# Ultrasonic Inspection Report

| Job #: | Report #: | Inspection Date: |
|---|---|---|
| - | --UT-BV-1 | March 30, 2012 |

| | | | |
|---|---|---|---|
| **Client:** | CNRL | **Location:** | Grand Forks LSD: 10-22-012-14W4M |
| **Procedure:** | UT-0001 | **Item Inspected:** | Vessel Dehy Tower A0437520 |
| **Code:** | ASME Section VIII Div 1 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Surface Condition:** | Painted ☒ | Sandblasted ☐ | Machined ☐ | As Cast ☐ | As Forged ☐ | |
| | Weldment ☐ | Other ☐ | | Material: C.S. | | |
| **Scanning Surface:** | OD ☒ | ID ☐ | Other: | **Surface Temp (°C):** | > 5° / < 60° | |
| **Method:** | Contact ☒ | Immersion ☐ | Other ☐ | | | |
| **Type:** | P/E ☐ | T/T ☐ | Dual ☒ | Automated ☐ | TOFD ☐ | |
| **Application:** | Laminar ☒ | Shear Wave ☐ | Volumetric ☐ | Thickness ☒ | | |
| **Instrumentation:** | Mfg: G.E. | Type: Krautkramer | Equip #: DMS2 | Serial #: 020XP6 | | |
| **Calibration:** | Date: 01/12/2012 | | | Reference Flaw Size: Backwall | | |
| **Calibration Block (s):** | Type: | Block#: | Type: | Block#: | | |
| | Type: .5" Stepwedge | Block#: 10-2192 | Type: | Block#: | | |
| **Couplant:** | Brand: Sono Tech | Type: Echogel | **Cable:** | Type: Coaxial | Length: 36" | |

| PROBE | | | | | | Settings - dB | | | Range - ☐ IN. ☐ MM | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manufacturer | Type | Serial # | Angle | Frequency | Size | Ref Level | Scan Level | Transfer Value | Screen Size | Skip Value | Beam Travel |
| G.E. | Dual | 0200LL | 0 | 7.5Mhz | 0 | 6db | | | | | |
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## Scope and Inspection Results

**Carry out UT examination of Dehy Tower A0437520.**
**Check for corrosion of the Bottom Head, shell and associated piping to verify integrity for service and identify any areas of concern.**

**Results:**
**UT examination was carried out; all readings taken were 10" band scans with three readings per TML location / band.**
**Minimum, Maximum and Average readings were taken and recorded in each location.**
**All readings were found to be at or above nominal on the Bottom Head, shell and associated piping.**
**See attached Pictures, drawing and UTM Readings for locations and thicknesses recorded.**

**Recommendation:**
**Continue to carry out UT corrosion survey and Visual inspection at the required inspection frequency.**

**Final Comment:**
**Dehy Tower is fit for service.**

**Inspection Limitation(s):** None

## Time and Billing Information:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Vehicle #:** | 001 | **Kms:** | | **Hrs** | **Tech. (Name):** | Blair Verge | **SNT-TC-1A:** | 1 |
| **Time In:** | 00:00 | **Time Out:** | 00:00 | | **Tech. (Sign):** | | **CGSB Level:** | I |
| **Time In:** | 00:00 | **Time Out:** | 00:00 | | **Client (Name):** | | **CGSB #:** | 5586 |
| **Personnel:** | Ayralee Martin **Blair Verge** | | | | **Client (Sign):** | | | |

**Additional Billing Information:** : -

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# CORROSION INSPECTION SERVICES

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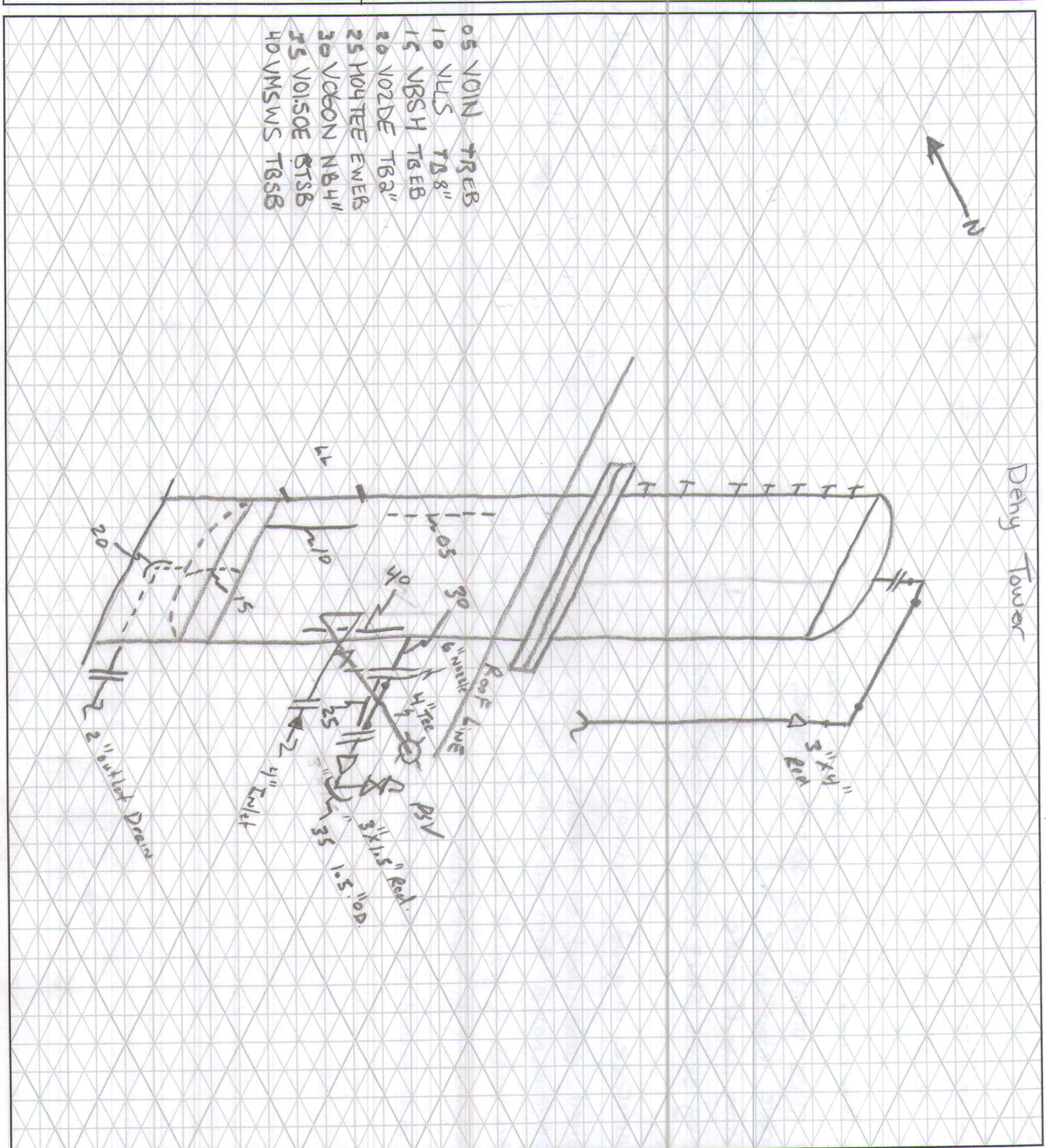


**CUSTOMER:** CNRL **FACILITY:** Grand forks **LSD:** 10-22-012-14W4M

**P & ID:** **DRAWN BY:** B. Verge **DATE:** May 30/12 **DRAWING NO.**

**VESSEL INFORMATION:**

Equip. No. V-480 Pro. Reg. No. (A) 0437520 C.R.N. LØ9116.213 Serial No. V-2810A2 Yr. Inst.

Code/Div. Size: 24" ID / OD X: 26'0" Manufacturer: OPSCO '92 Industries Ltd. Yr. Blt. 1998

C. Stamp: Yes Service: Sour PWHT: HT J.E.: Radiography: RT-1 Insulated: NO

**HEAD:**

Top Mat'l. SA-516-70N Top Nom: 1.140" Top C.A. **SHELL:** Material: SA-516-70N Nominal: 1.125" C.A. .125"

Btm Mat'l. Btm Norm: Btm C.A.

**BOOT:** **CHANNEL:**

Head Mat'l: Head Nom. Head C.A. Top Mat'l. Top Nom. Top C.A.

Shell Mat'l: Shell Nom. Shell C.A. Btm Mat'l. Btm Nom. Btm C.A.

MAWP Shell Side: 1440 PSI @ Temp. 120°F MAWP Tube Side: @ Temp.

**PIPING INFORMATION:** MOMT -20°F @ 1440 PSI

Circuit. No. Line No. (s) **(PLEASE PUT LINE NUMBERS ON APPLICABLE LINES ON THE DRAWING)**

Piping Class: Service: Yr. Blt.

MAWP: @ Temp. Size & Schedule of Piping **(PLEASE PUT APPROPRIATE SIZES AND SCHEDULES OF PIPING ON DRAWING)**

# UT Readings for Dehy Tower A0437520

| | Minimum | Maximum | Average |
|---|---|---|---|
| **LOC 5** | 1.132 | 1.134 | 1.134 |
| **LOC 10** | 1.133 | 1.149 | 1.135 |
| **LOC 15** | 1.176 | 1.239 | 1.191 |
| **LOC 20** | 0.388 | 0.408 | 0.388 |
| **LOC 25** | 0.492 | 0.668 | 0.566 |
| **LOC 30** | 1.044 | 1.076 | 1.049 |
| **LOC 35** | 0.319 | 0.328 | 0.327 |
| **LOC 40** | 1.13 | 1.131 | 1.131 |