

Ashmont / Lottie Lake Water Transmission Line

CHANGE ORDER# 6

 date:
 February 27, 2013

 to:
 Rob Mepham, Beretta Pipeline Construction Ltd.

 from:
 Mohammed Elenany, Ph.D., P.Eng. Urban Systems Ltd.

 file #:
 3144.0003.03-F

 project:
 ASHMONT/LOTTIE LAKE TRANSMISSION LINE

Refers to Contemplated Change Order # n/a

Description of Change to Contract:

Additional hardware and programming work to upgrade the Ashmont/Lottie Lake Control to be used in the interim condition as well as to suit the future operation for when the new Ashmont water treatment plant becomes operational, as per the attached quote from Nason Electric & Instrumentation, and 10% for overhead and contingency.

<u>Item</u>	Description	<u>Unit</u>	Unit Rate	Est. Qty	Est. Amt
A19	Ashmont/Lottie Lake Control Upgrade				
A19.1	Replace PLC and HM1 computer at Lottie Lake (includes 10% overhead and contingency)	l.s	42,759.20	1	\$ 42,759.20
A19.2	Alarming Upgrade Ashmont/Lottie Lake (includes 10% overhead and contingency)	l.s.	7,095.00	1	\$7,095.00

Change in Price (Increase): <u>\$49,854.20</u>

Change to Contract Schedule: none

Darrell Holman Beretta Pipeline Construction Ltd.

1. Gaud

Mohammed Elenany, Ph.D., P.Eng. Contract Administrator

Sheila Kitz Owner

> This Change Order is not in effect until signed by the Contractor, the Contract Administrator and the Owner.

U/Projects_EDM/3144/0003/03/F-Financial/Change Orders/CO 6 Ashmont Lottie Lake Transmission Controls/2013-02-27 CO 6 Ashmont Lottie Lake Transmission Controls.docx



Email: Phone: Fax: ebadach@nason.ca (780) 470-7121 (780) 418-6527

February 21, 2013

Beretta Pipeline Construction Ltd. Box 21042 Lloydminster, AB T9V-2S1

Attention: Darrell Holman

RE: Ashmont / Lottie Lake Control Upgrade

As discussed previously we are proposing a controls upgrade at the Ashmont/Lottie Lake site that will allow the upgraded hardware to be used in the future. The upgrade will involve a complete PLC/HMI replacement at the Lottie Lake site with a few minor upgrades at Ashmont. As the Ashmont site is slated for a complete infrastructure upgrade we are striving to keep the costs as minimal as possible for that site. We propose the following items with the associated costs

Replace PLC and HMI computer at Lottie Lake-\$38,872.00 + GST

This option replaces the existing Modicon PLC equipment to match the architecture of the new WTP at Ashmont. The new PLC would be an Allen-Bradley 1769-L23E-QBFC1B Compactlogix. To keep costs as low as possible we are proposing the use of a C-More 8" Color touch panel, model number EA7-T8C. When the new WTP is complete, these PLC components can easily be integrated into that SCADA system. The pressures, flows and other process values will be displayed and trended at the new WTP upon construction. This price includes for the following:

- Supply and Install new Allen-Bradley PLC in new control cabinet at Lottie Lake
- Representative HMI for local process and setpoints
- PLC programming for updated process
- Remote access for programmers via radio setup by Glentel
- Interim integration into existing Ashmont HMI displaying things such as flows pressures and alarms
- Remote access to Lottie Lake would no longer be needed or available to the operators

I:\26 ELECTRIC & INSTRUMENTATION\SMALL PROJECTS\ASHMONT AND LOTTIE LAKE\2013-02-21-EB-CONTROL SYSTEM BREAKDOWN.DOCX

Alarming Upgrade Ashmont / Lottie Lake-\$6,450.00 + GST

This alarming addition will allow the alarms from Lottie Lake and Ashmont to be dialled out from the Ashmont site. The Lottie Lake alarms will be mapped over the radios to the existing Ashmont HMI and annunciated over the local telephone system. The price includes for the following:

- 2 -

- SCADAtec SCADAphone alarm dialling software installed at Ashmont
- Mapping of all pertinent alarms from Lottie Lake
- Mapping of all pertinent alarms from Ashmont
- Set-up of operator call-out list
- Testing of alarm call-out with operators
- This option assumes that a working telephone line is available at the Ashmont WTP

Please feel free to contact us to discuss these items further if required.

Nason Electric and Instrumentation

Hel Bodach

Ed Badach General Manager

I:\26 ELECTRIC & INSTRUMENTATION\SMALL PROJECTS\ASHMONT AND LOTTIE LAKE\2013-02-21-EB-CONTROL SYSTEM BREAKDOWN.DOCX