## Proposed Ewart Unit No. 10

## **Application for Enhanced Oil Recovery Waterflood Project**

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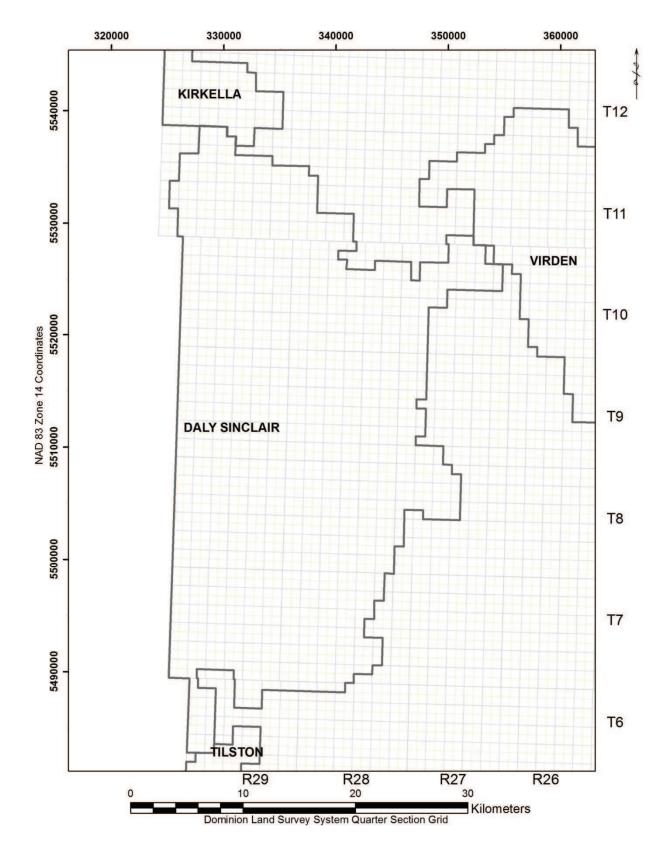
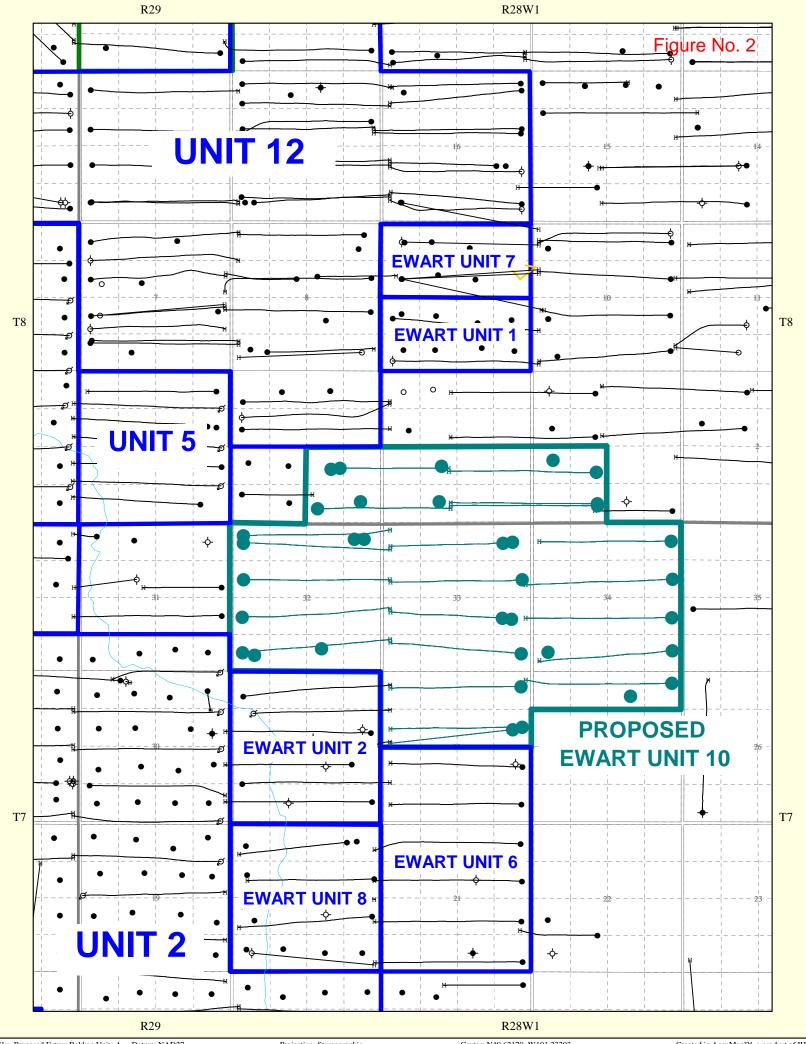


Figure 2 - Daly Sinclair Field (01)



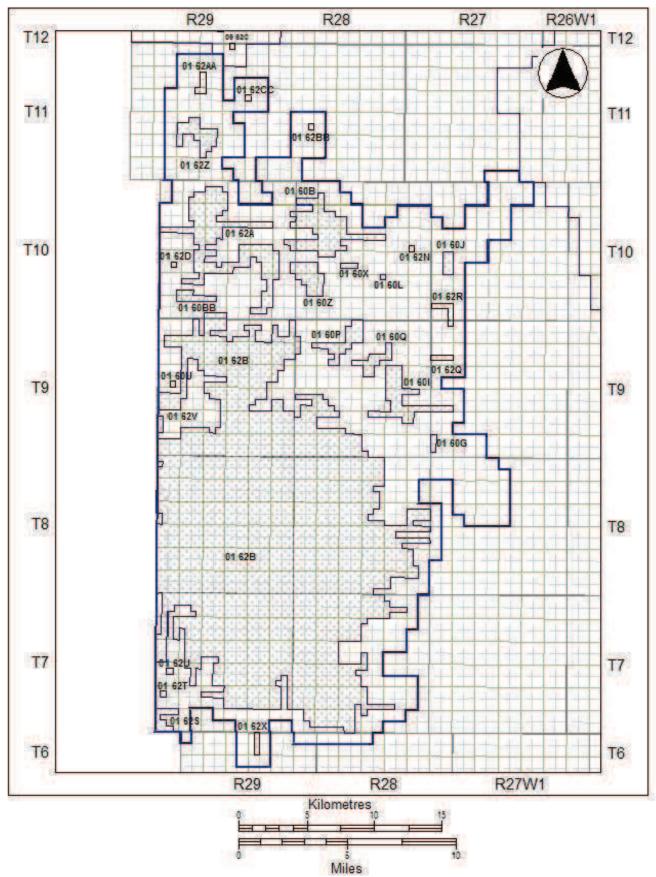
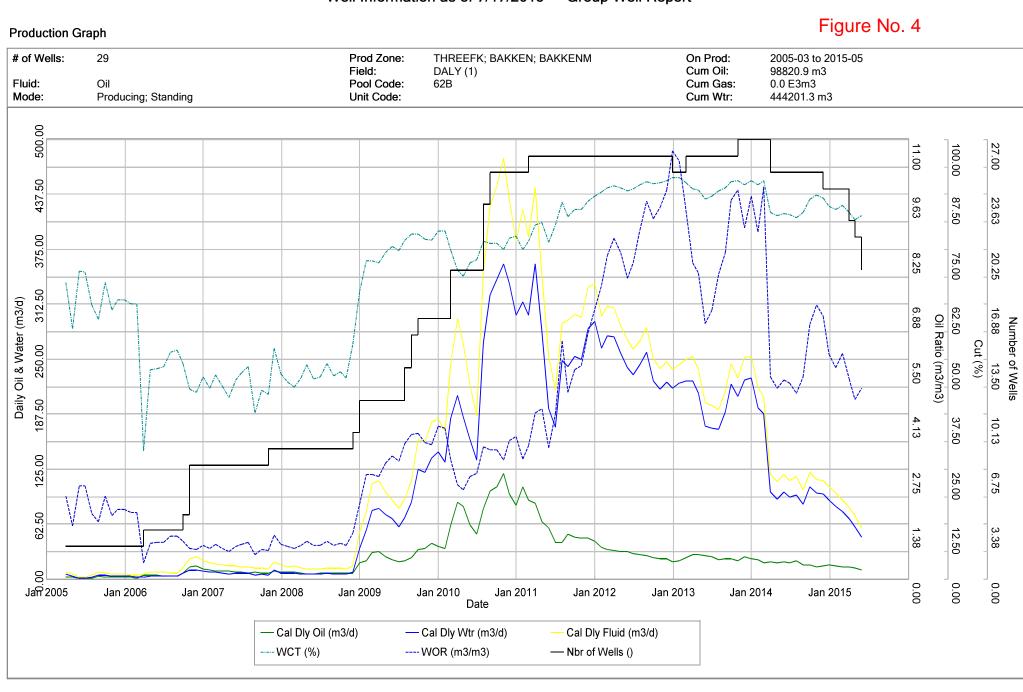
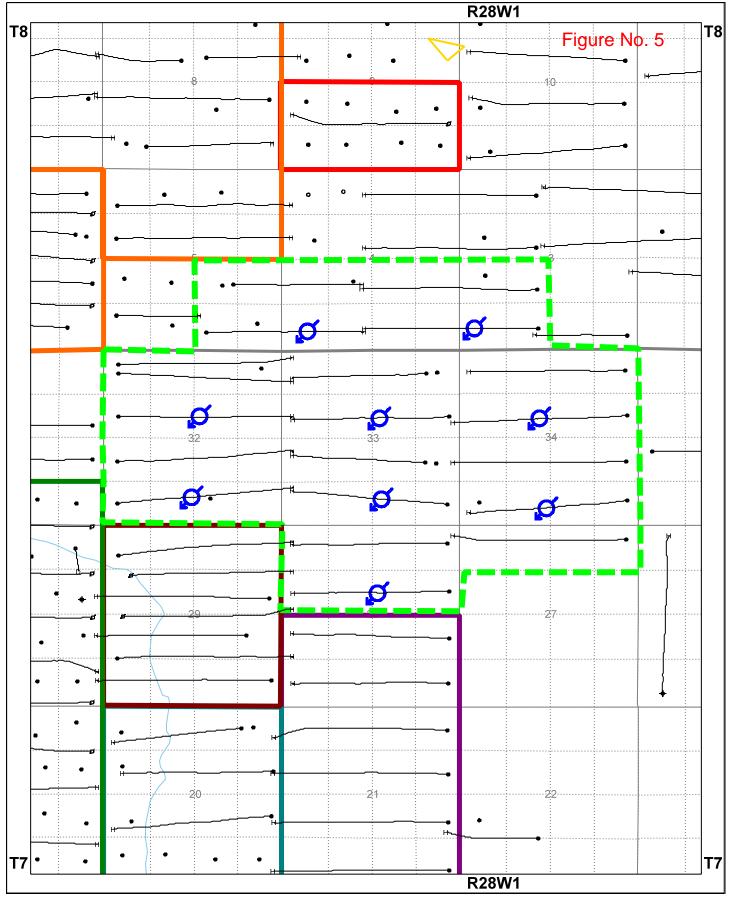


FIGURE 14 - DALY SINCLAIR BAKKEN & BAKKEN-THREE FORKS POOLS (01 60A - 01 60BB & 01 62A - 01 62CC) (Drawn on the DLS System Quarter Section Grid)

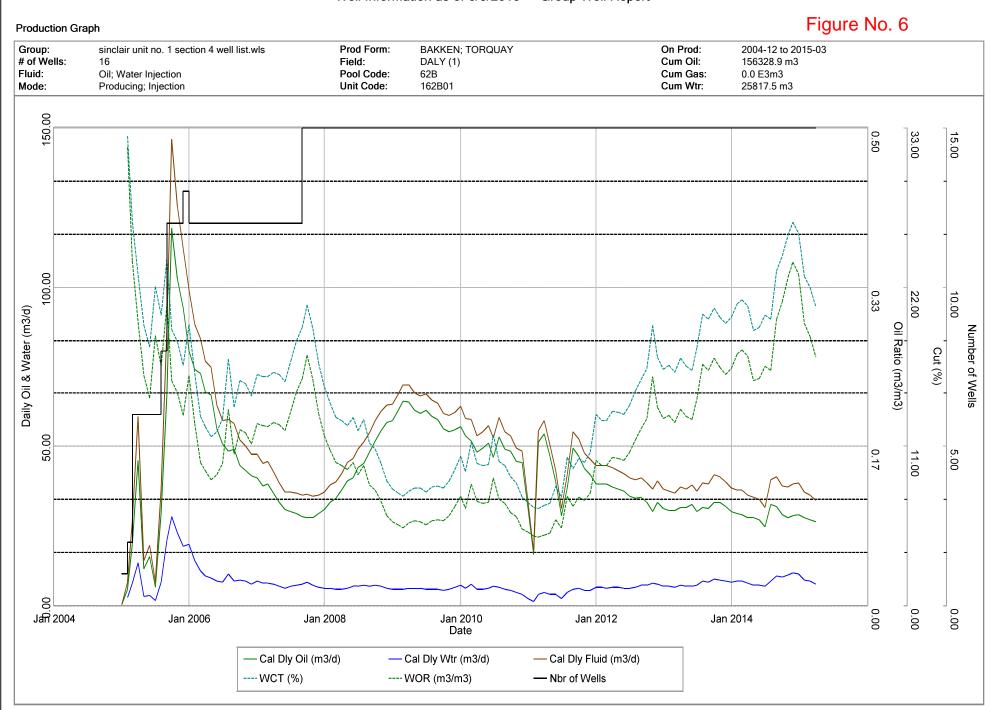




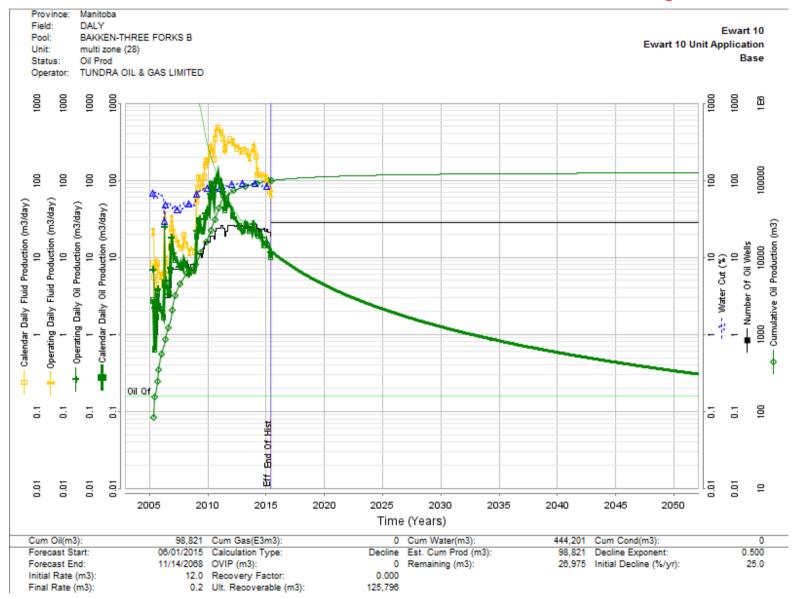
Datum: NAD27 Projection: Stereographic DLS Version AB: ATS 2.6, BC: PRB 2.0, SK: STS 2.5, MB: MLI07



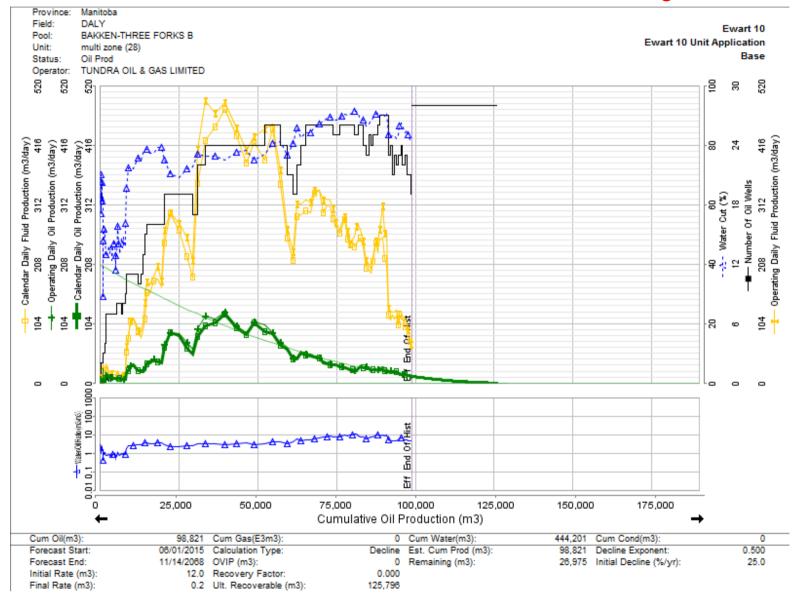
### Well Information as of 6/5/2015 - Group Well Report



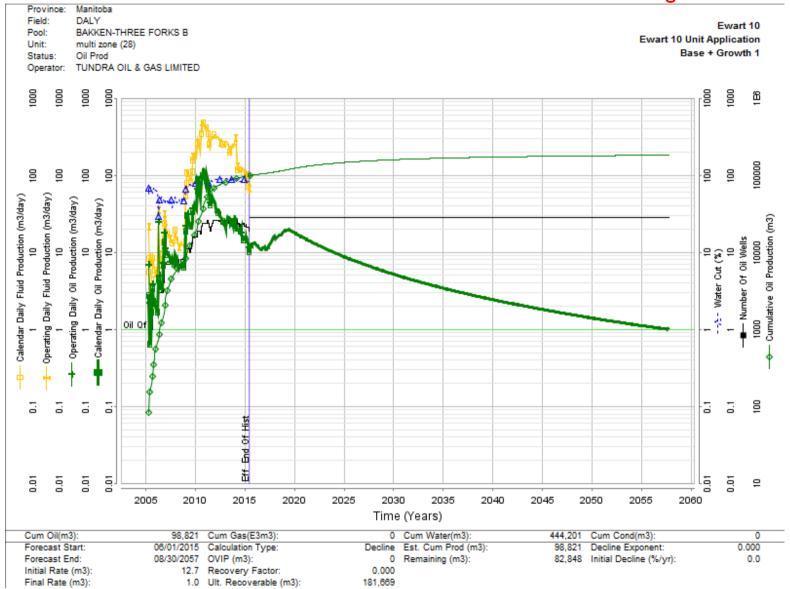
# Figure 7a



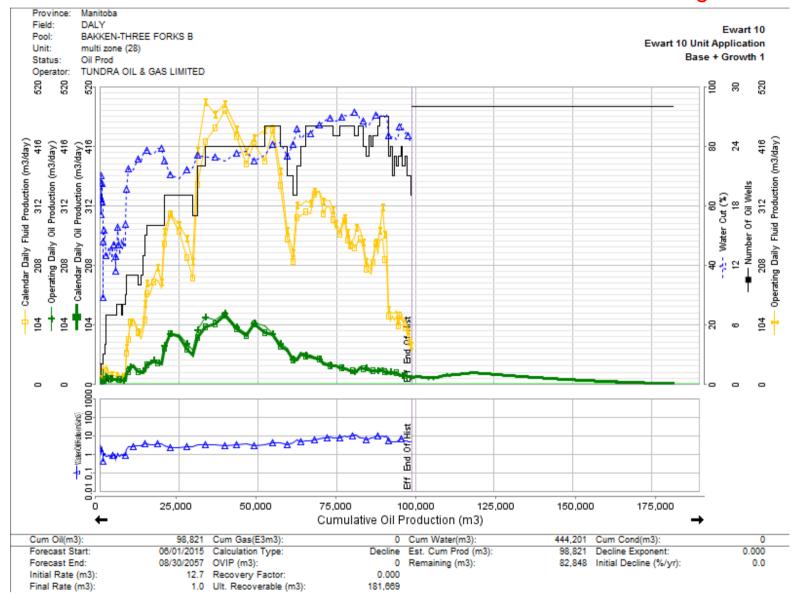
## Figure 7b



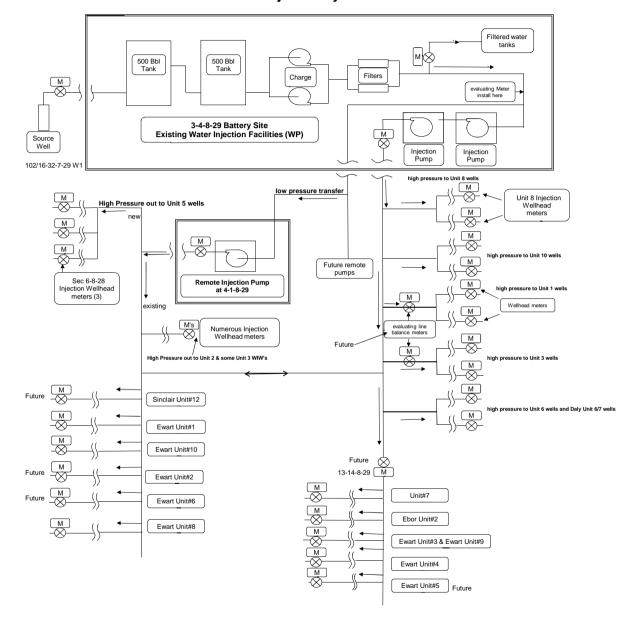
# Figure 8a



# Figure 8b

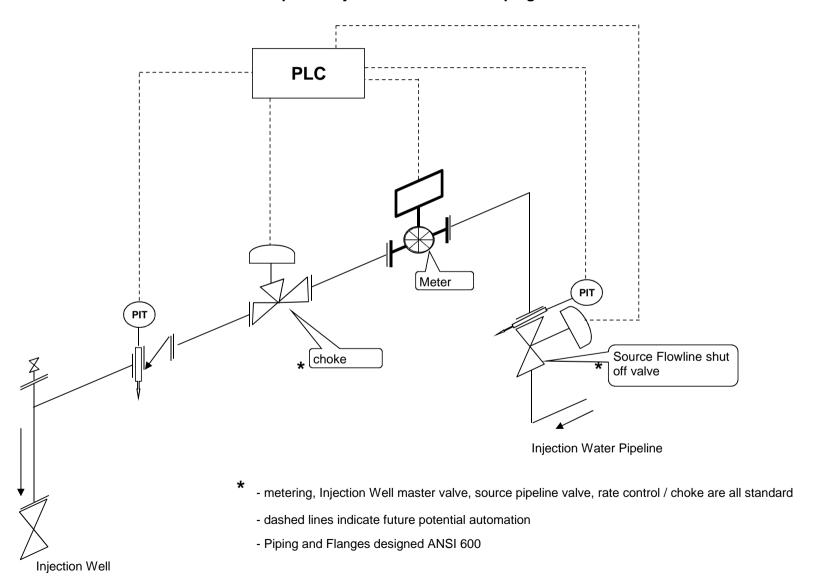


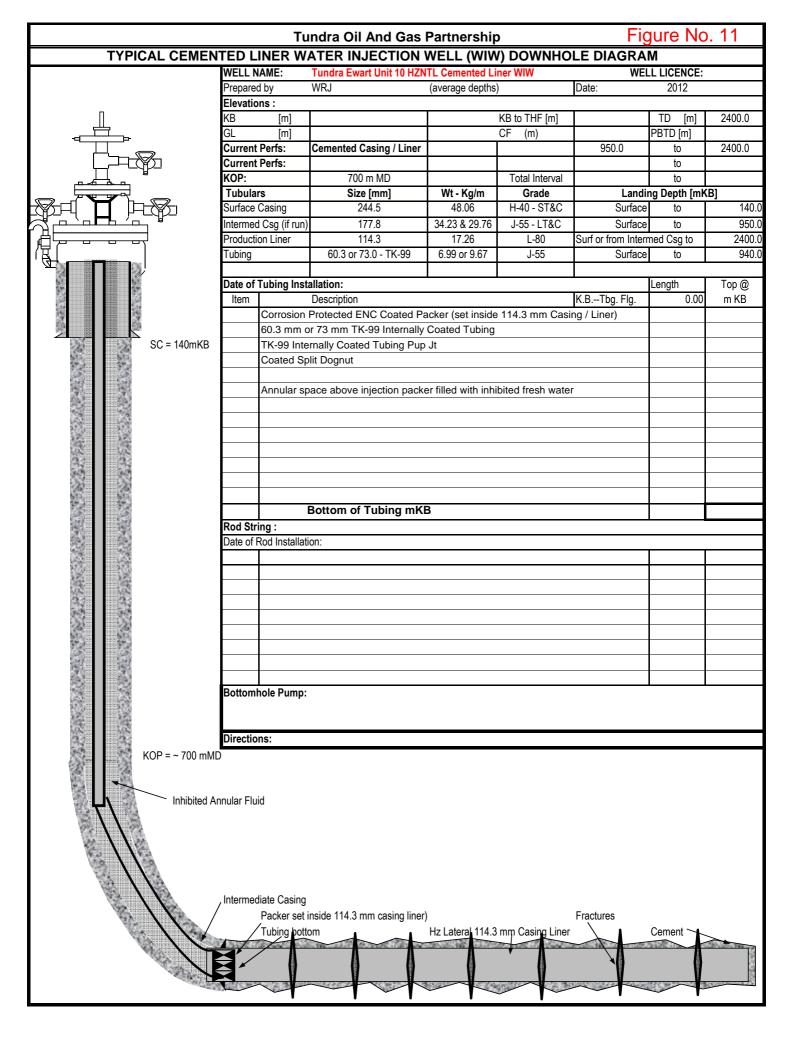
### **Sinclair Water Injection System**



## **Ewart Unit No. 10**

## **Proposed Injection Well Surface Piping P&ID**





### **Ewart Unit No. 10**

## **EOR Waterflood Project**

### Planned Corrosion Control Program \*\*

#### Source Well

- Continuous downhole corrosion inhibition
- Continuous surface corrosion inhibitor injection
- Downhole scale inhibitor injection
- · Corrosion resistant valves and internally coated surface piping

#### **Pipelines**

- Source well to 3-4-8-29 Water Plant Fiberglass
- New High Pressure Pipeline to Unit 9 injection wells 2000 psi high pressure Fiberglass

#### **Facilities**

- 3-4-8-29 Water Plant and New Injection Pump Station
  - o Plant piping 600 ANSI schedule 80 pipe, Fiberglass or Internally coated
  - Filtration Stainless steel bodies and PVC piping
  - o Pumping Ceramic plungers, stainless steel disc valves
  - o Tanks Fiberglass shell, corrosion resistant valves

#### Injection Wellhead / Surface Piping

 Corrosion resistant valves and stainless steel and/or internally coated steel surface piping

#### Injection Well

- · Casing cathodic protection where required
- Wetted surfaces coated downhole packer
- Corrosion inhibited water in the annulus between tubing / casing
- Internally coated tubing surface to packer
- Surface freeze protection of annular fluid
- Corrosion resistant master valve
- Corrosion resistant pipeline valve

#### **Producing Wells**

- Casing cathodic protection where required
- Downhole batch corrosion inhibition as required
- Downhole scale inhibitor injection as required

Figure 12

<sup>\*\*</sup> subject to final design and engineering