

50-0507-T-130

Produced Water Tank

COLT ENGINEERING CORPORATION**Report No:** 5184-02**SHOP INSPECTION REPORT****Date of Visit** March 01, & 02, 2004**Procurement Fax No:** (403) 258-5897**Job No:** 03-C-3951**Client:** Petro-Canada Oil and Gas**Project:** Minehead 05 – 07 Tie-In**Inspector:** M. Fester

VENDOR INFO	PRIME SUPPLIER	SUBSUPPLIER
Purchase Order No:	3951-AHW-01	
Name:	Nusco Manufacturing & Supply Ltd.	
Location:	Nisku, Alberta	
Contact:	Sandy Belseck	
Phone:	780-955-2051	
Shop Order No:	00-7659	

TAG NO:

T-130

Original Promise:

TBD

Current Promise:

TBD

STATUS**%****Current Completion Date****EQUIPMENT DESCRIPTION:**

One 12' Diameter x 20' High 400 bbl. Double Walled

Tank internally coated with Devoe 253, and externally with Bar-Ox 752 and Carboline Enamel.

Engineering

100

Materials

100

Coating

100

Inspection

100

■ Complete

SUMMARY OF ACTIVITIES:**REVIEW OF INTERNAL COATING MATERIAL**

Verified container batch numbers for the internal Devoe 253 coating.

Second Coat: The base batch number was 51628 HU3H
 The catalyst batch number was 49648 HU3G
 The coating colour was white.

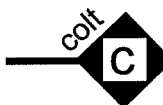
Third Coat: The base batch number was 54553 HU3L
 The catalyst batch number was 49648 HU3G
 The coating colour was blue.

Thinner: Devoe T-10 @ 5%
 Thinner batch number was 13021091.

The coating storage conditions were checked and deemed to be acceptable.

The applicator has been approved by the coating manufacturer to apply this product.

Inspector:	M. Fester	Hrs used this Visit:	004.0 ST / 00.0 OT / 0080 KM
Date:	March 03, 2004	Hrs used to Date:	008.0 ST / 00.0 OT / 0160 KM



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VERIFICATION OF INTERNAL COATING DRY FILM THICKNESS - VESSEL

On March 01, 2004, our inspector checked the dry film thickness of the final coat of the Devoe 253 coating applied internally to the tank. The entire internal surface was coated. The coating was applied, in three coats, using an airless spray system. The final coating colour was blue. The coating D.F.T., on the floor, ranged from 10.4 mils to 16.4 mils with an average of 13.6 mils. The coating D.F.T., on the first course of the shell, ranged from 9.8 mils to 15.0 mils with an average of 12.2 mils. The coating D.F.T., on the second course of the shell, ranged from 9.8 mils to 16.8 mils with an average of 13.2 mils. The coating D.F.T., on the third course of the shell, ranged from 9.9 mils to 14.4 mils with an average of 11.2 mils. The coating D.F.T., on the fourth course of the shell, ranged from 9.7 mils to 15.7 mils with an average of 12.4 mils. The coating D.F.T., on the roof, ranged from 9.7 mils to 17.3 mils with an average of 13.6 mils. The coating D.F.T., in the nozzles, ranged from 10.1 mils to 16.8 mils with an average of 13.8 mils. The coating D.F.T., on the external surface of the heater coil, ranged from 9.2 mils to 14.6 mils with an average of 11.8 mils. The ambient conditions were monitored and were deemed to be acceptable. The coating was visually examined and was deemed to be acceptable.

WITNESS HOLIDAY TESTING – INTERNAL COATING

The internal Devoe 253 coating, in the vessel, was holiday tested on March 01, 2004, using a SPY Low Voltage Thin Film Wet Sponge tester. The tester was set at 67.5 volts with a resistance of 80,000 ohms. Water was used as a surfactant. No coating holidays were observed.

COATING CURE – INTERNAL COATING

The coating cure was checked on March 01, 2004. The coating cure was checked using Time at Temperature. The coating cure was deemed to be complete at the time of inspection. The applicator advised that the coating was force cured for 24 hours @ 75°F to ensure a complete cure.

WITNESS HOLIDAY TESTING – AFTER INSTALLATION OF INTERNALS

On March 02, 2003, our inspector traveled to Nusco's facility, in Nisku, to perform a holiday test on the internal surface after the installation of the heater coil and piping. The internal Devoe 253 coating on the floor, and lower shell, was visually inspected, and holiday tested, using a SPY Low Voltage Thin Film Wet Sponge tester. The tester was set at 67.5 volts with a resistance of 80,000 ohms. Water was used as a surfactant. No coating holidays were observed.

REVIEW OF EXTERNAL COATING MATERIAL

Verified container batch numbers for the external coatings.

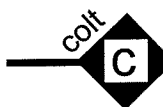
Cloverdale 74795: The base batch number was 3G 1352
The coating colour was black.

Cloverdale 74811: The base batch number was 3G 1256
The coating colour was white.

The coating storage conditions were checked and deemed to be acceptable.

The applicator has been approved by the coating manufacturer to apply this product.

Inspector:	M. Fester	Hrs used this Visit:	004.0 ST / 00.0 OT / 0080 KM
Date:	March 03, 2004	Hrs used to Date:	008.0 ST / 00.0 OT / 0160 KM



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VERIFICATION OF EXTERNAL COATING DRY FILM THICKNESS - VESSEL

On March 01, 2004, our inspector checked the dry film thickness of the Cloverdale 74795 coating applied externally to the tank. The outer perimeter of the base was coated. The coating was applied, in one coat, using an airless spray system. The coating colour was black. The coating D.F.T. ranged from 3.8 mils to 5.2 mils with an average of 4.1 mils. The ambient conditions were monitored and were deemed to be acceptable. The coating was visually examined and was deemed to be acceptable.

On March 01, 2004, our inspector checked the dry film thickness of the Cloverdale 74811 coating applied externally to the tank. The protrusions, tank bottom, and bottom of the base, were coated. The coating was applied, in one coat using an airless spray system. The coating colour was white. The coating D.F.T. ranged from 2.9 mils to 5.5 mils with an average of 3.6 mils. The ambient conditions were monitored and were deemed to be acceptable. The coating was visually examined and was deemed to be acceptable.

REVIEW OF APPLICATION QC DATA

The applicator's QC coating application documentation was reviewed and found to be in order.

COMMENTS

This concludes our involvement with the coating inspection of this tank.

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Date:	March 03, 2004	Hrs used to Date:	008.0 ST / 00.0 OT / 0160 KM

