

**PRESSURE EQUIPMENT DATA REPORT**

**EQUIPMENT GENERAL INFORMATION**

|                          |                    |                            |                  |
|--------------------------|--------------------|----------------------------|------------------|
| <b>District:</b>         | Northeast BC       |                            |                  |
| <b>Facility:</b>         | MAXHAMISH          |                            |                  |
| <b>Location /LSD:</b>    | D-036-I/094-O-14   | <b>Operating Province:</b> | British Columbia |
| <b>Equipment Name:</b>   | LEVEL CONTROL CAGE |                            |                  |
| <b>Equipment Status:</b> | Operating          | <b>Orientation:</b>        | Horizontal       |
| <b>Skid No.:</b>         |                    | <b>Unit:</b>               | EOG PO# 09-137   |

**EQUIPMENT STATIC DATA**

|                                |                |                       |                         |                        |
|--------------------------------|----------------|-----------------------|-------------------------|------------------------|
| <b>AB Registration No.:</b>    | 0593290        | <b>Serial No.:</b>    | 2009-8035-06            |                        |
| <b>Registration No./Other:</b> |                | <b>Equipment No.:</b> | 10941                   |                        |
| <b>CRN NO.:</b>                | V-0548.213     | <b>Unique ID No.:</b> |                         |                        |
| <b>National Board No.:</b>     |                | <b>Oncor ID No.:</b>  | 60561                   |                        |
| <b>Manufacturer:</b>           | ALCO GAS & OIL |                       | <b>Year Built:</b>      | 2010                   |
| <b>MAWP:</b>                   | 2127.00 (psi)  | 14665.24 (Kpa)        | <b>Temperature:</b>     | 150.00 (F) 65.56 (C)   |
| <b>Diameter.:</b>              | 8.625 (In)     | 219.075 (mm)          | <b>Length:</b>          | 24.00 (In) 609.60 (mm) |
| <b>Radiography:</b>            | RT1            |                       | <b>Heat Treatment:</b>  | Yes                    |
| <b>Corrosion allowance:</b>    | 0.125 (In)     | 3.175 (mm)            | <b>MDMT:</b>            |                        |
| <b>Lining Or Coated:</b>       |                |                       | <b>Painted:</b>         |                        |
| <b>Insulated:</b>              |                |                       | <b>Internally Clad:</b> |                        |
| <b>Hand Hole:</b>              |                |                       | <b>Support Type:</b>    |                        |
| <b>Manway:</b>                 | No             |                       | <b>Manway Size(In):</b> |                        |
| <b>Capacity/Volume(m3):</b>    |                |                       | <b>Nozzle Rating:</b>   |                        |

**MATERIALS/COMPONENTS**

| Name  | Joint Efficiency | Outside Diameter(in.) | Head Type   | Material Type | Stress Value (PSI) | Nominal Thickness(In.) |
|-------|------------------|-----------------------|-------------|---------------|--------------------|------------------------|
| SHELL | 1.00             | 8.625                 |             | SA-106 B      | 17100              | 0.88                   |
| HEAD  | 1.00             | 8.625                 | Ellipsoidal | SA-234 WPB    | 17100              | 0.77                   |

**PIPING STATIC DATA**

|                               |                   |   |                    |
|-------------------------------|-------------------|---|--------------------|
| <b>Primary Flange Rating:</b> |                   | <b>ASME B16.5 - Table 2-1.1 @ 150F:</b> | (psi)              |
| <b>Pressure Use For TMin:</b> | Vess Design Press | <b>Piping Operating Press:</b>          | 2127 (psi)         |
| <b>Stress Value:</b>          | 20000 (psi)       | <b>E Value:</b>                         | 1.00 <b>Joint:</b> |

**SERVICE CONDITIONS**

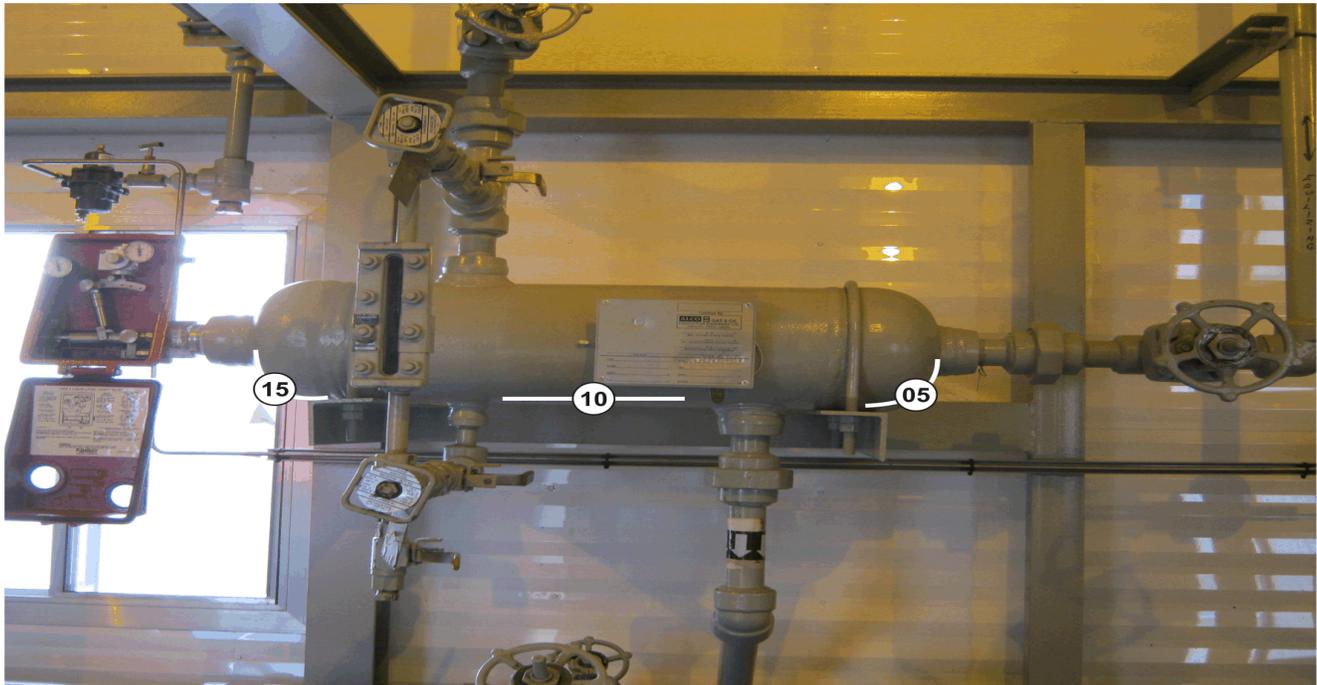
|              |               |                   |            |               |
|--------------|---------------|-------------------|------------|---------------|
| <b>Sweet</b> | <b>Sour</b> ✓ | <b>Oil</b>        | <b>Gas</b> | <b>Water</b>  |
| <b>Amine</b> | <b>LPG</b>    | <b>Condensate</b> | <b>Air</b> | <b>Glycol</b> |

**COMMENTS**

LOCATION TAKEN FROM U1A.  
PICS: 5276, 5277

**EXAMINATION ILLUSTRATION**

|                    |                    |                   |           |                            |                  |
|--------------------|--------------------|-------------------|-----------|----------------------------|------------------|
| <b>DISTRICT:</b>   | Northeast BC       | <b>FACILITY:</b>  | MAXHAMISH | <b>LOCATION/LSD:</b>       | D-036-I/094-O-14 |
| <b>EQUIP NAME:</b> | LEVEL CONTROL CAGE |                   |           | <b>PROV REG No.:</b>       | 0593290          |
| <b>SERIAL No.:</b> | 2009-8035-06       | <b>Equip No.:</b> | 10941     | <b>National Board No.:</b> |                  |



|                                   |                              |              |
|-----------------------------------|------------------------------|--------------|
| <b>OWNER: EOG</b>                 | <b>SERIAL # 2009-8035-06</b> | <b>NOTES</b> |
| <b>EQUIPMENT NAME: LEVEL CAGE</b> | <b>NB#</b>                   |              |
| <b>REGISTRATION # 593290</b>      | <b>OWNER ID</b>              |              |
| <b>EQUIPMENT # 10941</b>          |                              |              |

**ULTRASONIC CORROSION SURVEY REPORT**

|                    |                    |                   |           |                            |                  |
|--------------------|--------------------|-------------------|-----------|----------------------------|------------------|
| <b>DISTRICT:</b>   | Northeast BC       | <b>FACILITY:</b>  | MAXHAMISH | <b>LOCATION/LSD:</b>       | D-036-I/094-O-14 |
| <b>EQUIP NAME:</b> | LEVEL CONTROL CAGE |                   |           | <b>PROV REG No.:</b>       | 0593290          |
| <b>SERIAL No.:</b> | 2009-8035-06       | <b>Equip No.:</b> | 10941     | <b>National Board No.:</b> |                  |

**SUMMARY**

| TYPE   | LAST INSPECTIONS | INSPECTION INTERVAL (YEARS) | CORROSION RATE (IN/YR) |           | REMAINING LIFE (YEARS) | NEXT INSPECTION DATE |
|--------|------------------|-----------------------------|------------------------|-----------|------------------------|----------------------|
|        |                  |                             | SHORT TERM             | LONG TERM |                        |                      |
| VESSEL | Oct 20, 2011     | 4.0                         | 0.0000                 | 0.0000    | 198.0                  | Oct 20, 2015         |
| PIPING |                  |                             |                        |           |                        |                      |

**VESSEL SURVEY READINGS**

| POINT NUMBER | TYPE  | POINT DATA (INCH) |        |        | DATE      | SURVEY READINGS |       |              | CALCULATIONS    |           |                |
|--------------|-------|-------------------|--------|--------|-----------|-----------------|-------|--------------|-----------------|-----------|----------------|
|              |       | NOM.              | C.A.   | NOM-CA |           | LOW             | AVG   | T Req (inch) | short term corr | long term | remaining life |
| 05           | HEAD  | 0.7660            | 0.1250 | 0.6410 | Oct 20/11 | 0.846           | 0.890 | 0.482        | 0.0000          | 0.0000    | 198.0          |
| 10           | SHELL | 0.8750            | 0.1250 | 0.7500 | Oct 20/11 | 0.886           | 0.900 | 0.511        | 0.0000          | 0.0000    | 198.0          |
| 15           | HEAD  | 0.7660            | 0.1250 | 0.6410 | Oct 20/11 | 0.875           | 0.900 | 0.482        | 0.0000          | 0.0000    | 198.0          |

**INSPECTOR-EQUIPMENT DATA**

| Inspected By | Signature | CGSB Level | CGSB No. | Survey Dat | UT Equipment | Due Date OF Calibration | NDE Procedure # |
|--------------|-----------|------------|----------|------------|--------------|-------------------------|-----------------|
|              |           |            |          | 10/20/2011 |              |                         | WQS UT-001      |

### VISUAL INSPECTION REPORT

|                 |                    |            |           |                     |                  |
|-----------------|--------------------|------------|-----------|---------------------|------------------|
| District:       | Northeast BC       | Facility:  | MAXHAMISH | Location/LSD:       | D-036-I/094-O-14 |
| Equipment Name: | LEVEL CONTROL CAGE |            |           | Prov Reg No. :      | 0593290          |
| Serial No.:     | 2009-8035-06       | Equip No.: | 10941     | National Board No.: |                  |

#### EXTERNAL INSPECTION

| INSPECTION DATE:    | Oct 20, 2011 | INSPECTION INTERVAL:                                  | 48 | NEXT INSPECTION DATE: | Oct 20, 2015 |
|---------------------|--------------|---|----|-----------------------|--------------|
| ITEM                | CONDITION    | INSPECTION COMMENTS                                   |    |                       |              |
| INSULATION          | N/A          |   |    |                       |              |
| EXTERNAL CONDITION  | ACCEPT       | IN GOOD CONDITION.                                    |    |                       |              |
| LEAKAGE             | ACCEPT       | NO LEAKS OBSERVED.                                    |    |                       |              |
| SKIRT/SADDLE        | ACCEPT       | WELL SUPPORTED THROUGH PIPING AND METAL BEAMS.        |    |                       |              |
| ANCHOR BOLTS        | ACCEPT       | SECURE.   |    |                       |              |
| CONCRETE FOUNDATION | N/A          |   |    |                       |              |
| LADDER/PLATFORM     | N/A          |   |    |                       |              |
| NOZZLE              | ACCEPT       | IN GOOD CONDITION.                                    |    |                       |              |
| GAUGES              | ACCEPT       | LIQUID LEVEL CONTROLLER ASSOCIATED WITH HEAD IS OPEN. |    |                       |              |
| EXTERNAL PIPING     | ACCEPT       | WELL SUPPORTED.                                       |    |                       |              |
| VALVING             | ACCEPT       | IN GOOD CONDITION.                                    |    |                       |              |
| PSV                 | ACCEPT       | PSV SET AT 2127 PSI.                                  |    |                       |              |
| NDE METHODS         | ACCEPT       | UT/VT.  |    |                       |              |
| OTHER               | N/A          |   |    |                       |              |

#### RECOMMENDATIONS:

VERIFY PSV SERVICE DATE.

I have performed the above inspections and certify that they have been done in accordance with our approved manual and that the information is accurate.

|            |                   |                 |            |  |       |              |
|------------|-------------------|-----------------|------------|--|-------|--------------|
| Inspector: | Justin Orichowski | ABSA PESL #:758 | Signature: |  | Date: | Oct 20, 2011 |
|------------|-------------------|-----------------|------------|--|-------|--------------|

#### REPORT SIGN-OFF

*Where required , the above reports has been reviewed and accepted as noted below:*

|                                |  |           |  |
|--------------------------------|--|-----------|--|
| WQS Supervisor Name:           |  |           |  |
| WQS Supervisor Title/Cert No.: |  | Cert No.: |  |
| WQS Supervisor Signature/Date: |  | Date:     |  |

*Where required , the above reports has been reviewed and accepted as noted below:*

|                                   |  |       |  |
|-----------------------------------|--|-------|--|
| Client Supervisor Name:           |  |       |  |
| Client Supervisor Title/Cert No.: |  | Date: |  |
| Client/Supervisor Signature/Date: |  | Date: |  |

## PRESSURE RELIEF VALVE SUMMARY

|                  |              |                  |           |                      |                  |
|------------------|--------------|------------------|-----------|----------------------|------------------|
| <b>District:</b> | Northeast BC | <b>Facility:</b> | MAXHAMISH | <b>Location/LSD:</b> | D-036-I/094-O-14 |
|------------------|--------------|------------------|-----------|----------------------|------------------|

### PSV STATIC DATA

|                                  |         |                                   |           |
|----------------------------------|---------|-----------------------------------|-----------|
| <b>Tag/Equip No.:</b>            | 10942   | <b>Serial No.:</b>                | C07-21643 |
| <b>Manufacturer:</b>             | CROSBY  | <b>CRN No.:</b>                   | OG0703.92 |
| <b>Model No.:</b>                | JOSE55J | <b>Code Stamp:</b>                |           |
| <b>Side (Shell or Tube):</b>     | Shell   | <b>Outlet Size:</b>               | 4         |
| <b>Inlet Size:</b>               | 3       | <b>Outlet Type / ANSI Rating:</b> | /         |
| <b>Inlet Type / ANSI Rating:</b> | /       |                                   |           |

### PSV SERVICE DATA

|                            |                      |                           |             |
|----------------------------|----------------------|---------------------------|-------------|
| <b>Set Date:</b>           | 1 Jan, 1900          | <b>Service Interval:</b>  | 48          |
| <b>Set Pressure (psig)</b> | 2127                 | <b>Capacity (scfm):</b>   | 54203       |
| <b>Service Company:</b>    |                      | <b>Next Service Date:</b> | 1 Jan, 1904 |
| <b>Comments:</b>           | VERIFY PSV SET DATE. |                           |             |

### EQUIPMENT PROTECTED

| Prov Reg No. | Equipment No. | Serial No.   | Equipment Name     | Status    | MAWP    |
|--------------|---------------|--------------|--------------------|-----------|---------|
| 0526913      | 10943         | 2009-8035-01 | INLINE SEPARATOR   | Operating | 2127.00 |
| 0526914      | 10942         | 2009-8035-02 | CONTACTOR          | Operating | 2127.00 |
| 0593290      | 10941         | 2009-8035-06 | LEVEL CONTROL CAGE | Operating | 2127.00 |

### PSV SUMMARY

PSV service is past due.