Transition Dam [CTU3A-01] section 1	Formwork	30.3 (85%)
Center Transition Dam [CTU3A-01] section 2	Formwork	18.9 (60%)
Center Transition Dam [CTU4A-03]	Formwork	73.0 (95%)
Center Transition Dam [CTU4B-03]	Formwork	103.8 (95%)
Center Transition Dam [CTU4A-04]	Formwork	106.3 (75%)
Separation Wall [WLW2A-01]	Waterstop	5.3 (20%)



	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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Table 20: Cumulative Production (Spillway)

Structure	Location	Item Installed	Quantities
Spillway Piers	SWPSA-03	Formwork	10%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	100%
	SWP1A-04	Formwork	0%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	0%
	SWP2A-03	Formwork	0%
		Waterstop, WSA	25%
		Waterstop, WSB	0%
		Embedment's	75%
	SWP3A-03	Formwork	0%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	0%
	SWP4A-03	Formwork	0%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	0%
	SWPNA-03	Formwork	100%
		Waterstop, WSA	100%
		Waterstop, WSB	100%
		Embedment's	100%
	SWPSB-01	Formwork	100%
		Waterstop, WSA	100%
		Waterstop, WSB	100%
		Embedment's	100%
SWPNB-01	Formwork	100%	
	Waterstop, WSA	100%	
	Waterstop, WSB	100%	
	Embedment's	100%	
SWPSC-04	Formwork	0%	
	Waterstop, WSA	0%	
	Waterstop, WSB	0%	
	Embedment's	0%	
SWP1C-03	Formwork	60%	
	Waterstop, WSA	0%	
	Waterstop, WSB	0%	
	Embedment's	100%	
SWP2C-02	Formwork	0%	

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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Structure	Location	Item Installed	Quantities
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	100%
	SWP3C-02	Formwork	10%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	100%
	SWP4C-04	Formwork	40%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	100%
	SWPNC-04	Formwork	0%
		Waterstop, WSA	0%
		Waterstop, WSB	0%
		Embedment's	0%

8. PROCUREMENT AND MATERIAL MANAGEMENT

This section of the report is currently under construction. Our goal is to use the template issued by the Nalcor planner in order to identify all procurement packages for permanent works and track progress against each. Once this progress tracking has been completed it will be included. Refer to Appendix E for the register of purchase orders. Please note that all purchase orders with a price of less than \$1000.00 have been excluded from the register in order to remove items of little significance.


Table 21: Procurement Statistics

	Reporting Period	YTD	Project
PO's Completed	281	3663	3663
Warehouse Requests	197	4398	4398

9. CONTRACT ADMINISTRATION

Table 22: Contract Administration Statistics

Document Type	End of Reporting Period
Change Register (CHR) 2000 Series	28
Change Register (CHR) 1000 Series	23
Field Work Order (FWO)	18
Site Instruction (SI)	16
Change Order (CO)	3

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM-A06-0011-01) REV: B2 Issued for use
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Appendix G contains Contract Administration registers.

10. PROJECT CONTROLS & FINANCIAL STATUS

Astaldi has submitted Cost Reports to Nalcor as required under the terms of the Agreement. The Cost Report and all associated charts, statistics and graphs can be found in Appendix K.

The Earned Value analysis shows a variance to date and a variance at completion as described in the tables below:

OVERALL SUMMARY							
<u>Breakdown of Variance TO DATE</u>				<u>Breakdown of Variance AT COMPLETION</u>			
<i>item nr.</i>	<i>item descr.</i>	HOURS	Var %	CAD	<i>item nr.</i>	<i>item descr.</i>	CAD
various	STAFF	122,120		11,059,092	various	STAFF	2,416,468
	<i>Subtotal positive</i>	122,120		11,059,092		<i>Subtotal positive</i>	2,416,468
various	INDIRECT CRAFT	-844,080	70.3%	-67,148,153	various	INDIRECT CRAFT	-76,833,062
various	DIRECT CRAFT	-355,770	29.7%	-30,178,330	various	DIRECT CRAFT	-30,178,330
	<i>Subtotal Negative</i>	-1,199,850	100.0%	-97,326,483		<i>Subtotal Negative</i>	-107,011,392
TOTAL		-1,077,730		-86,267,391	TOTAL		-104,594,924

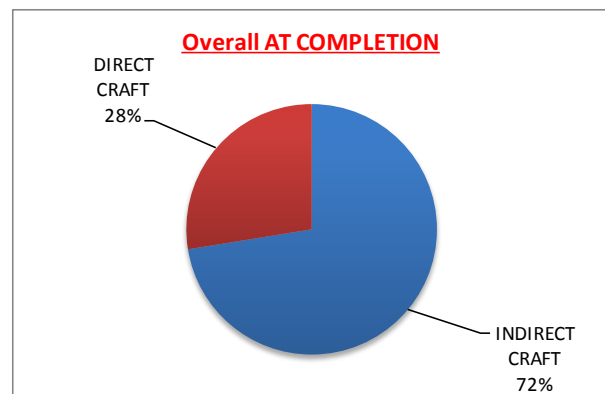
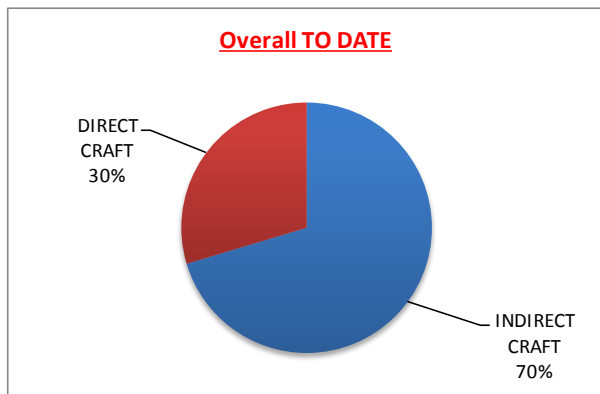



Figure 10: Variance Overall Summary

	Lower Churchill Project Muskrat Falls	(MFA-AT-SD-0000-PM-A06-0011-01)
	CH0007: Civil Works	REV: B2
	MONTHLY PROGRESS REPORT	Issued for use
	Period Ending 25 December 2014	

10.1. Staff

10.1.1. Variance breakdown

STAFF

Breakdown of Variance TO DATE

item nr.	item descr.	HOURS	Var %	CAD
0000.06	Manag. and Staff	171,475	93.4%	14,922,325
0000.12	Quality Assur.	12,126	6.6%	951,829
<i>Subtotal positive</i>		<u>183,601</u>	<u>100.0%</u>	<u>15,874,154</u>
0000.06A	Design and Tech.	-26,509	43.1%	-2,126,436
0000.10	Health and Saf.	-26,666	43.4%	-2,033,288
0000.11	Envirom.	-8,306	13.5%	-655,338
<i>Subtotal Negative</i>		<u>-61,481</u>	<u>100.0%</u>	<u>-4,815,062</u>
TOTAL STAFF		122,120		11,059,092

Breakdown of Variance AT COMPLETION

item nr.	item descr.	HOURS		CAD
0000.06	Manag. and Staff	172,986		15,053,809
0000.12	Quality Assur.	12,126		951,829
<i>Subtotal positive</i>		<u>185,112</u>		<u>16,005,638</u>
0000.06A	Design and Tech.	-97,709	56.6%	-7,837,841
0000.10	Health and Saf.	-61,866	35.8%	-4,717,294
0000.11	Envirom.	-13,106	7.6%	-1,034,035
<i>Subtotal Negative</i>		<u>-172,681</u>	<u>100.0%</u>	<u>-13,589,170</u>
TOTAL STAFF		12,431		2,416,468

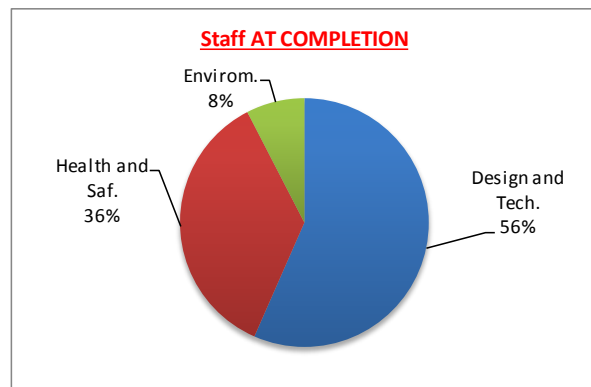
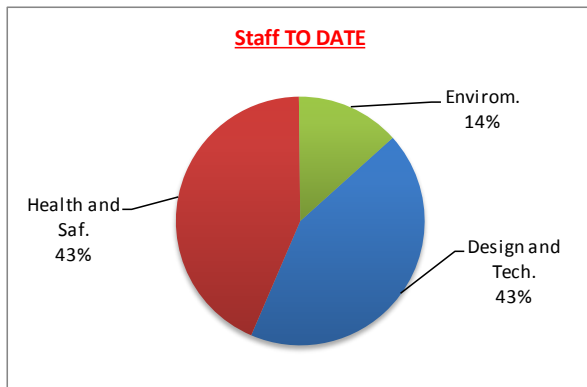



Figure 11: Staff Variance Breakdown

10.1.2. Reason for the variances

The following are the major variances that are allocated in the Health and Safety area and in the design area, as commented in the previous report:

1. Extra resources have been allocated to implement and monitor safety measures on the site.
2. Design and technical assistance have been increased. In particular:
 - Increased resources in the document control dept.
 - Electromechanical engineers were introduced.
 - Increased design of temporary work have requested additional resources.
 - Higher attention to subcontractors' drawings.

	Lower Churchill Project Muskrat Falls	(MFA-AT-SD-0000-PM-A06-0011-01)
	CH0007: Civil Works	REV: B2
	MONTHLY PROGRESS REPORT	Issued for use
	Period Ending 25 December 2014	

10.1.3. Opportunities for improvement

It is not possible to see in December the effect of the optimization plan mentioned in the previous report, due to the fact that it will be effective starting from January 2015. The result of the optimization plan should be visible in the next Earned Value report.

10.2. INDIRECT CRAFT

10.2.1. Variance breakdown

INDIRECT CRAFT							
<u>Breakdown of Variance TO DATE</u>				<u>Breakdown of Variance AT COMPLETION</u>			
<i>item nr.</i>	<i>item descr.</i>	HOURS	Var %	CAD	<i>item nr.</i>	<i>item descr.</i>	CAD
0000.03	Equipment for Indirects	9,857		788,700			
	<i>Subtotal positive</i>	9,857		788,700		<i>Subtotal positive</i>	0
0000.02	Site Installation	-206,048	24%	-16,329,840	0000.02	Site Installation	-16,870,336
0000.05	Winter Protec.	-270,928	32%	-21,765,984	0000.05	Winter Protec.	-22,036,517
0000.07	Attendant lab.	-286,234	34%	-22,683,567	0000.07	Attendant lab.	-29,085,864
0000.17	Site Mainten.	-13,883	2%	-1,116,364	0000.17	Site Mainten.	-8,858
various	Others	-76,844	9%	-6,041,098	various	Others	-8,831,487
	<i>Subtotal Negative</i>	-853,937	100%	-67,936,853		<i>Subtotal Negative</i>	-76,833,062
TOTAL INDIRECT CRAFT		-844,080		-67,148,153	TOTAL INDIRECT CRAFT		-902,920

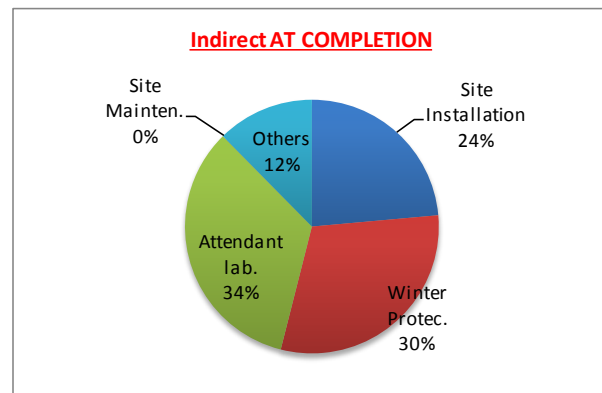
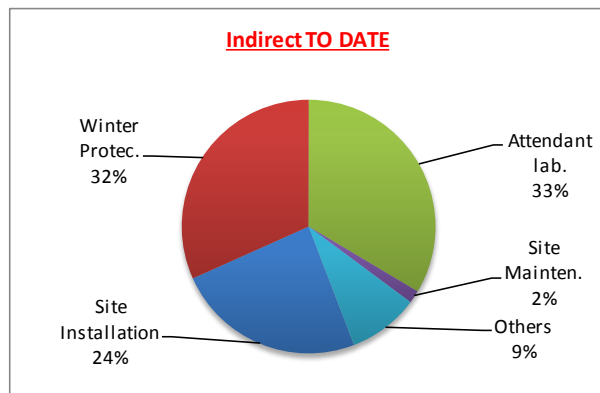



Figure 12: Indirect Craft Variance Breakdown

	<p style="text-align: center;">Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014</p>	<p style="text-align: center;">(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use</p>
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10.2.2. Reason for the variances

The 3 major item that generated variances are “Site Installation”, “winter protection” and “Attendant Labour”. The reasons that affected these activities have been mentioned in the previous report.


We note that for site installation the EAC is almost the same of the to-date, due to the fact that the site installation are almost completed.

For this group of items, we report an extra cost to-date of about 67M, but at completion the deviation should be about 10M CAD; this because the resource we plan to put in place will be only the budgeted resources.

For the winter protection the estimate at completion has been reduce because of the change in the strategy regarding the ICS; and also because the activity during winter will be minimized.

10.2.3. Opportunities for improvement

We repeat what has been written in the previous report that, since the end of November 2014, a strong optimization plan has been put in place. Beginning in December and especially from January, a proper allocation of resources will be done avoiding performing activities that are not strictly related with the core scope of work.

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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10.3. DIRECT CRAFT

10.3.1. Variance breakdown

DIRECT CRAFT									
<u>Breakdown of Variance TO DATE</u>					<u>Breakdown of Variance AT COMPLETION</u>				
<i>item nr.</i>	<i>item descr.</i>	HOURS	Var %	CAD	<i>item nr.</i>	<i>item descr.</i>	HOURS	CAD	%
various	Dams&Wall	-83,819	24%	-6,981,621	various	Dams&Wall	-71,846	-6,981,621	20.9%
various	Spillway	-223,694	63%	-19,151,760	various	Spillway	-223,202	-19,151,760	65.0%
various	Intake	-35,061	10%	-2,921,064	various	Intake	-35,061	-2,921,064	10.2%
various	Power House	-13,196	4%	-1,123,885	various	Power House	-13,199	-1,123,885	3.8%
various	Other	0	0%	0	various	Others	0	0	0.0%
<i>Subtotal Negative</i>		-355,770	100%	-30,178,330	<i>Subtotal Negative</i>		-343,308	-30,178,330	100.0%
TOTAL DIRECT CRAFT		-355,770		-30,178,330	TOTAL DIRECT CRAFT		-343,308	-30,178,330	

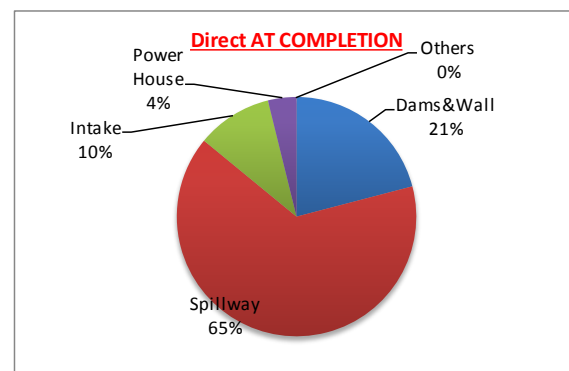
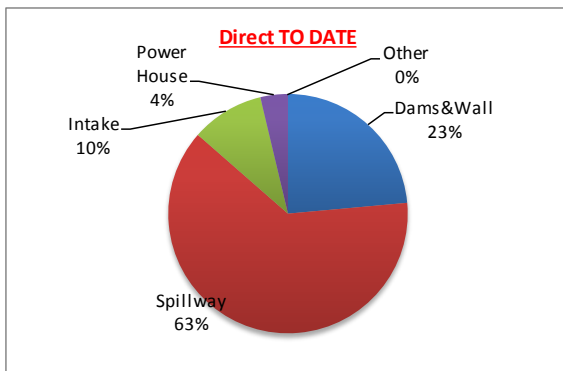


Figure 13: Direct Craft Variance Breakdown


10.3.2. Reason for the variances

For the Direct craft we have to mention again the same area of concerns as noted in the previous report, and the main reasons are listed below:

- Organizational factor
- Union factor
- Skill factor
- Climate factor
- Tender study factor


10.3.3. Opportunities for improvement

The optimization plan that was developed at the end of November should bring us in the right direction, thanks the strong workforce planning activities carried out during the last 3 weeks. The aim is to allocate the precise resources to avoid negative variances.

	<p>Lower Churchill Project Muskrat Falls</p> <p>CH0007: Civil Works</p> <p>MONTHLY PROGRESS REPORT</p> <p>Period Ending 25 December 2014</p>	<p>(MFA-AT-SD-0000-PM-A06-0011-01)</p> <p>REV: B2</p> <p>Issued for use</p>
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CONTRACTUAL BUDGET		- OVERALL PROJECT HOURS and Lab COST -				FORECAST					
		CUMULATIVE TO DATE									
		TOTAL HOURS	COST OF LABOUR (\$CAD)	Cumulative Earn/Planned Man Hours up to:	Actual Man Hours up to:	Variance Hours up to:	Estimated Cost Variance (\$CAD) up to:	Estimation TO Complete	Estimation AT Completion	Variation AT Completion hours	Variation AT Completion CAD
		BACH	BACc	27-Dec-14	27-Dec-14	27-Dec-14	27-Dec-14	ETCh	EACH=ACH+ETCh	VACH=BACH-EACH	VACc
		PVh	ACh	Vh = PVh - ACh	CV						
		hours	CAD	hours	hours	hours	CAD	hours	hours	hours	CAD
INDIRECT											
INDIRECT COSTS											
		3,691,754.39	307,785,475	1,083,783	1,769,090	-705,308	-54,761,014	2,796,502	4,565,592	-873,838	-88,088,548
		31,280.25	2,480,045	3,019	19,871	-16,852	-1,328,047	28,261	47,932	-18,822	-1,328,047
		27,140.08	2,179,112	0	0	0	0	27,140	27,140	0	0
TOTAL INDIRECT		3,750,174.72	312,445,231	1,066,802	1,788,761	-721,960	-56,089,061	2,851,903	4,640,664	-890,600	-69,416,595
		TOTAL HOURS	COST OF LABOUR (\$CAD)	Cumulative Earn Man Hours up to:	Actual Man Hours up to:	Variance Hours up to:	Estimated Cost Variance (\$CAD) up to:	ETC	EAC	VAC	VAC
		BACH	BACc	27-Dec-14	27-Dec-14	27-Dec-14	27-Dec-14	HOURS	HOURS	HOURS	CAD
		EVh	ACh	Vh = PV - AC	CV						
DIRECT											
ACCESS ROAD ACCESS RAMPS AND PADS											
		4,381	348,918	0	0	0	0	4,381	4,381	0	0
DAMS AND SEPARATION WALL											
		281,011	21,434,981	27,393	111,212	-83,819	-8,981,821	241,645	362,857	-71,846	-6,981,821
SPILLWAY STRUCTURE											
		439,319	33,062,099	113,891	337,555	-223,694	-19,151,790	325,458	663,013	-223,694	-19,151,790
SPILLWAY BRIDGES & SPILLWAY DISCHARGE CHANNEL (phase 1)											
		41,064	3,176,345	0	0	0	0	40,572	40,572	492	0
INTAKE											
		983,329	74,653,744	9,005	44,066	-35,061	-2,921,004	974,324	1,018,390	-35,061	-2,921,004
POWER HOUSE											
		1,042,883	79,208,442	1,700	14,896	-13,196	-1,123,885	1,041,188	1,056,082	-13,199	-1,123,885
INATAKE & POWER HOUSE SUPERSTRUCTURE											
		171,999	13,851,099	0	0	0	0	171,999	171,999	-0	0
TURBINE GENERATOR AND ANCILLARIES											
		74,300	6,544,918	0	0	0	0	74,300	74,300	0	0
SPILLWAY DISCHARGE CHANNELS (phase 2 and 3)											
		38,077	2,874,559	0	0	0	0	38,077	38,077	0	0
TOTAL DIRECT		3,076,344	235,153,105	151,959	507,729	-355,770	-30,178,330	2,911,922	3,419,651	-343,307	-30,178,330
GRAND TOTAL INDIRECT + DIRECT		6,826,519	547,598,336	1,218,761	2,296,490	-1,077,730	-86,267,391	5,763,825	8,060,315	-1,233,967	-89,394,925

Figure 14: Summary of Earned Value Analysis, December 2014

	Lower Churchill Project Muskrat Falls	(MFA-AT-SD-0000-PM- A06-0011-01)
	CH0007: Civil Works	REV: B2
	MONTHLY PROGRESS REPORT	Issued for use
	Period Ending 25 December 2014	

11. HUMAN RESOURCES & LABOUR RELATIONS

The following tables display the human resources and labour relations statistics for the current reporting period.

Table 23: Open Staff Positions

	Reporting Period	> 2 Months Old	> Month	Deferred Positions
No. of Open Staff Positions	0	0	0	0

Table 24: Staff Human Resources Statistics

	Reporting Period	YTD	Project
New Hires	0	0	260
Terminations/Resignations	0	88	88
Avg. Astaldi Project Staff Employees	222	143	
Employee Turnover (Employees who left / avg. no. of employees of time period)	0%	45.6%	

Table 25: Employee Diversity & Gender Distribution

	STAFF		UNION	
	Total (Incl Women)	Women	Total (Incl Women)	Women
Innu	1	1	92	33
Labrador	27	17	350	66
Newfoundland	91	24	515	13
Outside Newfoundland	52	8	31	0
Foreign	27	0	0	0
Total	198	50	988	112


Table 26: Subcontractor Diversity & Gender Distribution *

	Innu	Labrador	Newfoundland	Other	Women
Labrador Ready Mix	1	22	55	7	0
AGF	5	17	108	5	2
Iskueteu	1	23	55	5	0
Total	7	67	274	124	3

*These numbers should be indicative of the end-of-reporting-period totals.

Table 27: Subcontractor Diversity & Gender Distribution

Week Ending	Number of Camp Residents
December 13	400
December 20	40
December 27	40

	Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014	(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use
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Highlights for the reporting period:

- Submitted sponsor remittance contributions for the period of January 1, 2014 – December 31, 2014 for staff employees into the Astaldi Manulife Pension Plan
- Conducting daily attendance through newly implemented process and monitoring to ensure efficiency.
- Planned and managed the schedule and flow of travel during the Christmas Shutdown.
- Continued work on the daily swipe process in conjunction with IT, adding new swipe machines, meetings about possible issues and solutions encountered.
- Process improvements on current standard operating procedures and processes.
- Manpower count and forecasting.
- Development of organization charts using Visio.
- Particular focus on payroll issues, improving payroll and working with the Client.
- Downsizing the workforce for the winter period.
- 1 Respectful Workplace Complaint.
- De-Mobilization for Christmas break/layoffs and planning re-mobilization in New Year.

Three Month Look Ahead:


- Engage and motivate employees through outside work activities.
- Development of organization charts using Visio.
- Having a representative from Manulife complete training sessions with staff employees regarding Astaldi's new pension plan.
- Maintain daily attendance tracking system and monitor ongoing issues to ensure accuracy and efficiency.

12. RISK MANAGEMENT

See *Appendix I – Risk Register* for detailed comments on each risk item.

The update covers the following risks:

- R-001 relates to the procurement activities. The risk level for this item has been increased and the mitigation actions are 50% complete.
- R-008 relates to the Trade skills improvement. The risk level for this item was reduced and the mitigation actions are 50% complete.
- R-020 & R-028 relates to the reliability of suppliers and subcontractors. The risk level for this item was increased. Mitigation actions for this item are 40% complete.
- R-023 relates to the communication between the construction and engineering departments. Mitigation actions for this item are 80% complete.

	<p style="text-align: center;">Lower Churchill Project Muskrat Falls CH0007: Civil Works MONTHLY PROGRESS REPORT Period Ending 25 December 2014</p>	<p style="text-align: center;">(MFA-AT-SD-0000-PM- A06-0011-01) REV: B2 Issued for use</p>
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- R-024 relates to the turnover of personnel on site. The risk level for this item has been increased and the mitigation actions are 50% complete.
- R-025 related to climatic factors in delays. The risk level for this item has been increased and the mitigation actions are 50% complete.

A new risk has also been identified. R-029, which relates to the dismantling of the ICS and the superstructure erection.

Regarding the remaining risks:

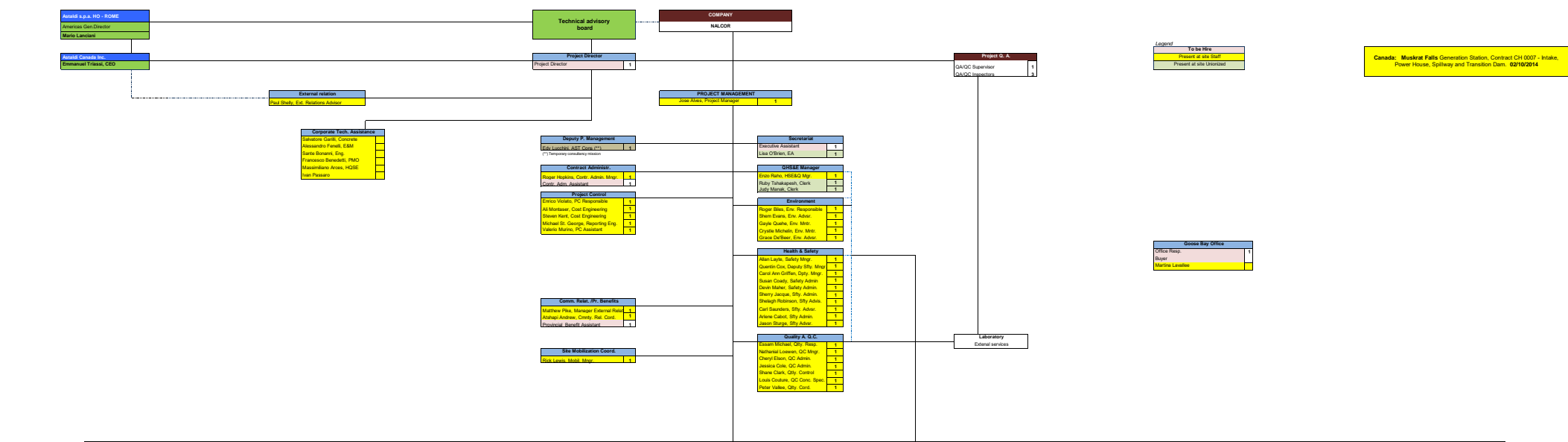
- 11 risks have had their corrective actions completed.
- 4 risks have been closed.
- 3 risks are under Nalcor's site manager's responsibility.

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Appendix A: Updated Organization Chart

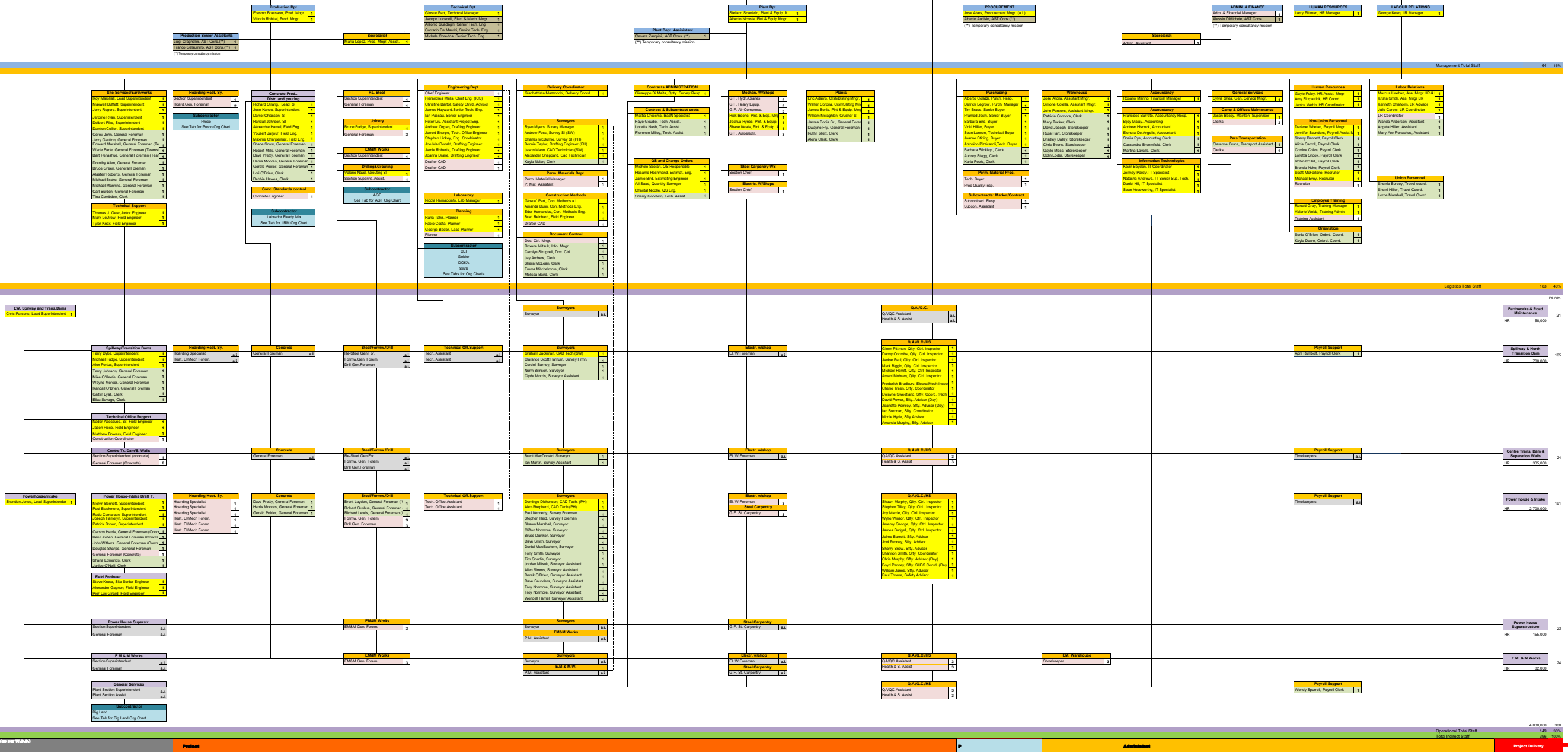


PROJECT CONSTRUCTION : FUNCTIONAL - ORGANIZATIONAL CHART - REV 8 - 10/02/2014

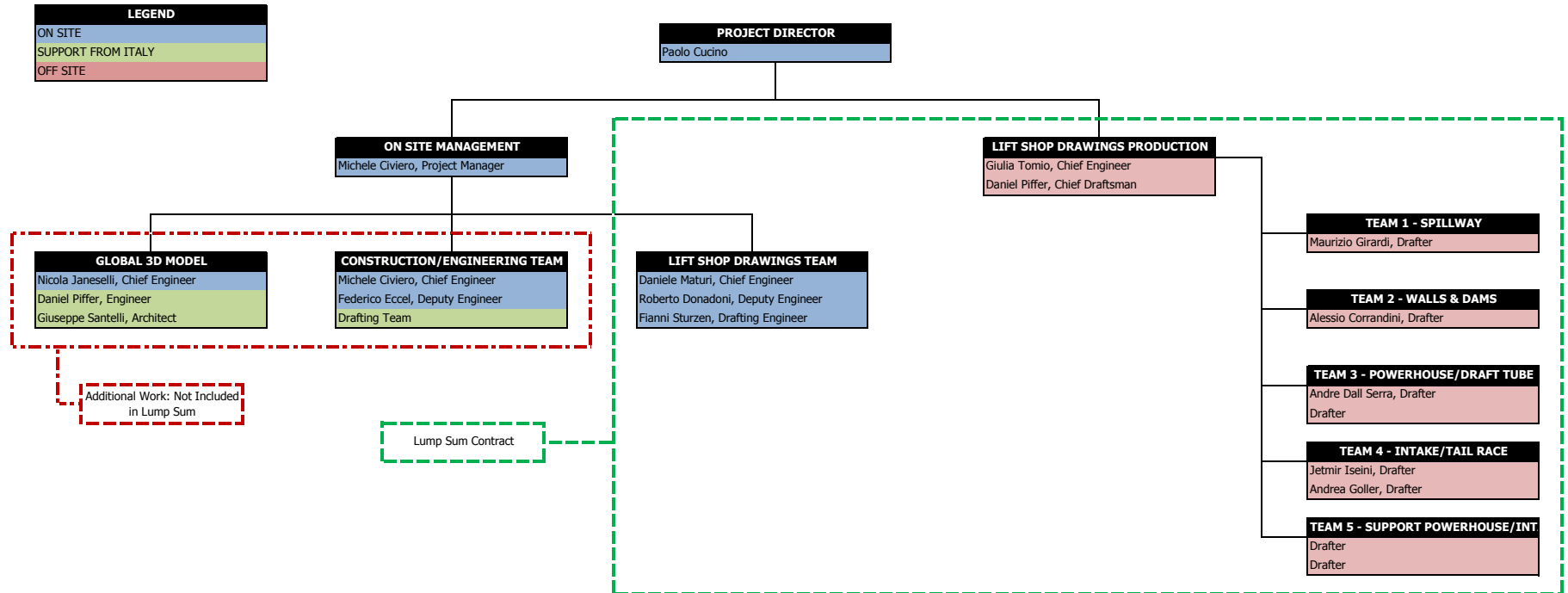


LOGISTICS

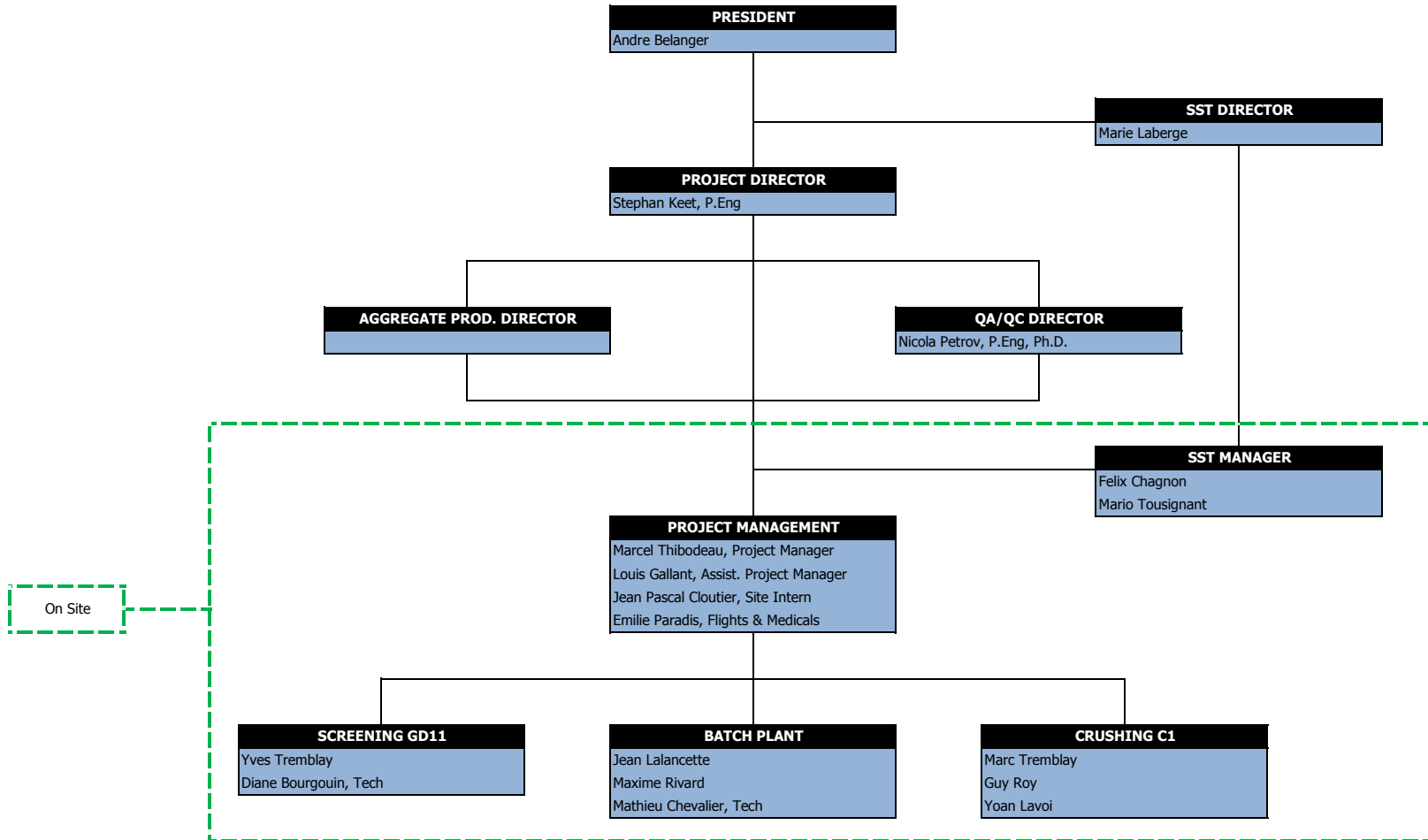
OPERATIONAL



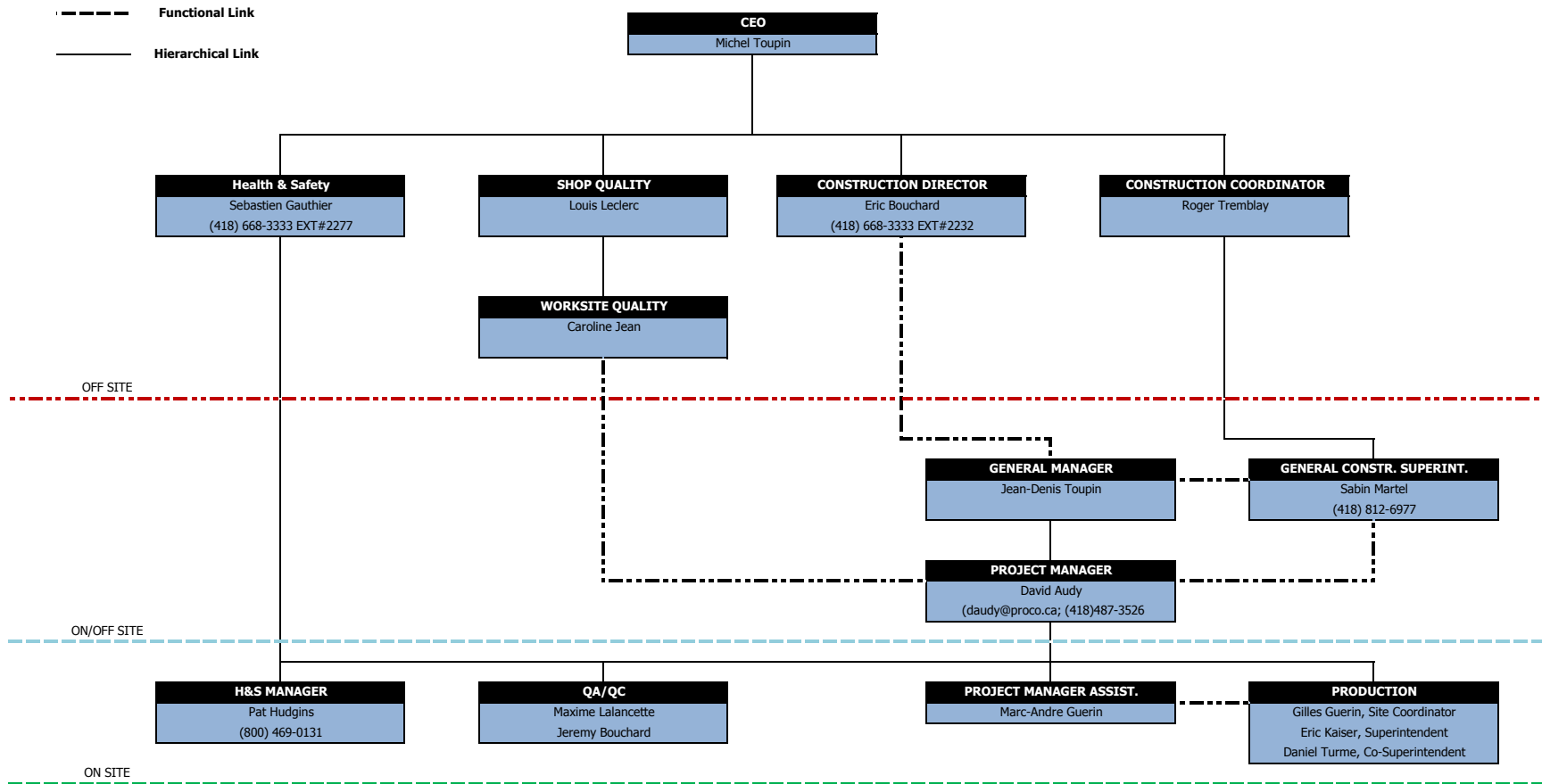
SWS Engineering - Consulting Team



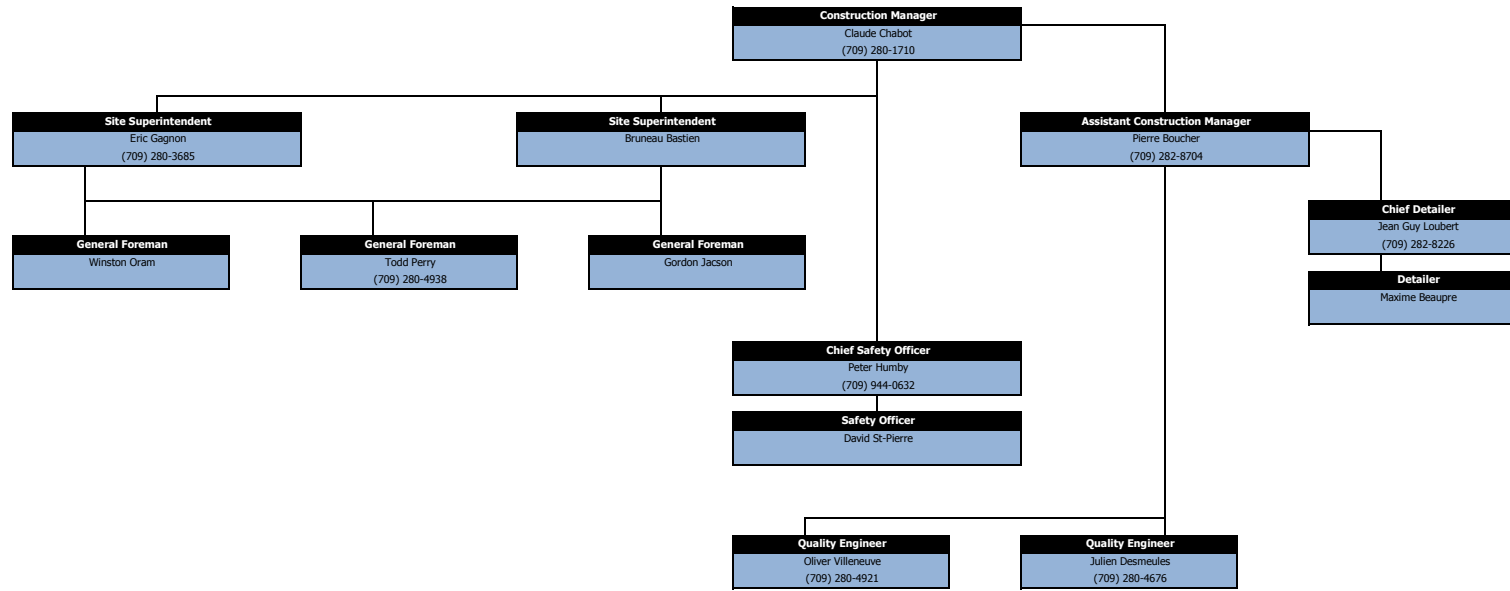
Labrador Ready Mix



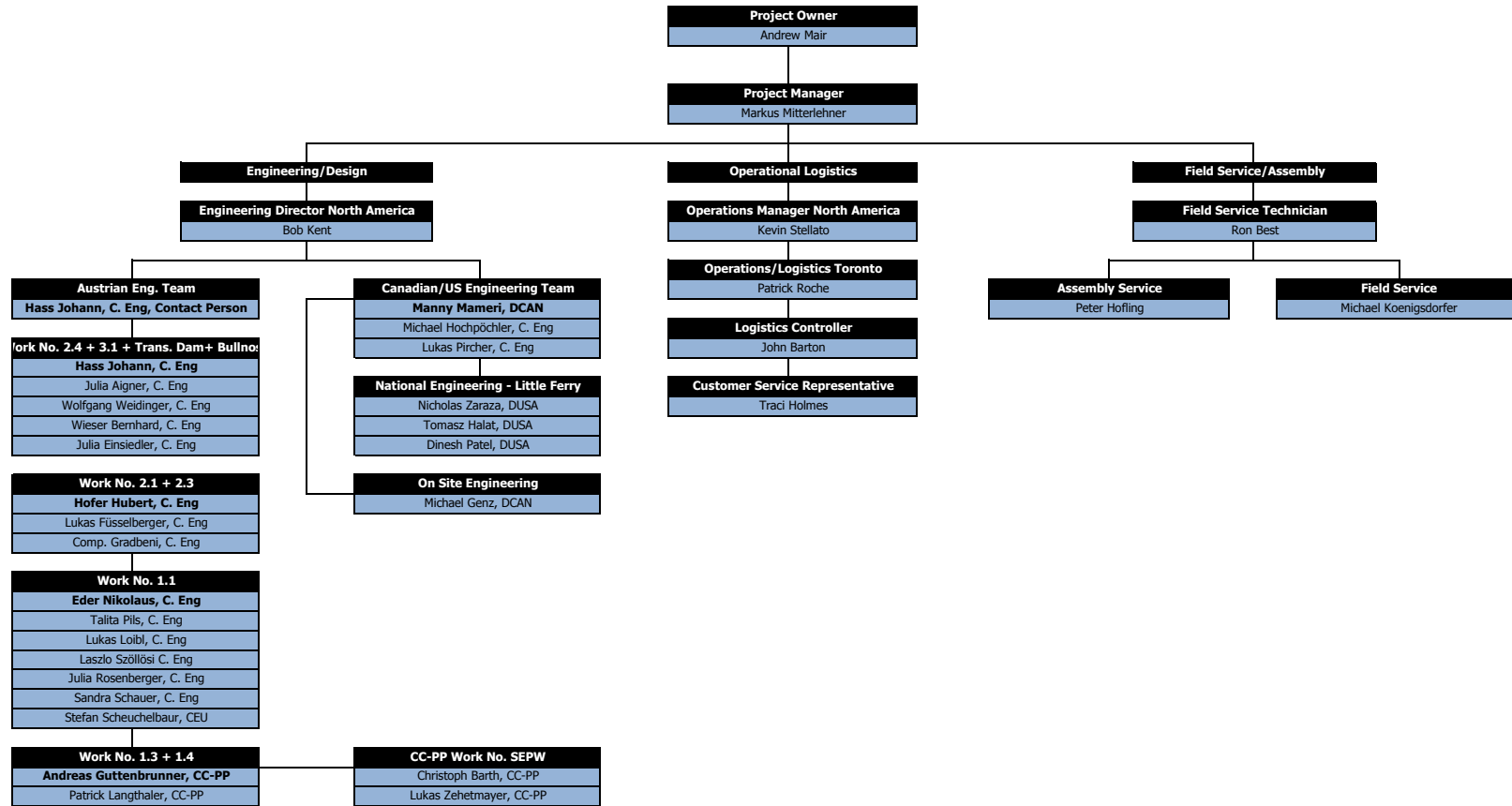
Proco



AGF STEEL Muskrat Falls Management Team



DOKA Muskrat Falls Project Management Team



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Appendix B: Environmental Monthly Report

MONTHLY FUEL CONSUMPTION REPORT¹

Contractor's Name: Astaldi Canada Inc

Report completed by (please print): Grace de Beer

Signature: _____

Reporting month/year (mm/yyyy): Dec-14

Report date (dd/mm/yyyy): 13/01/2015

Contract Number: CH 0007-001

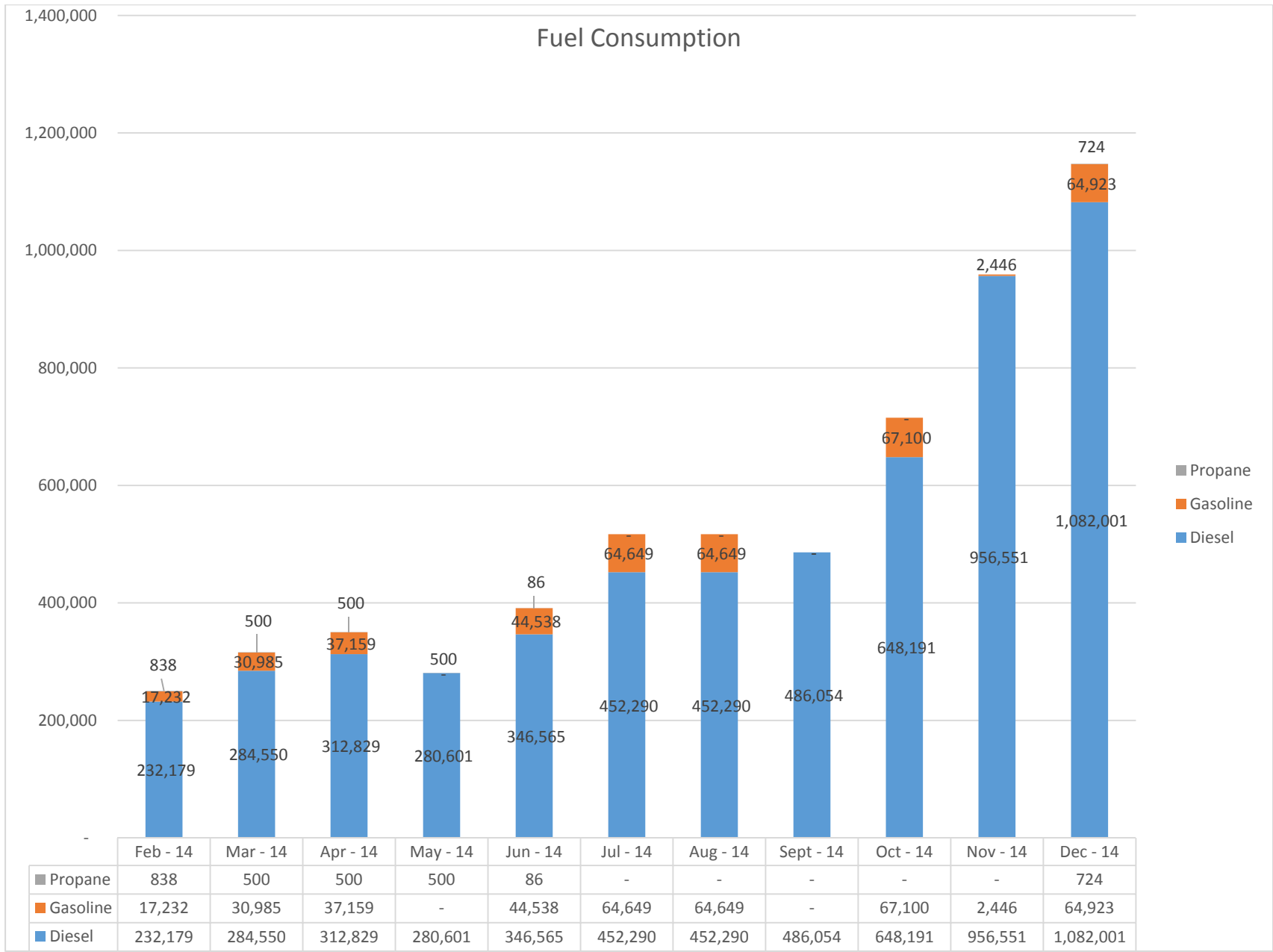
Contract Name: Spillway and Power House

Consumed Fuel

Fuel Type	unit	quantity
Diesel	litres	1,082,000.60
Gasoline	litres	64,922.83
Heating oil	litres	
Propane	litres	724
aviation turbo fuel	litres	
kerosene	litres	
Other (specify type)		
1	litres	
2	litres	
3	litres	
4	litres	
5	litres	
6	litres	
Total		1147647.43

Notes:

- 1 To be completed by Contractor and submitted to the Engineer for each calendar month, no later than 7 days after end of each month.
- 2 Consumed fuel to be reported is defined as:
 - a) quantity of fuel transferred during the reporting month to tanks of all Project-dedicated vehicles, equipment, and facilities, or
 - b) quantity of fuel used in the reporting month as part of a process (such as ANFO used for explosives); or
 - c) quantity of fuel delivered to bulk storage tanks at Owner's Laydown Area within the reporting month by the Fuel Delivery Services Contractor.
- 3 Contractor shall provide as part of the Monthly Fuel Consumption Report a general listing of all types of equipment, facilities, and processes that have burned fuel during the reporting month. The types of equipment, facilities, and processes include, but are not limited to, the following: heavy equipment (e.g. excavators, bull dozers, concrete trucks, etc); light equipment and vehicles (e.g. pick-up trucks, chain saws, pumps); facilities (e.g. diesel generators, concrete production, etc); processes (e.g. explosives in ANFO, etc); etc.



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Appendix C: Quality Department Register



Astaldi Canada
MUSKRAT FALLS HYDROELECTRIC DEVELOPMENT
Astaldi Canada External NCR Log

NCR No.	Rev No.	Area	Date Raised	Initiated by	Description	Type/Subject Matter	Disposition Date	Issued to	Disposition By	Disposition Approved by LCP	Disposition Verified and Signed off by LCP	Status	Date Closed	Comment on Closure Status	Pour Affected	Aconex Reference
CH0007-AST-CAN-NCR-001	00	Batch Plant (Concrete Aggregate)	24-May-2014	Essam Michael	Coarse aggregate production has been producing non-conforming aggregate since February 2014	Concrete Aggregate		Labrador Ready Mix	Quality			Open		To be discussed with LCP	-	MFA-AT-SD-0000-QA-Q10-0004-01
CH0007-AST-CAN-NCR-004	01	Spillway	17-Jun-2014	S. Clarke/W. Windsor	Waterstop installation process/methods	Materials Installation	24-Aug-2014	Astaldi Canada	Quality	Approved	Complete	Closed	27-Aug-2014	Closed	-	ASTALDI-TRANSMIT-000953
CH0007-AST-CAN-NCR-007	00	Spillway	15-Jul-2014	N.Loewen	Improper installation of Rock Dowel at SWB1A-00	Material Installation	15-Jul-2014	Astaldi Canada	Quality/Structures	Approved	Complete	Closed	20-Aug-2014	Closed	SWB1A-00	ASTALDI-TRANSMIT-000845
CH0007-AST-CAN-NCR-008	00	Spillway	15-Jul-2014	N.Loewen	Rejected overbreak concrete placed in Spillway	Astaldi Quality - Concrete	15-Jul-2014	Astaldi Canada	Quality	Approved	Complete	Closed	21-Aug-2014	Closed	SWB1A-Overbreak	NE-LCP-TRANSMIT-023173
CH0007-AST-CAN-NCR-009	00	Powerhouse	15-Jul-2014	N.Loewen	Poor quality of columns on Line C 6,7,12, 13, 18 & 19 (removal of formwork before specified time)	Concrete Placement	15-Jul-2014	Astaldi Canada	Quality/Concrete	Approved	Waiting for Sign-off	Open	29-Nov-2014	Closed	Line C 6,7,12, 13, 18 and 19	ASTALDI-TRANSMIT-000845
CH0007-AST-CAN-NCR-011	00	Spillway	25-Jul-2014	E. Michael	Top Of Steel (re-Bar) In the Base Slab SWB3C-00 not in accordance with the design elevation	Rebar Placement/Embedment Installation	26-Jul-2014	Astaldi Canada	Survey	Approved	Complete	Closed	1-Aug-2014	Closed	SWB3C-00	ASTALDI-TRANSMIT-000724
CH0007-AST-CAN-NCR-012	01	Spillway	23-Aug-2014	N.Loewen	SWB3A-00 and SWB3C-00 Andritz Embedments out of alignment	Rebar Placement/Embedment Installation	24-Aug-2014	Astaldi Canada	Structures/Concrete/AGF	Approved		Open		Second Stage Embedments to be discussed at meeting	SWPNA-01, SWPNC-001, SWP4A-01 and SWP4C-01	MFA-AT-SD-0000-QA-Q10-0010-01
CH0007-AST-CAN-NCR-013	04	Spillway	23-Aug-2014	S. Clarke	Incorrect alignment of embedment on SWS drawing		24-Aug-2014	Astaldi Canada	Survey			VOID		PCAR	-	MFA-AT-SD-0000-QA-Q10-0011-04
CH0007-AST-CAN-NCR-014	00	Spillway	24-Aug-2014	S. Clarke	SWB3A-00 Select Embedments out of alignment		25-Aug-2014	Astaldi Canada	Survey, Construction, Quality	Approved		VOID	-	Incorporated into NCR12	-	MFA-AT-SD-0000-QA-Q10-0012-04
CH0007-AST-CAN-NCR-015	00	Spillway	27-Aug-2014	N.Loewen	Out of Spec Concrete Placed in SWB3A-00	Astaldi Quality - Concrete	27-Aug-2014	Astaldi Canada	Quality/Concrete	Approved	Complete	Closed	7-Sep-2014	Closed	SWB3A-00	ASTALDI-TRANSMIT-001026
CH0007-AST-CAN-NCR-016	00	Spillway	27-Aug-2014	N.Loewen	Concrete not tested prior to and after addition of water in SWB3A-00	Astaldi Quality - Concrete	27-Aug-2014	Astaldi Canada	Concrete	Approved	Complete	Closed	2-Sep-2014	Closed	SWB3A-00	ASTALDI-TRANSMIT-000995
CH0007-AST-CAN-NCR-017	00	Spillway	27-Aug-2014	P. Vallee	Insufficient cover of reinforcement in Pier 4 North Wall, SWB3C-00	Rebar Placement/Embedment Installation	28-Aug-2014	Astaldi Canada	AGF	Approved	Complete	Closed	10-Sep-2014	Closed	SWP4C-01	ASTALDI-TRANSMIT-001076
CH0007-AST-CAN-NCR-018	00	Spillway	1-Sep-2014	P. Vallee	Insufficient cover of reinforcement in Pier 4 South Wall, SWB3A-00	Rebar Placement/Embedment Installation	1-Sep-2014	Astaldi Canada	AGF	Approved		Open	1-Dec-2014	Closed	SWP4A-01	ASTALDI-TRANSMIT-001075
CH0007-AST-CAN-NCR-020	00	Spillway	30-Sep-2014	P. Vallee	Insufficient cover between reinforcement and waterstop in SWPNA-01	Rebar Placement/Embedment Installation	30-Sep-2014	Astaldi Canada	Structures	Approved	Complete	Closed	16-Nov-2014	Closed	SWPNA-01	MFA-AT-SD-0000-QA-Q10-0023-01
CH0007-AST-CAN-NCR-021	00	Spillway and Transition Dam	14-Sep-2014	N.Loewen	No heating in LCP testing shelters provided by Astaldi		14-Sep-2014	Astaldi Canada	Structures	Waiting for Approval		Open		Returned from LCP as status 03 - Reviewed Not Accepted. To be discussed with LCP. Reviewed by Mike Colins	N/A	MFA-AT-SD-0000-QA-Q10-0017-01
CH0007-AST-CAN-NCR-022	00	Centre Transition Dam	14-Sep-2014	N.Loewen	Concrete with slump of 45 mm placed in CTU04-2A	Astaldi Quality - Concrete	14-Sep-2014	Astaldi Canada	Quality	Approved	Complete	Closed	30-Sep-2014	Closed	CTU04-2A	ASTALDI-TRANSMIT-001275
CH0007-AST-CAN-NCR-023	00	Other	14-Sep-2014	N.Loewen	Damaged Andritz Template Type G2 2/2	Material Management	14-Sep-2014	Astaldi Canada	Structures/Warehousing	Approved		Open		Damaged Embedment to be Repaired during Installation. Materials Management Plan to be Generated	N/A	MFA-AT-SD-0000-QA-Q10-0020-01
CH0007-AST-CAN-NCR-024	01	Spillway	14-Sep-2014	N.Loewen	Movement of Vertical Reinforcement SWP1A-01 in SWB1A	Rebar Placement/Embedment Installation	14-Sep-2014	Astaldi Canada	Structures/Concrete/AGF	Approved	Complete	Open	26-Nov-2014	Closed	SWP1A-01	MFA-AT-SD-0000-QA-Q10-0019-01
CH0007-AST-CAN-NCR-025	01	Centre Transition Dam	18-Sep-2014	P. Vallee	Missing Reinforcement in CTU4A-02	Rebar Placement/Embedment Installation	18-Sep-2014	Astaldi Canada	AGF	Approved		Open		Work has not been completed yet. Asked construction for update of when the work will be done to get photos for verification and close out	CTU4A-03	MFA-AT-SD-0000-QA-Q10-0021-01
CH0007-AST-CAN-NCR-026	01	Spillway	20-Sep-2014	P. Vallee	Location of Reinforcement Outside Specified Tolerance in SWPNA-01 rebar embedded in SWB1A	Rebar Placement/Embedment Installation	20-Sep-2014	Astaldi Canada	Structures/Concrete/AGF	Approved	Complete	Open	26-Nov-2014	Closed	SWPNA-01	MFA-AT-SD-0000-QA-Q10-0022-01
CH0007-AST-CAN-NCR-027	00	Spillway	18-Oct-2014	N.Loewen/J.Pico	Andritz embedments from SWB1A-00 and SWB1C-00 out of alignment	Rebar Placement/Embedment Installation	18-Oct-2014	Astaldi Canada	Structures/Concrete/AGF	Approved		Open		Second Stage Embedments to be discussed at meeting	SWPSA-01, SWP1A-01, SWPSC-01, SWP1C-01	MFA-AT-SD-0000-QA-Q10-0026-01
CH0007-AST-CAN-NCR-028	00	Spillway	18-Oct-2014	N.Loewen/N.Abdou	Movement of vertical rebar in SWP2A-01 and SWP3A-01 from pour SWB2A	Rebar Placement/Embedment Installation	18-Oct-2014	Astaldi Canada	Structures/Concrete/AGF		Complete	Open	27-Nov-2014	Closed	SWP2A-01 and SWP3A-01	MFA-AT-SD-0000-QA-Q10-0024-01
CH0007-AST-CAN-NCR-029	00	Centre Transition Dam	20-Oct-2014	N. Loewen/G. Pittman	Damaged grounding cable at base of cable near top of concrete at CTU2A-02	Electrical	20-Oct-2014	Astaldi Canada	Isketeu/Concrete	Approved	Complete	Open	26-Nov-2014	Closed	CTU2A-03	MFA-AT-SD-0000-QA-Q10-0025-01
CH0007-AST-CAN-NCR-030	00	Spillway	21-Oct-2014	N.Loewen/J.Pico	Andritz embedments from SWB2A-00 and SWB 2C-00 out of alignment	Rebar Placement/Embedment Installation	18-Oct-2014	Astaldi Canada	Structures/Concrete/AGF	Approved		Open		Second Stage Embedments to be discussed at meeting	SWP2A-01, SWP3A-01, SWP2C-01 and SWP3C-01	MFA-AT-SD-0000-QA-Q10-0027-01

NCR No.	Rev No.	Area	Date Raised	Initiated by	Description	Type/Subject Matter	Disposition Date	Issued to	Disposition By	Disposition Approved by LCP	Disposition Verified and Signed off by LCP	Status	Date Closed	Comment on Closure Status	Pour Affected	Aconex Reference
CH0007-AST-CAN-NCR-031	00	Spillway	23-Oct-2014	F.Bradbury	Detail 11 electrical drawing at contraction joints SWB2A	Electrical	-	Astaldi Canada	-					Submitted to LCP for Approval of Disposition	SWP1A-04, SWP2A-04, SWP3A-04, SWP4A-04	-
CH0007-AST-CAN-NCR-032	00	Spillway	10-Nov-2014	N.Loewen	Unapproved curing compound used	Material Management	10-Nov-2014	Astaldi Canada	Concrete	Waiting for Approval		Open	28-Nov-2014	Closed	SWP Pours	MFA-AT-SD-0000-QA-Q10-0029-01
CH0007-AST-CAN-NCR-033	00	Powerhouse	10-Nov-2014	N.Loewen	Excess rebar installed in I4BSA-00	Rebar Placement/Embedment Installation	10-Nov-2014	Astaldi Canada	Structures	-		Open		Submitted to LCP for Approval of Disposition	I4BSA-00	
CH0007-AST-CAN-NCR-034	00	Spillway	10-Nov-2014	N.Loewen	Pier concrete with improperly installed Drainaform in SWPNC-01, SWP4C-01, SWP2C-01, SWP1C-01, SWPSC-01.	Materials Installation	10-Nov-2013	Astaldi Canada	Structures	Waiting for Approval		Open		Submitted to LCP for Approval of Disposition	SWPNC-01, SWP1C-01, SWP2C-01, SWP4C-01, SWPSC-01	MFA-AT-SD-0000-QA-Q10-0030-01
CH0007-AST-CAN-NCR-035	00	Spillway	30-Oct-2014	L. Couture	Curing Delta T out of specification - Spillway pours up to October 17, 2014	Curing	10-Nov-2014	Astaldi Canada	Quality	Waiting for Approval		Open		Rejected by LCP - Astaldi and LCP to determine temperature criteria and revisit temperature/curing NCR's	SWB and SWP Pours	MFA-AT-SD-0000-QA-Q10-0031-01
CH0007-AST-CAN-NCR-037	00	Spillway	1-Nov-2014	P. Vallee	Missing PVC Pipe in SWB2C-00	Material Installation	1-Nov-2014	Astaldi Canada	Quality	Approved		Open		Rejected by LCP - Submitted to LCP for verification and close out. LCP rejects as claim work not done.	SWB2C-00 / SWP3C	MFA-AT-SD-0000-QA-Q10-0028-01
CH0007-AST-CAN-NCR-038	00	South Transition Dam	1-Nov-2014	M. Piette	Temperature of concrete below specifications (3 degrees)	Curing	7-Nov-2014	Astaldi Canada	Quality	Waiting for Approval		Open		Rejected by LCP- Root cause and Disposition is unacceptable. Please review with site QA and engineering prior to resubmission.	STU1B-01	MFA-AT-SD-0000-QA-Q10-0032-01
CH0007-AST-CAN-NCR-039	00	Spillway	10-Nov-2014	N.Loewen	Out of spec concrete placed in I1BNA Overbreak	Astaldi Quality - Concrete	10-Nov-2014	Astaldi Canada	Quality	Waiting for Approval		Open	6-Jan-2014	Closed	I1BNA	MFA-AT-SD-0000-QA-Q10-0033-01
CH0007-AST-CAN-NCR-041	00	Spillway	10-Nov-2014	N.Loewen	SWB3C-00 Spalling of Concrete	Concrete Placement		Astaldi Canada	Quality			Open		Not Submitted to LCP yet		
CH0007-AST-CAN-NCR-042	00	Powerhouse	16-Nov-2-14	N.Loewen	Improperly cured concrete Line 24 column B and B1; I1BNA Overbreak	Curing	16-Nov-2014	Astaldi Canada	Concrete	Waiting for Approval		Open		Submitted to LCP for Approval of Disposition	Line 24 Columns B & B1, I1BNA overbreak	MFA-AT-SD-0000-QA-Q10-0034-01
CH0007-AST-CAN-NCR-043	00	Spillway	18-Nov-2014	N.Loewen	Waterstop in SWPNA-03 does not have adequate cover between waterstop and rebar	Engineering - Conflict between WS and Rebar	18-Nov-2014	Astaldi Canada	Engineering	Waiting for Approval		Open		Submitted to LCP for Approval of Disposition	SWPNA-03	
CH0007-AST-CAN-NCR-044	00	Spillway, Transition Dams & Separation Wall	19-Nov-2014	N.Loewen	Out of spec temperature differentials in concrete at spillway, separation walls and transition dams; Oct 18 to Nov 8	Curing		Astaldi Canada	Quality	Waiting for Approval		Open		To be submitted to LCP	SWP, STU, CTU, and WLW Pours	
CH0007-AST-CAN-NCR-045	00	Spillway, Transition Dams & Separation Wall	19-Nov-2014	N.Loewen	Out of spec temperature differentials in concrete at spillway, separation walls and transition dams; Nov 9 to Nov 15	Curing		Astaldi Canada	Quality	Waiting for Approval		Open		To be submitted to LCP	SWP, STU, CTU, and WLW Pours	
CH0007-AST-CAN-NCR-046	00	Spillway	20-Nov-2014	N.Loewen	Spalling of concrete surface on spillway piers SWPNC-03 and SWP1C-02 from lack of form oil on forms	Material Installation	20-Nov-2014	Astaldi Canada	Quality	Waiting for Approval		Open		Work has not been completed yet. Once completed submit with confirmation of disposition.	SWPNC-03, SWP1C-02	
CH0007-AST-CAN-NCR-049	00	Spillway	25-Nov-2014	M. Piette	Improper grout placement in rock dowel for SWPSA-02	Concrete Placement	25-Nov-2014	Astaldi Canada	Quality/Concrete	Waiting for Approval		Open	2-Dec-2014	Closed	SWPSA-02	
CH0007-AST-CAN-NCR-050	00	Spillway	29-Nov-2014	N.Loewen	Improperly stored waterstop	Materials Management		Astaldi Canada	Quality/Structures			Open			-	
CH0007-AST-CAN-NCR-051	00	Spillway	20-Nov-2014	N.Loewen	Poor quality of concrete surface finish resulting from improper drainaform installation at pier SWP3C-01	Material Installation	4-Dec-2014	Astaldi Canada	Structures			Open		Submitted to LCP for Approval of Disposition	SWP3C-01	
CH0007-AST-CAN-NCR-052	00	Spillway	29-Nov-2014	N.Loewen	Poor concrete consolidation adjacent to embedded template type J4 at pier SWP3C-01	Concrete Placement	4-Dec-2014	Astaldi Canada	Concrete			Open		Submitted to LCP for Approval of Disposition	SWP3C-01	
CH0007-AST-CAN-NCR-053	00	Spillway	29-Nov-2014	N.Loewen	Formwork movement occurred during pour of SWP3A-02	Material Installation		Astaldi Canada	Structures			Open			SWP3A-02	
CH0007-AST-CAN-NCR-054	00	Spillway	29-Nov-2014	N.Loewen	Inadequate temperature during first 48 hours following pour of SWPSA-02	Curing	29-Nov-2014	Astaldi Canada	Concrete			Open			-	
CH0007-AST-CAN-NCR-055	00	Spillway	29-Nov-2014	N.Loewen	Embed template type L4 out of alignment in pour SWPSC-02	Rebar Placement/Embedment Installation	4-Dec-2014	Astaldi Canada	Structures			Open		Second Stage Embedments to be discussed at meeting	SWPSC-02	
CH0007-AST-CAN-NCR-056	00	Spillway	27-Nov-2014	N.Loewen	Available lap length on SWP1A-03, SWP2A-02, SWP3A-02 and SWP4A-03	Rebar Placement/Embedment Installation	4-Dec-2014	AGF	AGF			Open		Submit proof of disposition	SWP1A-03, SWP2A-02, SWP3A-02, SWP4A-03	
CH0007-AST-CAN-NCR-057	00	Environment	28-Nov-2014	G. De-Beer	Failure to report fuel spills	Environment	28-Nov-2014	Astaldi Canada	Environment			Open		Submitted to LCP for Approval of Disposition	-	



Astaldi Canada
MUSKRAT FALLS HYDROELECTRIC DEVELOPMENT
Astaldi Canada Internal NCR Log

NCR No.	Rev No.	Area	Department	Date Raised	Initiated by	Description	Type	Disposition Date	Issued to	Status	Pour Affected	Date Closed	Transmittal Reference	Comments
CH0007-AST-CAN-NCR-002	00	Contractors Laydown	Quality	11-Jun-2014	J. Cole/J. Marrie	Cracks in heated warehouse foundation	Internal	13-Jun-2014	Astaldi Canada	Open			N/A	21/08/14 - In PM's office awaiting final approval
CH0007-AST-CAN-NCR-003	00	Spillway	Quality	14-Jun-2014	J.Cole/W. Windsor	UngROUTED holes	Internal		Astaldi Canada	Open			N/A	Disposition and Close Out Required
CH0007-AST-CAN-NCR-005	00	Crusher Pad	Environment	28-Jun-2014	G. DeBeer	No Buffer Zone on stream near crusher	Internal		Astaldi Canada	Closed		21-Jul-2014	N/A	
CH0007-AST-CAN-NCR-006	00	Powerhouse	Quality	15-Jul-2014	N.Loewen	Line-D Retaining Wall Keyway installed in incorrect location/incorrect width	Internal	15-Jul-2014	Astaldi Canada	Open			N/A	21/08/14 - In PM's office awaiting final approval
CH0007-AST-CAN-NCR-010	00	C2 New Crusher Area	Environment	24-Jul-2014	R. Biles	Fuel Storage Not Compliant (sc NL)	Internal	31-Jul-2014	Astaldi Canada	Closed		20-Aug-2014	N/A	
CH0007-AST-CAN-NCR-019	00	Powerhouse	Construction	2-Sep-2014	E. Michael	Lack of Pull Testing Prior to Concrete Placement, Line B Column 6 & 7	Internal	2-Sep-2014	Astaldi Canada	Open			N/A	
CH0007-AST-CAN-NCR-036	00	Concrete in bolt holes of Andritz Embeds											N/A	
CH0007-AST-CAN-NCR-040	00	Drainaform - Installed backwards and repaired											N/A	
CH0007-AST-CAN-NCR-047	00	Rocks larger than 40 mm found in concrete				Rocks larger than 40 mm found in CTU 2a/2B-03 and SWP2A-02	Internal						N/A	
CH0007-AST-CAN-NCR-048	00	South Transition Dam	Quality	11-Nov-2014	R.Thomson	Vertical L-bars installed had improper top lap length for next pour	Internal	22-Nov-2014	Astaldi Canada	Open	STU1A-01		INT522	Internal Transmittal sent through email



MUSKRAT FALLS HYDROELECTRIC DEVELOPMENT
CH0007 - CONSTRUCTION OF INTAKE AND POWERHOUSE, SPILLWAYS AND TRANSITION DAMS

ITPs LOG

ITP NUMBER	REVISION	EFFECTIVE DATE	TITLE	ACONEX STATUS	COMMENTS
CH0007-AST-CAN-ITP-001	00	August 27, 2014	Powerhouse - Intake (Bottom)	01 - Reviewed and Accepted	Submitted for Review by Owner
CH0007-AST-CAN-ITP-002	04	July 7, 2014	Spillway Construction (Early Works)	01 - Reviewed and Accepted	Addition of primary grounding and pvc sleeve embedments
CH0007-AST-CAN-ITP-003	00	August 20, 2014	Transition Dam Construction	02 - Inc. Comments R & R	
CH0007-AST-CAN-ITP-004	01	August 4, 2014	Powerhouse - ICS Structure	01 - Reviewed and Accepted	Revised and Resubmitted to Include Owner Comments
CH0007-AST-CAN-ITP-005			Reserved		
CH0007-AST-CAN-ITP-006	00	July 30, 2014	Spillway - Primary Anchors	01- Reviewed and Accepted	
CH0007-AST-CAN-ITP-007	00	August 27, 2014	Tailrace and Draft Tube Elbow	01 - Reviewed and Accepted	
CH0007-AST-CAN-ITP-008	00	August 20, 2014	South Service Bay	01 - Reviewed and Accepted	
CH0007-AST-CAN-ITP-009	00	September 27, 2014	North Service Bay	Issued for Review	
CH0007-AST-CAN-ITP-010	00				

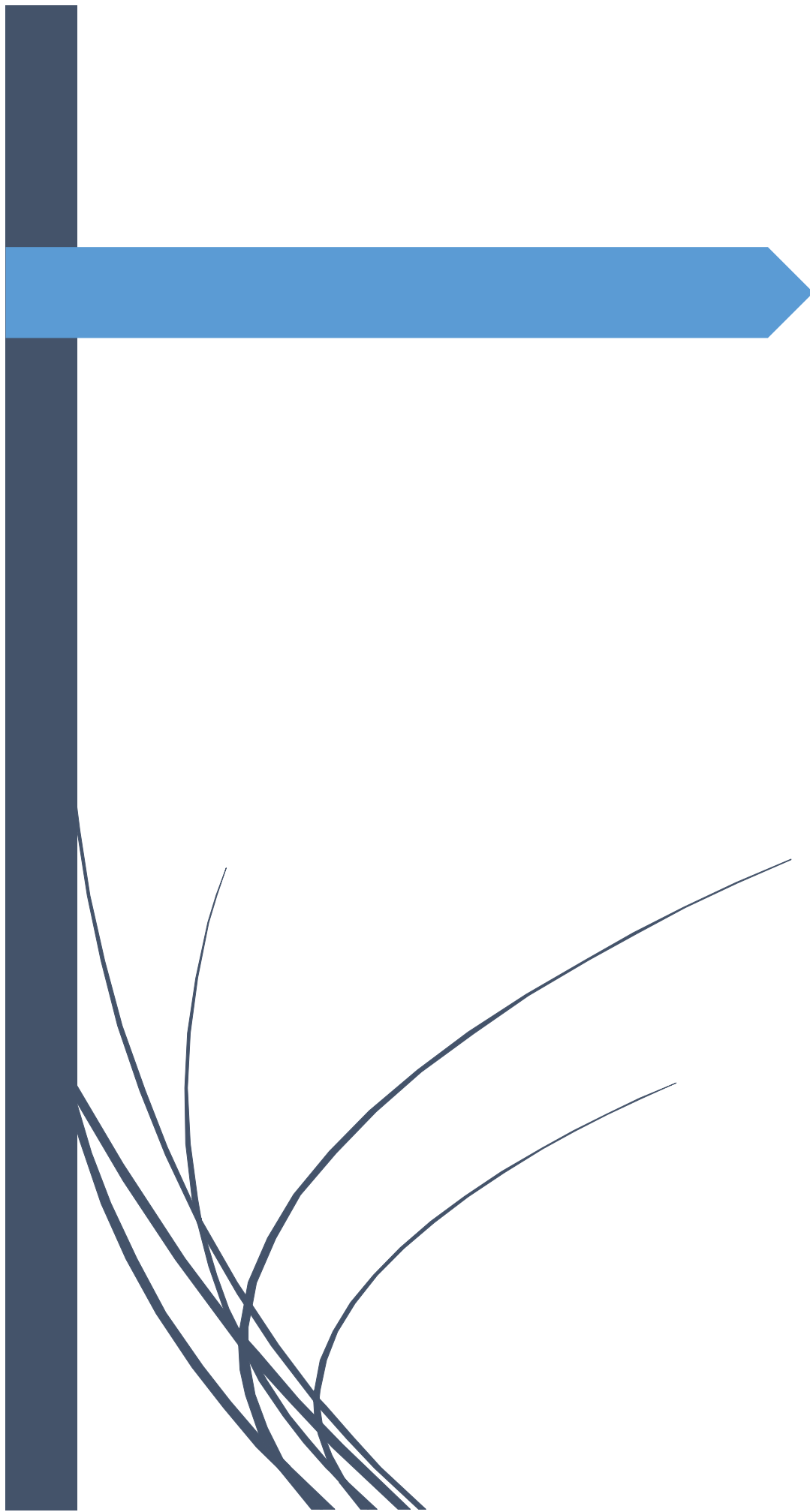


Astaldi Canada
MUSKRAT FALLS HYDROELECTRIC DEVELOPMENT
NCR Log - Incoming from Nalcor

NCR No.	Rev No.	Audit No.	Department	Internal/ External	Date Raised	Initiated By	Approved By	Description	Issued to	Disposition Date	Disposition By	Status	Date Closed	Aconex Reference (closed)	Notes
CH0007001-0001	00	N/A	Quality	External	8-Feb-2014	Tayseer Hassanein	Bill Knox	Fine Aggregate Gradation Outside of Specification	Astaldi Canada	21-Feb-2014	Wayne Ball	Closed	19-Apr-2014	NCR-CH0007001-0001	
CH0007001-0002	00	N/A	Quality	External	16-Feb-2014	Tayseer Hassanein	Paul Oblander	Lack of Aggregate Sampling due to Lack of Communication	Astaldi Canada	21-Feb-2014	Wayne Ball	Closed	24-May-2014	ASTALDI-TRANSMIT-000081	
CH0007001-0023	00	N/A	Quality	External	04-Apr-2014	Terry Woodland	David Pelley	Construction of "Norseman" temporary enclosure at the Spillway without Engineered stamped drawings and owner approval	Astaldi Canada	6-Apr-2014	Wayne Ball	Closed	7-May-2014	LCP-CM-TRANSMIT-004232	
CH0007001-0014	00	N/A	Environment	External	18-Mar-2014	Clyde McLean	Marion Organ	Spillway pH levels above ECWSR Criteria	Astaldi Canada			Closed	7-Aug-2014	LCP-CM-TRANSMIT-006136	
CH0007001-0024	00	N/A	Construction	External	25-Apr-2014	Terry Woodland	Gil Gfeller	Construction Power Supply	Astaldi Canada	2-May-2014	Essam Michael	Closed	24-May-2014	ASTALDI-TRANSMIT-000082	
CH0007001-0025	00	N/A	Environment	External	15-May-2014	Jason Barnes	Clyde McLean	Water Quality Discharge Exceedance	Astaldi Canada	26-May-2014	Roger Biles	Closed	26-May-2014	ASTALDI-TRANSMIT-000086	
CH0007001-0027	00	N/A	Document Control	External	10-May-2014	Terry Woodland	Gil Gfeller	Response to Non-Conformance Report - Resubmission of Supplier/Subcontractor Documents	Astaldi Canada	27-May-2014	Pam Green	Closed	4-Jun-2013	ASTALDI-TRANSMIT-000103	
CH0007001-0026	00	N/A	Construction	External	10-May-2014	Terry Woodland	Gil Gfeller	Supplier Document Register (SDR) not approved for use	Astaldi Canada			Closed			SDR is in B7. Should be able to be closed out.
CH0007001-0042	00	N/A	Environment	External	10-Jun-2014	Jason Barnes	Clyde McLean	TSS Loading to Churchill River	Astaldi Canada			Open			Follow up/close out to be completed by LCP
CH0007001-0043	00	N/A	Warehouse	External	30-Jun-2014	Terry Woodland	Neil Ferguson	Improper Storage of Company Supplied Items	Astaldi Canada			Open			Requires storage of Andritz embedments and Material receiving and handling plan
CH0007001-0044	00	N/A	Construction	External	14-Jul-2014	Terry Woodland	Gil Gfeller	Use of Non-Conforming Concrete	Astaldi Canada	11-Aug-2014	Nathaniel Loewen	Closed	26-Aug-2014	LCP-CM-TRANSMIT-006676	
CH0007001-0045	00	N/A	Construction	External	13-Aug-2014	Terry Woodland	Frank Allaire	Waterstop not as per specification	Astaldi Canada	20-Aug-2014	Shane Clarke	Closed	19-Sep-2014	LCP-CM-TRANSMIT-007367	Submitted 19 Aug by AC. Requires LCP response
CH0007001-0046	00	N/A	Construction	External	26-Aug-2014	Terry Woodland	Gil Gfeller	Procedure for "Verification Prior to Concreting" not being followed	Astaldi Canada			Open			Requires 24hr notice with concrete authorization request submitted with 24 hr notice
CH0007001-0047	00	N/A	Construction	External	5-Oct-2014	Frank Allaire	John King	Improper Curing of Concrete	Astaldi Canada			Open			QC developing plan outline. Plan to be completed by Construction (Concrete)



Appendix D: Planning Report



Muskrat Falls Project

Contract: CH0007

**Construction of Intake and Powerhouse,
Spillway and Transition Dams**

Monthly Schedule Report

Reporting Period: Nov 23, 2014 to Dec 27, 2014

1 Activities Started/Completed

Concrete Volume poured during this period: **3,726 cubic meter** (including over break of SBBNB/C-19 and South Service Bay mud slabs. The short fall from the planned volume was mainly due to resources consumed for removal of snow and ice and other cold weather related winter conditions slowed down the productivity.

Spillway

Piers:

Construction work continued on u/s & d/s lifts of Spillway Piers with 8 lifts completed before Christmas break, area breakdown as below:

PIER LINE		
A	B	C
5	2	1

The primary focus will remain on “A” lifts, whereas “B” and “C” lifts will be constructed as and when time and physical resources are available. The “B” lifts were started of Pier North and South Pier and constructed 1st lift of each pier.

- Following Piers were completed:
 - Pier 1:* SWP1A-03
 - Pier 3:* SWP3A-02
 - Pier 4:* SWP4A-03
 - Pier South:* SWPSC-03, SWPSA-02, and SWPSB-01
 - Pier North:* SWPNA-03, SWPNB-01
- Work on following pours is in progress or will be started:
 - Pier 1:* SWP1A-04
 - Pier 2:* SWP2A-03
 - Pier 3:* SWP3A-03
 - Pier 4:* SWP4A-04
 - Pier South:* SWPSA-03, SWPSB-02
 - Pier North:* SWPNA-04, SWPNB-02

Transition Dams

South Transition Dam:

- Following Pours were completed:

Monolith 1: STU1A-01

- Work on following pours is in progress or will be started

None

Centre Transition Dam:

- Following Pours were completed:

Monolith 4: CTU4A-04 (1/2)

- Work on following pours remained in progress:

Monolith 2: CTU2A-04

Remaining work on the Central Transition Dam and South Transition Dam will be in the spring season except the monolith 1 and 2 which will be continued as and when resources and weather conditions allow for that.

Powerhouse

- Following Pours were completed:

No major activity was performed except on going work on the ICS.

- Work on following pours is in progress or will be started

None

Intake

Intake 1:

- Following Pours were completed:

None

- Work on following pours is in progress or will be started

Bottom part: The work will be started in Intake 1 bottom part I1BNB-00 after resumption of site activities and after commissioning of overhead cranes.

Intake 3:

- Following Pours were completed:

None

- Work on following pours is in progress or will be started:

Bottom part: I3BSA-00 will be poured after resumption of site activities.

Separation Wall

- Following Pours were completed:

Monolith 4: WLW4A-03

Monolith 6: WLW6A-03

- Work on following pours is in progress or will be started:

None

Remaining work on the separation wall will be in the spring season.

Draft Tube

- Following Pours were completed:

None

- Work on following pours is in progress or will be started:

DIBNA-00 and DIBSB-00. The construction will be started with removal of backfill and commissioning of overhead cranes after resumption of site activities.

South Service Bay

- Following Pours were completed:

SBBNB/C-19 (Overbreak)

SBB2B/2C (Mudslab)

- Work on following pours is in progress or will be started:

Crane Pads: Rock cleaning for upstream and downstream shafts is being planned and construction activities will progress with completion of two crane pads, one at Unit 1 D/S (at SE corner) and second at El. +15.20m.

South Service Bay D/S: SBB1B-00 will be casted after cleaning of ice and snow from the area and completion of 1st crane pad. The remaining work will continue with 2nd crane pad.

South Service Bay U/S: SBB1A-00 will be casted after cleaning of ice and snow from the area.

Integrated Cover Structure - ICS

- Progress of Phase 1 & 2 (Line 0.1 – Line 12/13)

Total Structural Steel: 1578T (Ton)

Structural Steel Completed: **100%**

Cladding Completed (modified scope): **100%**

Decking Completed: **100%**

Overhead Cranes: All 7 Cranes are installed and will be commissioned in coming weeks.

ICS construction for Unit 1 and 2 is completed with some modifications and further heating and hording for each individual pour inside ICS will be completed to ensure temperature control.

1.1 Schedule Performance Index:

Area	Nov SPI	Dec SPI	Change	Notes
Spillway (2)	0.42	0.38	-0.04	
Dams (3)	0.32	0.29	-0.03	
Powerhouse (1)	0	0	0	
Intake	0.38	0.21	-0.17	
Project Total	0.36	0.29	-0.07	

Notes:

SPI is based on Primavera P6 schedule and is calculated from man-hours earned vs. planned.

(1) Includes Draft Tube, Tailrace, South Service Bay and North Service Bay

(2) Includes Retaining Wall and Discharge Channel

(3) Includes South Transition Dam, Centre Transition, Separation wall and North Transition Dam

SPI calculations commenced the date baseline schedule accepted by NALCOR

1.2 Spillway Skyline:

Legend	Completed	
	In Progress	

	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Lift 14																		
Lift 13																		
Lift 12																		
Lift 11																		
Lift 10																		
Lift 9																		
Lift 8																		
Lift 7																		
Lift 6																		
Lift 5																		
Lift 4																		
Lift 3			Dec-02	Dec-04									Dec-03			Dec-07		
Lift 2	Nov-27									Nov-24								
Lift 1		Dec-13																Dec-10
	Pier South			Pier 1			Pier 2			Pier 3			Pier 4			Pier North		

1.3 Status & Mitigation/ Acceleration

1.4.1 Spillway:

- Primary focus is on the upstream piers.
- Delay in the preparation and concreting of subsequent pier lifts of South Pier “A” is being observed due to over break concrete and hence the heating and hording arrangements. This delay will eventually cause delay in completion of “B” pours of the Pier.
- Maximum available resources are being placed in Spillway “A” lifts execution to achieve milestone M4A.
- One remediation solution that will minimize the impact on the project will be to focus only on the A pours and make the B pours attached the M4B milestone instead of the M4A one. So Andritz might access when we finish the piers on the A side and the bridge.

1.4.2 Transition Dams:

- At Centre Transition Dam focus will be on Monolith 1 and 2 as and when resources become available from other areas especially after completion of spillway Piers for milestone M4A. Monolith 4 will be stopped and pushed to be performed under no winter conditions since it is not critical.

- At South Transition Dam, work will be stopped on monolith 1 and 2 since they are not critical to be performed under winter conditions.
- At North Transition Dam, rock cleaning is started and construction would not progress actively till the completion of North Pier B Pours till lift 3.

1.4.3 South Service Bay:

- Work is stopped on Slab on Rock pours and will progress intermittently.
- Crane pads construction will start after resumption of site activities and is very critical for construction of two elevator shafts.
- Primary focus will be on construction of U/S and D/S elevator shafts.
- This activity is very critical for the sequential completion of the SSB, Draft Tube and Powerhouse.

1.4.4 Intake:

- The work at Intake 3 was stopped due to cold weather conditions and its pouring will be completed after cleaning of snow. The remaining work will resume in spring.
- Intake 1 bottom part will be started once the overhead cranes are commissioned.

1.4.5 Draft Tube:

- Construction will be started in U/S and D/S portion provided removal of backfill and commissioning of overhead cranes is completed.

1.4.6 Separation Wall:

All the work on the separation wall will stop except the pours in progress, and will be performed under no winter conditions.

2 Critical and Key Activities

2.1 Spillway

2.1.1 Last Month Key Activities

- ✓ Completed 8 Lifts. 5 As, 2Bs and 1C

2.1.2 Next Month Key Activities

- Continue Pours of North, South and Pier 1 thru 4 with primary focus on Upstream Pours.
- Pouring of the B pours on the north and south piers to allow construction of monolith 1 of CTD and the NTD to start.

2.2 Transition Dams and North Service Bay

2.2.1 Last Month Key Activities

- ✓ Poured CTU4A-04 (1/2)
- ✓ Completed STU1A-01

2.2.2 Next Month Key Activities

- No activity as these are not critical to be completed in winter months.

2.3 Intake, Powerhouse, South Service Bay and Draft Tube

2.3.1 Last Month Key Activities

- ✓ Draft Tube F/Work delivery
- ✓ Completion of ICS Unit 1 & 2 with some modifications

2.3.2 Next Month Key Activities

- Completion of Crane Pads for mobile crane setup for SSB Shafts construction
- Start of SSB upstream and downstream Shafts
- Start and progress on Intake 1 and Draft Tube 1
- Complete construction of Intake 3 pour in progress

2.4 Separation Walls

2.4.1 Last Month Key Activities

- ✓ Continued progress in all Monoliths and completed 2 lifts

2.4.2 Next Month Key Activities

- No activity is planned and work will resume in spring

3 Discussions

3.1 Potential Issues

3.1.1 Human Resources

<p>Description of difficulty</p>	<p>Difficulty to recruit workers (mostly carpenters and Iron Workers) qualified and experienced to perform the type of work required by the project.</p>
<p>Possible causes</p>	<p>Lack of skilled and experienced tradesmen provided by the local union. Union local doesn't have a sufficient number of qualified workers for the project.</p>
<p>Potential impacts</p>	<p>Expected productivity of tradesmen takes longer or is difficult to meet. Difficulties to recruit qualified workers outside of the local union in Newfoundland and Labrador. Difficulties with union to bring qualified workers from outside of the province. Overall cost and schedule impacts on the project. Need additional people to meet schedule and production requirements. Safety issues due to lack of workers' experience</p>

3.1.2 Engineering

<p>Description of difficulty</p>	<p>Completion and approval of Engineering specially reinforcement drawings for Intake 1, u/s & d/s elevator shafts, Draft Tube 1.</p>
<p>Possible causes</p>	<p>Engineering issues and approval of drawings needs to be expedited specially in above noted areas. Better progress and coordination are taking place now.</p>

<p>Potential impacts</p>	<p>Intake 1: Late start in Intake 1 may cause further delay in the execution and completion of Intake 1 and may push milestone M28 interfaced with Mechanical Works. South Service Bay u/s and d/s shafts: These are critical for execution of Powerhouse area Intake 1, Draft Tube 1 and Tailrace 1. All the technical issues related to these required to be resolved and outstanding drawings finalized as soon as possible.</p>
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3.1.3 Procurement

<p>Description of difficulty</p>	<p>Procurement of Major and Misc. Structural Steel for powerhouse, piping packages for powerhouse and elevator shafts, steel packages for the upstream and downstream bridges for the spillway, ICS heating, services, electrical work for the crane, temporary lateral supports for the spillway, Grouting package, equipment purchasing, tests and method statements and their final approval.</p>
<p>Possible causes</p>	<p>Delay in identification of Procurement Packages, issuance of POs and initial/final deliveries.</p>
<p>Potential impacts</p>	<p>Construction delays of critical activities in all above noted critical areas. Due to extreme weather conditions, there are limited areas available for execution during to winter months. If procurement of any of above noted packages is delayed, a major time loss will occur in the powerhouse and spillway areas where most of the critical work is planned to be completed under conditions.</p>

3.1.4 Construction

<p>Description of difficulty</p>	<p>Construction of Spillway Piers and milestone M4 Start construction of Draft Tube, Intake 1 and SSB shafts</p>
<p>Possible causes</p>	<p>Extreme weather conditions, heating & hording Rock profile on Pier South U/S Late construction of crane pads Late Start of Intake 1, Draft Tube 1 and SSB shafts Low productivity on the spillway piers. Late completion of ICS Unit 1 & 2.</p>

<p>Potential impacts</p>	<p>Rock Reconstruction: Due to substantial winter rock reconstruction at South Pier on U/S side, pouring of lifts is being delayed. Integrated Cover Systems: Delays in completion of ICS 1 & 2 caused delays in execution start of Draft Tube, Intake.</p>
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3.1.5 Integrated Cover System

<p>Description of difficulty</p>	<p>Completion of ICS till line 12/13. (Unit 1 & 2) with power distribution schemes, heating and Lighting arrangements for the structure.</p>
<p>Possible causes</p>	<p>Low Manpower profile, Installation of Overhead Cranes, Late delivery of Structural Steel Components and Erection. Winter delays</p>
<p>Potential impacts</p>	<p>The purpose of this major component was to facilitate construction of major project components during the winter period of 2014/2015. The timely completion of ICS was very critical for the construction activities to be carried out in the areas of Powerhouse, Draft Tube, Intake and South Service Bay during winter months to avoid further delays for key milestone achievements for CH0031 & CH0032 interface. In addition to that, its late completion will also result in the interference with adjacent construction activities in future.</p>

4 Multiple Float Path Analysis

A detailed multiple float paths are run and their brief outline is presented below. More details can be found in attachment 6.7

4.1 Milestone M4A

M4A require all the A pours and all the B pours of the Spillway to be completed by 15 February 2015. Here below is the analysis of multiple Float Paths for M4A.

1. The A line pours are most critical for substantial completion of Milestone. In 3 different analysis, it passes through South Pier, Pier 1 and Pier 2 as per current schedule.

4.2 Milestone M4B

M4B requires all the C pours with the Spillway bridges and North Dam and the Monolith 1 and 2 of the Central Transition Dam to be constructed by 31 July 2015.

1. The main critical path passes by the central Dam driven by the South pier pours A and B.
2. The second critical path is through the North transition Dam driven by the north pier B line pours.

4.3 Milestone M18

M18A and M18B require completion of South Service Bay and Mezzanine to start Hydro Works by July 31, 2015.

1. The SSB U/S and D/S shaft leading to elevation 6.5 is critical allowing the construction of Unit 1 of Intake and Draft Tube, and then further up to EI 15 to allow for steel structure to take place

4.4 Milestone M26

M26 require completion of Powerhouse Unit 1 with Mezzanines by 30 September 2015. The delay in its completion is greatly contributed by delay in the erection of ICS Bay and bay 2.

1. Activities driving milestones in this analysis is the commissioning of overhead cranes, Unit 1 foundation preparation and backfill removal, then the draft tube slabs then the tailrace piers leading to the ICS dismantling then the structure steel erection.
2. In another analysis, SSB U/S shaft is driving Intake 1 pours to EI 15.5 before ICS dismantling operations and resuming back after.

4.5 Milestone M28

M28 requires completion of Intake 1 by 31 March 2016

1. From these analysis it appears that the main drive to M28 are the same activities driving M26
2. Mainly the ICS enclosure, then the foundation preparation and backfill removal, then the draft tube slabs then the tailrace piers leading to the ICS dismantling then resuming the pours in the intake side.
3. In another analysis, SSB U/S shaft is driving Intake 1 pours to EI 15.5 before ICS dismantling operations and resuming back after.

4.6 All Sites / General

1. The schedule has been actualized and is updated with current progress with Data Date Dec 28, 2014.

2. Hard constraints are put to push the south transition dam to the summer on the:
-STD.M2.STU2A02-03, SOUTH TRANSITION DAM, and LIFT STU2A-02 – Construct
3. The Constraints are put as well on Monolith 3 and 4 of the central dam for the same reasons:
-CTD.M3.CTU3A03-03- CENTER TRANSITION DAM: LIFT CTU3A-03 – Construct
-CTD.M4.CTU4A06-03- CENTER TRANSITION DAM: LIFT CTU4A-06 – Construct
4. The Constraints are put on Intake 3 & 4 Bottom part and Draft Tube 3 & 4 (U/S & D/S part) to start in summer.

5 Potential Changes to Project Schedule

- Adjustment to the construction completions after completion of ICS
- Adjustment of the draft tube pours arrangement.

6 Attachments

- 6.1 Summary Schedule
 - 6.2 Project Schedule – 3 Months Lookahead
 - 6.3 Primavera Schedule (electronic .XER file)
 - 6.4 Progress and Commodity Curves with Progress Summary Table
 - 6.5 Pour Count Curves
 - 6.6 Contract Milestone Comparison
 - 6.7 Multiple Float Path Analysis
 - 6.8 Pour Distribution by Month
 - 6.9 Critical and Sub Critical Activities Schedule
-

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015					
					Dec	Jan	Feb	Mar	Apr	May		
CH0007-MUSKRAT FALLS - EXECUTION DETAILED SCHEDULE Data Date 28 December (Rebar FworkResourc loz												
CONTRACT GENERAL												
Embedded Piping (Main PO)												
CON.GN.EmbePip-4	Supply Embedded Piping - Material Procurement - Remaining PH, DT Intake, SSB, Central Dam, North DAm, South Dam,	18	23-Sep-14 A	30-Jan-15								
Fabrication												
CON.GN.EmbePar-03	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time (To be deleted- Already split inot areas)	300	06-Sep-14 A	16-Apr-15								
Masonry Concrete Blocks												
CON.GN.MasConc-02	Supply Concrete Masonry Block work - Fabr./Lead time	6	05-Jan-15	10-Jan-15								
CON.GN.MasConc-03	Supply Concrete Masonry Block work - Delivery on site	14	11-Jan-15	24-Jan-15								
Septic Tile Field												
CON.GN.SeptTil-02	Supply septic tile field - Fabr./Lead time	76	05-Jan-15	21-Mar-15								
CON.GN.SeptTil-03	Supply septic tile field - Delivery on site	14	22-Mar-15	04-Apr-15								
Supply and Installation of Intumescent Paint												
CON.GN.IntumPa-01	Supply & Application of Intumescent Paint - Scope of work, bids/eval and Place P.O.	49	09-Nov-14 A	22-Feb-15								
CON.GN.IntumPa-02	Supply & Application of Intumescent Paint - Fabr./Lead time	25	23-Feb-15	19-Mar-15								
CON.GN.IntumPa-03	Supply & Application of Intumescent Paint - Delivery on site	25	20-Mar-15	13-Apr-15								
Supply of Survey Instruments												
CON.GN.SurvIns-01	Supply Survey Monuments - Scope of work, bids/eval and Place P.O.	21	13-Sep-14 A	30-Jan-15								
CON.GN.SurvIns-02	Supply Survey Monuments - Fabr./Lead time	28	31-Jan-15	27-Feb-15								
CON.GN.SurvIns-03	Supply Survey Monuments - Delivery on site	14	28-Feb-15	13-Mar-15								
Pre-fabricated Concrete Elements (Manholes, Septic Tks, Septic Dist. Boxes..)												
CON.GN.PrefabC-01	Supply pref. concrete: elect. manholes, septic tank & septic distribution box - Scope of work, bids/eval and Place P.O.	49	13-Sep-14 A	30-Jan-15								
CON.GN.PrefabC-02	Supply pref. concrete: elect. manholes, septic tank & septic distribution box - Fabr./Lead time	56	31-Jan-15	27-Mar-15								
Curtain Grouting Equipment												
CON.GN.GroutEq-01	Supply Curtain Grouting Drilling Equipment - Scope of work, bids/eval and Place P.O.	3	05-Jan-15	07-Jan-15								
CON.GN.GroutEq-02	Supply Curtain Grouting Drilling Equipment - Fabr./Lead time	3	08-Jan-15	10-Jan-15								
CON.GN.GroutEq-03	Supply Curtain Grouting Drilling Equipment - Delivery on site	3	11-Jan-15	13-Jan-15								
High Bay & Exterior Lighting Fixtures c/w related material for Power supply & Distribution												
CON.GN.ExLight-01	High Bay & Exterior Lighting c/w Associated Materials for Power Supply & Distribution - Scope, Bids/Eval and Place PO	113	13-Sep-14 A	15-Mar-15								
CON.GN.ExLight-02	High Bay & Exterior Lighting c/w Associated Materials for Power Supply & Distribution - Fabr./Lead time	70	16-Mar-15	24-May-15								
Supply Bollards (Painted)												
CON.GN.Bollard-01	Supply Bollards (Painted) - Scope of work, bids/eval and Place P.O.	49	13-Sep-14 A	30-Jan-15								
CON.GN.Bollard-02	Supply Bollards (Painted) - Fabr./Lead time	28	31-Jan-15	27-Feb-15								
CON.GN.Bollard-03	Supply Bollards (Painted) - Delivery on site	18	28-Feb-15	17-Mar-15								
Supply Pre-Cast Fire Walls												
CON.GN.FireWal-01	Supply Contract for Precast Blast walls for GSU Transformers - Scope of work, bids/eval and Place P.O.	85	05-Jan-15	30-Mar-15								
Supply Roofing Material c/w roof drains, flashings, sleeves, sealant etc.												
CON.GN.Roofing-01	Supply Roofing including all fixtures (roof drains, vents, flashing, sleeves, sealants, etc.) - Contract Signature	133	13-Sep-14 A	04-Apr-15								
Supply Hydraulic Piezometers and related Material												
CON.GN.HPiezom-01	Supply Hydraulic Piezometers and Associated Materials - Scope of work, bids/eval and Place P.O.	7	10-Nov-14 A	30-Jan-15								
CON.GN.HPiezom-02	Supply Hydraulic Piezometers and Associated Materials - Fabr./Lead time	14	31-Jan-15	13-Feb-15								
CON.GN.HPiezom-03	Supply Hydraulic Piezometers and Associated Materials - Delivery on site	14	14-Feb-15	27-Feb-15								
Supply Siding Including all fixtures (Windows, Doors, Louvers, etc.)												
CON.GN.SidingF-01	Supply Siding wall fixtures (Windows, Mandoors, Louvers, flashing, sleeves, sealants, etc.) - Contract Signature	70	09-Nov-14 A	08-Mar-15								
CON.GN.SidingF-02	Supply Siding wall fixtures (Windows, Mandoors, Louvers, flashing, sleeves, sealants, etc.) - Fabr./Lead time	140	09-Mar-15	26-Jul-15								
Temporary Lateral Supports												
CON.GN.Lateral-02	Supply temporary lateral support and bracing for piers of the spillway - Fabr./Lead time (to be deleted)	83	14-Nov-14 A	28-Mar-15								
Curtain Grouting												
MOB.GT.GroutPr-01	Contract signed (TBD)	0	05-Jan-15	03-Mar-15								

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
 Page 1 of 7

PROJECT: LOWER CHURCHILL PROJECT

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015						
					Dec	Jan	Feb	Mar	Apr	May			
MOB.GT.GroutPr-02	Grouting specialist appointment	0	05-Jan-15										◆ Grouting specialist appointment, 05-Jan-15
MOB.GT.GroutPr-03	Specialist CV submission and approval by Nalcor	21	07-Jan-15	27-Jan-15									■ Specialist CV submission and approval by Nalcor
MOB.GT.GroutPr-07	Equipment mobilization	23	07-Jan-15	29-Jan-15									■ Equipment mobilization
MOB.GT.GroutPr-04	Field test method statement with the grouting specialists	3	09-Jan-15	11-Jan-15									■ Field test method statement with the grouting specialists
MOB.GT.GroutPr-05	Submission of field test investigation method statement by Nalcor	0		11-Jan-15									◆ Submission of field test investigation method statement by
MOB.GT.GroutPr-06	Approval of field tests investigation method statement by Nalcor	21	12-Jan-15	01-Feb-15									■ Approval of field tests investigation method statement by Nalcor
MOB.GT.GroutPr-10	Submission of field test and mix design by Nalcor	0		30-Jan-15									◆ Submission of field test and mix design by Nalcor
MOB.GT.GroutPr-11	Approval of field tests and mix design by Nalcor	21	30-Jan-15	20-Feb-15									■ Approval of field tests and mix design by Nalcor
MOB.GT.GroutPr-08	Start field test	5	02-Feb-15	06-Feb-15									■ Start field test
MOB.GT.GroutPr-09	Compliance test result (28 days)	14	07-Feb-15	20-Feb-15									■ Compliance test result (28 days)
MOB.GT.GroutPr-12	Preparation of method statement for grouting works	3	07-Feb-15	09-Feb-15									■ Preparation of method statement for grouting works
MOB.GT.GroutPr-13	Submission of the method statement by Nalcor	0		09-Feb-15									◆ Submission of the method statement by Nalcor
MOB.GT.GroutPr-14	Approval of method statement by Nalcor	21	10-Feb-15	02-Mar-15									■ Approval of method statement by Nalcor
MOB.GT.GroutPr-15	Start with permanent grouting works	0	03-Mar-15										◆ Start with permanent grouting works
Spillway		300	06-Sep-14 A	16-Apr-15									
Spillway		300	06-Sep-14 A	16-Apr-15									
CON.GN.EmbePar-51	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time SW Upstream bridge U/ S	300	06-Sep-14 A	16-Apr-15									■ Supply Struct
CON.GN.EmbePar-61	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time SW downstream bridge D/S	300	06-Sep-14 A	16-Apr-15									■ Supply Struct
CON.GN.EmbePar-171	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time SW Lateral Supports	300	06-Sep-14 A	16-Apr-15									■ Supply Struct
SSB Steel Deliveries		80	08-Jan-15	28-Mar-15									
Powerhouse		80	08-Jan-15	28-Mar-15									
CON.GN.EmbePar-71	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time SSB	80	08-Jan-15	28-Mar-15									■ Supply Struct. Steel &
Dams		300	06-Sep-14 A	23-Apr-15									
Dams		300	06-Sep-14 A	23-Apr-15									
CON.GN.EmbePar-131	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time Electrical Bldg Platform on the central transition dam	300	06-Sep-14 A	23-Apr-15									■ Supply Str
CON.GN.EmbePar-141	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time CTD (Misc)	300	06-Sep-14 A	23-Apr-15									■ Supply Str
CON.GN.EmbePar-151	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time NTD (Misc)	300	06-Sep-14 A	23-Apr-15									■ Supply Str
CON.GN.EmbePar-161	Supply Struct. Steel & Major Misc. Steel - Fabr./Lead time STD (Misc)	300	06-Sep-14 A	23-Apr-15									■ Supply Str
MOBILIZATION & TEMPORARY SITE INSTALLATION		265	07-Jul-14 A	12-Apr-15									
Draft Tube Formworks (CEI)		111	26-Nov-14 A	30-Mar-15									
MOB.FW.DraftTu-06	Draft Tube Formworks UNIT 1 - Fabrication for 3rd & 4th lifts	10	26-Nov-14 A	14-Jan-15									■ Draft Tube Formworks UNIT 1 - Fabrication for 3rd & 4th
MOB.FW.DraftTu-09	Draft Tube Formworks UNIT 2 - Fabrication - 1st lift out of 4	59	05-Jan-15	04-Mar-15									■ Draft Tube Formworks UNIT 2 - Fabrication - 1st lift out of 4
MOB.FW.DraftTu-08	Draft Tube Formworks UNIT 1 - Delivery of 3rd & 4th lifts for Bay 1 last pieces	5	15-Jan-15	19-Jan-15									■ Draft Tube Formworks UNIT 1 - Delivery of 3rd & 4th
MOB.FW.DraftTu-15	Draft Tube Formworks UNIT 3 - Fabrication - 1st lift out of 4	22	29-Jan-15	19-Feb-15									■ Draft Tube Formworks UNIT 3 - Fabrication - 1st lift out of 4
MOB.FW.DraftTu-21	Draft Tube Formworks UNIT 4 - Fabrication - 1st lift out of 4	22	07-Feb-15	28-Feb-15									■ Draft Tube Formworks UNIT 4 - Fabrication - 1st lift out of 4
MOB.FW.DraftTu-16	Draft Tube Formworks UNIT 3 - Delivery of last pieces of lift 1 - Bay 1	7	20-Feb-15	26-Feb-15									■ Draft Tube Formworks UNIT 3 - Delivery of last pieces of lift 1 - Bay 1
MOB.FW.DraftTu-17	Draft Tube Formworks UNIT 3 - Fabrication for 2nd lift	20	20-Feb-15	11-Mar-15									■ Draft Tube Formworks UNIT 3 - Fabrication for 2nd lift
MOB.FW.DraftTu-22	Draft Tube Formworks UNIT 4 - Delivery of last pieces of lift 1 - Bay 1	7	01-Mar-15	07-Mar-15									■ Draft Tube Formworks UNIT 4 - Delivery of last pieces of lift 1 - Bay 1
MOB.FW.DraftTu-23	Draft Tube Formworks UNIT 4 - Fabrication for 2nd lift	20	01-Mar-15	20-Mar-15									■ Draft Tube Formworks UNIT 4 - Fabrication for 2nd lift
MOB.FW.DraftTu-10	Draft Tube Formworks UNIT 2 - Delivery of last pieces of lift 1 - Bay 1	7	05-Mar-15	11-Mar-15									■ Draft Tube Formworks UNIT 2 - Delivery of last pieces of lift 1 - Bay 1
MOB.FW.DraftTu-11	Draft Tube Formworks UNIT 2 - Fabrication for 2nd lift	6	05-Mar-15	10-Mar-15									■ Draft Tube Formworks UNIT 2 - Fabrication for 2nd lift
MOB.FW.DraftTu-13	Draft Tube Formworks UNIT 2 - Fabrication for 3rd & 4th lifts	10	11-Mar-15	20-Mar-15									■ Draft Tube Formworks UNIT 2 - Fabrication for 3rd & 4th lifts
MOB.FW.DraftTu-12	Draft Tube Formworks UNIT 2 - Delivery of 2nd lift for Bay 1	5	11-Mar-15	15-Mar-15									■ Draft Tube Formworks UNIT 2 - Delivery of 2nd lift for Bay 1
MOB.FW.DraftTu-19	Draft Tube Formworks UNIT 3 - Fabrication for 3rd & 4th lifts	10	12-Mar-15	21-Mar-15									■ Draft Tube Formworks UNIT 3 - Fabrication for 3rd & 4th lifts
MOB.FW.DraftTu-18	Draft Tube Formworks UNIT 3 - Delivery of 2nd lift for Bay 1	5	12-Mar-15	16-Mar-15									■ Draft Tube Formworks UNIT 3 - Delivery of 2nd lift for Bay 1
MOB.FW.DraftTu-14	Draft Tube Formworks UNIT 2 - Delivery of 3rd & 4th lifts for Bay 1 last pieces	5	21-Mar-15	25-Mar-15									■ Draft Tube Formworks UNIT 2 - Delivery of 3rd & 4th lifts for Bay 1 last pieces
MOB.FW.DraftTu-25	Draft Tube Formworks UNIT 4 - Fabrication for 3rd & 4th lifts	10	21-Mar-15	30-Mar-15									■ Draft Tube Formworks UNIT 4 - Fabrication for 3rd & 4th lifts
MOB.FW.DraftTu-24	Draft Tube Formworks UNIT 4 - Delivery of 2nd lift for Bay 1	5	21-Mar-15	25-Mar-15									■ Draft Tube Formworks UNIT 4 - Delivery of 2nd lift for Bay 1
MOB.FW.DraftTu-20	Draft Tube Formworks UNIT 3 - Delivery of 3rd & 4th lifts for Bay 1 last pieces	5	22-Mar-15	26-Mar-15									■ Draft Tube Formworks UNIT 3 - Delivery of 3rd & 4th lifts for Bay 1 last pieces
Fixed Lighting Posts		14	05-Jan-15	18-Jan-15									

■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone
■ Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
 Page 2 of 7

PROJECT: LOWER CHURCHILL PROJECT

Activity ID	Activity Name	Original Duration	Start	Finish	2014						2015													
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec							
MOB.GN.FixedLi-02	Fixed Lighting Posts - Installation	14	05-Jan-15	18-Jan-15																				
Supply of Powerhouse ICS Overhead Cranes		39	23-Nov-14 A	17-Jan-15																				
MOB.IC.Supplyo-07	ICS Overhead Cranes - Cranes Erection in Bay 1 and 2 (electrical and mechanical incl)	39	23-Nov-14 A	17-Jan-15																				
MOB.IC.Supplyo-08	ICS Overhead Cranes - Delivery for Bay 3 & 4	4	05-Jan-15	08-Jan-15																				
Fencing Supply only		28	05-Jan-15	01-Feb-15																				
MOB.GN.Fencing-02	Fencing - Procure Fencing Material	7	05-Jan-15	11-Jan-15																				
MOB.GN.Fencing-03	Fencing - Install Fence	21	11-Jan-15	01-Feb-15																				
MOB.GN.Fencing-04	Fencing - Work Completed	0		01-Feb-15																				
Integrated Cover System (ICS) - supply and install		98	05-Jan-15	12-Apr-15																				
MOB.IC.Integra-15	Integrated Cover System - Erect ICS Structural Steel for Bay 3	50	05-Jan-15	23-Feb-15																				
MOB.IC.Integra-52	Integrated Cover System - Erect ICS insulating diaphragm between the unit 2 and 3	16	05-Jan-15	20-Jan-15																				
MOB.IC.Integra-09	Integrated Cover System - Delivery for Bay 4 & NSB	6	05-Jan-15	10-Jan-15																				
MOB.IC.Integra-16	Integrated Cover System - Erect ICS Structural Steel for Bay 4 & NSB	30	04-Feb-15	05-Mar-15																				
MOB.IC.Integra-22	Integrated Cover System - Erect ICS Roofing & Walls for Bay 3	15	24-Feb-15	10-Mar-15																				
MOB.IC.Integra-23	Integrated Cover System - Erect ICS Roofing & Walls for Bay 4 & NSB	38	06-Mar-15	12-Apr-15																				
Temporary Buildings Installation by ASTALDI (Warehouse, Workshop etc.)		206	07-Jul-14 A	13-Feb-15																				
MOB.GN.TempBld-17	Carpenter Shop - Erection	82	07-Jul-14 A	20-Jan-15																				
MOB.GN.TempBld-04	Heated Warehouse - Erection	40	05-Jan-15	13-Feb-15																				
SPILLWAY		124	13-Nov-14 A	03-Apr-15																				
Astaldi - Execution Work		124	13-Nov-14 A	03-Apr-15																				
SPW.P1.SWP1C03-01	SPILLWAY: LIFT SWP1C-03 - Construct	10	13-Nov-14 A	18-Jan-15																				
SPW.P3.SWP3C02-03	SPILLWAY: LIFT SWP3C-02 - Construct	13	19-Nov-14 A	23-Jan-15																				
SPW.P4.SWP4C03-03	SPILLWAY: LIFT SWP4C-03 - Construct	13	19-Nov-14 A	28-Jan-15																				
SPW.P2.SWP2A03-03	SPILLWAY: LIFT SWP2A-03 - Construct	4	05-Jan-15	15-Jan-15																				
SPW.P3.SWP3A03-03	SPILLWAY: LIFT SWP3A-03 - Construct	8	05-Jan-15	29-Jan-15																				
SPW.PN.SWPNA04-03	SPILLWAY: LIFT SWPNA-04 - Construct	12	05-Jan-15	02-Feb-15																				
SPW.GN.General-21	SPILLWAY: Diesel fuel tank fondation	7	05-Jan-15	22-Jan-15																				
SPW.PS.SWP3A03-01	SPILLWAY: LIFT SWPSA-03 - Construct	6	11-Jan-15	25-Jan-15																				
SPW.PS.SWP3C04-01	SPILLWAY: LIFT SWPSC-04 - Construct	7	15-Jan-15	05-Feb-15																				
SPW.PN.SWPNB02-03	SPILLWAY: LIFT SWPNB-02 - Construct	6	17-Jan-15	03-Feb-15																				
SPW.P1.SWP1A04-01	SPILLWAY: LIFT SWP1A-04 - Construct	6	18-Jan-15	03-Feb-15																				
SPW.P1.SWP1B01-01	SPILLWAY: LIFT SWP1B-01 - Construct	7	19-Jan-15	07-Feb-15																				
SPW.P4.SWP4A04-03	SPILLWAY: LIFT SWP4A-04 - Construct	5	22-Jan-15	03-Feb-15																				
SPW.PS.SWP3A04-01	SPILLWAY: LIFT SWPSA-04 - Construct	7	26-Jan-15	11-Feb-15																				
SPW.P3.SWP3C03-03	SPILLWAY: LIFT SWP3C-03 - Construct	6	29-Jan-15	12-Feb-15																				
SPW.P4.SWP4B01-03	SPILLWAY: LIFT SWP4B-01 - Construct	6	29-Jan-15	15-Feb-15																				
SPW.PN.SWPNC04-03	SPILLWAY: LIFT SWPNC-04 - Construct	17	29-Jan-15	18-Feb-15																				
SPW.P2.SWP2C02-01	SPILLWAY: LIFT SWP2C-02 - Construct	7	30-Jan-15	15-Feb-15																				
SPW.P2.SWP2A04-01	SPILLWAY: LIFT SWP2A-04 - Construct	5	31-Jan-15	11-Feb-15																				
SPW.P3.SWP3A04-03	SPILLWAY: LIFT SWP3A-04 - Construct	5	05-Feb-15	18-Feb-15																				
SPW.PN.SWPNA05-03	SPILLWAY: LIFT SWPNA-05 - Construct	5	05-Feb-15	19-Feb-15																				
SPW.P4.SWP4A05-03	SPILLWAY: LIFT SWP4A-05 - Construct	5	06-Feb-15	19-Feb-15																				
SPW.CS.General-07	Base slab SWB2 - Center Section - Works completion	0		07-Feb-15																				
SPW.PN.SWPNB03-03	SPILLWAY: LIFT SWPNB-03 - Construct	4	07-Feb-15	18-Feb-15																				
SPW.GN.General-15	1ST CONCRETE: WITH MIX DESIGN AT 90 DAYS (OR LESS IF POSSIBLE) AND 2 BATCH PLANTS OPERATIONAL	0		07-Feb-15																				
SPW.09.General-17	I22 - SPILLWAY SOUTH PIER - PRIMARY ANCHORS DELIVERED TO SITE Phase 2	0	07-Feb-15*																					
SPW.P4.SWP4C04-03	SPILLWAY: LIFT SWP4C-04 - Construct	7	08-Feb-15	25-Feb-15																				
SPW.PS.SWP3C05-01	SPILLWAY: LIFT SWPSC-05 - Construct	6	09-Feb-15	21-Feb-15																				
SPW.P1.SWP1A05-01	SPILLWAY: LIFT SWP1A-05 - Construct	5	11-Feb-15	22-Feb-15																				
SPW.P3.SWP3B01-03	SPILLWAY: LIFT SWP3B-01 - Construct	6	13-Feb-15	25-Feb-15																				
SPW.PS.SWP3A05-01	SPILLWAY: LIFT SWPSA-05 - Construct	6	14-Feb-15	25-Feb-15																				

Actual Level of Effort
 Critical Remaining Work
 Actual Work
 Milestone
 Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
 Page 3 of 7

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015				
					Dec	Jan	Feb	Mar	Apr	May	
SPW.P2.SWP2A05-01	SPILLWAY: LIFT SWP2A-05 - Construct	6	14-Feb-15	26-Feb-15							
SPW.PS.SWPSB02-01	SPILLWAY: LIFT SWPSB-02 - Construct	6	15-Feb-15	27-Feb-15							
SPW.P4.SWP4B02-03	SPILLWAY: LIFT SWP4B-02 - Construct	6	16-Feb-15	27-Feb-15							
SPW.P1.SWP1C04-01	SPILLWAY: LIFT SWP1C-04 - Construct	6	19-Feb-15	02-Mar-15							
SPW.P3.SWP3A05-03	SPILLWAY: LIFT SWP3A-05 - Construct	5	20-Feb-15	02-Mar-15							
SPW.P4.SWP4A06-03	SPILLWAY: LIFT SWP4A-06 - Construct	6	21-Feb-15	03-Mar-15							
SPW.PN.SWPNA06-03	SPILLWAY: LIFT SWPNA-06 - Construct	7	21-Feb-15	05-Mar-15							
SPW.P1.SWP1B02-01	SPILLWAY: LIFT SWP1B-02 - Construct	6	24-Feb-15	06-Mar-15							
SPW.P1.SWP1A06-01	SPILLWAY: LIFT SWP1A-06 - Construct	7	24-Feb-15	08-Mar-15							
SPW.PN.SWPNC05-03	SPILLWAY: LIFT SWPNC-05 - Construct	5	25-Feb-15	04-Mar-15							
SPW.P2.SWP2C03-01	SPILLWAY: LIFT SWP2C-03 - Construct	6	26-Feb-15	06-Mar-15							
SPW.PS.SWPSC06-01	SPILLWAY: LIFT SWPSC-06 - Construct	5	28-Feb-15	07-Mar-15							
SPW.09.General-18	I22 - SPILLWAY PIER 1 - PRIMARY ANCHORS DELIVERED TO SITE Phase 2	0	28-Feb-15*								
SPW.PS.SWPSA06-01	SPILLWAY: LIFT SWPSA-06 - Construct	8	01-Mar-15	11-Mar-15							
SPW.P2.SWP2A06-01	SPILLWAY: LIFT SWP2A-06 - Construct	5	01-Mar-15	08-Mar-15							
SPW.P4.SWP4C05-03	SPILLWAY: LIFT SWP4C-05 - Construct	6	01-Mar-15	08-Mar-15							
SPW.P4.SWP4B03-03	SPILLWAY: LIFT SWP4B-03 - Construct	6	03-Mar-15	11-Mar-15							
SPW.PS.SWPSB03-01	SPILLWAY: LIFT SWPSB-03 - Construct	6	04-Mar-15	12-Mar-15							
SPW.P4.SWP4A07-03	SPILLWAY: LIFT SWP4A-07 - Construct	6	05-Mar-15	13-Mar-15							
SPW.P1.SWP1C05-01	SPILLWAY: LIFT SWP1C-05 - Construct	6	05-Mar-15	14-Mar-15							
SPW.P3.SWP3A06-03	SPILLWAY: LIFT SWP3A-06 - Construct	7	05-Mar-15	16-Mar-15							
SPW.PN.SWPNA07-03	SPILLWAY: LIFT SWPNA-07 - Construct	6	06-Mar-15	14-Mar-15							
SPW.PN.SWPNC06-03	SPILLWAY: LIFT SWPNC-06 - Construct	6	06-Mar-15	14-Mar-15							
SPW.P2.SWP2A07-01	SPILLWAY: LIFT SWP2A-07 - Construct	6	08-Mar-15	17-Mar-15							
SPW.P1.SWP1B03-01	SPILLWAY: LIFT SWP1B-03 - Construct	7	09-Mar-15	19-Mar-15							
SPW.P2.SWP2B01-01	SPILLWAY: LIFT SWP2B-01 - Construct	6	10-Mar-15	18-Mar-15							
SPW.09.General-19	I22 - SPILLWAY PIER 2 - PRIMARY ANCHORS DELIVERED TO SITE Phase 2	0	12-Mar-15*								
SPW.P1.SWP1A07-01	SPILLWAY: LIFT SWP1A-07 - Construct	6	12-Mar-15	21-Mar-15							
SPW.PS.SWPSA07-01	SPILLWAY: LIFT SWPSA-07 - Construct	7	13-Mar-15	21-Mar-15							
SPW.P4.SWP4A08-03	SPILLWAY: LIFT SWP4A-08 - Construct	6	14-Mar-15	22-Mar-15							
SPW.P1.General-04	SPILLWAY: Install Survey Monuments on top of Permanent Bridges (NOTEBOOK)	14	14-Mar-15	27-Mar-15							
SPW.PN.SWPNB04-03	SPILLWAY: LIFT SWPNB-04 - Construct	6	14-Mar-15	22-Mar-15							
SPW.PN.SWPNA08-03	SPILLWAY: LIFT SWPNA-08 - Construct	6	14-Mar-15	23-Mar-15							
SPW.P4.SWP4B04-03	SPILLWAY: LIFT SWP4B-04 - Construct	6	16-Mar-15	24-Mar-15							
SPW.PS.SWPSB04-01	SPILLWAY: LIFT SWPSB-04 - Construct	6	17-Mar-15	26-Mar-15							
SPW.GN.General-22	SPILLWAY : Bollards installation for all Spillway area (NOTEBOOK)	7	17-Mar-15	26-Mar-15							
SPW.P2.SWP2A08-01	SPILLWAY: LIFT SWP2A-08 - Construct	6	19-Mar-15	27-Mar-15							
SPW.P3.SWP3A07-03	SPILLWAY: LIFT SWP3A-07 - Construct	6	19-Mar-15	27-Mar-15							
SPW.P4.SWP4A09-03	SPILLWAY: LIFT SWP4A-09 - Construct	6	22-Mar-15	31-Mar-15							
SPW.P2.SWP2B02-01	SPILLWAY: LIFT SWP2B-02 - Construct	6	23-Mar-15	31-Mar-15							
SPW.PN.SWPNA09-03	SPILLWAY: LIFT SWPNA-09 - Construct	6	23-Mar-15	01-Apr-15							
SPW.P4.SWP4C06-03	SPILLWAY: LIFT SWP4C-06 - Construct	6	25-Mar-15	01-Apr-15							
SPW.P1.SWP1A08-01	SPILLWAY: LIFT SWP1A-08 - Construct	6	26-Mar-15	02-Apr-15							
SPW.PS.SWPSA08-01	SPILLWAY: LIFT SWPSA-08 - Construct	7	26-Mar-15	03-Apr-15							
SPW.PN.SWPNB05-03	SPILLWAY: LIFT SWPNB-05 - Construct	6	27-Mar-15	03-Apr-15							
NORTH TRANSITION DAM		52	08-Feb-15	01-Apr-15							
Astaldi - Execution Work		52	08-Feb-15	01-Apr-15							
NTD.GN.General-02	NORTH TRANSITION DAM BASE SLAB: Overbreak Concrete	10	08-Feb-15	18-Feb-15							
NTD.GN.NTB1A00-03	NORTH TRANSITION DAM: LIFT NTB1A-00 - Construct	9	18-Feb-15	04-Mar-15							
NTD.GN.NTU1A01-03	NORTH TRANSITION DAM: LIFT NTU1A-01 - Construct	15	06-Mar-15	25-Mar-15							
NTD.GN.General-07	NORTH TRANSITION DAM: Erect falsework	7	25-Mar-15	01-Apr-15							

Actual Level of Effort Critical Remaining Work
 Actual Work Milestone
 Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
Page 4 of 7

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015						
					Dec	Jan	Feb	Mar	Apr	May			
CENTRE TRANSITION DAM					208	23-Aug-14 A	13-Apr-15						
Astaldi - Execution Work					208	23-Aug-14 A	13-Apr-15						
CTD.GN.General-02	CENTER TRANSITION DAM: Overbreak Concrete	49	23-Aug-14 A	13-Apr-15									
CTD.GN.General-08	Powerhouse Substructure, SSB - JSA, ITP & Method statement Review by Client	15	05-Jan-15	19-Jan-15									
CTD.GN.General-07	Powerhouse Substructure, SSB - PREPARE JSA, ITP & Method statement	28	05-Jan-15	01-Feb-15									
CTD.M2.General-02	CENTER TRANSITION DAM: Monolith 2 - Erect falsework	16	17-Feb-15	04-Mar-15									
CTD.M1.CTU1A01-03	CENTER TRANSITION DAM: LIFT CTU1A-01 - Construct (Spillway Pier SWPSA-06 must be poured)	8	01-Mar-15	11-Mar-15									
CTD.M4.General-02	CENTER TRANSITION DAM: Monolith 4 - Erect falsework	6	08-Mar-15	13-Mar-15									
CTD.M2.CTU2A04-03	CENTER TRANSITION DAM: LIFT CTU2A-04 - Construct	9	11-Mar-15	22-Mar-15									
CTD.M1.CTU1A02-03	CENTER TRANSITION DAM: LIFT CTU1A-02 - Construct	11	20-Mar-15	02-Apr-15									
CTD.M4.CTU4A05-03	CENTER TRANSITION DAM: LIFT CTU4A-05 - Construct	6	22-Mar-15	30-Mar-15									
SOUTH TRANSITION DAM					38	23-Sep-14 A	10-Apr-15						
Astaldi - Execution Work					38	23-Sep-14 A	10-Apr-15						
STD.M1.STU1A01-03	SOUTH TRANSITION DAM: LIFT STU1A-01 - Construct	38	23-Sep-14 A	10-Apr-15									
STD.GN.General-02	SOUTH TRANSITION DAM: Overbreak concrete	9	19-Oct-14 A	09-Apr-15									
SEPARATION WALL					28	20-Nov-14 A	10-Apr-15						
Astaldi - Execution Work					28	20-Nov-14 A	10-Apr-15						
SEW.M2.WLW2A01-03	SEPARATION WALL: LIFT WLW2A-01 - Construct	4	20-Nov-14 A	10-Apr-15									
SEW.M6.General-01	Separation Wall - Monolith 6 - Works completion	0		09-Jan-15									
INTAKE					202	01-Sep-14 A	05-Apr-15						
Astaldi - Execution Work					202	01-Sep-14 A	05-Apr-15						
INT.3B.I3BSA00-03	INTAKE - UNIT 3: LIFT I3BSA-00 - Construct	42	01-Sep-14 A	23-Jan-15									
INT.1B.General-02	INTAKE - UNIT 1: Foundations preparation	10	12-Oct-14 A	20-Jan-15									
INT.2B.General-01	INTAKE - UNIT 2: Foundations preparation	10	05-Jan-15	14-Jan-15									
INT.1B.I1BNB00-03	INTAKE - UNIT 1: LIFT I1BNB-00 - Construct	15	21-Jan-15	04-Feb-15									
INT.2B.I2BNB00-03	INTAKE - UNIT 2: LIFT I2BNB-00 - Construct	15	26-Jan-15	10-Feb-15									
INT.1B.I1BNA00-03	INTAKE - UNIT 1: LIFT I1BNA-00 - Construct	15	04-Feb-15	19-Feb-15									
INT.1B.I1P2B01-03	INTAKE - UNIT 1: LIFT I1P2B-01 - Construct	6	11-Feb-15	17-Feb-15									
INT.1B.I1PNB01-03	INTAKE - UNIT 1: LIFT I1PNB-01 - Construct	6	11-Feb-15	17-Feb-15									
INT.2B.I2P2B01-03	INTAKE - UNIT 2: LIFT I2P2B-01 - Construct	6	12-Feb-15	18-Feb-15									
INT.2B.I2PNB01-03	INTAKE - UNIT 2: LIFT I2PNB-01 - Construct	6	13-Feb-15	19-Feb-15									
INT.2B.I2BNA00-03	INTAKE - UNIT 2: LIFT I2BNA-00 - Construct	15	14-Feb-15	01-Mar-15									
INT.2B.I2PNB02-03	INTAKE - UNIT 2: LIFT I2PNB-02 - Construct	6	19-Feb-15	25-Feb-15									
INT.2B.I2BSB00-03	INTAKE - UNIT 2: LIFT I2BSB-00 - Construct	15	19-Feb-15	06-Mar-15									
INT.1B.I1BNA02-15	INTAKE - UNIT 1: LIFT I1BNA-02 Install falsework	12	19-Feb-15	03-Mar-15									
INT.1B.I1P2B02-03	INTAKE - UNIT 1: LIFT I1P2B-02 - Construct	6	20-Feb-15	26-Feb-15									
INT.2B.I2P2B02-03	INTAKE - UNIT 2: LIFT I2P2B-02 - Construct	6	21-Feb-15	27-Feb-15									
INT.1B.I1BNB01-03	INTAKE - UNIT 1: LIFT I1BNB-01 - Construct	12	21-Feb-15	05-Mar-15									
INT.1B.I1BNA01-03	INTAKE - UNIT 1: LIFT I1BNA-01 - Construct	6	22-Feb-15	28-Feb-15									
INT.1B.I1PNB02-03	INTAKE - UNIT 1: LIFT I1PNB-02 - Construct	6	22-Feb-15	28-Feb-15									
INT.2B.I2PNB03-03	INTAKE - UNIT 2: LIFT I2PNB-03 - Construct	7	28-Feb-15	06-Mar-15									
INT.1B.I1PNB03-03	INTAKE - UNIT 1: LIFT I1PNB-03 - Construct	7	28-Feb-15	07-Mar-15									
INT.1B.I1P2B03-03	INTAKE - UNIT 1: LIFT I1P2B-03 - Construct	6	28-Feb-15	06-Mar-15									
INT.2B.I2P2B03-03	INTAKE - UNIT 2: LIFT I2P2B-03 - Construct	6	02-Mar-15	08-Mar-15									
INT.2B.I2BNA02-35	INTAKE - UNIT 2: LIFT I2BNA-02 Install falsework	12	03-Mar-15	15-Mar-15									
INT.1B.I1BNA02-03	INTAKE - UNIT 1: LIFT I1BNA-02 - Construct	9	05-Mar-15	14-Mar-15									
INT.3B.I3BSA02-95	INTAKE - UNIT 3: LIFT I3BSA-02 Install falsework	14	06-Mar-15	19-Mar-15									
INT.2B.I2P1B01-03	INTAKE - UNIT 2: LIFT I2P1B-01 - Construct	6	06-Mar-15	12-Mar-15									
INT.2B.I2PSB01-03	INTAKE - UNIT 2: LIFT I2PSB-01 - Construct	6	06-Mar-15	12-Mar-15									
INT.2B.I2PNB04-03	INTAKE - UNIT 2: LIFT I2PNB-04 - Construct	7	08-Mar-15	15-Mar-15									

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
 Page 5 of 7

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015				
					Dec	Jan	Feb	Mar	Apr	May	
INT.1B.I1P2B04-03	INTAKE - UNIT 1: LIFT I1P2B-04 - Construct	6	08-Mar-15	14-Mar-15							INTAKE - UNIT 1: LIFT I1P2
INT.1B.I1PNB04-03	INTAKE - UNIT 1: LIFT I1PNB-04 - Construct	7	09-Mar-15	16-Mar-15							INTAKE - UNIT 1: LIFT I1PN
INT.2B.I2BSA00-03	INTAKE - UNIT 2: LIFT I2BSA-00 - Construct	15	09-Mar-15	24-Mar-15							INTAKE - UNIT 2: LIFT
INT.2B.I2P2B04-03	INTAKE - UNIT 2: LIFT I2P2B-04 - Construct	6	11-Mar-15	17-Mar-15							INTAKE - UNIT 2: LIFT I2P
INT.2B.I2P1B02-03	INTAKE - UNIT 2: LIFT I2P1B-02 - Construct	6	12-Mar-15	18-Mar-15							INTAKE - UNIT 2: LIFT I2P
INT.2B.I2PSB02-03	INTAKE - UNIT 2: LIFT I2PSB-02 - Construct	6	12-Mar-15	18-Mar-15							INTAKE - UNIT 2: LIFT I2P
INT.1B.I1BNA03-03	INTAKE - UNIT 1: LIFT I1BNA-03 - Construct	8	14-Mar-15	22-Mar-15							INTAKE - UNIT 1: LIFT I1
INT.1B.I1P2B05-03	INTAKE - UNIT 1: LIFT I1P2B-05 - Construct	6	16-Mar-15	22-Mar-15							INTAKE - UNIT 1: LIFT I1
INT.2B.I2PNB05-03	INTAKE - UNIT 2: LIFT I2PNB-05 - Construct	7	17-Mar-15	24-Mar-15							INTAKE - UNIT 2: LIFT I
INT.1B.I1PNB05-03	INTAKE - UNIT 1: LIFT I1PNB-05 - Construct	7	18-Mar-15	24-Mar-15							INTAKE - UNIT 1: LIFT
INT.2B.I2PSB03-03	INTAKE - UNIT 2: LIFT I2PSB-03 - Construct	7	18-Mar-15	25-Mar-15							INTAKE - UNIT 2: LIFT
INT.2B.I2P1B03-03	INTAKE - UNIT 2: LIFT I2P1B-03 - Construct	6	18-Mar-15	24-Mar-15							INTAKE - UNIT 2: LIFT
INT.2B.I2P2B05-03	INTAKE - UNIT 2: LIFT I2P2B-05 - Construct	6	19-Mar-15	25-Mar-15							INTAKE - UNIT 2: LIFT
INT.1B.I1P2A01-03	INTAKE - UNIT 1: LIFT I1P2A-01 - Construct	6	22-Mar-15	28-Mar-15							INTAKE - UNIT 1: LIFT
INT.1B.I1PNA01-03	INTAKE - UNIT 1: LIFT I1PNA-01 - Construct	6	22-Mar-15	28-Mar-15							INTAKE - UNIT 1: LIFT
INT.1B.I1P2B06-03	INTAKE - UNIT 1: LIFT I1P2B-06 - Construct	6	22-Mar-15	28-Mar-15							INTAKE - UNIT 1: LIFT
INT.2B.I2BSA01-03	INTAKE - UNIT 2: LIFT I2BSA-01 - Construct	6	24-Mar-15	30-Mar-15							INTAKE - UNIT 2: LIF
INT.2B.I2BSB01-03	INTAKE - UNIT 2: LIFT I2BSB-01 - Construct	12	24-Mar-15	05-Apr-15							INTAKE - UNIT 2:
INT.2B.I2P1B04-03	INTAKE - UNIT 2: LIFT I2P1B-04 - Construct	6	24-Mar-15	30-Mar-15							INTAKE - UNIT 2: LIF
INT.2B.I2BSA02-55	INTAKE - UNIT 2: LIFT I2BSA-02 Install falsework	12	24-Mar-15	05-Apr-15							INTAKE - UNIT 2:
INT.2B.I2PSB04-03	INTAKE - UNIT 2: LIFT I2PSB-04 - Construct	7	25-Mar-15	01-Apr-15							INTAKE - UNIT 2: LI
INT.2B.I2PNB06-03	INTAKE - UNIT 2: LIFT I2PNB-06 - Construct	6	26-Mar-15	01-Apr-15							INTAKE - UNIT 2: LI
INT.1B.I1PNB06-03	INTAKE - UNIT 1: LIFT I1PNB-06 - Construct	6	26-Mar-15	01-Apr-15							INTAKE - UNIT 1: LI
INT.2B.I2P2B06-03	INTAKE - UNIT 2: LIFT I2P2B-06 - Construct	6	27-Mar-15	02-Apr-15							INTAKE - UNIT 2: L
DRAFT TUBE		64	26-Jan-15	30-Mar-15							
Astaldi - Execution Work		64	26-Jan-15	30-Mar-15							
DRT.1U.D1BNA00-03	DRAFT TUBE - UNIT 1: LIFT D1BNA-00 - Construct	20	26-Jan-15	14-Feb-15							DRAFT TUBE - UNIT 1: LIFT D1BNA-00
DRT.2U.D2BNA00-03	DRAFT TUBE - UNIT 2: LIFT D2BNA-00 - Construct	15	27-Jan-15	11-Feb-15							DRAFT TUBE - UNIT 2: LIFT D2BNA-00
DRT.1D.D1BSB00-03	DRAFT TUBE - UNIT 1: LIFT D1BSB-00 - Construct	14	02-Feb-15	16-Feb-15							DRAFT TUBE - UNIT 1: LIFT D1BSB-00
DRT.2D.D2BSB00-03	DRAFT TUBE - UNIT 2: LIFT D2BSB-00 - Construct	16	11-Feb-15	27-Feb-15							DRAFT TUBE - UNIT 2: LIFT D2BS
DRT.2U.D2P1A01-03	DRAFT TUBE - UNIT 2: LIFT D2P1A-01 - Construct	6	11-Feb-15	17-Feb-15							DRAFT TUBE - UNIT 2: LIFT D2P1A-01
DRT.1D.D1BNB00-03	DRAFT TUBE - UNIT 1: LIFT D1BNB-00 - Construct	16	16-Feb-15	04-Mar-15							DRAFT TUBE - UNIT 1: LIFT D1
DRT.1U.D1BSA00-03	DRAFT TUBE - UNIT 1: LIFT D1BSA-00 - Construct	15	16-Feb-15	03-Mar-15							DRAFT TUBE - UNIT 1: LIFT D1B
DRT.2U.D2P1A03-03	DRAFT TUBE - UNIT 2: LIFT D2P1A-03 - Construct	6	17-Feb-15	23-Feb-15							DRAFT TUBE - UNIT 2: LIFT D2P1A-
DRT.1D.D1PSB01-03	DRAFT TUBE - UNIT 1: LIFT D1PSB-01 - Construct	7	27-Feb-15	05-Mar-15							DRAFT TUBE - UNIT 1: LIFT D1
DRT.2D.D2BNB00-03	DRAFT TUBE - UNIT 2: LIFT D2BNB-00 - Construct	16	27-Feb-15	15-Mar-15							DRAFT TUBE - UNIT 2: LIFT
DRT.2U.D2BSA00-03	DRAFT TUBE - UNIT 2: LIFT D2BSA-00 - Construct	15	27-Feb-15	14-Mar-15							DRAFT TUBE - UNIT 2: LIFT
DRT.1U.D1P1A01-03	DRAFT TUBE - UNIT 1: LIFT D1P1A-01 - Construct	6	03-Mar-15	09-Mar-15							DRAFT TUBE - UNIT 1: LIFT D
DRT.1D.D1PSB02-03	DRAFT TUBE - UNIT 1: LIFT D1PSB-02 - Construct	7	05-Mar-15	12-Mar-15							DRAFT TUBE - UNIT 1: LIFT
DRT.1D.D1P1B01-03	DRAFT TUBE - UNIT 1: LIFT D1P1B-01 - Construct	6	06-Mar-15	12-Mar-15							DRAFT TUBE - UNIT 1: LIFT
DRT.1D.D1PNB01-03	DRAFT TUBE - UNIT 1: LIFT D1PNB-01 - Construct	7	06-Mar-15	13-Mar-15							DRAFT TUBE - UNIT 1: LIFT
DRT.1U.D1P1A03-03	DRAFT TUBE - UNIT 1: LIFT D1P1A-03 - Construct	6	09-Mar-15	15-Mar-15							DRAFT TUBE - UNIT 1: LIF
DRT.1D.D1PSB03-03	DRAFT TUBE - UNIT 1: LIFT D1PSB-03 - Construct	7	12-Mar-15	19-Mar-15							DRAFT TUBE - UNIT 1: LI
DRT.1D.D1P1B02-03	DRAFT TUBE - UNIT 1: LIFT D1P1B-02 - Construct	6	14-Mar-15	20-Mar-15							DRAFT TUBE - UNIT 1: L
DRT.2D.D2P1B01-03	DRAFT TUBE - UNIT 2: LIFT D2P1B-01 - Construct	7	15-Mar-15	21-Mar-15							DRAFT TUBE - UNIT 2: L
DRT.2D.D2PNB01-03	DRAFT TUBE - UNIT 2: LIFT D2PNB-01 - Construct	7	15-Mar-15	21-Mar-15							DRAFT TUBE - UNIT 2: L
DRT.1D.D1PNB02-03	DRAFT TUBE - UNIT 1: LIFT D1PNB-02 - Construct	7	15-Mar-15	22-Mar-15							DRAFT TUBE - UNIT 1: L
DRT.2D.D2P1B02-03	DRAFT TUBE - UNIT 2: LIFT D2P1B-02 - Construct	7	21-Mar-15	28-Mar-15							DRAFT TUBE - UNIT
DRT.2D.D2PNB02-03	DRAFT TUBE - UNIT 2: LIFT D2PNB-02 - Construct	7	21-Mar-15	28-Mar-15							DRAFT TUBE - UNIT
DRT.1D.D1P1B03-03	DRAFT TUBE - UNIT 1: LIFT D1P1B-03 - Construct	6	23-Mar-15	29-Mar-15							DRAFT TUBE - UNIT
DRT.1D.D1PNB03-03	DRAFT TUBE - UNIT 1: LIFT D1PNB-03 - Construct	7	24-Mar-15	30-Mar-15							DRAFT TUBE - UNIT
DRT.2D.D2PSB01-03	DRAFT TUBE - UNIT 2: LIFT D2PSB-01 - Construct	7	24-Mar-15	30-Mar-15							DRAFT TUBE - UNIT

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work

EXECUTION DETAILED SCHEDULE
3 Months Lookahead - Data date - 28-Dec-14
 Page 6 of 7

PROJECT: LOWER CHURCHILL PROJECT

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015						
					Dec	Jan	Feb	Mar	Apr	May			
SOUTH SERVICE BAY					78	13-Jan-15	01-Apr-15						
Astaldi - Execution Work					78	13-Jan-15	01-Apr-15						
SSB.DS.SBB1B00-03	SOUTH SERVICE BAY: LIFT SBB1B-00 - Construct	10	13-Jan-15	24-Jan-15									
SSB.US.SBB1A00-03	SOUTH SERVICE BAY: LIFT SBB1A-00 - Construct	7	18-Jan-15	25-Jan-15									
SSB.DS.SBL1A01-03	SOUTH SERVICE BAY: LIFT SBL1A-01 - Construct	14	28-Jan-15	11-Feb-15									
SSB.US.SBU1A01-03	SOUTH SERVICE BAY: LIFT SBU1A-01 - Construct	8	28-Jan-15	05-Feb-15									
SSB.SL.SBB1A18-03	SOUTH SERVICE BAY: LIFT SBB1A-18 - Construct	8	01-Feb-15	19-Feb-15									
SSB.SL.SBB1B18-03	SOUTH SERVICE BAY: LIFT SBB1B-18 - Construct	2	01-Feb-15	05-Feb-15									
SSB.SL.SBBNA18-03	SOUTH SERVICE BAY: LIFT SBBNA-18 - Construct	2	01-Feb-15	05-Feb-15									
SSB.SL.SBBNB18-03	SOUTH SERVICE BAY: LIFT SBBNB-18 - Construct	2	01-Feb-15	05-Feb-15									
SSB.SL.SBBNC18-03	SOUTH SERVICE BAY: LIFT SBBNC-18 - Construct	2	01-Feb-15	05-Feb-15									
SSB.SL.SBBSA18-03	SOUTH SERVICE BAY: LIFT SBBSA-18 - Construct	4	01-Feb-15	11-Feb-15									
SSB.SL.SBBSB18-03	SOUTH SERVICE BAY: LIFT SBBSB-18 - Construct	2	01-Feb-15	05-Feb-15									
SSB.US.SBU1A02-03	SOUTH SERVICE BAY: LIFT SBU1A-02 - Construct	10	08-Feb-15	18-Feb-15									
SSB.DS.SBL1A02-03	SOUTH SERVICE BAY: LIFT SBL1A-02 - Construct	10	15-Feb-15	25-Feb-15									
SSB.SL.SBB1A19-03	SOUTH SERVICE BAY: LIFT SBB1A-19 - Construct	10	17-Feb-15	04-Mar-15									
SSB.SL.SBB2C19-03	SOUTH SERVICE BAY: LIFT SBB2C-19 - Construct	2	19-Feb-15	23-Feb-15									
SSB.US.SBU1A03-03	SOUTH SERVICE BAY: LIFT SBU1A-03 - Construct	6	22-Feb-15	03-Mar-15									
SSB.DS.SBL1A03-03	SOUTH SERVICE BAY: LIFT SBL1A-03 - Construct	9	27-Feb-15	08-Mar-15									
SSB.SL.SBB2B19-03	SOUTH SERVICE BAY: LIFT SBB2B-19 - Construct	8	04-Mar-15	14-Mar-15									
SSB.US.SBU1A04-03	SOUTH SERVICE BAY: LIFT SBU1A-04 - Construct	11	06-Mar-15	16-Mar-15									
SSB.DS.SBLSA04-03	SOUTH SERVICE BAY: LIFT SBLSA-04 - Construct	6	10-Mar-15	16-Mar-15									
SSB.SL.SBB1B19-03	SOUTH SERVICE BAY: LIFT SBB1B-19 - Construct	8	14-Mar-15	24-Mar-15									
SSB.SL.SBBNA19-03	SOUTH SERVICE BAY: LIFT SBBNA-19 - Construct	7	14-Mar-15	22-Mar-15									
SSB.SL.SBBNC19-03	SOUTH SERVICE BAY: LIFT SBBNC-19 - Construct	7	14-Mar-15	22-Mar-15									
SSB.SL.SBBSA19-03	SOUTH SERVICE BAY: LIFT SBBSA-19 - Construct	6	14-Mar-15	21-Mar-15									
SSB.SL.SBBSC19-03	SOUTH SERVICE BAY: LIFT SBBSC-19 - Construct	6	14-Mar-15	21-Mar-15									
SSB.DS.SBLSA05-03	SOUTH SERVICE BAY: LIFT SBLSA-05 - Construct	8	16-Mar-15	24-Mar-15									
SSB.DS.SBLSB05-03	SOUTH SERVICE BAY: LIFT SBLSB-05 - Construct	6	16-Mar-15	22-Mar-15									
SSB.DS.SBLNA04-03	SOUTH SERVICE BAY: LIFT SBLNA-04 - Construct	6	16-Mar-15	22-Mar-15									
SSB.US.SBU1A05-03	SOUTH SERVICE BAY: LIFT SBU1A-05 - Construct	11	19-Mar-15	30-Mar-15									
SSB.SL.SBB1C19-03	SOUTH SERVICE BAY: LIFT SBB1C-19 - Construct	9	21-Mar-15	01-Apr-15									
SSB.SL.SBBNB19-03	SOUTH SERVICE BAY: LIFT SBBNB-19 - Construct	7	22-Mar-15	31-Mar-15									
SSB.SL.SBW1A20-03	SOUTH SERVICE BAY: LIFT SBW1A-20 - Construct	6	22-Mar-15	30-Mar-15									
SSB.DS.SBLNA05-03	SOUTH SERVICE BAY: LIFT SBLNA-05 - Construct	6	22-Mar-15	28-Mar-15									
SSB.DS.SBLNB05-03	SOUTH SERVICE BAY: LIFT SBLNB-05 - Construct	6	22-Mar-15	28-Mar-15									
SSB.SL.SBBSB19-03	SOUTH SERVICE BAY: LIFT SBBSB-19 - Construct	6	24-Mar-15	31-Mar-15									
SSB.SL.SBWSC20-03	SOUTH SERVICE BAY: LIFT SBWSC-20 - Construct	6	24-Mar-15	31-Mar-15									
SSB.DS.SBLSA06-03	SOUTH SERVICE BAY: LIFT SBLSA-06 - Construct	8	24-Mar-15	31-Mar-15									
POWERHOUSE					142	15-Oct-14 A	25-Mar-15						
Final Rock clean-up & Scaling (Foundations Preparation)					85	15-Oct-14 A	26-Jan-15						
MOB.IC.FinalRo-03	SOUTH SERVICE BAY - Foundations preparation at +15.20m	7	15-Oct-14 A	16-Jan-15									
MOB.IC.FinalRo-02	SOUTH SERVICE BAY - Foundations preparation at -21.50m and -20.30m	7	26-Oct-14 A	11-Jan-15									
MOB.IC.FinalRo-01	SOUTH SERVICE BAY - Foundations preparation at -33.60m	9	05-Jan-15	13-Jan-15									
MOB.IC.FinalRo-08	Powerhouse Substructure, South Service Bay - Overbreak Concrete at -33.60m	7	07-Jan-15	13-Jan-15									
MOB.IC.FinalRo-11	Powerhouse Substructure, South Service Bay - Overbreak Concrete at -21.50m and -20.30m	7	12-Jan-15	18-Jan-15									
MOB.IC.FinalRo-04	DRAFT TUBE - Foundations preparation for Bay 1	9	16-Jan-15	25-Jan-15									
MOB.IC.FinalRo-05	DRAFT TUBE - Foundations preparation for Bay 2	10	16-Jan-15	26-Jan-15									
Astaldi - Execution Work					0	25-Mar-15	25-Mar-15						
PWH.09.General-10	I21 - INTAKE UNIT 2 - PRIMARY ANCHORS DELIVERED TO SITE	0	25-Mar-15*										

EXECUTION DETAILED SCHEDULE
 3 Months Lookahead - Data date - 28-Dec-14
 Page 7 of 7

Contract: CH0007
Construction of Intake, Powerhouse, Spillways and Transition Dams
Construction Monthly Progress Table

Lower Churchill Project - Muskrat Falls
 NALCOR
 Astaldi Canada Inc.



Current Reporting Data Date:
 Previous Reporting Period End:
 Current Reporting Period Cut Off

28-Dec-14
 23-Nov-14
 27-Dec-14

Construction Progress Table through Dec 28 2014

Area	Man-Hrs		Estimated Weight (%)	Cumulative (%)			Incremental (%)			Previous (%)		
	Budget	Prog. Base		Plan	Earned	Actual	Plan	Earned	Actual	Plan	Earned	Actual
Powerhouse (1)	1,289,161	1,289,161	42.0%	6.6%	0.0%	1.1%	3.4%	0.0%	0.2%	3.2%	0.0%	0.9%
Spillway (2)	517,584	517,584	16.9%	59.9%	22.5%	64.7%	13.0%	2.6%	7.6%	46.9%	19.9%	57.1%
Intake	983,329	983,329	32.0%	4.6%	1.0%	4.5%	2.3%	0.1%	0.2%	2.3%	0.9%	4.3%
Dams (3)	281,012	281,012	9.2%	35.4%	10.3%	39.4%	7.3%	1.3%	6.2%	28.1%	9.1%	33.2%
TOTAL CONSTRUCTION	3,071,086	3,071,086	100.0%	17.6%	5.0%	16.4%	5.0%	0.6%	2.0%	12.6%	4.5%	14.4%

Productivity

Area	Man-Hrs		Cumulative Hrs			Incremental Hrs			SPI		CPI	
	Budget	Prog. Base	Plan	Earned	Actual	Plan	Earned	Actual	Period	Cummulative	Period	Cummulative
Powerhouse (1)	1,289,161	1,289,161	85,638	428	14,743	43,944	71	2,773	0.00	0.00	0.03	0.03
Spillway (2)	517,584	517,584	309,845	116,237	334,790	67,281	13,360	39,448	0.20	0.38	0.34	0.35
Intake	983,329	983,329	45,200	9,345	43,762	22,249	684	1,713	0.03	0.21	0.40	0.21
Dams (3)	281,012	281,012	99,434	28,980	110,678	20,427	3,527	17,292	0.17	0.29	0.20	0.26
TOTAL CONSTRUCTION	3,071,086	3,071,086	540,117	154,990	503,973	153,901	17,642	61,226	0.11	0.29	0.29	0.31

Concrete Quantities

Area	Unit	Quantity		Cumulative		Incremental		Previous	
		Budget	Prog. Base	Plan	Earned	Plan	Earned	Plan	Earned
Powerhouse (1)	M3	167,114	167,114	11,490	0	6,191	0	5,299	0
Spillway (2)	M3	76,481	76,481	40,075	21,613	6,896	1,690	33,179	19,923
Intake	M3	147,951	147,951	5,505	930	2,714	0	2,791	930
Dams (3)	M3	59,280	59,280	19,451	6,076	4,636	787	14,815	5,289
TOTAL CONSTRUCTION	M3	450,826	450,826	76,521	28,619	20,437	2,477	56,084	26,142

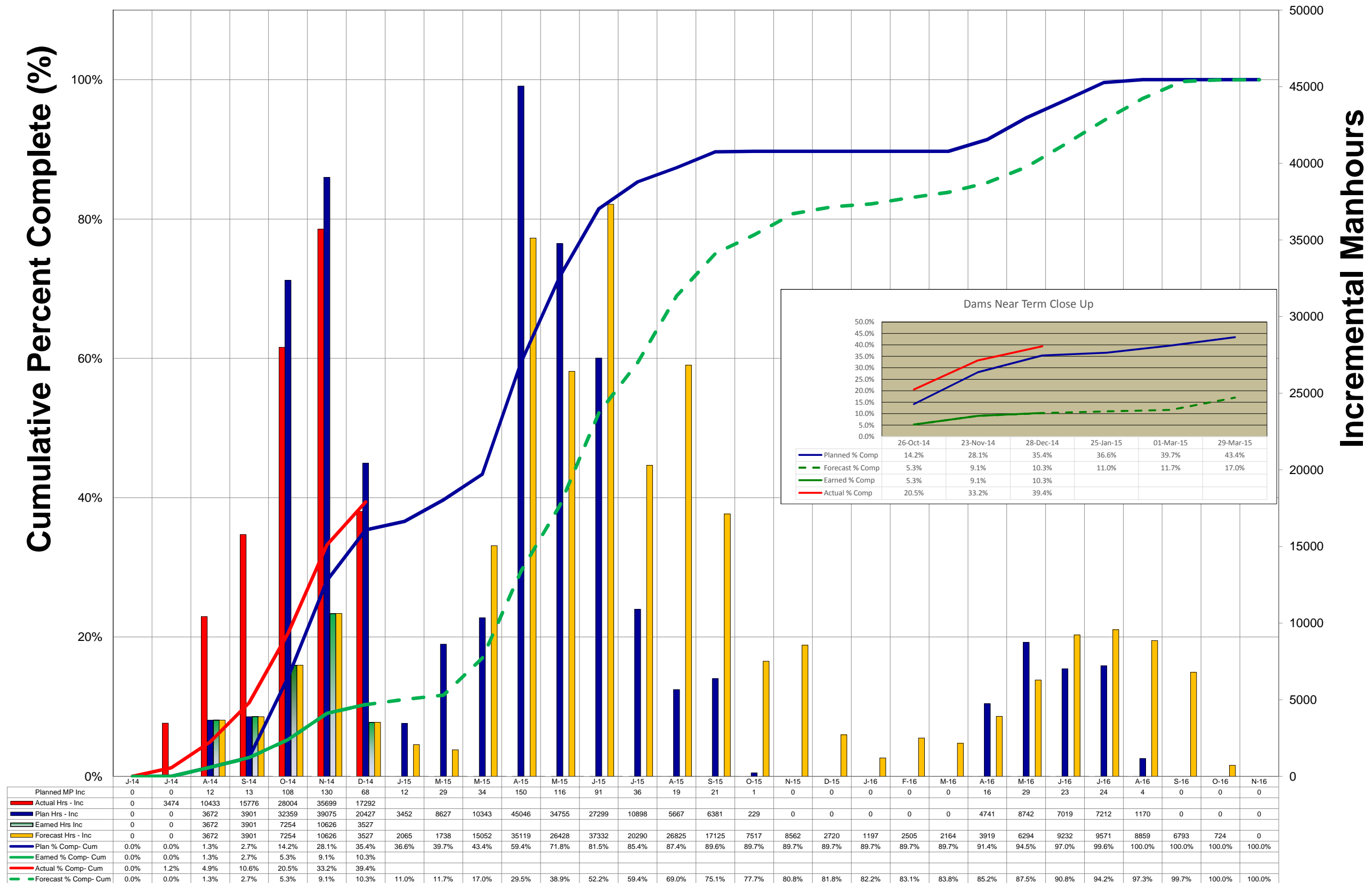
Construction Manpower

Area	On Site Direct Manpower
	Equiv. Plan*
Powerhouse (1)	147
Spillway (2)	224
Intake	74
Dams (3)	68
TOTAL	513

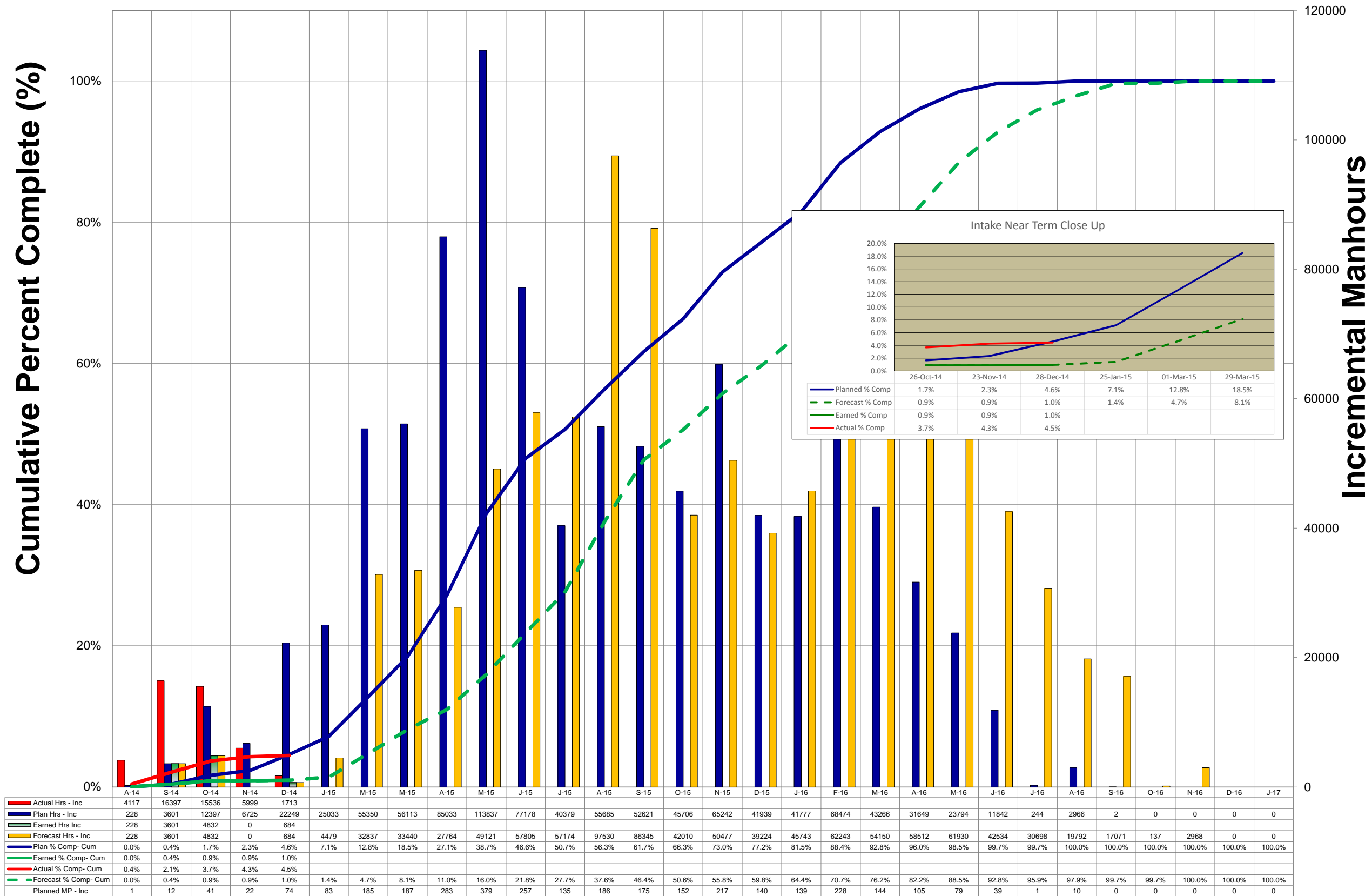
Notes:

- *Mnhours assumed per month per person: 300
- (1) Includes Draft Tube, Tailrace, South Service Bay and North Service Bay
- (2) Includes Retaining Wall and Discharge Channel Ph 1, 2 & 3
- (3) Includes South Transition Dam, Centre Transition Dam, North Transition Dam and Separation Wall

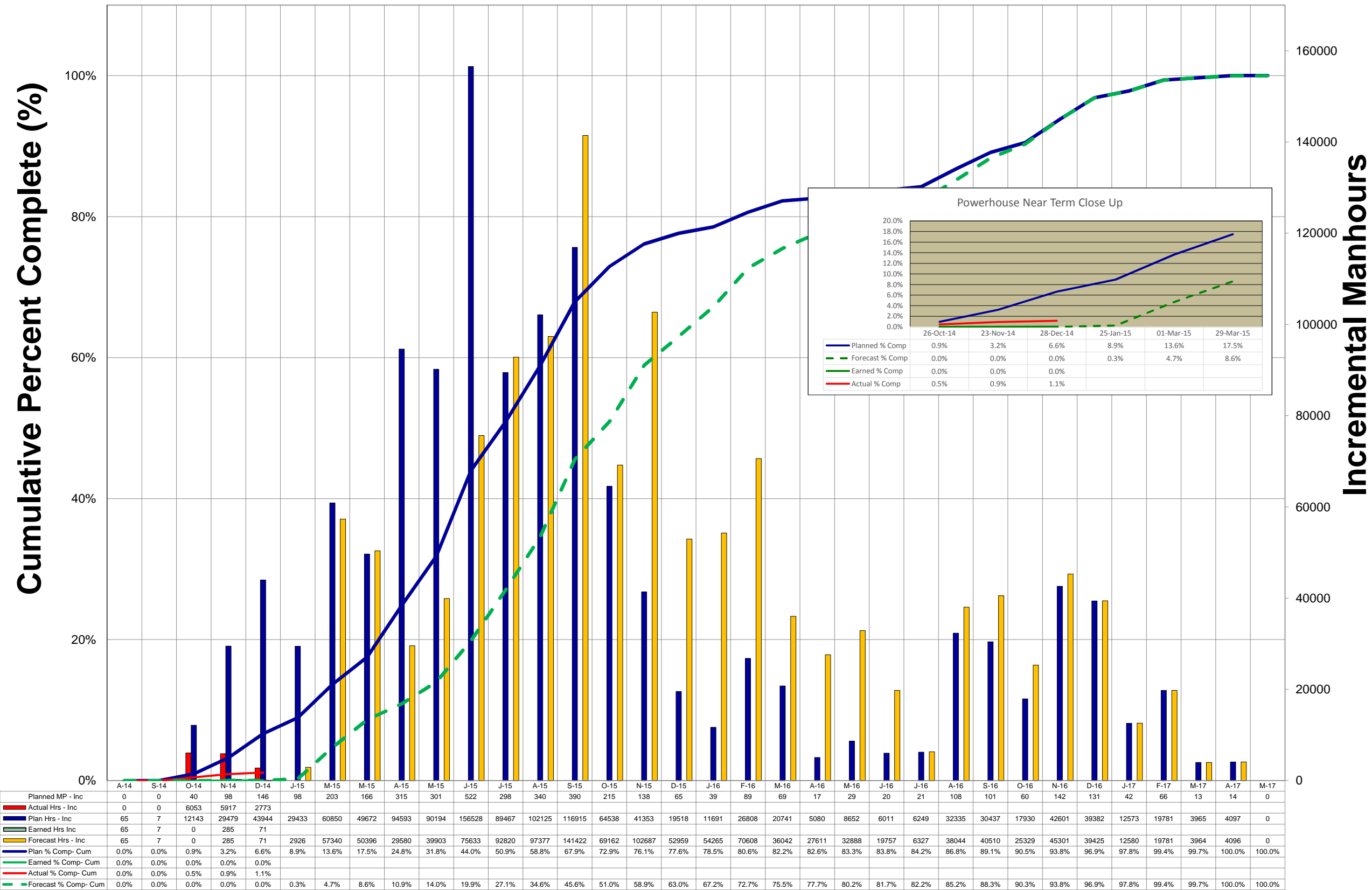
CH0007 - MFP Construction - Dams Progress Curve & Manpower Histogram



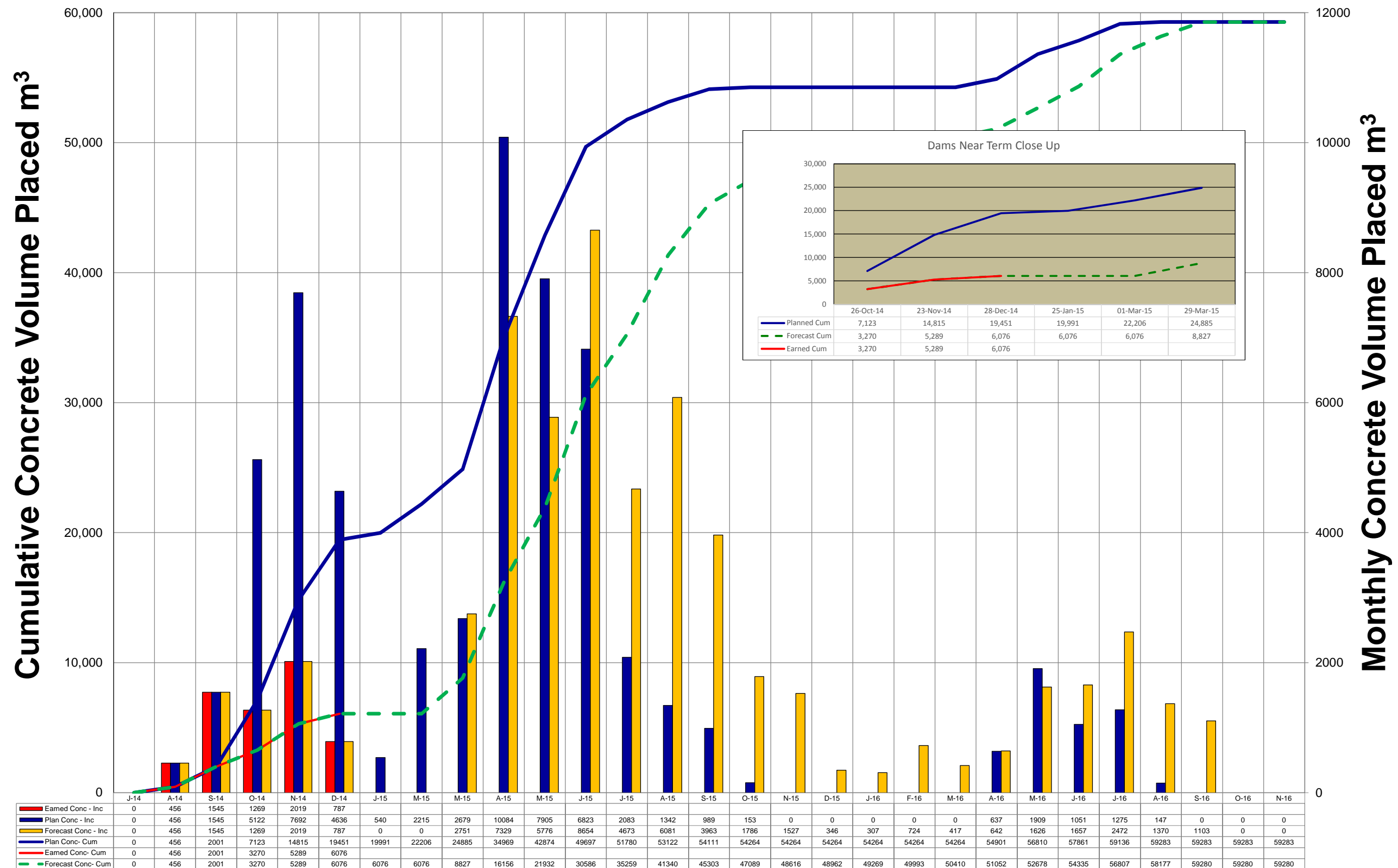
CH0007 - MFP Construction - Intake Progress Curve & Manpower Histogram



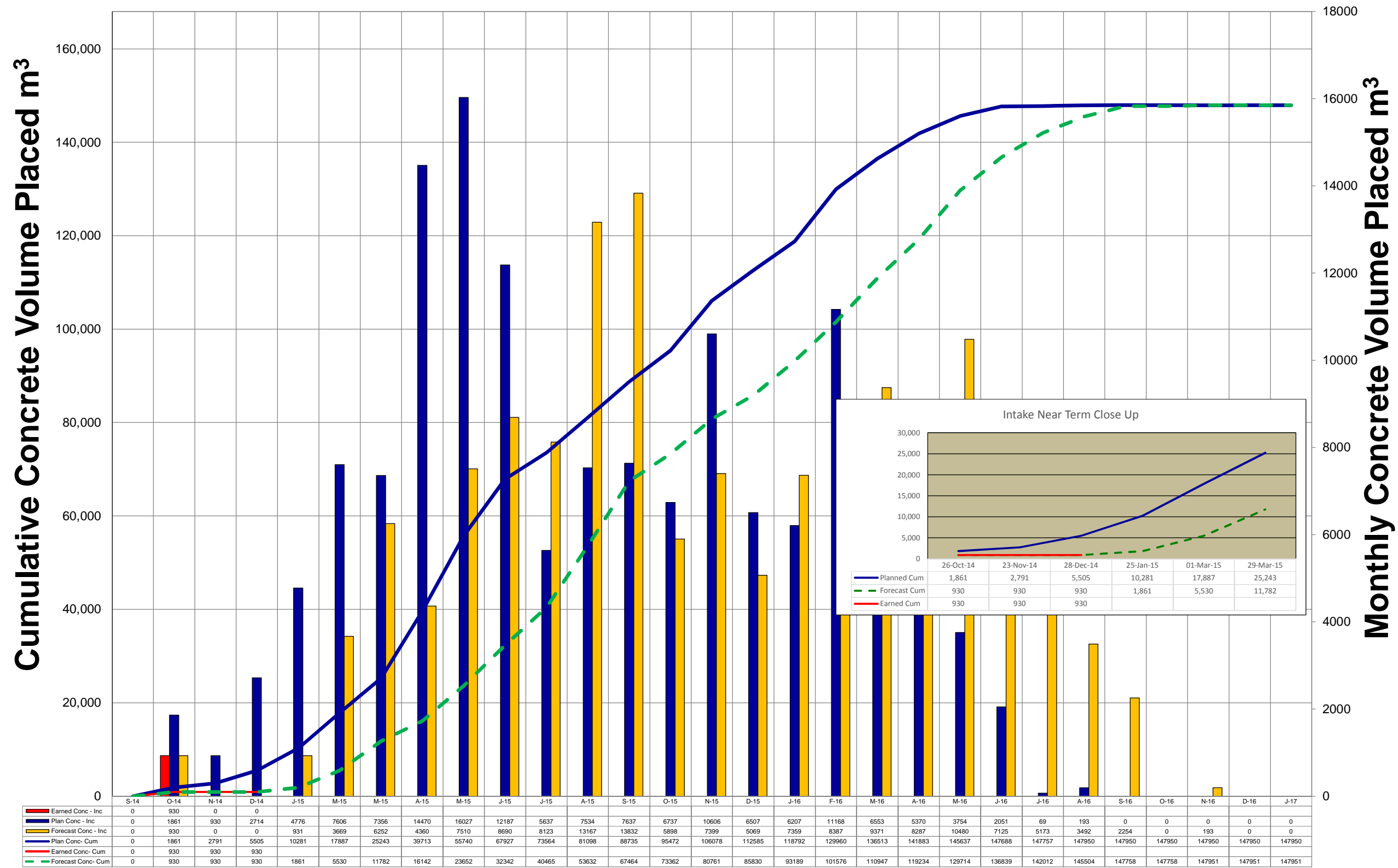
CH0007 - MFP Construction - Powerhouse Progress Curve & Manpower Histogram



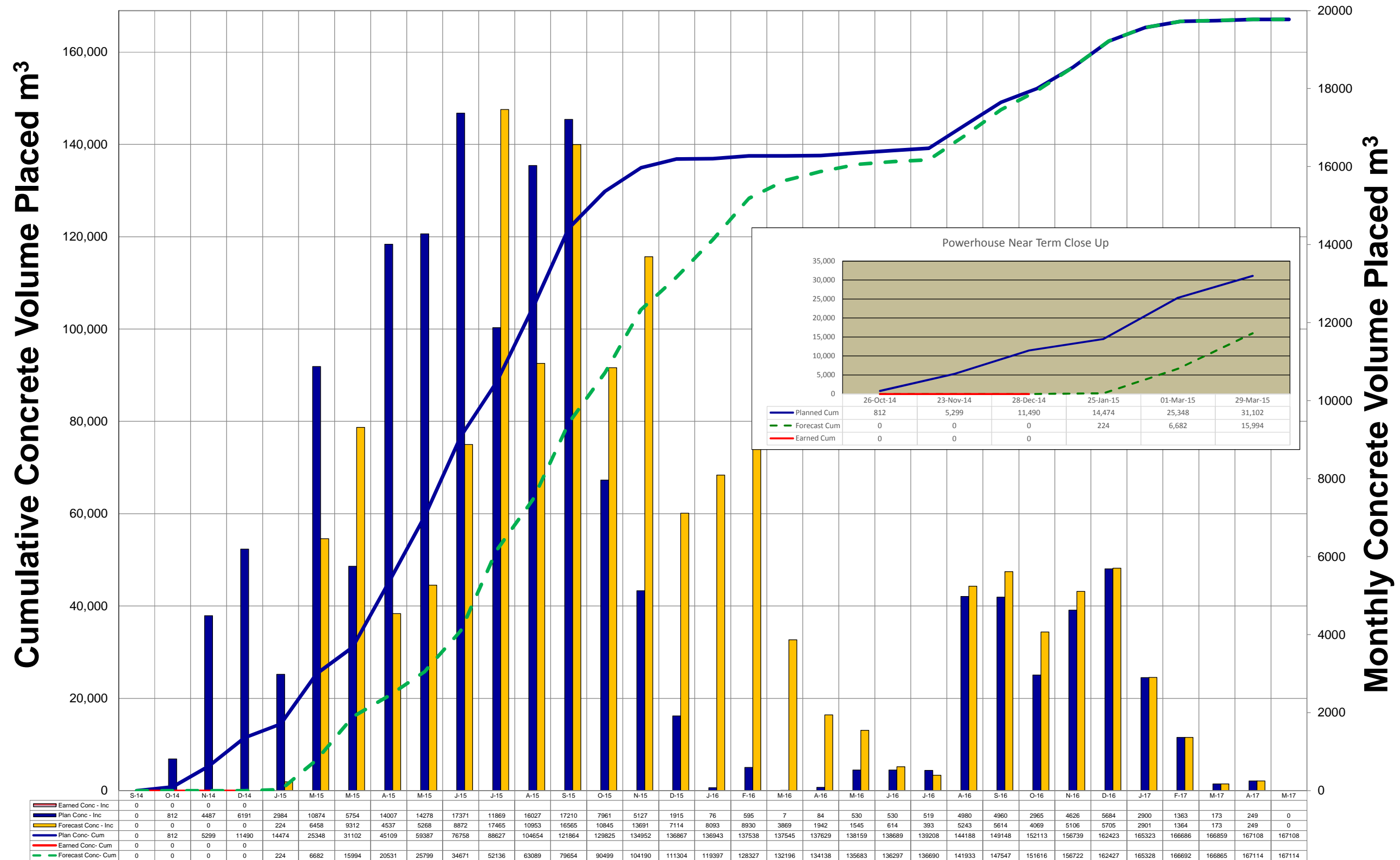
CH0007 - MFP Construction - Dams Concrete Curve



CH0007 - MFP Construction - Intake Concrete Curve

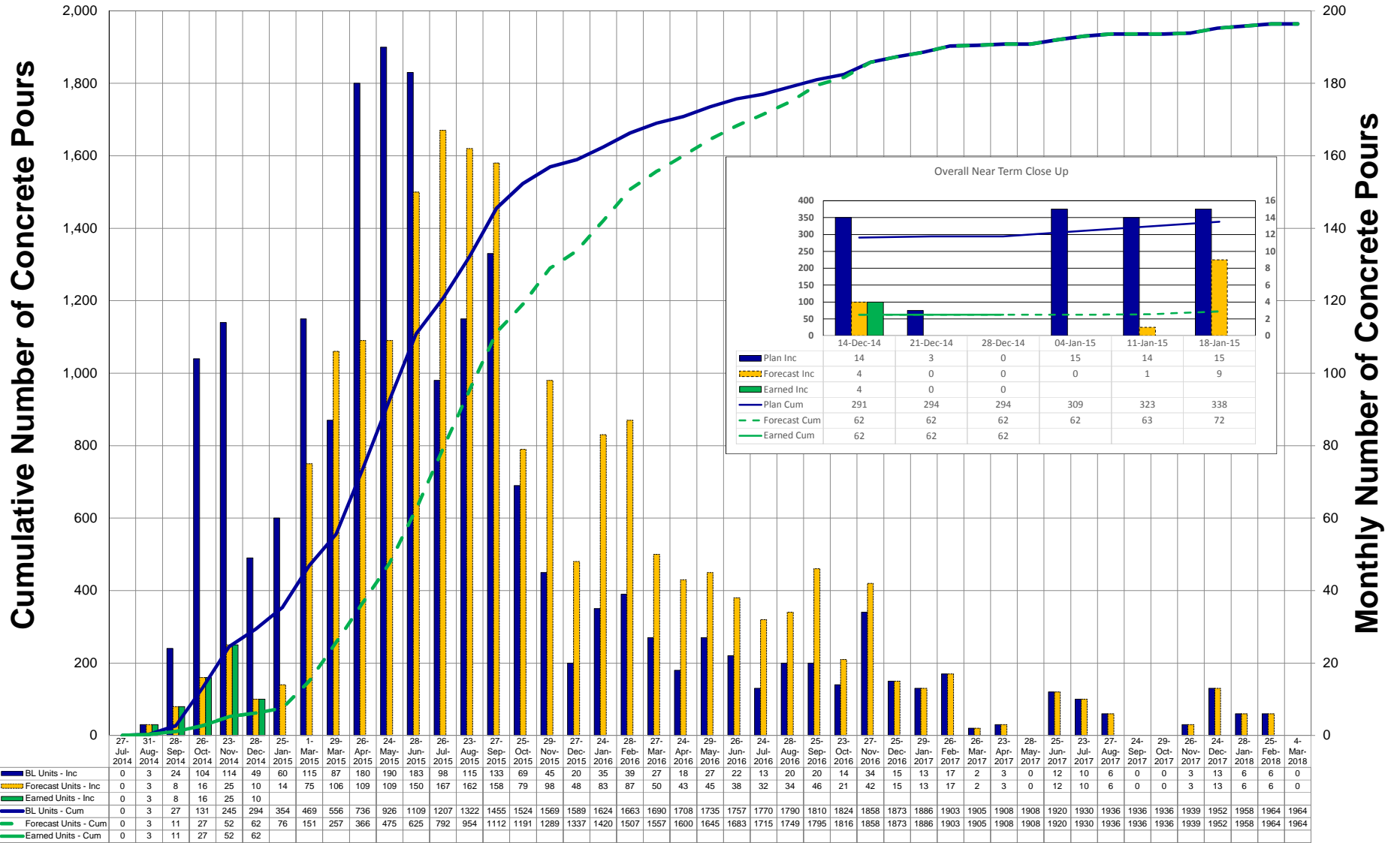


CH0007 - MFP Construction - Powerhouse Concrete Curve



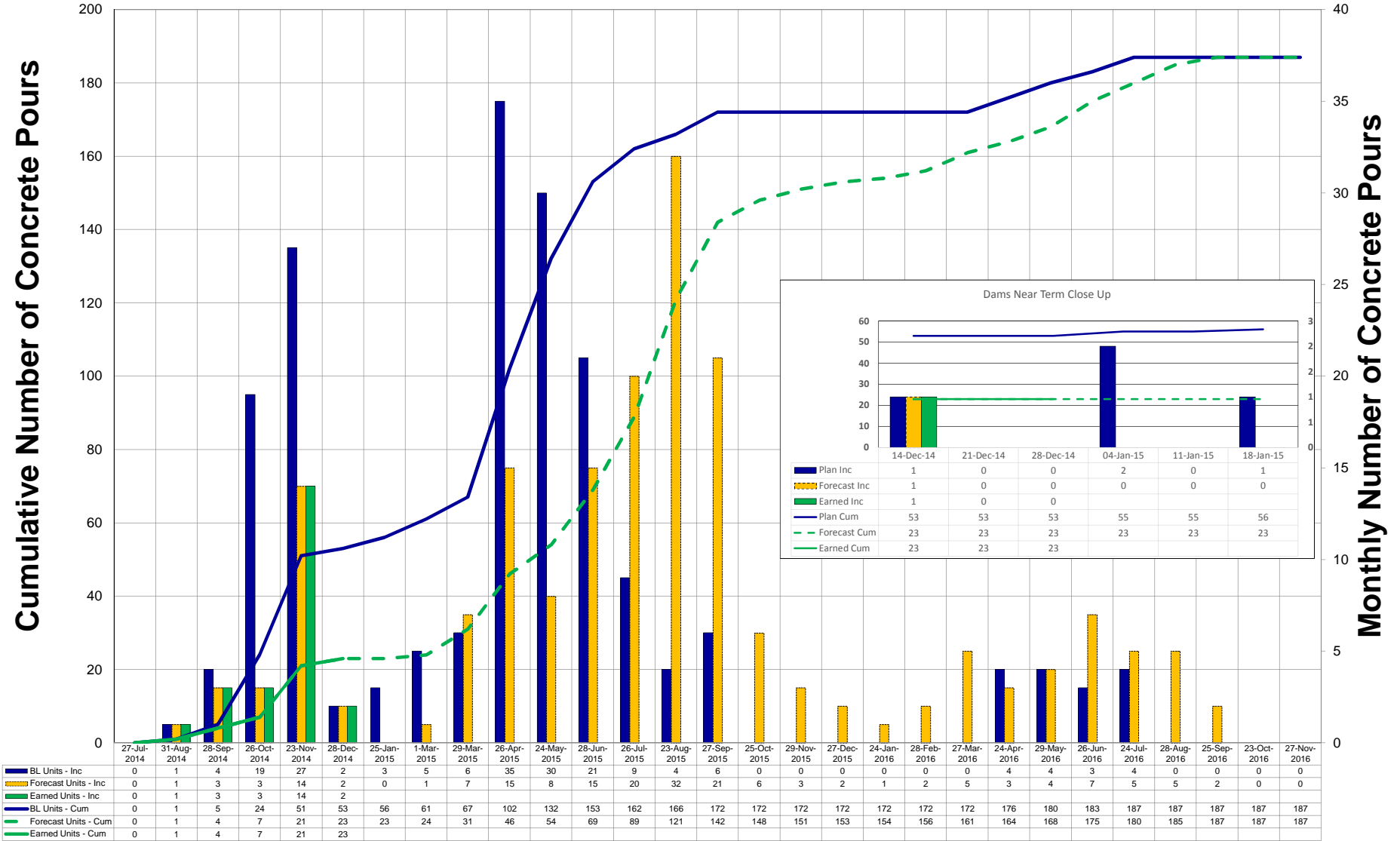


CH0007 - MFP Construction - Overall Pours Progress Curve & Pour Counting Histogram



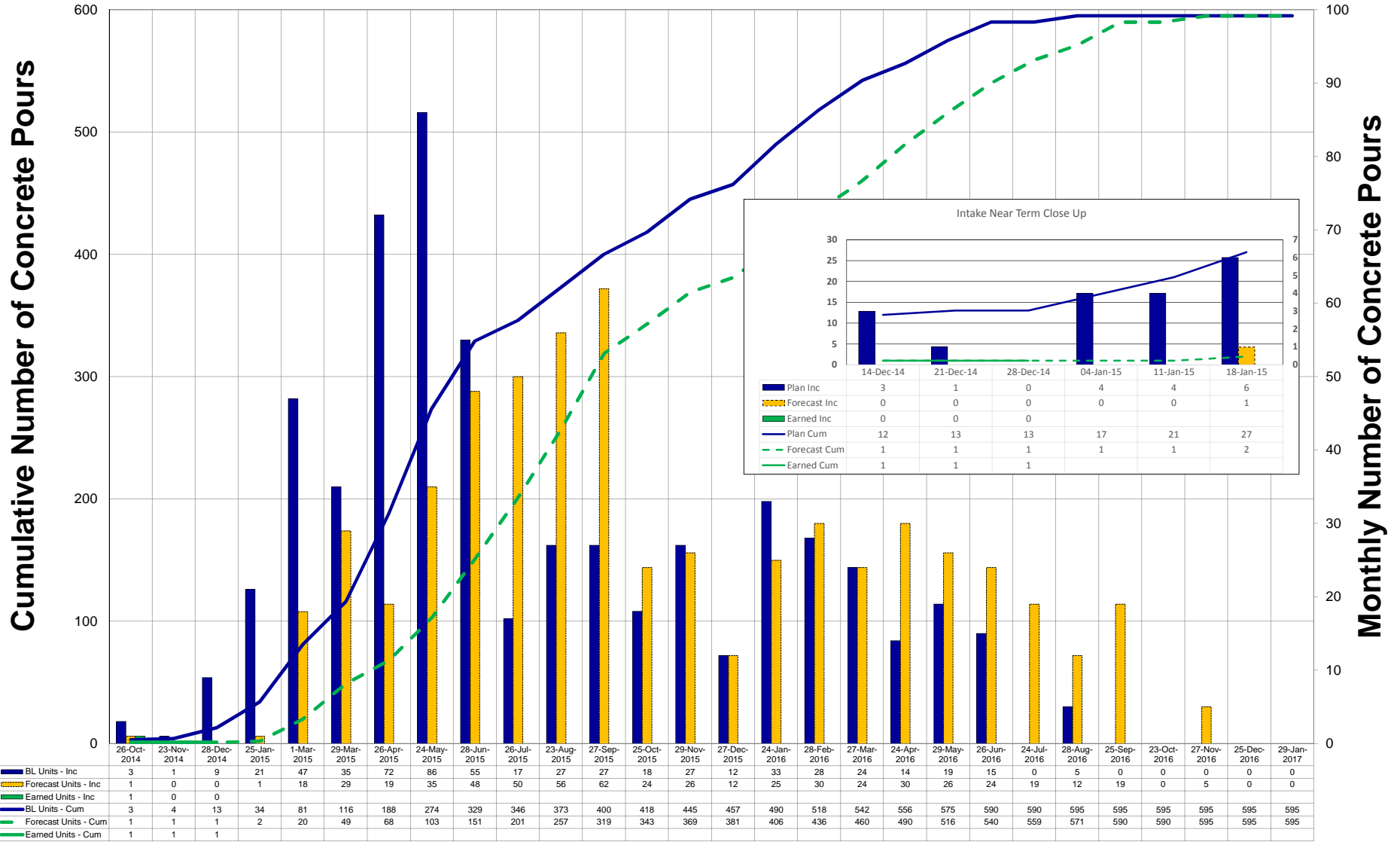


CH0007 - MFP Construction - Dams Pours Progress Curve & Pour Counting Histogram



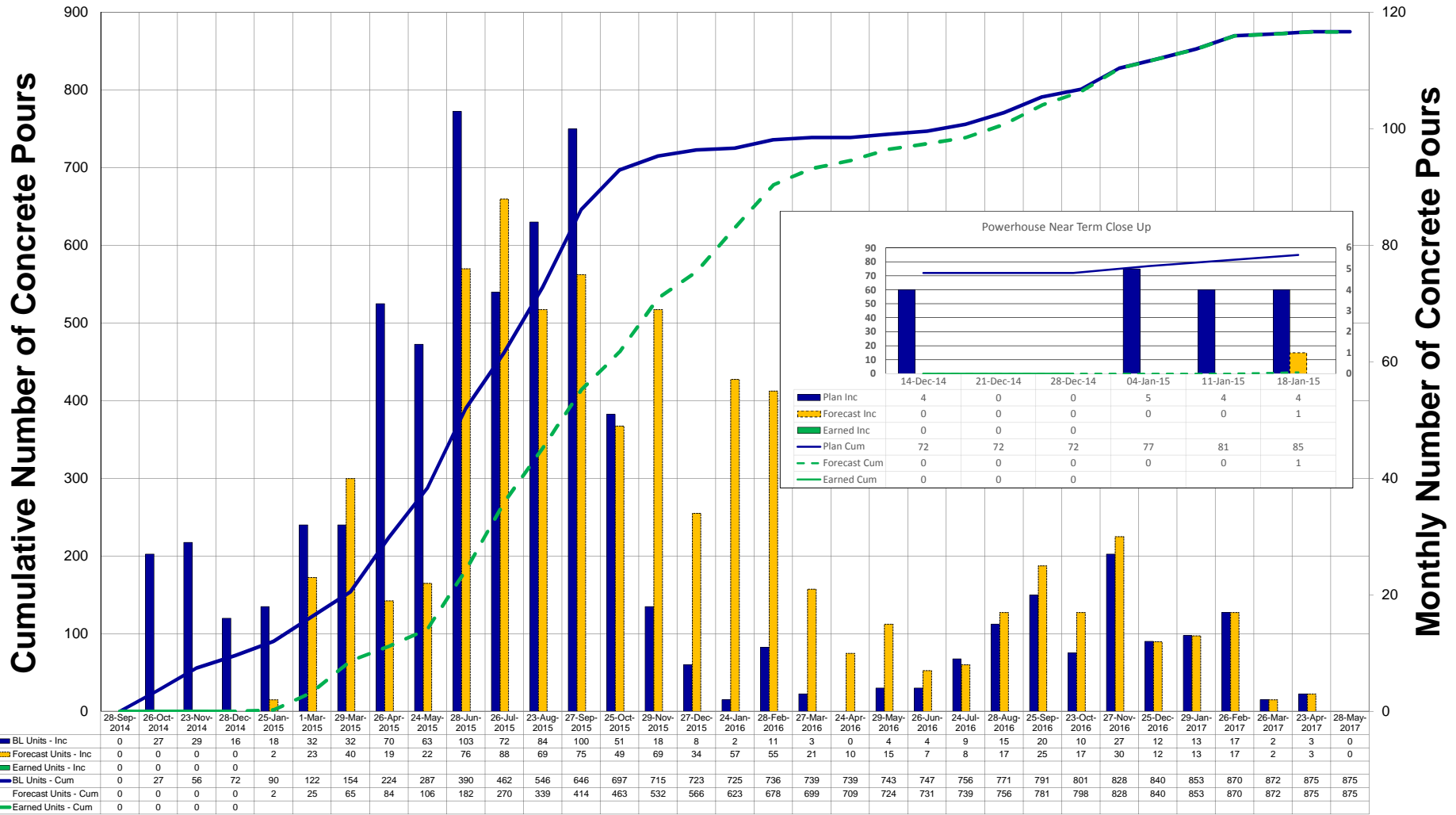


CH0007 - MFP Construction - Intake Pours Progress Curve & Pour counting Histogram





CH0007 - MFP Construction - Powerhouse Pours Progress Curve & Pour Counting Histogram





Contract Milestone Comparison - Current vs. Contract, Baseline & Last Month's Forecast

Note: Red number indicates delay in days

Area	Milestone	Milestone Description	Baseline Variance			Current Variance			Comments		
			Contractual Dates	BL Sep 29, 2014 DD Sep 28, 2014	Variance	Nov 2014 Nov 23, 2014	DD	Dec 2014 DD Dec 28, 2014		Contract	B.L
General	M0	Limited Notice to Proceed.	24-Sep-13	24-Sep-13	0	24-Sep-13	24-Sep-13	0	0	0	
General	M1	Contract Award.	30-Nov-13	29-Nov-13	1	29-Nov-13	29-Nov-13	1	0	0	
Spillway	M4A	Spillway - Phase I: Upstream 2/3rds of Piers & Upstr Bridges	15-Feb-15	25-Apr-15	-69	09-Jun-15	29-Jun-15	-134	-65	-20	
Spillway	M4B	Spillway - Phase II: Downstream 1/3 of Piers, Retaining Wall Discharge Channel Ph I & Water Retaining Structures (Sep Wall, NTD, CTD (Partial), Retaining Wall, etc.)	31-Jul-15	27-Jul-15	4	08-Sep-15	12-Sep-15	-43	-47	-4	
SSB	M18A	South Service Bay Bldg Enclosed partial Mezzanines	31-Jul-15	14-Jul-15	17	02-Sep-15	15-Sep-15	-46	-63	-13	
SSB	M18B	South Service Bay Bldg Enclosed c/w Mezzanines and elevator shaft	31-Jul-15	28-Oct-15	-89	05-Feb-16	05-Mar-16	-218	-129	-29	SSB Pours pushed to next year
Unit 1	M26A	Powerhouse Unit 1 – Bldg Enclosed excl. Mezzanines	30-Sep-15	19-Oct-15	-19	26-Jan-16	28-Jan-16	-120	-101	-2	Powerhouse Pours pushed to next year
Unit 1	M26B	Powerhouse Unit 1 – Bldg Enclosed c/w Mezzanines	30-Sep-15	13-Feb-16	-136	07-May-16	10-May-16	-223	-87	-3	Includes Mezzanine driven by the Intake pours of G1
Unit 2	M34A	Powerhouse Unit 2 – Bldg Enclosed excl. Mezzanines	11-Nov-15	03-Dec-15	-22	10-Mar-16	13-Mar-16	-123	-101	-3	Powerhouse Pours pushed to next year
Unit 2	M34B	Powerhouse Unit 2 – Bldg Enclosed c/w Mezzanines	11-Nov-15	04-Apr-16	-145	27-Jun-16	30-Jun-16	-232	-87	-3	Includes Mezzanine driven by the Intake pours of G2
STD	M55	South Transition Dam Complete.	12-Dec-15	04-Oct-15	69	29-JAN-16	09-Mar-16	-88	-157	-40	Driven By the elevator Shaft
Unit 3	M42A	Powerhouse Unit 3 – Bldg Enclosed excl. Mezzanines	20-Jan-16	08-Feb-16	-19	18-May-16	01-May-16	-102	-83	17	Powerhouse Pours pushed to next year
Unit 3	M42B	Powerhouse Unit 3 – Bldg Enclosed c/w Mezzanines	20-Jan-16	21-May-16	-122	20-Aug-16	16-Aug-16	-209	-87	4	Includes Mezzanine driven by the Intake pours of G3
Unit 4	M50A	Powerhouse Unit 4 – Bldg Enclosed excl. Mezzanines	02-Mar-16	25-May-16	-84	24-Aug-16	16-Jun-16	-106	-22	69	Powerhouse Pours pushed to next year
Unit 4	M50B	Powerhouse Unit 4 – Bldg Enclosed c/w Mezzanines	02-Mar-16	12-Jul-16	-132	13-Oct-16	07-Oct-16	-219	-87	6	Includes Mezzanine driven by the Intake pours of G4
Unit 1	M22	Unit 1 – Ready for Installation of Draft Tube Cone by CH0030.	28-Mar-16	26-Sep-15	184	13-Dec-15	15-Dec-15	104	-80	-2	
Unit 1	M28A	Unit 1 – Intake Structure ready for start of hydro/Mech.	31-Mar-16	18-Jan-16	73	18-Apr-16	21-Apr-16	-21	-94	-3	Adjusted links for the intake pours
Unit 1	M28B	Unit 1 – Intake Structure Complete	31-Mar-16	25-Mar-16	6	17-Jun-16	20-Jun-16	-81	-87	-3	
NSB	M53	North Service Bay Bldg Enclosed c/w Mezzanines	09-Apr-16	15-Apr-16	-6	17-Jul-16	11-Jul-16	-93	-87	6	Pushed by Unit 4
Unit 2	M30	Unit 2 – Ready for Installation of Draft Tube Cone by CH0030.	04-May-16	26-Nov-15	160	25-Feb-16	28-Feb-16	66	-94	-3	
Unit 1	M23	Unit 1 - Ready for Installation of Stay Ring by CH0030.	22-May-16	15-May-16	7	15-May-16	15-May-16	7	0	0	
Unit 3	M38	Unit 3 – Ready for Installation of Draft Tube Cone by CH0030.	10-Jun-16	18-Jan-16	144	18-Apr-16	14-Apr-16	57	-87	4	
Unit 2	M31	Unit 2 - Ready for Installation of Stay Ring by CH0030.	27-Jun-16	13-Jun-16	14	13-Jun-16	13-Jun-16	14	0	0	
Unit 2	M36A	Unit 2 – Intake Structure ready for start of hydro/Mech.	29-Jun-16	14-Mar-16	107	20-Jun-16	23-Jun-16	6	-101	-3	Adjusted links for the intake pours
Unit 2	M36B	Unit 2 – Intake Structure Complete	29-Jun-16	09-Jun-16	20	01-Sep-16	04-Sep-16	-67	-87	-3	
Unit 4	M46	Unit 4 – Ready for Installation of Draft Tube Cone by CH0030.	19-Jul-16	12-Mar-16	129	13-Jun-16	07-Jun-16	42	-87	6	
Unit 3	M39	Unit 3 - Ready for Installation of Stay Ring by CH0030.	03-Aug-16	28-Jul-16	6	28-Jul-16	28-Jul-16	6	0	0	
CTD	M54	Center Transition Dam Complete.	13-Aug-16	06-Aug-16	7	11-Oct-16	05-Oct-16	-53	-60	6	
Unit 4	M47	Unit 4 - Ready for Installation of Stay Ring by CH0030.	10-Sep-16	06-Sep-16	4	06-Sep-16	06-Sep-16	4	0	0	
Unit 3	M44A	Unit 3 – Intake Structure ready for start of hydro/Mech.	27-Sep-16	25-Apr-16	155	01-Aug-16	28-Jul-16	61	-94	4	Adjusted links for the intake pours
Unit 3	M44B	Unit 3 – Intake Structure Complete	27-Sep-16	28-Jul-16	61	27-Oct-16	23-Oct-16	-26	-87	4	
Unit 1	M24	Unit 1 – Generator Floor Completed, including Pit Free for Unit 1.	30-Nov-16	14-Nov-16	16	14-Nov-16	14-Nov-16	16	0	0	



Contract Milestone Comparison - Current vs. Contract, Baseline & Last Month's Forecast

Note: Red number indicates delay in days

Area	Milestone	Milestone Description	Baseline Variance			Current Variance			Comments			
			Contractual Dates	BL Sep 29, 2014 DD Sep 28, 2014	Variance	Nov 2014 Nov 23, 2014	DD	Dec 2014 DD Dec 28, 2014		Contract	B.L	Last Month
Unit 4	M52A	Unit 4 – Intake Structure ready for start of hydro/Mech.	23-Dec-16	14-Jun-16	192	02-Oct-16		26-Sep-16	88	-104	6	Adjusted links for the intake pours
Unit 4	M52B	Unit 4 – Intake Structure Complete	23-Dec-16	23-Sep-16	91	10-Jan-17		19-Dec-16	4	-87	22	
Unit 2	M32	Unit 2 – Generator Floor Completed, including Pit Free for unit 2	11-Jan-17	09-Jan-17	2	10-Jan-17		10-Jan-17	1	-1	0	
Unit 3	M40	Unit 3 – Generator Floor Completed, including Pit Free for Unit 3	05-Mar-17	03-Mar-17	2	03-Mar-17		03-Mar-17	2	0	0	
Rollway	M12	Bay No. 1 Rollway Construction Complete and Ready for CH0032.	13-Mar-17	20-Dec-16	83	20-Dec-16		20-Dec-16	83	0	0	
Unit 4	M48	Unit 4 – Generator Floor Completed, including Pit Free for Unit 4.	27-Apr-17	14-Apr-17	13	14-Apr-17		14-Apr-17	13	0	0	
Rollway	M14	Bays No. 3 & 5 Rollway Construction Complete and Ready for CH0032.	19-Sep-17	19-Aug-17	31	19-Aug-17		19-Aug-17	31	0	0	
Rollway	M13	Bays No. 2 & 4 Rollway Construction Complete and Ready for CH0032.	17-Mar-18	21-Feb-18	24	21-Feb-18		21-Feb-18	24	0	0	
General	M2	Substantial Completion of the Work.	30-Jun-18	30-Jun-18	0	30-Jun-18		30-Jun-18	0	0	0	
General	M2A	Final Completion of the Work.	29-Sep-18	29-Sep-18	0	29-Sep-18		29-Sep-18	0	0	0	
Optional	M16A	Completion of Phase 2 of Spillway Discharge Channel Lining. (Optional)	29-Sep-18	29-Sep-18	0	29-Sep-18		29-Sep-18	0	0	0	

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc													
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																	
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	169		11-Jan-15 A	29-Jun-15	-133	0	▼ 29-Jun-15, 1												
SPW.PS.SWPSA03-01	6	SPILLWAY: LIFT SWPSA-03 - Construct	11-Jan-15 A	25-Jan-15	-123	0	■ SPILLWAY: LIFT SWPSA-03 - Construct												
SPW.PS.SWPSA04-01	7	SPILLWAY: LIFT SWPSA-04 - Construct	26-Jan-15	11-Feb-15	-123	0	■ SPILLWAY: LIFT SWPSA-04 - Construct												
SPW.PS.SWPSA05-01	6	SPILLWAY: LIFT SWPSA-05 - Construct	14-Feb-15	25-Feb-15	-123	0	■ SPILLWAY: LIFT SWPSA-05 - Construct												
SPW.PS.SWPSA06-01	8	SPILLWAY: LIFT SWPSA-06 - Construct	01-Mar-15	11-Mar-15	-123	0	■ SPILLWAY: LIFT SWPSA-06 - Construct												
SPW.PS.SWPSA07-01	7	SPILLWAY: LIFT SWPSA-07 - Construct	13-Mar-15	21-Mar-15	-123	0	■ SPILLWAY: LIFT SWPSA-07 - Construct												
SPW.PS.SWPSA08-01	7	SPILLWAY: LIFT SWPSA-08 - Construct	26-Mar-15	03-Apr-15	-123	0	■ SPILLWAY: LIFT SWPSA-08 - Construct												
SPW.PS.SWPSA09-01	7	SPILLWAY: LIFT SWPSA-09 - Construct	07-Apr-15	13-Apr-15	-123	0	■ SPILLWAY: LIFT SWPSA-09 - Construct												
SPW.PS.SWPSA10-01	7	SPILLWAY: LIFT SWPSA-10 - Construct	17-Apr-15	24-Apr-15	-123	0	■ SPILLWAY: LIFT SWPSA-10 - Construct												
SPW.PS.SWPSA11-01	7	SPILLWAY: LIFT SWPSA-11 - Construct	24-Apr-15	01-May-15	-123	0	■ SPILLWAY: LIFT SWPSA-11 - Construct												
SPW.PS.SWPSA12-01	12	SPILLWAY: LIFT SWPSA-12 - Construct	04-May-15	16-May-15	-123	0	■ SPILLWAY: LIFT SWPSA-12 - Construct												
SPW.PS.SWPSA13-01	7	SPILLWAY: LIFT SWPSA-13 - Construct	19-May-15	26-May-15	-123	0	■ SPILLWAY: LIFT SWPSA-13 - Construct												
SPW.PS.SWPSA14-01	7	SPILLWAY: LIFT SWPSA-14 - Construct	28-May-15	04-Jun-15	-123	0	■ SPILLWAY: LIFT SWPSA-14 - Construct												
SPW.P1.SWU1A14-05	7	SPILLWAY UPSTREAM BRIDGE BAY 1: From el. 43.88 to 45.50, Erect structural Steel	04-Jun-15	11-Jun-15	-123	0	■ SPILLWAY UPSTREAM BRIDGE BAY 1: From												
SPW.GN.General-12	18	SPILLWAY: Installation of structural steel and Miscellaneous	11-Jun-15	29-Jun-15	-122	0	■ SPILLWAY: Installation of structural steel and												
SPW.GN.General-13	9	SPILLWAY: Electrical Works	20-Jun-15	29-Jun-15	-122	0	■ SPILLWAY: Electrical Works												
SPW.E9.General-08	0	M4A - MILESTONE: SPILLWAY ACCESS TO HYDRO-MECHANICAL CONTRACTOR CH0032 FOR UPS		29-Jun-15*	-128	72	◆ M4A- MILESTONE: SPILLWAY ACCESS T												
SPW.GN.General-20	0	Spillway General execution works - Works completion for M4A		29-Jun-15	-128	0	◆ Spillway General execution works - Works												
2	7		21-Jun-15	28-Jun-15	-121	0	▼ 28-Jun-15, 2												
SPW.GN.General-23	7	SPILLWAY: AG grounding connections	21-Jun-15	28-Jun-15	-121	1	■ SPILLWAY: AG grounding connections												
3	15		11-Jun-15	27-Jun-15	-131	0	▼ 27-Jun-15, 3												
SPW.P1.General-03	3	Spillway Pier SWP1 - (Rollway excluded) - Rails installation (Upstream bridge)	11-Jun-15	14-Jun-15	-123	0	■ Spillway Pier SWP1 - (Rollway excluded) - Rai												
SPW.P2.General-08	3	Spillway Pier SWP2 - (Rollway excluded) - Rails installation (Upstream bridge)	14-Jun-15	17-Jun-15	-115	0	■ Spillway Pier SWP2- (Rollway excluded) - Rai												
SPW.P1.SWU1A14-03	7	SPILLWAY PERMANENT UPSTREAM BRIDGE BAY 1: - Install Pre-Fab slabs	11-Jun-15	18-Jun-15	-123	0	■ SPILLWAY PERMANENT UPSTREAM BRIDGE												
SPW.P3.General-03	3	Spillway Pier SWP3 - (Rollway excluded) - Rails installation (Upstream bridge)	17-Jun-15	20-Jun-15	-115	0	■ Spillway Pier SWP3 - (Rollway excluded) - Ra												
SPW.P4.General-05	3	Spillway Pier SWP4 (Rollway excluded) - Rails installation (Upstream bridge)	20-Jun-15	24-Jun-15	-115	0	■ Spillway Pier SWP4 (Rollway excluded) - Ra												
SPW.PN.General-01	0	Spillway Pier North SWPN - (Rollway excluded) - Works completion M4A		27-Jun-15	-126	2	◆ Spillway Pier North SWPN - (Rollway exclud												
SPW.PN.General-03	3	Spillway Pier North SWPN - (Rollway excluded) - Rails installation (Upstream bridge)	24-Jun-15	27-Jun-15	-115	0	■ Spillway Pier North SWPN - (Rollway exclud												
4	7		18-Jun-15	25-Jun-15	-130	0	▼ 25-Jun-15, 4												
SPW.P1.General-01	0	Spillway Pier SWP1 - (Rollway excluded) - Works completion M4A		25-Jun-15	-125	3	◆ Spillway Pier SWP1 - (Rollway excluded) - V												
SPW.P1.SWU1A14-07	7	SPILLWAY UPSTREAM BRIDGE BAY 1: From el. 43.88 to 45.50, Seal Slab	18-Jun-15	25-Jun-15	-118	0	■ SPILLWAY UPSTREAM BRIDGE BAY 1: Fro												
5	7		18-Jun-15	25-Jun-15	-118	0	▼ 25-Jun-15, 5												
SPW.P1.SWU1A14-08	7	SPILLWAY UPSTREAM BRIDGE BAY 1: From el. 43.88 to 45.50, Install guardrails (Misc. Steel)	18-Jun-15	25-Jun-15	-118	0	■ SPILLWAY UPSTREAM BRIDGE BAY 1: Fro												
6	0		25-Jun-15	25-Jun-15	-124	0	▼ 25-Jun-15, 6												
SPW.P4.General-03	0	Spillway Pier SWP4 (Rollway excluded) - Works completion M4A		25-Jun-15	-124	4	◆ Spillway Pier SWP4 (Rollway excluded) - W												
7	0		20-Jun-15	20-Jun-15	-121	0	▼ 20-Jun-15, 7												
SPW.P3.General-01	0	Spillway Pier SWP3 - (Rollway excluded) - Works completion M4A		20-Jun-15	-121	7	◆ Spillway Pier SWP3 - (Rollway excluded) - W												
8	139		30-Jan-15 A	18-Jun-15	-122	0	▼ 18-Jun-15, 8												
SPW.P2.SWP2C02-01	7	SPILLWAY: LIFT SWP2C-02 - Construct	30-Jan-15 A	15-Feb-15	-99	0	■ SPILLWAY: LIFT SWP2C-02 - Construct												
SPW.P2.SWP2C03-01	6	SPILLWAY: LIFT SWP2C-03 - Construct	26-Feb-15	06-Mar-15	-99	0	■ SPILLWAY: LIFT SWP2C-03 - Construct												

<p>Actual Level of Effort █ Critical Remaining Work █</p> <p>Actual Work █ Milestone ◆</p> <p>Remaining Work █ summary ▼</p>	<p>EXECUTION DETAILED SCHEDULE</p> <p>Milestone M4A</p>	<p>Date</p> <p>11-Jan-15</p>	<p>Revision</p> <p>ISSUED TO NALCOR FOR COMMENTS</p>
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CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc																
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																				
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016			
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan			
SPW.P2.SWP2C04-01	7	SPILLWAY: LIFT SWP2C-04 - Construct	01-Apr-15	07-Apr-15	-63	0																
SPW.P2.SWP2C05-01	7	SPILLWAY: LIFT SWP2C-05 - Construct	11-Apr-15	17-Apr-15	-63	0																
SPW.P2.SWP2C06-01	12	SPILLWAY: LIFT SWP2C-06 - Construct	23-Apr-15	04-May-15	-63	0																
SPW.P2.SWP2B04-01	6	SPILLWAY: LIFT SWP2B-04 - Construct	04-May-15	10-May-15	-105	0																
SPW.P2.SWP2B05-01	6	SPILLWAY: LIFT SWP2B-05 - Construct	15-May-15	21-May-15	-105	0																
SPW.P2.SWP2B06-01	6	SPILLWAY: LIFT SWP2B-06 - Construct	21-May-15	27-May-15	-105	0																
SPW.P2.SWP2B07-01	6	SPILLWAY: LIFT SWP2B-07 - Construct	27-May-15	02-Jun-15	-105	0																
SPW.P2.SWP2B08-01	6	SPILLWAY: LIFT SWP2B-08 - Construct	02-Jun-15	08-Jun-15	-105	0																
SPW.P2.SWP2B09-01	6	SPILLWAY: LIFT SWP2B-09 - Construct	08-Jun-15	13-Jun-15	-105	0																
SPW.P2.SWP2B10-01	4	SPILLWAY: LIFT SWP2B-10 - Construct	13-Jun-15	17-Jun-15	-105	0																
SPW.P2.General-06	0	Spillway Pier SWP2 - (Rollway excluded) - Works completion M4A		18-Jun-15	-118	10																
9	162		05-Jan-15	16-Jun-15	-120	0	16-Jun-15, 9															
SPW.P2.SWP2A03-03	4	SPILLWAY: LIFT SWP2A-03 - Construct	05-Jan-15	15-Jan-15	-113	0																
SPW.P2.SWP2A04-01	5	SPILLWAY: LIFT SWP2A-04 - Construct	31-Jan-15	11-Feb-15	-113	0																
SPW.P2.SWP2A05-01	6	SPILLWAY: LIFT SWP2A-05 - Construct	14-Feb-15	26-Feb-15	-104	0																
SPW.P2.SWP2A06-01	5	SPILLWAY: LIFT SWP2A-06 - Construct	01-Mar-15	08-Mar-15	-104	0																
SPW.P2.SWP2A07-01	6	SPILLWAY: LIFT SWP2A-07 - Construct	08-Mar-15	17-Mar-15	-104	0																
SPW.P2.SWP2A08-01	6	SPILLWAY: LIFT SWP2A-08 - Construct	19-Mar-15	27-Mar-15	-104	0																
SPW.P2.SWP2A09-01	6	SPILLWAY: LIFT SWP2A-09 - Construct	01-Apr-15	07-Apr-15	-104	0																
SPW.P2.SWP2A10-01	6	SPILLWAY: LIFT SWP2A-10 - Construct	07-Apr-15	12-Apr-15	-104	0																
SPW.P2.SWP2A11-01	10	SPILLWAY: LIFT SWP2A-11 - Construct	12-Apr-15	22-Apr-15	-104	0																
SPW.P2.SWP2A12-01	11	SPILLWAY: LIFT SWP2A-12 - Construct	25-Apr-15	06-May-15	-104	0																
SPW.P2.SWP2A13-01	9	SPILLWAY: LIFT SWP2A-13 - Construct	06-May-15	15-May-15	-104	0																
SPW.P2.SWP2A14-01	10	SPILLWAY: LIFT SWP2A-14 - Construct	15-May-15	26-May-15	-104	0																
SPW.P2.SWU2A14-05	7	SPILLWAY UPSTREAM BRIDGE BAY 2: LIFT SWU2A-14 - Erect structural Steel	26-May-15	02-Jun-15	-109	0																
SPW.P2.SWU2A14-03	7	SPILLWAY PERMANENT UPSTREAM BRIDGE BAY 2: - Install Pre-Fab slabs	02-Jun-15	09-Jun-15	-109	0																
SPW.P2.SWU2A14-07	7	SPILLWAY UPSTREAM BRIDGE BAY 2: LIFT SWU2A-14 - Seal Slab	09-Jun-15	16-Jun-15	-109	2																
10	127		18-Jan-15	25-May-15	-154	0	25-May-15, 10															
SPW.P1.SWP1A04-01	6	SPILLWAY: LIFT SWP1A-04 - Construct	18-Jan-15	03-Feb-15	-110	0																
SPW.P1.SWP1A05-01	5	SPILLWAY: LIFT SWP1A-05 - Construct	11-Feb-15	22-Feb-15	-102	0																
SPW.P1.SWP1A06-01	7	SPILLWAY: LIFT SWP1A-06 - Construct	24-Feb-15	08-Mar-15	-102	0																
SPW.P1.SWP1A07-01	6	SPILLWAY: LIFT SWP1A-07 - Construct	12-Mar-15	21-Mar-15	-102	0																
SPW.P1.SWP1A08-01	6	SPILLWAY: LIFT SWP1A-08 - Construct	26-Mar-15	02-Apr-15	-102	0																
SPW.P1.SWP1A09-01	6	SPILLWAY: LIFT SWP1A-09 - Construct	05-Apr-15	11-Apr-15	-102	0																
SPW.P1.SWP1A10-01	6	SPILLWAY: LIFT SWP1A-10 - Construct	14-Apr-15	20-Apr-15	-102	0																
SPW.P1.SWP1A11-01	6	SPILLWAY: LIFT SWP1A-11 - Construct	23-Apr-15	29-Apr-15	-102	0																
SPW.P1.SWP1A12-01	6	SPILLWAY: LIFT SWP1A-12 - Construct	02-May-15	08-May-15	-102	0																
SPW.P1.SWP1A13-01	6	SPILLWAY: LIFT SWP1A-13 - Construct	11-May-15	17-May-15	-102	0																
SPW.P1.SWP1A14-01	6	SPILLWAY: LIFT SWP1A-14 - Construct	19-May-15	25-May-15	-102	1																
No Float Path		1817	23-Sep-13 A	29-Sep-18	0	0																

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work ─ summary

EXECUTION DETAILED SCHEDULE

Milestone M4A

Date	Revision
11-Jan-15	ISSUED TO NALCOR FOR COMMENTS

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc													
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																	
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	244		11-Jan-15 A	12-Sep-15	-42	0													12-Sep-15, 1
SPW.PS.SWPSA03-01	6	SPILLWAY: LIFT SWPSA-03 - Construct	11-Jan-15 A	25-Jan-15	-123	0													SPILLWAY: LIFT SWPSA-03 - Construct
SPW.PS.SWPSA04-01	7	SPILLWAY: LIFT SWPSA-04 - Construct	26-Jan-15	11-Feb-15	-123	0													SPILLWAY: LIFT SWPSA-04 - Construct
SPW.PS.SWPSA05-01	6	SPILLWAY: LIFT SWPSA-05 - Construct	14-Feb-15	25-Feb-15	-123	0													SPILLWAY: LIFT SWPSA-05 - Construct
CTD.M1.CTU1A01-03	8	CENTER TRANSITION DAM: LIFT CTU1A-01 - Construct (Spillway Pier SWPSA-06 must be poured)	01-Mar-15	11-Mar-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-01 - Construct (Spillw
SPW.PS.SWPSA06-01	8	SPILLWAY: LIFT SWPSA-06 - Construct	01-Mar-15	11-Mar-15	-123	0													SPILLWAY: LIFT SWPSA-06 - Construct
CTD.M1.CTU1A02-03	11	CENTER TRANSITION DAM: LIFT CTU1A-02 - Construct	20-Mar-15	02-Apr-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-02 - Construct
CTD.M1.CTU1B03-03	7	CENTER TRANSITION DAM: LIFT CTU1B-03 - Construct	06-Apr-15	13-Apr-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1B-03 - Construct
CTD.M1.CTU1A04-03	13	CENTER TRANSITION DAM: LIFT CTU1A-04 - Construct	20-Apr-15	03-May-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-04 - Const
CTD.M1.CTU1A05-03	14	CENTER TRANSITION DAM: LIFT CTU1A-05 - Construct	07-May-15	21-May-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-05 - C
CTD.M1.CTU1A06-03	13	CENTER TRANSITION DAM: LIFT CTU1A-06 - Construct	21-May-15	03-Jun-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-06 -
CTD.M1.CTU1A07-03	11	CENTER TRANSITION DAM: LIFT CTU1A-07 - Construct	03-Jun-15	14-Jun-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A-07
CTD.M1.CTU1A08-03	12	CENTER TRANSITION DAM: LIFT CTU1A-08 - Construct	14-Jun-15	26-Jun-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1A
CTD.M1.CTU1A09-03	9	CENTER TRANSITION DAM: LIFT CTU1A-09 - Construct	26-Jun-15	05-Jul-15	-42	0													CENTER TRANSITION DAM: LIFT CTU1
CTD.M1.CTU1A10-03	10	CENTER TRANSITION DAM: LIFT CTU1A-10 - Construct	05-Jul-15	15-Jul-15	-42	0													CENTER TRANSITION DAM: LIFT CTU
CTD.M1.CTU1A11-03	10	CENTER TRANSITION DAM: LIFT CTU1A-11 - Construct	15-Jul-15	25-Jul-15	-42	0													CENTER TRANSITION DAM: LIFT C
CTD.M1.CTU1A12-03	10	CENTER TRANSITION DAM: LIFT CTU1A-12 - Construct	25-Jul-15	04-Aug-15	-42	0													CENTER TRANSITION DAM: LIFT
CTD.M1.CTU1A13-03	10	CENTER TRANSITION DAM: LIFT CTU1A-13 - Construct	04-Aug-15	14-Aug-15	-42	0													CENTER TRANSITION DAM: LIF
CTD.M1.CTU1A14-03	6	CENTER TRANSITION DAM: LIFT CTU1A-14 - Construct	14-Aug-15	20-Aug-15	-42	0													CENTER TRANSITION DAM: L
CTD.M1.CTD1B15-01	12	ELECTRICAL BUILDING PLATFORM CTD1B15: Structural Steel erection & Q Decking	20-Aug-15	01-Sep-15	-42	0													ELECTRICAL BUILDING PLA
CTD.M1.CTD1B15-07	4	CENTER TRANSITION DAM: LIFT CTD1B-15 - Construct elevated slab on Q Decking	01-Sep-15	05-Sep-15	-42	0													CENTER TRANSITION DAM
CTD.M1.CTD1A15-03	6	CENTER TRANSITION DAM: LIFT CTD1A-15 - Construct	05-Sep-15	11-Sep-15	-42	0													CENTER TRANSITION DA
CTD.M1.General-01	0	Center Transition Dam - CT Monoliths 1 - Works completion		12-Sep-15	-41	0													Center Transition Dam - CT
SPW.E9.General-09	0	M4B - MILESTONE: SPILLWAY ACCESS TO HYDRO-MECHANICAL CONTRACTOR CH0032 FOR DOV		12-Sep-15*	-41	365													M4B - MILESTONE: SPILLW
2	0		12-Sep-15	12-Sep-15	-41	0													12-Sep-15, 2
CTD.M2.General-01	0	Center Transition Dam - CT Monoliths 2 - Works completion		12-Sep-15	-41	0													Center Transition Dam - CT
3	230		17-Jan-15	04-Sep-15	-34	0													04-Sep-15, 3
SPW.PN.SWPNB02-03	6	SPILLWAY: LIFT SWPNB-02 - Construct	17-Jan-15	03-Feb-15	-55	0													SPILLWAY: LIFT SWPNB-02 - Construct
SPW.PN.SWPNB03-03	4	SPILLWAY: LIFT SWPNB-03 - Construct	07-Feb-15	18-Feb-15	-55	0													SPILLWAY: LIFT SWPNB-03 - Construct
NTD.GN.NTB1A00-03	9	NORTH TRANSITION DAM: LIFT NTB1A-00 - Construct	18-Feb-15	04-Mar-15	-36	0													NORTH TRANSITION DAM: LIFT NTB1A-00 - Construct
NTD.GN.NTU1A01-03	15	NORTH TRANSITION DAM: LIFT NTU1A-01 - Construct	06-Mar-15	25-Mar-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-01 - Construct
NTD.GN.NTU3B02-03	12	NORTH TRANSITION DAM: LIFT NTU3B-02 - Construct	29-Mar-15	10-Apr-15	-36	0													NORTH TRANSITION DAM: LIFT NTU3B-02 - Construct
NTD.GN.NTU1A03-03	14	NORTH TRANSITION DAM: LIFT NTU1A-03 - Construct	13-Apr-15	27-Apr-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-03 - Constru
NTD.GN.NTU1A04-03	14	NORTH TRANSITION DAM: LIFT NTU1A-04 - Construct	30-Apr-15	14-May-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-04 - Cons
NTD.GN.NTU1A05-03	13	NORTH TRANSITION DAM: LIFT NTU1A-05 - Construct	14-May-15	27-May-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-05 - C
NTD.GN.NTU1A06-03	13	NORTH TRANSITION DAM: LIFT NTU1A-06 - Construct	27-May-15	09-Jun-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-06 -
NTD.GN.NTU1A07-03	12	NORTH TRANSITION DAM: LIFT NTU1A-07 - Construct	09-Jun-15	21-Jun-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A-07
NTD.GN.NTU1A08-03	11	NORTH TRANSITION DAM: LIFT NTU1A-08 - Construct	21-Jun-15	02-Jul-15	-36	0													NORTH TRANSITION DAM: LIFT NTU1A
NTD.GN.NTU1A09-03	11	NORTH TRANSITION DAM: LIFT NTU1A-09 - Construct	02-Jul-15	13-Jul-15	-36	0													NORTH TRANSITION DAM: LIFT NTU
NTD.GN.NTU1A10-03	6	NORTH TRANSITION DAM: LIFT NTU1A-10 - Construct	13-Jul-15	19-Jul-15	-36	0													NORTH TRANSITION DAM: LIFT NTU

		EXECUTION DETAILED SCHEDULE Milestone M4B	Date	Revision
			11-Jan-15	ISSUED TO NALCOR FOR COMMENTS

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc																			
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																							
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016						
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan						
REW.GN.RWB5A00-03	6	RETAINING WALL: LIFT RWB5A-00 - Construct	08-Jul-15	14-Jul-15	-19	0																			
REW.GN.RWB3A00-03	6	RETAINING WALL: LIFT RWB3A-00 - Construct	14-Jul-15	20-Jul-15	-19	0																			
SDC.P1.DCB1A00-03	13	DISCHARGE CHANNEL: LIFT DCB1A-00 - Construct	08-Jul-15	21-Jul-15	-27	0																			
REW.GN.RWB4A00-03	6	RETAINING WALL: LIFT RWB4A-00 - Construct	20-Jul-15	26-Jul-15	-19	0																			
REW.GN.RWW4A01-03	6	RETAINING WALL: LIFT RWW4A-01 - Construct	26-Jul-15	01-Aug-15	-19	0																			
REW.GN.RWW3A01-03	6	RETAINING WALL: LIFT RWW3A-01 - Construct	01-Aug-15	07-Aug-15	-19	0																			
REW.GN.RWW2A01-03	6	RETAINING WALL: LIFT RWW2A-01 - Construct	07-Aug-15	13-Aug-15	-19	0																			
REW.GN.RWW1A01-03	6	RETAINING WALL: LIFT RWW1A-01 - Construct	13-Aug-15	19-Aug-15	-19	0																			
REW.GN.General-03	0	Spillway South Retaining Wall - Works completion		20-Aug-15	-19	22																			
No Float Path		1817	23-Sep-13 A	29-Sep-18	0	0																			



<ul style="list-style-type: none"> Actual Level of Effort Critical Remaining Work Actual Work Remaining Work Milestone summary 	<p>EXECUTION DETAILED SCHEDULE</p> <p>Milestomne M4B</p>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> </tr> <tr> <td>11-Jan-15</td> <td>ISSUED TO NALCOR FOR COMMENTS</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Date	Revision	11-Jan-15	ISSUED TO NALCOR FOR COMMENTS		
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CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc													
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																	
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	245		18-Jan-15	20-Sep-15	-51	0													20-Sep-15, 1
	7	SSB.US.SBB1A00-03 SOUTH SERVICE BAY: LIFT SBB1A-00 - Construct	18-Jan-15	25-Jan-15	-190	0													
	8	SSB.US.SBU1A01-03 SOUTH SERVICE BAY: LIFT SBU1A-01 - Construct	28-Jan-15	05-Feb-15	-190	0													
	10	SSB.US.SBU1A02-03 SOUTH SERVICE BAY: LIFT SBU1A-02 - Construct	08-Feb-15	18-Feb-15	-190	0													
	6	SSB.US.SBU1A03-03 SOUTH SERVICE BAY: LIFT SBU1A-03 - Construct	22-Feb-15	03-Mar-15	-151	0													
	11	SSB.US.SBU1A04-03 SOUTH SERVICE BAY: LIFT SBU1A-04 - Construct	06-Mar-15	16-Mar-15	-194	0													
	11	SSB.US.SBU1A05-03 SOUTH SERVICE BAY: LIFT SBU1A-05 - Construct	19-Mar-15	30-Mar-15	-194	1													
	6	SSB.US.SBU1A06-03 SOUTH SERVICE BAY: LIFT SBU1A-06 - Construct	09-Apr-15	14-Apr-15	-195	0													
	11	SSB.US.SBU1A07-03 SOUTH SERVICE BAY: LIFT SBU1A-07 - Construct	14-Apr-15	25-Apr-15	-195	0													
	8	SSB.DS.SBLNA08-03 SOUTH SERVICE BAY: LIFT SBLNA-08 - Construct	25-Apr-15	03-May-15	-195	0													
	8	SSB.DS.SBLNA09-03 SOUTH SERVICE BAY: LIFT SBLNA-09 - Construct	03-May-15	11-May-15	-174	0													
	8	SSB.DS.SBLNA10-03 SOUTH SERVICE BAY: LIFT SBLNA-10 - Construct	11-May-15	19-May-15	-174	0													
	8	SSB.DS.SBLNA11-03 SOUTH SERVICE BAY: LIFT SBLNA-11 - Construct	19-May-15	27-May-15	-174	0													
	6	SSB.DS.SBLNA12-03 SOUTH SERVICE BAY: LIFT SBLNA-12 - Construct	27-May-15	02-Jun-15	-174	0													
	6	SSB.DS.SBLNA13-03 SOUTH SERVICE BAY: LIFT SBLNA-13 - Construct	02-Jun-15	08-Jun-15	-174	0													
	7	SSB.DS.SBLNA14-05 SOUTH SERVICE BAY: LIFT SBLNA-14 - Erect falsework	02-Jun-15	09-Jun-15	-174	0													
	8	SSB.DS.SBLNA14-03 SOUTH SERVICE BAY: LIFT SBLNA-14 - Construct	09-Jun-15	16-Jun-15	-174	0													
	7	SSB.DS.SBLNA15-03 SOUTH SERVICE BAY: LIFT SBLNA-15 - Construct	16-Jun-15	23-Jun-15	-174	0													
	6	SSB.DS.SBLNA16-03 SOUTH SERVICE BAY: LIFT SBLNA-16 - Construct	23-Jun-15	29-Jun-15	-174	0													
	6	SSB.DS.SBLNB17-03 SOUTH SERVICE BAY: LIFT SBLNB-17 - Construct	29-Jun-15	05-Jul-15	-174	0													
	6	SSB.DS.SBLNA18-03 SOUTH SERVICE BAY: LIFT SBLNA-18 - Construct	05-Jul-15	11-Jul-15	-174	0													
	6	SSB.SL.SBBND19-03 SOUTH SERVICE BAY: LIFT SBBND-19 - Construct	11-Jul-15	16-Jul-15	-145	0													
	0	SSB.SL.General-01 South Service Bay, Slab on Rock - Works completion		17-Jul-15	-158	0													
	20	MOB.IC.Integra-32 Integrated Cover System - Dismantle ICS Structural Steel for SSB	17-Jul-15	06-Aug-15	-166	0													
	20	SSB.ST.General-01 SOUTH SERVICE BAY: Erect Structural steel main Frame (excl. mezzainines)	06-Aug-15	26-Aug-15	-165	0													
	21	SSB.ST.General-17 SOUTH SERVICE BAY: Erect Cladding	20-Aug-15	10-Sep-15	-52	0													
	15	SSB.ST.General-06 SOUTH SERVICE BAY: Erect Structural steel for Mezzanines & Q-Decking (NOTE BOOK)	26-Aug-15	10-Sep-15	-52	0													
	10	SSB.ST.General-04 SOUTH SERVICE BAY: High Bay Lighting & Miscellaneous electrical / Commissioning	10-Sep-15	20-Sep-15	-52	0													
	0	SSB.ST.General-07 South Service Bay - Building (Structural steel, HVAC etc..) - Works completion		20-Sep-15	-50	0													
	0	PWH.E9.General-13 M18A - SSB & MEZZANINE READY (HIGH BAY) FOR START WORK BY OTHER CONTRACTORS		20-Sep-15*	-50	156													
2	12		27-May-15	08-Jun-15	-174	0													08-Jun-15, 2
	6	SSB.DS.SBLNB12-03 SOUTH SERVICE BAY: LIFT SBLNB-12 - Construct	27-May-15	02-Jun-15	-174	0													
	6	SSB.DS.SBLNB13-03 SOUTH SERVICE BAY: LIFT SBLNB-13 - Construct	02-Jun-15	08-Jun-15	-174	0													
3	10		10-Sep-15	19-Sep-15	-51	0													19-Sep-15, 3
	10	SSB.ST.General-11 SOUTH SERVICE BAY: Exterior Lighting / Commissioning	10-Sep-15	19-Sep-15	-51	0													
4	24		26-Aug-15	19-Sep-15	-51	0													19-Sep-15, 4
	21	SSB.ST.General-03 SOUTH SERVICE BAY: Erect Roofing	26-Aug-15	16-Sep-15	-51	0													
	7	SSB.ST.General-05 SOUTH SERVICE BAY: Mechanical works - HVAC	12-Sep-15	19-Sep-15	-51	1													
5	0		11-Jul-15	11-Jul-15	-153	0													11-Jul-15, 5
	0	SSB.DS.General-01 South Service Bay, downstream Part - Works completion		11-Jul-15	-153	5													
6	7		10-Sep-15	17-Sep-15	-49	0													17-Sep-15, 6
	7	SSB.ST.General-09 SOUTH SERVICE BAY: Final paint touch-up	10-Sep-15	17-Sep-15	-49	3													

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work summary

EXECUTION DETAILED SCHEDULE
Milestone M18

Date	Revision
11-Jan-15	ISSUED TO NALCOR FOR COMMENTS

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc																		
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																						
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016					
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
7	21		26-Aug-15	16-Sep-15	-48	0																		
SSB.ST.General-08	21	SOUTH SERVICE BAY: Roof drains installation	26-Aug-15	16-Sep-15	-48	4																		
8	10		06-Sep-15	16-Sep-15	-48	0																		
SSB.SL.SBWGEN-04	10	SOUTH SERVICE BAY: LIFT ICS CLASHES - Construct	06-Sep-15	16-Sep-15	-48	4																		
9	6		10-Sep-15	16-Sep-15	-48	0																		
PWH.1U.PHD1A01-03	6	SOUTH SERVICE BAY - LIFT .PHD1A-01 - Construct	10-Sep-15	16-Sep-15	-48	4																		
10	6		10-Sep-15	16-Sep-15	-48	0																		
PWH.1U.PHD1A02-03	6	SOUTH SERVICE BAY - LIFT .PHD1A-02 - Construct	10-Sep-15	16-Sep-15	-48	4																		
No Float Path	1817		23-Sep-13 A	29-Sep-18	0	0																		

<ul style="list-style-type: none"> Actual Level of Effort Critical Remaining Work Actual Work Remaining Work Milestone summary 	<p>EXECUTION DETAILED SCHEDULE</p> <p>Milestone M18</p>	<table border="1" style="width: 100%;"> <tr> <th>Date</th> <th>Revision</th> </tr> <tr> <td>11-Jan-15</td> <td>ISSUED TO NALCOR FOR COMMENTS</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Date	Revision	11-Jan-15	ISSUED TO NALCOR FOR COMMENTS		
Date	Revision							
11-Jan-15	ISSUED TO NALCOR FOR COMMENTS							

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc													
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																	
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	376		16-Jan-15	28-Jan-16	-120	0													
MOB.IC.FinalRo-04	9	DRAFT TUBE - Foundations preparation for Bay 1	16-Jan-15	25-Jan-15	-220	0													
DRT.1U.D1BNA00-03	20	DRAFT TUBE - UNIT 1: LIFT D1BNA-00 - Construct	26-Jan-15	14-Feb-15	-220	0													
DRT.1D.D1BSB00-03	14	DRAFT TUBE - UNIT 1: LIFT D1BSB-00 - Construct	02-Feb-15	16-Feb-15	-219	0													
DRT.1D.D1BNB00-03	16	DRAFT TUBE - UNIT 1: LIFT D1BNB-00 - Construct	16-Feb-15	04-Mar-15	-219	0													
DRT.1D.D1P1B01-03	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-01 - Construct	06-Mar-15	12-Mar-15	-219	0													
DRT.1D.D1P1B02-03	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-02 - Construct	14-Mar-15	20-Mar-15	-219	0													
DRT.1D.D1P1B03-03	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-03 - Construct	23-Mar-15	29-Mar-15	-219	0													
DRT.1D.D1USB01-05	14	DRAFT TUBE - UNIT 1: LIFT D1USB-01 - Install Falsework	29-Mar-15	12-Apr-15	-220	0													
DRT.1D.D1USB01-03	9	DRAFT TUBE - UNIT 1: LIFT D1USB-01 - Construct	12-Apr-15	21-Apr-15	-219	0													
DRT.1D.D1USB02-03	9	DRAFT TUBE - UNIT 1: LIFT D1USB-02 - Construct	21-Apr-15	30-Apr-15	-219	0													
DRT.1D.D1UNB01-03	9	DRAFT TUBE - UNIT 1: LIFT D1UNB-01 - Construct	30-Apr-15	09-May-15	-219	0													
DRT.1D.D1UNB02-03	9	DRAFT TUBE - UNIT 1: LIFT D1UNB-02 - Construct	09-May-15	18-May-15	-219	0													
DRT.1D.D1UNB03-03	7	DRAFT TUBE - UNIT 1: LIFT D1UNB-03 - Construct	18-May-15	25-May-15	-219	0													
DRT.1D.D1P1B04-03	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-04 - Construct	25-May-15	31-May-15	-219	0													
DRT.1D.D1WSA04-03	6	DRAFT TUBE - UNIT 1: LIFT D1WSA-04 - Construct	31-May-15	06-Jun-15	-219	0													
TAR.1W.T1P1B05-03	6	TAILRACE - UNIT 1: LIFT T1P1B-05 - Construct	06-Jun-15	12-Jun-15	-219	0													
TAR.1W.T1PSB05-03	6	TAILRACE - UNIT 1: LIFT T1PSB-05 - Construct	06-Jun-15	12-Jun-15	-219	0													
TAR.1W.T1WSA05-03	6	TAILRACE - UNIT 1: LIFT T1WSA-05 - Construct	12-Jun-15	18-Jun-15	-219	0													
DRT.1D.D1WNA04-03	6	DRAFT TUBE - UNIT 1: LIFT D1WNA-04 - Construct	18-Jun-15	24-Jun-15	-219	0													
TAR.1W.T1PNB05-03	6	TAILRACE - UNIT 1: LIFT T1PNB-05 - Construct	24-Jun-15	30-Jun-15	-219	0													
TAR.1W.T1PNB06-03	6	TAILRACE - UNIT 1: LIFT T1PNB-06 - Construct	30-Jun-15	06-Jul-15	-219	0													
TAR.1W.T1PNB07-03	6	TAILRACE - UNIT 1: LIFT T1PNB-07 - Construct	06-Jul-15	12-Jul-15	-219	0													
TAR.1W.T1PNB08-03	6	TAILRACE - UNIT 1: LIFT T1PNB-08 - Construct	12-Jul-15	18-Jul-15	-219	0													
TAR.1W.T1PNB09-03	6	TAILRACE - UNIT 1: LIFT T1PNB-09 - Construct	18-Jul-15	24-Jul-15	-219	0													
TAR.1W.T1PNB10-03	6	TAILRACE - UNIT 1: LIFT T1PNB-10 - Construct	24-Jul-15	30-Jul-15	-219	0													
TAR.1W.T1PNB11-03	6	TAILRACE - UNIT 1: LIFT T1PNB-11 - Construct	30-Jul-15	05-Aug-15	-219	0													
TAR.1W.T1WNA11-03	6	TAILRACE - UNIT 1: LIFT T1WNA-11 - Construct	05-Aug-15	11-Aug-15	-219	0													
TAR.1W.T1WSA11-03	6	TAILRACE - UNIT 1: LIFT T1WSA-11 - Construct	11-Aug-15	17-Aug-15	-219	0													
TAR.1W.T1WSB11-03	6	TAILRACE - UNIT 1: LIFT T1WSB-11 - Construct	17-Aug-15	23-Aug-15	-219	0													
TAR.1W.T1WNB10-03	6	TAILRACE - UNIT 1: LIFT T1WNB-10 - Construct	23-Aug-15	29-Aug-15	-219	0													
TAR.1W.T1WNB11-03	6	TAILRACE - UNIT 1: LIFT T1WNB-11 - Construct	29-Aug-15	04-Sep-15	-219	0													
TAR.1D.T1WNB12-03	6	TAILRACE - UNIT 1: LIFT T1WNB-12 - Construct	04-Sep-15	09-Sep-15	-219	0													
TAR.1D.T1WNB13-03	6	TAILRACE - UNIT 1: LIFT T1WNB-13 - Construct	09-Sep-15	15-Sep-15	-219	0													
TAR.1D.T1W2B14-03	6	TAILRACE - UNIT 1: LIFT T1W2B-14 - Construct	15-Sep-15	21-Sep-15	-219	0													
MOB.IC.Integra-33	21	Integrated Cover System - Dismantle ICS Structural Steel for Bay 1	28-Sep-15	19-Oct-15	-219	0													
TAR.1S.General-01	28	POWERHOUSE 1: Erect Structural steel main Frame with roof decking (excl. mezzanines)	19-Oct-15	16-Nov-15	-219	0													
MOB.IC.Integra-34	26	Integrated Cover System - Dismantle ICS Structural Steel for Bay 2	16-Nov-15	12-Dec-15	-219	0													
TAR.1S.General-03	21	POWERHOUSE 1: Erect Roofing	09-Dec-15	13-Jan-16	-107	0													
TAR.2S.General-01	28	POWERHOUSE 2: Erect Structural steel main Frame with roof decking (excl. mezzanines)	12-Dec-15	23-Jan-16	-219	0													
TAR.1S.General-07	0	P/H 1 - Building (Structural steel, HVAC etc..) - Works completion		28-Jan-16	-104	0													
PWH.E9.General-17	0	M26A - UNIT 1 - BUILDING ENCLOSED & HIGH BAY LIGHTING INSTALLED FOR CONTRACTORS CH		28-Jan-16*	-104	45													

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work summary

EXECUTION DETAILED SCHEDULE
Milestone M26

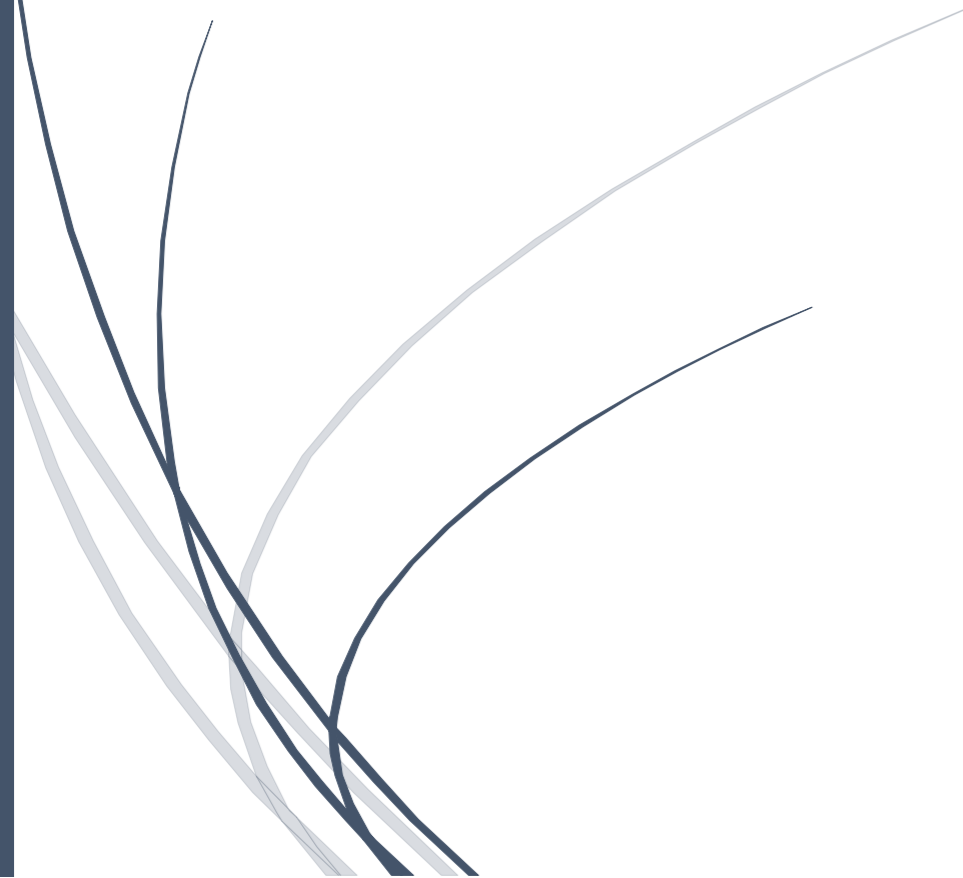
Date	Revision
11-Jan-15	ISSUED TO NALCOR FOR COMMENTS

CLIENT: NALCOR energy		MUSKRAT FALLS HYDRO PROJECT				ASTALDI CANADA inc																	
PROJECT: LOWER CHURCHILL PROJECT		CH0007: CIVIL WORKS																					
Activity ID	Original Duration	Activity Name	Start	Finish	Total Float	Free Float	2015												2016				
							Jan	F	Mar	Apr	M	Jun	Jul	Aug	S	Oct	N	Dec	Jan	Feb	Mar	Apr	M
1	460		16-Jan-15	21-Apr-16	-21	0																	
	9	DRAFT TUBE - Foundations preparation for Bay 1	16-Jan-15	25-Jan-15	-220	0																	
	20	DRAFT TUBE - UNIT 1: LIFT D1BNA-00 - Construct	26-Jan-15	14-Feb-15	-220	0																	
	14	DRAFT TUBE - UNIT 1: LIFT D1BSB-00 - Construct	02-Feb-15	16-Feb-15	-219	0																	
	16	DRAFT TUBE - UNIT 1: LIFT D1BNB-00 - Construct	16-Feb-15	04-Mar-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-01 - Construct	06-Mar-15	12-Mar-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-02 - Construct	14-Mar-15	20-Mar-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-03 - Construct	23-Mar-15	29-Mar-15	-219	0																	
	14	DRAFT TUBE - UNIT 1: LIFT D1USB-01 - Install Falsework	29-Mar-15	12-Apr-15	-220	0																	
	9	DRAFT TUBE - UNIT 1: LIFT D1USB-01 - Construct	12-Apr-15	21-Apr-15	-219	0																	
	9	DRAFT TUBE - UNIT 1: LIFT D1USB-02 - Construct	21-Apr-15	30-Apr-15	-219	0																	
	9	DRAFT TUBE - UNIT 1: LIFT D1UNB-01 - Construct	30-Apr-15	09-May-15	-219	0																	
	9	DRAFT TUBE - UNIT 1: LIFT D1UNB-02 - Construct	09-May-15	18-May-15	-219	0																	
	7	DRAFT TUBE - UNIT 1: LIFT D1UNB-03 - Construct	18-May-15	25-May-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1P1B-04 - Construct	25-May-15	31-May-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1WSA-04 - Construct	31-May-15	06-Jun-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1P1B-05 - Construct	06-Jun-15	12-Jun-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PSB-05 - Construct	06-Jun-15	12-Jun-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WSA-05 - Construct	12-Jun-15	18-Jun-15	-219	0																	
	6	DRAFT TUBE - UNIT 1: LIFT D1WNA-04 - Construct	18-Jun-15	24-Jun-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-05 - Construct	24-Jun-15	30-Jun-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-06 - Construct	30-Jun-15	06-Jul-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-07 - Construct	06-Jul-15	12-Jul-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-08 - Construct	12-Jul-15	18-Jul-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-09 - Construct	18-Jul-15	24-Jul-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-10 - Construct	24-Jul-15	30-Jul-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1PNB-11 - Construct	30-Jul-15	05-Aug-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WNA-11 - Construct	05-Aug-15	11-Aug-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WSA-11 - Construct	11-Aug-15	17-Aug-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WSB-11 - Construct	17-Aug-15	23-Aug-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WNB-10 - Construct	23-Aug-15	29-Aug-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WNB-11 - Construct	29-Aug-15	04-Sep-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WNB-12 - Construct	04-Sep-15	09-Sep-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1WNB-13 - Construct	09-Sep-15	15-Sep-15	-219	0																	
	6	TAILRACE - UNIT 1: LIFT T1W2B-14 - Construct	15-Sep-15	21-Sep-15	-219	0																	
	21	Integrated Cover System - Dismantle ICS Structural Steel for Bay 1	28-Sep-15	19-Oct-15	-219	0																	
	10	INTAKE - UNIT 1: LIFT I1U1A-06 - Construct	19-Oct-15	29-Oct-15	-209	0																	
	12	INTAKE - UNIT 1: LIFT I1UNA-06 - Construct	29-Oct-15	10-Nov-15	-209	0																	
	10	INTAKE - UNIT 1: LIFT I1UNA-07 - Construct	10-Nov-15	20-Nov-15	-209	0																	
	12	INTAKE - UNIT 1: LIFT I1UNA-08 - Construct	20-Nov-15	02-Dec-15	-209	0																	

	EXECUTION DETAILED SCHEDULE Milestone M28	Date 11-Jan-15	Revision ISSUED TO NALCOR FOR COMMENTS
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Appendix E: Purchase Order (PO) Register





PO	POS	SEQ	PO DATE	BP	BP DESCRIPTION	ITEM	ITEM DESCRIPTION	U.M.	CURR.	PO QTY	PRICE	PO AMOUNT	DISCOUNT	BACKORDER QTY	BACKORDER AMOUNT	PLANN.DL.DATE	RCVD QTY	RCVD AMOUNT	INVOICE QTY	INVOICE AMOUNT	RECEIPT DATE	RECEIPT	PACKING SLIP	WH	PROJECT	ACTIVITY	GL ACCOUNT	BUYER	LOCAL CURR.	PAID AMOUNT	CREATION DATE	LINE TEXT
E3000202	0	0	28-11-2014	00000070	NORTHERN SUNGAS AND THINGS LTD	032-0632707	SELF DEPOSITING LANYARDS-SALA DELTA#F92302	NR	CAD	25.00	139.95	3,498.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	2014-11-29		
E3000202	0	0	29-11-2014	00000070	NORTHERN SUNGAS AND THINGS LTD	032-0632708	SELF DEPOSITING LANYARDS-SALA DELTA#F92302	NR	CAD	25.00	399.95	9,998.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	2014-11-29		
E30003118	10	0	13-12-2014	00000086	SERCO CANADA INC	C0805012	REPAIR SERVICE	NR	CAD	1.00	150.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	10740	6213002	LEGRON DERRICK	0.00	13-12-2014	INSPECTION AND CERTIFICATION FOR TEREK	
E30003118	20	0	13-12-2014	00000086	SERCO CANADA INC	C0805012	REPAIR SERVICE	NR	CAD	1.00	150.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	10740	6213002	LEGRON DERRICK	0.00	13-12-2014	INSPECTION AND CERTIFICATION FOR TEREK	
E30003118	30	0	13-12-2014	00000086	SERCO CANADA INC	C0805012	REPAIR SERVICE	NR	CAD	1.00	150.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	10740	6213002	LEGRON DERRICK	0.00	13-12-2014	INSPECTION AND CERTIFICATION FOR TEREK	
E30003118	40	0	13-12-2014	00000086	SERCO CANADA INC	C0805012	REPAIR SERVICE	NR	CAD	1.00	25.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	10740	6213002	LEGRON DERRICK	0.00	13-12-2014	SHOP CONSUMABLE CHANGE ON EACH	
E30003224	40	0	11-12-2014	00000655	East Coast Interntion Trucks Inc	21NR2201578CA	DOOR ENTRANCE CASING #2201578CA	NR	CAD	2.00	91.28	182.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	11-12-2014	INTERNATIONAL BUS P810500	
E30003224	20	0	11-12-2014	00000655	East Coast Interntion Trucks Inc	21NR2587473C1	CONNECTING ROD #2587473C1	NR	CAD	2.00	120.90	241.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	11-12-2014	PART NUMBER:	
E30003224	40	0	11-12-2014	00000655	East Coast Interntion Trucks Inc	21NR2587473C1	LINKAGE ROD #2587473C1	NR	CAD	2.00	30.33	60.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	11-12-2014	PART NUMBER:	
E30003467	10	0	19-12-2014	00000388	CONTRACTOR'S ENGINEERING INC	023-01321505	CEI DRIFT TUBE PULSH/PULL BRACES & WORK PLATE	NR	USD	1.00	211,280.00	211,280.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	19-12-2014	AS PER QUOTATION 257-13-82	
E30003479	10	0	02-12-2014	00000484	HICKMAN TRUCK CENTRE	21NR2607897C3	DRIVERS HEATER MOTOR #2607897C3	NR	CAD	2.00	190.00	380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	02-12-2014	50 PAIRS	
E30003495	10	0	01-12-2014	00000272	VALLEY RENTALS & SALES LTD	00308110022	VALLEY RENTALS 12 WEIGHT (20 LITER PAL)	LT	CAD	1,000.00	3,650.00	3,650.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	MO0010824	7267931 INV		0.00	01-12-2014		
E30003497	10	0	19-12-2014	00000388	CONTRACTOR'S ENGINEERING INC	023-01321501	CEI DRIFT TUBE FORMWORK ACCESSORIES	NR	USD	4.00	48,970.00	195,880.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	19-12-2014	AS PER ATTACHED QUOTATION 257-13-C1	
E30003531	10	0	26-11-2014	00000228	ATLAS COPCO CONSTRUCTION EQUIP CAN	DATC25.700162P1000	E-T-A CIRCUIT BREAKER #2-5700-162-P10-DO	NR	CAD	2.00	147.87	295.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	26-11-2014	15 AMP COMPACT 28 VOLT	
E30003532	10	0	26-11-2014	00000133	INDUSTRIAL RELATIONS MANAGEMENT	C0805013	WORKS AND SERVICES (NR)	NR	CAD	1.00	3,400.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	10506	6250002	Hiscock Andrew	3,400.00	26-11-2014		
E30003533	20	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU172435006	FUSE 1.4MT #21354006	NR	CAD	10.00	1.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	20	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU17292117002	FUSE 12.5A #292117002	NR	CAD	10.00	1.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	20	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU17292118001	FUSE 4A MAT #292118001	NR	CAD	10.00	1.40	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	50	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1729493009	TEMPERATURE TRANSMITTER #278493009	NR	CAD	1.00	96.43	96.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	60	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU17580763	VALVE 4/2 24 VOLT #80763	NR	CAD	1.00	254.38	254.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	70	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1580764	VALVE 4/2 24 VOLT #80764	NR	CAD	1.00	140.18	140.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	80	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1580765	VALVE 4/2 24 VOLT #80765	NR	CAD	1.00	275.71	275.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	90	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1409337	ELECTRIC MOTOR 24 VOLT #409337	NR	CAD	1.00	320.81	320.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	09-12-2014	REPLACED BY:	
E30003533	100	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1A506146	SENSOR ROOM RESET SWITCH #A506146	NR	CAD	1.00	119.69	119.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	110	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU15752646	CENTRAL ELECTRIC LUBE PUMP 24 VOLT #5752646	NR	CAD	1.00	1,132.60	1,132.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	120	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU174052013	FUSE MAIN 50 AMP #4052013	NR	CAD	1.00	8.29	8.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	130	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1067155008	PLASTIC HOUSING #067155008	NR	CAD	1.00	84.06	84.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	140	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1402758	PUSHBUTTON - 5 TOP #402758	NR	CAD	1.00	105.83	105.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	150	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU124733008	CIRCUIT ELEMENT BUTTION 10 #24733008	NR	CAD	1.00	15.13	15.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	160	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU173808306	FUSE 6.3 A T 250V #173808306	NR	CAD	1.00	5.02	5.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	170	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU17532745	VIBRATOR 24 VOLT #532745	NR	CAD	1.00	733.69	733.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	27-11-2014	ITEM NUMBER:	
E30003533	180	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU1530321	HOPPER SAFETY SWITCH/ELECTRIC RETROFIT KIT 3.2	NR	CAD	1.00	989.56	989.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	13-12-2014	ITEM NUMBER:	
E30003533	190	0	26-11-2014	00000306	POMPACTION INCORPORATED	2PU17519369	LIQUID FAN 24 VOLT #5719369	NR	CAD	1.00	320.81	320.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		E30001	E300001	99999999999999			0.00	09-12-2014	PART NUMBER:	
E30003533	200	0	26-11-2014	00000306	POMPACTION INCORPORATED																											



PO	POS	SEQ.	PO DATE	BP	BP DESCRIPTION	ITEM	ITEM DESCRIPTION	U.M.	CURR.	PO QTY	PRICE	PO AMOUNT	DISCOUNT	BACKORDER QTY	BACKORDER AMOUNT	PLANN.DLTD.DTE	RCVD QTY	RCVD AMOUNT	INVOICE QTY	INVOICE AMOUNT	RECEIPT DATE	RECEIPT	PACKING SLIP	WH	PROJECT	ACTIVITY	GL ACCOUNT	BUYER	LOCAL CURR.	PAID AMOUNT	CREATION DATE	LINE TEXT	
130003560	10	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-1258314	NUT EYE BOLT 12 X38MM (1/2" X 3/4")	NR	CAD	1,330.00	3.34	3,742.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-277 SHOULD NUT FY	
130003560	10	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-1258314	NUT EYE BOLT 12 X38MM (1/2" X 3/4")	NR	CAD	0.00	3.34	0.00	0.00	541.00	1,806.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	11-12-2014	THE CROSBY GROUP LLC G-277 SHOULD NUT FY
130003560	20	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-1258314	NUT EYE BOLT 12.5 X 83MM (1/2" X 6")	NR	CAD	200.00	4.26	852.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-277 SHOULD NUT FY
130003560	20	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-1258314	NUT EYE BOLT 12.5 X 83MM (1/2" X 6")	NR	CAD	0.00	4.26	0.00	0.00	157.00	668.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-277 SHOULD NUT FY
130003560	30	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-5509528	FLANGE CLAMP	NR	CAD	400.00	21.50	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	11-12-2014	THE CROSBY GROUP LLC P14F3050
130003560	30	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-88091703	FLANGE CLAMP	NR	CAD	200.00	21.50	4,300.00	0.00	200.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	11-12-2014	THE CROSBY GROUP LLC P14F3050
130003560	40	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-5704887	HOOKS SWIVEL 12.5 MM (1/2") TYP	NR	CAD	500.00	128.00	64,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-1326 SHUR-LOC SW
130003560	40	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-5704887	HOOKS SWIVEL 12.5 MM (1/2") TYP	NR	CAD	0.00	128.00	0.00	0.00	13,589.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-1326 SHUR-LOC SW
130003560	50	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-5509528	GALV STEEL SHACKLE 5/8"	NR	CAD	2,200.00	15.46	34,212.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-2094 CROSBY ALLO
130003560	50	1	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-5509528	GALV STEEL SHACKLE 5/8"	NR	CAD	0.00	15.46	0.00	0.00	1,648.00	20,534.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-2094 CROSBY ALLO
130003560	60	0	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	01454012012	THIMBLES GALV. FOR RDRP DIAM.12MM	NR	CAD	1,220.00	2.62	3,196.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-411 CROSBY ALLOY
130003560	70	0	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	01453012011	CLIPS GALV. FOR WIRE ROP DIA. 11MM	NR	CAD	3,620.00	2.87	10,475.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-429A FIT GRIP CL
130003560	80	0	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	01453012011	CLIPS GALV. FOR WIRE ROP DIA. 11MM	NR	CAD	4.00	2.87	11.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	THE CROSBY GROUP LLC G-429A FIT GRIP CL
130003560	90	0	28-11-2014	000000270	NORTHERN SUNGS AND THINGS LTD.	014-61040304	STEEL CABLE 1/2"	M	CAD	2,150.00	4.39	9,452.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Bird, Barbara	CAD	0.00	28-11-2014	7054 FEET @ 1.34 PER FOOT
130003561	10	0	28-11-2014	000000273	ENVIRO-SAFE FUEL SYSTEMS LIMITED	09001100933	BUSHING BLACK IRON 2"x1-1/4" NPT 150PSI	NR	CAD	2.00	6.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Hillier Vicki	CAD	0.00	28-11-2014	
130003561	20	0	28-11-2014	000000273	ENVIRO-SAFE FUEL SYSTEMS LIMITED	09001100934	MILIT BLACK IRON 1-1/4" 76" NPT SCHEDULE 40	NR	CAD	2.00	2.54	7.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Hillier Vicki	CAD	0.00	28-11-2014	
130003561	30	0	28-11-2014	000000273	ENVIRO-SAFE FUEL SYSTEMS LIMITED	09001100935	FITTING CAMLOCK	NR	CAD	2.00	1.85	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	9999999999999999	Hillier Vicki	CAD	0.00	28-11-2014	
130003562	10	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118908	HILTI 29382 HAMMER DRILL BIT TE-YX 91"x21"	NR	CAD	40.00	68.50	2,740.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	20	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118913	HILTI 29280 HAMMER DRILL BIT TE-YX 1-1/8" x 21"	NR	CAD	20.00	88.75	1,775.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	30	1	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118910	HILTI 29326 HAMMER DRILL BIT TE-YX 91.14"x21"	NR	CAD	40.00	96.25	3,850.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	30	1	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118910	HILTI 29326 HAMMER DRILL BIT TE-YX 91.14"x21"	NR	CAD	0.00	96.25	0.00	0.00	25.00	2,406.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	40	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118912	HAMMER DRILL BIT TE-YX 1 1/2" X 23" (293032)	NR	CAD	40.00	129.25	5,170.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	40	1	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-62118912	HAMMER DRILL BIT TE-YX 1 1/2" X 23" (293032)	NR	CAD	0.00	129.25	0.00	0.00	25.00	3,211.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	50	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	364-56819919	HILTI HAMMER DRILL BIT TE-YX 1 3/8" X 23" 293039	NR	CAD	20.00	159.50	3,190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	60	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	015-0200052	REBAR TE WIRE 16 GAUGE (ROLL)	NR	CAD	200.00	3.50	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	70	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	014-91424008	RDP POLYPROPYLENE TWISTED (YELLOW) 1/2"	FT	CAD	10,000.00	0.13	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	80	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	014-91424008	RDP POLYPROPYLENE TWISTED (YELLOW) 1/2"	FT	CAD	10,000.00	0.22	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003562	90	0	28-11-2014	000000272	VALLEY RENTALS & SALES LTD	101-01201193	FIBROUS METAL CUTTING BLADE 14" 66" 1" ANGLE	NR	CAD	25.00	4.40	110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	
130003563	10	0	28-11-2014	000000202	BATTLEFIELD EQUIPMENT	2CAT1512999	QUICK COUPLER R 1532999	NR	CAD	3.00	65.41	196.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	RENTAL EDWAT747 OR HILTI (NO SUBSTITUTE)
130003563	20	0	28-11-2014	000000202	BATTLEFIELD EQUIPMENT	2CAT1512999	QUICK COUPLER R 1532999	NR	CAD	3.00	63.62	190.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E30001	10720		CAD	0.00	28-11-2014	BATTLEFIELD PART NUMBER



PO	POS	SEQ	PO DATE	BP	BP DESCRIPTION	ITEM	ITEM DESCRIPTION	U.M.	CURR.	PO QTY	PRICE	PO AMOUNT	DISCOUNT	BACKORDER QTY	BACKORDER AMOUNT	PLANN.DL.DATE	RCVD QTY	RCVD AMOUNT	INVOICE QTY	INVOICE AMOUNT	RECEIPT DATE	RECEIPT	PACKING SLIP	WH	PROJECT	ACTIVITY	GL ACCOUNT	BUYER	LOCAL CURR.	PAID AMOUNT	CREATION DATE	LINE TEXT
130003568	860	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2PAPFA130575	2ND ROW FOR ROOM THERMOSTAT 20210 5PA-20575	NR	CAD	5.00	6.47	32.35	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	870	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2PAPFA130575	2ND ROW FOR ROOM THERMOSTAT 20210 5PA-20575	NR	CAD	2.00	366.02	732.04	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	880	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2PAPFA130575	2ND ROW FOR ROOM THERMOSTAT 20210 5PA-20575	NR	CAD	2.00	85.95	171.90	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	890	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2PAPFA130575	2ND ROW FOR ROOM THERMOSTAT 20210 5PA-20575	NR	CAD	4.00	136.13	544.52	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	900	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2PAPFA130575	2ND ROW FOR ROOM THERMOSTAT 20210 5PA-20575	NR	CAD	6.00	242.00	1452.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	910	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC520001958	BURNER NOZZLE S 5GPH X 60 DEG #520001958	NR	CAD	16.00	20.11	321.76	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	920	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC520001958	BURNER NOZZLE S 5GPH X 60 DEG #520001958	NR	CAD	0.00	20.11	0.00	0.00	12.00	241.32		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	930	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0169192	BURNER FUEL PUMP #0169192 (NEW #0172514)	NR	CAD	2.00	312.31	624.62	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	940	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0169113	FUEL SHUT OFF KIT #0169113	NR	CAD	2.00	86.43	172.86	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	950	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0169120	FUEL PUMP COUPLER #0169120	NR	CAD	2.00	95.17	191.34	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	960	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0169264	BURNER MOUNTING GASKET #0169264	NR	CAD	2.00	10.40	20.80	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	970	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0169154	BURNER ELECTRODE KIT #0169154	NR	CAD	6.00	27.92	167.52	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	980	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0168966	BURNER FILTER ELEMENT SET C/W GASKETS #0168966	NR	CAD	50.00	5.76	288.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	990	1	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0168966	FUEL FILTER ELEMENT SET C/W GASKETS #0168966	NR	CAD	0.00	5.76	0.00	0.00	24.00	138.24		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	980	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0192543	BLOWER BELT #0192543	NR	CAD	4.00	22.84	91.36	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	990	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0192587	BLOWER BEARING #0192587	NR	CAD	2.00	43.97	87.94	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1000	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0172043	LASE 300V #0172043	NR	CAD	10.00	145.22	1452.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1020	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC0166693	FUSE SA #0166693	NR	CAD	10.00	7.56	75.60	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1020	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC520003303	START CAPACITOR #520003303	NR	CAD	4.00	73.64	294.56	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1030	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC5200035097	REMOTE THERMOSTAT C/W SW LEAD #5200035097	NR	CAD	2.00	268.69	537.38	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1040	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC520004579	12" DUCT COVER #520004579	NR	CAD	60.00	85.23	5113.80	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1050	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC179339	20" DUCT COVER #179339	NR	CAD	60.00	159.39	9563.40	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1060	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014730	PRIMARY FUEL FILTER #5200014730	NR	CAD	16.00	89.50	1432.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1070	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014731	SECONDARY FUEL FILTER #5200014731	NR	CAD	16.00	89.10	1425.60	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1080	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014738	AIR FILTER (OUTER) #5200014738	NR	CAD	16.00	261.77	4188.32	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1090	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014739	AIR FILTER (INNER) #5200014739	NR	CAD	16.00	105.55	1688.80	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1100	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200013561	HYDRAULIC FILTER #5200013561	NR	CAD	8.00	283.85	2270.80	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1110	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014155	PALEO G1 (5 GALLON) #5200014155	NR	CAD	2.00	895.00	1790.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1120	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200012218	CVY FILTER #5200012218	NR	CAD	2.00	210.05	420.10	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1130	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2WAC520001801	HOUR METER #520001801	NR	CAD	2.00	221.30	442.60	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1140	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2FLS200014732	Oil FILTER ELEMENT #5200014732	NR	CAD	16.00	33.31	532.96	0.00	0.00	0.00		0.00	0.00	0.00	0.00	18-12-2014	M00010988	700000814	E30001	E300001	9999999999999999	Lannon Sean	CAD	0.00	29-11-2014		
130003568	1150	0	29-11-2014	00000002	BATTLEFIELD EQUIPMENT	2SAM900044	CARTRIDGE #M90044 (106002000)	NR	CAD	20.00	9.90	198.00	0.00	0.00	0.00		0.00	0.00														



PO	POS	SEQ.	PO DATE	BP	BP DESCRIPTION	ITEM	ITEM DESCRIPTION	U.M.	CURR.	PO QTY	PRICE	PO AMOUNT	DISCOUNT	BACKORDER QTY	BACKORDER AMOUNT	PLANN.DL.DATE	RCVD QTY	RCVD AMOUNT	INVOICE QTY	INVOICE AMOUNT	RECEIPT DATE	RECEIPT	PACKING SLIP	WH	PROJECT	ACTIVITY	GL ACCOUNT	BUYER	LOCAL CURR.	PAID AMOUNT	CREATION DATE	LINE TEXT		
E30003669	170	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1248406	ROPE PUMP 120X120	NR	CAD	1.00	6,889.90	6,889.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	180	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1248406	DELIVERY PISTON	NR	CAD	1.00	1,107.72	1,107.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	190	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1248406	DELIVERY PISTON	NR	CAD	1.00	658.41	658.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	200	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1538746	SIAT OF WEAR PART	NR	CAD	1.00	11,400.54	11,400.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	210	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1538746	DISCHARGES SUPPORT	NR	CAD	1.00	4,540.08	4,540.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	220	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1538746	AGITATOR RS909	NR	CAD	1.00	1,502.29	1,502.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	230	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1538746	MIXER SHAFT OVERTABLE	NR	CAD	1.00	1,185.80	1,185.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	240	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1241208	PLASTIC WATER TANK	NR	CAD	1.00	1,187.52	1,187.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	250	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1241208	SQUEEZES VALVE SR	NR	CAD	1.00	1,950.27	1,950.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	260	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1410457	90 DEGR. DECK ELBOW	NR	CAD	6.00	645.35	3,872.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	270	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1410457	V3-300MM	NR	CAD	2.00	761.49	1,522.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	280	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1410457	V10-1085MM	NR	CAD	2.00	521.99	1,043.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	290	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	ELOW P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	10.00	32.88	3,288.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	300	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	BOOM PIPE P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	8.00	32.62	2,612.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	310	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	BOOM PIPE P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	1.00	111.18	111.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	320	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	BOOM PIPE P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	1.00	287.57	287.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	330	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	BOOM PIPE P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	1.00	209.42	209.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	340	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	BOOM PIPE P2W DIN 125.5 3 + 1.5MMX1000MM W/ NR	CAD	2.00	404.71	809.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	350	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	SEAL TYPE C 125.5/5.5 *R000006169	NR	CAD	30.00	3.54	106.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	360	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	SEAL TYPE A DN125.5 *R000006553	NR	CAD	8.00	2.62	20.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003669	370	0	08-12-2014	000000306	POMPACTION INCORPORATED	2PU1718844	5-TUBE 521181SPXEX-238.5/9	NR	CAD	1.00	4,447.40	4,447.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E30001	E300001	0991000	HILLER VICKI	CAD	0.00	0.00	08-12-2014	INCLUDES:		
E30003670	10	0	08-12-2014	000000295	ACKLANDS-GRANGER INC.	044-0107508	DUCT TAPE (CREPE REPAIR) 2"	RTL	CAD	30.00	4.77	143.10	0.00	0.00	0.00	0.00	15-12-2014	30.00	143.10	30.00	143.10	14-12-2014	M00010781	7628	0003361	E30001	E300001	9999999999999999	LEGROW DERRICK	CAD	0.00	0.00	08-12-2014	48" x 45.7M CAT# MM2929
E30003670	20	0	08-12-2014	000000295	ACKLANDS-GRANGER INC.	499-1101082																												



PO	POS	SEQ	PO DATE	BP	BP DESCRIPTION	ITEM	ITEM DESCRIPTION	U.M.	CURR.	PO QTY	PRICE	PO AMOUNT	DISCOUNT	BACKORDER QTY	BACKORDER AMOUNT	PLANN.DL.DATE	RCVD QTY	RCVD AMOUNT	INVOICE QTY	INVOICE AMOUNT	RECEIPT DATE	RECEIPT	PACKING SLIP	WH	PROJECT	ACTIVITY	GL ACCOUNT	BUYER	LOCAL CURR.	PAID AMOUNT	CREATION DATE	LINE TEXT
130003720	0	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-109	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	0	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-109	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	20	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-110	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	20	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-110	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	30	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-110	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	30	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-110	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	40	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-111	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	40	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-111	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	50	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-112	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	50	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010385		E00001	E30003	ACMF1246-112	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	60	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010370		E00001	E30003	ACMF1246-114	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	60	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010370		E00001	E30003	ACMF1246-114	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	70	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010371		E00001	E30003	ACMF1246-115	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	70	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010371		E00001	E30003	ACMF1246-115	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	80	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010372		E00001	E30003	ACMF1246-116	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	80	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010372		E00001	E30003	ACMF1246-116	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	90	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010373		E00001	E30003	ACMF1246-117	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	90	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010373		E00001	E30003	ACMF1246-117	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	100	0	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	36.00	346.91	12,488.76	0.00	0.00	0.00	10-12-2014	1.00	346.91	0.00	0.00	31-12-2014	M00010374		E00001	E30003	ACMF1246-118	6240002	Pauly Robert	CAD	346.91	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	100	1	10-12-2014	000000351	GE CANADA LEASING SERVICES COMPANY	9001	LEASING	MON	CAD	0.00	346.91	0.00	0.00	35.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	31-12-2014	M00010374		E00001	E30003	ACMF1246-118	6240002	Pauly Robert	CAD	0.00	10-12-2014	IDF Heaters Wacker HI 900 D
130003720	110	0	10-12-2014	000000605	Norseman Inc	033-30021475	INSULATE TAMP R VALVE 7.5-2"	NR	CAD	26.00	1,930.22	38,604.20	0.00	0.00	0.00	10-12-2014	1.00	1,930.22	0.00	0.00	10-12-2014	M00010385	8014617	E00001	E30001	9999999999999999	6240002	Joanne Strling	CAD	0.00	10-12-2014	SIZE 3.5X3X1.5M POS (A) LATERAL WALL ICS
130003721	10	1	10-12-2014	000000605	Norseman Inc	033-30021475	INSULATE TAMP R VALVE 7.5-2"	NR	CAD	0.00	1,930.22	0.00	0.00	10.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010385		E00001	E30001	9999999999999999	6240002	Joanne Strling	CAD	0.00	10-12-2014	SIZE 3.5X3X1.5M POS (A) LATERAL WALL ICS
130003722	10	1	10-12-2014	000000484	HICKMAN TRUCK CENTRE	ZVO45013	AIR DRYER	NR	CAD	1.00	725.33	725.33	0.00	0.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010374		E00001	E30001	9999999999999999	6240002	Hillier Vicki	CAD	0.00	10-12-2014	6613.34 + \$510.00 CORE + \$725.33
130003722	80	0	10-12-2014	000000484	HICKMAN TRUCK CENTRE	ZVO45013	PLUS FOR DRYER (ELECTRICAL)	NR	CAD	1.00	28.36	28.36	0.00	0.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010374		E00001	E30001	9999999999999999	6240002	Hillier Vicki	CAD	0.00	10-12-2014	
130003723	10	0	10-12-2014	000000505	PRECISION AUTOMOTIVE INC	C0895012	REPAIR SERVICE	NR	CAD	1.00	325.00	325.00	0.00	0.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010374		E00001	E30003	CW1268	6231002	Lannon Sean	CAD	0.00	10-12-2014	TOW TRUCK SERVICE
130003724	20	0	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410103	THINSULATE THERMAL GLOVES 3M (400) 8 (M)	PAI	CAD	470.00	7.50	3,525.00	0.00	0.00	0.00	10-12-2014	114.00	1,005.00	134.00	1,005.00	16-12-2014	M00010787	7628 0003366	E00001	E30001	E30001	10741	LEGROW DERRICK	CAD	0.00	10-12-2014	CAT NO. CDR GF15
130003724	20	1	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410103	THINSULATE THERMAL GLOVES 3M (400) 8 (M)	PAI	CAD	0.00	7.50	0.00	0.00	336.00	0.00	10-12-2014	0.00	0.00	600.00	0.00	10-12-2014	M00010986	9239	E00001	E30001	10741	LEGROW DERRICK	CAD	0.00	10-12-2014	CAT NO. CDR GF15	
130003724	30	2	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410103	THINSULATE THERMAL GLOVES 3M (400) 8 (M)	PAI	CAD	0.00	7.50	0.00	0.00	336.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010986	9239	E00001	E30001	10741	LEGROW DERRICK	CAD	0.00	10-12-2014	CAT NO. CDR GF15	
130003724	30	0	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410104	THINSULATE THERMAL GLOVES 3M (400) 9 (L)	PAI	CAD	590.00	7.50	4,425.00	0.00	0.00	0.00	10-12-2014	160.00	1,200.00	0.00	0.00	10-12-2014	M00010986	9239	E00001	E30001	10741	LEGROW DERRICK	CAD	0.00	10-12-2014	CAT NO. CDR GF15	
130003724	40	1	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410104	THINSULATE THERMAL GLOVES 3M (400) 9 (L)	PAI	CAD	0.00	7.50	0.00	0.00	430.00	0.00	10-12-2014	0.00	0.00	0.00	0.00	10-12-2014	M00010986	9239	E00001	E30001	10741	LEGROW DERRICK	CAD	0.00	10-12-2014	CAT NO. CDR GF15	
130003724	40	0	10-12-2014	000000295	ACKLANDS-GRANGER INC	03121410105	THINSULATE THERMAL GLOVES 3M (400) 10 (XL)	PAI	CAD	670.00	11.50	7,705.00	0.00	0.00	0.00	10-12-2014	31.00	354.00	0.00	0.00	10-12-											

A decorative graphic on the left side of the page consists of a dark blue vertical bar, a blue arrow pointing right from its center, and several curved lines in dark blue and light grey extending from the bottom of the vertical bar towards the right.

Appendix F: List of Equipment

**MUSKRAT FALLS
LOWER CHURCHILL PROJECT**



Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF0505-003	EXCAVATOR	CAT	336E	CAT0366EKBMH00188		
ACMF0505-002	EXCAVATOR	CAT	336E	CAT0336EFJH01860		21-Jul-14
ACMF0505-001	EXCAVATOR	CAT	320D	SPN01527		
ACMF0530-002	ARTICULATED TRUCK	JOHN DEERE	370E	1DW370ETCEE658779		
ACMF0530-001	ARTICULATED TRUCK	JOHN DEERE	370E	1DW370ETCEE658532		
ACMF0525-001	DOZER	CAT	D6T XL	GMK00305		16-Nov-14
ACMF0540-003	GRADER	CAT	140M	CAT0140MVB9D03504	XAP 210	27-Nov-14
ACMF0540-002	GRADER	CAT	140M	CAT0140MAB9D02628	XAN 900	27-Nov-14
ACMF0540-001	GRADER	CAT	140M	B9D03874		
ACMF0504-001	MINI-HOE	CAT	304E	CAT0304EJTTN01973		
ACMF0532-003	WHEEL LOADER	CAT	980K	CAT0980KKW7K02178		22-Jul-14
ACMF0532-004	WHEEL LOADER	CAT	966M	CAT0966MEKJP00515		2-Aug-14
ACMF0532-002	WHEEL LOADER	CAT	966K	TFS01061		1-Aug-14
ACMF0532-001	WHEEL LOADER	CAT	950H	K5K00805		10-Mar-14
ACMF0532-005	WHEEL LOADER	JOHN DEERE	624J	DW624JP602134	XAP 201	27-Nov-14
ACMF0537-001	SKIDSTEER	CAT	289D	CAT0289DHTAW02127		27-Nov-04
ACMF0537-002	SKIDSTEER	CAT	289D	CAT0289DJTAW02136		
ACMF0537-003	SKIDSTEER	CAT	289D	CAT0289DHTAW02130		
ACMF0536-001	BACKHOE	JOHN DEERE	310SJ	1FVHC3B59DHB867		5-May-14
ACMF1142-005	TELEHANDLER	CAT	TL642C	THG00993		
ACMF1142-002	TELEHANDLER	CAT	TL642C	THG00480		
ACMF1142-001	TELEHANDLER	CAT	TL642C	THG00556		
ACMF1142-004	TELEHANDLER	CAT	TH514C	MWC00381		
ACMF1142-003	TELEHANDLER	CAT	TH514C	MWC00382		
ACMF1101-003	CRANE	TEREX	Rt780	1T9RT700CCW161175		
ACMF1101-002	CRANE	TEREX	Rt780	1T9RT704VDW161417		
ACMF1101-001	CRANE	TEREX	Rt780	1T9RT704VDW161357		
ACMF1101-004	CRANE	TEREX	Rt 555-2	1T9RT704VDW161604		
ACMF1104-003	BOOM TRUCK	FREIGHTLINER	M2106	1FVHC3B59DHB867		
ACMF1104-002	BOOM TRUCK	FREIGHTLINER	M2106	1FVHC3B58DBW6170		
ACMF1104-001	BOOM TRUCK	FREIGHTLINER	108SD	1FVHCG5B8DHF9922		
ACMF1105-001	CRAWLER CRANE 220 TONS	MANITOWOC	14000	14001109		
ACMF5541-002	ROCK DRILL	ATLAS COPCO	T30	AV014a1055		
ACMF5541-001	ROCK DRILL	ATLAS COPCO	T30	AV013a1165		
ACMF0302-002	AIR COMPRESSOR	ATLAS COPCO	XATS 750 JD7IT4	HOP081127		
ACMF0302-001	AIR COMPRESSOR	ATLAS COPCO	XATS 750 JD7IT4	HOP081086		20-Mar-14
ACMF0302-004	AIR COMPRESSOR	SULLAIR	185	2.01404E+11		
ACMF0302-003	AIR COMPRESSOR	SULLAIR	185	2.01404E+11		25-Jul-14
ACMF1143-004	ARTICOLATED BOOM LIFT	JLG	600 AJ	300183143		
ACMF1143-003	ARTICOLATED BOOM LIFT	JLG	600 AJ	300183141		
ACMF1143-002	ARTICOLATED BOOM LIFT	JLG	600 AJ	300183140		
ACMF1143-001	ARTICOLATED BOOM LIFT	JLG	600 AJ	300183145		
ACMF0205-012	POWER GENERATOR 400KVA	MAGNUM	MMG405	1170438 / 1031189		6-Jun-14
ACMF0205-013	POWER GENERATOR 400KVA	MAGNUM	MMG405	1169679 / 1031190		6-Jun-14
ACMF0205-044	POWER GENERATOR 320KVA	MAGNUM	MMG320	1413233		
ACMF0205-043	POWER GENERATOR 320KVA	MAGNUM	MMG320	1413234		
ACMF0205-040	POWER GENERATOR 320KVA	MAGNUM	MMG320	1413984		4-Dec-14
ACMF0205-039	POWER GENERATOR 320KVA	MAGNUM	MMG320	1413983		4-Dec-14
ACMF0205-023	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1313855		6-Nov-14
ACMF0205-022	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1400490		6-Nov-14
ACMF0205-021	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1408431		6-Nov-14
ACMF0205-020	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1408430		5-Nov-14
ACMF0205-019	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1313854		5-Nov-14
ACMF0205-018	POWER GENERATOR 150KVA	MAGNUM	MMG150D	1313853		5-Nov-14
ACMF0205-011	POWER GENERATOR 75KVA	MAGNUM	MMG75	1401113		30-May-14
ACMF0205-010	POWER GENERATOR 75KVA	MAGNUM	MMG75	1400291		30-May-14
ACMF0205-009	POWER GENERATOR 75KVA	MAGNUM	MMG75	1313380		30-May-14
ACMF0205-008	POWER GENERATOR 75KVA	MAGNUM	MMG75	1313379		30-Apr-14
ACMF0205-050	POWER GENERATOR 45KVA	MAGNUM	MMG45	1414726		17-Dec-14
ACMF0205-049	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413731		17-Dec-14
ACMF0205-048	POWER GENERATOR 45KVA	MAGNUM	MMG45	1414725		17-Dec-14
ACMF0205-047	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413254		17-Dec-14
ACMF0205-046	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413255		17-Dec-14
ACMF0205-045	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413248		17-Dec-14
ACMF0205-042	POWER GENERATOR 45KVA	MAGNUM	MMG45	1408054		9-Dec-14
ACMF0205-041	POWER GENERATOR 45KVA	MAGNUM	MMG45	1411991		9-Dec-14
ACMF0205-038	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413258		6-Dec-14
ACMF0205-037	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413249		6-Dec-14
ACMF0205-036	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413260		6-Dec-14
ACMF0205-035	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413730		6-Dec-14
ACMF0205-034	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413261		6-Dec-14
ACMF0205-032	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413259		5-Dec-14

Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF0205-031	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413250		2-Dec-14
ACMF0205-030	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413252		2-Dec-14
ACMF0205-029	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413256		2-Dec-14
ACMF0205-028	POWER GENERATOR 45KVA	MAGNUM	MMG45	1413253		2-Dec-14
ACMF0205-027	POWER GENERATOR 45KVA	MAGNUM	MMG45	1411990		13-Nov-12
ACMF0205-026	POWER GENERATOR 45KVA	MAGNUM	MMG45	1408904		13-Nov-14
ACMF0205-025	POWER GENERATOR 45KVA	MAGNUM	MMG45	1408903		13-Nov-12
ACMF0205-024	POWER GENERATOR 45KVA	MAGNUM	MMG45	1411989		13-Nov-14
ACMF0205-003	POWER GENERATOR 150KVA	WACKER NEUSON	G150	20178323		20-Apr-14
ACMF0205-002	POWER GENERATOR 150KVA	WACKER NEUSON	G150	20178321		19-Apr-14
ACMF0205-001	POWER GENERATOR 150KVA	WACKER NEUSON	G150	20210945		16-Apr-14
ACMF0205-017	POWER GENERATOR 25KVA	WACKER NEUSON	G25	20194382		17-Oct-14
ACMF0205-016	POWER GENERATOR 25KVA	WACKER NEUSON	G25	20192905		17-Oct-14
ACMF0205-015	POWER GENERATOR 25KVA	WACKER NEUSON	G25	20192907		17-Oct-14
ACMF0205-005	POWER GENERATOR 1000KVA	CATERPILLAR	C32	JSJ02296		9-May-14
ACMF0205-004	POWER GENERATOR 1000KVA	CATERPILLAR	C32	JSJ02295		29-Apr-14
ACMF0205-051	POWER GENERATOR 1000KVA	CATERPILLAR	C32	CAT00C32EJAZ01406		
ACMF0205-052	POWER GENERATOR 1000KVA	CATERPILLAR	C32	CAT00C32CJAZ01561		
ACMF0205-007	POWER GENERATOR 500 KVA	CATERPILLAR	C 15	G6B19837		30-May-14
ACMF0205-006	POWER GENERATOR 500 KVA	CATERPILLAR	C 15	G6B20585		23-May-14
ACMF0205-014	POWER GENERATOR 570KVA	IR/DOOSAN	G570	1214325 / 426419UEVD78		16-Jul-14
ACMF1434-001	TRUCK CONCRETE PUMP	PUTZMEISTER	BSF47Z.16H	20194382		
ACMF1434-002	TRUCK CONCRETE PUMP	PUTZMEISTER	BSF38Z.16H	1M2AV04CXFM012020		
ACMF1431-004	CONCRETE PUMP	PUTZMEISTER	BSA2110HP D	210108059		
ACMF1431-003	CONCRETE PUMP	PUTZMEISTER	BSA2110HP D	210108313		
ACMF1431-002	CONCRETE PUMP	PUTZMEISTER	BSA2110HP D	210108054		
ACMF1431-001	CONCRETE PUMP	PUTZMEISTER	BSA2110HP D	210108152		
ACMF1436-001	TELEBELT	PUTZMEISTER	TB130	390600601		
ACMF1433-005	PLACING BOOMS	PUTZMEISTER	MXR242Z-150	680600110		
ACMF1433-004	PLACING BOOMS	PUTZMEISTER	MXR242Z-150	680600107		
ACMF1433-003	PLACING BOOMS	PUTZMEISTER	MXR242Z-150	680600109		
ACMF1433-002	PLACING BOOMS	PUTZMEISTER	MXR242Z-150	680600108		
ACMF1433-001	PLACING BOOMS	PUTZMEISTER	MXR242Z-150	680600106		
ACMF0605-008	TRUCK/SAND/SNOW	FREIGHTLINER	SD 5D4	1FVHG3DV3EHFK6886	CWH 238	27-Nov-14
ACMF0605-007	WATER TRUCK	STERLING	STELT8	2FZHAWDJ86AW58008	CWN 375	27-Nov-14
ACMF0605-006	WATER TRUCK	STERLING	STELT8	2FZHAWDJ76AW58016	CWN 377	27-Nov-14
ACMF0605-005	WATER TRUCK	STERLING	STELT8	2FZHAWDJ66AW58010		29-Jul-14
ACMF0605-004	WATER TRUCK	INTERNATIONAL	4500 6x4	1HTMSADR95J039264		28-Jul-14
ACMF0605-001	ELECTRICAL WORK TRUCK	INTERNATIONAL	4300 SBA-4X2	1HTMMAAR45H107380		30-Mar-14
ACMF0605-003	FUEL TRUCK	VOLVO	16,000 Litres	4V5KC9FX8N494237		
ACMF0605-002	FUEL TRUCK	STIRLING	ACTERRA	2FZHCHBS49AA89015		12-Apr-14
ACMF0607-001	SERVICE TRUCK	PETERBILT	PB337	2NP2HJ7X5EM238133		
ACMF0603-018	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP2CB460994		
ACMF0603-017	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP1CB461005		
ACMF0603-016	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP7CB461011		
ACMF0603-015	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP8CB461002		
ACMF0603-014	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKPCB461004		
ACMF0603-013	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKPCB460993		
ACMF0603-012	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP4B254932		
ACMF0603-011	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP7B254911		
ACMF0603-010	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP4B256454		
ACMF0603-009	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKPB256340		
ACMF0603-008	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP6B256455		
ACMF0603-007	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKPB262064		
ACMF0603-006	BUS 71 SEAT	INTERNATIONAL	PB10500	4DRBUSKP8B256456		
ACMF0603-002	BUS 40 SEAT	INTERNATIONAL	PB10500	4DRBUSKP6CB23971		
ACMF0603-001	BUS 40 SEAT	INTERNATIONAL	PB10500	4DRBUSKP7CB23963		
ACMF0603-004	BUS 25 SEAT	FORD	E450	1FDFF4FS4CDA67513		
ACMF0603-003	BUS 25 SEAT	FORD	E450	1FDFF4FS4CDA66488		
ACMF0603-005	13 PASSENGER BUS	FORD	E350	1FDWE3F6BDA29959		
ACMF0608-002	TRACTOR TRAILER	MACK	GU813	1M1AX16Y6FM027871		20-May-14
ACMF0608-001	TRACTOR TRAILER	MACK	GU813	1M1AX16Y4FM027870		4-May-14
ACMF0206-012	LIGHT TOWER PORTABLE	MAGNUM	MLT4150-01	1401934		
ACMF0206-011	LIGHT TOWER PORTABLE	MAGNUM	MLT4150-01	1401933		
ACMF0206-010	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401915		
ACMF0206-009	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401918		
ACMF0206-008	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401919		
ACMF0206-007	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401923		
ACMF0206-006	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401917		
ACMF0206-005	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401916		
ACMF0206-004	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401914		
ACMF0206-003	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401922		
ACMF0206-002	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401920		
ACMF0206-001	LIGHT TOWER PORTABLE	MAGNUM	MLT4080K	1401921		
ACMF0206-022	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1112404		7-Nov-14
ACMF0206-021	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1103118		7-Nov-14
ACMF0206-020	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1103117		7-Nov-14
ACMF0206-019	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	903822		7-Nov-14
ACMF0206-018	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	902382		7-Nov-14
ACMF0206-017	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	902354		7-Nov-14
ACMF0206-016	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1110396		7-Nov-14
ACMF0206-015	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1113655		7-Nov-14
ACMF0206-014	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1113577		7-Nov-14
ACMF0206-013	LIGHT TOWER PORTABLE	MAGNUM	MLT3060	1103119		7-Nov-14

Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF2001-006	WELDER GENERATOR	MILLER	BIG BLUE 500	MD350167E		
ACMF2001-005	WELDER GENERATOR	MILLER	BIG BLUE 500	ME080095E		
ACMF2001-004	WELDER GENERATOR	MILLER	BIG BLUE 500	ME080099E		
ACMF2001-003	WELDER GENERATOR	MILLER	BIG BLUE 500	ME080100E		
ACMF2001-002	WELDER GENERATOR	MILLER	BIG BLUE 500	ME080097E		
ACMF2001-001	WELDER GENERATOR	MILLER	BIG BLUE 500	ME080101E		
ACMF1314-002	T80 CRUSHER	VSI 80	USJ TURBO			
ACMF1314-001	CONE CRUSHER	CST CAT	CST-D-AD2 791			
ACMF1310-001	JAW CRUSHER	CRUSHER	JXT-F-AD2790	FRAME S/N EZ25714		
ACMF1325-002	SANDVIK SCALPER	SANDVIK	QE440	18865W11179		
ACMF1325-001	SCREEN AGGREGATE	TEREX	TSH 8203-38	TRX58203TDUDE1616		
ACMF6100-001	ELECTRIC FORKLIFT	CROWN	RR5715-35	1A408008		
ACMF1246-131	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244643		11-Dec-14
ACMF1246-108	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244655		
ACMF1246-107	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244648		
ACMF1246-106	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244657		
ACMF1246-105	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244658		
ACMF1246-104	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244646		
ACMF1246-103	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244640		
ACMF1246-102	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244656		
ACMF1246-101	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244644		
ACMF1246-100	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244647		
ACMF1246-099	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244653		
ACMF1246-098	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244645		
ACMF1246-097	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20237850		
ACMF1246-096	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244654		
ACMF1246-095	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244641		
ACMF1246-094	FLAMELESS HEATER	WACKER NEUSON	HIF-1200	20244642		
ACMF1246-135	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900D	20044731		11-Dec-14
ACMF1246-134	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900D	20106006		11-Dec-14
ACMF1246-133	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900D	20092287		11-Dec-14
ACMF1246-132	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900D	20107138		11-Dec-14
ACMF1246-118	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037199		
ACMF1246-117	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037195		
ACMF1246-116	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20106005		
ACMF1246-115	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20098519		
ACMF1246-114	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037197		
ACMF1246-113	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037194		
ACMF1246-112	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20102118		
ACMF1246-111	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20106004		
ACMF1246-110	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20040684		
ACMF1246-109	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20085678		
ACMF1246-093	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037487		
ACMF1246-092	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20099460		
ACMF1246-091	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20100986		
ACMF1246-090	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20087285		
ACMF1246-089	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20081137		
ACMF1246-088	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037193		
ACMF1246-087	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20111169		
ACMF1246-086	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20099458		
ACMF1246-082	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20077660		
ACMF1246-081	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20111167		
ACMF1246-080	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20131714		
ACMF1246-079	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20037488		
ACMF1246-078	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20108649		
ACMF1246-077	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20108650		
ACMF1246-076	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20125076		
ACMF1246-075	INDIRECT AIR HEARTERS	WACKER NEUSON	HI 900	20127724		
ACMF1246-130	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452085		
ACMF1246-129	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452072		
ACMF1246-128	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451966		
ACMF1246-127	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452081		
ACMF1246-126	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452086		
ACMF1246-125	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452091		
ACMF1246-122	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201402088		
ACMF1246-121	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452064		
ACMF1246-120	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452069		
ACMF1246-119	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452065		
ACMF1246-069	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451974		
ACMF1246-068	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452070		
ACMF1246-067	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451965		
ACMF1246-066	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452068		
ACMF1246-065	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452073		
ACMF1246-064	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452061		
ACMF1246-063	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452087		
ACMF1246-062	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451970		
ACMF1246-061	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452063		
ACMF1246-060	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452066		
ACMF1246-059	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452071		
ACMF1246-058	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451971		
ACMF1246-057	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451972		
ACMF1246-056	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452090		
ACMF1246-055	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451967		
ACMF1246-054	MOVABLE HEATER	FROST FIGHTER	IDF 500	120145080		
ACMF1246-053	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452095		
ACMF1246-052	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201451975		
ACMF1246-051	MOVABLE HEATER	FROST FIGHTER	IDF 500	1201452092		

Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF1246-211	MOVABLE HEATER	FROST FIGHTER	IDF-350	1201465164		
ACMF1246-212	MOVABLE HEATER	FROST FIGHTER	IDF-350	1201465734		
ACMF1246-213	MOVABLE HEATER	FROST FIGHTER	IDF-350	1201465162		
ACMF1246-214	MOVABLE HEATER	FROST FIGHTER	IDF-350	1201465157		
ACMF1246-215	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000712		
ACMF1246-124	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000725		
ACMF1246-123	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000713		
ACMF1246-085	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000733		28-Oct-14
ACMF1246-084	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000710		28-Oct-14
ACMF1246-083	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000105		28-Oct-14
ACMF1246-074	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000708		
ACMF1246-073	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000734		
ACMF1246-072	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000699		
ACMF1246-071	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000721		
ACMF1246-070	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000703		
ACMF1246-030	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000736		
ACMF1246-029	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000709		
ACMF1246-028	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000697		
ACMF1246-027	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000732		
ACMF1246-026	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000731		
ACMF1246-025	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000700		
ACMF1246-024	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000728		
ACMF1246-023	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000720		
ACMF1246-022	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000701		
ACMF1246-021	MOVABLE HEATER	MUNTERS	MIR 55 WV	24000715		
ACMF1246-045	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0781		
ACMF1246-044	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0828		
ACMF1246-043	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0755		
ACMF1246-042	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0785		
ACMF1246-041	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0730		
ACMF1246-040	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0812		
ACMF1246-039	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0723		
ACMF1246-038	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0713		
ACMF1246-037	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0823		
ACMF1246-036	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0711		
ACMF1246-035	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0824		
ACMF1246-034	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0700		
ACMF1246-033	ELECTRIC HEATER	PATRON	P 4000 CA	404413-0710		
ACMF1246-032	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0788		
ACMF1246-031	ELECTRIC HEATER	PATRON	P 4000 CA	404414-0787		
ACMF1246-136	MOVABLE HEATER	SIAL	MIRAGE 180	22015548		11-Dec-14
ACMF1246-137	MOVABLE HEATER	SIAL	MIRAGE 180	22015525		11-Dec-14
ACMF1246-138	MOVABLE HEATER	SIAL	MIRAGE 180	22015519		11-Dec-14
ACMF0305-004	FIXED AIR COMPRESSOR	ATLAS COPCO	G200-10BAR	APF189912		
ACMF0305-003	FIXED AIR COMPRESSOR	ATLAS COPCO	G200-10BAR	APF189911/T756468007		
ACMF0305-002	FIXED AIR COMPRESSOR	ATLAS COPCO	G200-10BAR	APF189910/T756468006		
ACMF0305-001	FIXED AIR COMPRESSOR	ATLAS COPCO	G200-10bar	APF189909/T756468005		21-Sep-14
ACMF0302-006	FIXED AIR COMPRESSOR	IR	7100C15-V	CBV326193		13-Sep-14
ACMF0302-005	FIXED AIR COMPRESSOR	IR	7100C15-V	CBV326194		
ACMF5302-004	VERTICAL TANK	ATLAS COPCO	1060 GAL	746114		
ACMF5302-003	VERTICAL TANK	ATLAS COPCO	1060 GAL	746113		
ACMF5302-002	VERTICAL TANK	ATLAS COPCO	1060 GAL	746112		
ACMF5302-001	VERTICAL TANK	ATLAS COPCO	1060 GAL	746111		
ACMF	AIR (PNEUMATIC) MANIFOLD	DIXON				
ACMF	AIR (PNEUMATIC) MANIFOLD	DIXON				
ACMF	AIR (PNEUMATIC) MANIFOLD	DIXON				
ACMF2905-003	BASKET LIFT	BOSCARO				
ACMF2905-002	BASKET LIFT	BOSCARO				
ACMF2905-001	BASKET LIFT	BOSCARO				
ACMF6415-033	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088352/ 14197650M		
ACMF6415-032	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088394		
ACMF6415-031	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088393		
ACMF6415-030	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088392		
ACMF6415-029	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088391		
ACMF6415-028	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088390		
ACMF6415-027	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088389		
ACMF6415-026	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088379		
ACMF6415-025	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088373		
ACMF6415-024	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088372		
ACMF6415-023	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088371		
ACMF6415-022	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088370		
ACMF6415-021	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088368		
ACMF6415-020	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088367		
ACMF6415-019	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088366		
ACMF6415-018	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088365		
ACMF6415-017	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088364		
ACMF6415-016	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088363		
ACMF6415-015	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088362		
ACMF6415-014	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088361		
ACMF6415-013	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088360		
ACMF6415-012	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088359		
ACMF6415-011	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088358		
ACMF6415-010	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088357		
ACMF6415-009	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088356		
ACMF6415-008	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088355		
ACMF6415-007	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088354		
ACMF6415-006	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088353		
ACMF6415-005	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088353		

Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF6415-004	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN088351		
ACMF6415-003	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN0883749		
ACMF6415-002	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN0883747		
ACMF6415-001	ELECTRIC CEMENT VIBRATOR	ATLAS COPCO 115V	SMART 48-56	MHN0883745		
ACMF6415-036	ELECTRIC PENCIL VIBRATOR 115V	DEWALT	DC530KA	15024879318P		
ACMF6415-035	ELECTRIC PENCIL VIBRATOR 115V	DEWALT	DC530KA	15024931575P		
ACMF6415-034	ELECTRIC PENCIL VIBRATOR 115V	DEWALT	DC530KA	15024822986P		
ACMF0634-004	CONCRETE MIXER HOPPER	MAXON	MCIV-13	266		6-Sep-14
ACMF0634-003	CONCRETE MIXER HOPPER	MAXON	MCIV-13	265		6-Sep-14
ACMF0634-002	CONCRETE MIXER HOPPER	MAXON	MCIV-13	264		23-Aug-14
ACMF0634-001	CONCRETE MIXER HOPPER	MAXON	MCIV-13	263		23-Aug-14
ACMF6425-004	CEMENT HOPPER	GAR-BRO	483-RTORO			
ACMF6425-003	CEMENT HOPPER	GAR-BRO	48-RTORO			
ACMF6425-002	CEMENT HOPPER	GAR-BRO	48-RTORO			
ACMF6425-001	CEMENT HOPPER	GAR-BRO	483-RTORO			
ACMF6425-006	CEMENT BUCKET - ALUMINUM	M & B MAG	EDB-30	140630		
ACMF6425-005	CEMENT BUCKET - ALUMINUM	M & B MAG	EDB-30	140629		
ACMF5304-003	PNEUMATIC DEMOLITION HAMMERS	ATLAS COPCO	PMAX	68253072-AC		
ACMF5304-002	PNEUMATIC DEMOLITION HAMMERS	ATLAS COPCO	PMAX	011488-AC		
ACMF5304-001	PNEUMATIC DEMOLITION HAMMERS	ATLAS COPCO	PMAX	010492-AC		
ACMF5304-004	PNEUMATIC DEMOLITION HAMMERS	SULLAIR	866134	68253072		
ACMF1252-014	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14010A13		
ACMF1252-013	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14009A13		
ACMF1252-012	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14008A13		
ACMF1252-011	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14007A13		
ACMF1252-010	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14006A13		
ACMF1252-009	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14005A13		
ACMF1252-008	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14004A13		
ACMF1252-007	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14003A13		
ACMF1252-006	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14002A13		
ACMF1252-005	CEMENT FINISHER	MARSHALLTOWN	46E9NH	J14001A13		
ACMF1252-004	CEMENT FINISHER	MARSHALLTOWN		F13004A13		
ACMF1252-003	CEMENT FINISHER	MARSHALLTOWN		F13003A13		
ACMF1252-002	CEMENT FINISHER	MARSHALLTOWN		F11008A11		
ACMF1252-001	CEMENT FINISHER	MARSHALLTOWN		F11002A11		
ACMF0106-004	ELECTRIC SUBMERGED PUMP 8"	FLYGT	BS-2250.011	1410025		
ACMF0106-003	ELECTRIC SUBMERGED PUMP 8"	FLYGT	BS-2250.011	1410024		
ACMF0106-002	ELECTRIC SUBMERGED PUMP 8"	FLYGT	BS-2250.011	1410023		
ACMF0106-001	ELECTRIC SUBMERGED PUMP 8"	FLYGT	BS-2250.011	1410022		
ACMF0106-017	SUBMERSIBLE PUMP	8" GORMAN RUPP	S12A1-E140 575V/3	1488432		12-Apr-14
ACMF0106-016	SUBMERSIBLE PUMP	8" GORMAN RUPP	S8C1575V3P	1513836		12-Apr-14
ACMF0106-015	SUBMERSIBLE PUMP	8" GORMAN RUPP	S8C1 575W3P	1503260		12-Apr-14
ACMF0106-018	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	22010119550057		
ACMF0106-014	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420014		
ACMF0106-013	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420013		
ACMF0106-012	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420012		
ACMF0106-011	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420011		
ACMF0106-010	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420010		
ACMF0106-009	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420009		
ACMF0106-008	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420008		
ACMF0106-007	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420007		
ACMF0106-006	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420006		
ACMF0106-005	ELECTRIC SUBMERGED PUMP 4"	FLYGT	BS-2660.181	1420005		
ACMF1150-006	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31268		
ACMF1150-005	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31267		
ACMF1150-004	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31261		
ACMF1150-003	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31260		
ACMF1150-002	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31259		
ACMF1150-001	RADIAL STACKER CONVEYOR	EAGLE CRUSHER COMP.	36529400	31258		
ACMF0616-001	FLATBED TRAILER	FOUNTAIN	TAG AXLE	13NE57306E3561090		20-Aug-14
ACMF0615-004	FLATBED 48' 4 AXLES	MANAC	4 AXLES	2M5141465X1056316		25-May-14
ACMF0615-003	FLATBED 48' 4 AXLES	MANAC	4 AXLES	2M514146021085165		24-May-14
ACMF0615-002	FLATBED 48' 4 AXLES	MANAC	10448106	2M5141469Y1073721		13-Apr-14
ACMF0615-001	FLATBED 48' 4 AXLES	MANAC	4 AXLES	2M5141467Y1073720		13-Apr-14
ACMF0615-005	FLATBED 48' 2 AXLES	REITNOUER	2 AXLES	1RNF48A281R007950		24-May-14
ACMF1409-003	GRAVEL COARSE WASHER	TRIO	MAX PE	TCW 3625 542		
ACMF1409-002	GRAVEL COARSE WASHER	TRIO	MAX PE	TCW 3618 331		
ACMF1409-001	GRAVEL COARSE WASHER	TRIO	MAX PE	TCW 3618 333		
ACMF0205-030	GENERATOR 5.0-5.4 KW	HONDA	EB5000XK2C	EAKC1047913		
ACMF0205-029	GENERATOR 5.0-5.4 KW	HONDA	EB5000XK2C	EAKC1047914		
ACMF0205-028	GENERATOR 5.0-5.4 KW	HONDA	EB5000XK2C	EAKC1047886		
ACMF	SNOWBLOWER	YAMAHA	YS1028J	7VY-4700360		
ACMF	SNOWBLOWER	YAMAHA	YS1028J	7VY-4700121		
ACMF	SNOWBLOWER	YAMAHA	YT624EDJ	7RV-3133281		
ACMF	SNOWBLOWER	YAMAHA	YT624EDJ	7RV-3133279		
ACMF	SNOWBLOWER	YAMAHA	YT624E	7RV-1133308		
ACMF	SNOWBLOWER	HONDA	HSS928	SARJ-5005795		
ACMF7001-012	FUEL CUBE	TRANS CUBE	20TCG	A60493550		
ACMF7001-011	FUEL CUBE	TRANS CUBE	20TCG	A60493547		
ACMF7001-010	FUEL CUBE	TRANS CUBE	20TCG	A60493542		
ACMF7001-009	FUEL CUBE	TRANS CUBE	20TCG	A60493541		

Equipment Number	Equipment Description	Make	Model	Serial Number	PLATE	Acquisition Date
ACMF7001-008	FUEL CUBE	TRANS CUBE	20TCG	201739		
ACMF7001-007	FUEL CUBE	TRANS CUBE	20TCG	A60493555		
ACMF7001-006	FUEL CUBE	TRANS CUBE	20TCG	A60493551		
ACMF7001-005	FUEL CUBE	TRANS CUBE	20TCG	A60493539		
ACMF7001-004	FUEL CUBE	TRANS CUBE	20TCG	A60493538		
ACMF7001-003	FUEL CUBE	TRANS CUBE	20TCG	A60493548		
ACMF7001-002	FUEL CUBE	TRANS CUBE	20TCG	A60493537		
ACMF7001-001	FUEL CUBE	TRANS CUBE	20TCG	A60493536		
ACMF	OFFICE TRAILER 10'X30'	ATLANTIA				
ACMF5141-011	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 510		
ACMF5141-010	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 509		
ACMF5141-009	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 508		
ACMF5141-008	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 507		
ACMF5141-007	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 506		
ACMF5141-006	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 505		
ACMF5141-005	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 504		
ACMF5141-004	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 503		
ACMF5141-003	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 502		
ACMF5141-002	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 501		
ACMF5141-001	DISTRIBUTION BOX	PUTZMEISTER	DVH5/22X150/6.0130	400 100 500		
ACMF5141-020	PRESSURE WASHER	HONDA	GX-690	150041		
ACMF5141-019	PRESSURE WASHER	HONDA	GX-690			
ACMF5141-018	PRESSURE WASHER	KODIAK	GX G9	150039		
ACMF5141-017	PRESSURE WASHER	DYNABLAST	G5050BG	141745		
ACMF5141-015	PRESSURE WASHER	DYNABLAST	G5050BG	114320		
ACMF5141-014	PRESSURE WASHER	DYNABLAST	G5050BG	141724		
ACMF5141-013	PRESSURE WASHER	DYNABLAST	G5050BG	141746		
ACMF5141-016	PRESSURE WASHER	KARCHER	KX5450R	178422		
ACMF5141-012	PRESSURE WASHER	HONDA/KARCHER	HD3.6/40CH	100222 2508		
ACMF1121-014	BRIDGE CRANE	KONE CRANES	FA1121	2287-11840		
ACMF1121-013	BRIDGE CRANE	KONE CRANES	FA1121	2287-11838		
ACMF1121-012	BRIDGE CRANE	KONE CRANES	FA1121	2287-11839		
ACMF1121-011	BRIDGE CRANE	KONE CRANES	FA1121	2287-11837		
ACMF1121-010	BRIDGE CRANE	KONE CRANES	FA1121	2287-11844		
ACMF1121-009	BRIDGE CRANE	KONE CRANES	FA1121	2287-11843		
ACMF1121-008	BRIDGE CRANE	KONE CRANES	FA1121	2287-11841		
ACMF1121-007	BRIDGE CRANE	KONE CRANES	FA1121	2287-11846		
ACMF1121-006	BRIDGE CRANE	KONE CRANES	FA1121	2287-11839		
ACMF1121-005	BRIDGE CRANE	KONE CRANES	FA1121	2287-11838		
ACMF1121-004	BRIDGE CRANE	KONE CRANES	FA1121	2287-11835		
ACMF1121-003	BRIDGE CRANE	KONE CRANES	FA1121	2287-11836		
ACMF1121-002	BRIDGE CRANE	KONE CRANES	FA1121	2287-11847		
ACMF1121-001	BRIDGE CRANE	KONE CRANES	FA1121	2287-11848		
ACMF7012-001	WATER JETTING SYSTEM	GARDNER DENVER	MODEL 3642	169BA1232EH385187		
ACMF1622-001	MINI GROUT PUMP & MIXER	CHEM GROUT	CG-550P	1412162550P		
ACMF5602-002	TANDEM TRAILER	TOW MASTER	RT-20	45NUP0825EL162587		30-Nov-14
ACMF5602-001	TANDEM TRAILER	TOW MASTER	RT-20	45NUP0827EL162588		30-Nov-14
ACMF0211-001	750 KVA Transformer	REX POWER MAGNETICS	RC750J	D41878		6-Dec-14
ACMF7017-001	FUSION MACHINE	+GF+	4145C	4145CA13002		2-Dec-14



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

**Change Request Log
 Nalcor To Astaldi**

Change Request No.	Rev No.	Description	Linked by	Date of Issue	Date of Response	Submitted Price	Sub-Contractor's Price	Submitted		Nalcor Response date	Accept ?
								Yes	No		
10001	0	Supply and installation of Second Stage Concrete for Hydro-Mechanical Embedded Parts	LTR-072	12-Dec-13	6-Feb-14	\$ 15,496,356.34					
10001	1	Revised Scope of Work.		14-Apr-14	5-Jun-2014	\$ 20,362,544.20		5-Jun-14			
		Additional Information from Andritz									
		Requested 2 price options for Scaffolding.									
1002	1	Supply and transportation of aggregates to other		30-Apr-14	24-Jun-2014	\$ 3,600,000.00	Estimated Price Still To Be Submitted				
1003	0	Bussing/Transportation of Local Workers	LTR-073	26-Jan-14	6-Feb-2014	DECLINED			X		
1004	1	Maintenance of Washcars	LTR-181	17-Mar-14	15-Jul-2014	\$ 276,000.00 / Month - 48 Months Total Say \$ 13,200,000 [Estimated]				Not Yet Submitted	
1005	0	Revised IFC drawing & Spec as per ECN #1 & #2		05-Feb-14	1-Jul-2014						
1006	0	Provide 3 types of crushed material		11-Feb-14	24-Jun-2014	WITHDRAWN BY CLIENT					
1007	1	Site Construction Power - Additional Drawing		14-Feb-14	7-Mar-2014	\$ 986,694.00					
1008	0	Release of hold on the Spillway stoplog blockouts with revised dimensions to the blockouts and associated changes to concrete, rebar, PVC waterstop and misc. embedded metals.	ECN-003, SQY-010, LTR-0193	18-Mar-14	1-Jul-2014	\$ [148, 233.18]		2-Jul-14			
1009	0	Estimated quantities of required concrete over-break	ECN-004R1	28-May-14	1-Jul-2014						
1010	0	25KV Construction Power Switch Yard Converter Area.		13-Jul-14		\$ 445,776.67					
1011	0	Installation of Fibre Optics		13-Jul-14		\$ 260,369.52					
1012	0	Supply and Installation of Cellular Shelter Electrical Work		5-Aug-14		WITHDRAWN BY CLIENT					
1013	0	Revised IFC Drawings Related to Grounding and Exothermic Connections at the Centre Transition Dam and the Spillway	ECN-007	9-Aug-14							
1014	1	ECN-CH0007001-0009 (Copy attached)	ECN-009	23-Aug-14							
1015	0	ECN-CH0007001-0011 (Copy attached)	ECN-011	6-Sep-14							
1016	0	ECN-CH0007001-0012 (Copy attached)	ECN-0012	6-Sep-14							
1017	0	ECN-CH0007001-0010 (Copy attached)	ECN-0010	11-Sep-14							
1018		NOT ISSUED YET									
1019	0	Overbreak In Rock Under The Bottom Pours Of The Separation Wall & Spillway South Pier	SQY-0113	25-Oct-14		\$ 210,000.00	Estimated Price Not Yet Submitted				



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

**Change Request Log
Astaldi To Nalcor**

Change Request No.	Rev No.	Description	Linked by	Date of Issue	Date of Response	Submitted Price	Sub-Contractor's Price	Submitted		Nalcor Response date	Accept ?
								Yes	No		
2001	0	Reference Exhibit 2 - Attachment 1 - Item 2.1 - Mobilisation					NIL				
2002	0	Reference Exhibit 2 - Attachment 1 - Item 2.2 - Site Instruction					NIL				
2003	0	Reference Exhibit 2 - Attachment 1 - Item 2.3 - Contractor Equipment For Indirects					NIL				
2004	0	Reference Exhibit 2 - Attachment 1 - Item 2.4 - Temporary Works					NIL				
2005	0	Reference Exhibit 2 - Attachment 1 - Item 2.5 - Winter Protection					NIL				
2006	0	Reference Exhibit 2 - Attachment 1 - Item 2.6 - Management & Staff					NIL				
2007	0	Reference Exhibit 2 - Attachment 1 - Item 2.6A - Design & Technical Assistance					NIL				
2008	0	Reference Exhibit 2 - Attachment 1 - Item 2.8 - Services					NIL				
2009	0	Reference Exhibit 2 - Attachment 1 - Item 2.10 - Health & Safety Requirements					NIL				
2010		NOT USED					NIL				
2011	0	Reference Exhibit 2 - Attachment 1 - Item 2.11 - Environmental Requirements					NIL				
2012	0	Reference Exhibit 2 - Attachment 1 - Item 2.1 - Mobilisation - Revised Total					NIL				
2013	0	Reference Exhibit 2 - Attachment 1 - Item 2.2 - Site Installation - Revised Total					NIL				
2014	0	Reference Exhibit 2 - Attachment 1 - Item 2.3 - Contractor Equipment For Indirects - Revised Total					NIL				
2015	0	Reference Exhibit 2 - Attachment 1 - Item 2.4 - Temporary Works - Revised Total					NIL				
2016	0	Reference Exhibit 2 - Attachment 1 - Item 2.5 - Winter Protection - Revised Total					NIL				
2017	0	Reference Exhibit 2 - Attachment 1 - Item 2.6 - Management & Staff - Revised Total					NIL				
2018	0	Reference Exhibit 2 - Attachment 1 - Item 2.6A - Design & Technical Assistance - Revised Total					NIL				
2019	0	Reference Exhibit 2 - Attachment 1 - Item 2.8 - Services - Revised Total					NIL				
2020	0	Reference Exhibit 2 - Attachment 1 - Item 2.10 - Health & Safety Requirements - Revised Total					NIL				
2021	0	Revised Exhibit 2 - Attachment 1 - Item 2.11 - Environmental Requirements - Revised Total					NIL				
2022	0	Site Query - SQY-CH00007001-045. Rock Reconstruction Concrete. Following the answer we received on 22.May.2014. Major reconstruction of the rock to the right of lift XXX, disrupt the normal sequence of our work. This non-predictable work such as the installation of anchor rods with injection,formwork, additional details and repeat cleaning surfaces have an impact on the schedule and additional costs.					Non-Labour Component Already Compensated. Labour component estimated to be \$ 1.65M yet to be submitted. Time impact still to be established in the range of 5 to 10 days				
2023	0	The Contractor hereby requests modifications and additions of new positions to the Rate Tables for the Contractors Work Force not covered by the Collective Agreement In Exhibit 2 - Appendix F. [SAMPLE DOCUMENTATION ON CHANGE ORDER PROCESS]					NIL				
2024	0	A discovery of explosive materials on site of the work took place again. Down time was recorded on 06, 07 & 21 May 2014. [PRESENTLY UNDER REVIEW]					NIL				



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0001	0	Reinforcing Steel	Detailing Of Hooks At The End Of Re-bar Ties	21-Mar-14	11-Apr-14	Approved		X		X	
CON-CH0007-0002	0	Grading Limits Of Fine Aggregate	Grading Limits of Fine Aggregate	27-Mar-14	4-Apr-14	Approved		X		X	
CON-CH0007-0003	0	Reinforcing Steel	The mechanical properties of 400W are higher than 400R	29-Mar-14	9-Apr-14	Approved		X		X	
CON-CH0007-0004	0	Construction of Piers from 1 to 4	Realise The Pour In Two Phases	10-Apr-14	22-Apr-14	Conditional Acceptance		X		X	
CON-CH0007-0005	0	Anchor Dowel Testing Equipment	Make Test by their own	10-May-14	19-May-14	Approval Conditional					
CON-CH0007-0005	1	Anchor Dowel Testing Equipment	Make Test by their own	18-Jun-14	18-Jun-14	Approved					
CON-CH0007-0005		Concrete	The contractor is requesting to use his own expertise on site and brand new	20.05.2014	17.06.2014	Approved Conditional		X		X	
CON-CH0007-0006	0	Specifications of the Over-break Concrete to be Used for Partial	Requesting Subtitution Regarding Specification of the overbreak Concrete for Partial Infilling.	15-May-14	30-May-14	Approved		X		X	
CON-CH0007-0007	0	Updated Pour Sequencing Of The Spillway Base Slab	Updated Pour Sequencing of the Spillway Base Slab	15-May-14	28-May-14	Rejected		X		X	
CON-CH0007-0008	0	Curtain Grouting Works	Curtain Grouting Works	19-May-14	26-May-14	Approved		X		X	
CON-CH0007-0009	0	Spillway Drilling for Rock Anchors	Spillway Drilling for Rock Anchors	21-May-14	27-May-14	Approved		X		X	
CON-CH0007-0010	0	Crushing Plant - Permanent Material For Concrete - 03 30 00 Cast In Place Concrete	The Contract Requires To Produce High Quality Material To Be Incorporated Into The Permanent Work	23-May-14	6/17/2014	Approved Conditional		X			
CON-CH0007-0011	0	Specification for the Production of T-bars	Not Indicated in the Techncial Specification Sectors 03 20 00 - Concrete Reinforcement	27-May-14	2-Jun-14	Approved		X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0012	0	Rock Dowels for Spillway Baselab	Install the bar in the hole, two spacers will be previously installed to ensure adequate cover. The bar rests at the bottom on the rock; to cover and protect against corrosion in the last 300 mm at the bottom the bar shall be painted with epoxy (Silkador 32 or equivalent) for 400 mm	31-May-14	29-May-14	Approved		X		X	
CON-CH0007-0012	1	Rock Dowels for Spillway Baselab	Rock Dowels for Spillway Baselab Specification Section #03 60 00 Drilling, Grouting, Rock Dowels and Drainage	26-May-14		Revision 1 sent back to Astaldi, due to a difference in documents Rev 0 and 1.		X		X	
CON-CH0007-0013	0	Power House ICS - Foundation of ICS	Encased in structural concrete ICS foundations	18-Jun-14	17-Jun-14	Approved Conditional		X		X	
CON-CH0007-0014	0	Permanent Material for Concrete	Allow anchor to be placed 200 mm from TOP of baselab	9-Jun-14	17-Jun-14	Approved		X		X	
CON-CH0007-0015	0	Reduce The Removal for Thick Cross-Section.	We Want To Reduce The Removal Hours Of The Formwork For Thick Cross-Section Concrete From 48 Hours To 36 Hours	24-Jun-14	2-Jul-14	Rejected, provide a technical justification.	X			X	
CON-CH0007-0016	0	North, Centre and South Transition Dam	This request applies to the North Transition Dam in the area where the dam the sloped dam wall changes to a vertical wall. For the first vertical lift increase the pour height from 2.4m to 2.85m. North Transition Dam moving the horizontal construction joint from EL. 36.82 to EL 37.27 See attached sketch 1 and 2 The reason for moving the horizontal construction joint is to allow the Dam Formwork to hang vertically on the wall avoiding any conflict with the lower point of the dam formwork bracket and the sloped wall.	26-Jun-14	10-Jul-14	Approved Conditional		X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0017	0	Batch Plant	In Order To Guarantee The Requirement Of The Technical Specifications 03 30 50 Indicated Above, The Contractor Intends To Utilise The First Line Of The New BMH Batch Plant Installed On Area Ci As A Principal Concrete Plant For The Execution Of The First 4 Spillway Slabs. The Plant Will be Calibrated & Certified Before Concrete Operations On Site. The Existing Batch Plant Facility Installed At Area A , which is already calibrated and utilised for the Contractor's Temporary Works & Site Installation, Will Be Used As A Back-Up Unit In Case Of Disruption In Production Of The Principal Concrete Plant In Area C1 AS Soon AS The First Slabs Are Complete, Dismantling Transportation & Re-assembly Of The Existing Batch Plant Will Start From Area A To Area C1 To Completion . Find Attached Batch PLants Erection Programme, Indicating In Detail The Activity Described In This Concession Request,	15-Jul-14	22-Jul-14	Approved Conditional					
CON-CH0007-0018	0	Central Transition Dam - First Pour - Substitute Concrete Class	To Substitute Concrete Class BC-2 With Either Class A2-315Kg For The First Four Pours Of The Central Transition Dam [CTU2A-01, CTU3A-01, & CTU4A-01]. The Same Mix Design Will Also Be Used For The Base Slab At The Spillway.	17-Jul-14	23.July.2014	Approved Conditional - First Lift		X		X	
CON-CH0007-0019	0	Centre Transition Dam -	In The Sketch Attached Is Reported The Solution To Cast The Pour In Two [2] Different Stages: The First Of The Almost Whole Pour & The Second Of The Small Part Containing The Embedded Parts.	15-Jul-14	18-Jul-14	Approved Conditional		X			
CON-CH0007-0020	0	Central Transition Dam	Permanent Material for Concrete	21-Jul-14	23-Jul-14	Approved Conditional		X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
Con-CH0007-0021	0	Spillway Base Slab - 3B3-C - As Specified In The General Notes	On Drawing MFA-SN-CD-3300-CV-LS-0002-01_C1, The Cover Required On The Spillway Hydraulic Passage Is 100m. As Outlined In The Documentation Supplied By Survey, The Cover Actually Used Is Too Long. [Please See Attached Survey Documents]. This Is Due To The Fact That The Initial Top-Of-Concrete Measurement Was Incorrect. WE Propose To Leave The Situation As - Is.	24.July.14	29-Jul-14	Approved		X		X	
CON-CH0007-0022	0	Centre Transition Dam - Moving Horizontal Construction Joint	This request applies to the Centre Transiton dam in the area were the sloped dam wall changes to a vertical wall. The first vertical lift will increase the pour height from 2.4m to 3.00m.	26.07.2014	12-Aug-14	Approved Conditional		X		X	
CON-CH0007-0023											
CON-CH0007-0024	0	Formwork Anchoring	Proposal to anchor DOKA formwork to Powerhouse Draft Tubes. Please see attached sketches.	15-Aug-14	25.08.2014	Rejected		X		X	
CON-CH0007-0024	01	Formwork Anchoring	The contractor is proposing to weld steel plates 16mm thick to the outside face of the circular passage liners to support the DOKA formwork. Due to the excessive loads in this area, welding these plates in place will eliminate the need for more expensive formwork.	10.10.2014	17.10.2014	Rejected		X		X	
CON-CH0007-0025	0	Pour in Two Different Stages	In the sketch attached is reported the solution to cast the pour in 2 different stages :the first of the almost whole pour and the second of the small part containing the embedded parts.	31-Jul-14	5-Aug-14	Approved		X			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0026	0	Reinforcing Steel/Couplers	Refer to attached Sketch-002, Astaldi request to use 25M couplers where ties extend across a lift if there is not enough space to provide sufficient overlap of the reinforcing steel bars. Proposal is to use bar lock coupler (Approved in AGF-MAR-003).	2-Aug-14	12-Aug-14	Approved		X			
CON-CH0007-0027	0	Reinforcing steel/couplers	Request to use T-bars when ties have to enter congested areas.	02.08.2014							
CON-CH0007-0028	0	Overbreak Concrete on Line A	Refer to the attached Sketch for Overbreak Concrete on Line A. Astaldi would like to use the layout shown for the reinforcing steel in the area of the Intake	6-Aug-14	8-Aug-14	Approved Conditional					
CON-CH0007-0028	1	Overbreak Concrete on Line A	Refer to the attached Sketch for Overbreak Concrete on Line A. Astaldi would like to use the layout shown for the reinforcing steel in the area of the Intake	15-08.2014	23.08.2014	Approved Conditional		X			
CON-CH0007-0029	0	Permanent Material for Concrete	Please reference attached Concrete Trial Batch Proportioning and Testing. Contractor is requesting to use concrete mix design 35 440 A2-5. 1LH overbreak concrete in Spillway base slab SWB3B-OO. No foreseen cost or schedule implications	13-Aug.14							
CON-CH0007-0030	0	Alternative solution for removal fractured rock	Alternative solution to removal of fractured rock in monolith 4 of the centre transition dam. Company is requesting to install six 3SM anchors; complete with SIKA 212 grout, 4m deep into rock (refer to picture-001) perpendicular to the shear plane. Drilled holes will be between 60-70mm in diameter.	13-Aug-14		Cancelled					
CON-CH0007-0030	0	Reinforcing Steel	After the pour of concrete of SWB1A, we discussed that the position of the vertical dowels offset don't allow us to have the right concrete cover in all the sections.	04.10.2014	10.10.2014	Approved				X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0030	1	Reinforcing Steel	After the pour of concrete of SWB1A, 2A,3A contractor has discovered that the position of the verticals dowels offshet don't allow to hav ethe right concrete cover in all the piers, Zone "A" (for this reason, the U bars near the Gaste Guie door in all the Piers do not fit properly at the installation.	30.10.2014	04.10.2014	Approved		X		X	
CON-CH0007-0031	0	Alternative solution for removal fractured rock	Alternative solution to removal of fractured rock in monolith 4 of the centre transition dam. Contractor is requestingto install six anchors; complete with SIKA 212 grout, 4m deep into rock (refer to picture-001) perpendicular to the shear plane. Site inspection is required to determine location of anchors	14-Aug-14	15.08.2014	Approved		X		X	
CON-CH0007-0032	0	Concrete Mix	With reference to our submission MFA-AT-SD-OOO-CV-H36-0011 -01 be informed that we carried out extra test (LAB-SITE) increasing the cement content to 335Kg. in view of the strength results achieved in similar mix design, we ask your approval to start the permanent concrete works with this A2 (335Kg). Note that the contractor will still investigate this formula in order to optimize the mix proportions. Attached: Mix Recipe for A2 (335 Kg cement Mix) - Testing results for A2 (335 Kg cement Mix) 13-Aug Laboratory Trial - Testing results for A2 (335 Kg cement Mix) 13-Aug Batch Plant #1 Trial	14-Aug-14	15.08.2014	Approved Conditional		X		X	
CON-CH0007-0033	0	Overbreak Concrete	Refer to attached sketch for overbreak concrete on line D. Contractor would like to use the layout shown for the reinforcing steel in the area of the intake.	15-Aug-14	22.08.2014	Approved Conditional		X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0034	0	Waterstops	Regarding the construction of the Spillway Baseslab the Astaldi asks approval for: 1. the waterstop type #732 manufactured by Sika/Greenstreak as per attached specifications; 2. join by welding the waterstops type #732 and #788 (WSA) accordingly to manufacturer's recommendations	16-Aug-14	18.08.2014	Rejected		X		X	
CON-CH0007-0035	0	Grout Dry Pack	Request to use different production in temporary substitution of dry pack to fill rock open joints in the rock foundation. Refer to Aconex mail NE-LCP-MEMO-007582.	18.08.2014	19.08.2014	Approved		X		X	
CON-CH0007-0036	0	PVC Sleeves for Drilling & Grouting	Concession to drill for pressure grouting operation through the concrete in transition dams.	20.08.2014	21.08.2014	Approved		X		X	
CON-CH0007-0037	0	Reinforcing steel/Couplers	Request to use Bartec couplers (25M, 30M and 35M) when the standard splices are in conflict with other work equipment.	21.08.2014							
CON-CH0007-0038	0	Reinforcing steel	Use of alternate detail for reinforcing bars.	20.08.2014	21.08.2014	Approved		X		X	
CON-CH0007-0039	0	Concrete	Class of concrete for leveling slab at power house intake.	21.08.2014	28.08.2014	Approved Conditional					
CON-CH0007-0040	0	Concrete	Astaldi request to pour the leveling slab intake Unit 3. To pour this leveling slab we request to use mix design 35 440 A2-5.1	28.08.2014	29.08.2014	Approved Conditional		X			
CON-CH0007-0041	0	Concrete	Pouring of overbreak concrete at the spillway downstream area.	30.08.2014	03.09.2014	Approved Conditional					
CON-CH0007-0042	0	Waterstops Joints	Astaldi request to prefabricate the waterstops joints on site for the pours I3BSA-00, I3BSA-00 at the Intake unit 3 and I4BSA-00 at the Intake unit 4.	30.08.2014	03.09.2014	Approved Conditional					
CON-CH0007-0043	0	Waterstops Joints	Astaldi request to prefabricate the waterstops joints on site for the spillway piers.	30.08.2014	03.09.2014	Rejected					
CON-CH0007-0045	0	Waterstops Joints	Astaldi request to prefabricate the waterstops joints on site for the pour CTU4A-02 in the Centre Transition Dam.	09.09.2014	09.09.2014						



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0046	0	Reinforcing Steel	Please see attached sketches regarding reinforcing steel in the spillway base slab. Details in the areas indicated by arrows are missing.	09.09.2014	02.10.2014	Rejected					
CON-CH0007-0047	0	Concrete mix BC-2(25 440BC2)	Concession to use the concrete mix BC-2 (25440BC2)	24.09.2014	25.09.2014	Approved Conditional					
CON-CH0007-0048	0	Concrete	Pouring separation wall lifts WLW3A-01 and WLW3A-02 with concrete type BC-2 instead of BC-Z-A as for dwg MFA-SN-CD-2360-CV-DD-0007-01	11.10.2014	16.10.2014	Approved		X		X	
CON-CH0007-0049	0	344c-Piezometer and water level system	Regarding the pipes for the "344C-Piezometer and water level system in the draft tube.	11.09.2014							
CON-CH0007-0050	0	Concrete mix A2	Concession to continue with the permanent concrete works using A2 (355kg cement) mix design.	12.09.2014	13.09.2014	Approved Conditional					
CON-CH0007-0051	0	Gate Guide	Spillway Piers - Gate Guide	19.05.2014							
CON-CH0007-0052	0	Concrete mix A2	Concession to continue with the permanent concrete works using A2 (355kg cement) mix design. This concession request is with concern of the next pour planned in the South Transition Dam.	16.09.2014							
CON-CH0007-0053	0	PVC Pipes Sleeves	Regarding the request issued by Field work Order No. FWO-CH0007001-0010 (01-sep-2014) Astaldi request to use for only pour I4BSA-00 (intake 4) pvc sleeve 125mm dia schedule 20 instead of schedule 40 in order to avoid delay in the plan.	17.09.2014	19.09.2014	Approved Conditional					



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0054	0	Leveling Slab	Astaldi request to pour the leveling slab intake 1, 2, and 4 using the approved A2-5.1 mix design. The following condition requested by Nalcor in the concession request CDN-CH0007-040 will be fulfilled: 1.) Contractor will be responsible to replace any material that does not meet the specified requirements. 2.) Foundaton preparation shall be done as per technical specifications and ITP. 3.) Leveling slab minimum thickness shall be 200 mm but can taper shallower areas. 4.) Infill overbreak area is permitted only up to maximum of design delevation. 5.) Concrete surface preparation is required before next pour (green-cutting). 6.) No additional waterstops required but vertical waterstops must be of the required distance into the rock (ie., completely in the concrete). 7.) Contractor will follow joint alignment between units.	18.09.2014	20.09.2014	Approved Conditional					
CON-CH0007-0055	0	Base Slab Reinforcement Stirrups	Stirrups change	19.09.2014	23.09.2014	Approved		X		X	
CON-CH0007-0056	0	Leveling Slab	Due to the cleaning difficulties encountered due to the weather conditions (rain and winter coming.) Astaldi request to pour the leveling slab at the indicated location using the approved A2-5.1 mix design.	19.09.2014	22.09.2014	Rejected					
CON-CH0007-0056	01	Concrete	Due to the cleaning difficulties encountered due to the weather conditions (rain and winter coming.) Astaldi request to pour the leveling slab at the indicated location using the approved A2-5.1 mix design.	22.09.2014	24.09.2014	Approved Conditional		X		X	
CON-CH0007-0057	0	PVC Sleeves for Drilling	Concession to substitute the 065 PVC sleeves with 0100mm PVC pipe on the intake drainage gallery.	20.09.2014	23.09.2014	Approved Conditional		X		X	
CON-CH0007-0058	0	Reinforcing steel	Clash between ties and formwork.	20.09.2014	24.09.2014	Approved Conditional		X		X	
CON-CH0007-0059	0	C1 Laydown area	The contractor has arranged and extended the north side of the C1 laydown area . The contractor is requesstin to utilize the area as a materials storage area.	19.09.2014	25.09.2014	Approved		X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0061	0	Concrete	Pouring of overbreak concrete at the spillway downstream area.	20.09.2014	23.09.2014	Approved Conditional		X		X	
CON-CH0007-0062	0	Concrete	Pouring of spillway piers with concrete mix design 35 440 A2-5.1	22.09.2014	23.09.2014	Approved		X		X	
CON-CH0007-0063	0	Concrete	Due to the cleaning difficulties encountered due to the weather conditions (rain and winter coming.) Astaldi request to pour the leveling slab at the indicated location using the approved A2-5.1 mix design.	23.09.2014	30.09.2014	Approved Conditional		X		X	
CON-CH0007-0063	01	Concrete	Due to the cleaning difficulties encountered due to the weather conditions (rain and winter coming.) Astaldi request to pour the leveling slab at the indicated location using the approved A2-5.1 mix design.	14.10.2014	18.10.2014	Approved Conditional		X		X	
CON-CH0007-0064	0	Concrete	Pouring centre transition dam lift CTU3A-01 with concrete type BC-2	13.10.2014	16.10.2014	Approved Conditional		X		X	
CON-CH0007-0065	0	Concrete	The contractor has detected some clashes in lift D1BNA-00 and propose the resolution for what concern concrete, frameworks, reinforcement.	15.10.2014	23.10.2014	Approved Conditional		X		X	
CON-CH0007-0065	01	Concrete	Clash resolution between ICS column and foundation axis C-6 and draft tube unit 1 lift D1BNA-00	24.11.2014				X		X	
CON-CH0007-0066	0	Concrete	The contractor would like to introduce a new CJ (Construction Joint) in the foundation on the South Service Bay - Slab on the rock area. This will allow for the pouring of the foundation outside the ICS area.	20.10.2014	22.10.2014	Approved Conditional		X		X	
CON-CH0007-0067	0	Concrete	In order to speed up the process and because of the rock profile the lifts WLW5A-01 is very small. The Contractor's purpose is to pour the lifts WLW5A-01 AND WLW5A-02 together.	20.10.2014	22.10.2014	Approved Conditional		X		5 days	
CON-CH0007-0068	0	Embedded Piping	Relocation of embedded piping	22.10.2014							
CON-CH0007-0069	0	Concrete	Use of preliminary accepted (code 02) concrete mix design.	23.10.2014	22.10.2014						
CON-CH0007-0070	0	PVC Embedded Piping	Reference drawings	23.10.2014	22.10.2014						
CON-CH0007-0071	0	Reinforcement	Additional construction joint in spillway piers sector A level 13.	31.10.2014	06.10.2014	Approved Conditional		X		X	
CON-CH0007-0072	0	Concrete	Check nominal coarse aggregate size with batching plant requirements (Group 1)	07.11.2014				X		X	



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Concession Request Log

Reference	Revision	Title	Description	Date of Issue	Date of Response	Status	COST/ Impact		Schedule Impact		Change Request No.
							Yes	No	Yes2	No2	
CON-CH0007-0073	0	Concrete	Clash resolution between ICS column and foundation axis C-6 and draft tube unit 1 lift D1BSA-00	12.11.2014				X		X	
CON-CH0007-0073	1	Concrete	Clash resolution between ICS column and foundation axis C-6 and draft tube unit lift D1BSA-00	13.11.2014				X		X	
CON-CH0007-0074	0	Concrete	Clash resolution between ICS column and foundation axis C-7 and draft tube unit 2 lift D2BSA-00	18.11.2014				X		X	
CON-CH0007-0075	0	Concrete	Consent from the company to occupy additional 305sm for the project control trailer in main office laydown area.	17.11.2014				X		X	
CON-CH0007-0076	0	Concrete	New CJ layout for intake piers - bottom part, downstream - all units	18.11.2014				X		X	
CON-CH0007-0077	0	Concrete	Spillway - North and south piers - resolution proposal of detect clash between waterstop and reinforcing steel.	18.11.2014	22.11.2014	Approved Conditional		X		X	
CON-CH0007-0078	0	Steel	Spillway - upstream bridge - change steel type.	19.11.2014	26.11.2014	Approved		X		X	
CON-CH0007-0079	0	Concrete	Centre, South and North transition dams - Exit of drainage galleries.	19.11.2014				X		X	
CON-CH0007-0080	0	Concrete	Separation wall - Join lift WLW6A-03 with WLW7A-03 in one	21.11.2014	25.11.2014	Rejected		X		X	
CON-CH0007-0081	0	Steel	Spillway bridges - Equivalent plates imperial unit.	22.11.2014	26.11.2014	Approved Conditional		X		X	
CON-CH0007-0082	0	Concrete	Joining separation wall lifts WLW2A-02	22.11.2014	26.11.2014	Rejected		x		5 DAYS	
CON-CH0007-0083	0	Concrete	Use of concrete mix B-2 concrete mix design for transition structures.	25.11.2014							
CON-CH0007-0084	0	Embedded Piping	Custom Radius Elbows	26.11.2014				X		X	
CON-CH0007-0085	0	Embedded Piping	Pipe testing	25.11.2014				X		X	
CON-CH0007-0086	0	Embedded Piping	45 degree short radius elbow	26.11.2014				X		x	
CON-CH0007-0087	0	Concrete	Move contract oint - south trans. Dam	28.11.2014							cancelled



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Engineering Change Notice

Engineering Change Notice No.	Rev No.	Title	Description	Date of Issue	Status	COST/ Impact		Change Order No.
						Yes	No	
ECN-CH0007-001	0	UPDATE	Update to SOW, Architectural Technical Spec, Update to Drawings as per TDL	17-Jan-14	CHR 1005			
ECN-CH0007-002	0	Drawings	Isometrics and revised Lighting Drawings	27-Jan-14	CHR 1005			
ECN-CH0007-003	0	Stoplog/ Spillway	Spillway Stoplog Blockout and Waterstop Revisions	10-Mar-14	CHR 1008			
ECN-CH0007-004	1	Over Excavation Civil Drawings	Powerhouse, Transition Dam, Intake	3-Apr-14	CHR 1009			
ECN-CH0007-005	2	Installation of Substations and Construction Power in the vicinity of the Generating Station	Change Order 2, already issued	16-Jun-14	CHR 1002			2
ECN-CH0007-006	0	Update of Package and Reference Drawings	Powerhouse, Embedded, Waterstop, Piping, Electrical	Friday, June 20, 2014	Not Included In Any CHR Issued By Client			
ECN-CH0007-007	0	Issue of new and revised embedded conduit and grounding drawings for CTD and Spillway	Centre Transition Dam and Spillway	7/29/2014	Not Included In Any CHR Issued By Client			
ECN-CH0007-008	0	Spillway, Transition Dams and Separation Wall - Revised IFC Drawing	Updated Grouding and Embedded	12-Aug-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-009	2	Powerhouse & Intake - Update Of Civil Drawings Following Hydrotechnical Constructability Review	This is Revision # 2 of ECN-CH0007001-0009. The seventy one [71] drawings issued on this revision # 2 are in addition to the forty six [46] drawings issued with revision # 1 on 12.September.2014 & one hundred & thirty five [135] drawings issued with revision # 0 on 22.August.2014.	2-Oct-14	CHR 1014 [2]			
ECN-CH0007-010	0	North Transition Dam - Revised IFC Drawings [Concrete & Reinforcement]	Drawings. Transition Dam - North Transition Dam Revised IFC Drawings [3 Concrete Drawings and 1 Reinforcement Drawing	22-Aug-14	CHR 1017 [0]			
ECN-CH0007-011	0	Spillway & Powerhouse Electrical & Piping Drawings - Revised & New		3-Sep-14	CHR 1015 [0]			
ECN-CH0007-012	0	New Revision Of Technical Specification Section 08 71 00 - Door Hardware	Technical Specification: Revised IFC Technical Specification Section 08 71 00 - Door Hardware [revision of electrical requirements]. Revised Technical Specification Indeex Accounting For Above Point	2-Sep-14	CHR 1016			
ECN-CH0007-013	0	Update Of South Transition Dam Drawings	South Transition Dam Drawings - Revised IFC Drawings - South Transition Dam - Concrete & Reinforcement	16-Sep-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-014	0	Update Of Powerhouse Embedded Piping Drawings	Powerhouse - Embedded Piping ISO - Pump Drainage System [17 Drawings] - Powerhouse - Embedded Pioping ISO - Pump Dewatering System [1 Drawing]	20-Oct-14	Not Included In Any CHR Issued By Client			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Field Work Order Log

FWO No.	Rev No.	Title	Description	Date of Issue	Date of Response	COST/ Impact		Change Request No.
						Yes	No	
FWO-CH0007001-0001	0	Daily Inspection	Daily Inspection of the Crown of Cofferdam #1 by Company Personnel	6-Feb-14	22-Feb-14			
FWO-CH0007001-0002	0	Break Ice At Multiple Locations	Provide A Back Hoe To Break The Ice At Various Locations	21-Feb-14	22-Feb-14			
FWO-CH0007001-0003	0	Allow For Water Flow Under The Mackenzie Brook Temporary Bridge	Provide necessary equipment and manpower for snow clearing of access and loading of 6 - 6 meter sections of 2000mm CSP from Red Bay, Labrador	22-Feb-14	22-Feb-14			
FWO-CH0007001-0004	0	Repair Sedimentation Pond # 2	Repair Sedimentation Pond #2	3-May-14	3-May-2014			
FWO-CH0007001-0005	0	Remedial Work On Loose Rock West Side Of Cofferdam # 2	Astaldi is directed to perform remedial work on loose Rock on West Side of Cofferdam #2	5-Jun-14	5-Jun-14			
FWO-CH0007001-0006	0	Remove Loose Rock Blocks From The South Powerhouse Wall At Two Different Locations	The Contractor Shall Remove Loose Rock Blocks From The South Powerhouse Wall At Two Different Locations As Shown On The Attached Photographs	6-Jul-14	7-Jul-14			
FWO-CH0007001-0007	0	Disposal Of Old Concrete Test Samples	Provide Labour & Equipment To Move The Concrete Test Cylinders Piled Beside The AMEC Temporary Laboratory To The Designated Concrete Dump Location In Laydown Area C1	10-Jul-14	10-Jul-14			
FWO-CH0007001-0008	0	Contractor Shall Apply Dry Pack On The Rock Surfaces & Over The Open Joints Of Centre Transition Dam Lift CTU2A-01 Marked By Paint & Identified With Marking "DP" See Attached Photographs.	Dry Pack May Be Used To Fill Surface Irregularities & Cavaties, Treating Open Joints, Faults, Shear Of Weak Zones As Stated In Technical Specification	23-Jul-14				
FWO-CH0007001-0009	0	Supply and Install Wooden Shims	Supply and install wooden shims required to slightly change the orientation of the Type 2 Templates as indicated in the attached sketches Shims will cover the full length of the 600mm embedment	1-Aug-14				
FWO-CH0007001-0010	0	Revise The Quantity Of PVC Pipe Sleeves Required At The Centre Of The Transition Dam	Supply & Installation Of PVC Pipe Sleeves In Concrete.	11-Sep-14				

FWO-CH0007001-0011	0	Supply & Installation Of PVC Pipe Sleeves In Concrete. Pipe Sleeves To Be Used In The Future For Installation Of Vibrating Wire Piezometers	Two PVC Pipe Sleeves 125 Diam Schedule 40 At The Spillway As Shown In Sketch: 505573-3241-4JDK-0001. Drilling Of Holes In Rock Foundation, Supply & Installation Of The Piezometers Are Out Of Scope Of This Work.	5-Sep-14				
FWO-CH0007001-0012	0	Reference SIN #0013. Supply & Install Rigid PVC Conduit Pipes Of Nominal Size 63mm (2.5") For Infill / Contact Grouting Later After The Placement Of Cast In Place Concrete Up To EL + 18.50m.	The Collar Of The PVC Pipes Should Be Capped And Stick Up At Least 1.0 Foot / 0.3048m Above EL + 18.50m. The Number Of The PVC Conduit Pipes Required Will Be As Directed By Company Geologist With A Minimum Of 5 Expected.	12-Sep-14				
FWO-CH0007001-0013	0	Supply & Installation Of PVC Pipe Sleeves In Concrete In The South Transition Dam	Four Additional PVC Pipe Sleeves 125mm Schedule 40 At The South Transition Dam As Shown On Attached Sketch : 505573-3241-4JDK-0004	17-Sep-14				
FWO-CH0007001-0014	0	Reference SIN#0014. Cleaning & Grouting Of The 4 - 63mm Diam PVC Pi To Fill The Voids Between The Concrete & Open Joints In Foundations Bedrock At The Centre Transition Dam All As Described In SIN-CH0007001-0014.	The Work To Be Performed On A Time & Materials Basis With Time Sheets For The Work Properly Identified. The Open Spaces Of The Joints Are To Be Filled With Grout To Fill The Narrow Cracks At The Foundation Bedrock.	30-Sep-14				
FWO-CH0007001-0015	0	Supply & Install PVC Pipe Sleeves In Concrete In The North Transition Dam.	Three Additional PVC Pipe Sleeves 125mm Schedule 40 At The North Transition Dam	24-Oct-14				
FWO-CH0007001-016	0	Rock reconstruction due to over excavation	Installation of the 3 - 30 M @ 900 dowels, minimum 3000 embedment into sound rock as shown on sketch 505573-3241-42Dk-0012 in preparation for lift SWPSA-2 from El. 8.00 to El. 11.00	2-Nov-14				



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Instruction Log

Site Instruction No.	Rev No.	Title	Description	Date of Issue	Status	COST/ Impact		Change Request No.
						Yes	No	
SIN-CH0007-001	0	BLOCK OUT	Sketches indicating dimensions on hold pending resolution of blockout sizes to suit the hydro-mechanical embedded equipment	30-Jan-14	Work Clarification			XXXX
SIN-CH0007-002	0	BLOCK OUT/Inspection Gallery	Sketches indicating Dimensions on "Hold" pending resolution of block-out sizes to suit Hydro-mechanical embedded Equipment and Elevation on Inspection Gallery	31-Jan-14	Work Clarification			
SIN-CH0007-003	0	OverBreak / Spillway	Spillway Overbreak Concrete	23-Apr-14	Work Clarification			
SIN-CH0007-004	0	Dam Construction	Site Instruction to Instruct Astaldi to use Borrow Source indicated on the attached drawing MFA-SN-CD-4300-CV-PL-0007-01 Rev. C7 to check Dam Construction	9-May-14	Work Clarification			
SIN-CH0007-005	0	Over-break Concrete From Rock Blasting Activity	Permitted to partially infill portions of the deeper voids that are present in the spillway slab foundation.	13-May-14	Work Clarification	X		
SIN-CH0007-006	0	Over-break Concrete From Rock Blasting Activity	Use of Trial Mix 30420B3-3 for Overbreak Concrete	4-Jun-14	Work Clarification	X		
SIN-CH0007-007	0	Loose Rock Blocks on the Foundation of Centre Transition Dam	Contractor Shall Remove Loose Rock Blocks on the Foundation of Centre Transition Dam as Marked on the Field By Paint Marks and as Shown on the Attached Photographs	28-Jun-14		X		
SIN-CH0007-008	0	Application of Dry Pack on Rock Surfaces And Over Open Joints	The Contractor shall apply dry pack on the rock surfaces and over the open joints of Centre Transition Dam lift CTU2A-01 marked by paint and identified with marking "DP"	23-Jul-14				
SIN-CH0007-009	0	Loose Rock Blocks - Excavation, Scaling, Washing and Cleaning	Loose rock blocks marked in red in the enclosed photographs are to be excavated and scaled at the foundation bedrock area of Centre Transition Dam	1-Aug-14		X		
SIN-CH0007-010	1	Contractor Is Instructed To Hold On Construction Of Blocks STU3 On South Transition Dam. Company Will Be Issuing ECN To Make Modifications To Concrete Outlines & Reinforcement Details.	Contractor Is Permitted To Proceed On Construction Of Block STU2	22-Aug-14		X		
SIN-CH0007-011	0	For The Purposes Of Determining Delays For Removal Of Formwork; Spillway Base Slabs SW1A; SWB1B; SWB1C; SWB2A; SWB2B; SWB2C; SWB3A; SWB3B; & SWB3C Shall Be Considered As Vertical Surfaces Of Thick Cross Sections.	As Per Point # 5 Above, In All Cases, The Removal Of Formwork & Falsework Shall Be Authorised By The Engineer	24-Aug-14				

<p>SIN-CH0007-012</p>	<p>0</p>	<p>Specification Section: 03 11 00 - Concrete Formwork states: 2.4 FORMWORK LINER 1. Unless indicated otherwise on the drawings, formwork shall be covered with a formwork liner type Drainaform as manufactured by Texel Inc or approved equivalent, between elevations 37.50m and 40.00m for all upstream surfaces, including the bulkhead and intake gate shafts, and between elevations 0.50m and 7.00m for all downstream surfaces. The formwork liner is only required where the surface is normally in contact with water in the reservoir, tailrace and discharge channels. The formwork liner shall be installed as per the manufacturer's recommendations</p>	<p>As discussed with Astaldi Engineering on 09.September.2014 in accordance with this Specification, Contractor is advised that the vertical formwork at the spillway piers downstream of the final rollway surface require the Drainaform liner installed from the elevation of the top of the base slab to elevation 7.0m. This will include the forms currently being set for the piers on top of SWB3C</p>	<p>10-Sep-14</p>			
<p>SIN-CH0007-013</p>	<p>0</p>	<p>This Site Instruction supplements SIN-CH0007001-0009 dated 01.AUGUST.2014. The open joints at the foundation bedrock of Centre Transition Dam footprint CTU4A-02 area shall be embedded with at least five rigid PVC conduit pipes of nominal size 63mm [2.5"] for in fill / contact grouting later after the placement of cast in place concrete up to EL=18.50m. The collar of the PVC pipes should be capped and stick up at least 1 Foot / 0.3048 m above EL</p>	<p>This SIN is only to cover the authorisation given to Contractors worker to place the PVC pipe as the concrete pour was underway. FWO # 012 will be issued to cover the additional costs. The open spaces of the joints are to be filled with grout after the placement of dental concrete since the dental concrete is not adequate enough to fill the narrow cracks at the foundation</p>	<p>12-Sep-14</p>			
<p>SIN-CH0007-014</p>	<p>0</p>	<p>This Site Instruction supplements SIN-CH0007001-0013 [Rev 01] dated 12.September.2014. The current field instruction illustrates the steps to fill the residual voids which may remain between the concrete and the open joints at the foundation bedrock of Centre Transition Dam Footprint CTU4A-02. Infill / contact grouting shall be carried out through the 4 rigid PVC conduit pipe sleeves [refer enclosed photograph, nominal size 63mm / 2.5"] embedded in concrete pour CTU4A - 02 up to EL +18.50m. The process of grouting shall be performed in the following steps:</p>	<p>1. The pipes / open joints shall be cleaned of any rock particles, cement or any other solid materials by injecting water under pressure. If it is found that it can not be cleaned with water only under pressure even after a reasonable length of time, it shall be washed with alternating jets of air and water under pressure, injected through a hose or a pipe lowered to the bottom of the pipes. Air pressure should be gradually increased to a maximum of 100psi. Flushing should be continued until the return water is clear. 2. As soon as the cleaning is completed, the open joints are to be injected with grout by gravity using a hand pump with a pressure of approximately 40kPa via the PVC conduit pipes. Injection of the grout should start from the bottom of the PVC conduit using an injection line. During grouting adjacent conduit pipes shall be plugged by suitable caps to prevent grout from flowing out of the PVC conduits. On completion of the grouting, the PVC conduit pipes should be full of hardened grout as far as the orifice up to EL +18.50. The working areas and concrete surfaces must be protected and cleaned immediately from any leak out of grouting materials during and after the grouting operation. Approved SikaGrout 212 mix shall be used for the grouting.</p>	<p>29-Sep-14</p>			

<p>SIN-CH0007-015</p>	<p>0</p>	<p>This refers to the Scope Of Work Of Technical Specification Section 03.60.00 - "Drilling, Grouting, Rock Dowels & Drainage." Temperature Sensors [Thermistors] and Uplift Gauges have to be installed prior to curtain grouting activities as per the Technical Specification MFA-SN-CD-3300-CV-TS-0001-11 [Section 03 60 00 - "DRilling, Grouting, Rock Dowels and Drainage." Temperature Sensors [Thermistors] and Uplift Gauges have to be installed prior to curtain grouting activities as per the Technical Specification MFA-SN-CD-3300-CV-TS-0001-11 [Section 03 60 00] Aconex Site Queries SQY-CH0007001-0088 dated 06.September .2014 and #SQY-0007001-0102 dated 27.September.2014 should also be referred to in this regard.</p>	<p>To monitor the temperature of the rock foundation with the help of Thermistors before grouting and to monitor the rock surface movements during water pressure testing or grouting operations</p>	<p>30-Oct-14</p>			
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LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
						Yes	No	
	0	SQY-CH0007001-0001	Originally sent via Aconex mail as an RFI. Mike Collins and Greg Snyder to update as a site query and submit asap <u>Powerhouse Excavation Survey Data to Design ICS foundation Interfaces.</u>	27-Jan-14	27-Jan-14			
	0	SQY-CH0007001-0002	Detailed Information of the Embedded Parts for the Guides and Sill Beams of the Spillway	25.01.2014	29.01.2014			
	0	SQY-CH0007001-0003	Clarification of Grounding Conductor Drawings MFA-SN-CD-3410-EL-SE-0001-01 AND MFA-SN-CD-2410-EL-SE-0002-01	27.01.2014	30.01.2014			
	0	SQY-CH0007001-0004	Confirmation of Conrete Class of the Base Slabs of the Spillway	3-Feb-14	3-Feb-2014			
	0	SQY-CH0007001-0005	Confirmation of Anchor Design on the Rock Wall Foundation for the South and North Pier of the Spillway	27.01.2014	29.01.2014			
	0	SQY-CH0007001-0006	Curtain Grouting of PVC Pipe Sleeves	27.01.2014	29.01.2014			
AT-SQY-CH0007001-0006	0	SQY-CH0007001-0009	Spillway Slab - Stirrups Request in Base Slab Section A-A	30.01.2014	04.02.2014			
PT-HO-SQY-0004	0	SQY-CH0007001-0011	Fine Aggregate Samples	03.02.2014	04.02.2014			
AT-SQY-CH0007001-0007	0	SQY-CH0007001-0012	Waterstops WSB Design on the Rockwall for the South and North Pier of Spillway	04.02.2014	05.02.2014			
AT-SQY-CH0007001-0008	0	SQY-CH0007001-0013	Tall Foundation of the South and North Pier's Area of Spillway	11.02.2014	12.02.2014			
AT-SQY-CH0007001-0009	0	SQY-CH0007001-0014	Passage for the workers to access inside each pour of the spillway piers	11.02.2014	14.02.2014			
AT-SQY-CH0007001-0010	0	SQY-CH0007001-0015	ICS Building - Revised Bracing Elevation	14.02.2014	04.03.2014			
AT-SQY-CH0007001-0011	0	SQY-CH0007001-0016	ICS Building - Rock Anchor Loads	14.02.2014	11.03.2014			
AT-SQY-CH0007001-0012	0	SQY-CH0007001-0017	ICS Building - New Columns at Lines B1 and C1	19.02.2014	04.03.2014			
AT-SQY-CH0007001-0013	1	SQY-CH0007001-0019	Response to Canadian Mills Don't laminate On a Regular Basis Reinforcing Steel (rebar) of grade 400R	28-Feb-14	13.03.2014			
AT-SQY-CH0007001-0014	1	SQY-CH0007001-0020	Spillway Slab - Proposal to change orientation fo bottom hook	02.03.2014	05.03.2014			
AT-SQY-CH0007001-0015	0	SQY-CH0007001-0021	Interference of Waterstops with Reinforcing Steel	02.03.2014	05.03.2014			
AT-SQY-CH0007001-0016	0	SQY-CH0007001-0022	Request for more information for the Center Transiton Dam	14.03.2014	22.07.2014			
AT-SQY-CH0007001-0017	1	SQY-CH0007001-0024	Responses to the Attached SK-01 to SK-04 for Explanation Centre Transition Dam	21.03.2014	28.03.2014			
AT-SQY-CH0007001-0018	1	SQY-CH0007001-0023	Explanation Required for Which Structural Steel that Astaldi is asking About; i.e. is this Related to the ICS Structure or the Permanent Works	21.03.2014	22.03.2014			
AT-SQY-CH0007001-0019	0	SQY-CH0007001-0025	Contractor is Directed to Exhibit 1 - Scope of Work: Paragraphs 3.1.9; 3.1.10; and 3.1.11 for Description of Responsibilities in regard to Sampling and Testing of Concrete	21.03.2014	22.03.2014			
AT-SQY-CH0007001-0020	1	SQY-CH0007001-0026	Clarification of Paint/Protective Coating for the ICS Steel which will be Embedded in the Concrete of the Powerhouse	21.03.2014	28.03.2014			
AT-SQY-CH0007001-0021	0	SQY-CH0007001-0027	Request for drawing formats (Response)	02.04.2014	09.04.2014			
AT-SQY-CH0007001-0022	1	SQY-CH0007001-0028	Response to Site Query From Astaldi RE: Global Stability of Rock	05.04.2014	16.04.2014			
AT-SQY-CH0007001-0023	0	SQY-CH0007001-0029	Requirements for the 3D models of transition dams	09.04.2014	16.04.2014			
AT-SQY-CH0007001-0024	0	SQY-CH0007001-0030	Request for the Electro-Mechanical 3D-Model	10.04.2014	16.04.2014			
AT-SQY-CH0007001-0025	0	SQY-CH0007001-0031	Astaldi requires drawings for Cofferdam #5 in order to Finalize Locations of Temporary Access Roads	13.04.2014	17.04.2014			
AT-SQY-CH0007001-0026	0	SQY-CH0007001-0032	Locations of the Over-break Concrete at the South Service Bay Location - Engineering Change Notice #4	13.04.2014	22.04.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
						Yes	No	
AT-SQY-CH0007001-0027	0	SQY-CH0007001-0033	In the Absence of Over-break Concrete Underneath the Spillway Base Slab - Astaldi is Proposing to Drill Shallow Holes in the Rock	13.04.2014	22.04.2014			
AT-SQY-CH0007001-0028	0	SQY-CH0007001-0034	Problems in the Spillway	17.04.2014	22.04.2014			
AT-SQY-CH0007001-0029	0	SQY-CH0007001-0036	Inconsistency Between Adritz Embedded Elements and Construction Sequences	17.04.2014	24.04.2014			
AT-SQY-CH0007001-0030	0	SQY-CH0007001-0037	Transporting Rock over Mackenzie river bridge weighing 95 tons	25.04.2014	28.04.2014			
AT-SQY-CH0007001-0031	1	SQY-CH0007001-0038	Response to Request to use 59mm Cover On Climbing Anchors for all Structures on the Project	02.05.2014	04.05.2014			
	0	SQY-CH0007001-0039	Response to the Request to Pour the Roof Slab and Wall After the Dam has been Poured in the area noted	26-May-14	5/2/2014			
	0	SQY-CH0007001-0040						
	0	SQY-CH0007001-0041	Requesting permission to drill 32mm hole in the side lining to permit proper anchor installation as the side lining interfering with DOKA formwork climbing anchor.	3-May-14	14-May-2014			
AT-SQY-CH0007001-0033	0	SQY-CH0007001-0042	Site Query from Astaldi CH0007 - Requesting permission to drill 32mm hole in the side lining to permit proper anchor installation as the side lining interfering with DOKA formwork climbing anchor.	03.05.2014	14.05.2014			
AT-SQY-CH0007001-0034	0	SQY-CH0007001-0043	Concrete Formwork - CSA Standard vs. ACI Standard and the minimum limiting lateral formwork design.	09.05.2014	12.05.2014			
AT-SQY-CH0007001-0035	0	SQY-CH0007001-0044	Clarify the use of B4	14.05.2014	21.05.2014			
AT-SQY-CH0007001-0036	0	SQY-CH0007001-0045	Re-construction Concrete.Rock	16.05.2014	21.05.2014	x		2023
AT-SQY-CH0007001-0037	0	SQY-CH0007001-0046	Spillway Roller Gate Block Outs	23.05.2014	26.05.2014			
AT-SQY-CH0007001-0038	0	SQY-CH0007001-0047	Power house unit 1 draft tube outlet base slab reinforcement, intake units 3 & 4 Base slab plan EL 1.70 concrete.	23.05.2014	06.06.2014			
AT-SQY-CH0007001-0039	0	SQY-CH0007001-0048	Spillway Roller Gate: Block Outs and Anchor Templates - Dimension	02.06.2014	06.06.2014			
AT-SQY-CH0007001-0040	0	SQY-CH0007001-0049	Spillway Baseslab Waterstop: Ref. Drawing MFA-SN-CD-2400-CV-SN-0002-01-C3	04.06.2014	04.06.2014		x	
AT-SQY-CH0007001-0041	0	SQY-CH0007001-0050	Spillway - Base Slab - Grouting and Conduits	04.06.2014	10.06.2014			
AT-SQY-CH0007001-0042	0	SQY-CH0007001-0051	Spillway - Cables and Connections - Mechanical Components	04.06.2014	09.06.2014			
AT-SQY-CH0007001-0043	0	SQY-CH0007001-0052	Centre Transition Dam - Rock Under The Dam Has An Irregular Shape	10.06.2014	13.06.2014	x		
AT-SQY-CH0007001-0044	0	SQY-CH0007001-0053	Clarification & Requirement For The Embedded Parts Of Spillway	11.06.2014	21.07.2014			
AT-SQY-CH0007001-0045	0	SQY-CH0007001-0054	Spillway-Waterstops-Rollway WSD Is Not Included In The Technical Specification Refer To Sketch For The Query Details	26.06.2014	04.07.2014			
AT-SQY-CH0007001-0046	0	SQY-CH0007001-0055	Refer To Clause 3.2.1.2 Slice & Weld The Waterstops Joints Straight And Also Mould Waterstops On Site	26-Jun-14	27-Jun-14			
AT-SQY-CH0007001-0047	0	SQY-CH0007001-0056	Exhibit 7 - Quality Requirements	01.07.2014	01.07.2014			
AT-SQY-CH0007001-0048	0	SQY-CH0007001-0057	A Clarification for Concrete Work of North Transition Dam	03.07.2014	18.07.2014	X		
AT-SQY-CH0007001-0049	0	SQY-CH0007-001-0058	LRM Batching Plant Area	03.07.2014	18.07.2014			
AT-SQY-CH0007001-0050	0	SQY-CH0007001-0059	Rock From Stockpile A for Mobile Crane Pads in the Powerhouse	25.07.2014	31.07.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

COST/ Impact Change Request No.

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	Yes	No	
AT-SQY-CH0007001-0051	0	SQY-CH0007001-0060	Batch Plant Single Feeder	25.07.2014	31.07.2014			
AT-SQY-CH0007001-0052	0	SQY-CH0007001-0061	Base Slab Dowels for Piers	27.07.2014	28.07.2014			
AT-SQY-CH0007001-0053	0	SQY-CH0007001-0062	Sequence Change of the First Pours Intake Unit 3 and Intake Unit 4	30.07.2014	31.07.2014		x	
AT-SQY-CH0007001-0054		SQY-CH0007001-0063	Grouting Curtain and Drainage Hole	30.07.2014	04.08.2014			
		SQY-CH0007001-0064	Configuration of Waterstop	30-Jul-14	5-Aug-14			
AT-SQY-CH0007001-0057	0	SQY-CH0007001-0065	Intake Unit 4 - Leveling the rock ground	31.07.2014	04.08.2014			
AT-SQY-CH0007001-0058	0	SQY-CH0007001-0066	Using non-scarification on the as-built overbreak concrete surface at the upstream of spillway where will connect with the upstream-west side.	5-Aug-14	8-Aug-14			
		SQY-CH0007001-0066						
AT-SQY-CH0007001-0059	0	SQY-CH0007001-0067	Request to provide the list of embedded elements (dimension and weight) of the Powerhouse First concrete phase of your subcontractor Andritz.	09.08.2014	25.08.2014			
AT-SQY-CH0007001-0060	0	SQY-CH0007001-0068	Request to change the formwork dimensions of 2 pours on the Spillway Piers, deleting the construction joints and unifying the smaller pours to the bigger ones.	12.08.2014	18.08.2014			
AT-SQY-CH0007001-0061	0	SQY-CH0007001-0069	Inconsistency between no. 2 dwg of SNC lavalin re: waterstop on the intake unit 2 & 3	12.08.2014	19.08.2014			
AT-SQY-CH0007001-0062	0	SQY-CH0007001-0075	In the red copies received, about the Center Transition Dam, there is a reference to a "future ECN," but we don't have any ECN with the change written.	21.08.2014	26.08.2014			
AT-SQY-CH0007001-0063	0	SQY-CH0007001-0070	Spillway base slab and technical specification 03 30 00 section 3.8.4	15.08.2014	17.08.2014			
AT-SQY-CH0007001-0064	0	SQY-CH0007001-0071	Reinforcing steel in the spillway base slab.	15.08.2014				
AT-SQY-CH0007001-0065	0	SQY-CH0007001-0072	Need to see the clashes between different parts of the powerhouse and spillway, to bring these pieces into their final location.	19.08.2014	25.08.2014			
AT-SQY-CH0007001-0066	0	SQY-CH0007001-0073	Astaldi purposes to cut the 30M top bars and insert new 30M bars below the clamping bars and plates.	13.08.2014	21.08.2014			
AT-SQY-CH0007001-0067	0	SQY-CH0007001-0074	Astaldi request approval regarding the slump adjustment method for the spillway concrete mix A2-5	20.08.2014	26.08.2014			
AT-SQY-CH0007001-0068	0	SQY-CH0007001-0078	Astaldi ask to have editable files for mechanical and electrical drawings of SNC design of the power house in order to: 1.) Better understand and estimate the quantity of all the systems. 2.) Check and proceed with verification and purpose solutions to solve the clashes with the temporary structure of the ICS.	20.08.2014	28.08.2014			
AT-SQY-CH0007001-0069	0	SQY-CH0007001-0076	In some parts of the structure (intake and powerhouse) we have found particular waterstop intersections. In some cases we have similar intersections, but different angles.	21.08.2014	25.08.2014			
AT-SQY-CH0007001-0070	0	SQY-CH0007001-0077	After the rock survey the real rock profile between the spillway and the center transition dam it is not possible to install the waterstop in the rock.	21.08.2014	26.08.2014			
AT-SQY-CH0007001-0071	0	SQY-CH0007001-0079	South and Center transition dam has note 3 that indicates the class of the concrete.	22.08.2014	25.08.2014			
AT-SQY-CH0007001-0072	0	SQY-CH0007001-0080	The embedded conduits are very close to the embedded part of the guard-rail.	22.08.2014				
AT-SQY-CH0007001-0073	0	SQY-CH0007001-0081	Modification in the pours of the retaining wall (WL)	27.08.2014	02.09.2014			
AT-SQY-CH0007001-0074	0	SQY-CH0007001-0082	Astaldi request to weld non-structural rebar to use as additional support for the structural rebar during the pouring of blocks in the spillway base slab in order to avoid rebar cage moving.	28.08.2014	28.08.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

COST/ Impact Change Request No.

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	Yes	No	
AT-SQY-CH0007001-0075	0	SQY-CH0007001-0083	"Waterstops may be bent about their weak axis to a minimum radius approved by Eng. Where ever a change in direction is required".	28.08.2014	04.09.2014			
AT-SQY-CH0007001-0076	0	SQY-CH0007001-0084	Astaldi requires clarification about the inconsistency between two drawings form the design.	04.09.2014	05.09.2014			
AT-SQY-CH0007001-0077	0	SQY-CH0007001-0085	CENTRE TRANSITION DAM - ELEVATED DECK	03.09.2014	03.09.2014			
AT-SQY-CH0007001-0078	0	SQY-CH0007001-0089	SPILLWAY PIERS - GATE GUIDE	04.09.2014	07.09.2014			
AT-SQY-CH0007001-0079	0	SQY-CH0007001-0086	In order to achieve the best protecton during winter for concrete pouring, we are providing a winter shelter for the spillway in order to allow the pouring during cold periods. "NOT ADMISSIBLE, THIS REQUEST SHOULD BE CONCESSION REQUEST."	04.09.2014	05.09.2014			
AT-SQY-CH0007001-0080	0	SQY-CH0007001-0087	In order to achieve the rock reconstitution of the line A - Upstream Powerhouse a rock demolition is needed.	05.09.2014	10.09.2014			
AT-SQY-CH0007001-0081	0	SQY-CH0007001-0088	We need information from the designer about the final position to be placed SWB2A-00 pour of the spillway base slab.	06.09.2014	08.09.2014			
AT-SQY-CH0007001-0082	0	SQY-CH0007001-0091	Confirm size of bars for unit 1, 25M or 30M?	08.09.2014	12.09.2014			
AT-SQY-CH0007001-0083	0	SQY-CH0007001-0092	SECTION E-E/3310-CV-SN-0042-01	03.09.2014	12.09.2014			
AT-SQY-CH0007001-0084	0	SQY-CH0007001-0090	Astaldi would like to know if there will be a requirement or reinforcing dowels in this location.	09.09.2014	12.09.2014			
AT-SQY-CH0007001-0085	0	SQY-CH0007001-0102	Require informationfrom the designer about the final position of the thermistor and uplift gauge to be placed on pours.	27.09.2014	30.09.2014			
AT-SQY-CH0007001-0086	0	SQY-CH0007001-0093	Perform earth loop test and resistance tests using method appropriate to site conditions and to accept engineer and local authority havng jurisdiction.	30.08.2014	11.09.2014			
AT-SQY-CH0007001-0087	0	SQY-CH0007001-0094	We are not able to find any details about the column type 15. We need details for anchors embedment.	12.09.2014	15.09.2014			
AT-SQY-CH0007001-0088	0							
AT-SQY-CH0007001-0089	0	SQY-CH0007001-0097	How to place the waterstop.	16.09.2014	23.09.2014			
AT-SQY-CH0007001-0090	0	SQY-CH0007001-0098	There is inconsistency in the dwg from the designer. We need to know what is the right distance between the waterstops.	16.09.2014	22.09.2014			
AT-SQY-CH0007001-0091	1	SQY-CH0007001-0095	1.) Request for original ase survey under crusher feed stockpile on C2 pad. 2) Quantity of crusher feed stockpile that was surveyed in April 2014 by Edwards.	15.09.2014	17.09.2014			
AT-SQY-CH0007001-0092	0	SQY-CH0007001-0099	Please provide detail about the drawing number recall in dwg MFA-SN-CD-3320-CV-SN-0007-05. We need to understand if there are some embedded parts to be cast in the pour.	20.09.2014	23.09.2014			
AT-SQY-CH0007001-0093	0	SQY-CH0007001-0100	There are some problems with the waterstop, that has been left in the same elevation and is not well placed in the pour. Provide additional information/modification about this item.	20.09.2014	26.09.2016			
AT-SQY-CH0007001-0094	0	SQY-CH0007001-0101	There is a little clash between waterstop and rigid PVC conduit on the south service bay, pour SBU1A-01. We had to modify the EL of the out of the PVC conduit, now specified by the Engineer at EI-21.60.	20.09.2014	22.09.2014			
AT-SQY-CH0007001-0095	0	SQY-CH0007001-0105	Intake deck at EI+45.50	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0096	0	SQY-CH0007001-0103	Additional Laps for Tbars-GENERAL	29.09.2014	01.10.2014			
AT-SQY-CH0007001-0097	0	SQY-CH0007001-0104	In order to finalize all our considerations on the dewatering system for the powerhouse and the spillway we wish to receive a copy of the as build drawings for the U/S and D/S cofferdams of the power house and spillway with the type of material indicated.	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0098	0	SQY-CH0007001-0106	South Service Bay, dimensions to be defined.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0099	0	SQY-CH0007001-0106	Safety post details	02.10.2014	03.10.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

COST/ Impact Change Request No.

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	Yes	No	
AT-SQY-CH0007001-0100	0	SQY-CH0007001-0108	Stairs No.11 attachment details: Please provide additional information about the stairs no.11 on the south service bay. 1.) Correct position of the rod for the stair base joint. 2.) Connection between the slab on the rock and the pilaster/landing slab.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0101	0	SQY-CH0007001-0109	Intake - Gate hoist building provide clarification about the revision C3 of the isometric view MFA-SN-CD-3220-CV-IS-0001_C3. There are a lot of changes that are not clear and are not consistent with the geometry of the building.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0102	0	SQY-CH0007001-0110	South Service Bay, drainage holes provide drawing the dwg (MFA-SN-CD-320-CV-PL-0020) reported in the attached drawing.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0103	0	SQY-CH0007001-0111	Embedded grounding and conduits - Detail 10	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0104	0	SQY-CH0007001-0113	In the zone where the SEPERATION WALL is linked to the CENTER TRANSITION DAM.	04.10.2014	24.10.2014			
AT-SQY-CH0007001-0105	0	SQY-CH0007001-0112	Redundant clash between Andritz elements and waterstop	04.10.2014	07.10.2014			
AT-SQY-CH0007001-0106	0	SQY-CH0007001-0114	Native files of SNC Lavalin drawings	07.10.2014	10.10.2014			
AT-SQY-CH0007001-0107	0	SQY-CH0007001-0115	Missing drawings for grounding and conduits - Generator floor EL 15.50	07.10.2014	08.10.2014			
AT-SQY-CH0007001-0108	0	SQY-CH0007001-0116	Request for all rock scan & asbuilts for powerhouse & spillway for planning purposes	10.10.2014	14.10.2014			
AT-SQY-CH0007001-0109	0	SQY-CH0007001-0117	Proposal of set of drawings for built-in place formworks	13.10.2014	15.10.2014			
AT-SQY-CH0007001-0110	0	SQY-CH0007001-0118	Change the pour sequence forporing the first lift of monolith 3	11.10.2014	14.10.2014			
AT-SQY-CH0007001-0111	1	SQY-CH0007001-0119	Curtain grouting pipes predisposition on the first lift (CTU3A-01) on Centre Transition Dam	13.10.2014	14.10.2014			
AT-SQY-CH0007001-0120	0	SQY-CH0007001-0120	Concrete curing temperature data reporting.	13.10.2014	14.10.2014			
AT-SQY-CH0007001-0121	0	SQY-CH0007001-0121	Use of stayform for the penetrated bulkhead in the piers of the intake.	15.10.2014	16.10.2014			
AT-SQY-CH0007001-0122	0	SQY-CH0007001-0122	Discrepancy between two grid lines.	21.10.2014	22.10.2014			
AT-SQY-CH0007001-0123	0	SQY-CH0007001-0123	Standard piping details - plate detail S-A04	24.10.2014	27.10.2014			
AT-SQY-CH0007001-0124	0	SQY-CH0007001-0124	Extension of overbreak concrete for spillway pier formwork support (Downstream side)	24.10.2014	02.11.2014			
AT-SQY-CH0007001-0125	0	SQY-CH0007001-0125	Standard piping details - plate details - 30" plate cap	24.10.2014	25.10.2014			
AT-SQY-CH0007001-0126	1	SQY-CH0007001-0126	Contractor would like to know if the orientation shown for the powerhouse is based on Centerline Unit 1 and Centreline of units is correct.	31.10.2014	03.11.2014			
AT-SQY-CH0007001-0127	0	SQY-CH0007001-0127	Horizontal bar's spacing in stair shaft of the powerhouse semi-spiral case all units.	05.11.2014	13.11.2014			
AT-SQY-CH0007001-0128	0	SQY-CH0007001-0128	Specifications/Questions about AGF dwg - General comments (red copies) clarificatons.	05.11.2014				
AT-SQY-CH0007001-0129	0	SQY-CH0007001-0129	Drain line	06.11.2014	12.11.2014			
AT-SQY-CH0007001-0130	0	SQY-CH0007001-0130	Realization of drainage hole to be drilled in rock on south service bay - lower part	11.11.2014	14.11.2014			
AT-SQY-CH0007001-0131	0	SQY-CH0007001-0131	Embedment of placing booms on the powerhouse area (draft tube & intake)	11.11.2014	12.11.2014			
AT-SQY-CH0007001-0132	0	SQY-CH0007001-0132	North Service Bay Foundation rock interference	12.11.2014	19.11.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

**Change Request Log
Astaldi To Nalcor**

Change Request No.	Rev No.	Description	Linked by	Date of Issue	Date of Response	Submitted Price	Sub-Contractor's Price	Submitted		Nalcor Response date	Accept ?
								Yes	No		
2001	0	Reference Exhibit 2 - Attachment 1 - Item 2.1 - Mobilisation				NIL					
2002	0	Reference Exhibit 2 - Attachment 1 - Item 2.2 - Site Instruction				NIL					
2003	0	Reference Exhibit 2 - Attachment 1 - Item 2.3 - Contractor Equipment For Indirects				NIL					
2004	0	Reference Exhibit 2 - Attachment 1 - Item 2.4 - Temporary Works				NIL					
2005	0	Reference Exhibit 2 - Attachment 1 - Item 2.5 - Winter Protection				NIL					
2006	0	Reference Exhibit 2 - Attachment 1 - Item 2.6 - Management & Staff				NIL					
2007	0	Reference Exhibit 2 - Attachment 1 - Item 2.6A - Design & Technical Assistance				NIL					
2008	0	Reference Exhibit 2 - Attachment 1 - Item 2.8 - Services				NIL					
2009	0	Reference Exhibit 2 - Attachment 1 - Item 2.10 - Health & Safety Requirements				NIL					
2010		NOT USED				NIL					
2011	0	Reference Exhibit 2 - Attachment 1 - Item 2.11 - Environmental Requirements				NIL					
2012	0	Reference Exhibit 2 - Attachment 1 - Item 2.1 - Mobilisation - Revised Total				NIL					
2013	0	Reference Exhibit 2 - Attachment 1 - Item 2.2 - Site Installation - Revised Total				NIL					
2014	0	Reference Exhibit 2 - Attachment 1 - Item 2.3 - Contractor Equipment For Indirects - Revised Total				NIL					
2015	0	Reference Exhibit 2 - Attachment 1 - Item 2.4 - Temporary Works - Revised Total				NIL					
2016	0	Reference Exhibit 2 - Attachment 1 - Item 2.5 - Winter Protection - Revised Total				NIL					
2017	0	Reference Exhibit 2 - Attachment 1 - Item 2.6 - Management & Staff - Revised Total				NIL					
2018	0	Reference Exhibit 2 - Attachment 1 - Item 2.6A - Design & Technical Assistance - Revised Total				NIL					
2019	0	Reference Exhibit 2 - Attachment 1 - Item 2.8 - Services - Revised Total				NIL					



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

**Change Request Log
Astaldi To Nalcor**

Change Request No.	Rev No.	Description	Linked by	Date of Issue	Date of Response	Submitted Price	Submitted		Nalcor Response date	Accept ?
							Yes	No		
2020	0	Reference Exhibit 2 - Attachment 1 - Item 2.10 - Health & Safety Requirements - Revised Total				NIL				
2021	0	Revised Exhibit 2 - Attachment 1 - Item 2.11 - Environmental Requirements - Revised Total				NIL				
2022	0	Site Query - SQY-CH00007001-045. Rock Reconstruction Concrete. Following the answer we received on 22.May.2014. Major reconstruction of the rock to the right of lift XXX, disrupt the normal sequence of our work. This non-predictable work such as the installation of anchor rods with injection,formwork, additional details and repeat cleaning surfaces have an impact on the schedule and additional costs. Include SQ 045 As Suggested By E. Mongili				\$4,083,941.68				
2023	0	The Contractor hereby requests modifications and additions of new positions to the Rate Tables for the Contractors Work Force not covered by the Collective Agreement In Exhibit 2 - Appendix F. [SAMPLE DOCUMENTATION ON CHANGE ORDER PROCESS]				NOT APPLICABLE				
2024	0	A discovery of explosive materials on site of the work took place again. Down time was recorded on 06, 07 & 21 May 2014. We do not have good records in respect of this subject therefore probably better to withdraw.				NOT USED YET				
2025		Not Used Yet				NOT USED YET				
2026		Reserved For CHR: 1019 - To Be Issued January 2015				NOT USED YET				
2027		Cost Of Attending Meetings In St. Johns. Note: Rejected By Nalcor. According To Them They Are Not Allowed To Make Payments in Advance.				\$ 100K Rejected By Nalcor				
2028		Use Of Concremote As A Temperature. Note: Rejected By Nalcor. Nalcor Are Of The Opinion that Astaldi Are Responsible For All Costs				\$493,422.30				



LOWER CHURCHILL PROJECT – MUSKRAT FALLS

CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

**Change Request Log
Nalcor To Astaldi**

Change Request No.	Rev No.	Description	Linked by	Date of Issue	Date of Response	Submitted Price	Sub-Contractor's Price	Submitted		Nalcor Response date	Accept ?
								Yes	No		
10001	0	Supply and installation of Second Stage Concrete for Hydro-Mechanical Embedded Parts	LTR-072	12-Dec-13	06-Feb-14	\$ 15,496,356.34					
10001	1	Revised Scope of Work.		14-Apr-14	5-Jun-2014	\$ 20,362,544.20		05-Jun-14			
		Additional Information from Andritz Requested 2 price options for Scaffolding.									
1002	1	Supply and transportation of aggregates to other		30-Apr-14	24-Jun-2014	\$ 3,600,000.00					
1003	0	Bussing/Transportation of Local Workers	LTR-073	26-Jan-14	6-Feb-2014	DECLINED			X		
1004	1	Maintenance of Washcars	LTR-181	17-Mar-14	15-Jul-2014	\$ 276,000.00 / Month - 48 Months Total Say \$ 13,200,000 [Estimated]					
1005	0	Revised IFC drawing & Spec as per ECN #1 & #2		05-Feb-14	1-Jul-2014						
1006	0	Provide 3 types of crushed material		11-Feb-14	24-Jun-2014	WITHDRAWN BY CLIENT					
1007	1	Site Construction Power - Additional Drawing		14-Feb-14	7-Mar-2014	\$ 986,694.00					
1008	0	Release of hold on the Spillway stoplog blockouts with revised dimensions to the blockouts and associated changes to concrete, rebar, PVC waterstop and misc. embedded metals.	ECN-003, SQY-010, LTR-0193	18-Mar-14	1-Jul-2014	\$ [148, 233.18]	Provisional	2-Jul-14			
1009	0	Estimated quantities of required concrete over-break	ECN-004R1	28-May-14	1-Jul-2014						
1010	0	25KV Construction Power Switch Yard Converter Area.		13-Jul-14		\$ 445,776.67					
1011	0	Installation of Fibre Optics		13-Jul-14		\$ 260,369.52					
1012	0	Supply and Installation of Cellular Shelter Electrical Work		5-Aug-14		WITHDRAWN BY CLIENT					
1013	0	Revised IFC Drawings Related to Grounding and Exothermic Connections at the Centre Transition Dam and the Spillway	ECN-007	9-Aug-14							
1014	1	ECN-CH0007001-0009 (Copy attached)	ECN-009	23-Aug-14							
1015	0	ECN-CH0007001-0011 (Copy attached)	ECN-011	6-Sep-14							
1016	0	ECN-CH0007001-0012 (Copy attached)	ECN-012	6-Sep-14							
1017	0	ECN-CH0007001-0010 (Copy attached)	ECN-010	11-Sep-14							
1018		NOT ISSUED YET									
1019	0	Overbreak In Rock Under The Bottom Pours Of The Separation Wall & Spillway South Pier	SQY-0113	25-Oct-14		\$ 210,000.00					
1020	0	Supply & Installation Of Concrete Encased PVC Conduits From The Base Of The Vertical Cliff Face To The Powerhouse South Service Bay As Indicated In The Drawing. Scope Of Work Is Detailed In The Attached Document: SLI Doc. No. 505573-3151-47EW-0007 - Completion Of Construction Power Requirements - Concrete Duct Bank Scope Of Work Specification.		12-Nov-14		Contractor To Provide A Lump Sum Price To Complete The Work As Per Scope Of Work Document Attached That Covers Labour, Materials, Equipment, Supervision, Overhead & Profit					
1021	0	ECN-CH0007001-0015 [Copy Of ECN Only Is Attached]. This Engineering Change Notice (ECN) Covers Changes To The IFC Drawings For The Powerhouse & Intake Superstructure Structural & Miscellaneous Steel. Contractor To Review The Attached Schedule Of Quantities & Prices, Confirm Acceptance Or Provide Estimates . Contractor Is Requested To Submit Pricing On Schedule Of Price Breakdown CHR - 1021.	ECN-0015	21-Nov-14		Contractor To Review The Attached Schedule Of Quantities & Prices, Confirm Acceptance Or Provide His Estimate If Different. Present Details On Impact On Schedule If Any , All With Sufficient Information To Allow The Company To Assess The Contractors Proposal.					

1022	0	ECN-CH0007001-0014 & ECN-CH0007001-0014 Rev 1 [COPIES OF ECNs ONLY IS ATTACHED. This Engineering Change Notice [ECN] Covers Changes To The IFC Drawings For The Powerhouse Drainage & De-watering Pumps Piping System. The ECNs 14 & 14 R1 And Associated Revised IFC Drawings Were Issued To The Contractor In Aconex.	ECN-0014 & ECN-0014 R1	21/11/2014		As There Are No Quantity Changes Resulting From These ECNs, Company Estimate No Changes To Cost Due To Quantities. Contractor To Review The Revised Drawings & The Estimated Quantities In Contract Schedule etc.					
1023	0	ECN-CH0007001 - 006 [Copy Of ECN Only]. Engineering Change Notice [ECN] Covers Revisions To IFC Drawings Plus An Additional IFC Drawing Covering The Following: Embedded Piping Isometric Drawing. - Updated IFC Drawings For Waterstops , Piping, Electrical & Lighting.. The ECN & Associated Revised IFC Drawings Were Issued To The Contractor In Aconex.	ECN-0006	21/11/2014		As There Are No Quantity Changes Resulting From These ECNs, Company Estimate No Changes To Cost Due To Quantities. Contractor To Review The Revised Drawings & The Estimated Quantities In Contract Schedule etc.					
1024											
1025											



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
 CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Engineering Change Notice

Engineering Change Notice No.	Rev No.	Title	Description	Date of Issue	Status	COST/ Impact		Change Order No.
						Yes	No	
ECN-CH0007-001	0	UPDATE	Update to SOW, Archtectureal Technical Spec, Update to Drawings as per TDL	17-Jan-14	CHR 1005			
ECN-CH0007-002	0	Drawings	Isometrics and revised Lighting Drawings	27-Jan-14	CHR 1005			
ECN-CH0007-003	0	Stoplog/ Spillway	Spillway Stoplog Blockout and Waterstop Revisions	10-Mar-14	CHR 1008			
ECN-CH0007-004	1	Over Excavation Civil Drawings	Powerhouse, Transition Dam, Intake	03-Apr-14	CHR 1009			
ECN-CH0007-005	2	Installation of Substations and Construction Power in the vicinity of the Generating Station	Change Order 2, already issued	16-Jun-14	CHR 1002			2
ECN-CH0007-006	0	Update of Package and Reference Drawings	Powerhouse, Embedded, Waterstop, Piping, Electrical	June-20-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-007	0	Issue of new and revised embedded conduit and grounding drawings for CTD and Spillway	Centre Transition Dam and Spillway	29/07/2014	Not Included In Any CHR Issued By Client			
ECN-CH0007-008	0	Spillway, Transition Dams and Seperation Wall - Revised IFC Drawing	Updated Grouding and Embedded	12-Aug-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-009	2	Powerhouse & Intake - Update Of Civil Drawings Following Hydrotechnical Constructability Review	This is Revision # 2 of ECN-CH0007001-0009. The seventy one [71] drawings issued on this revision # 2 are in addition to the forty six [46] drawings issued with revision # 1 on 12.September.2014 & one hundred & thirty five [135] drawings issued with revision # 0 on 22.August.2014.	02-Oct-14	CHR 1014 [2]			
ECN-CH0007-010	0	North Transition Dam - Revised IFC Drawings [Concrete & Reinforcement]	Drawings. Transition Dam - North Transition Dam Revised IFC Drawings [3 Concrete Drawings and 1 Reinforcement Drawing	22-Aug-14	CHR 1017 [0]			
ECN-CH0007-011	0	Spillway & Powerhouse Electrical & Piping Drawings - Revised & New		03-Sep-14	CHR 1015 [0]			
ECN-CH0007-012	0	New Revision Of Technical Specification Section 08 71 00 - Door Hardware	Technical Specification: Revised IFC Technical Specification Section 08 71 00 - Door Hardware [revision of electrical requirements]. Revised Technical Specification Indeex Accounting For Above Point	02-Sep-14	CHR 1016			
ECN-CH0007-013	0	Update Of South Transition Dam Drawings	South Transition Dam Drawings - Revised IFC Drawings - South Transition Dam - Concrete & Reinforcement	16-Sep-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-014	0	Update Of Powerhouse Embedded Piping Drawings	Powerhouse - Embedded Piping ISO - Pump Drainage System [17 Drawings] - Powerhouse - Embedded Piping ISO - Pump Dewatering System [1 Drawing]	20-Oct-14	Not Included In Any CHR Issued By Client			
ECN-CH0007-015	0	Update of Powerhouse Superstructure Drawings	Summary of changes for ECN-CH0007001-0015: 1. Powerhouse Drawings 1.1.New IFC Drawings 1.1.1. SUB-PKG 0007-4305-Powerhouse-Miscellaneous Steel (3 Drawings) 1.2 Revised IFC Drawings 1.2.1. SUB-PKG 0007-4301- Steel General Drawings (1 Drawing) 1.2.2 SUB-PKG 0007-4302- Powerhouse Steel Crane rails and Girders (7 Drawings) 1.2.3 SUB-PKG 0007-4303 - Powerhouse -Steel main frame (13 Drawings)1.2.4. SUB-PKG 0007-4304 Powerhouse - Steel Mezzanines (8 Drawings) 1.2.5. SUB_PKG 0007-4305 - Powerhouse - Miscellaneous Steel (3 Drawings)	18-Nov-14				
ECN-CH0007-016	1	Update of Powerhouse Architectural Drawings	Complete summary of changes for ECN-CH0007001-0016 (including revisions #0 and #1): 1.Powerhouse Drawings 1.1 Revised IFC Drawings 1.1.1. SUB-PKG 0007-4401 Powerhouse - Architectural Notes: 1. This revision is revision #1 of ECN-CH0007001-0016. The four (4) Drawings issued on this revision #1 are in additon to the thirteen (13) drawings issued with revision #0.	16.12.2014				



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
						Yes	No	
	0	SQY-CH0007001-0001	Originally sent via Aconex mail as an RFI. Mike Collins and Greg Snyder to update as a site query and submit asap <u>Powerhouse Excavation Survey Data to Design ICS foundation Interfaces.</u>	27-Jan-14	27-Jan-14			
	0	SQY-CH0007001-0002	Detailed Information of the Embedded Parts for the Guides and Sill Beams of the Spillway	25.01.2014	29.01.2014			
	0	SQY-CH0007001-0003	Clarification of Grounding Conductor Drawings MFA-SN-CD-3410-EL-SE-0001-01 AND MFA-SN-CD-2410-EL-SE-0002-01	27.01.2014	30.01.2014			
	0	SQY-CH0007001-0004	Confirmation of Conrete Class of the Base Slabs of the Spillway	03-Feb-14	3-Feb-2014			
	0	SQY-CH0007001-0005	Confirmation of Anchor Design on the Rock Wall Foundation for the South and North Pier of the Spillway	27.01.2014	29.01.2014			
	0	SQY-CH0007001-0006	Curtain Grouting of PVC Pipe Sleeves	27.01.2014	29.01.2014			
AT-SQY-CH0007001-0006	0	SQY-CH0007001-0009	Spillway Slab - Stirrups Request in Base Slab Section A-A	30.01.2014	04.02.2014			
PT-HO-SQY-0004	0	SQY-CH0007001-0011	Fine Aggregate Samples	03.02.2014	04.02.2014			
AT-SQY-CH0007001-0007	0	SQY-CH0007001-0012	Waterstops WSB Design on the Rockwall for the South and North Pier of Spillway	04.02.2014	05.02.2014			
AT-SQY-CH0007001-0008	0	SQY-CH0007001-0013	Tall Foundation of the South and North Pier's Area of Spillway	11.02.2014	12.02.2014			
AT-SQY-CH0007001-0009	0	SQY-CH0007001-0014	Passage for the workers to access inside each pour of the spillway piers	11.02.2014	14.02.2014			
AT-SQY-CH0007001-0010	0	SQY-CH0007001-0015	ICS Building - Revised Bracing Elevation	14.02.2014	04.03.2014			
AT-SQY-CH0007001-0011	0	SQY-CH0007001-0016	ICS Building - Rock Anchor Loads	14.02.2014	11.03.2014			
AT-SQY-CH0007001-0012	0	SQY-CH0007001-0017	ICS Building - New Columns at Lines B1 and C1	19.02.2014	04.03.2014			
AT-SQY-CH0007001-0013	1	SQY-CH0007001-0019	Response to Canadian Mills Don't laminate On a Regular Basis Reinforcing Steel (rebar) of grade 400R	28-Feb-14	13.03.2014			
AT-SQY-CH0007001-0014	1	SQY-CH0007001-0020	Spillway Slab - Proposal to change orientation fo bottom hook	02.03.2014	05.03.2014			
AT-SQY-CH0007001-0015	0	SQY-CH0007001-0021	Interference of Waterstops with Reinforcing Steel	02.03.2014	05.03.2014			
AT-SQY-CH0007001-0016	0	SQY-CH0007001-0022	Request for more information for the Center Transiton Dam	14.03.2014	22.07.2014			
AT-SQY-CH0007001-0017	1	SQY-CH0007001-0024	Responses to the Attached SK-01 to SK-04 for Explanation Centre Transition Dam	21.03.2014	28.03.2014			
AT-SQY-CH0007001-0018	1	SQY-CH0007001-0023	Explanation Required for Which Structural Steel that Astaldi is asking About; i.e. is this Related to the ICS Structure or the Permanent Works	21.03.2014	22.03.2014			
AT-SQY-CH0007001-0019	0	SQY-CH0007001-0025	Contractor is Directed to Exhibit 1 - Scope of Work: Paragraphs 3.1.9; 3.1.10; and 3.1.11 for Description of Responsibilities in regard to Sampling and Testing of Concrete	21.03.2014	22.03.2014			
AT-SQY-CH0007001-0020	1	SQY-CH0007001-0026	Clarification of Paint/Protective Coating for the ICS Steel which will be Embedded in the Concrete of the Powerhouse	21.03.2014	28.03.2014			
AT-SQY-CH0007001-0021	0	SQY-CH0007001-0027	Request for drawing formats (Response)	02.04.2014	09.04.2014			
AT-SQY-CH0007001-0022	1	SQY-CH0007001-0028	Response to Site Query From Astaldi RE: Global Stability of Rock	05.04.2014	16.04.2014			
AT-SQY-CH0007001-0023	0	SQY-CH0007001-0029	Requirements for the 3D models of transition dams	09.04.2014	16.04.2014			
AT-SQY-CH0007001-0024	0	SQY-CH0007001-0030	Request for the Electro-Mechanical 3D-Model	10.04.2014	16.04.2014			
AT-SQY-CH0007001-0025	0	SQY-CH0007001-0031	Astaldi requires drawings for Cofferdam #5 in order to Finalize Locations of Temporary Access Roads	13.04.2014	17.04.2014			
AT-SQY-CH0007001-0026	0	SQY-CH0007001-0032	Locations of the Over-break Concrete at the South Service Bay Location - Engineering Change Notice #4	13.04.2014	22.04.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0027	0	SQY-CH0007001-0033	In the Absence of Over-break Concrete Underneath the Spillway Base Slab - Astaldi is Proposing to Drill Shallow Holes in the Rock	13.04.2014	22.04.2014			
AT-SQY-CH0007001-0028	0	SQY-CH0007001-0034	Problems in the Spillway	17.04.2014	22.04.2014			
AT-SQY-CH0007001-0029	0	SQY-CH0007001-0036	Inconsistency Between Adritz Embedded Elements and Construction Sequences	17.04.2014	24.04.2014			
AT-SQY-CH0007001-0030	0	SQY-CH0007001-0037	Transporting Rock over Mackenzie river bridge weighing 95 tons	25.04.2014	28.04.2014			
AT-SQY-CH0007001-0031	1	SQY-CH0007001-0038	Response to Request to use 59mm Cover On Climbing Anchors for all Structures on the Project	02.05.2014	04.05.2014			
	0	SQY-CH0007001-0039	Response to the Request to Pour the Roof Slab and Wall After the Dam has been Poured in the area noted	26-May-14	02/05/2014			
	0	SQY-CH0007001-0040						
	0	SQY-CH0007001-0041	Requesting permission to drill 32mm hole in the side lining to permit proper anchor installation as the side lining interfering with DOKA formwork climbing anchor.	3-May-14	14-May-2014			
AT-SQY-CH0007001-0033	0	SQY-CH0007001-0042	Site Query from Astaldi CH0007 - Requesting permission to drill 32mm hole in the side lining to permit proper anchor installation as the side lining interfering with DOKA formwork climbing anchor.	03.05.2014	14.05.2014			
AT-SQY-CH0007001-0034	0	SQY-CH0007001-0043	Concrete Formwork - CSA Standard vs. ACI Standard and the minimum limiting lateral formwork design.	09.05.2014	12.05.2014			
AT-SQY-CH0007001-0035	0	SQY-CH0007001-0044	Clarify the use of B4	14.05.2014	21.05.2014			
AT-SQY-CH0007001-0036	0	SQY-CH0007001-0045	Re-construction Concrete.Rock	16.05.2014	21.05.2014	x		2023
AT-SQY-CH0007001-0037	0	SQY-CH0007001-0046	Spillway Roller Gate Block Outs	23.05.2014	26.05.2014			
AT-SQY-CH0007001-0038	0	SQY-CH0007001-0047	Power house unit 1 draft tube outlet base slab reinforcement, intake units 3 & 4 Base slab plan EL 1.70 concrete.	23.05.2014	06.06.2014			
AT-SQY-CH0007001-0039	0	SQY-CH0007001-0048	Spillway Roller Gate: Block Outs and Anchor Templates - Dimension	02.06.2014	06.06.2014			
AT-SQY-CH0007001-0040	0	SQY-CH0007001-0049	Spillway Baseslab Waterstop: Ref. Drawing MFA-SN-CD-2400-CV-SN-0002-01-C3	04.06.2014	04.06.2014		x	
AT-SQY-CH0007001-0041	0	SQY-CH0007001-0050	Spillway - Base Slab - Grouting and Conduits	04.06.2014	10.06.2014			
AT-SQY-CH0007001-0042	0	SQY-CH0007001-0051	Spillway - Cables and Connections - Mechanical Components	04.06.2014	09.06.2014			
AT-SQY-CH0007001-0043	0	SQY-CH0007001-0052	Centre Transition Dam - Rock Under The Dam Has An Irregular Shape	10.06.2014	13.06.2014	x		
AT-SQY-CH0007001-0044	0	SQY-CH0007001-0053	Clarification & Requirement For The Embedded Parts Of Spillway	11.06.2014	21.07.2014			
AT-SQY-CH0007001-0045	0	SQY-CH0007001-0054	Spillway-Waterstops-Rollway WSD Is Not Included In The Technical Specification Refer To Sketch For The Query Details	26.06.2014	04.07.2014			
AT-SQY-CH0007001-0046	0	SQY-CH0007001-0055	Refer To Clause 3.2.1.2 Slice & Weld The Waterstops Joints Straight And Also Mould Waterstops On Site	26-Jun-14	27-Jun-14			
AT-SQY-CH0007001-0047	0	SQY-CH0007001-0056	Exhibit 7 - Quality Requirements	01.07.2014	01.07.2014			
AT-SQY-CH0007001-0048	0	SQY-CH0007001-0057	A Clarification for Concrete Work of North Transition Dam	03.07.2014	18.07.2014	X		
AT-SQY-CH0007001-0049	0	SQY-CH0007-001-0058	LRM Batching Plant Area	03.07.2014	18.07.2014			
AT-SQY-CH0007001-0050	0	SQY-CH0007001-0059	Rock From Stockpile A for Mobile Crane Pads in the Powerhouse	25.07.2014	31.07.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0051	0	SQY-CH0007001-0060	Batch Plant Single Feeder	25.07.2014	31.07.2014			
AT-SQY-CH0007001-0052	0	SQY-CH0007001-0061	Base Slab Dowels for Piers	27.07.2014	28.07.2014			
AT-SQY-CH0007001-0053	0	SQY-CH0007001-0062	Sequence Change of the First Pours Intake Unit 3 and Intake Unit 4	30.07.2014	31.07.2014		x	
AT-SQY-CH0007001-0054		SQY-CH0007001-0063	Grouting Curtain and Drainage Hole	30.07.2014	04.08.2014			
		SQY-CH0007001-0064	Configuration of Waterstop	30-Jul-14	05-Aug-14			
AT-SQY-CH0007001-0057	0	SQY-CH0007001-0065	Intake Unit 4 - Leveling the rock ground	31.07.2014	04.08.2014			
AT-SQY-CH0007001-0058	0	SQY-CH0007001-0066	Using non-scarification on the as-built overbreak concrete surface at the upstream of spillway where will connect with the upstream-west side.	05-Aug-14	08-Aug-14			
		SQY-CH0007001-0066						
AT-SQY-CH0007001-0059	0	SQY-CH0007001-0067	Request to provide the list of embedded elements (dimension and weight) of the Powerhouse First concrete phase of your subcontractor Andritz.	09.08.2014	25.08.2014			
AT-SQY-CH0007001-0060	0	SQY-CH0007001-0068	Request to change the formwork dimensions of 2 pours on the Spillway Piers, deleting the construction joints and unifying the smaller pours to the bigger ones.	12.08.2014	18.08.2014			
AT-SQY-CH0007001-0061	0	SQY-CH0007001-0069	Inconsistency between no. 2 dwg of SNC lavalin re: waterstop on the intake unit 2 & 3	12.08.2014	19.08.2014			
AT-SQY-CH0007001-0062	0	SQY-CH0007001-0075	In the red copies received, about the Center Transition Dam, there is a reference to a "future ECN," but we don't have any ECN with the change written.	21.08.2014	26.08.2014			
AT-SQY-CH0007001-0063	0	SQY-CH0007001-0070	Spillway base slab and technical specification 03 30 00 section 3.8.4	15.08.2014	17.08.2014			
AT-SQY-CH0007001-0064	0	SQY-CH0007001-0071	Reinforcing steel in the spillway base slab.	15.08.2014				
AT-SQY-CH0007001-0065	0	SQY-CH0007001-0072	Need to see the clashes between different parts of the powerhouse and spillway, to bring these pieces into their final location.	19.08.2014	25.08.2014			
AT-SQY-CH0007001-0066	0	SQY-CH0007001-0073	Astaldi purposes to cut the 30M top bars and insert new 30M bars below the clamping bars and plates.	13.08.2014	21.08.2014			
AT-SQY-CH0007001-0067	0	SQY-CH0007001-0074	Astaldi request approval regarding the slump adjustment method for the spillway concrete mix A2-5	20.08.2014	26.08.2014			
AT-SQY-CH0007001-0068	0	SQY-CH0007001-0078	Astaldi ask to have editable files for mechanical and electrical drawings of SNC design of the power house in order to: 1.) Better understand and estimate the quantity of all the systems. 2.) Check and proceed with verification and purpose solutions to solve the clashes with the temporary structure of the ICS.	20.08.2014	28.08.2014			
AT-SQY-CH0007001-0069	0	SQY-CH0007001-0076	In some parts of the structure (intake and powerhouse) we have found particular waterstop intersections. In some cases we have similar intersections, but different angles.	21.08.2014	25.08.2014			
AT-SQY-CH0007001-0070	0	SQY-CH0007001-0077	After the rock survey the real rock profile between the spillway and the center transition dam it is not possible to install the waterstop in the rock.	21.08.2014	26.08.2014			
AT-SQY-CH0007001-0071	0	SQY-CH0007001-0079	South and Center transition dam has note 3 that indicates the class of the concrete.	22.08.2014	25.08.2014			
AT-SQY-CH0007001-0072	0	SQY-CH0007001-0080	The embedded conduits are very close to the embedded part of the guard-rail.	22.08.2014				
AT-SQY-CH0007001-0073	0	SQY-CH0007001-0081	Modification in the pours of the retaining wall (WL)	27.08.2014	02.09.2014			
AT-SQY-CH0007001-0074	0	SQY-CH0007001-0082	Astaldi request to weld non-structural rebar to use as additional support for the structural rebar during the pouring of blocks in the spillway base slab in order to avoid rebar cage moving.	28.08.2014	28.08.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0075	0	SQY-CH0007001-0083	"Waterstops may be bent about their weak axis to a minimum radius approved by Eng. Where ever a change in direction is required".	28.08.2014	04.09.2014			
AT-SQY-CH0007001-0076	0	SQY-CH0007001-0084	Astaldi requires clarification about the inconsistency between two drawings form the design.	04.09.2014	05.09.2014			
AT-SQY-CH0007001-0077	0	SQY-CH0007001-0085	CENTRE TRANSITION DAM - ELEVATED DECK	03.09.2014	03.09.2014			
AT-SQY-CH0007001-0078	0	SQY-CH0007001-0089	SPILLWAY PIERS - GATE GUIDE	04.09.2014	07.09.2014			
AT-SQY-CH0007001-0079	0	SQY-CH0007001-0086	In order to achieve the best protecton during winter for concrete pouring, we are providing a winter shelter for the spillway in order to allow the pouring during cold periods. "NOT ADMISSIBLE, THIS REQUEST SHOULD BE CONCESSION REQUEST."	04.09.2014	05.09.2014			
AT-SQY-CH0007001-0080	0	SQY-CH0007001-0087	In order to achieve the rock reconstitution of the line A - Upstream Powerhouse a rock demolition is needed.	05.09.2014	10.09.2014			
AT-SQY-CH0007001-0081	0	SQY-CH0007001-0088	We need information from the designer about the final position to be placed SWB2A-00 pour of the spillway base slab.	06.09.2014	08.09.2014			
AT-SQY-CH0007001-0082	0	SQY-CH0007001-0091	Confirm size of bars for unit 1, 25M or 30M?	08.09.2014	12.09.2014			
AT-SQY-CH0007001-0083	0	SQY-CH0007001-0092	SECTION E-E/3310-CV-SN-0042-01	03.09.2014	12.09.2014			
AT-SQY-CH0007001-0084	0	SQY-CH0007001-0090	Astaldi would like to know if there will be a requirement or reinforcing dowels in this location.	09.09.2014	12.09.2014			
AT-SQY-CH0007001-0085	0	SQY-CH0007001-0102	Require informationfrom the designer about the final position of the thermistor and uplift gauge to be placed on pours.	27.09.2014	30.09.2014			
AT-SQY-CH0007001-0086	0	SQY-CH0007001-0093	Perform earth loop test and resistance tests using method appropriate to site conditions and to accept engineer and local authority havng jurisdiction.	30.08.2014	11.09.2014			
AT-SQY-CH0007001-0087	0	SQY-CH0007001-0094	We are not able to find any details about the column type 15. We need details for anchors embedment.	12.09.2014	15.09.2014			
AT-SQY-CH0007001-0088	0							
AT-SQY-CH0007001-0089	0	SQY-CH0007001-0097	How to place the waterstop.	16.09.2014	23.09.2014			
AT-SQY-CH0007001-0089	1	SQY-CH0007001-0097	Hydrolite waterstop for construction joint	04.12.2014	05.12.2014			
AT-SQY-CH0007001-0090	0	SQY-CH0007001-0098	There is inconsistency in the dwg from the designer. We need to know what is the right distance between the waterstops.	16.09.2014	22.09.2014			
AT-SQY-CH0007001-0091	1	SQY-CH0007001-0095	1.) Request for original ase survey under crusher feed stockpile on C2 pad. 2) Quantity of crusher feed stockpile that was surveyed in April 2014 by Edwards.	15.09.2014	17.09.2014			
AT-SQY-CH0007001-0092	0	SQY-CH0007001-0099	Please provide detail about the drawing number recall in dwg MFA-SN-CD-3320-CV-SN-0007-05. We need to understand if there are some embedded parts to be cast in the pour.	20.09.2014	23.09.2014			
AT-SQY-CH0007001-0093	0	SQY-CH0007001-0100	There are some problems with the waterstop, that has been left in the same elevation and is not well placed in the pour. Provide additional information/modification about this item.	20.09.2014	26.09.2016			
AT-SQY-CH0007001-0094	0	SQY-CH0007001-0101	There is a little clash between waterstop and rigid PVC conduit on the south service bay, pour SBU1A-01. We had to modify the EL of the out of the PVC conduit, now specified by the Engineer at EI-21.60.	20.09.2014	22.09.2014			
AT-SQY-CH0007001-0095	0	SQY-CH0007001-0105	Intake deck at El+45.50	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0096	0	SQY-CH0007001-0103	Additional Laps for Tbars-GENERAL	29.09.2014	01.10.2014			
AT-SQY-CH0007001-0097	0	SQY-CH0007001-0104	In order to finalize all our considerations on the dewatering system for the powerhouse and the spillway we wish to receive a copy of the as build drawings for the U/S and D/S cofferdams of the power house and spillway with the type of material indicated.	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0098	0	SQY-CH0007001-0106	South Service Bay, dimensions to be defined.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0099	0	SQY-CH0007001-0106	Safety post details	02.10.2014	03.10.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0100	0	SQY-CH0007001-0108	Stairs No.11 attachment details: Please provide additional information about the stairs no.11 on the south service bay. 1.) Correct position of the rod for the stair base joint. 2.) Connection between the slab on the rock and the pilaster/landing slab.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0101	0	SQY-CH0007001-0109	Intake - Gate hoist building provide clarification about the revision C3 of the isometric view MFA-SN-CD-3220-CV-IS-0001_C3. There are a lot of changes that are not clear and are not consistent with the geometry of the building.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0102	0	SQY-CH0007001-0110	South Service Bay, drainage holes provide drawing the dwg (MFA-SN-CD-320-CV-PL-0020) reported in the attached drawing.	02.10.2014	08.10.2014			
AT-SQY-CH0007001-0103	0	SQY-CH0007001-0111	Embedded grounding and conduits - Detail 10	02.10.2014	03.10.2014			
AT-SQY-CH0007001-0104	0	SQY-CH0007001-0113	In the zone where the SEPERATION WALL is linked to the CENTER TRANSITION DAM.	04.10.2014	24.10.2014			
AT-SQY-CH0007001-0105	0	SQY-CH0007001-0112	Redundant clash between Andritz elements and waterstop	04.10.2014	07.10.2014			
AT-SQY-CH0007001-0106	0	SQY-CH0007001-0114	Native files of SNC Lavalin drawings	07.10.2014	10.10.2014			
AT-SQY-CH0007001-0107	0	SQY-CH0007001-0115	Missing drawings for grounding and conduits - Generator floor EL 15.50	07.10.2014	08.10.2014			
AT-SQY-CH0007001-0108	0	SQY-CH0007001-0116	Request for all rock scan & asbuilts for powerhouse & spillway for planning purposes	10.10.2014	14.10.2014			
AT-SQY-CH0007001-0109	0	SQY-CH0007001-0117	Proposal of set of drawings for built-in place formworks	13.10.2014	15.10.2014			
AT-SQY-CH0007001-0110	0	SQY-CH0007001-0118	Change the pour sequence forporing the first lift of monolith 3	11.10.2014	14.10.2014			
AT-SQY-CH0007001-0111	1	SQY-CH0007001-0119	Curtain grouting pipes predisposition on the first lift (CTU3A-01) on Centre Transition Dam	13.10.2014	14.10.2014			
AT-SQY-CH0007001-0120	0	SQY-CH0007001-0120	Concrete curing temperature data reporting.	13.10.2014	14.10.2014			
AT-SQY-CH0007001-0121	0	SQY-CH0007001-0121	Use of stayform for the penetrated bulkhead in the piers of the intake.	15.10.2014	16.10.2014			
AT-SQY-CH0007001-0122	0	SQY-CH0007001-0122	Discrepancy between two grid lines.	21.10.2014	22.10.2014			
AT-SQY-CH0007001-0123	0	SQY-CH0007001-0123	Standard piping details - plate detail S-A04	24.10.2014	27.10.2014			
AT-SQY-CH0007001-0124	0	SQY-CH0007001-0124	Extension of overbreak concrete for spillway pier formwork support (Downstream side)	24.10.2014	02.11.2014			
AT-SQY-CH0007001-0125	0	SQY-CH0007001-0125	Standard piping details - plate details - 30" plate cap	24.10.2014	25.10.2014			
AT-SQY-CH0007001-0126	1	SQY-CH0007001-0126	Contractor would like to know if the orientation shown for the powerhouse is based on Centerline Unit 1 and Centreline of units is correct.	31.10.2014	03.11.2014			
AT-SQY-CH0007001-0127	0	SQY-CH0007001-0127	Horizontal bar's spacing in stair shaft of the powerhouse semi-spiral case all units.	05.11.2014	13.11.2014			
AT-SQY-CH0007001-0128	0	SQY-CH0007001-0128	Specifications/Questions about AGF dwg - General comments (red copies) clarificatons.	05.11.2014				
AT-SQY-CH0007001-0129	0	SQY-CH0007001-0129	Drain line	06.11.2014	12.11.2014			
AT-SQY-CH0007001-0130	0	SQY-CH0007001-0130	Realization of drainage hole to be drilled in rock on south service bay - lower part	11.11.2014	14.11.2014			
AT-SQY-CH0007001-0131	0	SQY-CH0007001-0131	Embedment of placing booms on the powerhouse area (draft tube & intake)	11.11.2014	12.11.2014			
AT-SQY-CH0007001-0132	0	SQY-CH0007001-0132	North Service Bay Foundation rock interference	12.11.2014	19.11.2014			



LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0133	0	SQY-CH0007001-0133	Native file for ddrawing 505573-3241-42DK-00120attached to CHR-CH0007001-0020	12.11.2014	13.11.2014			
AT-SQY-CH0007001-0134	0	SQY-CH0007001-0134	Consent from the company to occupy additonal 305sm for the project control trailer in the main office laydown area.	13.11.2014	14.11.2014			
AT-SQY-CH0007001-0135	0	SQY-CH0007001-0135	Rock reconstruction in the intake 1/south service bay area.	15.11.2014	24.11.2014			
AT-SQY-CH0007001-0136	0	SQY-CH0007001-0136	Powerhouse missing pipes drawings	19.11.2014	24.11.2014			
AT-SQY-CH0007001-0137	0	SQY-CH0007001-0137	Clarification for procedures/interface for pipes operations	20.11.2014	25.11.2014			
AT-SQY-CH0007001-0138	0	SQY-CH0007001-0138	Details about waterstop type WSM in powerhouse area (Semi-spirale case)	20.11.2014	21.11.2014			
AT-SQY-CH0007001-0139	0	SQY-CH0007001-0139	Control points on spillway base slbas and pier walls	20.11.2014	01.12.2014			
AT-SQY-CH0007001-0140	0	SQY-CH0007001-0140	3D models for Andritz embedded elements in the powerhouse.	20.11.2014	24.11.2014			
AT-SQY-CH0007001-0141	0	SQY-CH0007001-0141	South Service Bay - Clash between PVC conduits and CJ/waterstop at EL+9.40	20.11.2014	25.11.2014			
AT-SQY-CH0007001-0142	0	SQY-CH0007001-0142	Spillway upstream permanent bridge - Dowels location in bearing plates.	21.11.2014	24.11.2014			
AT-SQY-CH0007001-0143	0	SQY-CH0007001-0143	Temperature thermistor range to change for spillway	21.11.2014	25.11.2014			
AT-SQY-CH0007001-0144	0	SQY-CH0007001-0144	Oversize bent bars for transportation, powerhouse semi-spiral case, unit 1	21.11.2014	25/11/2014			
AT-SQY-CH0007001-0145	0	SQY-CH0007001-0145	Powerhouse missing pipes drawings	22.11.2014	29.11.2014			
AT-SQY-CH0007001-0146	0	SQY-CH0007001-0146	Intake dimensions above hydraulic passage	24.11.2014	25/11/2014			
AT-SQY-CH0007001-0147	0	SQY-CH0007001-0147	Spillway Rock As-Built	24.11.2014	02/12/2014			
AT-SQY-CH0007001-0148	0	SQY-CH0007001-0148	Embedded anchors type 5A in South Service Bay - EL.+6.50	27.11.2014	27.11.2014			
AT-SQY-CH0007001-0149	0	SQY-CH0007001-0149	Filter assembly	25.11.2014	28.11.2014			
AT-SQY-CH0007001-0150	0	SQY-CH0007001-0150	Steel beam inconsistency on the powerhouse line A, tos +14.96	28/11/2014	01.12.2014			
AT-SQY-CH0007001-0151	0	SQY-CH0007001-0151	Elevation inconsistency in powerhouse steel structure, elevation on line A axis 3 and 4	28/11/2014	01.12.2014			
AT-SQY-CH0007001-0152	0	SQY-CH0007001-0152	Undetailed column in powerhouse, grids D5 and 6.7	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0153	0	SQY-CH0007001-0153	Man-hole relocation between axis 11.5 and 12 on M1 roof plan	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0154	0	SQY-CH0007001-0154	Powerhouse steel structure - base plate type 10 instead of 9	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0155	0	SQY-CH0007001-0155	Missing posts between 19 & 20	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0156	0	SQY-CH0007001-0156	Architectural wall - concrete block width in mezzanine M2	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0157	0	SQY-CH0007001-0157	Powerhouse steel structure - missing beam at mechanical room	28/11/2014	01/12/2014			
AT-SQY-CH0007001-0158	0	SQY-CH0007001-0158	Powerhouse steel structure - missing beam at M1 line 1	28/11/2014	01/12/2014			




LOWER CHURCHILL PROJECT – MUSKRAT FALLS
CH0007: CONSTRUCTION OF INTAKE AND POWER HOUSE, SPILLWAY AND TRANSITION DAMS

Site Query Log

Site Query No.	Rev No.	Aconex Ref.	TITLE	Date of Issue	Date of Response	COST/ Impact		Change Request No.
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AT-SQY-CH0007001-0159	0	SQY-CH0007001-0159	Draft tube all units - Lift between EL -15.10 and -17.55	02/12/2014	03.12.2014			
AT-SQY-CH0007001-0160	0	SQY-CH0007001-0160	Geotechnical Report/ Properties of GD8 Material	01/12/2014	04.12.2014			
AT-SQY-CH0007001-0161	0	SQY-CH0007001-0161	Powerhouse steel superstructure - Girt connection	03.12.2014	04.12.2014			
AT-SQY-CH0007001-0162	0	SQY-CH0007001-0162	Gantrex Rail Specification	03/12/2014	04.12.2014			
AT-SQY-CH0007001-0163	0		Shop drawings procedure for miscellaneous steel	04.12.2014				
AT-SQY-CH0007001-0164	0	SQY-CH0007001-0164	Grounding and cables - Detail 1.1 in CONTRJ between South Service Bay and Trailrace Unit 1 - Generator floor	04.12.2014	05.12.2014			
AT-SQY-CH0007001-0165	0	SQY-CH0007001-0165	South Service Bay-Inconsistency between ME and CV drawings	04.12.2014	05.12.2014			
AT-SQY-CH0007001-0166	0		Spillway piers - Access gallery EL 41.00 - Andritz door template	09.12.2014				
AT-SQY-CH0007001-0167	0	SQY-CH0007001-0167	Centre transition dam - Misc. steel - bent plate at wabo evazote uv seal	09.12.2014	10.12.2014			
AT-SQY-CH0007001-0168	0	SQY-CH0007001-0168	Draft tube Stoplog - Problem with Andritz template (mirror)	11.12.2014	15.12.2014			
AT-SQY-CH0007001-0169	0		Powerhouse steel structure - Posts on elevation line C.6, near line 2	10.12.2014				
AT-SQY-CH0007001-0170	0		Powerhouse steel structure - Channels Ch180 Along Line E	10.12.2014				
AT-SQY-CH0007001-0171	0	SQY-CH0007001-0171	Powerhouse - Missing detail for grounding of column BB-8	11.12.2014	12.12.2014			
AT-SQY-CH0007001-0172	0	SQY-CH0007001-0172	Tailrace deck -Guardrail grounding clarification	11.12.2014	15.12.2014			
AT-SQY-CH0007001-0173	0	SQY-CH0007001-0173	Clarification in red copies of spillway north pier lift SWPND-05	11.12.2014	12.12.2014			
AT-SQY-CH0007001-0174	0	SQY-CH0007001-0174	Stirrups in thick base slabs	13.12.2014	15.12.2014			
AT-SQY-CH0007001-0175	0	SQY-CH0007001-0175	Intake roller gate-Wrong indications on detail	13.12.2014	17.12.2014			
AT-SQY-CH0007001-0176	0	SQY-CH0007001-0176	Hand written elevations and inconsistency in south service bay section	13.12.2014	15.12.2014			
AT-SQY-CH0007001-0177	0	SQY-CH0007001-0177	Muskrat Falls - As -Built Undergroud Utilities from previous contract	15.12.2014	17.12.2014			
AT-SQY-CH0007001-0178	0		Powerhouse - Deck at EL. 15.50 - Details of generator floor and trailrace deck embedded sleeves	18.12.2014				
AT-SQY-CH0007001-0179	0		Draft tube - Missing information about andritz templates general location in north gate	19.12.2014				

A decorative graphic on the left side of the page consists of a dark blue vertical bar, a blue arrow pointing right, and several curved lines extending from the bottom of the vertical bar.

Appendix H: Monthly Cost Report



Contract nr.: CH0007-001
 Construction of Powerhouse, Spillway and Transition Dams
 EARN VALUE ANALYSIS up to:
27-Dec-14

CONTRACTUAL BUDGET	
TOTAL HOURS	COST OF LABOUR (\$CAD)
BACH	BACc
hours	CAD
INDIRECT COSTS	3,691,754.39
GENERAL	31,280.25
WORK EXECUTED FOR COMP.'S OTHER CONTRACTORS	27,140.08
TOTAL INDIRECT	3,750,174.72

TOTAL HOURS	COST OF LABOUR (\$CAD)
BACH	BACc
hours	CAD
ACCESS ROAD ACCESS RAMPS AND PADS	4,381
DAMS AND SEPARATION WALL	281,011
SPILLWAY STRUCTURE	439,319
SPILLWAY BRIDGES & SPILLWAY DISCHARGE CHANNEL (phase 1)	41,064
INTAKE	983,329
POWER HOUSE	1,042,863
INATAKE & POWER HOUSE SUPERSTRUCTURE	171,999
TURBINE GENERATOR AND ANCILLARIES	74,300
SPILLWAY DISCHARGE CHANNELS (phase 2 and 3)	38,077
TOTAL DIRECT	3,076,344

GRAND TOTAL INDIRECT + DIRECT	6,826,519	547,598,336
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- OVERALL PROJECT HOURS and Lab COST -

CUMULATIVE TO DATE			
Cumulative Earn/Planned Man Hours up to:	Actual Man Hours up to:	Variance Hours up to:	Estimated Cost Variance (\$CAD) up to:
27-Dec-14	27-Dec-14	27-Dec-14	27-Dec-14
PVh	ACh	Vh = PVh - ACh	CV
hours	hours	hours	CAD
1,063,783	1,769,090	-705,308	-54,761,014
3,019	19,671	-16,652	-1,328,047
0	0	0	0
1,066,802	1,788,761	-721,960	-56,089,061

Cumulative Earn Man Hours up to:	Actual Man Hours up to:	Variance Hours up to:	Estimated Cost Variance (\$CAD) up to:
27-Dec-14	27-Dec-14	27-Dec-14	27-Dec-14
EVh	ACh	Vh = PV - AC	CV
hours	hours	hours	CAD
0	0	0	0
27,393	111,212	-83,819	-6,981,621
113,861	337,555	-223,694	-19,151,760
0	0	0	0
9,005	44,066	-35,061	-2,921,064
1,700	14,896	-13,196	-1,123,885
0	0	0	0
0	0	0	0
0	0	0	0
151,959	507,729	-355,770	-30,178,330

1,218,761	2,296,490	-1,077,730	-86,267,391
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FORECAST			
Estimation TO Complete	Estimation AT Completion	Variation AT Completion hours	Variation AT Completion CAD
ETCh	EACH=ACh+ETCh	VACH=BACH-EACH	VACc
hours	hours	hours	CAD
2,796,502	4,565,592	-873,838	-68,088,548
28,261	47,932	-16,822	-1,328,047
27,140	27,140	0	0
2,851,903	4,640,664	-890,660	-69,416,595


ETC	EAC	VAC	VAC
HOURS	HOURS	HOURS	CAD
4,381	4,381	0	0
241,645	352,857	-71,846	-6,981,621
325,458	663,013	-223,694	-19,151,760
40,572	40,572	492	0
974,324	1,018,390	-35,061	-2,921,064
1,041,166	1,056,062	-13,199	-1,123,885
171,999	171,999	-0	0
74,300	74,300	0	0
38,077	38,077	0	0
2,911,922	3,419,651	-343,307	-30,178,330

5,763,825	8,060,315	-1,233,967	-99,594,925
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NOTES:

1) The variances described above are under evaluation and analysis; Detailed results on those evaluation will be part of a separate report.

-INDIRECT DETAIL REPORT -

Contract nr.: CH0007-001
Construction of Powerhouse, Spillway and Transition Dams
EARN VALUE ANALYSIS for INDIRECTS up to:

27-Dec-14

				CONTRACTUAL HOURS & Lab.COST			CUMULATIVE TO DATE						FORECAST AT COMPLETION			
2	0000		INDIRECT COSTS	UNIT OF MEASURE	TOTAL CONTRACTUAL HOURS	COST OF LABOUR (CAD)	Current period % complete up to:	Cumulative EARNED/PLANNED Man Hours up to:	Actual Man Hours (AC) up to:	Variance Hours	U.P. (contractual CAD/hour)	Estimated Cost Variance (CAD)	Estimation TO complete (Hours)	Estimation AT completion (Hours)	Variance AT completion (Hours)	Variance AT completion (CAD)
					BAC	C	27-Dec-14	27-Dec-14	27-Dec-14	Vh	u.p.	cv	ETC	EAC	VAC (H)	VAC (CAD)
						= Q x B	%	Eh	AC	=Eh - AC		= u.p. x Vh		= AC + ETC	= BAC - EAC	= VAC(H) x u.p.
1	2.1	0000.01	Mobilization	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2	2.2	0000.02	Site Installation	LS	71,519	5,668,063	93.88%	67,139	273,187	-206,048	79.3	-16,329,840	11,200	284,387	-212,868	-16,870,336
3	2.3	0000.03	Contractor Equipment for Indirects	LS	164,938	13,197,861	34.80%	57,402	47,546	9,857	80.0	788,700	147,621	195,167	-30,228	-2,418,791
4	2.4	0000.04	Temporary Works	LS	40,873	3,246,714	98.09%	40,093	64,523	-24,430	79.4	-1,940,569	7,100	71,623	-30,750	-2,442,608
5	2.5	0000.05	Winter Protection	LS	68,850	5,531,277	38.75%	26,680	297,608	-270,928	80.3	-21,765,984	45,537	343,145	-274,296	-22,036,517
6	2.6	0000.06	Management and Staff	LS	1,982,044	172,483,726	26.08%	516,933	345,458	171,475	87.0	14,922,325	1,463,600	1,809,058	172,986	15,053,809
6A	2.6A	0000.06A	Design and Technical Assistance	LS	131,000	10,508,344	26.56%	34,800	61,309	-26,509	80.2	-2,126,436	167,400	228,709	-97,709	-7,837,841
7	2.7	0000.07	Attendant labour	LS	736,610	58,375,032	25.26%	186,035	472,269	-286,234	79.2	-22,683,567	568,270	1,040,539	-303,929	-24,085,864
8	2.8	0000.08	Services	LS	50,821	3,960,856	34.80%	17,687	38,517	-20,830	77.9	-1,623,476	31,461	69,978	-19,157	-1,493,078
9	2.9	0000.09	Employee Training	LS	31,450	2,420,324	32.87%	10,337	25,267	-14,930	77.0	-1,149,006	21,113	46,380	-14,930	-1,148,963
10	2.10	0000.10	Health and Safety Requirements	LS	116,000	8,845,020	24.83%	28,800	55,466	-26,666	76.3	-2,033,288	122,400	177,866	-61,866	-4,717,294
11	2.11	0000.11	Environmental Requirements	LS	32,400	2,556,203	25.93%	8,400	16,706	-8,306	78.9	-655,338	28,800	45,506	-13,106	-1,034,035
12	2.12	0000.12	Quality Assurance / Quality Control	LS	175,800	13,799,281	26.96%	47,400	35,274	12,126	78.5	951,829	128,400	163,674	12,126	951,829
13	2.13	0000.13	Letters of Credit	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
14	2.14	0000.14	Parent Guarantee	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
15	2.15	0000.15	Contractor Insurance, per Article 14 of the Agreement	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
16	2.16	0000.16	Warranty, per Article 17 of the Agreement	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
17	2.17	0000.17	Site Maintenance	LS	89,450	7,192,771	24.68%	22,077	35,960	-13,883	80.4	-1,116,364	53,600	89,560	-110	-8,858
18	2.18	0000.18	Financing, Contingency, Head Office Overheads, & Consultant Fees	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
19	2.19	0000.19	Demobilization	LS	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
19A	2.19A	0000.19A	Estimate of Travel Allowances - Trades Labour	NA	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
SUB-TOTAL INDIRECT					3,691,754	307,785,475		1,063,782.50	1,769,090.19	-705,308		-54,761,014	2,796,502	4,565,592	-873,838	-68,088,548
3	0000		GENERAL													
3.2	1120		DEWATERING OF STRUCTURE AREAS													
26	3.2.1	1120.01	Dewatering structure Areas	LS	10,863	866,271	26.08%	2,833	19,422	-16,589	79.7	-1,322,985	8,029	27,452	-16,589	-1,322,985
3.3	1150		TEMPORARY BRIDGE													
27	3.3.1	1150.01	Temporary Downstream Bridge over the Spillway	LS	7,953	598,480	0.00%	0	0	0.00	75.26	0	7,953	7,953	0	0
3.4	1170		CONSTRUCTION CRANE													
28	3.4.1	1170.01	Powerhouse - Construction Crane	LS	9,936	816,283	0.00%	0	0	0.00	82.15	0	9,936	9,936	0	0
3.5	1180		Temporary Heating, Ventilating and Lighting of Powerhouse													
29	3.5.1	1180.01	Temporary Heating, Ventilating and Lighting of Powerhouse	LS	1,801	141,041	0.00%	0	0	0.00	78.31	0	1,801	1,801	0	0
3.6	1190		Chain Link Fences and Gates													
30	3.6.1	1190.01	Chain Link Fences and Gates in the Powerhouse Parking and Contractor's Laydown Areas	m	65	5,049	0.00%	0	0	0.00	77.7	0	65	65	0	0
3.7	1200		Temporary Lateral Support and Bracings													
31	3.7.1	1200.01	Temporary Lateral Support and Bracings for Piers of the Spillway	LS	290	23,433	0.00%	0	0	0.00	80.74	0	290	290	0	0
3.8	1210		Anchor Points													
32	3.8.1	1210.01	Anchor Points at Powerhouse and Spillway	each	373	30,088	50.00%	186	249	-63	80.7	-5,061	186	435	-63	-5,061
					31,280	2,480,645		3,019	19,671	-16,652		-1,328,047	28,261	47,932	-16,652	-1,328,047
9.1	3510		Work executed for company's other contractor													
389	9.1.1	3510.01	Supply of Secondar Concrete - Class A2	m3	8,850	710,550							8,850	8,850	0	0
390	9.1.2	3510.02	Supply of Concrete Class A	m3	1,180	94,740							1,180	1,180	0	0
391	9.1.3	3510.03	Supply of Concrete - Class B	m3	17,110	1,373,730							17,110	17,110	0	0
SUB-TOTAL Work executed for company's other contractor					27,140	2,179,020		0	0	0	0.0	0	27,140	27,140	0	0
SUB-TOTAL GENERAL					58,420	4,659,665		3,019.35	19,671.49	-16,652	554.66	-1,328,047	55,401	75,072	-16,652	-1,328,047
GRAND TOTAL					3,750,175	312,445,139		1,066,802	1,788,762	-721,960		-56,089,061	2,851,903	4,640,664	-890,490	-69,416,595

Earned Value Analysis for DIRECTS

- DIRECT SUMMARY REPORT -



Start Date of Reporting Period November-30-14
End Date of Reporting Period December-27-14

Structure	Total Contractual Hours	PREVIOUS PERIOD				CURRENT PERIOD				CUMULATIVE TO DATE					FORECAST	
		% Complete	Earned Hours	Actual Hours	Productivity Index	% Complete	Earned Hours	Actual Hours	Productivity Index	% Complete	Earned Hours	Actual Hours	Variance Hours = EVh - ACh	Productivity Index = EVh/ACh	Estimate at Completion Hours	Variance AT Completion Hours
		% .prev	EVh .prev	ACc .prev	PI .prev	% .curr	EVh .curr	ACc .curr	PI .curr	%	EVh	ACc	Vh	Pi	EACh	VACH
	BACh															
North Transition Dam	39,638	0.00%	-	36	-	0.00%	-	-	-	0.00%	0	36	-36	-	39,638	0
Centre Transition Dam	138,240	8.01%	11,079	51,539	0.2	0.64%	880	4,856	0.2	8.65%	11,959	56,396	-44,436	0.212	182,676	-44,436
South Transition Dam	48,403	9.38%	4,540	22,466	0.2	0.00%	-	431	-	9.38%	4,540	22,897	-18,357	0.20	66,760	-18,357
Separation Wall	54,731	18.79%	10,283	30,024	0.3	1.11%	610	1,860	0.3	19.90%	10,893	31,884	-20,990	0.34	63,783	-20,990
Dams and Seperation Wall Area	281,011	9.22%	25,902	104,066	0.2	0.53%	1,490	7,146	0.2	9.75%	27,393	111,212	-83,819	0.246	352,857	-83,784
Spillway Structure	439,319	24.02%	105,536	312,518	0.3	1.90%	8,325	25,037	0.3	25.92%	113,861	337,555	-223,694	0.337	663,013	-223,694
Spillway Bridges	14,183		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	14,183	0
Spillway Discharge Channel - Phase 1	26,389		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	26,389	0
Spillway Area	479,891	21.99%	105,536	312,518	0.3	1.73%	8,325	25,037	0.3	23.73%	113,861	337,555	-223,694	0.337	703,585	-223,694
Intake Structure	983,329	0.90%	8,832	43,393	0.2	0.02%	174	673	0.3	0.92%	9,005	44,066	-35,060	0.204	1,018,390	-35,060
Powerhouse Substructure	1,042,866	0.11%	1,191	13,575	0.1	0.05%	509	1,320	0.4	0.16%	1,700	14,896	-13,196	0.11	1,056,062	-13,196
Intake & Powerhouse Superstructure	171,999		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	171,999	0
Turbine Generator & Ancillaries	74,300		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	74,300	0
Powerhouse Area	1,289,165	0.09%	1,191	13,575	0.1	0.04%	509.11	1,320	0.4	0.13%	1,700	14,896	-13,196	0.11	1,302,361	-13,196
General Direct Work	4,381	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	4,381	0
Miscellaneous	4,381	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	4,381	0
Sub Total	3,037,778	4.66%	141,461	473,553	0.3	0.35%	10,498	34,177	0.3	5.00%	151,959	507,729	-355,770	0.299	3,381,574	-355,734
Spillway Discharge Channel - Phase 2 (Optional)	12,626		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	12,626	0
Spillway Discharge Channel - Phase 3 (Optional)	25,452		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	25,452	0
Optional	38,077		-	-	-	0.00%	-	-	-	0.00%	0	0	0	-	38,077	0
Total (Original Scope of Work)	3,075,855	4.6%	141,461	473,553	0.3	0.34%	10,498.46	34,177	0.3	4.94%	151,959	507,729	-355,770	0.299	3,419,651	-355,734
Changes				64,402								64,402				
Rework				841								841				
GRAND Total (Overall Direct Work)			141,461	538,796	0.3	0.0%	10,498.46	34,177	0.3		151,959	572,972	-355,770			

End Date of Reporting Period December-27-14

Structure	Total Budgeted Cost (BAC)	PREVIOUS PERIOD				CURRENT PERIOD				CUMULATIVE TO DATE					FORECAST	
		% Complete	Earned Costs	Actual Costs	Cost Performance Index (CPI)	% Complete	Earned Costs	Actual Costs	Cost Performance Index (CPI)	% Complete	Earned Costs	Actual Costs	Variance Costs = EVc - Acc	Cost Performance Index (CPI)	Estimate at Completion Cost	Variance AT Completion Cost
		% .prev	EVc .prev	ACc .prev	PI .prev	% .curr	EVh .curr	ACc .curr	PI .curr	%	EVc	ACC	Vc	PI	EACc	VACC
North Transition Dam	3,034,336	0.00%	-	2,898	-	0.00%	-	-	-	0.00%	0	2,898	-2,898	-	3,037,233	-2,898
Centre Transition Dam	10,558,385	8.01%	846,170	4,228,851	0.2	0.64%	67,234	383,785	0.2	8.65%	913,404	4,612,636	-3,697,191	0.198	14,255,576	-3,697,191
South Transition Dam	3,700,899	9.38%	347,141	1,790,116	0.2	0.00%	-	35,141	-	9.38%	347,141	1,825,257	-1,475,405	0.19	5,176,305	-1,475,405
Separation Wall	4,141,361	18.79%	778,116	2,487,143	0.3	1.11%	46,162	149,613	0.3	19.90%	824,279	2,636,755	-1,812,477	0.31	5,947,488	-1,806,127
Dams and Seperation Wall Area	21,434,981	9.22%	1,975,777	8,509,008	0.2	0.53%	109,046	568,538	0.2	9.75%	2,084,823	9,077,546	-6,981,621	0.230	28,416,602	-6,981,621
Spillway Structure	32,766,127	24.02%	7,871,290	25,492,289	0.3	1.90%	620,930	1,941,538	0.3	25.92%	8,492,220	27,433,827	-19,151,760	0.310	51,917,887	-19,151,760
Spillway Bridges	1,162,470	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	1,162,470	0
Spillway Discharge Channel - Phase 1	2,013,876	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	2,013,876	0
Spillway Area	35,942,473	21.99%	7,871,290	25,492,289	0.3	1.73%	620,930	1,941,538	0.3	23.73%	8,492,220	27,433,827	-19,151,760	0.310	55,094,233	-19,151,760
Intake Structure	74,653,744	0.90%	670,493	3,540,511	0.2	0.02%	13,190	54,784	0.2	0.92%	683,683	3,595,295	-2,921,064	0.190	77,574,808	-2,921,064
Powerhouse Substructure	79,206,442	0.11%	90,429	1,130,515	0.1	0.05%	38,667	105,581	0.4	0.16%	129,097	1,236,095	-1,123,885	0.10	80,330,327	-1,123,885
Intake & Powerhouse Superstructure	13,851,100	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	13,851,100	0
Turbine Generator & Ancillaries	6,544,918	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	6,544,918	0
Powerhouse Area	99,602,460	0.09%	90,429	1,130,515	0.1	0.04%	38,667	105,581	0.4	0.13%	129,097	1,236,095	-1,123,885	0.10	100,726,346	-1,123,885
General Direct Work	348,919	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	348,919	0
Miscellaneous	348,919	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	348,919	0
Total	231,982,577	4.66%	10,607,989	38,672,323	0.3	0.35%	781,833	2,670,441	0.3	5.00%	11,389,823	41,342,764	-30,178,329	0.275	262,160,907	-30,178,329
Spillway Discharge Channel - Phase 2 (Optional)	947,027	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	947,027	0
Spillway Discharge Channel - Phase 3 (Optional)	1,927,533	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	1,927,533	0
Optional	2,874,560	0.00%	-	-	-	0.00%	-	-	-	0.00%	0	-	-	-	2,874,560	0
Total (Original Scope of Work)	234,857,137	4.60%	10,607,989	38,672,323	0.3	0.34%	781,833	2,670,441	0.3	4.94%	11,389,823	41,342,764	-30,178,329	0.275	262,160,907	-30,178,329
Changes				5,241,067								5,241,067				
Rework				66,452								66,452				
Total (Overall Project)			10,607,989	43,979,842	0.2		781,833.28	2,670,441	0.3		11,389,823	46,650,283				

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Productivity and Cost Report Summary

DRAFT

Area	Original Contract				Period Dec-14				Cumulative to Date 25-Dec-14						Estimate to Complete				Estimate at Completion							
	Hours	\$ Labour	\$ Non Labour	Total	% Complete	Planned Hrs	Actual Hrs	Variance Hrs	Total	% Complete	Planned Hrs	Actual Hrs	Variance Hrs	\$ Labour	\$ Non Labour	Total	Hrs	\$ Labour	\$ Non Labour	\$ Amount	Hrs	Hrs Variance	\$ Labour	\$ Non Labour	\$ Amount	\$ Variance
Indirects	3,750,139	\$ 307,977,115	\$ 237,949,284	\$ 545,926,399	0%	80,935	884,871	-	14,565,933	0%	1,042,173	1,810,074	(767,900.68)	\$ 133,956,540	\$ 76,027,514	209,984,054	2,830,453	\$ 243,437,113	\$ 161,921,770	\$ 405,358,883	4,640,527	\$ 890,388	\$ 377,393,653	\$ 237,949,284	\$ 615,342,937	\$ 69,416,538
Subtotal Indirect	3,750,139	\$ 307,977,115	\$ 237,949,284	\$ 545,926,399	0%	80,935	884,871	-	14,565,933	0%	1,042,173	1,810,074	(767,900.68)	\$ 133,956,540	\$ 76,027,514	\$ 209,984,054	2,830,453	\$ 243,437,113	\$ 161,921,770	\$ 405,358,883	4,640,527	\$ 890,388	\$ 377,393,653	\$ 237,949,284	\$ 615,342,937	\$ 69,416,538

Area	Hours	\$ Labour	\$ Non Labour	Total	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	\$ Labour	\$ Non Labour	Total	Hrs	\$ Labour	\$ Non Labour	\$ Amount	Hrs	Hrs Variance	\$ Labour	\$ Non Labour	\$ Amount	\$ Variance
Powerhouse	1,293,544	\$ 99,951,379	\$ 129,429,029	\$ 229,380,408	0%	-	6,026	-	601,242.67	0%	173	19,602	0.01	\$ 1,549,398	\$ 232,786	\$ 1,782,185	1,285,965	\$ 99,525,866	\$ 129,196,243	\$ 228,722,109	1,305,567	\$ 12,023	\$ 101,075,264	\$ 129,429,029	\$ 230,504,294	\$ 1,123,885
Intake	983,329	\$ 74,653,744	\$ 61,886,016	\$ 136,539,761	0%	-	19,262	-	1,817,660.48	0%	8,019	62,655	0.13	\$ 5,854,906	\$ 978,150	\$ 6,833,057	959,522	\$ 71,719,903	\$ 60,907,866	\$ 132,627,768	1,022,177	\$ 38,848	\$ 77,574,809	\$ 61,886,016	\$ 139,460,825	\$ 2,921,065
Spillway	453,988	\$ 34,224,570	\$ 31,164,499	\$ 65,389,069	0%	-	138,727	-	12,223,610.88	0%	103,517	451,246	0.23	\$ 33,784,577	\$ 9,001,734	\$ 42,786,311	205,465	\$ 19,295,798	\$ 22,162,765	\$ 41,458,563	656,711	\$ 202,723	\$ 53,080,375	\$ 31,164,499	\$ 84,244,875	\$ 18,855,806
Dams	281,011	\$ 21,434,981	\$ 17,190,557	\$ 38,625,538	0%	-	46,195	-	4,050,935.89	0%	24,135	150,260	0.16	\$ 10,969,860	\$ 1,452,801	\$ 12,422,661	230,936	\$ 17,446,744	\$ 15,737,756	\$ 33,184,500	381,197	\$ 100,185	\$ 28,416,604	\$ 17,190,557	\$ 45,607,161	\$ 6,981,623
Spillway Rollway	64,467	\$ 4,888,435	\$ 3,542,940	\$ 8,431,375	0%	-	-	-	-	0%	-	-	-	\$ -	\$ 13,250	\$ 13,250	64,467	\$ 4,888,435	\$ 3,529,690	\$ 8,418,125	64,467	\$ -	\$ 4,888,435	\$ 3,542,940	\$ 8,431,375	\$ -
Subtotal Directs	3,076,339	\$ 235,153,109	\$ 243,213,041	\$ 478,366,151	0%	-	210,210	-	\$ 18,693,449.91	0%	135,844	683,762	0.20	\$ 52,158,742	\$ 11,678,722	\$ 63,837,464	2,746,355	\$ 212,876,746	\$ 231,534,319	\$ 444,411,065	3,430,118	\$ 353,779	\$ 265,035,488	\$ 243,213,041	\$ 508,248,529	\$ 29,882,379
Total (Pre Changes)	6,826,478	\$ 543,130,225	\$ 481,162,325	\$ 1,024,292,550	0%	80,935	1,095,081	-	\$ 33,259,383	0%	1,178,017	2,493,836	-	\$ 186,115,282	\$ 87,706,236	\$ 273,821,518	5,576,809	\$ 456,313,859	\$ 393,456,089	\$ 849,769,948	8,070,645	\$ 1,244,167	\$ 642,429,141	\$ 481,162,325	\$ 1,123,591,466	\$ 99,298,916
																									\$ 4,151	

Area	Hours	\$ Labour	\$ Non Labour	Total	% Complete	Planned Hrs	Actual Hrs	Variance Hrs	Total	% Complete	Planned Hrs	Actual Hrs	PF Earn / Exp	\$ Labour	\$ Non Labour	Total	Hrs	\$ Labour	\$ Non Labour	\$ Amount	Hrs	Hrs Variance	\$ Labour	\$ Non Labour	\$ Amount	\$ Variance
Change Orders	-	\$ -	\$ -	\$ -	0%	-	-	-	(65,000.82)	0%	-	-	-	\$ 262,272	\$ 1,033,809	\$ 1,296,081	3,268	\$ -	\$ -	\$ -	3,268	\$ 3,268	\$ 262,272	\$ 1,033,809	\$ 1,296,081	\$ 1,296,081
Change Requests	-	\$ -	\$ -	\$ -	0%	-	-	-	258,089.89	0%	-	-	-	\$ 4,978,795	\$ -	\$ 4,978,795	57,585	\$ (0)	\$ -	\$ (0)	57,585	\$ 57,585	\$ 4,978,795	\$ -	\$ 4,978,795	\$ 4,978,795
Other	-	\$ -	\$ -	\$ -	0%	-	-	-	-	0%	-	-	-	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
Subtotal Changes	-	\$ -	\$ -	\$ -	0%	-	-	-	193,089.07	0%	-	-	-	\$ 5,241,067	\$ 1,033,809	\$ 6,274,876	60,853	\$ (0)	\$ -	\$ (0)	60,853	\$ 60,853	\$ 5,241,067	\$ 1,033,809	\$ 6,274,876	\$ 6,274,876
Total (With Changes)	6,826,478	\$ 543,130,225	\$ 481,162,325	\$ 1,024,292,550	1%	80,935	1,095,081	-	\$ 33,452,472	17%	1,178,017	2,493,836	-	\$ 191,356,349	\$ 88,740,045	\$ 280,096,394	5,637,662	\$ 456,313,859	\$ 393,456,089	\$ 849,769,948	8,131,498	\$ 1,305,020	\$ 647,670,208	\$ 482,196,134	\$ 1,129,866,342	\$ 105,573,792

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Auto Update-From Labor and M&E
Keep same for Monthend Report as Incurred Submitted

Calculated
Update for Monthend Report

Auto Update-from Labor+M&E
Update for Monthend Report

Calculated

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Cost Report Labour & Non-Labour

Nalcor CC	Monthly Summary Lookup	Description	Contract Amount				Cumulative to Date 25-Dec-14				Forecast to Complete				Forecast at Completion			
			Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total
0000.92000	Indirects	Indirect Costs - Labour Discount	-	\$ (40,000,000)	\$ -	\$ (40,000,000)	-	\$ -	\$ -	\$ -	-	\$ (40,000,000)	\$ -	\$ (40,000,000)	-	\$ (40,000,000)	\$ -	\$ (40,000,000)
0000.92260	Indirects	Indirect Costs - Financing, Contingency, Overheads, Fees, etc.	-	\$ -	\$ 55,358,052	\$ 55,358,052	-	\$ -	\$ 14,747,844	\$ 14,747,844	-	\$ -	\$ 40,610,208	\$ 40,610,208	-	\$ -	\$ 55,358,052	\$ 55,358,052
0000.92290	Indirects	Indirect Costs - Health and Safety Requirements	116,000	\$ 8,845,200	\$ 2,732,513	\$ 11,577,533	56,881	\$ 4,026,595	\$ 615,897	\$ 4,642,492	120,848	\$ 9,535,719	\$ 2,116,616	\$ 11,652,335	177,729	\$ 13,562,314	\$ 2,732,513	\$ 16,294,827
0000.924E0	Indirects	Indirect Costs - Environmental Requirements	32,400	\$ 2,556,020	\$ 24,075	\$ 2,580,278	16,915	\$ 1,248,503	\$ 5,768	\$ 1,254,271	28,591	\$ 2,341,734	\$ 18,307	\$ 2,360,041	45,506	\$ 3,590,237	\$ 24,075	\$ 3,614,312
0000.92560	Indirects	Indirect Costs - Quality Assurance / Quality Control	175,800	\$ 13,799,281	\$ -	\$ 13,799,281	36,662	\$ 2,558,323	\$ -	\$ 2,558,323	127,012	\$ 10,289,128	\$ -	\$ 10,289,128	163,674	\$ 12,847,451	\$ -	\$ 12,847,451
0000.92600	Indirects	Indirect Costs - Management and Staff	1,982,044	\$ 172,483,726	\$ 10,263,111	\$ 182,746,837	389,354	\$ 25,880,157	\$ 2,477,454	\$ 28,357,612	1,419,705	\$ 131,549,761	\$ 7,785,656	\$ 139,335,417	1,809,058	\$ 157,429,918	\$ 10,263,111	\$ 167,693,029
0000.92654	Indirects	Indirect Costs - Attendant labour	736,610	\$ 58,375,032	\$ -	\$ 58,375,032	454,011	\$ 35,897,198	\$ -	\$ 35,897,198	586,528	\$ 46,563,698	\$ -	\$ 46,563,698	1,040,539	\$ 82,460,896	\$ -	\$ 82,460,896
0000.93100	Indirects	Indirect Costs - Estimate of Travel Allowances - Trades Labour	-	\$ -	\$ 29,057,891	\$ 29,057,891	-	\$ -	\$ 2,424,691	\$ 2,424,691	-	\$ -	\$ 26,633,200	\$ 26,633,200	-	\$ -	\$ 29,057,891	\$ 29,057,891
0000.94110	Indirects	Indirect Costs - Chain Link Fences And Gates	65	\$ 5,049	\$ 8,485	\$ 13,534	-	\$ -	\$ -	\$ -	65	\$ 5,049	\$ 8,485	\$ 13,534	65	\$ 5,049	\$ 8,485	\$ 13,534
0000.94120	Indirects	Indirect Costs - Temporary Works (Temp Access & Ramps)	40,873	\$ 3,246,714	\$ 1,065,868	\$ 4,312,583	70,942	\$ 6,192,999	\$ 1,501,367	\$ 7,694,365	681	\$ (503,676)	\$ (435,498)	\$ (939,174)	71,623	\$ 5,689,323	\$ 1,065,868	\$ 6,755,191
0000.94200	Indirects	Indirect Costs - Site Installation (Temp Bldgs)	71,519	\$ 5,668,063	\$ 20,028,886	\$ 25,696,949	265,613	\$ 20,530,849	\$ 16,973,586	\$ 37,504,435	18,774	\$ 2,007,550	\$ 3,055,300	\$ 5,062,850	284,387	\$ 22,538,399	\$ 20,028,886	\$ 42,567,285
0000.94292	Indirects	Indirect Costs - Temporary Bridge	7,953	\$ 598,480	\$ 831,039	\$ 1,429,519	-	\$ -	\$ -	\$ -	7,953	\$ 598,509	\$ 831,039	\$ 1,429,548	7,953	\$ 598,509	\$ 831,039	\$ 1,429,548
0000.94500	Indirects	Indirect Costs - Services	50,821	\$ 3,960,856	\$ 15,363,286	\$ 19,324,143	37,679	\$ 3,056,204	\$ 6,270,238	\$ 9,326,443	32,299	\$ 2,397,731	\$ 9,093,048	\$ 11,490,779	69,978	\$ 5,453,935	\$ 15,363,286	\$ 20,817,221
0000.94620	Indirects	Indirect Costs - Road Maint & Snow Clearing	89,450	\$ 7,192,777	\$ 6,105,647	\$ 13,298,418	40,064	\$ 2,235,950	\$ 1,349,237	\$ 3,585,187	49,496	\$ 4,965,680	\$ 4,756,410	\$ 9,722,090	89,560	\$ 7,201,630	\$ 6,105,647	\$ 13,307,277
0000.94630	Indirects	Indirect Costs - Winter Protection	68,850	\$ 5,531,271	\$ 17,810,471	\$ 23,341,749	268,777	\$ 19,267,481	\$ 5,998,870	\$ 25,266,351	74,368	\$ 8,300,313	\$ 11,811,601	\$ 20,111,915	343,145	\$ 27,567,794	\$ 17,810,471	\$ 45,378,265
0000.94650	Indirects	Indirect Costs - Temp Heat, Ventilation & Lighting of Powerhouse	1,801	\$ 141,041	\$ 4,774,603	\$ 4,915,644	-	\$ -	\$ -	\$ -	1,801	\$ 141,041	\$ 4,774,603	\$ 4,915,644	1,801	\$ 141,041	\$ 4,774,603	\$ 4,915,644
0000.94660	Indirects	Indirect Costs - Demobilization	-	\$ -	\$ 6,480,990	\$ 6,480,990	-	\$ -	\$ -	\$ -	-	\$ -	\$ 6,480,990	\$ 6,480,990	-	\$ -	\$ 6,480,990	\$ 6,480,990
0000.94910	Indirects	Indirect Costs - Mobilization	-	\$ -	\$ 8,326,992	\$ 8,326,992	-	\$ -	\$ 8,326,992	\$ 8,326,992	-	\$ -	\$ (0)	\$ (0)	-	\$ -	\$ 8,326,992	\$ 8,326,992
0000.95640	Indirects	Indirect Costs - Design and Technical Assistance	131,000	\$ 10,508,344	\$ 1,334,825	\$ 11,843,169	62,313	\$ 4,321,761	\$ 333,036	\$ 4,654,797	166,396	\$ 14,024,425	\$ 1,001,789	\$ 15,026,214	228,709	\$ 18,346,186	\$ 1,334,825	\$ 19,681,011
0000.96000	Indirects	Indirect Costs - Contractor Equipment for Indirects	164,938	\$ 13,197,861	\$ 12,647,314	\$ 25,845,176	60,436	\$ 4,758,388	\$ 5,305,494	\$ 10,063,881	134,731	\$ 10,858,269	\$ 7,341,820	\$ 18,200,090	195,167	\$ 15,616,657	\$ 12,647,314	\$ 28,263,971
0000.96100	Indirects	Indirect Costs - Anchor Points	373	\$ 30,088	\$ 9,348	\$ 39,436	249	\$ 20,353	\$ 6,061	\$ 26,414	186	\$ 14,797	\$ 3,287	\$ 18,084	435	\$ 35,150	\$ 9,348	\$ 44,498
0000.96400	Indirects	Indirect Costs - Powerhouse - Construction Crane	9,936	\$ 816,283	\$ 642,583	\$ 1,458,866	-	\$ -	\$ -	\$ -	9,936	\$ 816,283	\$ 642,583	\$ 1,458,866	9,936	\$ 816,283	\$ 642,583	\$ 1,458,866
0000.96610	Indirects	Indirect Costs - Dewatering Of Structure Areas	10,863	\$ 866,271	\$ 829,609	\$ 1,695,880	25,340	\$ 2,024,775	\$ 216,051	\$ 2,240,827	2,112	\$ 164,482	\$ 613,557	\$ 778,039	27,452	\$ 2,189,257	\$ 829,609	\$ 3,018,866
0000.96800	Indirects	Indirect Costs - Temp Lateral Support & Bracings-Spillway Piers	290	\$ 23,433	\$ 55,341	\$ 78,773	-	\$ -	\$ -	\$ -	290	\$ 23,433	\$ 55,341	\$ 78,773	290	\$ 23,433	\$ 55,341	\$ 78,773
0000.98100	Indirects	Indirect Costs - Contractor Insurance	-	\$ -	\$ 5,576,498	\$ 5,576,498	-	\$ -	\$ 1,348,840	\$ 1,348,840	-	\$ -	\$ 4,227,658	\$ 4,227,658	-	\$ -	\$ 5,576,498	\$ 5,576,498
0000.98200	Indirects	Indirect Costs - Letters of Credit	-	\$ -	\$ 31,723,429	\$ 31,723,429	-	\$ -	\$ 7,592,459	\$ 7,592,459	-	\$ -	\$ 24,130,970	\$ 24,130,970	-	\$ -	\$ 31,723,429	\$ 31,723,429
0000.98610	Indirects	Indirect Costs - Warranty	-	\$ -	\$ 2,235,825	\$ 2,235,825	-	\$ -	\$ 533,630	\$ 533,630	-	\$ -	\$ 1,702,195	\$ 1,702,195	-	\$ -	\$ 2,235,825	\$ 2,235,825
0000.92250	Indirects	Indirect Costs - Employee Training	31,450	\$ 2,420,324	\$ -	\$ 2,420,324	24,838	\$ 1,937,004	\$ -	\$ 1,937,004	21,542	\$ 1,632,283	\$ -	\$ 1,632,283	46,380	\$ 3,569,287	\$ -	\$ 3,569,287
0000.99300	Indirects	Indirect Costs - Labour Profit (7%)	-	\$ 35,531,884	\$ -	\$ 35,531,884	-	\$ -	\$ -	\$ -	-	\$ 35,531,884	\$ -	\$ 35,531,884	-	\$ 35,531,884	\$ -	\$ 35,531,884
3510.94830	Indirects	Supply of concrete to Company's Other Contractor	27,104	\$ 2,179,112	\$ 4,662,604	\$ 6,841,716	-	\$ -	\$ -	\$ -	27,140	\$ 2,179,020	\$ 4,662,604	\$ 6,841,624	27,140	\$ 2,179,020	\$ 4,662,604	\$ 6,841,624
Subtotal Indirects			3,750,139	\$ 307,977,115	\$ 237,949,284	\$ 545,926,399	1,810,074	\$ 133,956,540	\$ 76,027,514	\$ 209,984,054	2,830,453	\$ 243,437,113	\$ 161,921,770	\$ 405,358,883	4,640,527	\$ 377,393,653	\$ 237,949,284	\$ 615,342,937

1110.16000	Powerhouse	Access Roads, Access Ramps And Pads - Access Roads, Access Ramps And Pads	4,381	\$ 348,919	\$ 169,882	\$ 518,801	-	\$ -	\$ -	\$ -	4,381	\$ 348,919	\$ 169,882	\$ 518,801	4,381	\$ 348,919	\$ 169,882	\$ 518,801
2361.12500	Dams	North Transition Dam - Foundation Preparation	417	\$ 33,226	\$ 26,332	\$ 59,558	52	\$ 1,286	\$ -	\$ 1,286	401	\$ 34,838	\$ 26,332	\$ 61,170	453	\$ 36,124	\$ 26,332	\$ 62,456
2361.13360	Dams	North Transition Dam - Drilling, Pressure Grouting and Drainage	870	\$ 71,034	\$ 117,484	\$ 188,518	-	\$ -	\$ -	\$ -	870	\$ 71,034	\$ 117,484	\$ 188,518	870	\$ 71,034	\$ 117,484	\$ 188,518
2361.25000	Dams	North Transition Dam - Concrete, Metal Embeds & ABs	36,031	\$ 2,741,203	\$ 2,087,868	\$ 4,829,071	-	\$ -	\$ -	\$ -	36,031	\$ 2,741,203	\$ 2,087,868	\$ 4,829,071	36,031	\$ 2,741,203	\$ 2,087,868	\$ 4,829,071
2361.28300	Dams	North Transition Dam - Rebar	1,164	\$ 85,855	\$ 85,333	\$ 171,188	-	\$ -	\$ -	\$ -	1,164	\$ 85,855	\$ 85,333	\$ 171,188	1,164	\$ 85,855	\$ 85,333	\$ 171,188
2361.33000	Dams	North Transition Dam - Misc Steel	575	\$ 46,435	\$ 159,085	\$ 205,520	-	\$ -	\$ -	\$ -	575	\$ 46,435	\$ 159,085	\$ 205,520	575	\$ 46,435	\$ 159,085	\$ 205,520
2361.78100	Dams	North Transition Dam - Conduit	405	\$ 39,528	\$ 10,031	\$ 49,559	-	\$ -	\$ -	\$ -	405	\$ 39,528	\$ 10,031	\$ 49,559	405	\$ 39,528	\$ 10,031	\$ 49,559
2361.78910	Dams	North Transition Dam - Grounding	175	\$ 17,055	\$ 19,883	\$ 36,938	-	\$ -	\$ -	\$ -	175	\$ 17,055	\$ 19,883	\$ 36,938	175	\$ 17,055	\$ 19,883	\$ 36,938
2362.12500	Dams	Centre Transition Dam - Foundation Preparation	1,328	\$ 105,765	\$ 82,744	\$ 188,509	11,012	\$ 1,068,958	\$ 6,410	\$ 1,075,368	16,843	\$ (348,927)	\$ 76,334	\$ (272,593)	27,855	\$ 720,031	\$ 82,744	\$ 802,775
2362.13360	Dams	Centre Transition Dam - Drilling, Pressure Grouting and Drainage	2,214	\$ 180,690	\$ 314,379	\$ 495,069	405	\$ 34,871	\$ -	\$ 34,871	2,090	\$ 169,970	\$ 314,379	\$ 484,349	2,494	\$ 204,841	\$ 314,379	\$ 519,220
2362.25000	Dams	Centre Transition Dam - Concrete, Metal Embeds & ABs	126,510	\$ 9,611,903	\$ 6,945,695	\$ 16,557,598	62,857	\$ 5,217,946	\$ 1,002,977	\$ 6,220,923	95,831	\$ 7,400,060	\$ 5,942,718	\$ 13,342,778	158,688	\$ 12,618,006	\$ 6,945,695	\$ 19,563,701
2362.28300	Dams	Centre Transition Dam - Rebar	3,069	\$ 226,345	\$ 224,968	\$ 451,313	-	\$ 58,868	\$ 18,631	\$ 77,498	3,698	\$ 216,493	\$ 206,337	\$ 422,830	3,698	\$ 275,361	\$ 224,968	\$ 500,329
2362.31000	Dams	Centre Transition Dam - Structural Steel	203	\$ 16,383	\$ 55,783	\$ 72,167	-	\$ -	\$ -	\$ -	203	\$ 16,383	\$ 55,783	\$ 72,166	203	\$ 16,383	\$ 55,783	\$ 72,166
2362.33000	Dams	Centre Transition Dam - Misc Steel	3,674	\$ 296,216	\$ 1,051,054	\$ 1,347,270	-	\$ -	\$ -	\$ -	3,674	\$ 296,216	\$ 1,051,054	\$ 1,347,270	3,674	\$ 296,216	\$ 1,051,054	\$ 1,347,270
2362.78100	Dams	Centre Transition Dam - Conduit	600	\$ 58,560	\$ 15,060	\$ 73,620	-	\$ -	\$ -	\$ -	600	\$ 58,560	\$ 15,060	\$ 73,620	600	\$ 58,560	\$ 15,060	\$ 73,620
2362.78910	Dams	Centre Transition Dam - Grounding	641	\$ 62,522	\$ 65,685	\$ 128,207	144	\$ 3,551	\$ 5,140	\$ 8,691	561	\$ 62,628	\$ 60,545					

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

DRAFT

Cost Report Labour & Non-Labour

Nalcor CC	Monthly Summary Lookup	Description	Contract Amount				Cumulative to Date 25-Dec-14				Forecast to Complete				Forecast at Completion			
			Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total
2410.78100	Spillway	Spillway Structure - Conduit	480	\$ 46,848	\$ 4,762	\$ 51,610	-	\$ -	\$ -	\$ -	480	\$ 46,848	\$ 4,762	\$ 51,610	480	\$ 46,848	\$ 4,762	\$ 51,610
2410.78910	Spillway	Spillway Structure - Grounding	1,834	\$ 178,980	\$ 213,849	\$ 392,830	721	\$ 61,100	\$ 89,870	\$ 150,970	1,440	\$ 140,129	\$ 123,980	\$ 264,108	2,161	\$ 201,229	\$ 213,849	\$ 415,078
2411.25000	Spillway	Spillway Bridges - Concrete, Metal Embedds & ABs	3,138	\$ 245,830	\$ 284,492	\$ 530,322	-	\$ -	\$ 68,394	\$ 68,394	3,138	\$ 245,830	\$ 216,098	\$ 461,928	3,138	\$ 245,830	\$ 284,492	\$ 530,322
2411.28300	Spillway	Spillway Bridges - Rebar	2,413	\$ 179,927	\$ 181,674	\$ 361,601	-	\$ -	\$ -	\$ -	2,413	\$ 179,927	\$ 181,674	\$ 361,601	2,413	\$ 179,927	\$ 181,674	\$ 361,601
2411.31000	Spillway	Spillway Bridges - Structural Steel	9,125	\$ 736,714	\$ 2,227,789	\$ 2,964,502	-	\$ -	\$ -	\$ -	9,125	\$ 736,714	\$ 2,227,789	\$ 2,964,502	9,125	\$ 736,714	\$ 2,227,789	\$ 2,964,502
2430.12500	Spillway Rollway	Spillway Discharge Channel - Phase 1 - Foundation Preparation	357	\$ 28,377	\$ 3,575	\$ 31,951	-	\$ -	\$ -	\$ -	357	\$ 28,377	\$ 3,575	\$ 31,951	357	\$ 28,377	\$ 3,575	\$ 31,951
2430.13360	Spillway Rollway	Spillway Discharge Channel - Phase 1 - Drilling, Pressure Grouting and Drain	8,189	\$ 623,128	\$ 108,378	\$ 731,506	-	\$ -	\$ -	\$ -	8,189	\$ 623,128	\$ 108,378	\$ 731,506	8,189	\$ 623,128	\$ 108,378	\$ 731,506
2430.25000	Spillway Rollway	Spillway Discharge Channel - Phase 1 - Concrete, Metal Embedds & ABs	14,979	\$ 1,148,786	\$ 1,119,853	\$ 2,268,638	-	\$ -	\$ 13,250	\$ 13,250	14,979	\$ 1,148,786	\$ 1,106,603	\$ 2,255,388	14,979	\$ 1,148,786	\$ 1,119,853	\$ 2,268,638
2430.28300	Spillway Rollway	Spillway Discharge Channel - Phase 1 - Rebar	2,865	\$ 213,585	\$ 215,659	\$ 429,244	-	\$ -	\$ -	\$ -	2,865	\$ 213,585	\$ 215,659	\$ 429,244	2,865	\$ 213,585	\$ 215,659	\$ 429,244
2431.12500	Spillway Rollway	Spillway Discharge Channel - Phase 2 - Optional - Foundation Preparation	178	\$ 14,188	\$ 1,787	\$ 15,976	-	\$ -	\$ -	\$ -	178	\$ 14,188	\$ 1,787	\$ 15,976	178	\$ 14,188	\$ 1,787	\$ 15,976
2431.13360	Spillway Rollway	Spillway Discharge Channel - Phase 2 - Optional - Drilling, Pressure Grouting	4,263	\$ 324,368	\$ 56,416	\$ 380,784	-	\$ -	\$ -	\$ -	4,263	\$ 324,368	\$ 56,416	\$ 380,784	4,263	\$ 324,368	\$ 56,416	\$ 380,784
2431.25000	Spillway Rollway	Spillway Discharge Channel - Phase 2 - Optional - Concrete, Metal Embedds	6,406	\$ 475,901	\$ 481,091	\$ 956,992	-	\$ -	\$ -	\$ -	6,406	\$ 475,901	\$ 481,091	\$ 956,992	6,406	\$ 475,901	\$ 481,091	\$ 956,992
2431.28300	Spillway Rollway	Spillway Discharge Channel - Phase 2 - Optional - Rebar	1,778	\$ 132,570	\$ 133,857	\$ 266,427	-	\$ -	\$ -	\$ -	1,778	\$ 132,570	\$ 133,857	\$ 266,427	1,778	\$ 132,570	\$ 133,857	\$ 266,427
2432.12500	Spillway Rollway	Spillway Discharge Channel - Phase 3 - Optional - Foundation Preparation	421	\$ 33,500	\$ 4,220	\$ 37,720	-	\$ -	\$ -	\$ -	421	\$ 33,500	\$ 4,220	\$ 37,720	421	\$ 33,500	\$ 4,220	\$ 37,720
2432.13360	Spillway Rollway	Spillway Discharge Channel - Phase 3 - Optional - Drilling, Pressure Grouting	10,320	\$ 785,312	\$ 136,586	\$ 921,898	-	\$ -	\$ -	\$ -	10,320	\$ 785,312	\$ 136,586	\$ 921,898	10,320	\$ 785,312	\$ 136,586	\$ 921,898
2432.25000	Spillway Rollway	Spillway Discharge Channel - Phase 3 - Optional - Concrete, Metal Embedds	11,549	\$ 873,040	\$ 1,043,552	\$ 1,916,592	-	\$ -	\$ -	\$ -	11,549	\$ 873,040	\$ 1,043,552	\$ 1,916,592	11,549	\$ 873,040	\$ 1,043,552	\$ 1,916,592
2432.28300	Spillway Rollway	Spillway Discharge Channel - Phase 3 - Optional - Rebar	3,161	\$ 235,680	\$ 237,968	\$ 473,648	-	\$ -	\$ -	\$ -	3,161	\$ 235,680	\$ 237,968	\$ 473,648	3,161	\$ 235,680	\$ 237,968	\$ 473,648
3220.12500	Intake	Intake Structure - Foundation Preparation	607	\$ 48,280	\$ 6,082	\$ 54,362	12,833	\$ 1,175,009	\$ 4,982	\$ 1,179,992	807	\$ (410,648)	\$ 1,100	\$ (409,549)	13,640	\$ 764,361	\$ 6,082	\$ 770,443
3220.13360	Intake	Intake Structure - Drilling, Pressure Grouting and Drainage	7,251	\$ 591,858	\$ 942,684	\$ 1,534,541	397	\$ 37,812	\$ -	\$ 37,812	7,129	\$ 580,233	\$ 942,684	\$ 1,522,917	7,526	\$ 618,045	\$ 942,684	\$ 1,560,729
3220.25000	Intake	Intake Structure - Concrete, Metal Embedds & ABs	699,091	\$ 53,115,281	\$ 40,711,118	\$ 93,826,399	41,868	\$ 3,883,521	\$ 763,449	\$ 4,646,970	680,316	\$ 51,153,765	\$ 39,947,670	\$ 91,101,434	722,184	\$ 55,037,286	\$ 40,711,118	\$ 95,748,404
3220.28300	Intake	Intake Structure - Rebar	271,175	\$ 20,400,897	\$ 19,801,009	\$ 40,201,906	7,520	\$ 757,676	\$ 209,719	\$ 967,395	266,085	\$ 19,898,811	\$ 19,591,290	\$ 39,490,101	273,605	\$ 20,656,487	\$ 19,801,009	\$ 40,457,496
3220.33000	Intake	Intake Structure - Misc Steel	6	\$ 440	\$ 3,379	\$ 3,819	-	\$ -	\$ -	\$ -	6	\$ 440	\$ 3,379	\$ 3,819	6	\$ 440	\$ 3,379	\$ 3,819
3290.78100	Intake	Intake - Electrical Work - Conduit	1,655	\$ 161,479	\$ 42,375	\$ 203,854	-	\$ -	\$ -	\$ -	1,655	\$ 161,479	\$ 42,375	\$ 203,854	1,655	\$ 161,479	\$ 42,375	\$ 203,854
3290.78800	Intake	Intake - Electrical Work - Heat Tracing	547	\$ 42,831	\$ 67,077	\$ 109,908	-	\$ -	\$ -	\$ -	547	\$ 42,831	\$ 67,077	\$ 109,908	547	\$ 42,831	\$ 67,077	\$ 109,908
3290.78910	Intake	Intake - Electrical Work - Grounding	2,999	\$ 292,678	\$ 312,293	\$ 604,971	36	\$ 888	\$ -	\$ 888	2,979	\$ 292,992	\$ 312,293	\$ 605,285	3,016	\$ 293,880	\$ 312,293	\$ 606,173
3310.12500	Powerhouse	Powerhouse Substructure - Foundation Preparation	1,289	\$ 102,471	\$ 12,908	\$ 115,380	9,698	\$ 757,842	\$ 1,901	\$ 759,744	(1,954)	\$ (89,080)	\$ 11,007	\$ (78,073)	7,744	\$ 668,762	\$ 12,908	\$ 681,670
3310.13360	Powerhouse	Powerhouse Substructure - Drilling, Pressure Grouting and Drainage	4,494	\$ 356,932	\$ 365,956	\$ 722,887	-	\$ -	\$ -	\$ -	4,494	\$ 356,932	\$ 365,956	\$ 722,888	4,494	\$ 356,932	\$ 365,956	\$ 722,888
3310.25000	Powerhouse	Powerhouse Substructure - Concrete, Metal Embedds & ABs	746,843	\$ 56,901,463	\$ 48,214,104	\$ 105,115,567	9,903	\$ 786,836	\$ 228,387	\$ 1,015,223	737,760	\$ 56,287,033	\$ 47,985,717	\$ 104,272,750	747,663	\$ 57,073,869	\$ 48,214,104	\$ 105,287,973
3310.26000	Powerhouse	Powerhouse Substructure - Precast Concrete	1,491	\$ 120,358	\$ 4,132,629	\$ 4,252,987	-	\$ -	\$ -	\$ -	1,491	\$ 120,358	\$ 4,132,629	\$ 4,252,987	1,491	\$ 120,358	\$ 4,132,629	\$ 4,252,987
3310.27500	Powerhouse	Powerhouse Substructure - Ductbank to SWYD c/w Elect MHs	10,652	\$ 803,722	\$ 256,153	\$ 1,059,874	-	\$ -	\$ -	\$ -	10,652	\$ 803,722	\$ 256,153	\$ 1,059,875	10,652	\$ 803,722	\$ 256,153	\$ 1,059,875
3310.28300	Powerhouse	Powerhouse Substructure - Rebar	278,095	\$ 20,921,497	\$ 20,306,124	\$ 41,227,621	-	\$ 4,720	\$ 2,498	\$ 7,218	282,841	\$ 21,301,964	\$ 20,303,626	\$ 41,605,590	282,841	\$ 21,306,684	\$ 20,306,124	\$ 41,612,808
3320.25000	Powerhouse	Intake And Powerhouse Superstructure - Concrete, Metal Embedds & ABs	5,951	\$ 480,386	\$ 1,149,390	\$ 1,629,776	-	\$ -	\$ -	\$ -	5,951	\$ 480,386	\$ 1,149,390	\$ 1,629,776	5,951	\$ 480,386	\$ 1,149,390	\$ 1,629,776
3320.31000	Powerhouse	Intake And Powerhouse Superstructure - Structural Steel	90,039	\$ 7,276,125	\$ 27,434,772	\$ 34,710,897	-	\$ -	\$ -	\$ -	90,039	\$ 7,276,125	\$ 27,434,772	\$ 34,710,897	90,039	\$ 7,276,125	\$ 27,434,772	\$ 34,710,897
3320.33000	Powerhouse	Intake And Powerhouse Superstructure - Misc Steel	34,703	\$ 2,781,116	\$ 7,750,059	\$ 10,531,175	-	\$ -	\$ -	\$ -	34,703	\$ 2,781,116	\$ 7,750,059	\$ 10,531,175	34,703	\$ 2,781,116	\$ 7,750,059	\$ 10,531,175
3320.39130	Powerhouse	Intake And Powerhouse Superstructure - Intumescent Paint	10,709	\$ 841,119	\$ 703,930	\$ 1,545,050	-	\$ -	\$ -	\$ -	10,709	\$ 841,119	\$ 703,930	\$ 1,545,050	10,709	\$ 841,119	\$ 703,930	\$ 1,545,050
3320.41000	Powerhouse	Intake And Powerhouse Superstructure - Roofing	3,082	\$ 250,291	\$ 3,054,373	\$ 3,304,664	-	\$ -	\$ -	\$ -	3,082	\$ 250,291	\$ 3,054,373	\$ 3,304,664	3,082	\$ 250,291	\$ 3,054,373	\$ 3,304,664
3320.42000	Powerhouse	Intake And Powerhouse Superstructure - Siding, Doors & Windows	26,230	\$ 2,098,573	\$ 2,801,545	\$ 4,900,118	-	\$ -	\$ -	\$ -	26,230	\$ 2,098,573	\$ 2,801,545	\$ 4,900,118	26,230	\$ 2,098,573	\$ 2,801,545	\$ 4,900,118
3320.42400	Powerhouse	Intake And Powerhouse Superstructure - Masonry	112	\$ 9,005	\$ 10,907	\$ 19,912	-	\$ -	\$ -	\$ -	112	\$ 9,005	\$ 10,907	\$ 19,912	112	\$ 9,005	\$ 10,907	\$ 19,912
3340.77000	Powerhouse	Powerhouse - Building Electrical Services - Lighting	3,615	\$ 352,791	\$ 373,504	\$ 726,295	-	\$ -	\$ -	\$ -	3,615	\$ 352,791	\$ 373,504	\$ 726,295	3,615	\$ 352,791	\$ 373,504	\$ 726,295
3350.61000	Powerhouse	Bldg Mechanical Services - Piping/Mech Systems	13,202	\$ 1,144,231	\$ 3,719,465	\$ 4,863,696	-	\$ -	\$ -	\$ -	13,202	\$ 1,144,231	\$ 3,719,465	\$ 4,863,696	13,202	\$ 1,144,231	\$ 3,719,465	\$ 4,863,696
3430.78100	Powerhouse	Turbine Generator And Ancillaries - Electrical Work - Conduit	1,338	\$ 130,540	\$ 82,044	\$ 212,584	-	\$ -	\$ -	\$ -	1,338	\$ 130,540	\$ 82,044	\$ 212,584	1,338	\$ 130,540	\$ 82,044	\$ 212,584
3430.78910	Powerhouse	Turbine Generator And Ancillaries - Electrical Work - Grounding	5,849	\$ 570,846	\$ 621,393	\$ 1,192,240	-	\$ -	\$ -	\$ -	5,849	\$ 570,846	\$ 621,393	\$ 1,192,240	5,849	\$ 570,846	\$ 621,393	\$ 1,192,240
3440.61000	Powerhouse	PH Mech Ancillary/Auxiliary Systems - Piping/Mech Systems	51,470	\$ 4,460,995	\$ 8,269,891	\$ 12,730,886	-	\$ -	\$ -	\$ -	51,470	\$ 4,460,995	\$ 8,269,891	\$ 12,730,886	51,470	\$ 4,460,995	\$ 8,269,891	\$ 12,730,886
		Subtotal Directs	3,076,339	\$ 235,153,109	\$ 243,213,041	\$ 478,366,151	683,762	\$ 52,158,742	\$ 11,678,722	\$ 63,837,464	2,746,355	\$ 212,876,746	\$ 231,534,319	\$ 444,411,065	3,430,118	\$ 265,035,488	\$ 243,213,041	\$ 508,248,529
		Total	6,826,478	\$ 543,130,225	\$ 481,162,325	\$ 1,024,292,550	2,493,836	\$ 186,115,282	\$ 87,706,236	\$ 273,821,518	5,576,809	\$ 456,313,859	\$ 393,456,089	\$ 849,769,948	8,070,645	\$ 642,429,141	\$ 481,162,325	\$ 1,123,591,466

Nalcor CC	Description	Contract Amount				Cumulative to Date				Forecast to Complete				Forecast at Completion			
		Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total	Hours	Labour	Non-Labour	Total
	Change Orders	-	\$ -	\$ -	\$ -	1,290	\$ 262,272	\$ 1,033,809	\$ 1,296,081	-	\$ -	\$ -	\$ -	3,268	\$ 262,272	\$ 1,033,809	\$ 1,296,081
	Change Requests	-	\$ -	\$ -	\$ -	59,564	\$ 4,978,795	\$ -	\$ 4,978,795	-	\$ (0)	\$ -	\$ (0)</				

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

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Labour Cost Report & Productivity Summary by Structure

Nalcor Cost Code	Structure	Lookup Reference	Budget		Previous Cumulative 25-Nov-14					Period Dec-14					Cumulative to Date 25-Dec-14					Estimate to Complete			Estimate at Completion			
			Labour Hours	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	Total \$	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	Total \$	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Variance
			Note: Hide these Columns in Report																							
0000	Indirect Costs	Indirects	3,723,035	\$ 305,798,003	26%	954,291	925,203	(29,087.84)	124,375,369.15	2%	80,935	884,871	803,936	9,581,171.03	28%	1,035,226	1,810,074	774,848	133,956,540	2,803,313	\$ 68.86	\$ 193,036,479	4,613,387	890,352	326,993,019	\$ 21,195,016
3510	Supply Of Concrete To Company'S Other Contractor	Indirects	27,104	\$ 2,179,112	26%	6,947	-	(6,947.34)	-	0%	-	-	-	-	26%	6,947	-	(6,947)	-	27,140	\$ 80.40	\$ 2,182,000	27,140	36	2,182,000	\$ 2,888
Subtotal Indirects			3,750,139	\$ 307,977,115	26%	961,238	925,203	1.04	124,375,369.15	2%	80,935	884,871	803,936	9,581,171	28%	1,042,173	1,810,074	767,901	\$ 133,956,540	2,830,453	\$ 195,218,479	4,640,527	890,388	\$ 329,175,019	\$ 21,197,904	

Nalcor Cost Code	Structure	Lookup Reference	Budget		Previous Cumulative					Period					Cumulative To Date					Estimate to Complete			Estimate at Completion			
			Labour Hours	\$ Amount	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total \$	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total \$	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Variance
			Note: Hide these Columns in Report																							
1110	Access Roads, Access Ramps And Pads	Powerhouse	4,381	\$ 348,919	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	4,381	\$ 79.64	\$ 348,919	4,381	(0)	348,919	\$ 0
2361	North Transition Dam	Dams	39,638	\$ 3,034,336	0%	-	36	-	-	0%	-	16	-	-	0%	-	52	1,286	39,622	\$ 76.62	\$ 3,035,948	39,673	36	3,037,234	\$ 2,898	
2362	Centre Transition Dam	Dams	138,240	\$ 10,558,385	9%	12,085	51,539	0.23	4,507,005.18	0%	-	22,878	(0.07)	(317,382.43)	9%	12,085	74,418	0.16	6,384,194	123,500	\$ 63.74	\$ 7,871,383	197,918	59,679	14,255,577	\$ 3,697,192
2363	South Transition Dam	Dams	48,403	\$ 3,700,899	5%	2,294	22,466	0.10	1,108,817.74	0%	-	9,973	(0.03)	(317,760.15)	5%	2,294	32,439	0.07	1,903,451	37,569	\$ 87.12	\$ 3,272,854	70,008	21,605	5,176,305	\$ 1,475,406
2364	Separation Wall	Dams	54,731	\$ 4,141,361	18%	9,757	30,024	0.32	1,576,886.42	0%	-	13,328	(0.10)	(133,404.86)	18%	9,757	43,352	0.23	2,680,930	30,245	\$ 108.00	\$ 3,266,558	73,597	18,866	5,947,488	\$ 1,806,127
2410	Spillway Structure	Spillway	439,312	\$ 33,062,099	24%	103,517	312,519	0.33	22,477,461.18	0%	-	138,727	(0.10)	(1,362,314.50)	24%	103,517	451,246	0.23	33,784,577	190,789	\$ 95.04	\$ 18,133,328	642,035	202,723	51,917,905	\$ 18,855,806
2411	Spillway Bridges	Spillway	14,676	\$ 1,162,470	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	14,676	\$ 79.21	\$ 1,162,470	14,676	-	1,162,470	\$ -
2430	Spillway Discharge Channel - Phase 1	Spillway Rollway	26,389	\$ 2,013,876	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	26,389	\$ 76.31	\$ 2,013,876	26,389	-	2,013,876	\$ -
2431	Spillway Discharge Channel - Phase 2 - Optional	Spillway Rollway	12,626	\$ 947,027	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	12,626	\$ 75.01	\$ 947,027	12,626	-	947,027	\$ -
2432	Spillway Discharge Channel - Phase 3 - Optional	Spillway Rollway	25,452	\$ 1,927,533	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	25,452	\$ 75.73	\$ 1,927,533	25,452	-	1,927,533	\$ -
3220	Intake Structure	Intake	978,129	\$ 74,156,756	1%	8,011	43,368	0.18	4,283,272.73	0%	-	19,251	(0.06)	(339,005.76)	1%	8,011	62,619	0.13	5,854,019	954,341	\$ 74.63	\$ 71,222,600	1,016,960	38,831	77,076,619	\$ 2,919,863
3290	Intake - Electrical Work	Intake	5,200	\$ 496,989	0%	8	25	0.33	-	0%	-	11	(0.10)	(110.34)	0%	8	36	0.23	888	5,181	\$ 95.98	\$ 497,302	5,217	17	498,190	\$ 1,201
3310	Powerhouse Substructure	Powerhouse	1,042,863	\$ 79,206,442	0%	173	13,575	0.01	1,047,562.55	0%	-	6,026	(0.00)	(1,535,835.42)	0%	173	19,602	0.01	1,549,398	1,035,285	\$ 76.10	\$ 78,780,929	1,054,886	12,023	80,330,327	\$ 1,123,885
3320	Intake And Powerhouse Superstructure	Powerhouse	170,826	\$ 13,736,615	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	170,826	\$ 80.41	\$ 13,736,615	170,826	-	13,736,615	\$ -
3340	Powerhouse - Building Electrical Services	Powerhouse	3,615	\$ 352,791	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	3,615	\$ 97.60	\$ 352,791	3,615	-	352,791	\$ -
3350	Bldg Mechanical Services	Powerhouse	13,202	\$ 1,144,231	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	13,202	\$ 86.67	\$ 1,144,231	13,202	-	1,144,231	\$ -
3430	Turbine Generator And Ancillaries - Electrical Work	Powerhouse	7,186	\$ 701,386	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	7,186	\$ 97.60	\$ 701,386	7,186	-	701,386	\$ -
3440	PH Mech Ancillary/Auxiliary Systems	Powerhouse	51,470	\$ 4,460,995	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	51,470	\$ 86.67	\$ 4,460,995	51,470	-	4,460,995	\$ -
Subtotal Directs			3,076,339	\$ 235,153,109	4%	135,844	473,552	0.29	\$ 35,001,006	0%	-	210,210	-	(4,005,813)	4%	135,844	683,762	0.20	\$ 52,158,742	2,746,355	\$ 212,876,746	3,430,118	353,779	\$ 265,035,488	\$ 29,882,379	
Total			6,826,478	\$ 543,130,225		1,097,082	1,398,755		159,376,375		80,935	1,095,081		5,575,358		1,178,017	2,493,836		\$ 186,115,282	5,576,809	\$ 408,095,225	8,070,645	1,244,167	\$ 594,210,507	\$ 51,080,282	

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

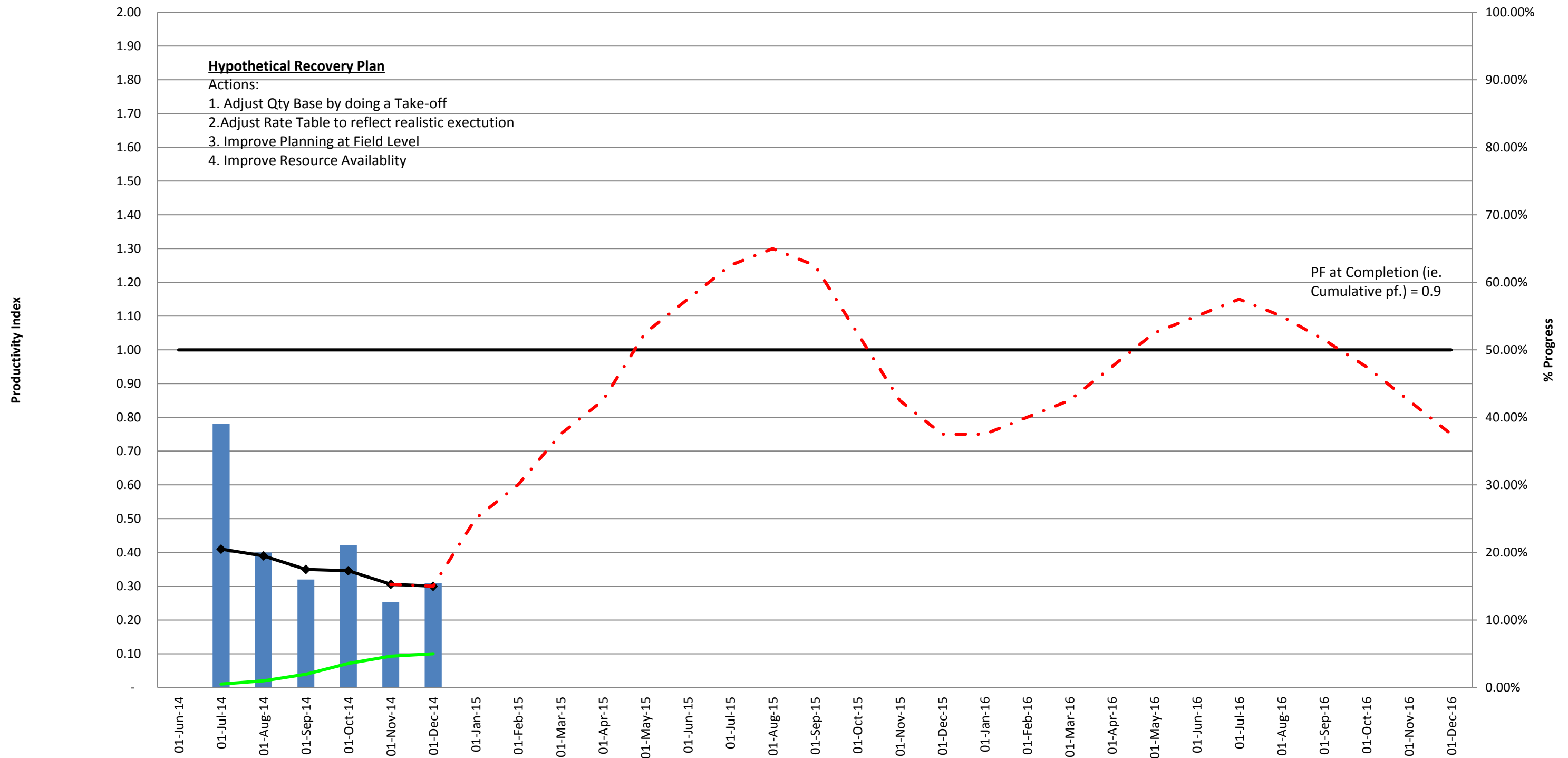
Labour Cost Report and Productivity Summary by Commodity

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Hide			Budget				Previous Cumulative 25-Nov-14				Period Dec-14				Cumulative to Date 25-Dec-14				Estimate to Complete			Estimate at Completion					
Commodity #	Summary by Commodity		Labour Hours	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	Total \$	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	Total \$	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	Total \$	Hrs	Labour Rate	Total \$	Hrs	Hrs Variance	Total \$	\$ Variance	
92000	Labour Discount	Ind_Other	-	\$(40,000,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(40,000,000)	-	-	(40,000,000)	-	
92250	Employee Training	Staff	31,450	\$ 2,420,324	26%	8,061	24,292	0.33		4%	1,324	546	2.42		30%	9,385	24,838	0.38	1,937,004	21,542		1,657,799	46,380	14,930	3,569,287	1,148,963	
92290	Health and Safety Requirements	Staff	116,000	\$ 8,845,020	26%	29,733	52,149	0.57		3%	3,200	4,732	0.68		28%	32,933	56,881	0.58	4,026,595	120,848		9,214,680	177,729	61,729	13,562,314	4,717,294	
924E0	Environmental Requirements	Staff	32,400	\$ 2,556,203	26%	8,305	16,005	0.52		2%	800	910	0.88		28%	9,105	16,915	0.54	1,248,503	28,591		2,255,676	45,506	13,106	3,590,237	1,034,034	
92560	Quality Assurance / Quality Control	Staff	175,800	\$ 13,799,281	26%	45,061	32,476	1.39		3%	4,600	4,186	1.10		28%	49,661	36,662	1.35	2,558,323	127,012		9,969,675	163,674	(12,126)	12,847,451	(951,830)	
92600	Management and Staff	Staff	1,982,044	\$ 172,483,726	26%	508,039	316,105	1.61		2%	47,000	73,248	0.64		28%	555,039	389,354	1.43	25,880,157	1,419,705		123,547,168	1,809,058	(172,986)	157,429,918	(15,053,808)	
92654	Attendant Labour	TempFac	736,610	\$ 58,375,032	26%	188,808	434,537	0.43		2%	14,100	19,474	0.72		28%	202,908	454,011	0.45	35,897,198	586,528		46,481,316	1,040,539	303,929	82,460,896	24,085,864	
94110	Chain Link Fences And Gates	TempFac	65	\$ 5,049	26%	17	-	-		0%	-	-	-		0%	17	-	-	-	65		5,051	65	0	5,049	-	
94120	Temporary Works (Temp Access & Ramps)	TempFac	40,873	\$ 3,246,714	26%	10,477	-	-		0%	-	70,942	-		26%	10,477	70,942	0.15	6,192,999	681		54,096	71,623	30,750	5,689,323	2,442,609	
94200	Site Installation (Temp Bldgs)	TempFac	71,519	\$ 5,668,063	26%	18,332	-	-		0%	1,030	265,613	0.00		27%	19,362	265,613	0.07	20,530,849	18,774		1,487,878	284,387	212,868	22,538,399	16,870,336	
94292	Temporary Bridge	TempFac	7,953	\$ 598,480	26%	2,038	-	-		0%	-	-	-		0%	2,038	-	-	-	7,953		598,509	7,953	0	598,509	29	
94500	Services	TempFac	50,821	\$ 3,960,856	26%	13,026	-	-		0%	1,067	37,679	0.03		28%	14,093	37,679	0.37	3,056,204	32,299		2,517,335	69,978	19,157	5,453,935	1,493,079	
94620	Road Maint & Snow Clearing	TempFac	89,450	\$ 7,192,771	26%	22,928	30,054	0.76		2%	1,845	10,010	0.18		28%	24,773	40,064	0.62	2,235,950	49,496		3,980,011	89,560	110	7,201,630	8,859	
94630	Winter Protection	TempFac	68,850	\$ 5,531,277	26%	17,648	-	-		0%	840	268,777	0.00		27%	18,488	268,777	0.07	19,267,481	74,368		5,974,647	343,145	274,295	27,567,794	22,036,517	
94650	Temp Heat, Ventilation & Lighting of Powerhouse	TempFac	1,801	\$ 141,041	26%	462	-	-		0%	-	-	-		0%	462	-	-	-	1,801		141,042	1,801	0	141,041	0	
94830	Supply of concrete to Company's Other Contractor	ConServ	27,104	\$ 2,179,112	26%	6,947	-	-		0%	-	-	-		0%	6,947	-	-	-	27,104		2,182,000	27,140	36	2,179,020	(92)	
95640	Design and Technical Assistance	ConServ	131,000	\$ 10,508,344	26%	33,578	-	-		0%	-	62,313	-		26%	33,578	62,313	0.54	4,321,761	166,396		13,347,703	228,709	97,709	18,346,186	7,837,842	
96000	Contractor Equipment for Indirects	ConServ	164,938	\$ 13,197,861	26%	42,277	-	-		0%	5,129	60,436	0.08		29%	47,406	60,436	0.78	4,758,388	134,731		10,780,810	195,167	30,229	15,616,657	2,418,796	
96100	Anchor Points	ConServ	373	\$ 30,088	26%	96	249	0.38		0%	-	-	-		0%	96	249	0.38	20,353	186		15,018	435	62	35,150	5,062	
96400	Powerhouse - Construction Crane	ConServ	9,936	\$ 816,283	26%	2,547	-	-		0%	-	-	-		0%	2,547	-	-	-	9,936		816,258	9,936	(0)	816,283	0	
96610	Dewatering Of Structure Areas	ConServ	10,863	\$ 866,271	26%	2,784	19,334	0.14		0%	-	6,006	-		26%	2,784	25,340	0.11	2,024,775	2,112		168,390	27,452	16,589	2,189,257	1,322,986	
96800	Temp Lateral Support & Bracings-Spillway Piers	ConServ	290	\$ 23,433	26%	74	-	-		0%	-	-	-		0%	74	-	-	-	290		23,416	290	(0)	23,433	0	
99300	Labour Profit (7%)	Ind_Other	-	\$ 35,531,884	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	-		-	-	-	-	35,531,884	0
Subtotal Indirects			3,750,139	\$ 307,977,115	26%	961,238	925,203	1.04		2%	80,935	884,871	0.09		28%	1,042,173	1,810,074	0.58	\$ 133,956,540	2,830,453		\$ 195,218,479	4,640,527	890,388	\$ 377,393,653	\$ 69,416,538	
																							329,175,019			48,218,634	

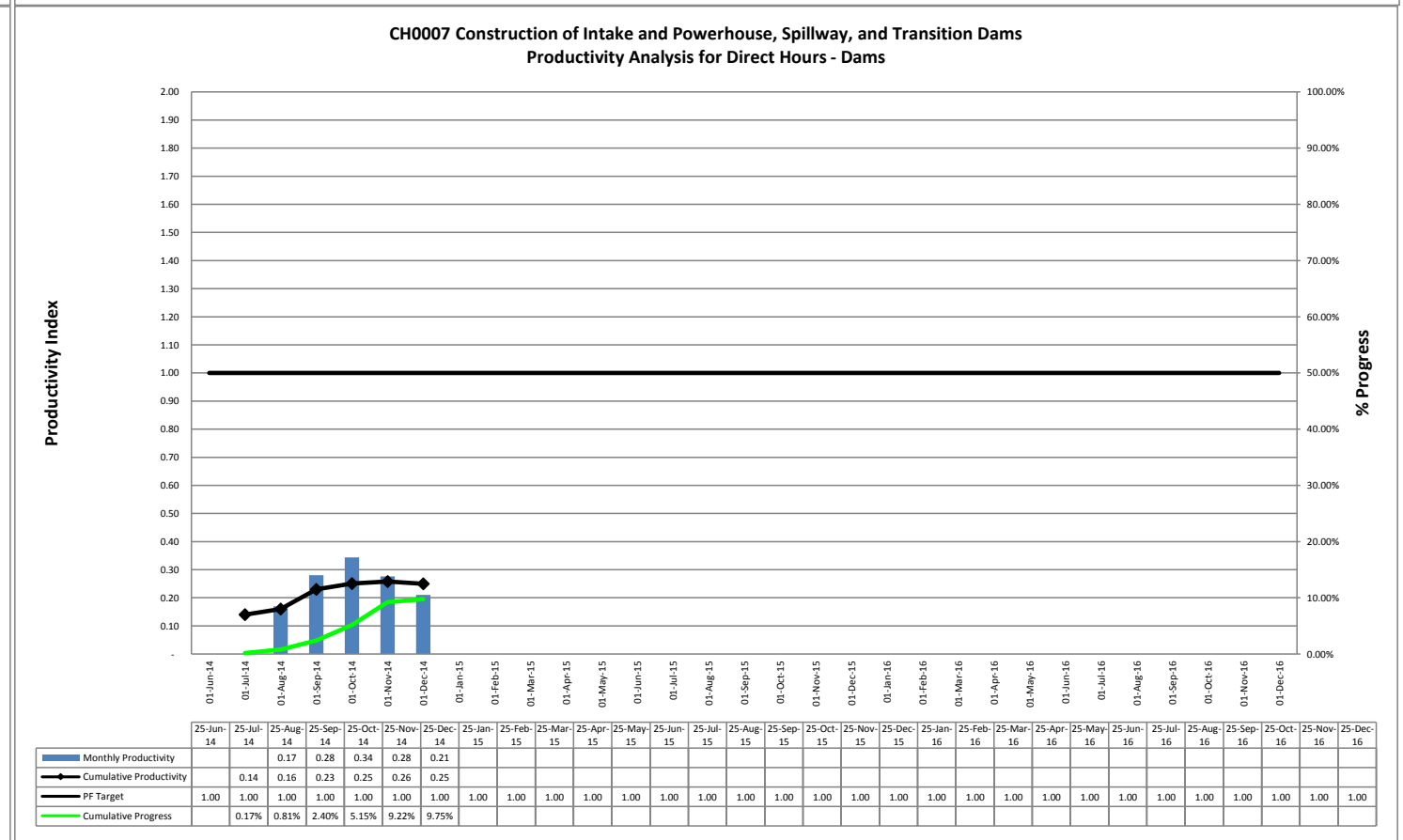
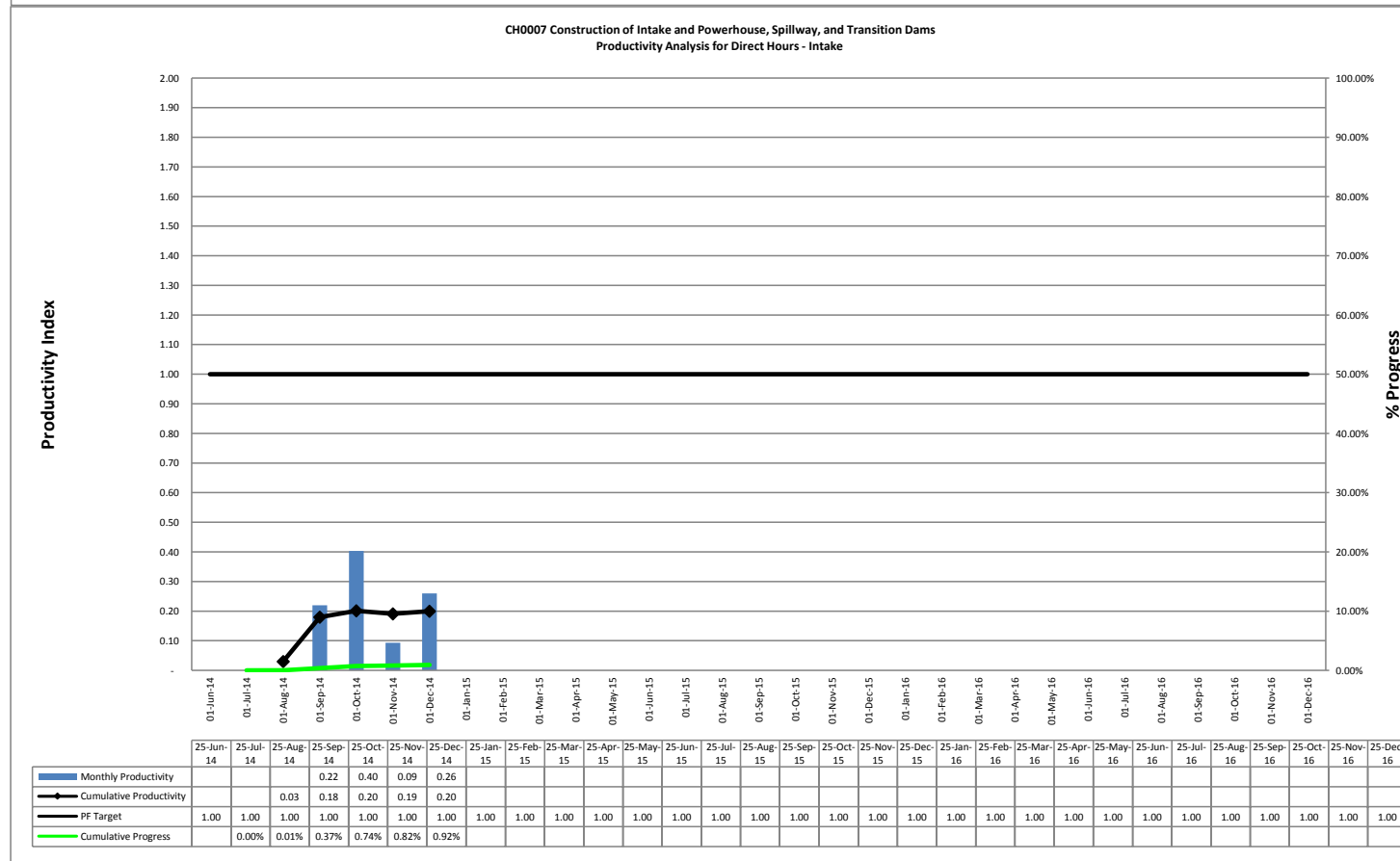
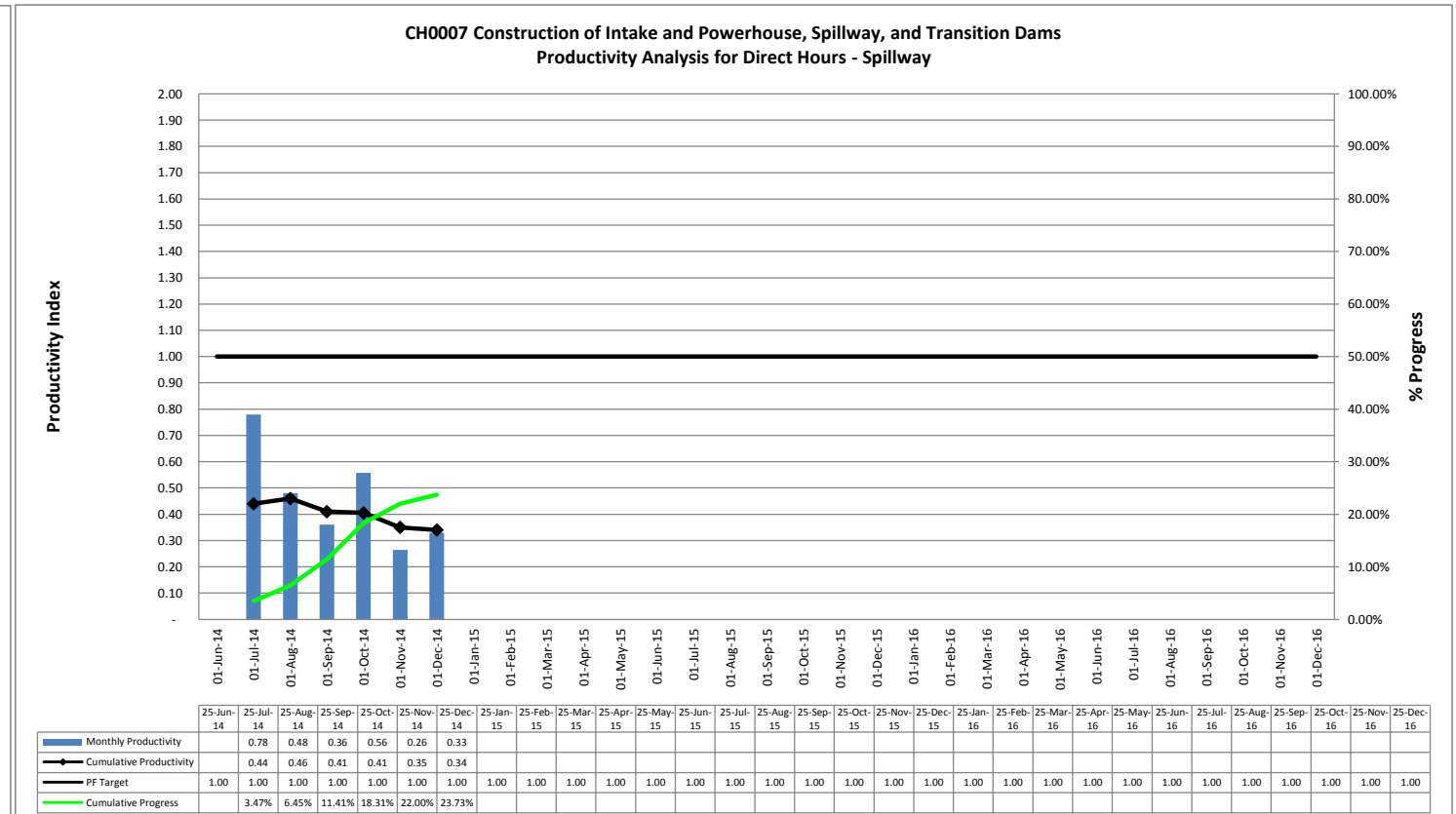
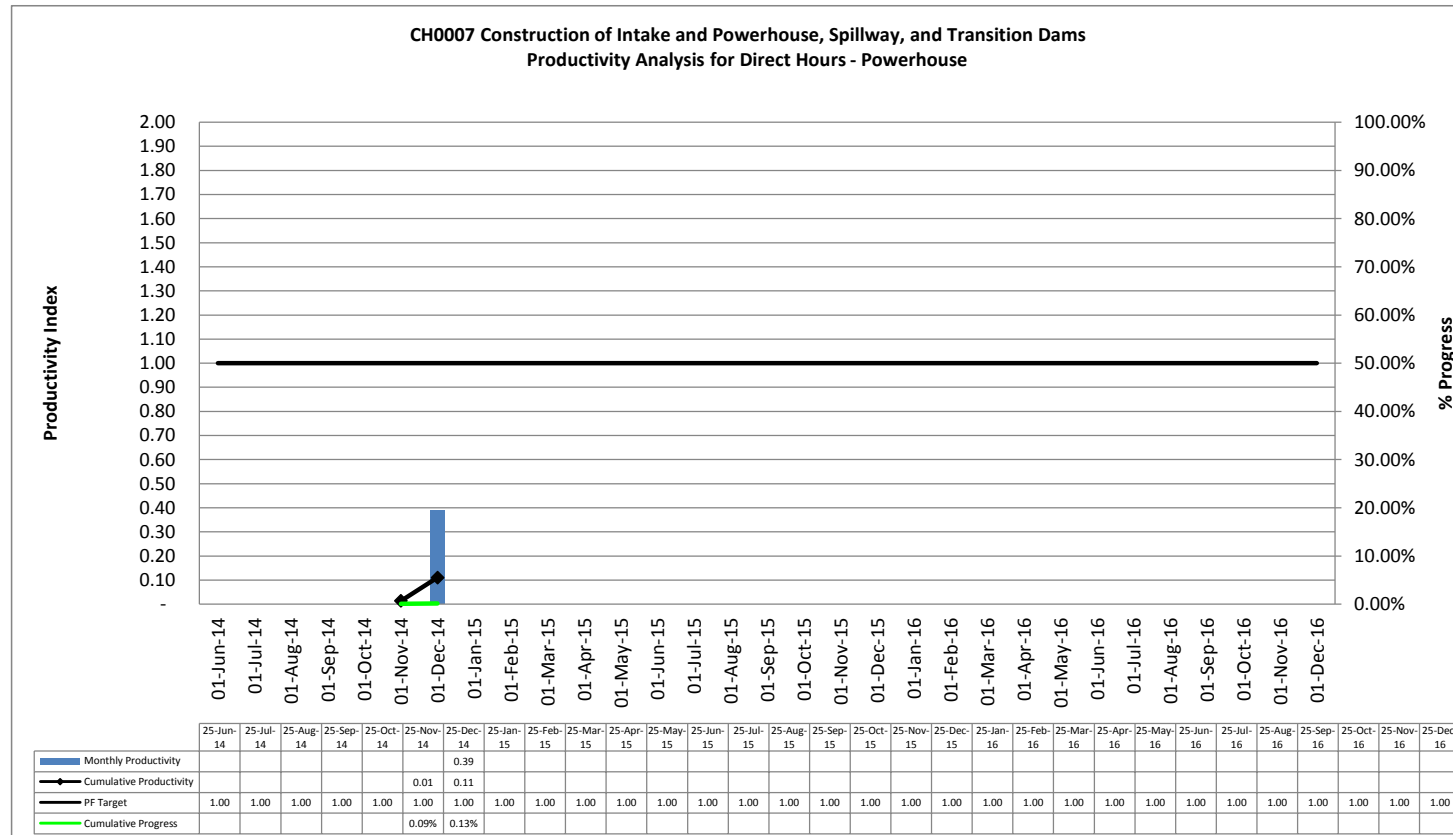
Hide			Budget				Previous Cumulation				Period				Cumulative to Date				Estimate to Complete			Estimate at Completion				
Commodity #	Summary by Commodity	Commodity Summary	Labour Hours	Amount \$	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total \$	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total \$	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	Total \$	Hrs	Labour Rate	Total \$	Hrs	Hrs Variance	Total \$	\$ Variance
12500	Foundation Preparation	Foundation	9,029	\$ 719,682	32%	2,895	48,508	0.06		0%	-	21,533	-		32%	2,895	70,041	0.04	6,109,420	10,859		(1,579,826)	80,900	71,871	4,529,593	3,809,911
13360	Drilling, Pressure Grouting and Drainage	Grouting	44,557	\$ 3,486,165	6%	2,692	3,688	0.73		0%	-	1,637	-		6%	2,692	5,325	0.51	428,861	40,227		3,149,457	45,552	995	3,578,318	92,153
16000	Access Roads, Access Ramps And Pads	Other	4,381	\$ 348,919	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	4,381		348,919	4,381	(0)	348,919	0
25000	Concrete, Metal Embedds & ABs	Concrete	2,037,953	\$ 154,735,184	5%	92,480	359,671	0.26		0%	-	159,658	-		5%	92,480	519,329	0.18	38,259,715	1,769,819		139,497,033	2,289,147	251,195	177,756,749	23,021,565
25100	Rollway Concrete	Concrete	52,534	\$ 3,993,923	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	52,534		3,993,942	52,534	0	3,993,942	19
26000	Precast Concrete	Concrete	1,491	\$ 120,358	0%	7	-	-		0%	-	-	-		0%	7	-	-	-	1,491		120,358	1,491	(0)	120,358	-
27500	Ductbank to SWYD c/w Elect MHs	Other	10,652	\$ 803,722	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	10,652		803,722	10,652	0	803,722	0
28300	Rebar	Rebar	650,579	\$ 48,872,094	6%	37,579	61,035	0.62		0%	-	27,094	-		6%	37,579	88,129	0.43	7,294,283	591,779		44,511,898	679,908	29,330	51,806,181	2,934,087
31000	Structural Steel	Structural Steel	100,217	\$ 8,097,865	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	100,216		8,097,865	100,216	(0)	8,097,865	(0)
33000	Misc Steel	Structural Steel	39,563	\$ 3,173,043	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	39,563		3,173,043	39,563	(0)	3,173,043	(0)
39130	Intumescent Paint	Structural Steel	10,709	\$ 841,119	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	10,709		841,119	10,709	-	841,119	-
41000	Roofing	Architectural	3,082	\$ 250,291	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	3,082		250,291	3,082	-	250,291	-
42000	Siding, Doors & Windows	Architectural	26,230	\$ 2,098,573	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	26,230		2,098,573	26,230	-	2,098,573	-
42400	Masonry	Architectural	112	\$ 9,005	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	112		9,005	112	-	9,005	-
61000	Piping/Mech Systems	Dir_Other	64,672	\$ 5,605,226	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	64,672		5,605,226	64,672	-	5,605,226	-
77000	Lighting	Dir_Other	3,615	\$ 352,791	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	3,615		352,791	3,615	-	352,791	-
78100	Conduit	Dir_Other	4,487	\$ 437,931	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	4,487		437,931	4,487	-	437,931	(0)
78800	Heat Tracing	Dir_Other	547	\$ 42,831	0%	-	-	-		0%	-	-	-		0%	-	-	-	-	547		42,831	547	-	42,831	(0)
78910	Grounding	Dir_Other	11,930	\$ 1,164,387	2%	191	650	0.29		0%	-	289	-		2%	191	939	0.20	66,463	11,380		1,122,569	12,319	389	1,189,031	24,645
Subtotal Directs			3,076,339	\$ 235,153,109	4%	135,844	473,552	0.29																		

**CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams
Productivity Analysis for Direct Hours - Overall**

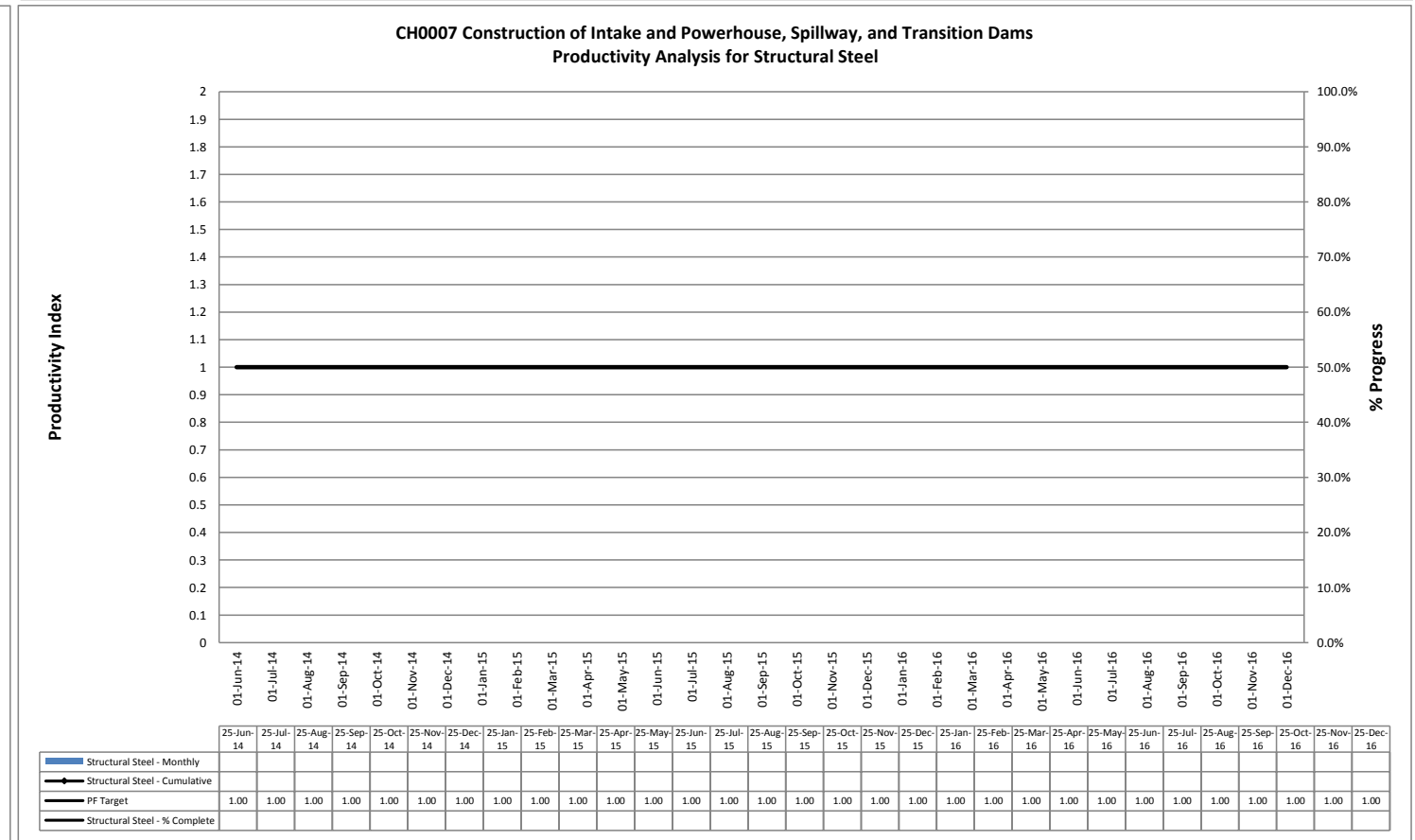
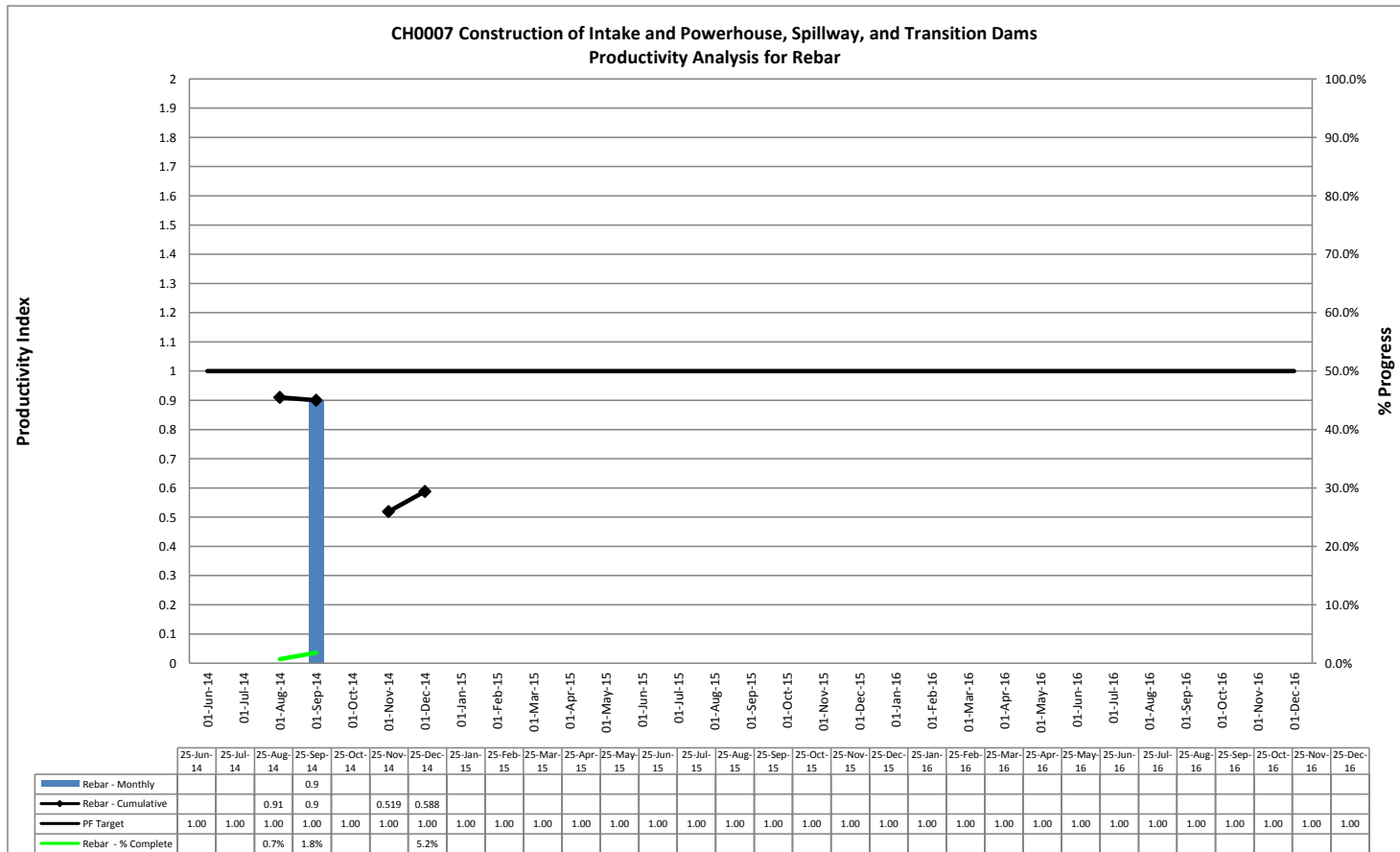
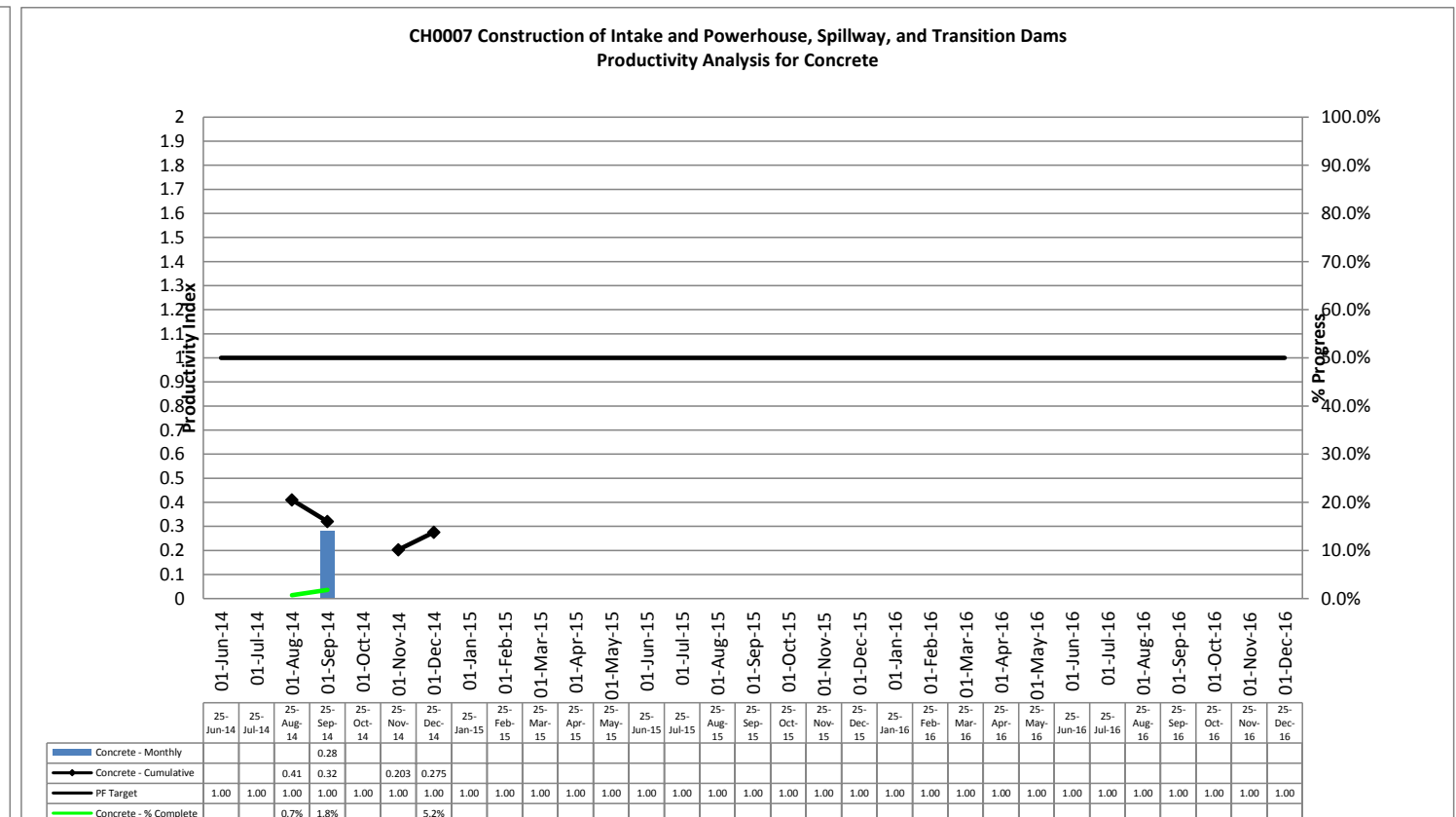
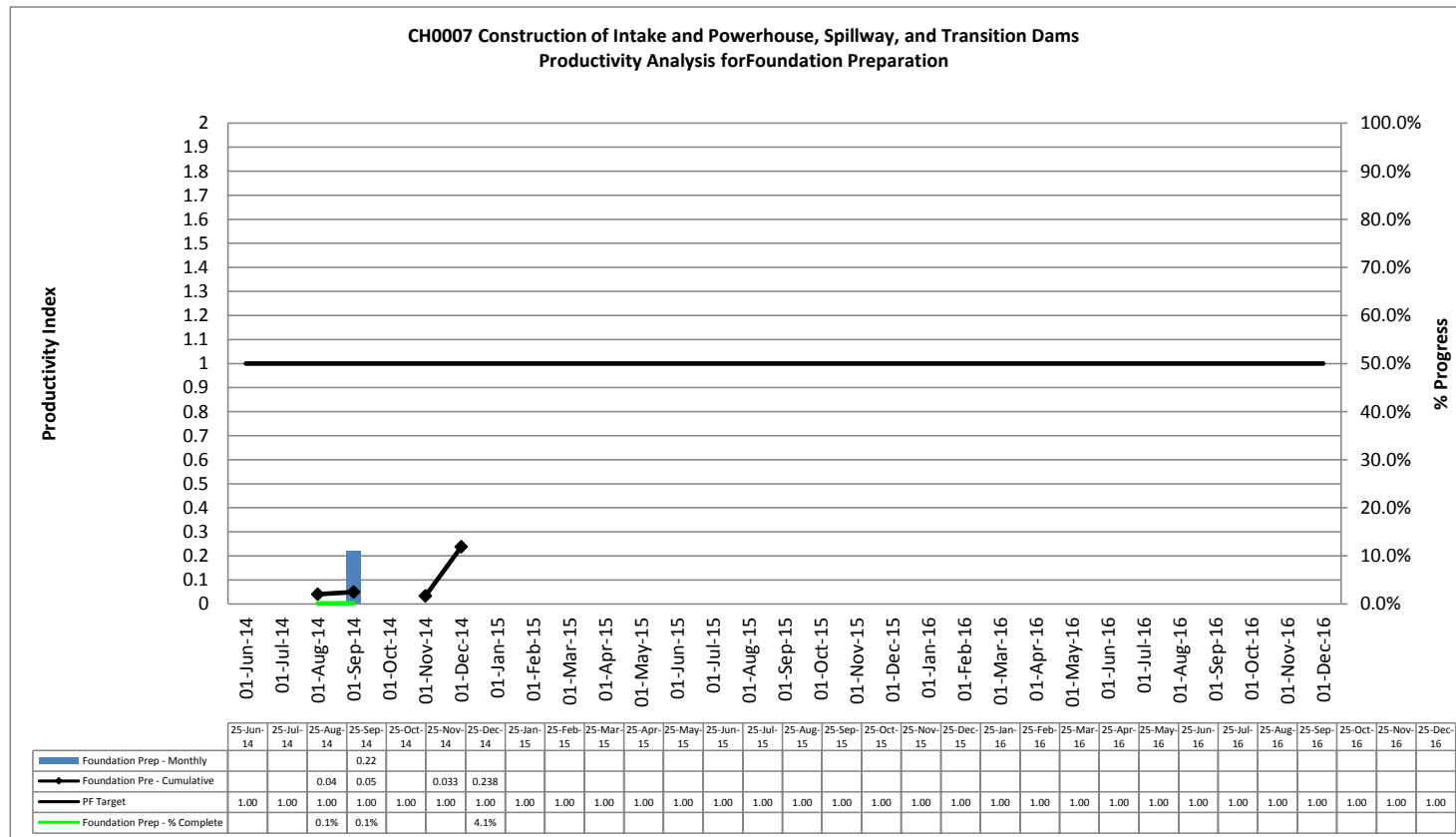


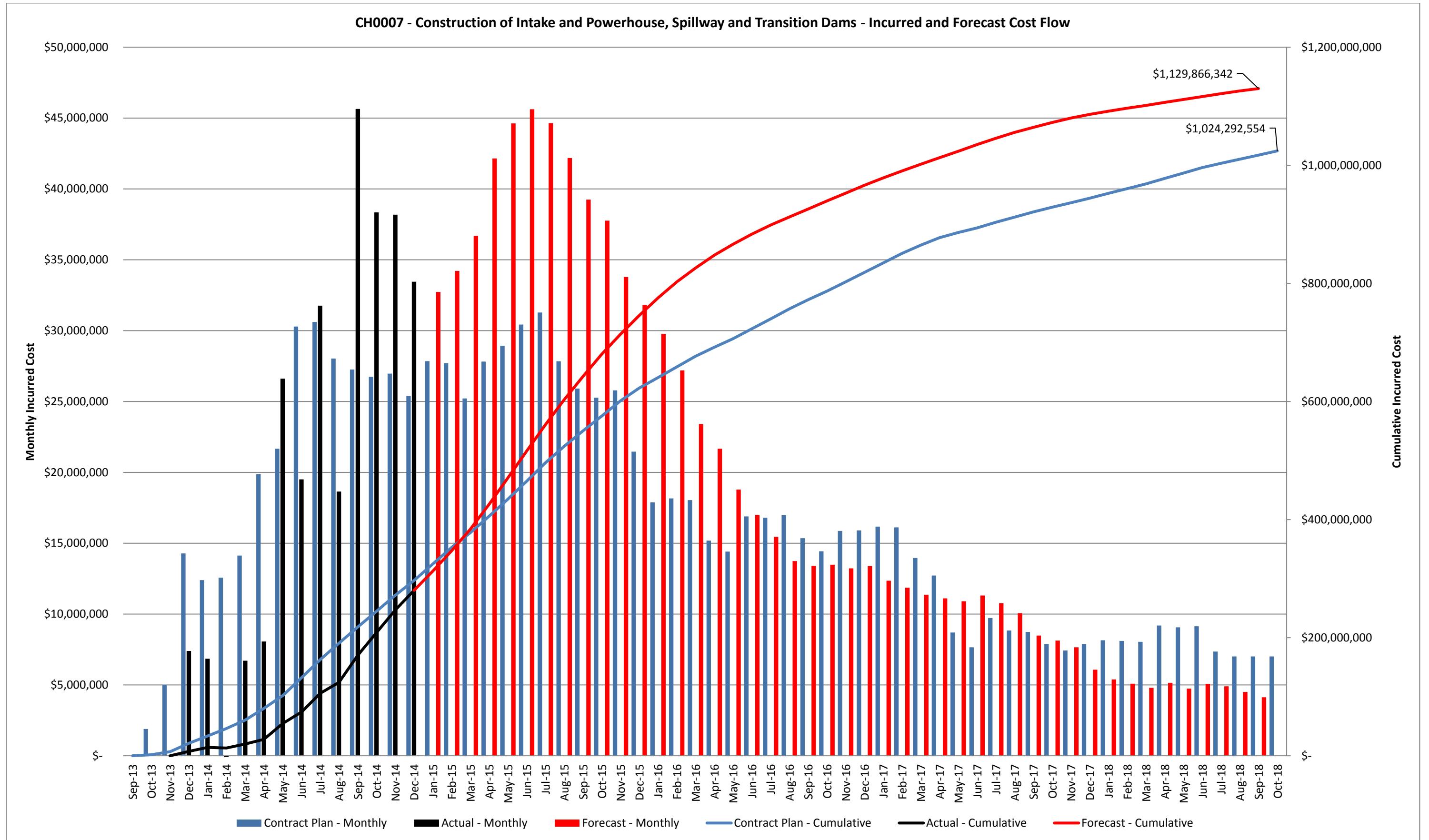
	25-Jun-14	25-Jul-14	25-Aug-14	25-Sep-14	25-Oct-14	25-Nov-14	25-Dec-14	25-Jan-15	25-Feb-15	25-Mar-15	25-Apr-15	25-May-15	25-Jun-15	25-Jul-15	25-Aug-15	25-Sep-15	25-Oct-15	25-Nov-15	25-Dec-15	25-Jan-16	25-Feb-16	25-Mar-16	25-Apr-16	25-May-16	25-Jun-16	25-Jul-16	25-Aug-16	25-Sep-16	25-Oct-16	25-Nov-16	25-Dec-16
Monthly Productivity		0.78	0.40	0.32	0.42	0.25	0.31																								
Cumulative Productivity		0.41	0.39	0.35	0.35	0.31	0.30																								
PF Target	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PF Recovery Target						0.306	0.3	0.5	0.6	0.75	0.85	1.05	1.15	1.25	1.3	1.25	1.05	0.85	0.75	0.75	0.8	0.85	0.95	1.05	1.1	1.15	1.1	1.03	0.95	0.85	0.75
Cumulative Progress		0.51%	1.00%	1.97%	3.55%	4.65%	5.00%																								

Productivity Charts by Area



Productivity Charts by Commodity





CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Productivity and Cost Report - Labour Only
Summary by Nalcor Cost Code / Pay Item

Compare with Earn Value Report

Use Earned Value Report for Monthend Submission

Est Only for Ex

Est Only for Ex

Show for IC

Show for ME

Pay Item	Bid Item	Nalcor Cost Code	Structure	Sub-Structure / Description	Budget Budget		Period = Cumulative - Previous				Cumulative to Date				Estimate to Complete			Estimate at Completion																							
					Labour Hours	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Amount from EV	\$ Variance																	
																									Period Dec-14				25-Dec-14												
INDIRECTS																																									
0001	391A	0000.92000	Indirect Costs	Labour Discount	-	\$ (40,000,000)	0%	-	-	-	-	0%	-	-	-	\$ -	-	\$ -	\$ (40,000,000)	-	-	\$ (40,000,000)	\$ (40,000,000)	\$ -																	
0002	10	0000.92290	Indirect Costs	Health and Safety Requirements	116,000.00	\$ 8,845,020	4%	3,200	4,732	1,532	344,925	49%	32,933	56,881	23,948	\$ 4,026,595	120,848	\$ 76.25	\$ 9,214,680	177,729	61,729	\$ 13,562,314	\$ 13,562,314	\$ 4,717,294																	
0003	9	0000.92250	Indirect Costs	Employee Training	31,450.00	\$ 2,420,324	2%	1,324	546	(778)	41,882	79%	9,385	24,838	15,453	\$ 1,937,004	21,542	\$ 76.96	\$ 1,657,799	46,380	14,930	\$ 3,569,287	\$ 3,569,287	\$ 1,148,963																	
0004	11	0000.924E0	Indirect Costs	Environmental Requirements	32,400.00	\$ 2,556,203	3%	800	910	110	68,022	52%	9,105	16,915	7,810	\$ 1,248,503	28,591	\$ 78.90	\$ 2,255,676	45,506	13,106	\$ 3,590,237	\$ 3,590,237	\$ 1,034,034																	
0005	12	0000.92560	Indirect Costs	Quality Assurance / Quality Control	175,800.00	\$ 13,799,281	2%	4,600	4,186	(414)	300,838	21%	49,661	36,662	(12,999)	\$ 2,558,323	127,012	\$ 78.49	\$ 9,969,675	163,674	(12,126)	\$ 12,847,451	\$ 12,847,451	\$ (951,830)																	
0006	6	0000.92600	Indirect Costs	Management and Staff	1,982,044.00	\$ 172,483,726	4%	47,000	73,248	26,248	1,558,934	20%	555,039	389,354	(165,685)	\$ 25,880,157	1,419,705	\$ 87.02	\$ 123,547,168	1,809,058	(172,986)	\$ 157,429,918	\$ 157,429,918	\$ (15,053,808)																	
0007	7	0000.92654	Indirect Costs	Attendant labour	736,610.00	\$ 58,375,032	3%	14,100	19,474	5,374	1,597,724	62%	202,908	454,011	251,102	\$ 35,897,198	586,528	\$ 79.25	\$ 46,481,316	1,040,539	303,929	\$ 82,460,896	\$ 82,460,896	\$ 24,085,864																	
0008	30	0000.94110	Indirect Costs	Chain Link Fences And Gates	64.98	\$ 5,049	0%	-	-	-	-	0%	17	-	(17)	\$ -	65	\$ 77.71	\$ 5,051	65	0	\$ 5,049	\$ 5,049	\$ -																	
0009	4	0000.94120	Indirect Costs	Temporary Works (Temp Access & Ramps)	40,872.87	\$ 3,246,714	174%	-	70,942	70,942	683,782	174%	10,477	70,942	60,465	\$ 6,192,999	681	\$ 79.43	\$ 54,096	71,623	30,750	\$ 5,689,323	\$ 5,689,323	\$ 2,442,609																	
0010	2	0000.94200	Indirect Costs	Site Installation (Temp Bldgs)	71,519.02	\$ 5,668,063	371%	1,030	265,613	264,583	962,924	371%	19,362	265,613	246,251	\$ 20,530,849	18,774	\$ 79.25	\$ 1,487,878	284,387	212,868	\$ 22,538,399	\$ 22,538,399	\$ 16,870,336																	
0011	27	0000.94292	Indirect Costs	Temporary Bridge	7,952.61	\$ 598,480	0%	-	-	-	-	0%	2,038	-	(2,038)	\$ -	7,953	\$ 75.26	\$ 598,509	7,953	0	\$ 598,509	\$ 598,509	\$ 29																	
0012	8	0000.94500	Indirect Costs	Services	50,820.62	\$ 3,960,856	74%	1,067	37,679	36,612	-	0%	14,093	37,679	-	\$ 3,056,204	32,299	\$ 77.94	\$ 2,517,335	69,978	19,157	\$ 5,453,935	\$ 5,453,935	\$ 1,493,079																	
0013	17	0000.94620	Indirect Costs	Road Maint & Snow Clearing	89,450.11	\$ 7,192,771	11%	1,845	10,010	8,165	815,157	45%	24,773	40,064	15,291	\$ 2,235,950	49,496	\$ 80.41	\$ 3,980,011	89,560	110	\$ 7,201,630	\$ 7,201,630	\$ 8,859																	
0014	5	0000.94630	Indirect Costs	Winter Protection	68,849.61	\$ 5,531,277	390%	840	268,777	267,937	807,150	390%	18,488	268,777	250,289	\$ 19,267,481	74,368	\$ 80.34	\$ 5,974,647	343,145	274,295	\$ 27,567,794	\$ 27,567,794	\$ 22,036,517																	
0015	29	0000.94650	Indirect Costs	Temp Heat, Ventilation & Lighting of Powerhouse	1,800.99	\$ 141,041	0%	-	-	-	-	0%	462	-	(462)	\$ -	1,801	\$ 78.31	\$ 141,042	1,801	0	\$ 141,041	\$ 141,041	\$ 0																	
0016	6A	0000.95640	Indirect Costs	Design and Technical Assistance	131,000.00	\$ 10,508,344	48%	-	62,313	62,313	433,274	48%	33,578	62,313	28,735	\$ 4,321,761	166,396	\$ 80.22	\$ 13,347,703	228,709	97,709	\$ 18,346,186	\$ 18,346,186	\$ 7,837,842																	
0017	3	0000.96000	Indirect Costs	Contractor Equipment for Indirects	164,938.17	\$ 13,197,861	37%	5,129	60,436	55,307	1,481,837	37%	47,406	60,436	117,700	\$ 4,758,388	134,731	\$ 80.02	\$ 10,780,810	195,167	30,229	\$ 15,616,657	\$ 15,616,657	\$ 2,418,796																	
0018	32	0000.96100	Indirect Costs	Anchor Points	372.64	\$ 30,088	0%	-	-	-	-	0%	96	249	153	\$ 20,353	186	\$ 80.74	\$ 15,018	435	62	\$ 35,150	\$ 35,150	\$ 5,062																	
0019	28	0000.96400	Indirect Costs	Powerhouse - Construction Crane	9,936.30	\$ 816,283	0%	-	-	-	-	0%	2,547	-	(2,547)	\$ -	9,936	\$ 82.15	\$ 816,258	9,936	(0)	\$ 816,283	\$ 816,283	\$ 0																	
0020	26	0000.96610	Indirect Costs	Dewatering Of Structure Areas	10,862.53	\$ 866,271	55%	-	6,006	6,006	484,724	233%	2,784	25,340	22,556	\$ 2,024,775	2,112	\$ 79.75	\$ 168,390	27,452	16,589	\$ 2,189,257	\$ 2,189,257	\$ 1,322,986																	
0021	31	0000.96800	Indirect Costs	Temp Lateral Support & Bracings-Spillway Piers	290.21	\$ 23,433	0%	-	-	-	-	0%	74	-	(74)	\$ -	290	\$ 80.74	\$ 23,416	290	(0)	\$ 23,433	\$ 23,433	\$ 0																	
0022		0000.99300	Indirect Costs	Labour Profit (7%)	-	\$ 35,531,884	0%	-	-	-	-	0%	-	-	-	\$ -	-	\$ -	\$ -	-	-	\$ 35,531,884	\$ 35,531,884	\$ 0																	
0097	398	3510.94830	Indirect Costs	Supply of concrete to Company's Other Contractor	27,104.08	\$ 2,179,112	0%	-	-	-	-	0%	6,947	-	(6,947)	\$ -	27,140	\$ 80.40	\$ 2,182,000	27,140	36	\$ 2,179,020	\$ 2,179,020	\$ (92)																	
Subtotal - Indirects					3,750,174.72	\$ 307,977,115	24%	80,935	884,871	803,936	9,581,171	48%	1,042,173	1,810,074	872,541	\$ 133,956,540	2,830,453	\$ 82.12	\$ 195,218,479	4,640,527	890,388	\$ 377,393,653	\$ 377,393,653	\$ 69,416,538																	

Pay Item	Bid Item	Nalcor Cost Code	Structure	Sub-Structure / Description	Labour Hours	\$ Amount	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	\$ Amount	% Complete	Earned Hrs	Actual Hrs	PF Earn / Exp	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Amount from EV	\$ Variance
0023	20	1110.16000	Access Roads, Access Ramps And Pads	Access Roads, Access Ramps And Pads	4,381	\$ 348,919	0%	-	-	-	-	0%	-	-	-	-	4,381	\$ 79.64	\$ 348,919	4,381	(0)	\$ 348,919	\$ 348,919	\$ 0
0024	33	2361.12500	North Transition Dam	Foundation Preparation	417	\$ 33,226	0%	-	16	-	1,286	0%	-	52	-	1,286	401	\$ 86.79	\$ 34,838	453	36	\$ 36,124	\$ 36,124	\$ 2,898
0025	38	2361.13360	North Transition Dam	Drilling, Pressure Grouting and Drainage	870	\$ 71,034	0%	-	-	-	-	0%	-	-	-	-	870	\$ 81.63	\$ 71,034	870	(0)	\$ 71,034	\$ 71,034	\$ 0
0026	50	2361.25000	North Transition Dam	Concrete, Metal Embeds & Abs	36,031	\$ 2,741,203	0%	-	-	-	-	0%	-	-	-	-	36,031	\$ 76.08	\$ 2,741,203	36,031	0	\$ 2,741,203	\$ 2,741,203	\$ 0
0027	54	2361.28300	North Transition Dam	Rebar	1,164	\$ 85,855	0%	-	-	-	-	0%	-	-	-	-	1,164	\$ 73.74	\$ 85,855	1,164	0	\$ 85,855	\$ 85,855	\$ -
0028	55	2361.33000	North Transition Dam	Misc Steel	575	\$ 46,435	0%	-	-	-	-	0%	-	-	-	-	575	\$ 80.74	\$ 46,435	575	0	\$ 46,435	\$ 46,435	\$ 0
0029	61B	2361.78100	North Transition Dam	Conduit	405	\$ 39,528	0%	-	-	-	-	0%	-	-	-	-	405	\$ 97.60	\$ 39,528	405	-	\$ 39,528	\$ 39,528	\$ -
0030	59	2361.78910	North Transition Dam	Grounding	175	\$ 17,055	0%	-	-	-	-	0%	-	-	-	-	175	\$ 97.60	\$ 17,055	175	0	\$ 17,055	\$ 17,055	\$ (0)
0031	62	2362.12500	Centre Transition Dam	Foundation Preparation	1,328	\$ 105,765	0%	-	3,385	-	280,312	21%	273	11,012	0.02	\$ 1,068,958	16,843	\$ (20.72)	\$ (348,927)	27,855	26,526	\$ 720,031	\$ 720,031	\$ 614,266
0032	67	2362.13360	Centre Transition Dam	Drilling, Pressure Grouting and Drainage	2,214	\$ 180,690	0%	-	124	-	10,720	0%	-	405	-	34,871	2,090	\$ 81.34	\$ 169,970	2,494	280	\$ 204,841	\$ 204,841	\$ 24,151
0033	81	2362.25000	Centre Transition Dam	Concrete, Metal Embeds & Abs	126,510	\$ 9,611,903	0%	-	19,324	0.26	1,582,605	9%	11,499	62,857	0.18	\$ 5,217,946	95,831	\$ 77.22	\$ 7,400,060	158,688	32,178	\$ 12,618,006	\$ 12,618,006	\$ 3,006,103
0034	87	2362.28300	Centre Transition Dam	Rebar	3,069	\$ 226,345	0%	-	-	0.21	-	9%	278	-	-	58,868	3,698	\$ 58.54	\$ 216,493	3,698	629	\$ 275,361	\$ 275,361	\$ 49,016
0035	96	2362.31000	Centre Transition Dam	Structural Steel	203	\$ 16,383	0%	-	-	-	-	0%	-	-	-	-	203	\$ 80.73	\$ 16,383	203	-	\$ 16,383	\$ 16,383	\$ (0)
0036	80	2362.33000	Centre Transition Dam	Misc Steel	3,674	\$ 296,216	0%	-	-	-	-	0%	-	-	-	-	3,674	\$ 80.62	\$ 296,216	3,674	(0)	\$ 296,216	\$ 296,216	\$ (0)
0037	101A	2362.78100	Centre Transition Dam	Conduit	600	\$ 58,560	0%	-	-	-	-	0%	-	-	-	-	600	\$ 97.60	\$ 58,560	600	-	\$ 58,560	\$ 58,560	\$ -
0038	97	2362.78910	Centre Transition Dam	Grounding	641	\$ 62,522	0%	-	44	-	3,551	5%	35	144	0.24	\$ 3,551	561	\$ 111.58	\$ 62,628	706	65			

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Productivity and Cost Report - Labour Only
Summary by Nalcor Cost Code / Pay Item

Compare with Earn Value Report

Use Earned Value Report for Monthend Submission

Est Only for Ex

Est Only for Ex

Show for IC

Show for ME

Pay Item	Bid Item	Nalcor Cost Code	Structure	Sub-Structure / Description	Budget Budget		Period = Cumulative - Previous					Cumulative to Date					Estimate to Complete			Estimate at Completion				
					Labour Hours	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Amount from EV	\$ Variance
0076	243A	3290.78100	Intake - Electrical Work	Conduit	1,655	\$ 161,479	0%	-	-	-	-	0%	-	-	-	\$ -	1,655	\$ 97.60	\$ 161,479	1,655	-	\$ 161,479	\$ 161,479	\$ (0)
0077	243D	3290.78800	Intake - Electrical Work	Heat Tracing	547	\$ 42,831	0%	-	-	-	-	0%	-	-	-	\$ -	547	\$ 78.27	\$ 42,831	547	-	\$ 42,831	\$ 42,831	\$ (0)
0078	240	3290.78910	Intake - Electrical Work	Grounding	2,999	\$ 292,678	0%	-	11	-	-	0%	8	36	0.23	\$ 888	2,979	\$ 98.34	\$ 292,992	3,016	17	\$ 293,880	\$ 293,880	\$ 1,202
0079	253	3310.12500	Powerhouse Substructure	Foundation Preparation	1,289	\$ 102,471	0%	-	2,982	0.03	-	13%	166	9,698	0.02	\$ 757,842	(1,954)	\$ 45.59	\$ (89,080)	7,744	6,456	\$ 668,762	\$ 668,762	\$ 566,291
0080	244	3310.13360	Powerhouse Substructure	Drilling, Pressure Grouting and Drainage	4,494	\$ 356,932	0%	-	-	-	-	0%	-	-	-	\$ -	4,494	\$ 79.42	\$ 356,932	4,494	0	\$ 356,932	\$ 356,932	\$ 0
0081	257	3310.25000	Powerhouse Substructure	Concrete, Metal Embeds & ABs	746,843	\$ 56,901,463	0%	-	3,045	-	-	0%	-	9,903	-	\$ 786,836	737,760	\$ 76.29	\$ 56,287,033	747,663	821	\$ 57,073,869	\$ 57,073,869	\$ 172,406
0082	272	3310.26000	Powerhouse Substructure	Precast Concrete	1,491	\$ 120,358	0%	-	-	-	-	0%	7	-	-	\$ -	1,491	\$ 80.74	\$ 120,358	1,491	(0)	\$ 120,358	\$ 120,358	\$ -
0083	254	3310.27500	Powerhouse Substructure	Ductbank to SWYD c/w Elect MHs	10,652	\$ 803,722	0%	-	-	-	-	0%	-	-	-	\$ -	10,652	\$ 75.45	\$ 803,722	10,652	0	\$ 803,722	\$ 803,722	\$ 0
0084	274	3310.28300	Powerhouse Substructure	Rebar	278,095	\$ 20,921,497	0%	-	-	-	-	0%	-	-	-	\$ 4,720	282,841	\$ 75.31	\$ 21,301,964	282,841	4,747	\$ 21,306,684	\$ 21,306,684	\$ 385,187
0085	314	3320.25000	Intake And Powerhouse Superstructure	Concrete, Metal Embeds & ABs	5,951	\$ 480,386	0%	-	-	-	-	0%	-	-	-	\$ -	5,951	\$ 80.72	\$ 480,386	5,951	-	\$ 480,386	\$ 480,386	\$ -
0086	280	3320.31000	Intake And Powerhouse Superstructure	Structural Steel	90,039	\$ 7,276,125	0%	-	-	-	-	0%	-	-	-	\$ -	90,039	\$ 80.81	\$ 7,276,125	90,039	-	\$ 7,276,125	\$ 7,276,125	\$ -
0087	304	3320.33000	Intake And Powerhouse Superstructure	Misc Steel	34,703	\$ 2,781,116	0%	-	-	-	-	0%	-	-	-	\$ -	34,703	\$ 80.14	\$ 2,781,116	34,703	-	\$ 2,781,116	\$ 2,781,116	\$ -
0088	332A	3320.39130	Intake And Powerhouse Superstructure	Intumescent Paint	10,709	\$ 841,119	0%	-	-	-	-	0%	-	-	-	\$ -	10,709	\$ 78.55	\$ 841,119	10,709	-	\$ 841,119	\$ 841,119	\$ -
0089	343	3320.41000	Intake And Powerhouse Superstructure	Roofing	3,082	\$ 250,291	0%	-	-	-	-	0%	-	-	-	\$ -	3,082	\$ 81.21	\$ 250,291	3,082	-	\$ 250,291	\$ 250,291	\$ -
0090	339	3320.42000	Intake And Powerhouse Superstructure	Siding, Doors & Windows	26,230	\$ 2,098,573	0%	-	-	-	-	0%	-	-	-	\$ -	26,230	\$ 80.01	\$ 2,098,573	26,230	-	\$ 2,098,573	\$ 2,098,573	\$ -
0091	356	3320.42400	Intake And Powerhouse Superstructure	Masonry	112	\$ 9,005	0%	-	-	-	-	0%	-	-	-	\$ -	112	\$ 80.74	\$ 9,005	112	-	\$ 9,005	\$ 9,005	\$ -
0092	358A	3340.77000	Powerhouse - Building Electrical Services	Lighting	3,615	\$ 352,791	0%	-	-	-	-	0%	-	-	-	\$ -	3,615	\$ 97.60	\$ 352,791	3,615	-	\$ 352,791	\$ 352,791	\$ -
0093	378	3350.61000	Bldg Mechanical Services	Piping/Mech Systems	13,202	\$ 1,144,231	0%	-	-	-	-	0%	-	-	-	\$ -	13,202	\$ 86.67	\$ 1,144,231	13,202	-	\$ 1,144,231	\$ 1,144,231	\$ -
0094	362A	3430.78100	Turbine Generator And Ancillaries - Electrical Work	Conduit	1,338	\$ 130,540	0%	-	-	-	-	0%	-	-	-	\$ -	1,338	\$ 97.60	\$ 130,540	1,338	-	\$ 130,540	\$ 130,540	\$ -
0095	359	3430.78910	Turbine Generator And Ancillaries - Electrical Work	Grounding	5,849	\$ 570,846	0%	-	-	-	-	0%	-	-	-	\$ -	5,849	\$ 97.60	\$ 570,846	5,849	-	\$ 570,846	\$ 570,846	\$ -
0096	381	3440.61000	PH Mech Ancillary/Auxiliary Systems	Piping/Mech Systems	51,470	\$ 4,460,995	0%	-	-	-	-	0%	-	-	-	\$ -	51,470	\$ 86.67	\$ 4,460,995	51,470	-	\$ 4,460,995	\$ 4,460,995	\$ -
				Subtotal - Directs	3,076,339	\$ 235,153,109	0%	-	210,210	-	17,157,736	4%	135,844	683,762	0.20	\$ 52,158,742	2,746,355	\$ 212,876,746	3,430,118	353,779	\$ 265,035,488	\$ 265,035,488	\$ 29,882,379	
				Total Labour (Before Changes)	6,826,478	\$ 543,130,225	0%	-	1,095,081	-	17,157,736	0%	2,493,836	683,762	0.20	\$ 186,115,282	2,746,355	\$ 408,095,225	8,070,645	1,244,167	\$ 642,429,141	\$ 642,429,141	\$ 99,298,916	

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Productivity and Cost Report - Labour Only
Summary by Nalcor Cost Code / Pay Item

Compare with Earn Value Report

Use Earned Value Report for Monthend Submission

Est Only for Ex

Est Only for Ex

Show for IC

Show for ME

Pay Item	Bid Item	Nalcor Cost Code	Structure	Sub-Structure / Description	Budget		Period = Cumulative - Previous				Cumulative to Date					Estimate to Complete			Estimate at Completion						
					Labour Hours	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	% Spent	Contract Plan Hrs	Actual Hrs	Variance Hrs	\$ Amount	Hrs	Labour Rate	\$ Amount	Hrs	Hrs Variance	\$ Amount	\$ Amount from EV	\$ Variance	
																									Period Dec-14
		Change Orders	Change Orders	Change Orders	-	\$ -	0%	-	-	-	-	-	0%	-	1,290	-	\$ 262,272	-	\$ -	\$ -	3,268	3,268	\$ 262,272	\$ 262,272	\$ 262,272
		CHO-0001		Emergency Work at MacKenzie Brook Bridge & Installation of a bypass											1,290		\$ 108,390		\$ -	\$ -	1,290	1,290	\$ 108,390	\$ 108,390	\$ 108,390
		CHO-0002		Completion of Construction Power Requirements													\$ 153,882		\$ -	\$ -	1,979	1,979	\$ 153,882	\$ 153,882	\$ 153,882
																	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
																	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
																	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
																	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
				Subtotal with Approved Changes	6,826,478	\$ 543,130,225	0%	-	1,095,081	-	-	-	0%	-	2,495,126	-	\$ 186,377,554	-	\$ -	\$ 408,095,225	8,073,913	1,247,435	\$ 642,691,413	\$ 642,691,413	\$ 99,561,188
		Change Requests	Change Requests	Change Requests	-	\$ -	0%	-	-	-	-	-	0%	-	59,564	-	\$ 4,978,795	-	\$ -	\$ 258,090	57,585	57,585	\$ 4,978,795	\$ 4,978,795	\$ 4,978,795
		CHR-1001		Supply & Install Second Stage Concrete for Hydro-Mechanical Embedded Parts													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1002		Provide optional unit prices for the supply & transportaio of aggregate to other contractors at the switchyard/converter area													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1003		Provision of bus service between Goosebay, North West River & Sheshatshu, plus Goosebay, Goosebay Airport & The Accomodation Complex													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1004		Take over the provision of all stipulated sanitary cleaning required of the washcars including supply of all associated consumables													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1005		Ref: ECN-0001 & ECN-0002 These two ECN(s) covered IFC Technical Specifications, Drawings & Piping Isometric Drawings that were either not previously released to contractor or are revised IFC documents													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1006		Mobilization & Set-up of required equipment & the crushing/Stockpiling of the three types of aggregate as required													\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-1007	Becomes Change Order CHO-0002	Completion of construction Power Requirements											1,979		\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHR-2022		Spillway Upstream rock face reconstruction											6,168		\$ 499,696		\$ -	\$ -	6,168	6,168	\$ 499,696	\$ 499,696	\$ 499,696
		40-12500-E		Spillway rock profile increased complexity											27,735		\$ 2,343,314		\$ 3,471	\$ -	27,735	27,735	\$ 2,343,314	\$ 2,343,314	\$ 2,343,314
		CON-028													20,710		\$ 1,718,898		\$ 72,264	\$ -	20,710	20,710	\$ 1,718,898	\$ 1,718,898	\$ 1,718,898
		CON-033													328		\$ 45,488		\$ 33,323	\$ -	328	328	\$ 45,488	\$ 45,488	\$ 45,488
		CON-041													300		\$ 26,411		\$ -	\$ -	300	300	\$ 26,411	\$ 26,411	\$ 26,411
		CON-061													1,638		\$ 136,691		\$ -	\$ -	1,638	1,638	\$ 136,691	\$ 136,691	\$ 136,691
		SIN-009													561		\$ 46,906		\$ -	\$ -	561	561	\$ 46,906	\$ 46,906	\$ 46,906
		CTU3A-RR													98		\$ 7,176		\$ -	\$ -	98	98	\$ 7,176	\$ 7,176	\$ 7,176
		I2B-RB													47		\$ 5,184		\$ -	\$ -	47	47	\$ 5,184	\$ 5,184	\$ 5,184
		AH-001															\$ 14,533		\$ 14,533	\$ -	-	-	\$ 14,533	\$ 14,533	\$ 14,533
		FWO-016															\$ 124,333		\$ -	\$ -	-	-	\$ -	\$ -	\$ -
		SIN-016															\$ 10,165		\$ -	\$ -	-	-	\$ 10,165	\$ 10,165	\$ 10,165
		FWO-016															\$ -		\$ 124,334	\$ -	-	-	\$ 124,334	\$ 124,334	\$ 124,334
																	\$ -		\$ -	\$ -	-	-	\$ -	\$ -	\$ -
				Total with Approved and Unapproved Changes	6,826,478	\$ 543,130,225	0%	-	1,095,081	-	-	-	0%	-	2,554,690	-	\$ 191,356,349	-	\$ -	\$ 408,353,314	8,131,498	1,305,020	\$ 647,670,208	\$ 647,670,208	\$ 104,539,983
		Rework	Description	Description	-	\$ -	0%	-	-	-	-	-	0%	-	841	-	\$ -	-	\$ -	\$ -	-	-	\$ -	\$ -	\$ -
		10760-RW1	ICS Line C Rework	Not Reimbursed by Nalcor											687		\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
		CHO-0002	Waterstop Rework in Lift # SWB3C	Not Reimbursed by Nalcor											154		\$ -		\$ -	\$ -			\$ -	\$ -	\$ -

CH0007 Construction of Intake and Powerhouse, Spillway, and Transition Dams

Non- Labour Cost Summary

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative 25-Nov-14		Period Dec-14		Cumulative to Date 25-Dec-14						Forecast to Complete		Forecast at Completion	
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount
0098	18	0000.92260	0000.92260.18	Indirects	M&E-Indirect Costs - Financing, Contingency, Overheads, Fees, etc.	1	LS	\$ 55,358,052	\$ 55,358,052	0%	\$ 13,839,513	\$ 908,331	30	0.77	-	-	-	\$ 14,747,844	\$ 40,610,208	1	\$ 55,358,052		
					Financing, Contingency, Head Office Overheads, & Consultant Fees	1	LS	\$ 55,358,052	\$ 55,358,052	0.25	\$ 13,839,513	\$ 908,331	0.27	30	0.77	1,022,364	39,322	-	\$ 14,747,844	0.73	\$ 40,610,208	1	\$ 55,358,052
0099	10	0000.92290	0000.92290.10	Indirects	M&E-Indirect Costs - Health and Safety Requirements	1	LS	\$ 2,732,513	\$ 2,732,513	-	\$ 603,066	\$ 12,831	30	0.77	-	-	-	\$ 615,897	\$ 2,116,616	1	\$ 2,732,513		
					Health and Safety Requirements	1	LS	\$ 2,732,513	\$ 2,732,513	0.22	\$ 603,066	\$ 12,831	0.23	30	0.77	(27,407)	(1,054)	12,831	\$ 615,897	0.77	\$ 2,116,616	1	\$ 2,732,513
0100	11	0000.924E0	0000.924E0.11	Indirects	M&E-Indirect Costs - Environmental Requirements	1	LS	\$ 24,075	\$ 24,075	-	\$ 5,648	\$ 120	30	0.77	-	-	-	\$ 5,768	\$ 18,307	1	\$ 24,075		
					Environmental Requirements	1	LS	\$ 24,075	\$ 24,075	0.23	\$ 5,648	\$ 120	0.24	30	0.77	(85)	(3)	120	\$ 5,768	0.76	\$ 18,307	1	\$ 24,075
0101	6	0000.92600	0000.92600.6	Indirects	M&E-Indirect Costs - Management and Staff	1	LS	\$ 10,263,111	\$ 10,263,111	-	\$ 2,433,384	\$ 44,071	30	0.77	-	-	-	\$ 2,477,454	\$ 7,785,656	1	\$ 10,263,111		
					Management and Staff	1	LS	\$ 10,263,111	\$ 10,263,111	0.24	\$ 2,433,384	\$ 44,071	0.24	30	0.77	49,604	1,908	-	\$ 2,477,454	0.76	\$ 7,785,656	1	\$ 10,263,111
0102	19A	0000.93100	0000.93100.19A	Indirects	M&E-Indirect Costs - Estimate of Travel Allowances - Trades Labour	1	LS	\$ 29,057,891	\$ 29,057,891	-	\$ 2,163,662	\$ 261,029	30	0.77	-	-	-	\$ 2,424,691	\$ 26,633,200	1	\$ 29,057,891		
					Estimate of Travel Allowances - Trades Labour	1	LS	\$ 29,057,891	\$ 29,057,891	0.07	\$ 2,163,662	\$ 261,029	0.08	30	0.77	293,799	11,300	-	\$ 2,424,691	0.92	\$ 26,633,200	1	\$ 29,057,891
0103	30	0000.94110	0000.94110.30	Indirects	M&E-Indirect Costs - Chain Link Fences And Gates	1	m	\$ 170	\$ 170	-	\$ 8,485	\$ -	30	0.77	-	-	-	\$ -	\$ 8,485	1	\$ 170		
					Chain Link Fences and Gates in the Powerhouse Parking and Contractor's Laydown	1	m	\$ 170	\$ 170	-	\$ 8,485	\$ -	-	30	0.77	-	-	-	\$ -	-	1	\$ 170	
0104	4	0000.94120	0000.94120.4	Indirects	M&E-Indirect Costs - Temporary Works (Temp Access & Ramps)	1	LS	\$ 1,065,868	\$ 1,065,868	-	\$ 913,343	\$ 588,024	30	0.77	-	-	-	\$ 1,501,367	\$ (435,498)	1	\$ 1,065,868		
					Temporary Works	1	LS	\$ 1,065,868	\$ 1,065,868	0.86	\$ 913,343	\$ 588,024	1.41	30	0.77	661,845	25,456	-	\$ 1,501,367	(0.41)	\$ (435,498)	1	\$ 1,065,868
0105	2	0000.94200	0000.94200.2	Indirects	M&E-Indirect Costs - Site Installation (Temp Bldgs)	1	LS	\$ 20,028,886	\$ 20,028,886	-	\$ 16,619,969	\$ 353,616	30	0.77	-	-	-	\$ 16,973,586	\$ 3,055,300	1	\$ 20,028,886		
					Site Installation	1	LS	\$ 20,028,886	\$ 20,028,886	0.83	\$ 16,619,969	\$ 353,616	0.85	30	0.77	(2,964,998)	(114,038)	353,616	\$ 16,973,586	0.15	\$ 3,055,300	1	\$ 20,028,886
0106	27	0000.94292	0000.94292.27	Indirects	M&E-Indirect Costs - Temporary Bridge	1	LS	\$ 831,039	\$ 831,039	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	\$ 831,039	1	\$ 831,039		
					Temporary Downstream Bridge over the Spillway	1	LS	\$ 831,039	\$ 831,039	-	\$ -	\$ -	-	30	0.77	-	-	-	\$ -	-	1	\$ 831,039	
0107	8	0000.94500	0000.94500.8	Indirects	M&E-Indirect Costs - Services	1	LS	\$ 15,363,286	\$ 15,363,286	-	\$ 5,023,795	\$ 1,246,444	30	0.77	-	-	-	\$ 6,270,238	\$ 9,093,048	1	\$ 15,363,286		
					Services	1	LS	\$ 15,363,286	\$ 15,363,286	0.33	\$ 5,023,795	\$ 1,246,444	0.41	30	0.77	1,402,924	53,959	-	\$ 6,270,238	0.59	\$ 9,093,048	1	\$ 15,363,286
0108	17	0000.94620	0000.94620.17	Indirects	M&E-Indirect Costs - Road Maint & Snow Clearing	1	LS	\$ 5,743,115	\$ 5,743,115	-	\$ 1,320,602	\$ 28,635	30	0.77	-	-	-	\$ 1,349,237	\$ 4,756,410	1	\$ 5,743,115		
					Site Maintenance	1	LS	\$ 5,743,115	\$ 5,743,115	0.23	\$ 1,295,072	\$ 27,555	0.23	30	0.77	(46,881)	(1,803)	27,555	\$ 1,322,627	0.77	\$ 4,420,488	1	\$ 5,743,115
	17A	0000.94620.17A	0000.94620.17A		Maintenance Grade No. 3 Material	7,200	m³	\$ 16	\$ 113,934	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	-	7,200	\$ 113,934	7,200	\$ 113,934
	17B	0000.94620.17B	0000.94620.17B		Coarse Sand	2,900	m³	\$ 17	\$ 49,772	1,543.29	\$ 25,529	\$ 1,080	1,609	30	0.77	1,216	47	-	\$ 26,610	1,291	\$ 21,363	2,900	\$ 49,772
	17C	0000.94620.17C	0000.94620.17C		Calcium Chloride (20 kg bag)	12,500	each	\$ 16	\$ 200,625	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	-	12,500	\$ 200,625	12,500	\$ 200,625
0109	5	0000.94630	0000.94630.5	Indirects	M&E-Indirect Costs - Winter Protection	1	LS	\$ 17,810,471	\$ 17,810,471	-	\$ 5,873,893	\$ 124,976	30	0.77	-	-	-	\$ 5,998,870	\$ 11,811,601	1	\$ 17,810,471		
					Winter Protection	1	LS	\$ 17,810,471	\$ 17,810,471	0.33	\$ 5,873,893	\$ 124,976	0.23	30	0.77	(4,574,920)	(175,958)	124,976	\$ 5,998,870	0.77	\$ 11,811,601	1	\$ 17,810,471
0110	29	0000.94650	0000.94650.29	Indirects	M&E-Indirect Costs - Temp Heat, Ventilation & Lighting of Powerhouse	1	LS	\$ 4,774,603	\$ 4,774,603	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	\$ 4,774,603	1	\$ 4,774,603		
					Temporary Heating, Ventilating and Lighting of Powerhouse	1	LS	\$ 4,774,603	\$ 4,774,603	-	\$ -	\$ -	0.23	30	0.77	-	-	-	\$ -	0.77	\$ 4,774,603	1	\$ 4,774,603
0111	19	0000.94660	0000.94660.19	Indirects	M&E-Indirect Costs - Demobilization	1	LS	\$ 6,480,990	\$ 6,480,990	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	\$ 6,480,990	1	\$ 6,480,990		
					Demobilization	1	LS	\$ 6,480,990	\$ 6,480,990	-	\$ -	\$ -	0.23	30	0.77	-	-	-	\$ -	0.77	\$ 6,480,990	1	\$ 6,480,990
0112	1	0000.94910	0000.94910.1	Indirects	M&E-Indirect Costs - Mobilization	1	LS	\$ 8,326,992	\$ 8,326,992	-	\$ 8,326,992	\$ -	30	0.77	-	-	-	\$ 8,326,992	\$ (0)	1	\$ 8,326,992		
					Mobilization	1	LS	\$ 8,326,992	\$ 8,326,992	1.00	\$ 8,326,992	\$ -	0.23	30	0.77	0	0	-	\$ 8,326,992	0.77	\$ (0)	1	\$ 8,326,992
0113	6A	0000.95640	0000.95640.6A	Indirects	M&E-Indirect Costs - Design and Technical Assistance	1	LS	\$ 1,334,825	\$ 1,334,825	-	\$ 326,098	\$ 6,938	30	0.77	-	-	-	\$ 333,036	\$ 1,001,789	1	\$ 1,334,825		
					Design and Technical Assistance	1	LS	\$ 1,334,825	\$ 1,334,825	0.24	\$ 326,098	\$ 6,938	0.23	30	0.77	(278,789)	(10,723)	6,938	\$ 333,036	0.77	\$ 1,001,789	1	\$ 1,334,825
0114	3	0000.96000	0000.96000.3	Indirects	M&E-Indirect Costs - Contractor Equipment for Indirects	1	LS	\$ 12,647,314	\$ 12,647,314	-	\$ 4,135,672	\$ 1,169,822	30	0.77	-	-	-	\$ 5,305,494	\$ 7,341,820	1	\$ 12,647,314		
					Contractor Equipment for Indirects	1	LS	\$ 12,647,314	\$ 12,647,314	0.33	\$ 4,135,672	\$ 1,169,822	0.23	30	0.77	1,316,683	50,642	-	\$ 5,305,494	0.77	\$ 7,341,820	1	\$ 12,647,314
0115	32	0000.96100	0000.96100.32	Indirects	M&E-Indirect Costs - Anchor Points	50	each	\$ 187	\$ 9,348	-	\$ 6,061	\$ -	30	0.77	-	-	-	\$ 6,061	\$ 3,287	50	\$ 9,348		
					Anchor Points at Powerhouse and Spillway	50	each	\$ 187	\$ 9,348	32.42	\$ 6,061	\$ -	32	30	0.77	-	-	-	\$ 6,061	18	\$ 3,287	50	\$ 9,348
0116	28	0000.96400	0000.96400.28	Indirects	M&E-Indirect Costs - Powerhouse - Construction Crane	1	LS	\$ 642,583	\$ 642,583	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	\$ 642,583	1	\$ 642,583		
					Powerhouse - Construction Crane	1	LS	\$ 642,583	\$ 642,583	-	\$ -	\$ -	0.23	30	0.77	-	-	-	\$ -	0.77	\$ 642,583	1	\$ 642,583
0117	26	0000.96610	0000.96610.26	Indirects	M&E-Indirect Costs - Dewatering Of Structure Areas	1	LS	\$ 829,609	\$ 829,609	-	\$ 211,550	\$ 4,501	30	0.77	-	-	-	\$ 216,051	\$ 613,557	1	\$ 829,609		
					Structure Areas	1	LS	\$ 829,609	\$ 829,609	0.26	\$ 211,550	\$ 4,501	0.23	30	0.77	(356,115)	(13,697)	4,501	\$ 216,051	0.77	\$ 613,557	1	\$ 829,609
0118	31	0000.96800	0000.96800.31	Indirects	M&E-Indirect Costs - Temp Lateral Support & Bracings-Spillway Piers	1	LS	\$ 55,341	\$ 55,341	-	\$ -	\$ -	30	0.77	-	-	-	\$ -	\$ 55,341	1	\$ 55,341		
					Temporary Lateral Support and Bracings for Piers of the Spillway	1	LS	\$ 55,341	\$ 55,341	-	\$ -	\$ -	0.23	30	0.77	-	-	-	\$ -	0.77	\$ 55,341	1	\$ 55,341
0119	15	0000.98100	0000.98100.15	Indirects	M&E-Indirect Costs - Contractor Insurance	1	LS	\$ 5,576,498	\$ 5,576,498	-	\$ 1,303,228	\$ 45,612	30	0.77	-	-	-	\$ 1,348,840	\$ 4,227,658	1	\$ 5,576,498		
					Contractor Insurance, per Article 18 of the Agreement	1	LS	\$ 5,576,498	\$ 5,576,498	0.23	\$ 1,303,228	\$ 45,612	0.23	30	0.77	51,338	1,975	-	\$ 1,348,840	0.77	\$ 4,227,658	1	\$ 5,576,498
0120	13	0000.98200	0000.98200.13	Indirects	M&E-Indirect Costs - Letters of Credit	1	LS	\$ 31,723,429	\$ 31,723,429	-	\$ 7,413,765	\$ 178,694	30	0.77	-	-	-	\$ 7,592,459	\$ 24,130,970	1	\$ 31,723,429		
					Letters of Credit	1	LS	\$ 31,723,429	\$ 31,723,429	0.23	\$ 7,413,765	\$ 178,694	0.23										

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative		Period		Cumulative to Date						Forecast to Complete		Forecast at Completion			
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount
0124		2361.13360		Dams	M&E-North Transition Dam - Drilling, Pressure Grouting and Drainage				\$ 117,484	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 117,484	\$ 117,484	
	38	2361.13360.38			Grouting Holes	200	m	\$ 167	\$ 33,409	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 33,409	\$ 33,409	
	39	2361.13360.39			Grouting - Successful Connections	40	each	\$ 632	\$ 25,265	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 25,265	\$ 25,265	
	40	2361.13360.40			Dry Cement for Grouting	7,000	kg	\$ 3	\$ 19,407	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 19,407	\$ 19,407	
	41	2361.13360.41			Water Pressure Tests (Lugeon)	4	hour	\$ 636	\$ 2,544	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,544	\$ 2,544	
	42	2361.13360.42			Water Pressure Tests - Successful Connections	10	each	\$ 189	\$ 1,894	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 1,894	\$ 1,894	
	43	2361.13360.43			Uplift Gauges	25	m	\$ 225	\$ 5,618	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 5,618	\$ 5,618	
	44	2361.13360.44			Thermistors	1	each	\$ 4,869	\$ 4,869	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 4,869	\$ 4,869	
	45	2361.13360.45			Rotary/Percussion Drill Check Holes	25	m	\$ 146	\$ 3,651	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 3,651	\$ 3,651	
	46	2361.13360.46			Cored (Diamond drill) holes	25	m	\$ 452	\$ 11,302	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 11,302	\$ 11,302	
	47	2361.13360.47			Drainage Holes	65	m	\$ 125	\$ 8,137	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 8,137	\$ 8,137	
	48	2361.13360.48			PVC Caps for Drainage Holes	5	each	\$ 193	\$ 963	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 963	\$ 963	
	49	2361.13360.49			Survey Monuments	1	each	\$ 425	\$ 425	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 425	\$ 425	
0125		2361.25000		Dams	M&E-North Transition Dam - Concrete, Metal Embeds & Abs				\$ 2,087,868	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,087,868	\$ 2,087,868	
	50	2361.25000.50			Concrete	9,130	m³	\$ 227	\$ 2,068,197	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,068,197	\$ 2,068,197	
	50A	2361.25000.50A			PVC Waterstop - TYPE A (150 mm width)	30	m	\$ 12	\$ 358	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 358	\$ 358	
	51	2361.25000.51			PVC Waterstop - TYPE B (225 mm width)	315	m	\$ 19	\$ 6,090	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 6,090	\$ 6,090	
	52	2361.25000.52			Hydrophilic Waterstop	22	m	\$ 23	\$ 509	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 509	\$ 509	
	53	2361.25000.53			Bituminous Coating at Contraction Joints	570	m²	\$ 16	\$ 9,029	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 9,029	\$ 9,029	
	57	2361.25000.57			Embedded Miscellaneous Steel (Frames, L Shapes, Sleeves, etc...)	190	kg	\$ 10	\$ 1,915	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 1,915	\$ 1,915	
	58	2361.25000.58			Anchor Bolts Grade 55 ASTM F1554	535	kg	\$ 3	\$ 1,772	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 1,772	\$ 1,772	
0126		2361.28300		Dams	M&E-North Transition Dam - Rebar				\$ 85,333	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 85,333	\$ 85,333	
	54	2361.28300.54			Reinforcement including Dowels	55,000	kg	\$ 2	\$ 85,333	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 85,333	\$ 85,333	
0127		2361.33000		Dams	M&E-North Transition Dam - Misc Steel				\$ 159,085	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 159,085	\$ 159,085	
	55	2361.33000.55			Galvanized Miscellaneous Steel	10,600	kg	\$ 10	\$ 101,590	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 101,590	\$ 101,590	
	56	2361.33000.56			Galvanized Grating	5,100	kg	\$ 11	\$ 57,495	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 57,495	\$ 57,495	
0128		2361.78100		Dams	M&E-North Transition Dam - Conduit				\$ 10,031	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 10,031	\$ 10,031	
	61B	2361.78100.61B			Rigid PVC Conduit, size 129mm	75	m	\$ 134	\$ 10,031	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 10,031	\$ 10,031	
0129		2361.78910		Dams	M&E-North Transition Dam - Grounding				\$ 19,883	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 19,883	\$ 19,883	
	59	2361.78910.59			Exothermic Connections.	30	each	\$ 157	\$ 4,702	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 4,702	\$ 4,702	
	59A	2361.78910.59A			Mechanical Connections	4	each	\$ 226	\$ 906	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 906	\$ 906	
	60	2361.78910.60			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	200	m	\$ 65	\$ 12,900	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 12,900	\$ 12,900	
	61	2361.78910.61			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	30	m	\$ 30	\$ 890	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 890	\$ 890	
	61A	2361.78910.61A			Embedded Copper Grounding Plates	1	each	\$ 486	\$ 486	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 486	\$ 486	
0130		2362.12500		Dams	M&E-Centre Transition Dam - Foundation Preparation				\$ 82,744	-	\$ 6,410	\$ -	-	30	0.77						\$ -	\$ 6,410	\$ 76,334	\$ 82,744	
	62	2362.12500.62			Fill Excavation (Sand Layer for Winter Protection)	2,100	m³	\$ 16	\$ 34,143	285.00	\$ 4,634	\$ -	-	30	0.77						\$ -	\$ 4,634	\$ 29,509	\$ 34,143	
	63	2362.12500.63			Dental Excavation	80	m³	\$ 11	\$ 864	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 864	\$ 864	
	64	2362.12500.64			Scaling and Water/Air Jet Cleaning of Bedrock	1,430	m²	\$ 1	\$ 1,775	1,431.04	\$ 1,776	\$ -	-	30	0.77						\$ -	\$ 1,776	\$ (1)	\$ 1,775	
	65	2362.12500.65			Dental Concrete	215	m³	\$ 200	\$ 42,999	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 42,999	\$ 42,999	
	66	2362.12500.66			Dry Pack	10	m³	\$ 296	\$ 2,964	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,964	\$ 2,964	
0131		2362.13360		Dams	M&E-Centre Transition Dam - Drilling, Pressure Grouting and Drainage				\$ 314,379	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 314,379	\$ 314,379	
	67	2362.13360.67			Grouting Holes	600	m	\$ 167	\$ 100,227	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 100,227	\$ 100,227	
	68	2362.13360.68			Grouting - Successful Connections	120	each	\$ 632	\$ 75,796	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 75,796	\$ 75,796	
	69	2362.13360.69			Dry Cement for Grouting	20,000	kg	\$ 3	\$ 55,447	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 55,447	\$ 55,447	
	70	2362.13360.70			Water Pressure Tests (Lugeon)	4	hour	\$ 636	\$ 2,544	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,544	\$ 2,544	
	71	2362.13360.71			Water Pressure Tests - Successful Connections	10	each	\$ 189	\$ 1,894	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 1,894	\$ 1,894	
	72	2362.13360.72			Uplift Gauges	30	m	\$ 225	\$ 6,741	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 6,741	\$ 6,741	
	73	2362.13360.73			Thermistors	1	each	\$ 4,869	\$ 4,869	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 4,869	\$ 4,869	
	74	2362.13360.74			Rotary/Percussion Drill Check Holes	25	m	\$ 146	\$ 3,651	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 3,651	\$ 3,651	
	75	2362.13360.75			Cored (Diamond drill) holes	25	m	\$ 452	\$ 11,302	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 11,302	\$ 11,302	
	76	2362.13360.76			Drainage Holes	200	m	\$ 125	\$ 25,038	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 25,038	\$ 25,038	
	77	2362.13360.77			PVC Caps for Drainage Holes	20	each	\$ 193	\$ 3,852	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 3,852	\$ 3,852	
	78	2362.13360.78			Survey Monuments	5	each	\$ 425	\$ 2,124	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 2,124	\$ 2,124	
	79	2362.13360.79			Hydraulic piezometers	3	each	\$ 6,964	\$ 20,893	-	\$ -	\$ -	-	30	0.77						\$ -	\$ -	\$ 20,893	\$ 20,893	
0132		2362.25000		Dams	M&E-Centre Transition Dam - Concrete, Metal Embeds & Abs				\$ 6,945,695	-	\$ 742,495	\$ 260,482	1,161	30	0.77						\$ -	\$ 1,002,977	\$ 5,942,718	\$ 6,945,695	
	81	2362.25000.81			Concrete Below El. 42.00 m	26,900	m³	\$ 224	\$ 6,035,248	3,273.08	\$ 734,343	\$ 260,482	1,161	30	0.77						\$ 260,482	\$ 994,825	\$ 5,040,423	\$ 6,035,248	
	82	2362.25000.82			Concrete Above El. 42.00 m	2,550	m³	\$ 238	\$ 607,850	-	\$ -	\$ -													

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative		Period Dec-14		Cumulative to Date						Forecast to Complete		Forecast at Completion					
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount		
																										25-Nov-14	
0136		2362.78100		Dams	M&E-Centre Transition Dam - Conduit				\$ 15,060	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,060	\$ 15,060
	101A	2362.78100.101A			Rigid PVC Conduit, size 53mm	3	m	\$ 116	\$ 347	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 347	\$ 347
	103	2362.78100.103			Rigid PVC Conduit, size 129mm	110	m	\$ 134	\$ 14,713	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,713	\$ 14,713
0137		2362.78910		Dams	M&E-Centre Transition Dam - Grounding				\$ 65,685	-	\$ 5,140	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,545	\$ 65,685
	97	2362.78910.97			Exothermic Connections.	140	each	\$ 157	\$ 21,943	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,943	\$ 21,943
	97A	2362.78910.97A			Mechanical Connections	17	each	\$ 226	\$ 3,850	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,850	\$ 3,850
	98	2362.78910.98			Embedded Copper Grounding Plates	2	each	\$ 486	\$ 971	2.00	\$ 971	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 971	\$ 971	
	99	2362.78910.99			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	500	m	\$ 65	\$ 32,249	58.29	\$ 3,760	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,760	\$ 32,249	
	100	2362.78910.100			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	225	m	\$ 30	\$ 6,672	13.80	\$ 409	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 409	\$ 6,672	
0138		2363.12500		Dams	M&E-South Transition Dam - Foundation Preparation				\$ 52,330	-	\$ 13,925	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,405	\$ 52,330
	105	2363.12500.105			Fill Excavation (Sand Layer for Winter Protection)	1,350	m³	\$ 16	\$ 21,949	800.19	\$ 13,010	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,010	\$ 8,939	\$ 21,949
	106	2363.12500.106			Dental Excavation	45	m³	\$ 11	\$ 486	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 486	\$ 486
	107	2363.12500.107			Scaling and Water/Air Jet Cleaning of Bedrock	900	m²	\$ 1	\$ 1,117	737.09	\$ 915	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ 915	\$ 202	\$ 1,117
	108	2363.12500.108			Dental Concrete	135	m³	\$ 200	\$ 26,999	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,999	\$ 26,999
	109	2363.12500.109			Dry Pack	6	m³	\$ 296	\$ 1,778	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,778	\$ 1,778
0139		2363.13360		Dams	M&E-South Transition Dam - Drilling, Pressure Grouting and Drainage				\$ 278,280	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 278,280	\$ 278,280
	110	2363.13360.110			Grouting Holes	500	m	\$ 167	\$ 83,523	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 83,523	\$ 83,523
	111	2363.13360.111			Grouting - Successful Connections	100	each	\$ 632	\$ 63,163	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,163	\$ 63,163
	112	2363.13360.112			Dry Cement for Grouting	18,000	kg	\$ 3	\$ 49,903	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49,903	\$ 49,903
	113	2363.13360.113			Water Pressure Tests (Lugeon)	5	hour	\$ 636	\$ 3,181	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,181	\$ 3,181
	114	2363.13360.114			Water Pressure Tests - Successful Connections	12	each	\$ 189	\$ 2,273	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,273	\$ 2,273
	115	2363.13360.115			Uplift Gauges	30	m	\$ 225	\$ 6,741	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,741	\$ 6,741
	116	2363.13360.116			Thermistors	1	each	\$ 4,869	\$ 4,869	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,869	\$ 4,869
	117	2363.13360.117			Rotary/ Percussion Drill Check Holes	30	m	\$ 146	\$ 4,382	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,382	\$ 4,382
	118	2363.13360.118			Cored (Diamond drill) holes	30	m	\$ 452	\$ 13,562	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,562	\$ 13,562
	119	2363.13360.119			Drainage Holes	225	m	\$ 125	\$ 28,168	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,168	\$ 28,168
	120	2363.13360.120			PVC Caps for Drainage Holes	15	each	\$ 193	\$ 2,889	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,889	\$ 2,889
	121	2363.13360.121			Survey Monuments	4	each	\$ 425	\$ 1,699	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,699	\$ 1,699
	122	2363.13360.122			Hydraulic piezometers	2	each	\$ 6,964	\$ 13,929	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,929	\$ 13,929
0140		2363.25000		Dams	M&E-South Transition Dam - Concrete, Metal Embedds & ABs				\$ 2,167,357	-	\$ 31,690	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,135,666	\$ 2,167,357
	124	2363.25000.124			Concrete	9,700	m³	\$ 222	\$ 2,150,975	138.80	\$ 30,779	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,120,196	\$ 2,150,975
	124A	2363.25000.124A			PVC Waterstop - TYPE A (150 mm width)	130	m	\$ 12	\$ 1,551	13.95	\$ 166	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,384	\$ 1,551
	125	2363.25000.125			PVC Waterstop - TYPE B (225 mm width)	170	m	\$ 19	\$ 3,287	38.54	\$ 745	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 745	\$ 3,287
	127	2363.25000.127			Bituminous Coating at Contraction Joints	380	m²	\$ 16	\$ 6,019	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,019	\$ 6,019
	131	2363.25000.131			Embedded Miscellaneous Steel (Frames, L Shapes, Sleeves, etc..)	110	kg	\$ 10	\$ 1,054	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,054	\$ 1,054
	132	2363.25000.132			Anchor Bolts Grade 55 ASTM F1554	1,350	kg	\$ 3	\$ 4,471	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,471	\$ 4,471
0141		2363.28300		Dams	M&E-South Transition Dam - Rebar				\$ 421,352	-	\$ 10,596	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 410,756	\$ 421,352
	128	2363.28300.128			Reinforcement including Dowels	283,300	kg	\$ 1	\$ 421,352	7,124.36	\$ 10,596	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 410,756	\$ 421,352
0142		2363.33000		Dams	M&E-South Transition Dam - Misc Steel				\$ 146,605	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,605	\$ 146,605
	123	2363.33000.123			V-Notch Weirs	1	each	\$ 1,689	\$ 1,689	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,689	\$ 1,689
	129	2363.33000.129			Galvanized Miscellaneous Steel	14,850	kg	\$ 10	\$ 142,322	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,322	\$ 142,322
	130	2363.33000.130			Galvanized Grating	230	kg	\$ 11	\$ 2,593	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,593	\$ 2,593
0143		2363.78100		Dams	M&E-South Transition Dam - Conduit				\$ 579	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 579	\$ 579
	137	2363.78100.137			Rigid PVC Conduit, size 53mm	5	m	\$ 116	\$ 579	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 579	\$ 579
0144		2363.78910		Dams	M&E-South Transition Dam - Grounding				\$ 43,160	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,160	\$ 43,160
	133	2363.78910.133			Exothermic Connections.	100	each	\$ 157	\$ 15,674	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,674	\$ 15,674
	133A	2363.78910.133A			Mechanical Connections	12	each	\$ 226	\$ 2,717	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,717	\$ 2,717
	134	2363.78910.134			Embedded Copper Grounding Plates	2	each	\$ 486	\$ 971	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 971	\$ 971
	135	2363.78910.135			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	300	m	\$ 65	\$ 19,350	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,350	\$ 19,350
	136	2363.78910.136			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	150	m	\$ 30	\$ 4,448	-	\$ -	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,448	\$ 4,448
0145		2364.12500		Dams	M&E-Separation Wall - Foundation Preparation				\$ 29,434	-	\$ 2,285	\$ -		30	0.77					\$ -	\$ -	\$ -	\$ -</				

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative		Period Dec-14		Cumulative to Date						Forecast to Complete		Forecast at Completion			
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount
0149		2410.25000		Spillway	M&E-Spillway Structure - Concrete, Metal Embedds & ABs				\$ 16,697,720		\$ 5,063,838	\$ 848,101	2,417	30	0.77				\$ 5,911,939	\$ 10,785,781		\$ 16,697,720			
	158	2410.25000.158			Concrete - Slabs	13,100	m³	\$ 239	\$ 3,126,099	13,091.28	\$ 3,124,017	\$ -		30	0.77				\$ 3,124,017	\$ 2,082		\$ 3,126,099			
	159	2410.25000.159			Concrete - Piers and Walls	32,900	m³	\$ 351	\$ 11,544,155	3,884.63	\$ 1,363,064	\$ 848,101	2,417	30	0.77			848,101	\$ 2,211,165	\$ 9,332,990		\$ 11,544,155			
	162	2410.25000.162			Overbreak Concrete	3,000	m³	\$ 238	\$ 713,885	1,836.89	\$ 437,110	\$ -		30	0.77				\$ 437,110	\$ 276,774		\$ 713,885			
	163	2410.25000.163			Grout	20	m³	\$ 1,323	\$ 26,455	-	\$ -	\$ -		30	0.77				\$ -	\$ 26,455		\$ 26,455			
	164	2410.25000.164			PVC Waterstop - TYPE A (150 mm width)	4,100	m	\$ 12	\$ 48,906	872.10	\$ 10,403	\$ -		30	0.77				\$ 10,403	\$ 38,504		\$ 48,906			
	164A	2410.25000.164A			PVC Waterstop - TYPE B (225 mm width)	1,000	m	\$ 19	\$ 19,333	558.11	\$ 10,790	\$ -		30	0.77				\$ 10,790	\$ 8,543		\$ 19,333			
	164B	2410.25000.164B			PVC Waterstop - TYPE D	550	m	\$ 44	\$ 24,021	-	\$ -	\$ -		30	0.77				\$ -	\$ 24,021		\$ 24,021			
	166	2410.25000.166			Bituminous Coating at Contraction Joint	950	m²	\$ 16	\$ 15,048	971.40	\$ 15,387	\$ -		30	0.77				\$ -	\$ (339)		\$ 15,048			
	172	2410.25000.172			Embedded Galvanized Miscellaneous Steel (Frames, L Shapes, Sleeves, etc.)	430	kg	\$ 10	\$ 4,121	-	\$ -	\$ -		30	0.77				\$ -	\$ 4,121		\$ 4,121			
	173	2410.25000.173			Bulkhead Formwork - Rollway Joints	13,500	kg	\$ 10	\$ 137,040	-	\$ -	\$ -		30	0.77				\$ -	\$ 137,040		\$ 137,040			
	175	2410.25000.175			Anchor Bolts Grade 55 ASTM F1554	2,520	kg	\$ 3	\$ 8,345	-	\$ -	\$ -		30	0.77				\$ -	\$ 8,345		\$ 8,345			
	176	2410.25000.176			Anchors, Templates and Angles in Primary Concrete for Gates and Rollways (5 Sets)	91,135	kg	\$ 5	\$ 415,802	8,769.45	\$ 40,010	\$ -		30	0.77				\$ 40,010	\$ 375,791		\$ 415,802			
	177	2410.25000.177			Anchors, Templates and Angles in Primary Concrete for Upstream Temporary Stop	75,160	kg	\$ 5	\$ 342,916	7,870.00	\$ 35,907	\$ -		30	0.77				\$ 35,907	\$ 307,009		\$ 342,916			
	178	2410.25000.178			Anchors, Templates and Angles in Primary Concrete for Upstream Permanent Stop	42,492	kg	\$ 5	\$ 193,869	-	\$ -	\$ -		30	0.77				\$ -	\$ 193,869		\$ 193,869			
	179	2410.25000.179			Anchors, Templates and Angles in Primary Concrete for Downstream Stoplogs (5 Sets)	15,497	kg	\$ 5	\$ 70,705	5,950.72	\$ 27,150	\$ -		30	0.77				\$ 27,150	\$ 43,555		\$ 70,705			
	180	2410.25000.180			Anchors and Templates in Primary Concrete for Hoist Towers (5 Sets)	430	kg	\$ 5	\$ 1,962	-	\$ -	\$ -		30	0.77				\$ -	\$ 1,962		\$ 1,962			
	181	2410.25000.181			Anchors and Templates in Primary Concrete for Walkways (5 Sets)	200	kg	\$ 5	\$ 913	-	\$ -	\$ -		30	0.77				\$ -	\$ 913		\$ 913			
	182	2410.25000.182			Liner Plates in sides of Piers	10	each	\$ 415	\$ 4,146	-	\$ -	\$ -		30	0.77				\$ -	\$ 4,146		\$ 4,146			
0150		2410.25100		Spillway	M&E-Spillway Structure - Rollway Concrete				\$ 4,846,147		\$ -	\$ -		30	0.77				\$ -	\$ 4,846,147		\$ 4,846,147			
	160	2410.25100.160			Concrete - Rollways	19,500	m³	\$ 248	\$ 4,843,851	-	\$ -	\$ -		30	0.77				\$ -	\$ 4,843,851		\$ 4,843,851			
	161	2410.25100.161			Demolition of Slab for Rollway Key	200	m³	\$ 11	\$ 2,296	-	\$ -	\$ -		30	0.77				\$ -	\$ 2,296		\$ 2,296			
0151		2410.28300		Spillway	M&E-Spillway Structure - Rebar				\$ 6,079,516		\$ 2,889,288	\$ -		30	0.77				\$ -	\$ 2,889,288	\$ 3,190,228	\$ 6,079,516			
	167	2410.28300.167			Reinforcement including Dowels	3,850,000	kg	\$ 1	\$ 5,726,105	1,854,083.15	\$ 2,757,578	\$ -		30	0.77				\$ 2,757,578	\$ 2,968,527		\$ 5,726,105			
	169	2410.28300.169			Threaded Rebars with Couplers	117,000	kg	\$ 3	\$ 353,411	43,603.94	\$ 131,711	\$ -		30	0.77				\$ 131,711	\$ 221,701		\$ 353,411			
0152		2410.31000		Spillway	M&E-Spillway Structure - Structural Steel				\$ 175,017		\$ -	\$ -		30	0.77				\$ -	\$ 175,017		\$ 175,017			
	170	2410.31000.170			Non Embedded Galvanized Miscellaneous Steel	10,900	kg	\$ 11	\$ 117,073	-	\$ -	\$ -		30	0.77				\$ -	\$ 117,073		\$ 117,073			
	174	2410.31000.174			Rails for Trash Cleaning System	150	m	\$ 386	\$ 57,944	-	\$ -	\$ -		30	0.77				\$ -	\$ 57,944		\$ 57,944			
0153		2410.78100		Spillway	M&E-Spillway Structure - Conduit				\$ 4,762		\$ -	\$ -		30	0.77				\$ -	\$ 4,762		\$ 4,762			
	186	2410.78100.186			Rigid galvanized Steel Conduit, size 53mm	50	m	\$ 95	\$ 4,762	-	\$ -	\$ -		30	0.77				\$ -	\$ 4,762		\$ 4,762			
0154		2410.78910		Spillway	M&E-Spillway Structure - Grounding				\$ 213,849		\$ 89,870	\$ -		30	0.77				\$ -	\$ 89,870	\$ 123,980	\$ 213,849			
	183	2410.78910.183			Exothermic Connections.	290	each	\$ 157	\$ 45,454	131.30	\$ 20,580	\$ -		30	0.77				\$ 20,580	\$ 24,874		\$ 45,454			
	183A	2410.78910.183A			Mechanical Connections	45	each	\$ 226	\$ 10,191	-	\$ -	\$ -		30	0.77				\$ -	\$ 10,191		\$ 10,191			
	184	2410.78910.184			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	2,200	m	\$ 65	\$ 141,897	1,003.37	\$ 64,716	\$ -		30	0.77				\$ 64,716	\$ 77,181		\$ 141,897			
	185	2410.78910.185			Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	550	m	\$ 30	\$ 16,309	154.24	\$ 4,574	\$ -		30	0.77				\$ 4,574	\$ 11,735		\$ 16,309			
0155		2411.25000		Spillway	M&E-Spillway Bridges - Concrete, Metal Embedds & ABs				\$ 284,492		\$ -	\$ 68,394	296	30	0.77				\$ 68,394	\$ 216,098		\$ 284,492			
	187	2411.25000.187			Concrete - Slab on Bridge Deck	460	m³	\$ 231	\$ 106,287	-	\$ -	\$ 68,394	296	30	0.77			68,394	\$ 68,394	\$ 37,893		\$ 106,287			
	192	2411.25000.192			Embedded Galvanized Miscellaneous Steel (Frames, L Shapes, Sleeves, etc.)	12,850	kg	\$ 10	\$ 123,154	-	\$ -	\$ -		30	0.77				\$ -	\$ 123,154		\$ 123,154			
	192A	2411.25000.192A			Shear Studs	3,420	kg	\$ 3	\$ 11,132	-	\$ -	\$ -		30	0.77				\$ -	\$ 11,132		\$ 11,132			
	194	2411.25000.194			Bridge Expansion Joints	12	each	\$ 72	\$ 867	-	\$ -	\$ -		30	0.77				\$ -	\$ 867		\$ 867			
	195	2411.25000.195			Anchor Bolts Grade 55 ASTM F1554	13,000	kg	\$ 3	\$ 43,051	-	\$ -	\$ -		30	0.77				\$ -	\$ 43,051		\$ 43,051			
0156		2411.28300		Spillway	M&E-Spillway Bridges - Rebar				\$ 181,674		\$ -	\$ -		30	0.77				\$ -	\$ 181,674		\$ 181,674			
	188	2411.28300.188			Reinforcement including Dowels	122,150	kg	\$ 1	\$ 181,674	-	\$ -	\$ -		30	0.77				\$ -	\$ 181,674		\$ 181,674			
0157		2411.31000		Spillway	M&E-Spillway Bridges - Structural Steel				\$ 2,227,789		\$ -	\$ -		30	0.77				\$ -	\$ 2,227,789		\$ 2,227,789			
	189	2411.31000.189			Structural Steel - Painted/Galvanized Sections	263,500	kg	\$ 6	\$ 1,591,580	-	\$ -	\$ -		30	0.77				\$ -	\$ 1,591,580		\$ 1,591,580			
	190	2411.31000.190			Non Embedded Galvanized Miscellaneous Steel	58,500	kg	\$ 11	\$ 628,329	-	\$ -	\$ -		30	0.77				\$ -	\$ 628,329		\$ 628,329			
	193	2411.31000.193			Elastomeric Bearing Pads	110	each	\$ 72	\$ 7,880	-	\$ -	\$ -		30	0.77				\$ -	\$ 7,880		\$ 7,880			
0158		2430.12500		Spillway Ro	M&E-Spillway Discharge Channel - Phase 1 - Foundation Preparation				\$ 3,575		\$ -	\$ -		30	0.77				\$ -	\$ 3,575		\$ 3,575			
	196	2430.12500.196			Scaling and Water/Air Jet Cleaning of rock foundation	2,880	m²	\$ 1	\$ 3,575	-	\$ -	\$ -		30	0.77				\$ -	\$ 3,575		\$ 3,575			
0159		2430.13360		Spillway Ro	M&E-Spillway Discharge Channel - Phase 1 - Drilling, Pressure Grouting and Drainage				\$ 108,378		\$ -	\$ -		30	0.77				\$ -	\$ 108,378		\$ 108,378			
	201	2430.13360.201			Drill Holes and Grouting for Rock Dowels	3,650	m	\$ 30	\$ 108,378	-	\$ -	\$ -		30	0.77				\$ -	\$ 108,378		\$ 108,378			
0160		2430.25000		Spillway Ro	M&E-Spillway Discharge Channel - Phase 1 - Concrete, Metal Embedds & ABs				\$ 1,119,853		\$ 13,250	\$ -		30	0.77				\$ 13,250	\$ 1,106,603		\$ 1,119,853			
	197	2430.25000.197			Concrete - Slabs (CVC)	1,725	m³	\$ 281	\$ 485,405	-	\$ -	\$ -		30	0.77				\$ -	\$ 485,405		\$ 485,405			
	198	2430.25000.198			Concrete - Walls (CVC)	700	m³	\$ 335	\$ 234,446	-	\$ -	\$ -		30	0.77				\$ -	\$ 234,446		\$ 234,446			
	199	2430.25000.199			Overbreak Concrete	1,600	m³	\$ 250	\$ 400,002	53.00	\$ 13,250	\$ -		30	0.77				\$ 13,250	\$ 386,752		\$ 400,002			
0161		2430.28300		Spillway Ro	M&E-Spillway Discharge Channel - Phase 1 - Rebar				\$ 215,659		\$ -	\$ -		30	0.77				\$ -	\$ 215,659		\$ 215,659			
	200	2430.28300.200			Reinforcement including Dowels	1																			

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative 25-Nov-14		Period Dec-14		Cumulative to Date 25-Dec-14					Forecast to Complete		Forecast at Completion				
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount
0169		2432.28300		Spillway Ro	M&E-Spillway Discharge Channel - Phase 3 - Optional - Rebar				\$ 237,968		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 237,968	\$ 237,968		
	212		2432.28300.212		Reinforcement including Dowels	160,000	kg	\$ 1	\$ 237,968	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 237,968	\$ 237,968		
0170		3220.12500		Intake	M&E-Intake Structure - Foundation Preparation				\$ 6,082		\$ 4,982	\$ -		30	0.77				\$ -	\$ 4,982		\$ 1,100	\$ 6,082		
	225		3220.12500.225		Scaling and Water/Air Jet Cleaning of rock foundation	4,900	m²	\$ 1	\$ 6,082	4,014.12	\$ 4,982	\$ -		30	0.77				\$ -	\$ 4,982		\$ 1,100	\$ 6,082		
0171		3220.13360		Intake	M&E-Intake Structure - Drilling, Pressure Grouting and Drainage				\$ 942,684		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 942,684	\$ 942,684		
	214		3220.13360.214		Grouting Holes	2,000	m	\$ 167	\$ 334,090	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 334,090	\$ 334,090		
	215		3220.13360.215		Grouting - Successful Connections	400	each	\$ 632	\$ 252,654	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 252,654	\$ 252,654		
	216		3220.13360.216		Dry Cement for grouting	70,000	kg	\$ 3	\$ 194,066	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 194,066	\$ 194,066		
	217		3220.13360.217		Water Pressure Tests (Lugeon)	8	hour	\$ 636	\$ 5,089	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 5,089	\$ 5,089		
	218		3220.13360.218		Water Pressure Tests - Successful Connections	20	each	\$ 189	\$ 3,788	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 3,788	\$ 3,788		
	219		3220.13360.219		Uplift Gauges	30	m	\$ 225	\$ 6,741	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 6,741	\$ 6,741		
	220		3220.13360.220		Thermistors	1	each	\$ 4,869	\$ 4,869	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 4,869	\$ 4,869		
	221		3220.13360.221		Rotary/Percussion Drill Check Holes	50	m	\$ 146	\$ 7,303	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 7,303	\$ 7,303		
	222		3220.13360.222		Cored (Diamond drill) holes	50	m	\$ 452	\$ 22,604	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 22,604	\$ 22,604		
	223		3220.13360.223		Drainage Holes	800	m	\$ 125	\$ 100,152	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 100,152	\$ 100,152		
	224		3220.13360.224		PVC Caps for Drainage Holes	50	each	\$ 193	\$ 9,630	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 9,630	\$ 9,630		
	226		3220.13360.226		Survey Monuments	4	each	\$ 425	\$ 1,699	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 1,699	\$ 1,699		
0172		3220.25000		Intake	M&E-Intake Structure - Concrete, Metal Embeds & Abs				\$ 40,711,118		\$ 517,422	\$ 246,027	931	30	0.77				\$ -	\$ 763,449		\$ 39,947,670	\$ 40,711,118		
	228		3220.25000.228		Concrete - Substructure below El. 45.5 m	143,305	m³	\$ 263	\$ 37,670,754	1,537.62	\$ 404,195	\$ 239,475	911	30	0.77			239,475	\$ 643,670		\$ 37,027,085	\$ 37,670,754			
	229		3220.25000.229		Concrete - Gate Hoist Building and Elevator Room above El. 45.5 m	1,646	m³	\$ 328	\$ 539,243	-	\$ -	\$ 6,552	20	30	0.77				\$ 6,552	\$ -		\$ 532,691	\$ 539,243		
	230		3220.25000.230		Overbreak Concrete	3,000	m³	\$ 225	\$ 674,264	490.01	\$ 110,132	\$ -		30	0.77				\$ -	\$ 110,132		\$ 564,132	\$ 674,264		
	231		3220.25000.231		Grout	30	m³	\$ 1,323	\$ 39,682	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 39,682	\$ 39,682		
	232		3220.25000.232		PVC Waterstop - TYPE A (150 mm width)	8,611	m	\$ 12	\$ 102,715	127.44	\$ 1,520	\$ -		30	0.77				\$ -	\$ 1,520		\$ 101,195	\$ 102,715		
	233		3220.25000.233		PVC Waterstop - TYPE B (225 mm width)	876	m	\$ 19	\$ 16,936	81.49	\$ 1,575	\$ -		30	0.77				\$ -	\$ 1,575		\$ 15,360	\$ 16,936		
	234		3220.25000.234		Sealing of Joints	100	m	\$ 8	\$ 794	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 794	\$ 794		
	235		3220.25000.235		Bituminous Coating at Construction Joints	6,020	m²	\$ 16	\$ 95,358	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 95,358	\$ 95,358		
	235A		3220.25000.235A		Elastomeric Polyurea Membrane	5,803	m²	\$ 95	\$ 550,918	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 550,918	\$ 550,918		
	237		3220.25000.237		Anchors and Templates in Primary Concrete for Intake Gates (12 Sets)	173,672	kg	\$ 3	\$ 435,769	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 435,769	\$ 435,769		
	238		3220.25000.238		Anchors and Templates in Primary Concrete for Intake Trashracks (12 Sets)	82,000	kg	\$ 3	\$ 205,750	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 205,750	\$ 205,750		
	239		3220.25000.239		Anchors and Templates in Primary Concrete for Intake Stoplogs (12 Sets)	151,021	kg	\$ 3	\$ 378,934	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 378,934	\$ 378,934		
0173		3220.28300		Intake	M&E-Intake Structure - Rebar				\$ 19,801,009		\$ 209,719	\$ -		30	0.77				\$ -	\$ 209,719		\$ 19,591,290	\$ 19,801,009		
	236		3220.28300.236		Reinforcement including Dowels	10,647,650	kg	\$ 2	\$ 19,801,009	112,772.86	\$ 209,719	\$ -		30	0.77				\$ -	\$ 209,719		\$ 19,591,290	\$ 19,801,009		
0174		3220.33000		Intake	M&E-Intake Structure - Misc Steel				\$ 3,379		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 3,379	\$ 3,379		
	227		3220.33000.227		V-Notch Weirs	2	each	\$ 1,689	\$ 3,379	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 3,379	\$ 3,379		
0175		3290.78100		Intake	M&E-Intake - Electrical Work - Conduit				\$ 42,375		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 42,375	\$ 42,375		
	243A		3290.78100.243A		Rigid PVC Conduit, size 35mm	9	m	\$ 71	\$ 639	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 639	\$ 639		
	243B		3290.78100.243B		Rigid PVC Conduit, size 78mm	20	m	\$ 81	\$ 1,611	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 1,611	\$ 1,611		
	243C		3290.78100.243C		Rigid PVC Conduit, size 129mm	300	m	\$ 134	\$ 40,125	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 40,125	\$ 40,125		
0176		3290.78800		Intake	M&E-Intake - Electrical Work - Heat Tracing				\$ 67,077		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 67,077	\$ 67,077		
	243D		3290.78800.243D		Heat Tracing Cable plus Accessories	224	m	\$ 195	\$ 43,654	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 43,654	\$ 43,654		
	243E		3290.78800.243E		Heat Tracing Controllers	16	each	\$ 1,464	\$ 23,423	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 23,423	\$ 23,423		
0177		3290.78910		Intake	M&E-Intake - Electrical Work - Grounding				\$ 312,293		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 312,293	\$ 312,293		
	240		3290.78910.240		Exothermic Connections.	600	each	\$ 157	\$ 94,042	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 94,042	\$ 94,042		
	240A		3290.78910.240A		Mechanical Connections	104	each	\$ 226	\$ 23,551	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 23,551	\$ 23,551		
	241		3290.78910.241		Embedded Copper Grounding Plates	6	each	\$ 486	\$ 2,914	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 2,914	\$ 2,914		
	242		3290.78910.242		Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	2,100	m	\$ 65	\$ 135,447	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 135,447	\$ 135,447		
	243		3290.78910.243		Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	1,900	m	\$ 30	\$ 56,339	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 56,339	\$ 56,339		
0178		3310.12500		Powerhouse	M&E-Powerhouse Substructure - Foundation Preparation				\$ 12,908		\$ 1,901	\$ -		30	0.77				\$ -	\$ 1,901		\$ 11,007	\$ 12,908		
	253		3310.12500.253		Scaling and Water/Air Jet Cleaning of rock foundation	10,400	m²	\$ 1	\$ 12,908	1,531.92	\$ 1,901	\$ -		30	0.77				\$ -	\$ 1,901		\$ 11,007	\$ 12,908		
0179		3310.13360		Powerhouse	M&E-Powerhouse Substructure - Drilling, Pressure Grouting and Drainage				\$ 365,956		\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 365,956	\$ 365,956		
	244		3310.13360.244		Grouting Holes	800	m	\$ 167	\$ 133,636	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 133,636	\$ 133,636		
	245		3310.13360.245		Grouting - Successful Connections	160	each	\$ 632	\$ 101,061	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 101,061	\$ 101,061		
	246		3310.13360.246		Dry Cement for Grouting	28,000	kg	\$ 3	\$ 77,626	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 77,626	\$ 77,626		
	247		3310.13360.247		Water Pressure Tests (Lugeon)	4	hour	\$ 636	\$ 2,544	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 2,544	\$ 2,544		
	248		3310.13360.248		Water Pressure Tests - Successful Connections	10	each	\$ 189	\$ 1,894	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 1,894	\$ 1,894		
	249		3310.13360.249		Uplift Gauges	25	m	\$ 225	\$ 5,618	-	\$ -	\$ -		30	0.77				\$ -	\$ -		\$ 5,618	\$ 5,618		
	250		3310.13360.250		Thermistors	1	each	\$ 4,8																	

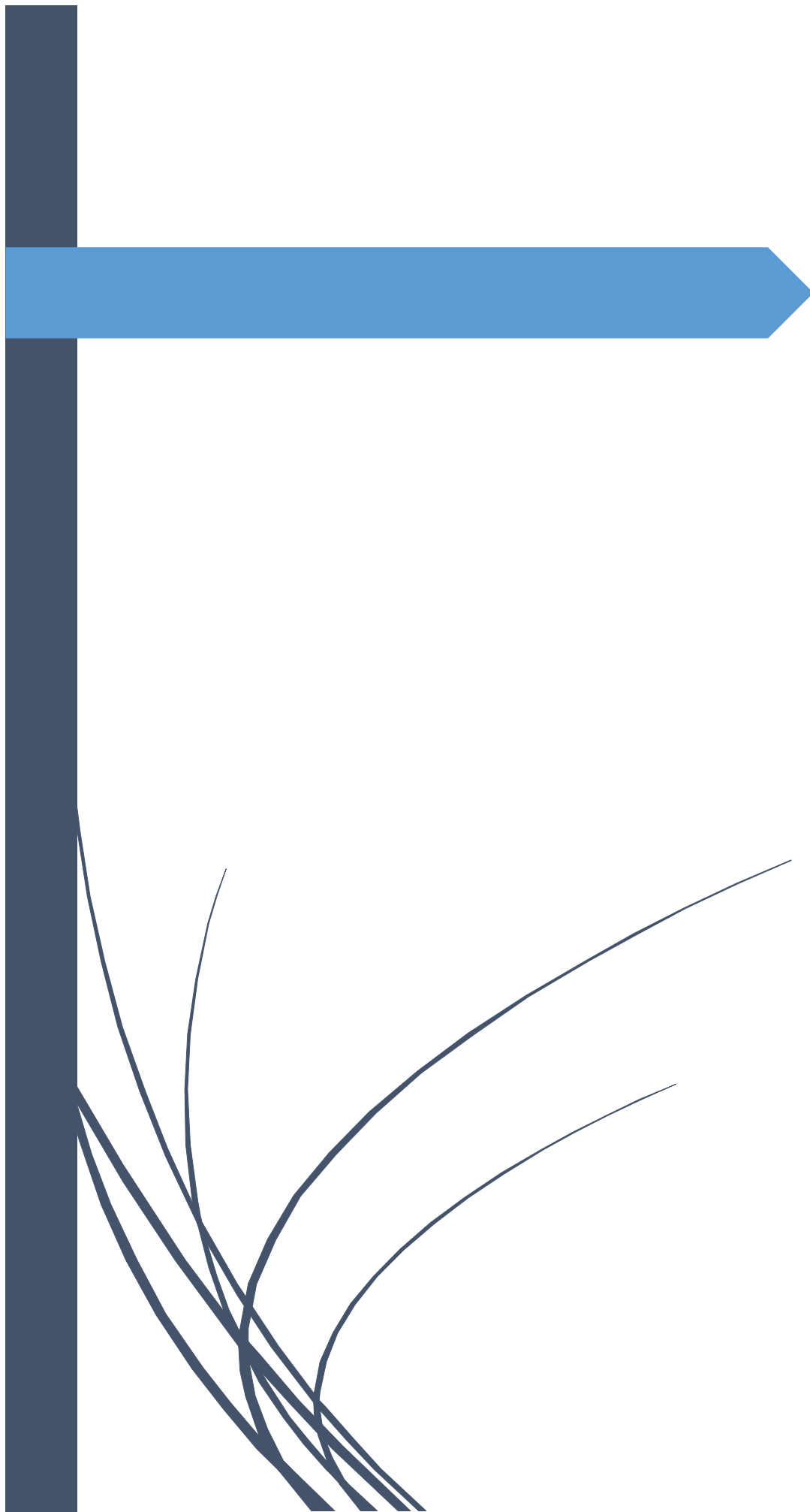
Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative		Period		Cumulative to Date						Forecast to Complete		Forecast at Completion			
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount
	271A	3310.25000.271A			Elastomeric Polyurea Membrane	678	m²	\$ 95	\$ 64,367	-	\$ -	\$ -	30	0.77						\$ 64,367	\$ 64,367				
	271B	3310.25000.271B			Polyflex 202 Membrane	2,400	m²	\$ 118	\$ 283,291	-	\$ -	\$ -	30	0.77						\$ 283,291	\$ 283,291				
	278	3310.25000.278			Anchors, Templates and Angles in Primary Concrete for Draft Tube Stoplogs (8 Sets)	55,370	kg	\$ 3	\$ 138,932	-	\$ -	\$ -	30	0.77						\$ 138,932	\$ 138,932				
	279	3310.25000.279			Anchors and Embedded Parts in Primary Concrete for T/G Units	64,000	kg	\$ 3	\$ 160,586	-	\$ -	\$ -	30	0.77						\$ 160,586	\$ 160,586				
	279A	3310.25000.279A			Installation of the lower portion of the circular passage for all 4 T/G Units - Option	59,200	kg	\$ 2	\$ 99,133	-	\$ -	\$ -	30	0.77						\$ 99,133	\$ 99,133				
0181		3310.26000		Powerhouse	M&E-Powerhouse Substructure - Precast Concrete				\$ 4,132,629	-	\$ -	\$ -	30	0.77						\$ 4,132,629	\$ 4,132,629				
	272	3310.26000.272			Prefabricated Concrete Longitudinal Sandwich Fire Walls (Refer to attached sketch	2,520	m²	\$ 1,277	\$ 3,218,108	-	\$ -	\$ -	30	0.77						\$ 3,218,108	\$ 3,218,108				
	273	3310.26000.273			Prefabricated Transversal Concrete Fire Walls	860	m²	\$ 1,063	\$ 914,521	-	\$ -	\$ -	30	0.77						\$ 914,521	\$ 914,521				
0182		3310.27500		Powerhouse	M&E-Powerhouse Substructure - Ductbank to SWYD c/w Elect MHs				\$ 256,153	-	\$ -	\$ -	30	0.77						\$ 256,153	\$ 256,153				
	254	3310.27500.254			Excavation and Backfill	1	LS	\$ 126,875	\$ 126,875	-	\$ -	\$ -	30	0.77						\$ 126,875	\$ 126,875				
	255	3310.27500.255			Ductbank	1	LS	\$ 127,804	\$ 127,804	-	\$ -	\$ -	30	0.77						\$ 127,804	\$ 127,804				
	256	3310.27500.256			Manholes	3	each	\$ 491	\$ 1,473	-	\$ -	\$ -	30	0.77						\$ 1,473	\$ 1,473				
0183		3310.28300		Powerhouse	M&E-Powerhouse Substructure - Rebar				\$ 20,306,124	-	\$ 2,498	\$ -	30	0.77						\$ 2,498	\$ 20,306,124				
	274	3310.28300.274			Reinforcement including Dowels	10,918,631	kg	\$ 2	\$ 20,304,941	1,343.25	\$ 2,498	\$ -	30	0.77						\$ 20,302,443	\$ 20,304,941				
	277	3310.28300.277			Threaded Rebar (Dia. 35 mm) with Couplers	800	kg	\$ 1	\$ 1,183	-	\$ -	\$ -	30	0.77						\$ 1,183	\$ 1,183				
0184		3320.25000		Powerhouse	M&E-Intake And Powerhouse Superstructure - Concrete, Metal Embeds & Abs				\$ 1,149,390	-	\$ -	\$ -	30	0.77						\$ 1,149,390	\$ 1,149,390				
	314	3320.25000.314			Anchor Bolts Steel Grade 55 ASTM F1554 (Dia. 19 and 25 mm), U-Bolt assembly an	5,960	kg	\$ 4	\$ 20,981	-	\$ -	\$ -	30	0.77						\$ 20,981	\$ 20,981				
	315	3320.25000.315			Anchor Bolts Steel Grade 55 ASTM F1554 (Dia. 28, 38 and 51 mm), Nuts A563, hot	22,800	kg	\$ 4	\$ 93,217	-	\$ -	\$ -	30	0.77						\$ 93,217	\$ 93,217				
	323	3320.25000.323			Miscellaneous Structural Steel - Embedded	104,968	kg	\$ 10	\$ 1,020,838	-	\$ -	\$ -	30	0.77						\$ 1,020,838	\$ 1,020,838				
	326	3320.25000.326			Embedded angles related to typical detail for stel deck on dwg : MFA-SN-CD-3320-	832	kg	\$ 10	\$ 8,316	-	\$ -	\$ -	30	0.77						\$ 8,316	\$ 8,316				
	327	3320.25000.327			Contraction joint related to section E-E on the drawing : MFA-SN-CD-3300-CV-DD-0	40	m	\$ 23	\$ 904	-	\$ -	\$ -	30	0.77						\$ 904	\$ 904				
	328	3320.25000.328			Contraction joint related to section F-F on the drawing: MFA-SN-CD-3300-CV-DD-0	50	m	\$ 28	\$ 1,392	-	\$ -	\$ -	30	0.77						\$ 1,392	\$ 1,392				
	329	3320.25000.329			Contraction joint related to section K-K on the drawing: MFA-SN-CD-3300-CV-DD-0	122	m	\$ 31	\$ 3,742	-	\$ -	\$ -	30	0.77						\$ 3,742	\$ 3,742				
0185		3320.31000		Powerhouse	M&E-Intake And Powerhouse Superstructure - Structural Steel				\$ 27,434,772	-	\$ -	\$ -	30	0.77						\$ 27,434,772	\$ 27,434,772				
	280	3320.31000.280			Beams Under 60 kg/m (incl. S, C, L shapes detailed as bracing, facing and overhang	618,443	kg	\$ 6	\$ 3,832,102	-	\$ -	\$ -	30	0.77						\$ 3,832,102	\$ 3,832,102				
	281	3320.31000.281			Beams From 61 to 150 kg/m	359,270	kg	\$ 6	\$ 2,015,893	-	\$ -	\$ -	30	0.77						\$ 2,015,893	\$ 2,015,893				
	282	3320.31000.282			Beams Over 150 kg/m	316,266	kg	\$ 5	\$ 1,592,194	-	\$ -	\$ -	30	0.77						\$ 1,592,194	\$ 1,592,194				
	282A	3320.31000.282A			W Beam Stiffener (For Generator Floor Beams)	34,000	kg	\$ 19	\$ 647,710	-	\$ -	\$ -	30	0.77						\$ 647,710	\$ 647,710				
	282B	3320.31000.282B			W Beam Bearing Plate (For Generator Floor Beams)	11,200	kg	\$ 16	\$ 175,314	-	\$ -	\$ -	30	0.77						\$ 175,314	\$ 175,314				
	283	3320.31000.283			Columns Under 60 kg/m	1,697	kg	\$ 7	\$ 12,681	-	\$ -	\$ -	30	0.77						\$ 12,681	\$ 12,681				
	284	3320.31000.284			Columns From 61 to 150 kg/m	89,054	kg	\$ 6	\$ 551,526	-	\$ -	\$ -	30	0.77						\$ 551,526	\$ 551,526				
	285	3320.31000.285			Columns Over 150 kg/m	216,296	kg	\$ 6	\$ 1,261,330	-	\$ -	\$ -	30	0.77						\$ 1,261,330	\$ 1,261,330				
	285A	3320.31000.285A			Grade WT Beams Under 60 kg/m	1,700	kg	\$ 21	\$ 35,925	-	\$ -	\$ -	30	0.77						\$ 35,925	\$ 35,925				
	285B	3320.31000.285B			Grade WT Beams From 61 to 150 kg/m	34,000	kg	\$ 13	\$ 429,502	-	\$ -	\$ -	30	0.77						\$ 429,502	\$ 429,502				
	285C	3320.31000.285C			Grade WT Beams Over 150 kg/m	267,300	kg	\$ 9	\$ 2,273,787	-	\$ -	\$ -	30	0.77						\$ 2,273,787	\$ 2,273,787				
	285D	3320.31000.285D			Grade WT Beams Bearing Plates	15,800	kg	\$ 16	\$ 247,318	-	\$ -	\$ -	30	0.77						\$ 247,318	\$ 247,318				
	285E	3320.31000.285E			Grade WT Beams Stiffener	11,200	kg	\$ 19	\$ 213,363	-	\$ -	\$ -	30	0.77						\$ 213,363	\$ 213,363				
	297	3320.31000.297			Crane Girders in Welded Plates, 700-800 kg/m	385,449	kg	\$ 6	\$ 2,281,151	-	\$ -	\$ -	30	0.77						\$ 2,281,151	\$ 2,281,151				
	298	3320.31000.298			Main Building Columns, in Rolled Shapes & Plates, Welded Continuously.	875,566	kg	\$ 6	\$ 5,060,894	-	\$ -	\$ -	30	0.77						\$ 5,060,894	\$ 5,060,894				
	299	3320.31000.299			Roof trusses and Wind Trusses	275,598	kg	\$ 6	\$ 1,758,722	-	\$ -	\$ -	30	0.77						\$ 1,758,722	\$ 1,758,722				
	300	3320.31000.300			Horizontal Bracing (WT Shapes) for roof and mezzanines	76,964	kg	\$ 7	\$ 539,402	-	\$ -	\$ -	30	0.77						\$ 539,402	\$ 539,402				
	301	3320.31000.301			HSS Square Shapes for Vertical Bracing, Horizontal Bracing, Struts and HSS Column	189,724	kg	\$ 7	\$ 1,318,921	-	\$ -	\$ -	30	0.77						\$ 1,318,921	\$ 1,318,921				
	302	3320.31000.302			Nelson Studs (Dia. 19 and 13 mm) Welded Mezzanine Beams	3,305	kg	\$ 17	\$ 54,997	-	\$ -	\$ -	30	0.77						\$ 54,997	\$ 54,997				
	303	3320.31000.303			Nelson Studs (Dia. 19 and 22 mm) Welded to Generator Floor Beams	15,000	kg	\$ 11	\$ 171,751	-	\$ -	\$ -	30	0.77						\$ 171,751	\$ 171,751				
	313	3320.31000.313			Tie-Back Linkage Assemblies by GANTREX, type TL123GP, includes Plates, Angles, S	96	each	\$ 1,623	\$ 155,780	-	\$ -	\$ -	30	0.77						\$ 155,780	\$ 155,780				
	318	3320.31000.318			Hilti KWIK Bolts 3 (Dia. 25 mm) 304 SS	525	each	\$ 35	\$ 18,439	-	\$ -	\$ -	30	0.77						\$ 18,439	\$ 18,439				
	319	3320.31000.319			Hilti KWIK Bolts 3 (Dia. 10 mm and 19 mm) hot dip galvanized	630	each	\$ 7	\$ 4,473	-	\$ -	\$ -	30	0.77						\$ 4,473	\$ 4,473				
	320	3320.31000.320			Hilti Adhesive Anchors, HAS rods (Dia. 19 mm) HIT RE-500 , hot dip galvanized	200	each	\$ 14	\$ 2,838	-	\$ -	\$ -	30	0.77						\$ 2,838	\$ 2,838				
	321	3320.31000.321			Steel Joists, by CANAM or equal	2,100	kg	\$ 8	\$ 16,776	-	\$ -	\$ -	30	0.77						\$ 16,776	\$ 16,776				
	322	3320.31000.322			Elastomeric Pad at Attachment Axis E	40	each	\$ 92	\$ 3,669	-	\$ -	\$ -	30	0.77						\$ 3,669	\$ 3,669				
	324	3320.31000.324			Miscellaneous Structural Steel, L Shapes, Plates, Eye bolts, Crosby Type Pieces, Ber	189,908	kg	\$ 10	\$ 1,953,580	-	\$ -	\$ -	30	0.77						\$ 1,953,580	\$ 1,953,580				
	331	3320.31000.331			Rail type BETH 175, includes Splices and Aluminothermic Welds, for Crane Girders	720	m	\$ 390	\$ 280,718	-	\$ -	\$ -	30	0.77						\$ 280,718	\$ 280,718				
	332	3320.31000.332			Rail type Beth 104 with Aluminothermic Welds	315	m	\$ 197	\$ 62,120	-	\$ -	\$ -	30	0.77						\$ 62,120	\$ 62,120				
	333	3320.31000.333			GANTREX Rail Clip type WELDLOK 43 with Rubber Nosing for Crane Girders and Tra	2,160	each	\$ 51	\$ 109,962	-	\$ -	\$ -	30	0.77						\$ 109,962	\$ 109,962				
	334	3320.31000.334			GANTREX rail clip type WELDLOK 24 with Rubber Nosing, hot dip galvanized	1,060	each	\$ 25	\$ 26,135	-	\$ -	\$ -	30	0.77						\$ 26,135	\$ 26,135				
	336	3320.31000.336			Plates 350 x 20, Under Rails BETH 175, Painted with Primer Plates 300 x 20 Under f	35,500	kg	\$ 9	\$ 325,797	-	\$ -	\$ -	30	0.77						\$ 325,797	\$ 325,797				
0186		3320.33000		Powerhouse	M&E-Intake And Powerhouse Superstructure - Misc Steel				\$ 7,750,059	-	\$ -	\$ -	30	0.77						\$ 7,750,059	\$ 7,750,059				
	304	3320.33000.304			Stair Stringers in Channels (incl. Galvanized Beams and Columns for the stairs)	62,410	kg	\$ 12	\$ 758,873	-	\$ -	\$ -	30	0.77											

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative		Period Dec-14		Cumulative to Date						Forecast to Complete		Forecast at Completion			
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount	Quantity	\$ Amount
0187		3320.39130		Powerhouse	M&E-Intake And Powerhouse Superstructure - Intumescent Paint				\$ 703,930	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 703,930	\$ 703,930		
	322A		3320.39130.322A		Intumescent Paint	3,550	m2	\$ 198	\$ 703,930	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 703,930	\$ 703,930		
0188		3320.41000		Powerhouse	M&E-Intake And Powerhouse Superstructure - Roofing				\$ 3,054,373	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 3,054,373	\$ 3,054,373		
	343		3320.41000.343		Modified Bituminous Membrane Roofing System	8,416	m ²	\$ 353	\$ 2,973,220	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 2,973,220	\$ 2,973,220		
	344		3320.41000.344		Sealants (including for roofing & wall systems and pre-cast concrete fire wall joints)	1	LS	\$ 22,541	\$ 22,541	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 22,541	\$ 22,541		
	346		3320.41000.346		Roof Curb for Exhaust Fans	9	each	\$ 1,478	\$ 13,303	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 13,303	\$ 13,303		
	347		3320.41000.347		Roof Curb for Exhaust Hood	1	each	\$ 2,150	\$ 2,150	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 2,150	\$ 2,150		
	348		3320.41000.348		Roof Curb for Chimney	1	each	\$ 1,422	\$ 1,422	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 1,422	\$ 1,422		
	349		3320.41000.349		Flashing for Roof Drains	25	each	\$ 291	\$ 7,262	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 7,262	\$ 7,262		
	350		3320.41000.350		Flashing for Plumbing Vents	6	each	\$ 197	\$ 1,179	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 1,179	\$ 1,179		
	357		3320.41000.357		Roof Anchors & Safety Restraints	45	each	\$ 585	\$ 26,306	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 26,306	\$ 26,306		
	358B		3320.41000.358B		Metal sleeves for cable passage for roof exhaust fans	9	each	\$ 776	\$ 6,988	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 6,988	\$ 6,988		
0189		3320.42000		Powerhouse	M&E-Intake And Powerhouse Superstructure - Siding, Doors & Windows				\$ 2,801,545	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 2,801,545	\$ 2,801,545		
	339		3320.42000.339		Insulated Metal Wall Panels (Sandwiched Panels, VicWest & Kingspan; refer to the	7,323	m ²	\$ 298	\$ 2,179,028	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 2,179,028	\$ 2,179,028		
	340		3320.42000.340		Preformed Metal Siding (Vertical Metal Siding fastened to Steel Stud Wall)	508	m ²	\$ 194	\$ 98,426	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 98,426	\$ 98,426		
	341		3320.42000.341		Preformed Metal Siding & Framing (for Snow Baffles over louvers)	112	m ²	\$ 182	\$ 20,392	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 20,392	\$ 20,392		
	342		3320.42000.342		Metal Liner Panel, Insulation & Z-Bars (attached to interior of pre-cast concrete fire	460	m ²	\$ 339	\$ 155,746	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 155,746	\$ 155,746		
	345		3320.42000.345		Signage (Nalcor & Logo, Muskrat Falls Generating Station)	1	LS	\$ 7,349	\$ 7,349	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 7,349	\$ 7,349		
	351		3320.42000.351		Exterior Metal Insulated Doors - Double	7	each	\$ 1,328	\$ 9,297	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 9,297	\$ 9,297		
	352		3320.42000.352		Exterior Metal Insulated Doors - Single	14	each	\$ 1,044	\$ 14,614	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 14,614	\$ 14,614		
	353		3320.42000.353		Aluminium Entrance Door (Insulated)	1	each	\$ 2,125	\$ 2,125	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 2,125	\$ 2,125		
	354		3320.42000.354		Sectional Metal Insulated Door	2	each	\$ 9,096	\$ 18,191	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 18,191	\$ 18,191		
	355		3320.42000.355		Aluminium Windows (32 Windows max)	154	m ²	\$ 1,810	\$ 278,701	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 278,701	\$ 278,701		
	358		3320.42000.358		Multi-Leaf Vertical Lift Metal Insulated Door	1	each	\$ 3,204	\$ 3,204	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 3,204	\$ 3,204		
	358C		3320.42000.358C		Sleeve in metal siding wall complete with conduit, junction box and JB mounting p	13	each	\$ 1,001	\$ 13,011	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 13,011	\$ 13,011		
	358D		3320.42000.358D		Sleeve in metal siding wall on the right jamb of the multi-leaf door complete with c	1	each	\$ 1,461	\$ 1,461	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 1,461	\$ 1,461		
0190		3320.42400		Powerhouse	M&E-Intake And Powerhouse Superstructure - Masonry				\$ 10,907	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 10,907	\$ 10,907		
	356		3320.42400.356		Concrete Unit Masonry (Exterior)	21	m ²	\$ 519	\$ 10,907	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 10,907	\$ 10,907		
0191		3340.77000		Powerhouse	M&E-Powerhouse - Building Electrical Services - Lighting				\$ 373,504	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 373,504	\$ 373,504		
	358A		3340.77000.358A		Exterior lighting fixtures, HPS, 347 V AC, complete with conduit, junction box, wirin	23	each	\$ 4,916	\$ 113,059	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 113,059	\$ 113,059		
	366		3340.77000.366		High Bay Light Fixture, Metal Halide, 347 Vac, complete with 1000 W lamp	46	each	\$ 2,069	\$ 95,182	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 95,182	\$ 95,182		
	367		3340.77000.367		High Bay Light Fixture, Metal Halide, 347 Vac, complete with 1000 W lamp and Qu	23	each	\$ 2,099	\$ 48,283	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 48,283	\$ 48,283		
	368		3340.77000.368		Panelboard, 600/347 Vac, 3 phase, 4 wire, 42 circuit, surface mounted sprinkler-pr	3	each	\$ 6,460	\$ 19,381	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 19,381	\$ 19,381		
	369		3340.77000.369		Dry-Type Transformer, 75 kVA, 600-600/347 Vac	3	each	\$ 9,755	\$ 29,266	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 29,266	\$ 29,266		
	370		3340.77000.370		Disconnect Switch, 600 V, 3 phase, complete with fuses	3	each	\$ 1,692	\$ 5,075	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 5,075	\$ 5,075		
	371		3340.77000.371		Lighting Contactor Control Panel	2	each	\$ 2,608	\$ 5,216	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 5,216	\$ 5,216		
	372		3340.77000.372		ON-OFF Pushbutton Control Station	4	each	\$ 1,112	\$ 4,448	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 4,448	\$ 4,448		
	373		3340.77000.373		Teck Cables, 2C # 12 AWG	900	m	\$ 19	\$ 16,982	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 16,982	\$ 16,982		
	374		3340.77000.374		Teck Cables, 3C # 12 AWG	500	m	\$ 20	\$ 10,009	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 10,009	\$ 10,009		
	375		3340.77000.375		Teck Cables, 2C # 10 AWG	400	m	\$ 21	\$ 8,466	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 8,466	\$ 8,466		
	376		3340.77000.376		Teck Cables, 4C # 10 AWG	500	m	\$ 27	\$ 13,405	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 13,405	\$ 13,405		
	377		3340.77000.377		Temporary Feeder Cables to lighting transformers/panelboards, etc.	1	LS	\$ 4,732	\$ 4,732	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 4,732	\$ 4,732		
0192		3350.61000		Powerhouse	M&E-Bldg Mechanical Services - Piping/Mech Systems				\$ 3,719,465	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 3,719,465	\$ 3,719,465		
	378		3350.61000.378		HVAC System	1	LS	\$ 940,231	\$ 940,231	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 940,231	\$ 940,231		
	379		3350.61000.379		Domestic Wastewater System	1	LS	\$ 1,785,738	\$ 1,785,738	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 1,785,738	\$ 1,785,738		
	380		3350.61000.380		Wastewater System	1	LS	\$ 993,496	\$ 993,496	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 993,496	\$ 993,496		
0193		3430.78100		Powerhouse	M&E-Turbine Generator And Ancillaries - Electrical Work - Conduit				\$ 82,044	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 82,044	\$ 82,044		
	362A		3430.78100.362A		Rigid PVC Conduit, size 53mm	15	m	\$ 116	\$ 1,737	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 1,737	\$ 1,737		
	363		3430.78100.363		Rigid PVC Conduit, size 78mm	50	m	\$ 81	\$ 4,028	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 4,028	\$ 4,028		
	364		3430.78100.364		Rigid PVC Conduit, size 129mm	325	m	\$ 194	\$ 62,904	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 62,904	\$ 62,904		
	365		3430.78100.365		Rigid Galvanized Steel Conduits, size 103 mm	100	m	\$ 134	\$ 13,375	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 13,375	\$ 13,375		
0194		3430.78910		Powerhouse	M&E-Turbine Generator And Ancillaries - Electrical Work - Grounding				\$ 621,393	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 621,393	\$ 621,393		
	359		3430.78910.359		Exothermic Connections.	1,225	each	\$ 157	\$ 192,003	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 192,003	\$ 192,003		
	359A		3430.78910.359A		Mechanical Connections	40	each	\$ 226	\$ 9,058	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 9,058	\$ 9,058		
	360		3430.78910.360		Embedded Copper Grounding Plates	65	each	\$ 486	\$ 31,567	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 31,567	\$ 31,567		
	361		3430.78910.361		Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	5,200	m	\$ 65	\$ 335,392	-	\$ -	\$ -	30	0.77						\$ -	\$ -	\$ 335,392	\$ 33		

Pay Item	Bid Item	Cost Code	WBS.Nalcor.Bid Item	Monthly Summary Lookup	Description	Original Contract				Previous Cumulative 25-Nov-14		Period Dec-14		Cumulative to Date 25-Dec-14						Forecast to Complete		Forecast at Completion	
						Quantity	UoM	Unit Cost	Amount	Quantity	\$ Amount	Quantity	\$ Amount	Quantity	Accrual Days	Accrual Factor	Delta previous two months	Weekly Average \$\$	Over-ride	\$\$ Accrual	\$ Amount	Quantity	\$ Amount
	CHO			Change Ord	Change Order Totals				\$ -	\$ 1,033,809	\$ -	30					\$ 1,033,809	\$ -		\$ 1,033,809			
	Change Orders	CHO-0001			Emergency Work at MacKenzie Brook Bridge & Installation of a bypass	1	Lot			\$ 198,968	\$ -	30					\$ 198,968	\$ -		\$ 198,968			
	Change Orders	CHO-0002			Completion of Construction Power Requirements	1	Lot			\$ 834,841	\$ -	30					\$ 834,841	\$ -		\$ 834,841			
						1	Lot			\$ -	\$ -	30					\$ -	\$ -		\$ -			
										\$ -	\$ -	30					\$ -	\$ -		\$ -			
										\$ -	\$ -	30					\$ -	\$ -		\$ -			
					Subtotal with Approved Changes				\$ 481,158,171	\$ 82,219,569	\$ 6,520,476						\$ 88,740,045	\$ 393,451,936		\$ 482,191,980			
	CHR			Change Req	Change Requests Totals				\$ -	\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1001			Supply & Install Second Stage Concrete for Hydro-Mechanical Embedded Parts	1	Lot			\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1002			Provide optional unit prices for the supply & transportatio of aggregate to other contractors at the switchyard/converter area	1	Lot			\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1003			Provision of bus service between Goosebay, North West River & Sheshatshu, plus Goosebay, Goosebay Airport & The Accomodation Complex	1	Lot			\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1004			Take over the provision of all stipulated sanitary cleaning required of the washcars including supply of all associated consumables					\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1005			Ref: ECN-0001 & ECN-0002 These two ECN(s) covered IFC Technical Specifications, Drawings & Piping Isometric Drawings that were either not previously released to contractor or are revised IFC documents					\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1006			Mobilization & Set-up of required equipment & the crushing/stockpiling of the three types of aggregate as required					\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-1007			Completion of construction Power Requirements					\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	0								\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	CHR-2022			Spillway Upstream rock face reconstruction					\$ -	\$ -	30					\$ -	\$ -		\$ -			
	Change Requests	40-12500-E			Spillway rock profile increased complexity					\$ -	\$ -	30					\$ -	\$ -		\$ -			
										\$ -	\$ -	30					\$ -	\$ -		\$ -			
					Total with Approved and Unapproved Changes				\$ 481,158,171	\$ 82,219,569	\$ 6,520,476						\$ 88,740,045	\$ 393,451,936		\$ 482,191,980			



Appendix I: Risk Register



LOWER CHURCHILL PROJECT
LCP - CONTRACTORS / SUPPLIERS RISK REGISTER
Page: 01 of 01
Date: 11 Dec. 2014
Risk Register No.: 002

Mitigation Strategy:
1. Mitigate
2. Avoid
3. Transfer
4. Accept

Main risk register table with columns: Risk ID, Exposure Activity, Exposure Status, Risk Title / Possible Outcome, Risk Description, Risk Type, Carrier, Location, Risk Status, Risk Exposure Period (Start, End), Probability, Consequence, Probable Consequence / Risk Level, Risk Approach, Risk Approach Strategy descr., Strategy Status, Action, Action Status, Responsible, Due Date, Action % complete, Comments.

General description of the Risk Register's fields:

Legend table for risk register fields: 01 Risk ID, 02 Exposure Activity, 03 Exposure Status, 04 Risk Title / Possible Outcome, 05 Risk Description, 06 Risk Type, 07 Carrier, 08 Location, 09 Risk Status, 10 Risk Exposure Period (Start - end), 11 Probability, 12 Consequence, 13 Probable Consequence / Risk Level, 14 Risk Approach, 15 Risk Approach Strategy desc., 16 Strategy Status, 17 Action, 18 Action Status, 19 Responsible, 20 Due date, 21 Action % complete, 22 Comments.