

CASE STUDY: VCI ACCELERATED HUMIDITY TEST, MAY 2020



NOV Upper Grip Dies P/N:10378887-001 (Figure 1)

The Details

Application: Laboratory test to evaluate the vaporinhibiting ability of volatile corrosion inhibitor materials for temporary protection of ferrous metal surfaces in accelerated condition

Tested Part: NOV Upper Grip Dies P/N:10378887-001(Figure 1)

Metal: Cast Iron

Tested by: Buki Schwartzman

Customer: Supply One/NOV Rig System



(Figure 2)

Specimens Preparation

One Grip Die packed in a 5 mil VCI2000 blue bag

One Grip Die packed in a 5 mil polyethylene clear bag (Figure 2)







(Figure 3)

Test Method

Both parts were sealed in glass testing jars for 24 hours at room temperature. After 24 hours 30 mL of distilled water were added to each jar (Figure 3). Both jars were placed in an oven for a 7-day cycle, alternating 12 Hours at 950°F at 100% relative humidity and 12 hours at room temperature.



Test Results

There was heavy corrosion on the Grip Die packed in plain polyethylene bag. The Grip Die packed in the VCI2000 blue bag passed the test.









