PROPOSED EWART UNIT NO. 15

APPLICATION FOR ENHANCED OIL RECOVERY WATERFLOOD PROJECT

LODGEPOLE FORMATION

DALY SINCLAIR FIELD, MANITOBA

September 19, 2018

Corex Resources Ltd.

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INTRODUCTION

The Daly portion of the Daly Sinclair Field is situated in Townships 8 to 11 Ranges 27 to 29 W1M and was developed in the 1950's with vertical wells. Technological advances in drilling and completion operations, specifically with respect to horizontal wells, have revived field activity in this area. The first four (4) wells within the proposed unit, 100/11-33-008-28W1, 100/12-33-008-28W1, 100/13-33-008-28W1, and 100/14-33-008-28W1 were drilled in 2008 and the results supported the drilling of another vertical well as well as a vertical disposal well 2009. It is important to note the five producing vertical wells are commingled with the Bakken. Based upon the success of horizontal drilling and hydraulic fracturing in the surrounding area, Corex drilled five (5) horizontal wells within the proposed unit area and has completed its full development plan.

Corex as operator and sole working interest owner, is proposing a unit be created which will include the following lands: Lsd's 9 to 16 in the N½ 33, all in Township 8 Range 28W1M and believes the potential exists for incremental production and reserves from an Enhanced Oil Recovery (EOR) waterflood project in the Lodgepole formation. As of August 2018, the proposed application area contained eleven (11) wells which status be broken down as follows: Five (5) horizontal Lodgepole wells and six (6) vertical wells, five (5) of which are producing and one (1) is a water disposal well. In addition to the Lodgepole wells referenced above, there is one (1) operated Bakken well within the unit area, the five (5) producing vertical wells are commingled in the Bakken, and an additional horizontal Bakken well is planned to be drilled in 2018 (the Bakken will be unitized in a separate application at a later date). We anticipate converting some of the producing Lodgepole horizontal wells into injectors when implementing the EOR waterflood project, however, our plan would be to produce any newly drilled wells for at minimum one (1) year before such conversion. Corex hereby submits an application to establish Ewart Unit No. 15 and implement an EOR Waterflood Project within the Lodgepole formation (Figure 1).

The proposed Ewart Unit No. 15 falls within the Daly Sinclair Lodgepole Pool (Figure 2).

SUMMARY

1. The proposed Ewart Unit No. 15 will include the Lodgepole formation in eight (8) legal subdivisions (Lsd's) and contains eleven (11) wells: Five (5) horizontal Lodgepole and six (6) vertical wells: Five (5) currently producing and one (1) water disposal well, (Figure 1).

2. The original oil in place (OOIP) for the proposed Ewart Unit No. 15 is calculated as 1.863 10^6m^3 (11.719 MMbbl), for an average of 233 10^3m^3 (1,465 Mbbl) per LSD.

3. Cumulative production in the proposed Ewart Unit No. 15 to the end of July 2018 is 36.2 10^3m^3 (228 Mbbl) of oil. This represents a 1.95% recovery factor of the total OOIP.

4. Production began in February 2008, with a total of four (4) vertical wells drilled in 2008. In 2009, an additional vertical well and a disposal well were drilled. Drilling of horizontal wells in the surrounding area has revived activity and Corex has recently drilled five (5) horizontal wells in the proposed unit area. In April 2018, the proposed Ewart Unit No. 15 reached a peak

of 61.4 m^3/d (386 b/d), or an average of 6.1 m^3/d (39 b/d) per well, with 8% watercut (Figure 3).

5. The Estimated Ultimate Recovery (EUR) of oil on primary production within the proposed Ewart Unit No. 15 through the use of type curves and a section model is 118.6 10^3m^3 (745.9 Mbbl), with 82.3 10^3m^3 (518 Mbbl) remaining as of July 2018. The Estimated Ultimate Recovery Factor (EURF) on primary production would be 6.36% of the total OOIP within the Lodgepole section.

6. With the implementation of a waterflood within the Flossie Lake member of the Lodgepole formation, incremental reserves of 144.8 10^3m^3 (910.5 Mbbl) are expected while the incremental recovery factor is expected to be 7.77% for a total recovery factor of 14.1% for the entire Lodgepole section.

7. The development plan is to continue producing the existing wells. Horizontal wells will be converted into water injectors and the waterflood initiated in 2019, (Figure 4). The first of the conversions is planned in Q1 2019. This timing is contingent upon the approval of the unitization and EOR waterflood application. All recently drilled horizontal wells in the proposed Ewart Unit No. 15 have been completed using multi-stage hydraulic fracturing. Further drilling within the other Lodgepole members, within the unit area, remains a possibility at a later date.

GEOLOGY

Stratigraphy

The Lodgepole formation in the proposed unit area contains a significant volume of hydrocarbons and conformably overlies the hydrocarbon-bearing Bakken formation. It was deposited in a gently sloping carbonate ramp setting and has been subdivided by Corex into six laterally continuous, shallowing upwards cycles. In ascending order, the sequence consists of two non-reservoir cycles: the Basal Limestone and the Cromer Shale which are overlain by four reservoir cycles: the Cruikshank Crinoidal, the Lower Daly, the Middle Daly and the Flossie Lake. The Lodgepole formation is unconformably overlain by the red silts and shales of the Lower Amaranth, and the anhydrites and shales of the Upper Amaranth which forms the top seal for the hydrocarbon system. The stratigraphy of the Lodgepole formation is shown on the type well and structural section which runs west to east through the existing vertical well control in the proposed unit (Appendix I).

Sedimentology

Starting at the base of the Lodgepole section and working upwards, the first cycle immediately overlying the Bakken formation is the Basal Limestone. The Basal Limestone is a cream to pink cherty, slightly argillaceous limestone with traces of fossil hash. This unit is considered non-reservoir and is capped by an argillaceous marker bed.

The next cycle, the Cromer Shale, consists of tan to light brown, occasionally dolomitic, limestone with minor anhydrite, grey-green shale and very fine quartzose siltstone components. The Cromer Shale is a non-reservoir unit and is capped by a light to medium grey "shale" unit.

The overlying Crinoid is the first reservoir quality cycle deposited within the Lodgepole formation. It is comprised of tan to off white, argillaceous limestone with occasional vertical fracturing. This unit displays little faunal variation and bioclastic components are dominated by crinoids indicating deposition in a slightly restricted marine slope environment. There are no cored wells in close proximity to the proposed unit area. The isopach in the area ranges from 5 to 7m in thickness with net pays from 1.1 to 1.4m using a 6% log cutoff and an Oil Water of -320m SS. (Appendix II & Appendix III). There are no wells completed in the Crinoid.

The Lower Daly is the next shallowing upwards reservoir cycle and grades from a tan to light brown lime mudstone into bioclastic wackestone. It is occasionally argillaceous with traces of pyrite, dolomite, and biofragments, indicating deposition in a relatively quiet, muddy, slightly upslope environment. There are no cored wells in close proximity to the proposed unit area. The isopach of the unit has values ranging from 7 to 12m (Appendix IV) with net pays from 2.2 to 4.8m using a 6% log porosity cutoff. (Appendix V). There are no wells completed in the Lower Daly.

The Middle Daly is a light tan to tan, partially recrystallized very fine to fine dolomitic biofragmental wackestone which grades to a cryptocrystalline mudstone with minor anhydrite and shale. The rock becomes increasingly calcareous moving up section. Deposition of this shallowing upward sequence occurred in a more restricted marine ramp environment than the underlying Lower Daly and is reminiscent of the Midale Marly of Southeast Saskatchewan. Within the proposed unit area, there are no cored wells. The isopach of this unit varies from 8 to 11m (Appendix VI) with net pays ranging from 1.3 to 2.4m using a 6% porosity log cutoff (Appendix VII). No wells have been completed in the Middle Daly within the proposed unit area.

The final reservoir cycle in the Lodgepole sequence is the Flossie Lake. The base of the Flossie Lake is a dolomitic limestone. The cycle then grades upward into an interbedded dolomite and anhydrite, indicating deposition in the uppermost shallow evaporitic ramp setting. This interval is a light to medium brown, horizontally laminated, microsucrosic, occasionally shaly, dolomite interbedded with dense, white anhydrite in beds or as inclusions or lenses. The uppermost 3 to 4m of the Flossie Lake is dominated by anhydrite and contains only minor oil stained dolomite beds. Within the proposed unit area and in close proximity there are no cores. The isopach is from 22 to 29m (Appendix VIII) with net pay ranging from 8 to 12m using a 6% log cutoff (Appendix IX). All the vertical wells, 10, 11, 12 and 14-33-08-28 are completed in the Flossie Lake. As well, all horizontals except the 100/09-33-08-28. which is a Bakken completion. are within this zone. This member is the main target for this unit application.

Structure

The structure within the proposed unit area is flat as can be seen from the structure maps for all reservoir units included in the Appendices XII to XV There is no direct evidence indicating significant natural faulting in the vicinity of the proposed unit area.

Reservoir

Maps for each of the four reservoir units were generated using available openhole logs. There are no wells cored within the proposed unit area. Net pay for the Flossie Lake in the proposed unit area ranges from 8 to 12m using a 6% LS density porosity cutoff. Using the same cutoff, net pay for the Middle Daly ranges from 1.3 to 2.4m, net pay for the Lower Daly ranges from 2.2 to 4.8m, in the Crinoid the net pay is around 1.3m.

Fluid Contacts

The oil-water contact has been determined to be -305m SS. This is based on logs and several wet DST's in the area, including one at the 100/06-33-8-28W1.

OIL IN PLACE, PRODUCTION HISTORY AND ESTIMATED RECOVERY

Original Oil in Place

The original-oil-in-place (OOIP) for the proposed Ewart Unit No. 15 is 1.863 10^6m^3 (11.719 MMbbl for the Lodgepole formation. The OOIP was calculated in-house. Values of thickness, porosity and water saturation of each LSD for the various reservoir zones are used to calculate the OOIP on an individual LSD basis. Details of the calculations are summarized in Table 1.

Historical Production

Figure 3 shows the production history of the wells within the proposed Ewart Unit No. 15. There is a total of eleven (11) wells with the status as of August 2018 as follows: Five (5) horizontal Lodgepole and six (6) vertical wells: Five (5) currently producing and one (1) water disposal well (102/11-33-008-28W1/00). The referenced wells are perforated in the Lodgepole formation, with the vertical wells having separate events producing out of the Bakken formation.

To the end of July 2018, the proposed Ewart Unit No. 15 has produced cumulative volumes of oil of 36.2 10^3m^3 (228 Mbbl) and water of 15.7 10^3m^3 (98.9 Mbbl). The current recovery factor is 1.95%.

Production began in February 2008, with a total of four (4) vertical wells drilled in 2008. In 2009, an additional vertical well and a disposal well were drilled. Drilling of horizontal wells in the

surrounding area has revived activity and Corex has recently drilled five (5) horizontal wells in the proposed unit area. In April 2018, the proposed Ewart Unit No. 15 reached a peak of 61.4 m^3/d (386 b/d), or an average of 6.1 m^3/d (39 b/d) per well, with 8% watercut (Figure 3).

Primary Recovery

Table 3 lists the wells within the proposed unit area, together with the cumulative oil production to the end of May 2018 and the EUR estimated using decline analysis. The total EUR for the proposed Ewart Unit No. 15 with further development is 118.6 10^3m^3 (745.9 Mbbl) for a recovery factor of 6.36% of the total OOIP of the Lodgepole section.

Secondary Recovery

Within the Lodgepole formation, the proposed waterflood will target the Flossie Lake member which contains over 61% of the total OOIP. A section model of the Flossie Lake zone was built to estimate the expected recovery from waterflooding. This section model used average reservoir properties and was tuned to match the type production profile of Corex horizontal producers within the Flossie Lake member. With decline analysis and model results Corex expects an EURF of 10.4% under primary depletion. With horizontal wells converted into injectors, the section model yields an ultimate EURF of 23.1%, or an incremental recovery factor of 12.7%. Note that these recovery factors are based on the OOIP of the Flossie Lake zone only and not the entire Lodgepole formation. Additional information on the section model that was scaled to represent Ewart Unit No. 15 is included in Appendix XVI.

UNITIZATION

The basis for unitization is to implement a waterflood to increase the ultimate recovery of the OOIP from the proposed project area.

Unit Name

Corex proposes the name of the new unit shall be Ewart Unit No. 15.

Unit Operator

Corex will be the Operator for Ewart Unit No. 15.

Unitized Zones

The unitized zone to be waterflooded in the Ewart Unit No. 15 will be the Lodgepole formation.

Unit Wells

The eleven (11) wells: Five (5) horizontal Lodgepole and six (6) vertical wells, of which five (5) are producers and one (1) is a water disposal well in the proposed Ewart Unit No. 15 are outlined in Table 2.

Unit Lands

Ewart Unit No. 15 will consist of eight (8) Lsd's which will include Lsd's 9 to 16 which comprise the N½ 33, all in Township 8 Range 28W1M. The lands included in the 40 acre tracts are outlined in Appendix XXIII.

Tract Factors

The proposed Ewart Unit No. 15 will consist of eight (8) tracts based on remaining OOIP using maps created internally by Corex per Lsd, as of August 2018, with the production from the horizontal wells being divided according to the existing production allocation agreement. The calculation of the tract factors is outlined in Table 1.

Working Interest Owners

Appendix XXIII outlines the working interest for each recommended tract within the proposed Ewart Unit No. 15. Corex will have a 100% WI across all tracts.

WATERFLOOD DEVELOPMENT

The objective of implementing a waterflood is to provide pressure support and improve recovery. The Lodgepole formation is relatively shallow with undersaturated oil having low solution gas-oil ratios. As such, there is not much drive energy within the system. Corex believes additional energy is required to improve the recovery. Waterflooding will enhance the recovery by providing pressure support as well as displacing the oil from the injectors towards the producers.

Rock and Fluid Properties

Rock and fluid properties for the Lodgepole formation are summarized in Table 4. These properties were estimated using standard correlations in the literature as well as existing oil analysis and PVT data.

Using Corex's internal database on fracture treatments and step rate tests, the fracture gradient for the Lodgepole formation is estimated to range between 19.0 kPa/m and 25.9 kPa/m, with an average of 23.3 kPa/m. The surface fracturing pressure is estimated to range between 6,348 kPa and 11,500 kPa with the average gradient the estimated surface fracturing pressure is 9,500 kPa.

Estimated Recovery

Using the results from the Flossie Lake section model, incremental reserves of 144.8 10^3m^3 (910.5 Mbbl) are expected. Based on the total OOIP for the Lodgepole formation, the incremental recovery factor is expected to be 7.77% for an overall recovery factor of 14.1%.

Economic Limit

The economic limit will be when the net oil rate and net oil price revenue stream becomes less than the current producing operating costs. Based on current price forecasts, the economic limit for the project would be 1 m^3/d.

Source of Injection Water

The wells in the subject unit are all flowline tied in to the 12-33-08-28 battery. This battery has both the Lodgepole and Bakken formations producing to and trucked in to, as such the produced water will not be viable to be re-utilized as source water. Corex plans to use 3rd party water for the source water. Tundra has a pipeline running adjacent to the surfaces along the east side of section 32-008-28W1 and Corex plans to install a tie-in point and use this as the source water for this flood. This water is from the Spirit River formation from the well at 14-32-007-28W1 and is also filtered. If needed, a new Lodgepole source well will be drilled near the 12-33 Battery if this water is not compatible for this waterflood. Prior to making any drilling decisions, Corex will be doing all necessary testing with the fluids and reservoir this fall to ensure the fluids are compatible.

The injector wells will be equipped with surface injection rate and pressure metering with choke valves to control wellhead pressure and injection rates (Figure 8). The injection wells will be equipped with a downhole nozzle system to ensure an even distribution of injection fluid across the horizontal wellbore (representation shown in Figure 6) and waterflood conformance is met to ensure proper efficiency. These nozzles will also act as a choke to ensure the reservoir pressure remains below frac pressure. The water injection pipeline system will be monitored for leak detection using pressure variance and volume balancing. The corrosion control program outlining the planned system design and operational practices to prevent corrosion is located in Figure 8.

Operating Strategy

Corex's plan is to have alternating producer-injector patterns within the proposed Ewart Unit No. 15 and the proposed injection scheme can be seen in Figure 4.

Injection rates are expected to be in the range of 15 m^3/d to 60 m^3/d, per well, subject to a maximum injection pressure of 8,900 kPa at the well head. This maximum pressure is based on a fracture pressure of 18,430 kPa bottomhole and a safety factor of 10%. Initially, injection will target a monthly voidage replacement ratio (VRR) between 1.25 and 1.75. This over-injection will serve to replace the existing voidage within the proposed unit area. Once a cumulative VRR of one is

attained, the injection rate will be scaled back to maintain the VRR at one, both on a monthly basis and a cumulative basis.

All producers will be kept at pump-off condition. This will minimize cross-flow between the Lodgepole and Bakken formations for the vertical producers that have commingled production from both zones. Testing of density and Sulphur content will be utilized to further ensure the correct assignment of production allocated between zones.

Pressure

The initial pressure is estimated to be between 8,000 kPa and 8,400 kPa. This is based on the depth of the Flossie Lake zone and a static gradient ranging between 10.5 kPa/m and 10.8 kPa/m. In 2013, a few pressures were taken on the 100/16-33-008-28W1/00 well. The static gradient gave a pressure of 8,500 kPa and the analysis of the minifrac gave a minimum pressure of 8,000 kPa. As both of those fall within the range of our initial pressure we are confident in the initial pressure reported. Due to the tight nature of the formation it is difficult to obtain an accurate buildup on the wells, as such, further pressure data has not been recorded to date. With production to date and further production it is projected that the pressure will decrease rapidly from primary depletion. With low solution-gas oil, another drive mechanism will need to be implemented in order to improve the recovery within the proposed unit.

Waterflooding will help to re-pressurize and add energy to the reservoir. During the initial over-injection period, the reservoir pressure is expected to increase from the current level. Once the cumulative VRR reaches one, a monthly VRR of one will be maintained. At the stage of the first conversion the reservoir pressure is expected to be below its initial value. Prior to injection Corex will endeavor to record reservoir pressures within the proposed unit and continue upon implementing a secondary recovery scheme.

Waterflood Facilities

No waterflood facilities will be necessary in the field as we will be using 3rd party water that is filtered and pressurized. A small boost pump may be necessary at the wellheads to get the water to the proper wellhead injection pressure.

Waterflood Surveillance

Waterflood response within the proposed Ewart Unit No. 15 will be closely monitored with the following:

- Regular production well testing to monitor fluid rate and water cut to watch for waterflood response
- Comparison of daily injection rates and pressure monitoring to targets
- Monitor monthly and cumulative voidage replacement ratio by pattern and overall unit
- Evaluation of Hall plots

- New injection targets will be sent to the field on a regular basis

Project Schedule

The development plan is to continue producing the existing wells. After a period of primary recovery, Corex intends to convert 2 wells to injection in an alternating producer-injector waterflood scheme to support the other existing wells and implement a waterflood.

Conversion of the horizontal producers into injection wells is expected to start in Q1 2019. This schedule is contingent upon the approval of the Unitization and Waterflood application, as well as the various stake holders coming to agreement. Further drilling within the other Lodgepole members, within the unit area, remains a possibility at a later date.

NOTIFICATIONS

In accordance with the regulations, Corex will circulate notification to all surface and mineral owners of the proposed EOR project of Ewart Unit No. 15 upon approval from the Petroleum Branch. Copies of such notices and proof of service to all affected owners will be forwarded to the Petroleum Branch, when available, to complete the Ewart Unit No. 15 Application.

Unitization and execution of the formal Ewart Unit No. 15 agreement by affected mineral owners will occur upon Corex receiving confirmation the Petroleum Branch has reviewed the tract factors and agrees with same. Copies of the agreement will be forwarded to the Petroleum Branch to complete the Ewart Unit No. 15 application.

Should you have any comments and/or questions regarding this application, please contact Peter [redacted] or Chris [redacted], Engineering, at (403) 718-6371 or peterp@corexresources.ca or (403) 718-6357 or chrisd@corexresources.ca, respectively.

Regards,

COREX RESOURCES LTD.

[redacted]

David [redacted]
Executive Vice President, Land

Table 1 – Summary of Original Oil In Place and Tract Factor Calculations

Ewart Unit No. 15
Lodgepole Unit

Tract LSD	Tract Weighting	Total	9-33 09-33-008-28W1	10-33 10-33-008-28W1	11-33 11-33-008-28W1	12-33 12-33-008-28W1
Tract Factor		100.000000000%	12.411216052%	11.170593526%	10.971952422%	14.461479473%
Flossie Lake						
Area (ac)		320	40	40	40	40
h (m)			9.5	8.7	8.2	11.9
Vb (ac-ft)		10,275	1,247	1,142	1,076	1,562
phi			12.0%	12.0%	12.0%	12.0%
Sw			20%	20%	20%	20%
HCPV			0.912	0.835	0.787	1.142
OOIP (Mbbls)		7,653	929	850	801	1,163
OOIP (Mstb)		7,152	868	795	749	1,087
OOIP (10^3m^3)		1,137	138	126	119	173
Middle Daly (Green)						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			1.8	1.7	2.0	2.4
Vb (ac-ft)		1,863	236	223	262	315
phi			8.0%	8.0%	8.0%	8.0%
Sw			20%	20%	20%	20%
HCPV		1	0.115	0.109	0.128	0.154
OOIP (Mbbls)		925	117	111	130	156
OOIP (Mstb)		865	110	104	122	146
OOIP (10^3m^3)		137	17	16	19	23
Lower Daly (Purple)						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			3.6	3.0	3.0	3.6
Vb (ac-ft)		3,862	472	394	394	472
phi			10.0%	10.0%	10.0%	10.0%
Sw			20%	20%	20%	20%
HCPV		2	0.288	0.240	0.240	0.288
OOIP (Mbbls)		2,397	293	244	244	293
OOIP (Mstb)		2,240	274	228	228	274
OOIP (10^3m^3)		356	44	36	36	44
Crinoid						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			2.0	2.0	2.0	2.0
Vb (ac-ft)		2,100	262	262	262	262
phi			12.0%	12.0%	12.0%	12.0%
Sw			20%	20%	20%	20%
HCPV		2	0.192	0.192	0.192	0.192
OOIP (Mbbls)		1,564	195	195	195	195
OOIP (Mstb)		1,461	183	183	183	183
OOIP (10^3m^3)		232	29	29	29	29
Total Lodgepole						
Total OOIP (Mstb)		**11,719**	**1,434**	**1,309**	**1,282**	**1,690**
Total OOIP (10^3m^3)		1,863	228	208	204	269
Cumulative Oil (Mstb)		**228**	**7.9**	**25.6**	**21.1**	**28.1**
OOIP-Cum Prd (Mstb	**100%**	**11,491**	**1,426**	**1,284**	**1,261**	**1,662**

Comments: **Cumulative production to July 2018**
Bo **1.07**

Well 1			102/09-33-008-28W1/00	102/09-33-008-28W1/00	102/09-33-008-28W1/00	102/09-33-008-28W1/00
Factor			0.25	0.25	0.25	0.25
Cumulative Oil (Mstb)			17.0	17.0	17.0	17.0
Well 2			103/09-33-008-28W1/00	103/09-33-008-28W1/00	103/09-33-008-28W1/00	103/09-33-008-28W1/00
Factor			0.25	0.25	0.25	0.25
Cumulative Oil (Mstb)			14.7	14.7	14.7	14.7
Well 3				100/10-33-008-28W1/00	100/11-33-008-28W1/00	100/12-33-008-28W1/00
Factor				1	1	1
Cumulative Oil (Mstb)				17.7	13.1	20.2
Well 4						
Factor						
Cumulative Oil (Mstb)						

Table 1 – Summary of Original Oil In Place and Tract Factor Calculations

Ewart Unit No. 15 **Lodgepole Unit**						
Tract LSD	Tract Weighting	Total	13-33 13-33-008-28W1	14-33 14-33-008-28W1	15-33 15-33-008-28W1	16-33 16-33-008-28W1
Tract Factor		100.000000000%	14.589338642%	11.960675457%	12.217372214%	12.217372214%
Flossie Lake						
Area (ac)		320	40	40	40	40
h (m)			12.0	9.0	9.5	9.5
Vb (ac-ft)		10,275	1,575	1,181	1,247	1,247
phi			12.0%	12.0%	12.0%	12.0%
Sw			20%	20%	20%	20%
HCPV			1.152	0.864	0.912	0.912
OOIP (Mbbls)		7,653	1,173	880	929	929
OOIP (Mstb)		7,152	1,096	822	868	868
OOIP (10^3m^3)		1,137	174	131	138	138
Middle Daly (Green)						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			1.3	1.4	1.8	1.8
Vb (ac-ft)		1,863	171	184	236	236
phi			8.0%	8.0%	8.0%	8.0%
Sw			20%	20%	20%	20%
HCPV		1	0.083	0.090	0.115	0.115
OOIP (Mbbls)		925	85	91	117	117
OOIP (Mstb)		865	79	85	110	110
OOIP (10^3m^3)		137	13	14	17	17
Lower Daly (Purple)						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			4.8	4.2	3.6	3.6
Vb (ac-ft)		3,862	634	551	472	472
phi			10.0%	10.0%	10.0%	10.0%
Sw			20%	20%	20%	20%
HCPV		2	0.386	0.336	0.288	0.288
OOIP (Mbbls)		2,397	393	342	293	293
OOIP (Mstb)		2,240	368	320	274	274
OOIP (10^3m^3)		356	58	51	44	44
Crinoid						
Area (ac)		320	40.0	40.0	40.0	40.0
h (m)			2.0	2.0	2.0	2.0
Vb (ac-ft)		2,100	262	262	262	262
phi			12.0%	12.0%	12.0%	12.0%
Sw			20%	20%	20%	20%
HCPV		2	0.192	0.192	0.192	0.192
OOIP (Mbbls)		1,564	195	195	195	195
OOIP (Mstb)		1,461	183	183	183	183
OOIP (10^3m^3)		232	29	29	29	29
Total Lodgepole						
Total OOIP (Mstb)		**11,719**	**1,726**	**1,410**	**1,434**	**1,434**
Total OOIP (10^3m^3)		1,863	274	224	228	228
Cumulative Oil (Mstb)		**228**	**49.2**	**35.3**	**30.2**	**30.2**
OOIP-Cum Prd (Mstb	**100%**	**11,491**	**1,676**	**1,374**	**1,404**	**1,404**
Comments:	**Cumulative production t**					
Bo	**1.07**					
Well 1			100/16-33-008-28W1/00	100/16-33-008-28W1/00	100/16-33-008-28W1/00	100/16-33-008-28W1/00
Factor			0.25	0.25	0.25	0.25
Cumulative Oil (Mstb)			56.2	56.2	56.2	56.2
Well 2			102/16-33-008-28W1/00	102/16-33-008-28W1/00	102/16-33-008-28W1/00	102/16-33-008-28W1/00
Factor			0.25	0.25	0.25	0.25
Cumulative Oil (Mstb)			40.2	40.2	40.2	40.2
Well 3			103/16-33-008-28W1/00	103/16-33-008-28W1/00	103/16-33-008-28W1/00	103/16-33-008-28W1/00
Factor			0.25	0.25	0.25	0.25
Cumulative Oil (Mstb)			24.3	24.3	24.3	24.3
Well 4			100/13-33-008-28W1/00	100/14-33-008-28W1/00		
Factor			1	1		
Cumulative Oil (Mstb)			19.0	5.1		

Table 2 – Well List – Status

UWI Well ID	Prod./Inject. Formation	First Prod. YYYY/MM	Last Prod. YYYY/MM	Type
102/09-33-008-28W1/00	Mlodgepl			Horizontal
103/09-33-008-28W1/00	Mlodgepl			Horizontal
100/10-33-008-28W1/00	Mlodgepl	2009/12	2018/03	Vertical
100/11-33-008-28W1/00	Mlodgepl	2008/06	2018/03	Vertical
102/11-33-008-28W1/00	Mlodgepl			Vertical
100/12-33-008-28W1/00	Mlodgepl	2008/02	2018/03	Vertical
100/13-33-008-28W1/00	Mlodgepl	2008/09	2018/03	Vertical
100/14-33-008-28W1/00	Mlodgepl	2008/09	2018/03	Vertical
100/16-33-008-28W1/00	Mlodgepl	2013/03	2018/05	Horizontal
102/16-33-008-28W1/00	Mlodgepl	2015/12	2018/05	Horizontal
103/16-33-008-28W1/00	Mlodgepl	2017/09	2018/05	Horizontal

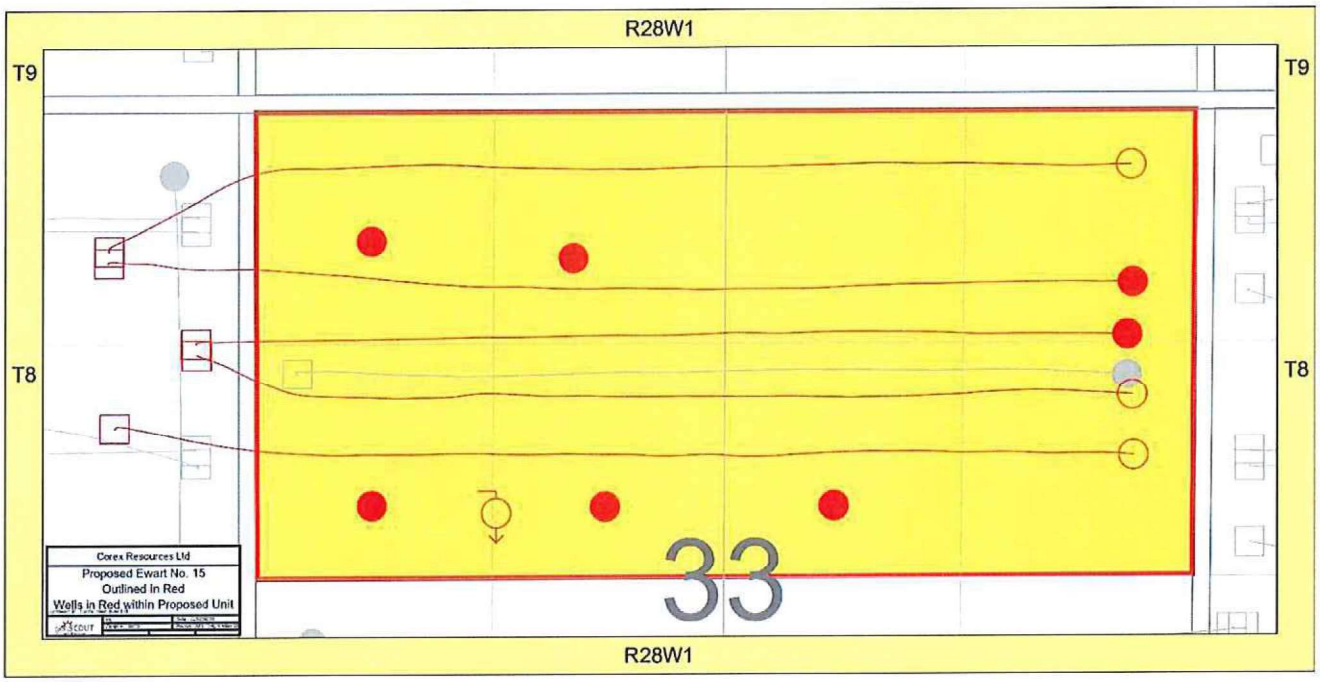
Table 3 – Cumulative Oil Production and Estimated Ultimate Recovery

UWI Well ID	Type	Cumulative	Estimated
102/09-33-008-28W1/00	Horizontal	0.000	115.000
103/09-33-008-28W1/00	Horizontal	0.000	115.000
100/10-33-008-28W1/00	Vertical	17.595	41.078
100/11-33-008-28W1/00	Vertical	13.090	23.584
102/11-33-008-28W1/00	Vertical	0.000	0.000
100/12-33-008-28W1/00	Vertical	20.049	49.201
100/13-33-008-28W1/00	Vertical	18.862	44.520
100/14-33-008-28W1/00	Vertical	5.106	9.436
100/16-33-008-28W1/00	Horizontal	55.847	100.226
102/16-33-008-28W1/00	Horizontal	38.526	122.491
103/16-33-008-28W1/00	Horizontal	20.912	125.340

Table 4 – Summary of Rock and Fluid Properties

Proposed Ewart Unit No. 15		
Rock and Fluid Properties Lodgepole Formation		
Formation Pressure	kPa	8,000
Oil Gravity	°API	35.5
Solution Gas-Oil Ratio	m^3/m^3	15
Oil Formation Volume Factor	Rm^3/Sm^3	1.07
Average Porosity	fraction	0.12
Average Air Permeability	mD	1.5

Figure 1 – Location of Proposed Ewart Unit No. 15



UWI	Licence
102/09-33-008-28W1/00	10734
103/09-33-008-28W1/00	10749
100/10-33-008-28W1/00	7112
100/11-33-008-28W1/00	6661
102/11-33-008-28W1/00	7120
100/12-33-008-28W1/00	6575
100/13-33-008-28W1/00	6662
100/14-33-008-28W1/00	6770
100/16-33-008-28W1/00	9199
102/16-33-008-28W1/00	10423
103/16-33-008-28W1/00	10686

Figure 2 – Location of Proposed Ewart Unit No. 15 within the Daly Sinclair Field

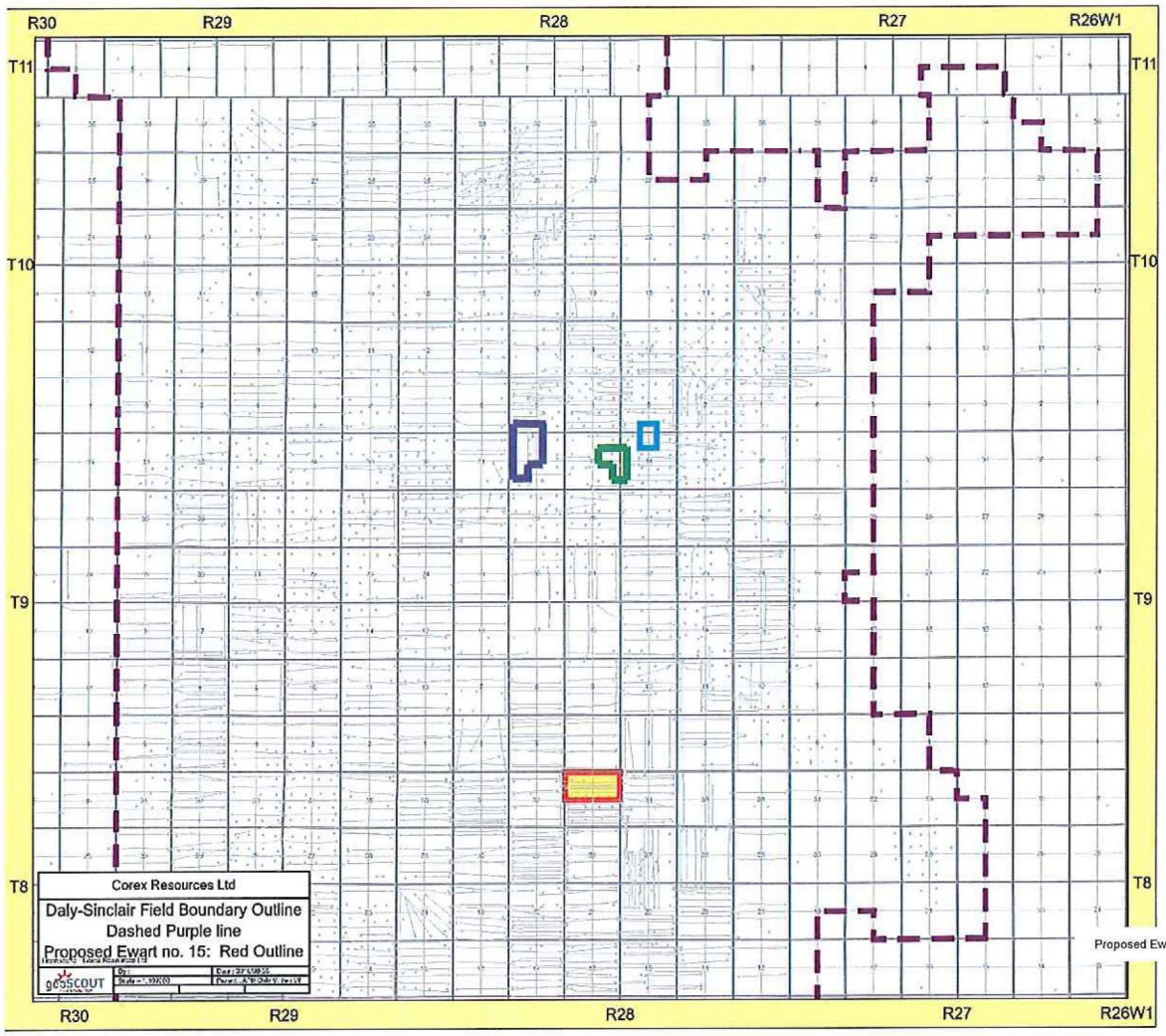


Figure 3 – Production History of Wells within Proposed Ewart Unit No. 15

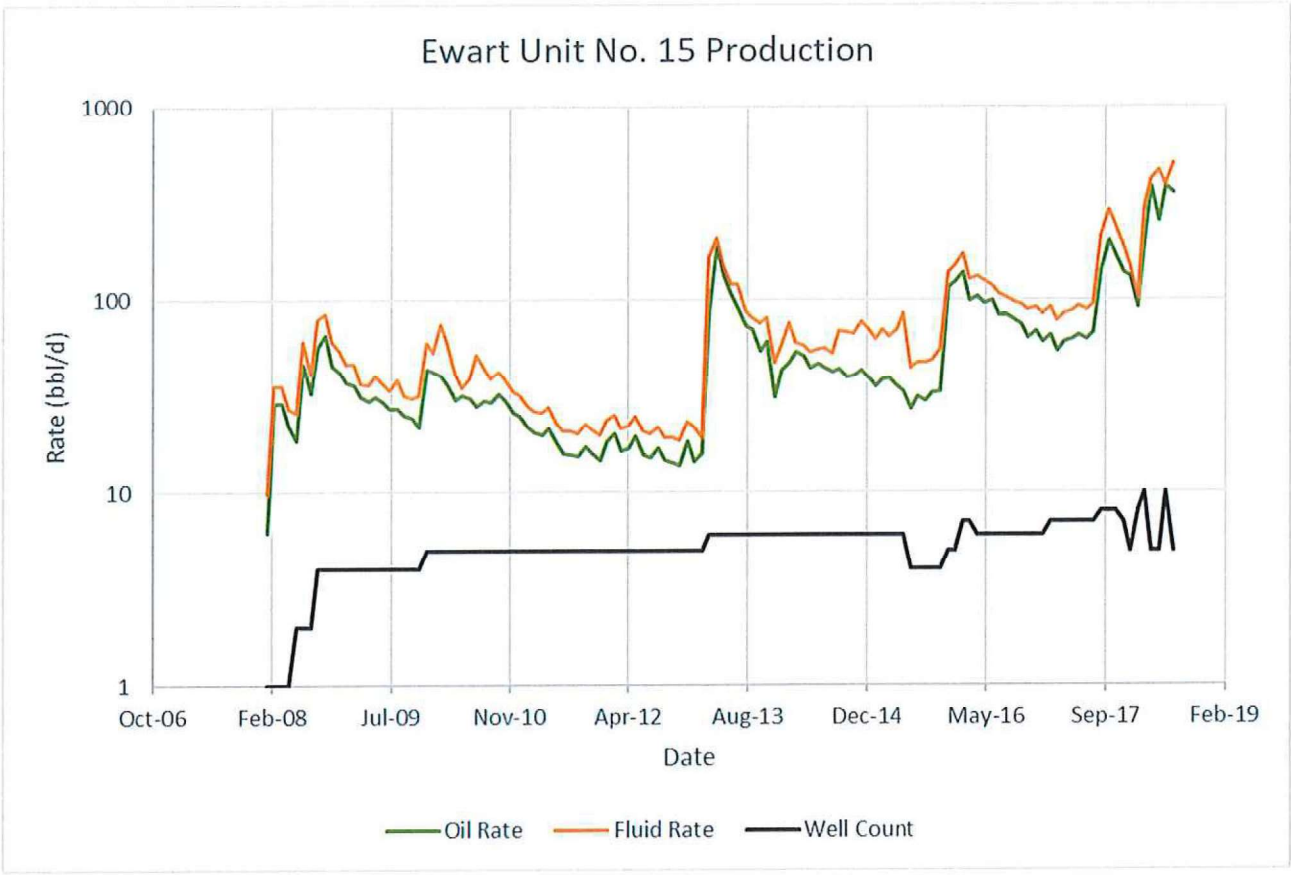


Figure 4 – Proposed Injector Locations

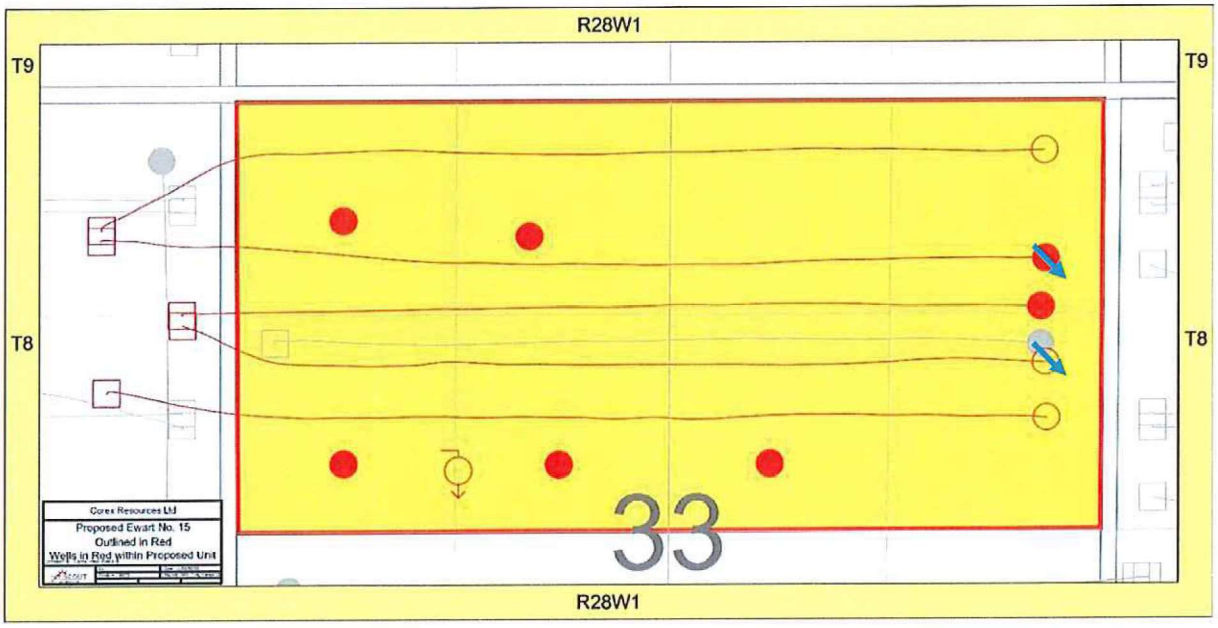
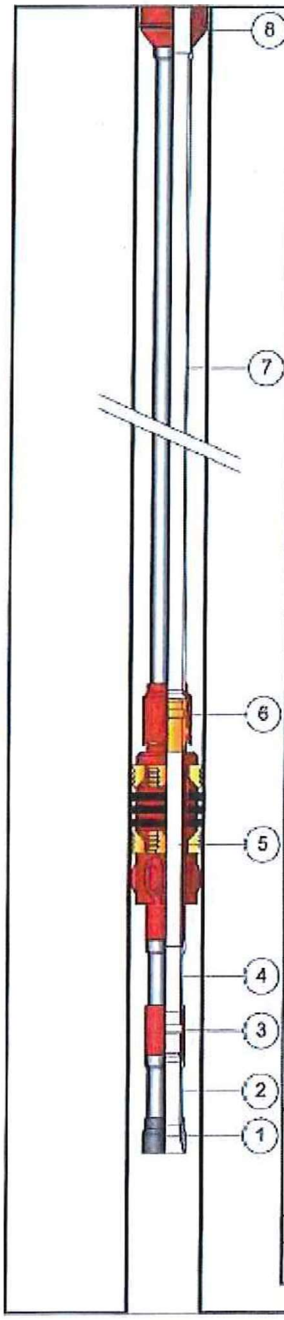


Figure 5 – Wellbore Schematic for Typical Injector

Weatherford



Corex Resources ~ 177.8mm x 88.9mm Arrowset 1-X Coated Injection Packers

Proposed Well Completion

Company	Corex Resources			Reference	CP13520
Prepared for	Micha[redacted]	Phone	403-693-7698	Location	Various
Prepared by	Patrick[redacted]	Sales Rep	Patrick[redacted]		
Service Centre	Estevan 1-866-844-0315	Drawn by	Patrick[redacted]	Date	12/18/2013 Page 1

TUBULAR	Size (mm)	Weight (kg/m)	Grade	Thread	Notes
Intermediate	177.8	34.23	N-80	LT&C	TBD
Injection String	88.9	13.84	TBD	EUE	TBD

ITEM	DESCRIPTION
8.	Weatherford Tubing Hanger c/w TBD Coating
7.	88.9mm 13.84kg/m J-55 EUE (Polycore Lined) Tubing to Surface
6.	Weatherford ENC Coated 'NFT' On-Off Unit c/w 69.85mm (2.75") 'X' Profile Max OD: 149.2mm
5.	**Weatherford ENC Coated Arrowset 1-X Mechanical Set Double Grip Retrievable Packer** Max OD: 152.4mm Min ID: 76.2mm Differential Rating 42MPa
4.	88.9mm 13.84kg/m J-55 EUE (Polycore Lined) Tubing as Required
3.	88.9mm Weatherford ENC Coated 'NCN' Profile Nipple 69.85mm (2.75") c/w 66.93mm 2.63") No-Go
2.	88.9mm 13.84kg/m J-55 EUE (Polycore Lined) Tubing as Required
1.	Wireline Re-entry Guide ENC Coated

core resources

NOTES

- Packer Differential Rating 42MPa

Figure 6 – Wellbore Schematic for Injector Nozzle System

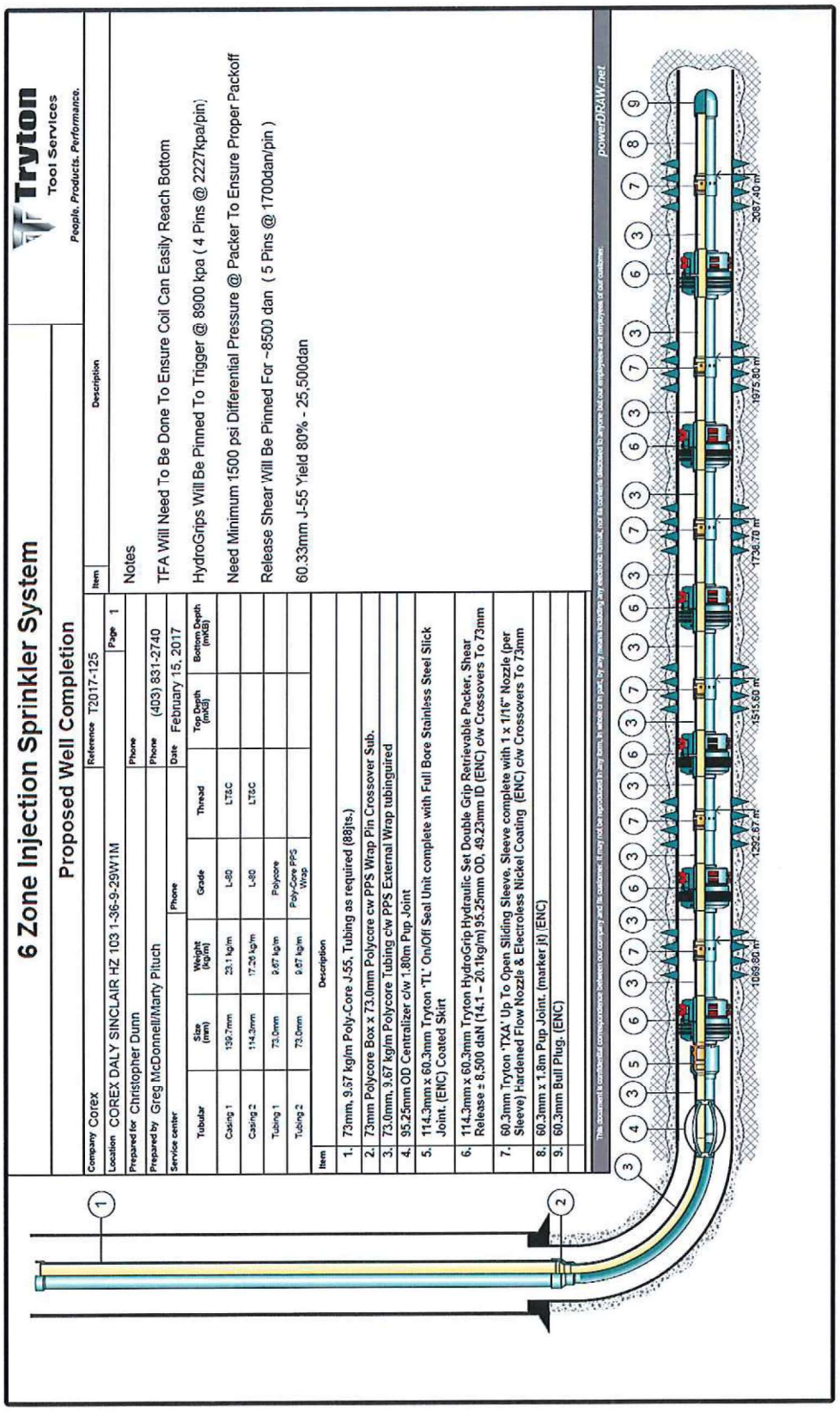


Figure 7 – Wellhead Design

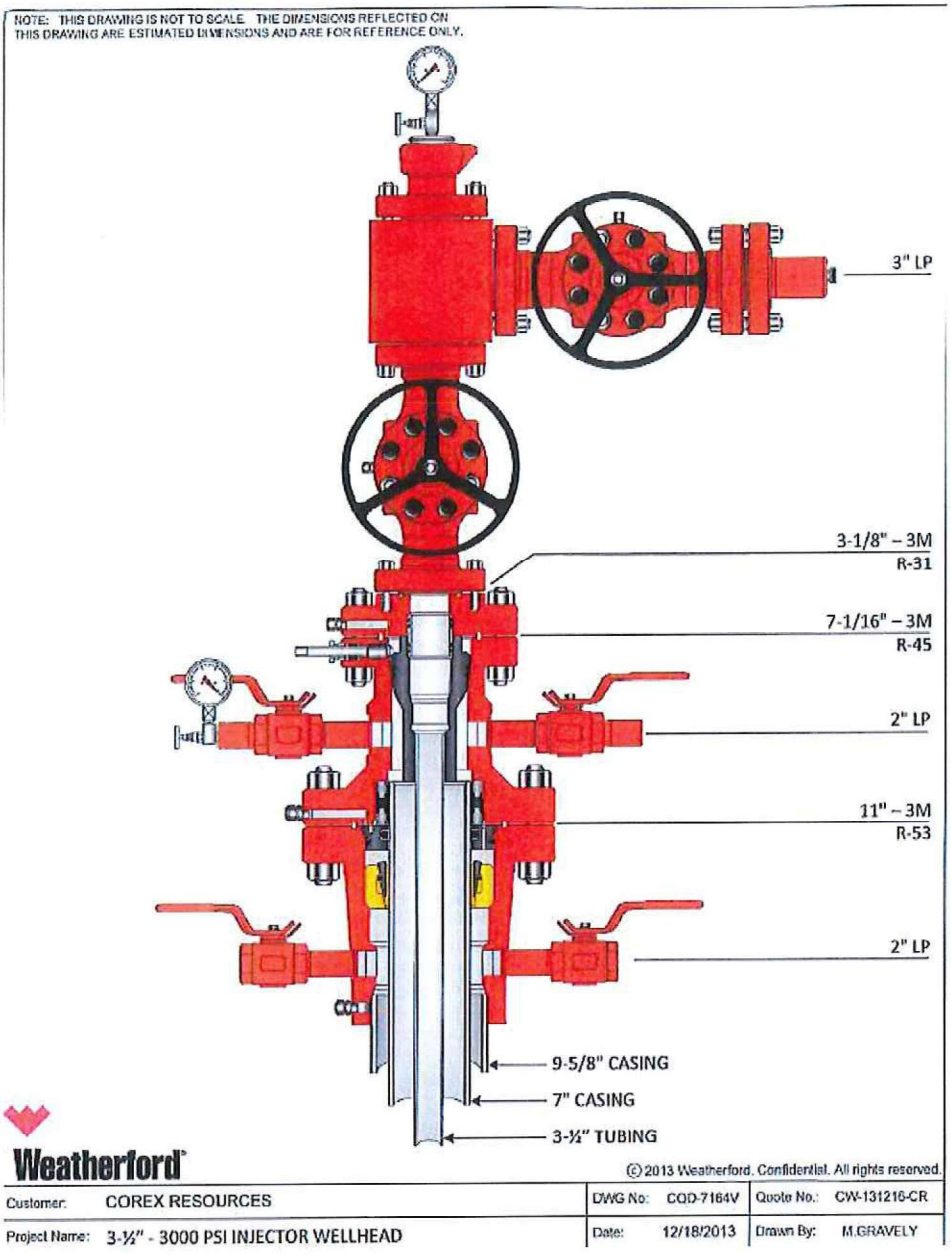
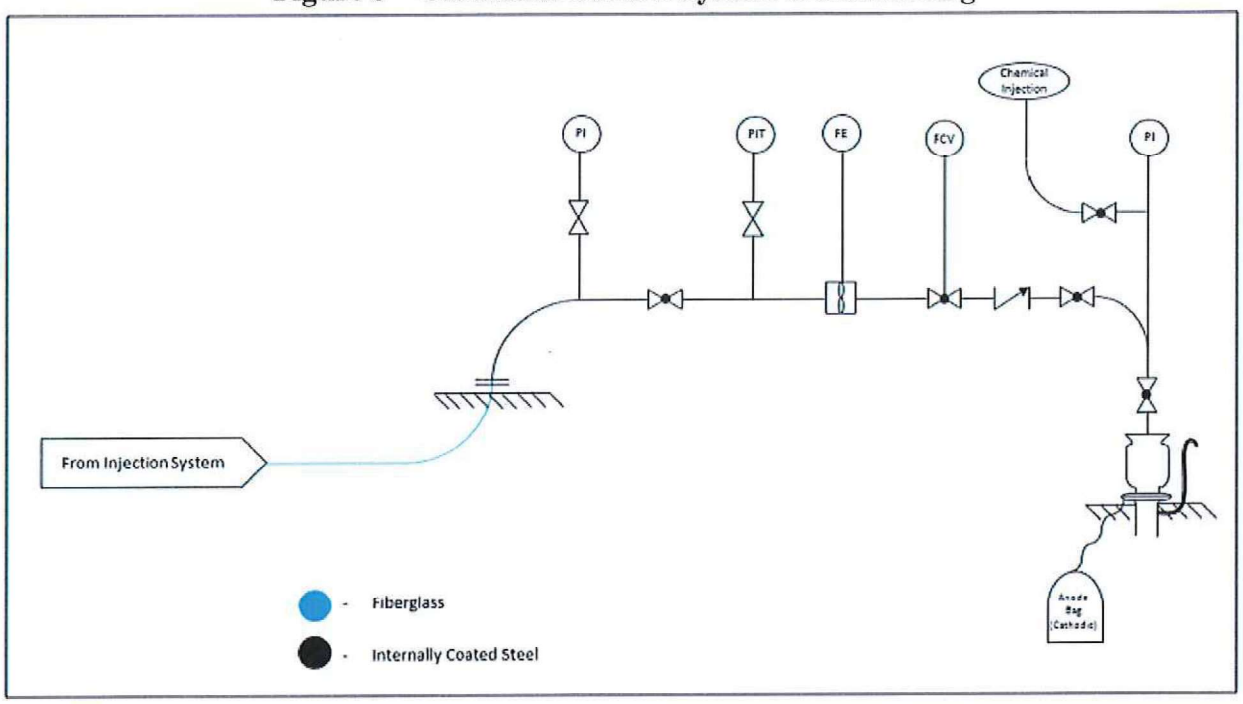
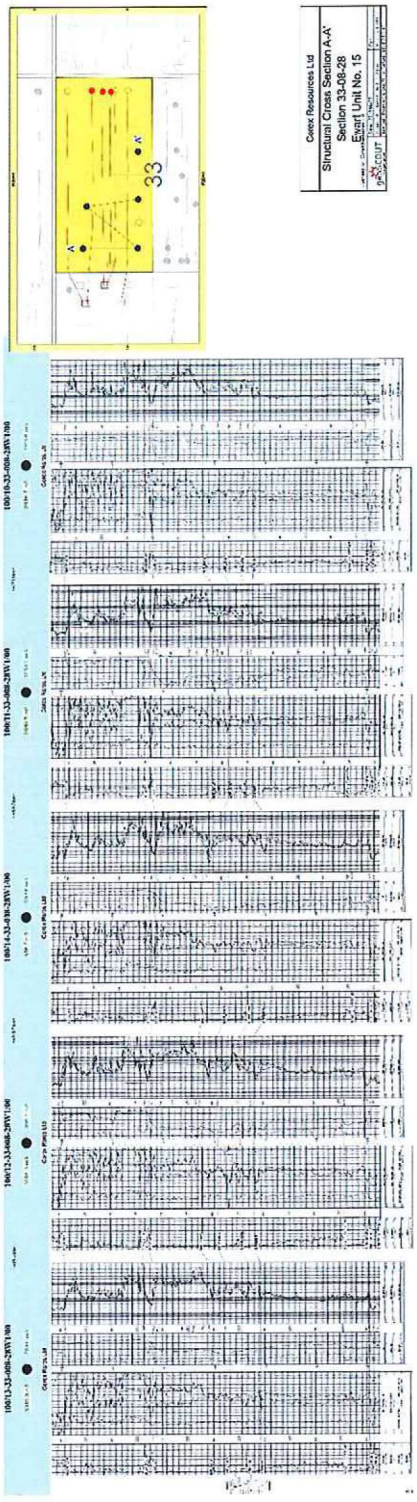


Figure 8 – Corrosion Control System & Monitoring

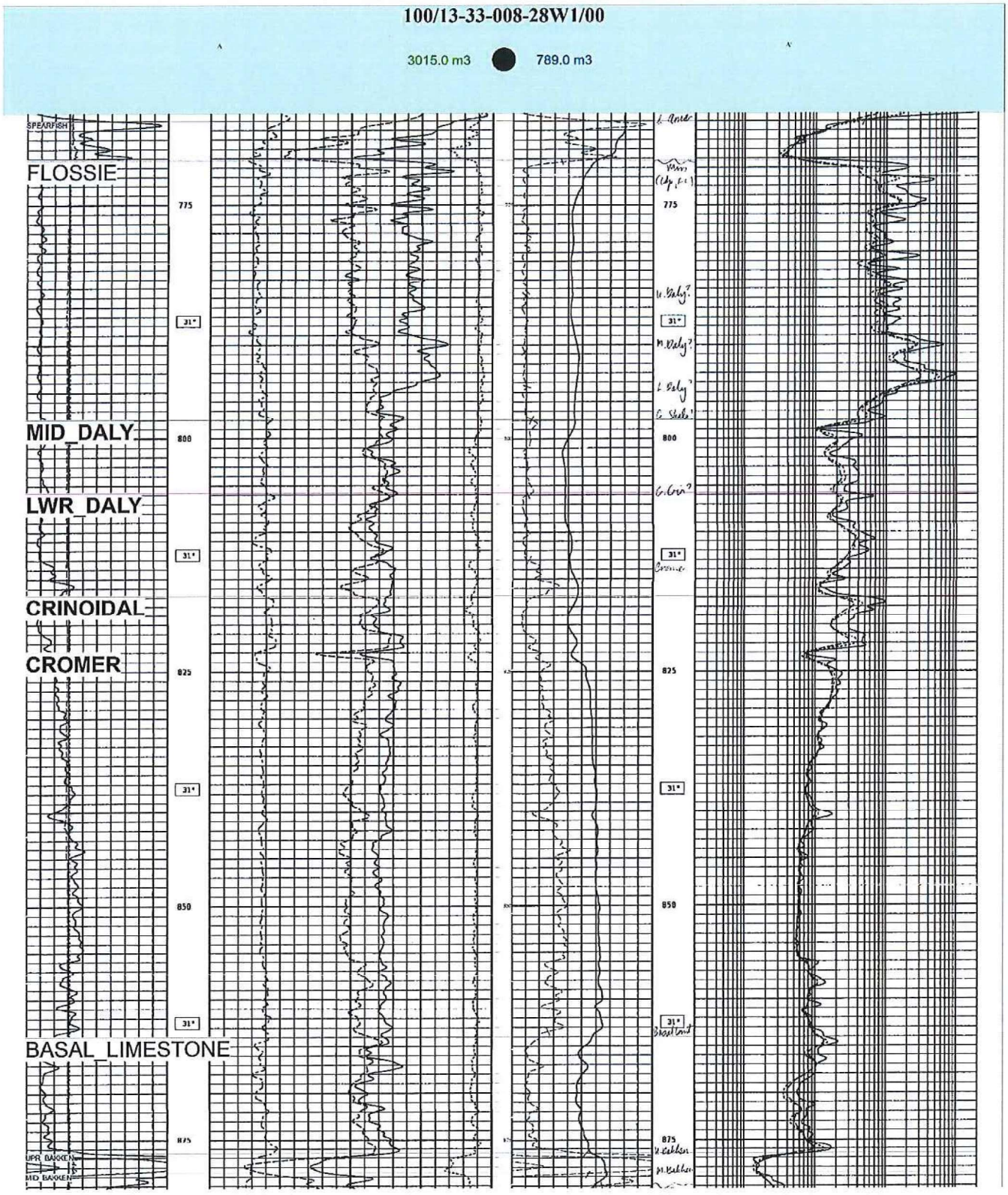


All injection flowlines will have corrosion inhibitor injected at the surface tie-in on the 3rd party source tie-in point, which will carry through to the surface facilities and for downhole corrosion control (wellhead injection points will be available as needed). Scale inhibitor will be injected in as well at the wellhead through continuous pumps if necessary. Wellbore casing will have cathodic protection installed for corrosion control. The PIT and FE on the diagram will be setup through a monitoring system to monitor pipelines for any leaks through pressure and flow balance. These will ultimately assist in flood monitoring for these wells. Alarm points will be setup with callouts.

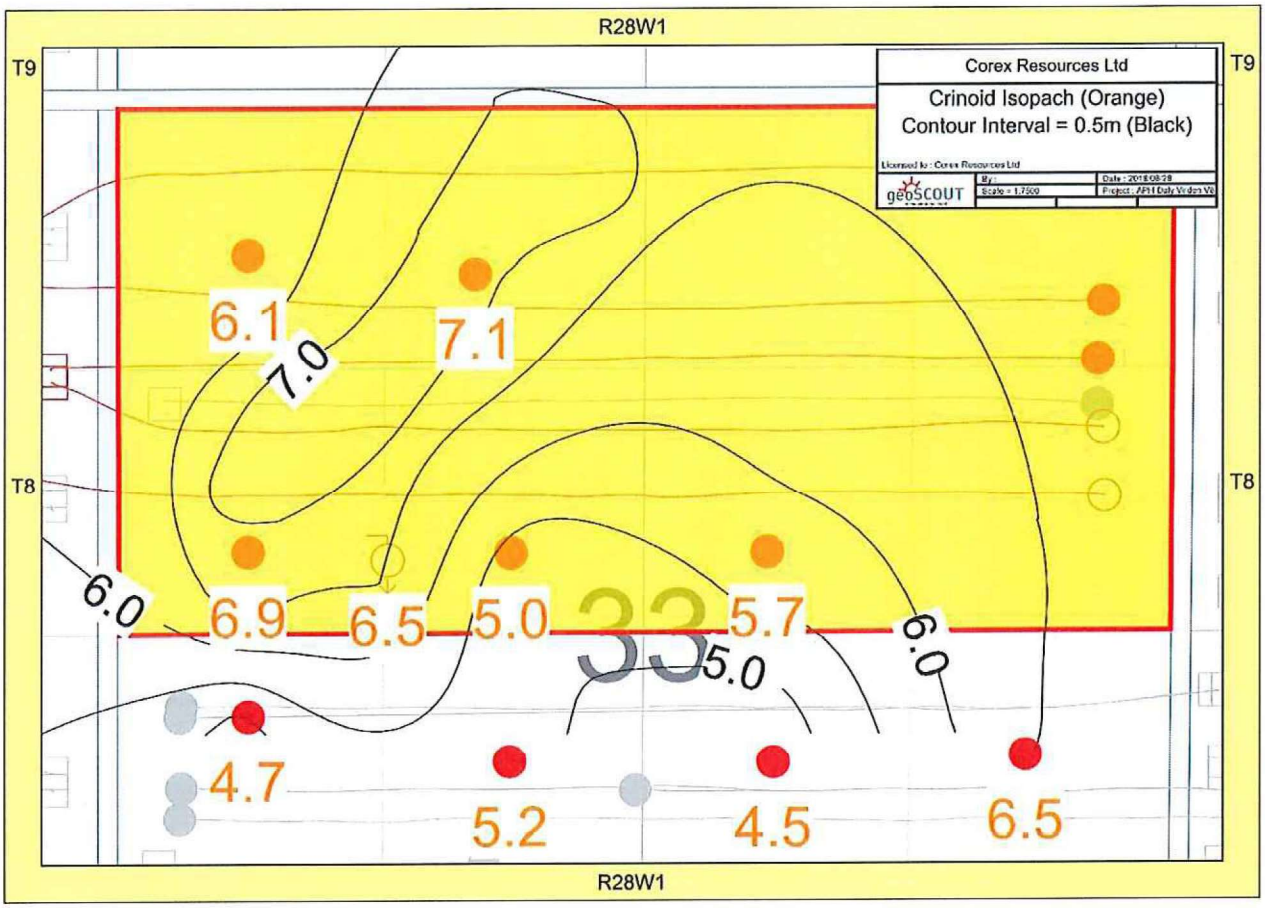
Appendix I – Stratigraphy of Lodgepole Formation-Cross Section



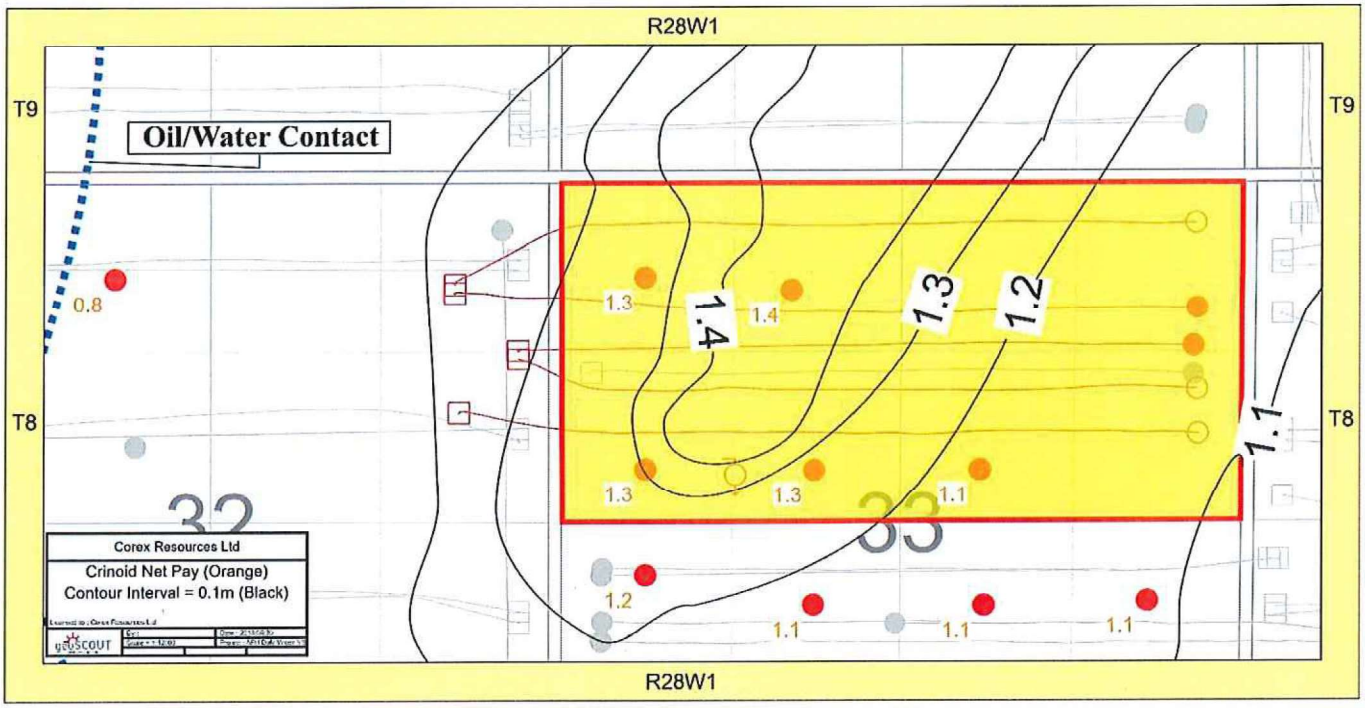
Stratigraphy of the Lodgepole Formation: Type Log



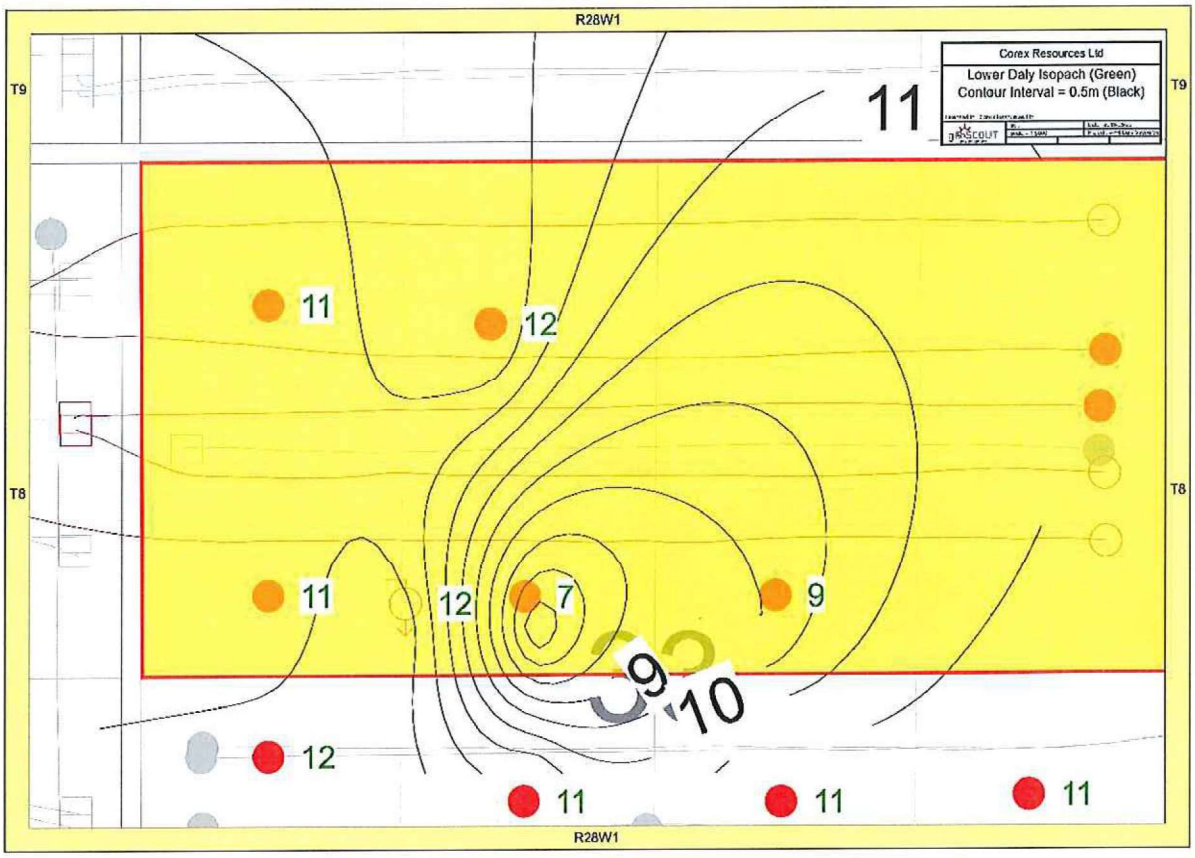
Appendix II – Crinoidal– Isopach



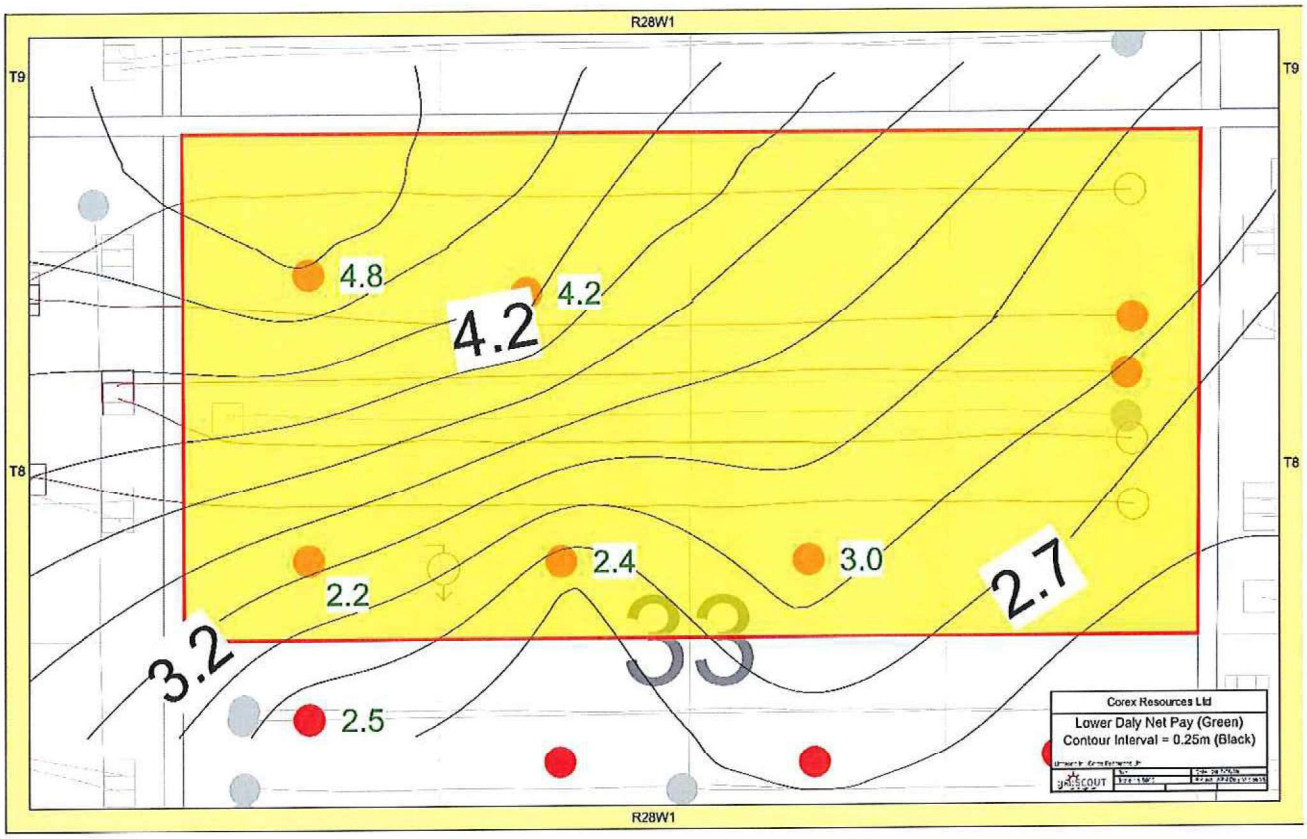
Appendix III – Crinoidal– Net Pay



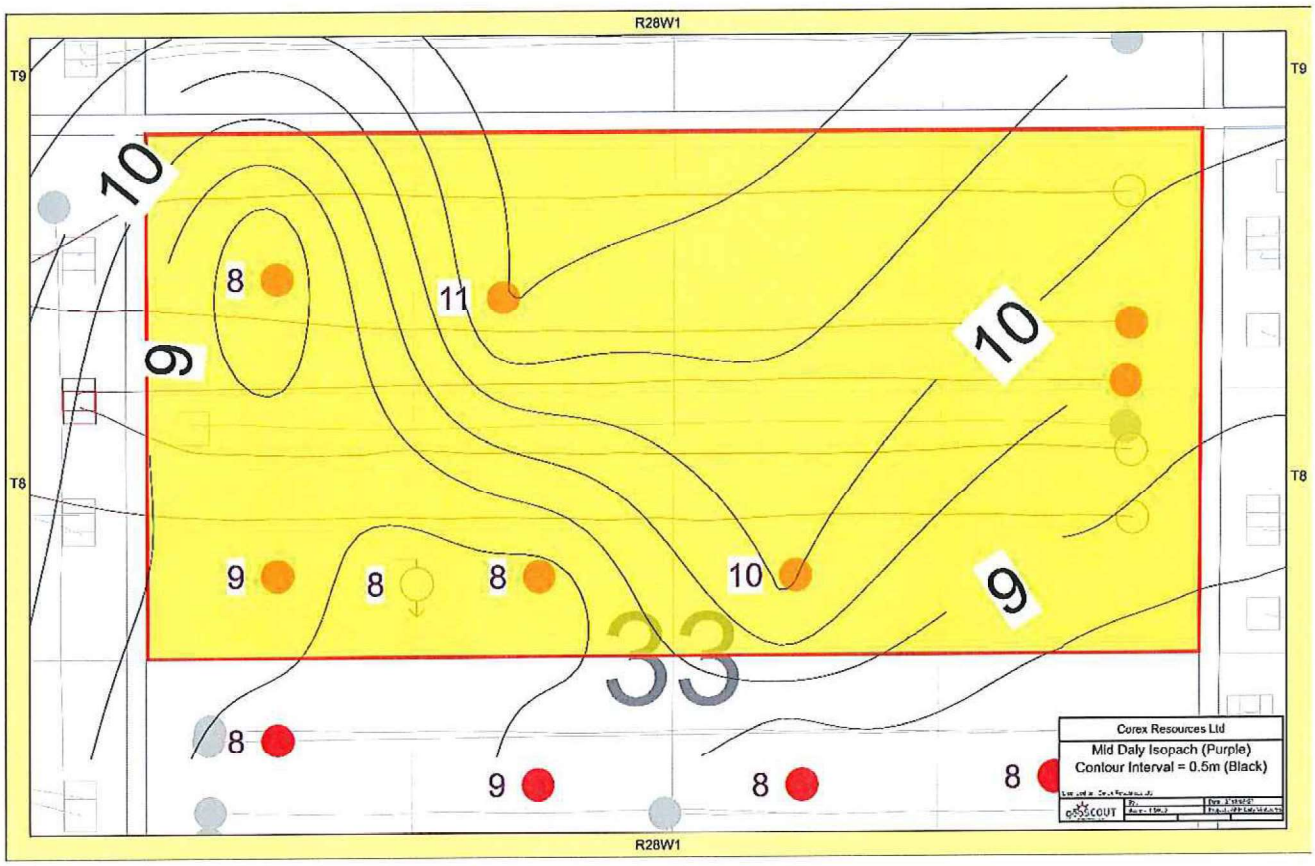
Appendix IV – Lower Daly – Isopach



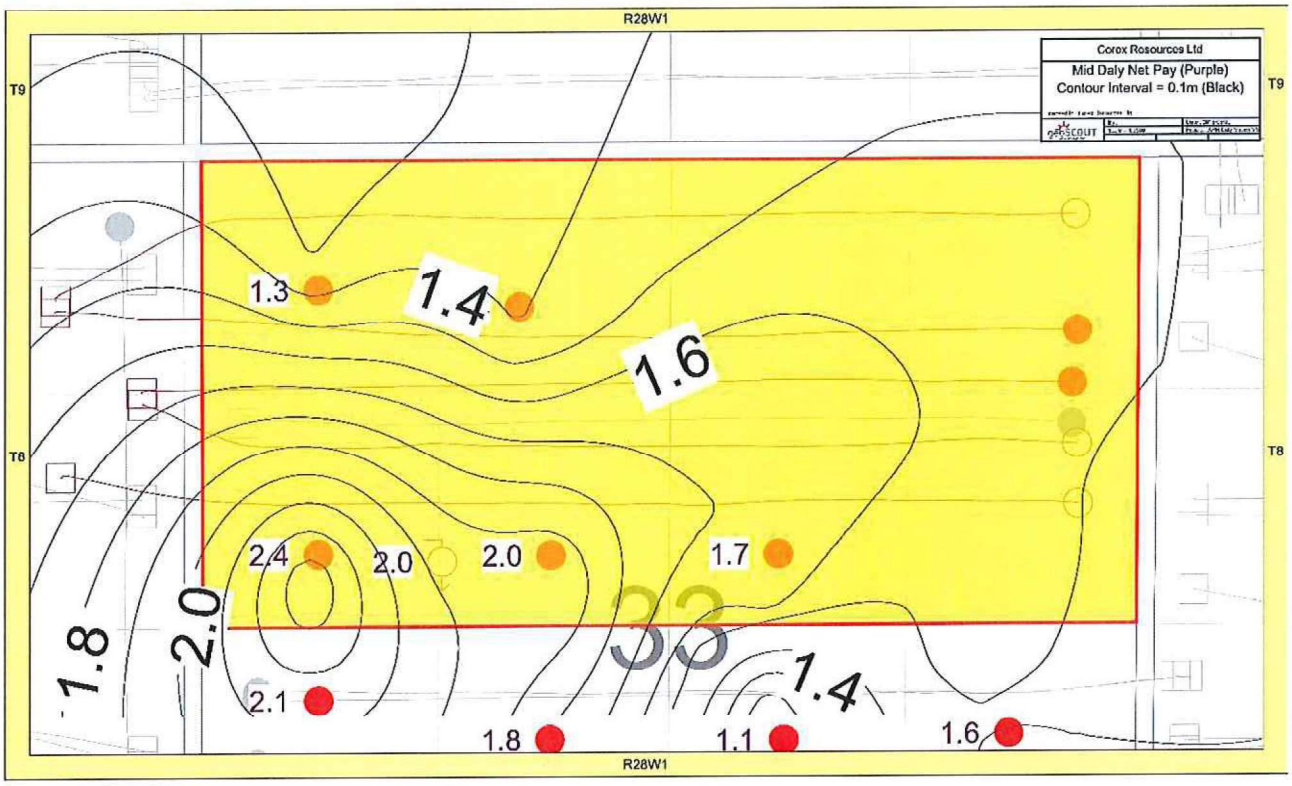
Appendix V – Lower Daly – Net Pay



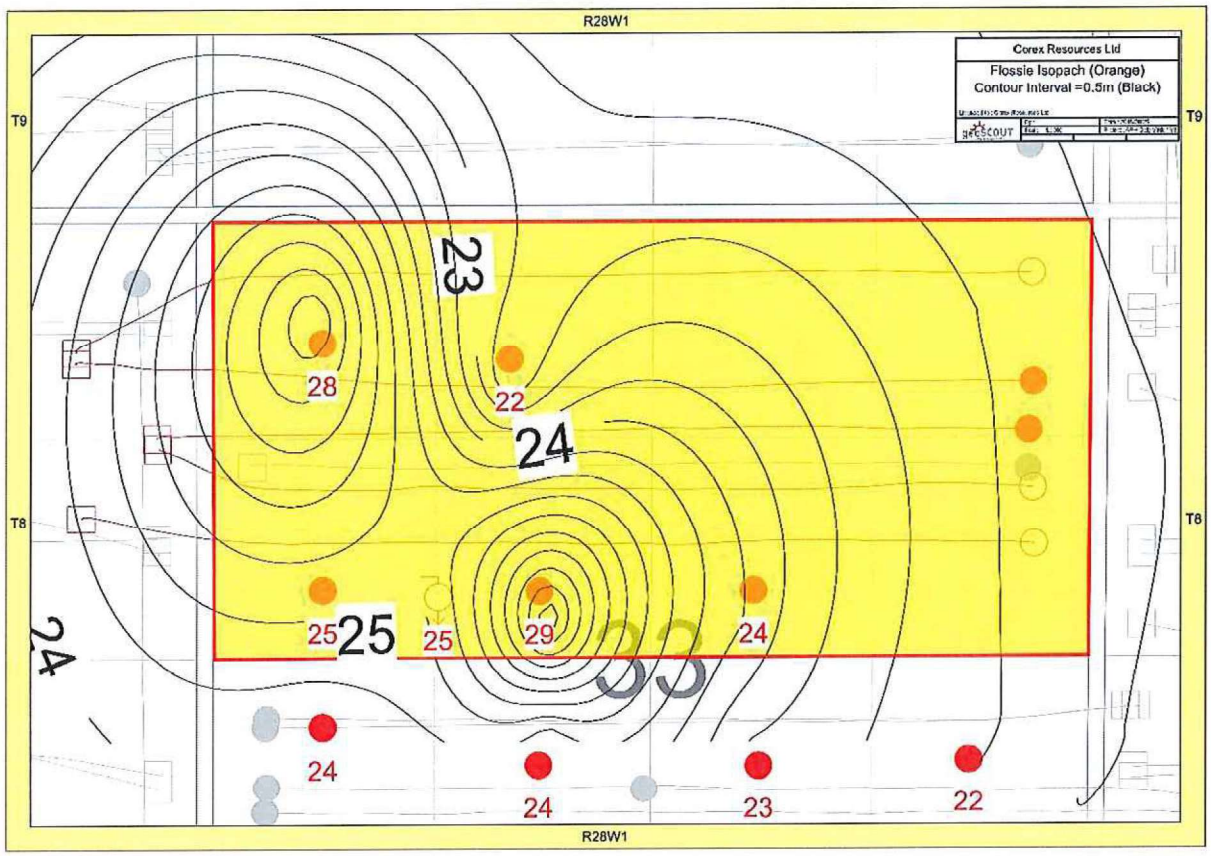
Appendix VI – Middle Daly – Isopach



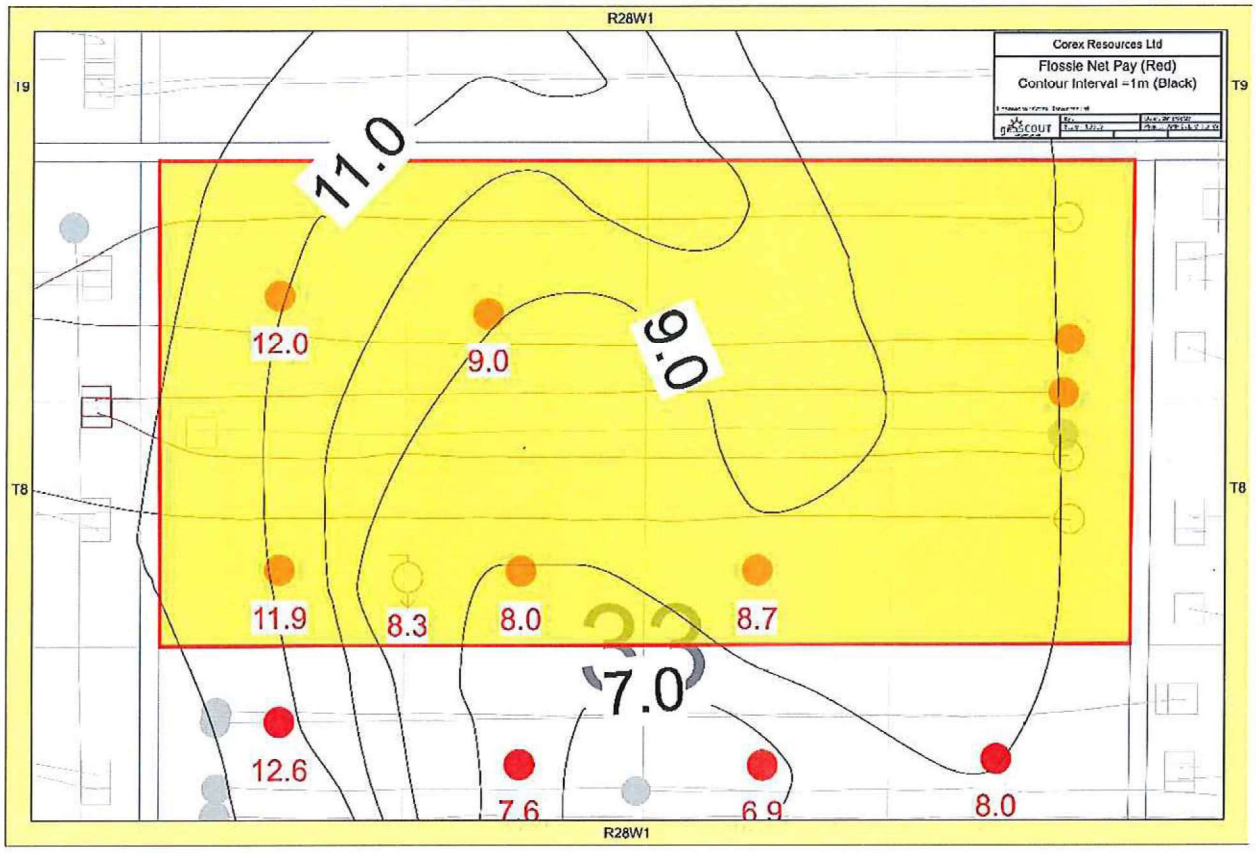
Appendix VII – Middle Daly – Net Pay



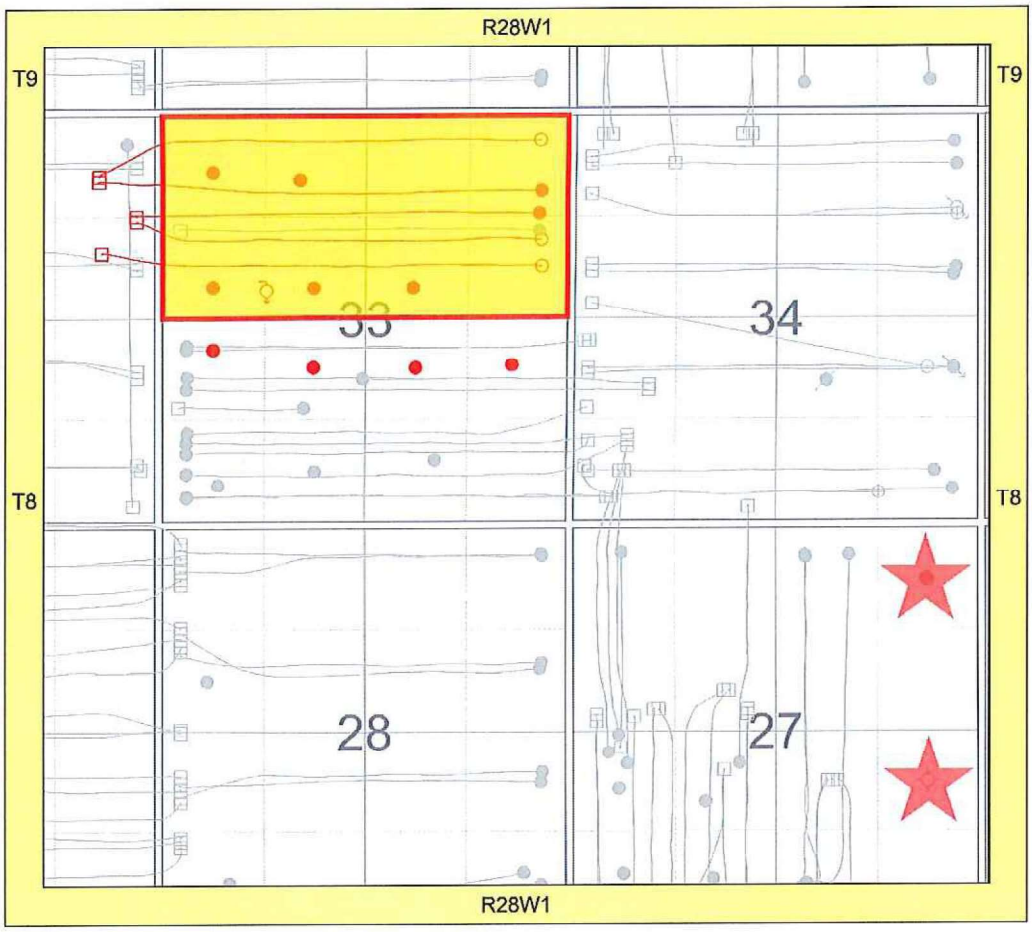
Appendix VIII – Flossie Lake – Isopach



Appendix IX – Flossie Lake – Net Pay



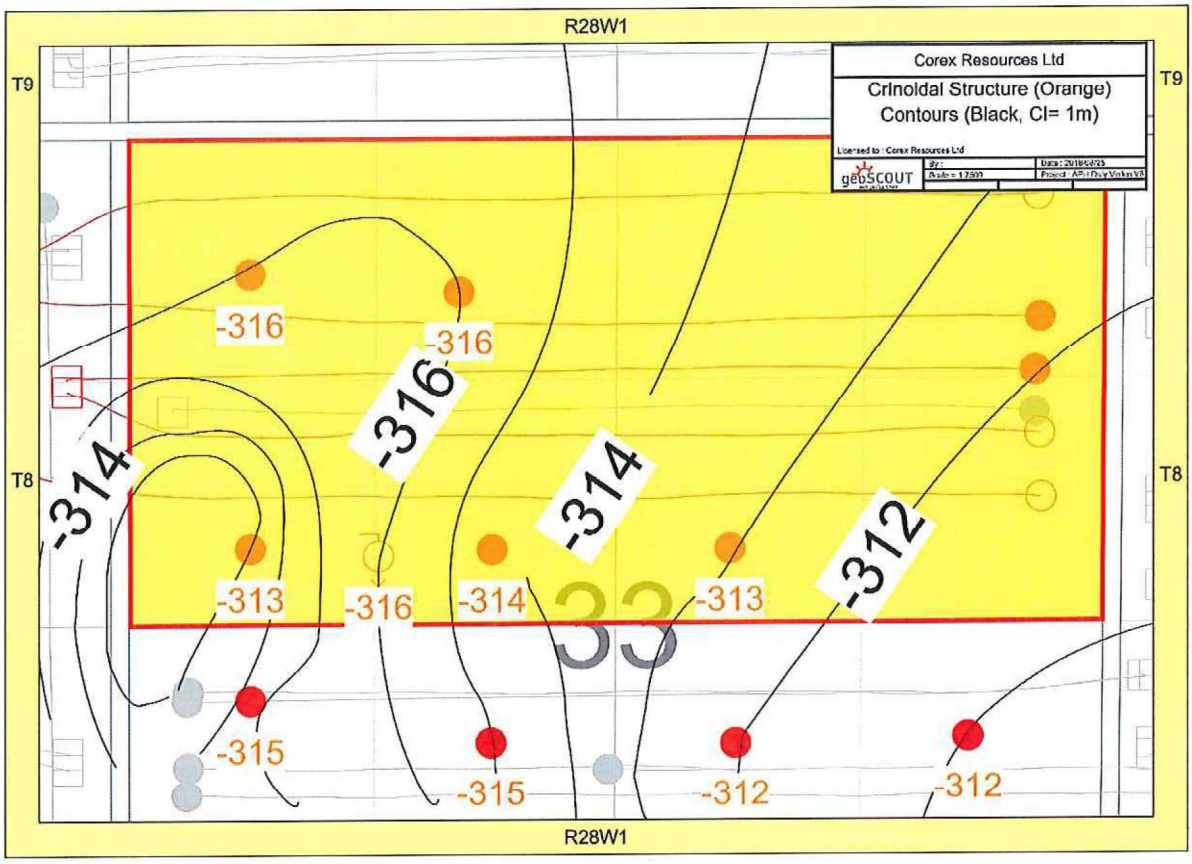
Appendix X – Cored Wells



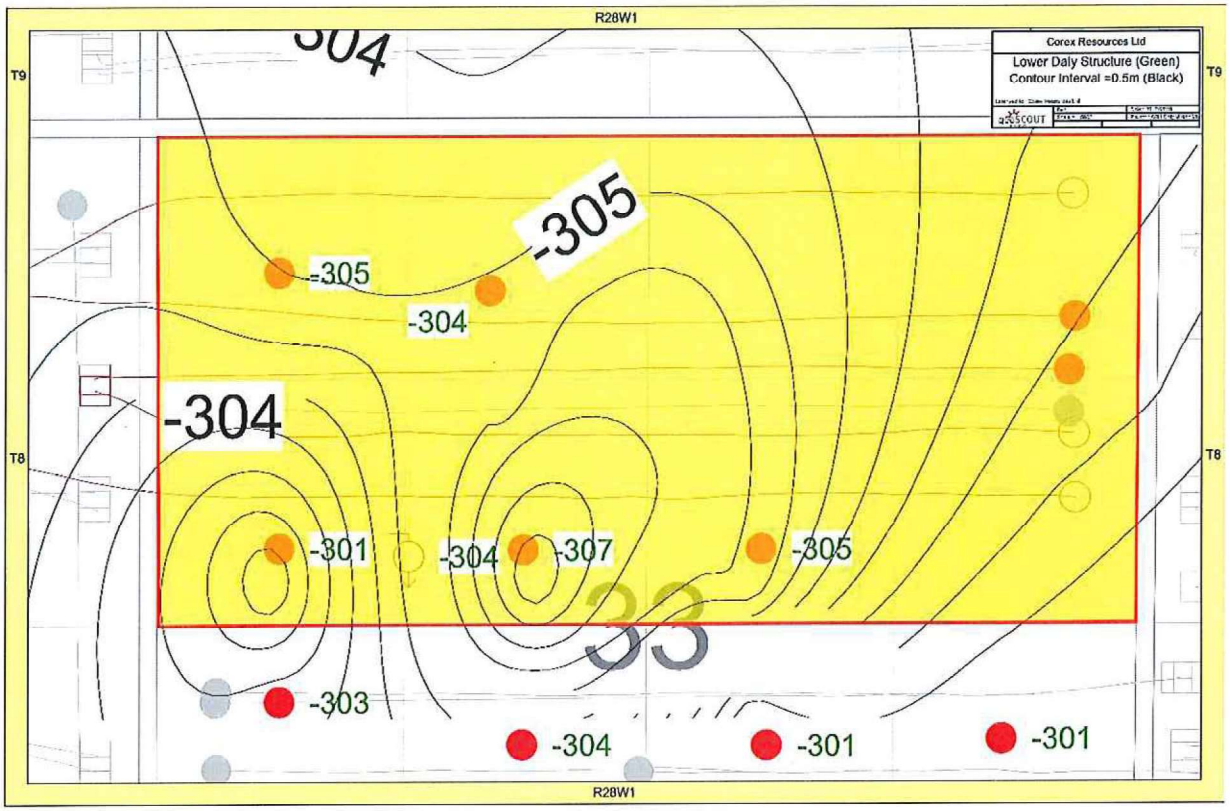
Appendix XI –Proximal Cored Wells Phih and mDm Using 6% Core Porosity Cutoff

16-27-08-28W1	Length	Kmax	Porosity	Description	Formation			08-27-08-28W1	Length	Kmax	Porosity	Description	Formation
	0.85	0.15	0.012	anhy	FLOSSIE				0.3	0.77	0.06	sv,lmy,dol,anhy	FLOSSIE
	0.37	0.02	0.12	dol,i,lam	FLOSSIE				0.15	0.53	0.077	fgr,dcl,frac,anhy	FLOSSIE
	0.34	1.05	0.09	dol,i,frac	FLOSSIE				0.12	0.67	0.083	fgr,dcl,frac	FLOSSIE
	0.34	6.25	0.136	dol,i,frac	FLOSSIE				0.21	2	0.077	fgr,dcl,frac,anhy	FLOSSIE
	0.3	0.08	0.127	dol,i,ppv,calc	FLOSSIE				0.34	0.55	0.09	fgr,dcl,frac	FLOSSIE
	0.3	0.79	0.159	dol,i	FLOSSIE				0.21	0.71	0.067	fgr,dcl,frac	FLOSSIE
	0.3	0.71	0.149	dol,i,ppv	FLOSSIE				0.34	1.3	0.072	fgr,dol	FLOSSIE
	0.24	0.21	0.173	dol,i,ppv,anhy	FLOSSIE				0.82	0.86	0.08	fgr,dcl,lmy,frac,anhy	FLOSSIE
	0.34	0.11	0.08	dol,i,anhy,lam	FLOSSIE				0.76	0.82	0.073	fgr,dcl,lmy,frac,anhy	FLOSSIE
	0.24	1.48	0.205	dol,i,calc	FLOSSIE				0.64	4.2	0.149	fgr,dcl,lmy,frac,anhy	FLOSSIE
	0.24	0.36	0.161	dol,i,calc	FLOSSIE				0.27	0.83	0.069	fgr,dcl,frac	FLOSSIE
	0.34	0.77	0.153	dol,i,anhy,lam	FLOSSIE				0.58	0.72	0.067	fgr,dcl,anhy	FLOSSIE
	0.21	0.22	0.085	dol,i,anhy,lam	FLOSSIE				0.27	7.1	0.107	fgr,dol,frac	FLOSSIE
	0.3	1.1	0.187	dol,i,calc	FLOSSIE				0.79	2.2	0.088	fgr,dol	FLOSSIE
	0.55	0.54	0.135	dol,i	FLOSSIE				0.34	0.53	0.071	fgr,dcl,anhy	FLOSSIE
	0.09	0.19	0.092	dol,i,calc	FLOSSIE				0.46	0.52	0.061	fgr,dcl,anhy	FLOSSIE
	0.3		0.162	dol,i,frac	FLOSSIE				0.18	0.38	0.088	fgr,dol,lmy,anhy	FLOSSIE
	0.21	0.05	0.077	ls,i,dol	FLOSSIE				6.78	1.452352941	0.081117647		
	0.09	1.29	0.165	dol,i,calc	FLOSSIE						mDm	9.846952941	
	0.15	2.3	0.097	dol,i,ppv,sv,anhy,lam	FLOSSIE						Phih	0.549977647	
	0.27	0.41	0.124	dol,i,calc	FLOSSIE				0.3	2.6	0.137	fgr,dcl,lmy,frac,anhy	MID_DALY
	0.52	1.62	0.097	dol,i,lam	FLOSSIE				0.27	1.3	0.094	scat,lv,lmy,vug,lmy	MID_DALY
	0.43	5.08	0.112	dol,i,ppv,sv	FLOSSIE				0.21	8.8	0.178	vug,lmy	MID_DALY
	0.12	4.25	0.155	dol,i,ppv,sv,calc	FLOSSIE				0.78	4.2333	0.136333333		
	0.18	3.08	0.146	dol,i,ppv,sv,lam	FLOSSIE						mDm	3.301974	
	0.34	3.23	0.102	dol,i	FLOSSIE						Phih	0.10634	
	0.24	5.59	0.199	dol,i,lam	FLOSSIE								
	0.18	2.66	0.07	dol,i,anhy,lam	FLOSSIE								
	0.49	0.31	0.081	dol,i	FLOSSIE								
	0.18	0.05	0.077	dol,i,calc	FLOSSIE								
	0.18	6.02	0.122	dol,i,calc	FLOSSIE								
	0.18	0.76	0.082	dol,i,calc	FLOSSIE								
	0.37	1.13	0.101	dol,i,lam	FLOSSIE								
	9.78	2.364375	0.122212121										
			mDm	23.1235875									
			Phih	1.195234545									
	0.3	0.13	0.062	ls,i	MID_DALY								
	0.49	0.26	0.063	ls,i	MID_DALY								
	0.79	0.195	0.0625										
			mDm	0.15405									
			Phih	0.049375									
	0.58	1.36	0.13	ls,i,lam	LWR_DALY								
	0.27	1.77	0.112	ls,i,ppv	LWR_DALY								
	0.27	1.49	0.148	dol,i,calc	LWR_DALY								
	0.34	1.12	0.1	dol,i,ppv,lam	LWR_DALY								
	0.34	1.06	0.088	ls,i	LWR_DALY								
		1.8	1.36	0.1156									
				mDm	2.448								
				Phih	0.20808								

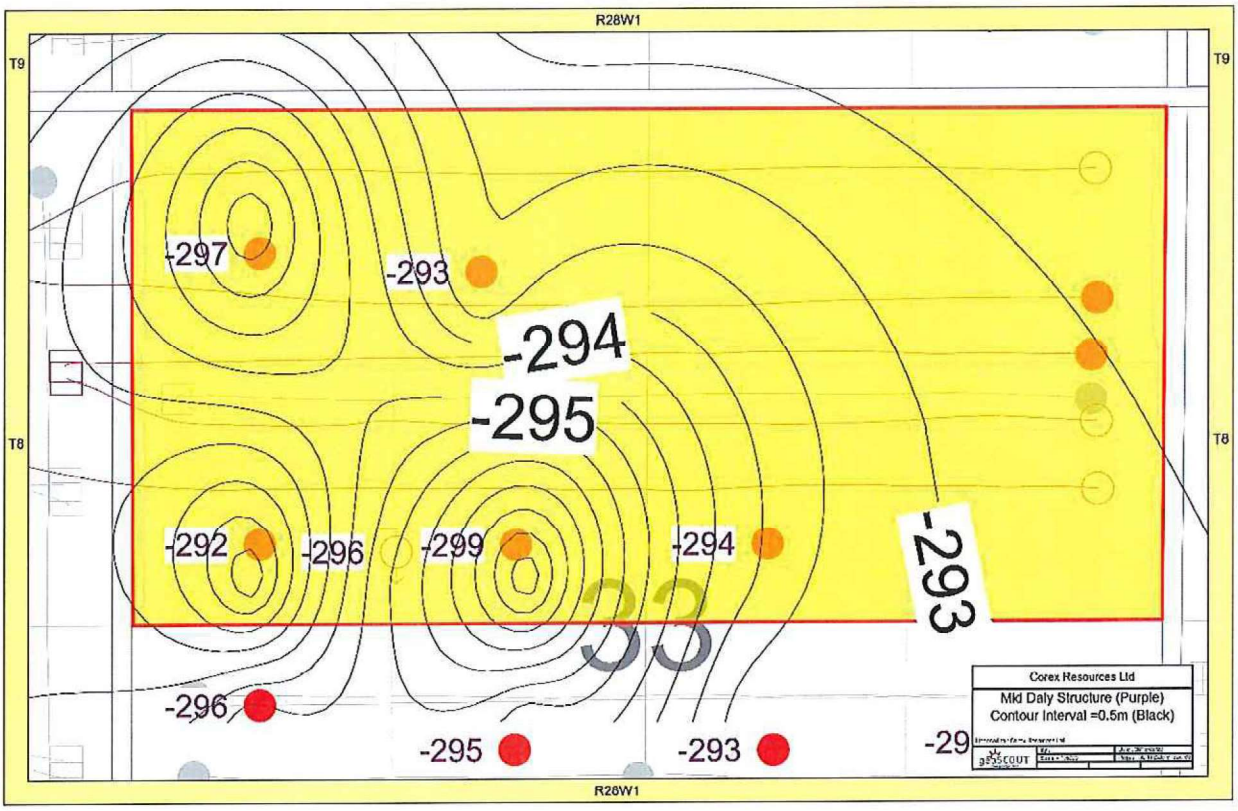
Appendix XII – Crinoidal – Top of Structure



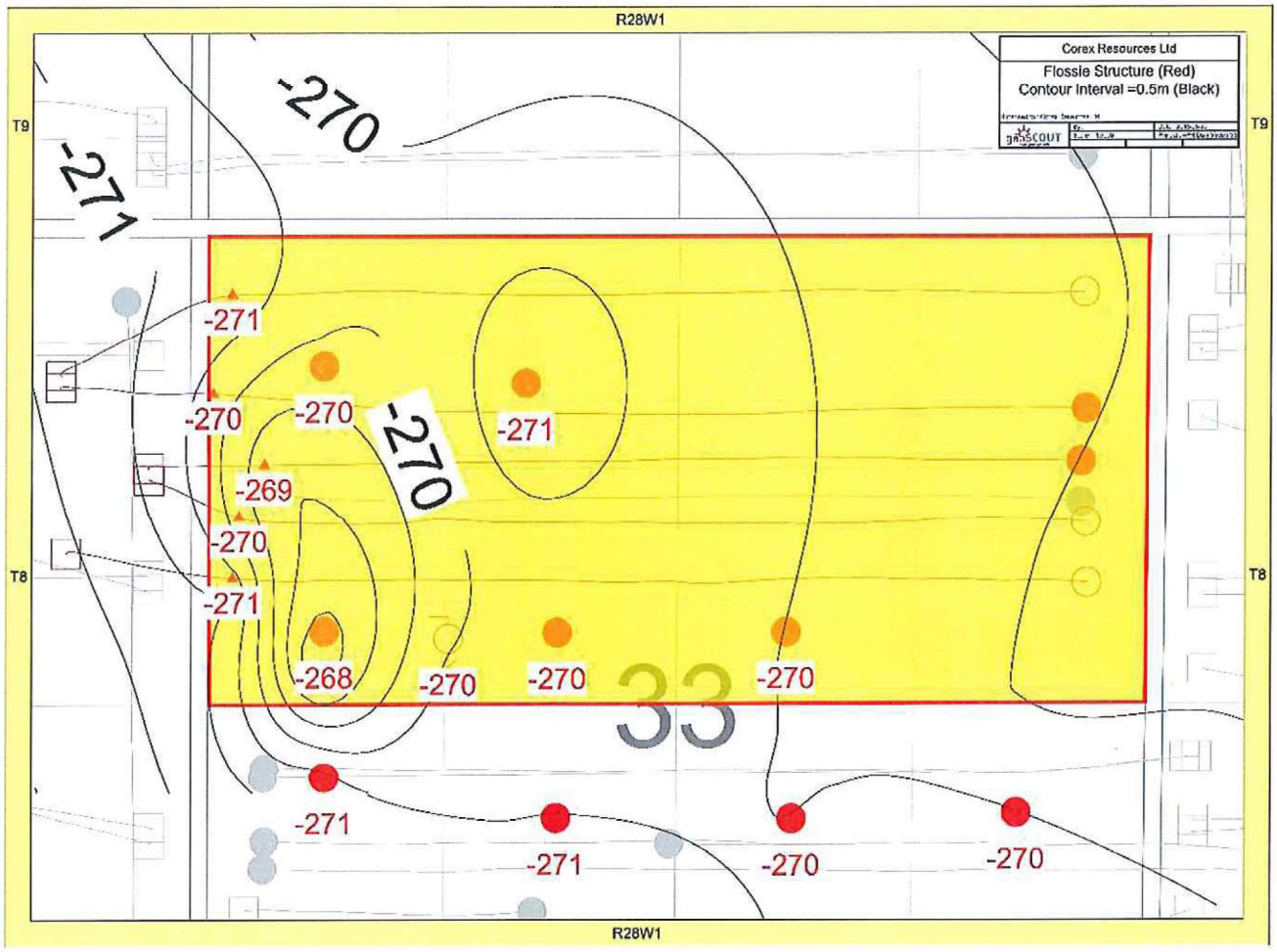
Appendix XIII – Lower Daly – Top of Structure



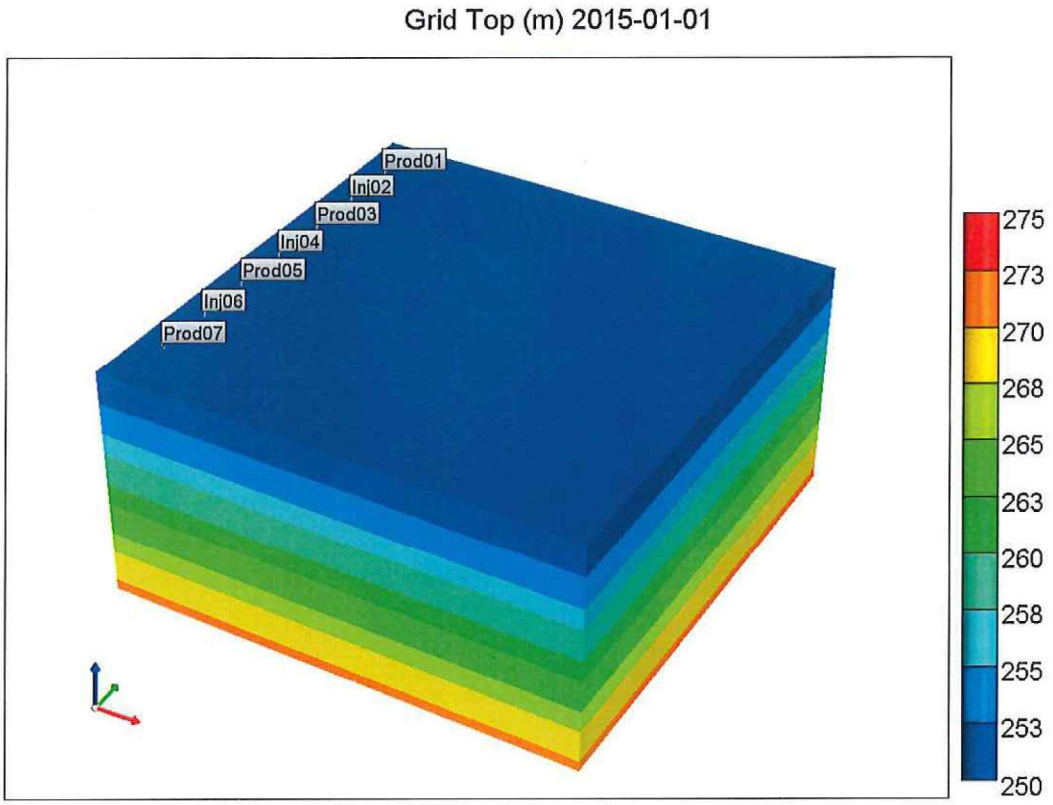
Appendix XIV – Middle Daly – Top of Structure



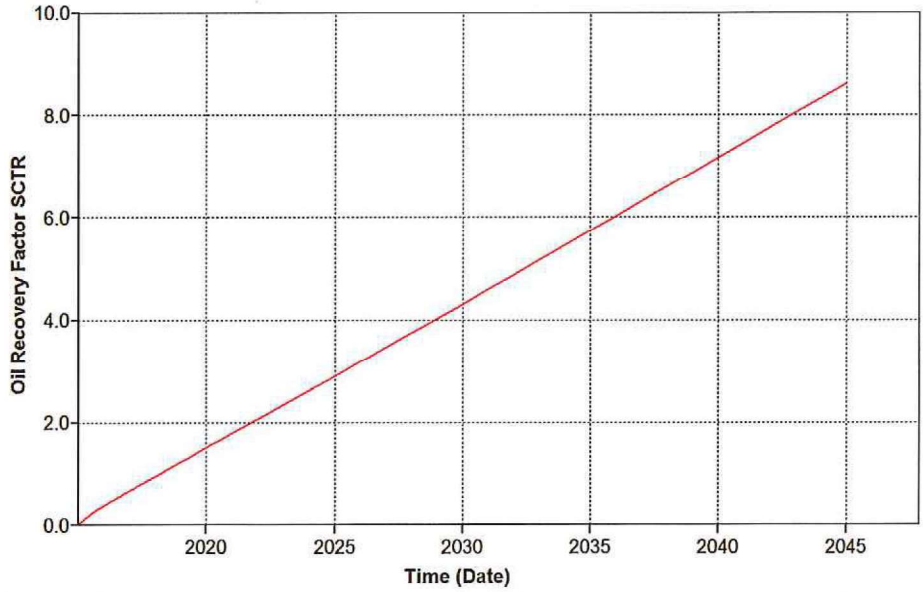
Appendix XV – Flossie Lake – Top of Structure



Appendix XVI –Flossie Lake Member – Section Model



Section Model – Flossie Lake Member– 3D View



Section Model – Flossie Member – Primary and Secondary Forecast – Oil Recovery Factor versus Time -This Model Was Used to Scale Results for the Ewart Unit No. 15 Area