W1150 WCR (vol. 1)

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DUNBAR EAST-1
W1150

BASIN OIL N.L.

PPL 1
Onshore Otway Basin
VICTORIA
DUNBAR EAST-1
Well Completion Report

Volume 1
Text and Enclosures

BASIN OIL N.L.
PPL 1 - Onshore Otway Basin _ VICTORIA
DUNBAR EAST-1
Well Completion Report Vol.1

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WELL COMPLETION REPORT

DUNBAR EAST-1

Compiled By: **A J Maxwell**
J A Watt

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WELL:	**DUNBAR EAST #1**	**SPUD:**	26-03-1996
WELL TYPE:	EXPLORATION	**TD REACHED:**	18-04-1996
BLOCK/LICENCE::	PPL1 Otway Basin Victoria	**RIG RELEASED:**	21-04-1996
RIG:	ODE 30	**COMPLETED:**	
LATITUDE:	38 33' 38.26" S	**STATUS::**	Plugged & abandoned exploration well with gas & oil shows
LONGITUDE:	142 55' 36.74" E	**TYPE COMPLETION::**	Plugged & abandoned
X coord:	667 890 mE	**TYPE STRUCTURE:**	Waarre Level - Tilted Fault Block Heathfield Level - Horst
Y coord:	5 730 202 mN		
SEISMIC STATION:	Waarre 3D Xline 3095 Inline 7295	**ZONE(S):**	
ELEVATION GL:	73 m AHD	**REMARKS:**	
RT:	77.3 m		
TD:	2418.7 **m MD (Logger)** 2419.0 **m MD (Driller)**		

CASING SIZE	SHOE DEPTH mRT	TYPE
16"	9.5	
9 5/8"	755.0 Logger	

AGE	FORMATION OR ZONE TOPS	DEPTH (m) LOGGERS MD	DEPTH (m) SUBSEA TVD	THICKNESS (metres)	HIGH (H)* LOW (L)	TWT (msec)
TERTIARY	PORT CAMPBELL LIMESTONE	4.3	+73	99.7		
	GELLIBRAND MARL	104.0	-26.7	295.0	116.0 H	30.0
TERTIARY	CLIFTON FORMATION	399.0	-321.7	21.0	20.3 H	346.8
TERTIARY	NARRAWATURK MARL	420.0	-342.7	59.0	20.0 H	368.6
TERTIARY	MEPUNGA FORMATION	479.0	-401.7	59.0	11.3 H	425.0
TERTIARY	DILWYN FORMATION	538.0	-460.7	187.0	3.3 H	477.0
TERTIARY	PEMBER MUDSTONE	725.0	-647.7	62.5	25.0 L	624.2
TERTIARY	PEBBLE POINT FORMATION	787.5	-710.5	53.0	13.8 H	670.2
LATE CRETACEOUS	PAARATTE FORMATION	840.5	-763.2	347.5	1.8 H	707.6
LATE CRETACEOUS	SKULL CREEK MUDSTONE	1118.0	-1110.7	138.5	64.3 H	960.4
	NULLAWARRE GREENSAND	1326.5	-1249.0	5.0	58.8 H	1061.2
LATE CRETACEOUS	BELFAST MUDSTONE	1331.5	-1254.3	178.5	103.8 H	1063.6
LATE CRETACEOUS	WAARRE FORMATION: UNIT D	1509.5	-1432.7	85.0	43.3 H	1185.0
LATE CRETACEOUS	UNIT C	1517.5	-1440.0	7.3	NP	1187.2
	UNIT B	NP				
	UNIT A	NP				
EARLY CRETACEOUS	EUMERALLA FORMATION	1595.0	-1517.3	709.0	20.3 H	1236.0
	HEATHFIELD	2329.0	-2224.6		158.3 H	1625.6
	T.D. (LOGR. EXTRAP.)	2419.0	-2292.5		181.0 H	1656.0
* Geophysical prognosis						

LOG INTERPRETATION (Interval Averages)					
ZONE	INTERVAL m MD	THICKNESS	NP m	POR %	SW %
No pay is mapped					

DRILL STEM TESTS	
ZONE	INTERVAL m MD
Heathfield Sandstone	2323 - 2344

CORES				
ZONE	NO.	INTERVAL m MD	CUT m	REC m

LOG (BPB)	SUITE/RUN	INTERVAL mRT	BHT/TIME °C / Hours
MSFL-DLL-GR-CAL-DT-	1/1	1618.9 - 755.0 Sonic Failed	56.0 / 9
MLL-DLL-BHL-SP-GR-CAL-DT	2/1	2419.0-1600.0 DT -2419-755	75.0/ 7
DRHO-NPHI-RHOB-GR-CAL	2/2	2323.3 - 2151.6 1901.9 -1499.7	75.0 / 13
RFT-GR	2/3	1518.3-2226.8	75.0 / 20
Velocity Survey	2/4	T.D to Surface 20 levels	

1.1 Regional Geology

Dunbar East-1 is located in Production Permit PPL 1 in the onshore section of the Otway Basin, in Victoria, approximately 120 km west of Geelong and 190 km west of Melbourne. It is situated in the Port Campbell Embayment, within which are several hydrocarbon producing fields, including North Paaratte, Wallaby Creek, Iona, Mylor, Grumby and Langley (Figure 2).

The Otway Basin, including that of South Australia, covers an area of approximately 140,000 k^{m2} onshore and offshore (of which 40,000 km^2 lies onshore), extending just into Tasmanian waters.

Together with other basins along the southern margin of Australia, the Otway Basin resulted from the separation of Australia and Antarctica. It was during the Mesozoic that Gondwanaland fragmented into a number of discrete and diverging lesser continental plates. The tensional forces produced a complex of localised intra-cratonic sub-basins (GFE, 1994). The separation involved two main tectonic phases, a Late Jurassic to Early Cretaceous rift phase marked by extension and rapid subsidence, and a Late Cretaceous to Recent post-rift or drift phase characterised by slower subsidence, and at times compression (Abele et al, 1995).

The Otway Basin comprises four major sedimentary sequences (Figure-4), each deposited during different phases of separation of southern Australia from the Antarctic continental land mass.

The earliest sequence consists of terrestrial sediments deposited in localised intra-cratonic Late Jurassic to Early Cretaceous grabens and half grabens, during a time of active extension. Organic-rich non marine sediments were laid down in the deeper portions of the grabens or more marginal low energy settings, and are classed into the Casterton and Laira formations.

Non marine sedimentation continued in an intra-cratonic sag basin, without significant extension. The Eumeralla Formation, forming the second major sequence, constitutes a widespread development of undifferentiated shales and lithic sandstones, and includes coaly deposits thought to represent the source for the oil and gas discovered throughout the basin.

The third sequence developed towards the beginning of the Late Cretaceous in response to the eventual separation of Australia from Antarctica. Although terrestrial sediments continued to be deposited, marine rocks formed an important part of the sequence for the first time, represented by the thick deltaic sequence, with marine influence, of the Sherbrook Group. At the base of the group, lies the Waarre Formation, one of the key reservoir units in the basin.

Major erosion followed uplift in the Late Cretaceous, forming an initial unconformity surface, a regionally mappable surface in the basin. Sedimentation resumed with the deposition of mainly non marine sediments, with minor marine influences. Further marine sedimentation and the outbuilding of coastal plain and submarine shelf deposits occurred, as more rapid separation of the continental masses took place during the Tertiary (GFE, 1994). This process is continuing to the present day.

1.2 Previous Drilling

The Otway Basin has been recognised as a potential petroleum province since the 1860s and was the location for Australia's first oil exploration well, Salt Creek, at Alfred Flat, South Australia, in 1866 (Sprigg, 1986). It was with the discovery of bitumen strandings, seepage's, and oil scums that exploration had its beginnings in the basin. Over 150 wells have been drilled in the Otway since, both onshore and offshore, with the greatest number of discoveries of hydrocarbons in the coastal region between Port Campbell, westwards, to Mt. Gambier.

Mapping of anticlinal structures and intermittent drilling of shallow wells took place between the early 1890s and late 1950s, however, no discoveries were made during this period. The first discovery in the basin was Port Campbell-1, drilled in 1959, by Frome-Broken Hill. It flowed gas from the Late Cretaceous Waarre Formation at an initial rate of 1.5mmcfd, however was deemed not commercial, as the rate declined rapidly. Shell initiated drilling offshore in the Victorian portion of the basin in 1967, followed closely by Esso, though there were no significant finds. It wasn't until 1979 that the first commercial hydrocarbon gas, from the Waarre Formation, was discovered at North Paaratte-1 by Beach Petroleum, near Port Campbell. The field was brought on stream in 1986. Following North Paaratte-1, Wallaby Creek and Grumby were two more fields discovered by Beach, (also the Waarre Formation) in 1981. Subsequent exploration resulted in the establishment, by Beach, of the substantial Iona gas field in 1988, then the Boggy Creek CO_2 field, by GFE Resources, in late 1991. In 1993, the first offshore success was with BHPP's Minerva-1, just off Port Campbell. The Mylor (Bridge/GFE) and Langley (GFE) fields were discovered in 1994, with the Mylor marking the first recovery of oil from the Waarre (Foster and Hodgson, 1995) (Figure 3).

All of the commercial discoveries to date are located within the Port Campbell region in Victoria. There are two production licences adjacent to PEP 108, PPL 1 and 2, where the fields are located :- North Paaratte, Wallaby Creek, Grumby and Iona with Mylor just to the north of the boundary (Figure 2). Boggy Creek, a CO_2 producing field is situated approximately five kilometres west in PPL-3.

Given the modest cost of exploration and development in the region and the ready market for any discoveries, this area, especially PPL 1, has excellent potential to produce profitable returns (Traviati and Smith, 1994).

1.3 Drilling Rationale

Dunbar East-1 was designed primarily to test the hydrocarbon potential of the Upper Cretaceous Waarre Sandstone. It rests upon the Eumeralla Formation, with a low-angle unconformity or disconformity. Quartz sandstone makes up an average of 65% of the formation while the rest is mudstone (Abele *et al.*, 1995). The formation was subdivided by Buffin in 1989 into four units, A,B,C and D, and where present, reservoir quality sandstones are present in "Unit C", in the upper portion of the formation. It consists of light grey to white quartz sandstone, from very fine sand to granule and occasionally pebbly size, in bands. It is poorly sorted and clean, with good porosity developed in many beds. It is interpreted that they are channel sands probably deposited in an upper shelf plain (inner deltaic) environment, where fluviatile processes were dominant over marine and coastal ones (Abele *et al.*, 1995).

The Early Cretaceous Heathfield Member of the Eumeralla Formation was considered a secondary objective at the Dunbar East-1 location. The Heathfield is made up of dominantly lithic sandstone, the rock fragments mainly being unstable volcanogenic material. The rock fragments have in part deformed to clays which together with the formation of various cements consequently reduced much of the primary porosity. Nevertheless, rare more quartz-rich sandstones have been encountered and some appear to have maintained reasonable porosity's and permeability's (Foster and Hodgson, 1995). Port Campbell-4 intersected the Heathfield to the northeast only about a kilometre away, though in an adjacent fault block, to the north. Oil was recovered from DSTs in the Eumeralla in the Port Campbell-4 well (Foster and Hodgson, 1995).

It has been concluded that the lower part of the Eumeralla Formation was deposited in low energy fluvio-lacustrine and lacustrine environments, with volcanism contemporaneous with sedimentation (Abele *et al.*, 1995).

2.0 Geological Analysis

The following is a summary of the lithological units observed in Dunbar East-1 compiled from the descriptions by the wellsite geologist (Appendix 1), as well as the Mud Log (Enclosure 2).

Table 1 - Well Formation Tops

Formation Tops	Prognosed (mKB)	Actual (mKB)	Actual TVD (mss)	Difference (m High/Low)	Thickness (m)
Port Campbell Limestone	4.3 (surface)	4.3	+73.0		99.7
Gellibrand Marl	220.0	104.0	-26.7	116.0 High	295.0
Clifton Formation	419.3	399.0	-321.7	20.3 High	21.0
Narrawaturk Marl	440.0	420.0	-342.7	20.0 High	59.0
Mepunga Formation	490.3	479.0	-401.7	11.3 High	59.0
Dilwyn Formation	541.3	538.0	-460.7	3.3 High	187.0
Pember Mudstone	700.0	725.0	-647.7	25.0 Low	62.5
Pebble Point Formation	801.3	787.5	-710.5	13.8 High	53.0
Paaratte Formation	842.3	840.5	-763.2	1.8 High	347.5
Skull Creek Mudstone	1252.3	1188.0	-1110.7	64.3 High	138.5
Nullawarre Formation	1385.3	1326.5	-1249.0	58.8 High	5.0
Belfast Mudstone	1435.3	1331.5	-1254.3	103.8 High	178.5
Waarre Formation	1553.3	1510.0	-1432.7	43.3 High	85.0
Eumeralla Formation	1615.3	1595.0	-1517.3	20.3 High	709.9
Heathfield Sandstone	2463.3	2329.0	-2224.6	158.3 High	
T.D	2600.0	2419.0	-2292.5	181.0 High	

2.1 HEYTESBURY GROUP (Surface - 124.0 metres)

2.1.1 Port Campbell Limestone (Surface - 104.0 metres)

Calcarenite: yellow orange at top becoming very light grey to light green grey, very fine to medium grained, dominantly fine grained, common bryozoa, slightly to occasionally very argillaceous in general increasing with depth, trace pyrite, rare forams and shell fragments, moderately hard, poor intergranular porosity.

2.1.2 Gellibrand Marl (104.0 - 399.0 metres)

Massive Marl: medium green grey to medium grey to medium brown grey, very calcareous at top becoming moderately calcareous at base, abundant forams, common shell fragments and bryozoa, trace to common echinoid spines and sponge spicules, trace pyrite, rare glauconite and very fine to fine quartz sand grains, very soft and sticky, non fissile.

2.1.3 Clifton Formation (399.0 - 420.0 metres)

Calcarenite: orange brown, very fine to very coarse grained in general becoming finer grained with depth, common subrounded to rounded brown iron oxide stained quartz sand grains in general becoming finer and less iron oxide stained with depth, common dark green to black glauconite, moderate cryptocrystalline calcareous cement in part, trace to common dark brown fine to coarse rounded iron oxide pellets, common to abundant brown iron oxide stained bryozoa, forams and shell fragments, friable to moderately hard, very poor visual porosity, interbedded with and grading to,
Marl: medium brown grey to dark brown, minor medium grey to medium green grey, abundant bryozoa, forams and shell fragments, trace to common sponge spicules and echinoid spines, common very fine to fine clear to light brown quartz sand grains, trace glauconite infilled fossil fragments, very soft, sticky, non fissile.

2.2 NIRRANDA GROUP (420.0 - 538.0 metres)

2.2.1 Narrawaturk Marl (420.0 - 479.0 metres)

Marl: medium brown grey, occasionally dark brown, medium grey, medium green grey, common to abundant bryozoa, forams and shell fragments, trace sponge spicules and echinoid spines, common very fine to fine clear quartz sand grains, trace glauconite infilled fossil fragments, very soft, sticky, non fissile.

2.2.2 Mepunga Formation (479.0 - 538.0 metres)

Sandstone: medium orange brown, very fine to grit, dominantly very coarse, subrounded to rounded, very poorly sorted, very weak silica cement, minor strong calcareous cement in part, common to abundant medium to dark brown argillaceous and silt matrix, moderate to strong dark brown iron oxide on quartz grains, trace to common dark brown to brown black iron oxide pellets, friable to unconsolidated, fair to very good dominantly good inferred porosity, grading in part to and with minor interbedded
Claystone: dark brown grey to brown black, often with abundant dispersed brown stained very fine to grit quartz sand grains, rare pyrite, very soft, sticky, non fissile.

2.3 WANGERRIP GROUP (538.0 - 840.5 metres)

2.3.1 Dilwyn Formation (538.0 - 725.0 metres)

Sandstone: light grey to light brown grey, very fine to grit, dominantly coarse, subangular to rounded, moderately sorted, very weak silica cement, trace to abundant light to medium grey argillaceous matrix, clear to white quartz grains, occasional yellow to weak brown stained quartz grains, trace black coal detritus often with associated disseminated pyrite, friable to unconsolidated, fair to very good dominantly good visual porosity with minor interbedded,

Claystone: medium to dark brown grey, trace to abundant dispersed quartz sand grains, non to occasionally very silty, very soft, sticky, non fissile.

2.3.2 Pember Mudstone (725.0 - 787.5 metres)

Claystone: medium grey, moderately to very silty, common to abundant dispersed very fine to occasionally very coarse quartz sand grains, slightly calcareous in part, trace black carbonaceous detritus, trace pyrite, trace micromica, trace fossil fragments - possible cavings, very soft, very dispersive, non fissile.
Claystone: medium to dark brown grey to medium grey, trace to common dispersed very fine to grit quartz sand grains, moderately to very silty, trace to common dark green argillaceous glauconite, trace pyrite, trace fine mica flakes, soft, moderately dispersive, non fissile.

2.3.3 Pebble Point Formation (787.5 - 840.5 metres)

Sandstone: light brown grey, very fine to very coarse, dominantly coarse, angular to subrounded, moderately sorted, weak silica cement, trace to common white to light brown argillaceous matrix, trace yellow quartz grains, trace yellow and red lithics, trace mica flakes, trace black carbonaceous detritus, friable, fair inferred porosity, no oil fluorescence interbedded with,
Claystone: medium brown grey, trace to common dispersed quartz sand grains, trace micromica, trace coarse mica flakes, rare black carbonaceous detritus, soft, very dispersive, non to slightly subfissile.

2.4 SHERBROOK GROUP (840.5 - 1595.0 metres)

2.4.1 Paaratte Formation (840.5 - 1188.0 metres)

Sandstone: very light brown, very fine to very coarse, dominantly coarse, angular to subrounded, moderately sorted, weak silica cement, trace white argillaceous matrix, trace yellow to brown quartz grains, common yellow green red and brown volcanic lithics, trace coarse mica flakes, trace black coaly detritus, friable, good visual porosity, no oil fluorescence interbedded with and rarely grading to
Claystone: medium brown grey, moderately to very silty, common dispersed very fine to coarse quartz sand grains in part, trace coarse mica flakes, trace to common micromica, trace black carbonaceous detritus, firm, very dispersive, slightly subfissile.
Sandstone: light grey to light brown grey, very fine to very coarse, dominantly fine to medium, angular to subrounded, dominantly subangular, moderately sorted, weak silica cement, trace light brown argillaceous and silt matrix, trace yellow to orange quartz grains, trace to common red brown yellow green and grey volcanic lithics, trace black coaly detritus occasionally with associated pyrite, trace coarse clear and green mica flakes, friable, fair inferred porosity, no oil fluorescence interbedded with and grading to
Claystone: medium grey to occasionally medium brown grey, moderately to very silty, occasionally abundant dispersed very fine to rarely coarse quartz sand grains, trace black coaly detritus occasionally with associated pyrite, trace pyrite, trace to common micromica, soft, very dispersive and washing from samples, slightly subfissile.
Sandstone: off white to light grey, silty fine, dominantly very fine, trace to common medium to very coarse grains, angular to subrounded, dominantly subangular, moderately sorted, weak to moderate silica cement, weak calcareous cement in part, abundant off white to light grey argillaceous and silt matrix -often matrix supported, rare multicoloured lithics, trace black coaly detritus often with associated pyrite, rare mica flakes, friable to occasionally moderately hard, very poor to rarely fair inferred porosity, no oil fluorescence interbedded with, interlaminated with and grading to,

Claystone: off white to medium grey, often very silty grading to siltstone, often very finely arenaceous grading to very fine sandstone, trace black carbonaceous detritus and flecks, trace micromica, soft, very dispersive, slightly subfissile.

2.4.2 Skull Creek Mudstone (1188.0 - 1326.5 metres)

Sandstone: off white to light grey, very fine to occasionally fine, trace medium grains, angular to subrounded, moderately sorted, weak to moderate silica cement, trace weak calcareous cement, trace strong dolomite cement, common to abundant white argillaceous matrix - often matrix supported, trace red and green grey volcanic lithics, trace black carbonaceous detritus often with associated pyrite, trace coarse mica flakes, friable to occasionally hard, very poor to poor inferred porosity, no oil fluorescence interlaminated, finely interbedded with and grading to,
Claystone: off white to medium grey, moderately to very silty, often very finely arenaceous, common black carbonaceous detritus and flecks often with associated pyrite, trace micromica, soft, very dispersive, slightly subfissile.
Claystone: light brown grey, moderately to very silty often grading to siltstone, occasionally very finely arenaceous, slightly to moderately calcareous, trace black carbonaceous flecks and detritus, trace to occasionally common light green glauconitic clay, trace pyrite, trace to common micromica, trace fine to medium brown mica flakes, soft to firm, moderately to very dispersive, slightly subfissile interlaminated and finely interbedded with,
Sandstone: off white to light brown, very fine to occasionally fine, angular to subrounded, moderately sorted, weak silica and calcareous cements, moderate dolomite cement in part, abundant white argillaceous and silt matrix - matrix supported, trace to common very fine green lithics, trace very fine red brown and black lithics, trace black to medium brown carbonaceous detritus, trace very fine brown and clear mica flakes, friable to moderately hard, no visual porosity, no oil fluorescence.

2.4.3 Nullawarre Greensand (1326.5 - 1331.5 metres)

Wireline logs show a five metre sand interval at this depth, this has been interpreted as the Nullawarre Sandstone. The cutting show very little sand in the sample over this interval.

2.4.4 Belfast Mudstone (1331.5 - 1510.5m)

Claystone: light to dark grey, medium brown grey, dominantly medium to dark grey, moderately silty, common dispersed very fine to occasionally coarse rounded quartz sand grains, trace off white very fine sandstone lamination in part, common dark green glauconite, moderately carbonaceous, common medium brown cryptocrystalline dolomite often with dispersed very fine to fine quartz grains and light green glauconite grains, moderately calcareous towards the base, trace micromica, soft to firm, moderately dispersive, slightly subfissile with towards the top of the interval rare laminations of,
Sandstone: off white to very light brown, very fine to fine with rare medium to coarse grains, subangular to rounded, poorly sorted, weak silica calcareous and dolomite cements, abundant very light brown argillaceous matrix - matrix supported, common glauconite and light green glauconitic clay matrix, trace brown lithics, friable, no visual porosity, no oil fluorescence.

2.4.5 Waarre Formation (1510.0 - 1595.0 metres)

2.4.5.1 Unit D (1510.0 - 1517.0 metres)

Sandstone: off white to very light brown, very fine to fine with common medium to very coarse clear subangular quartz grains, angular to subrounded, very poorly sorted, weak silica and trace weak calcareous cements, abundant white argillaceous matrix - matrix supported, quartzose with common brown to black lithics, trace glauconite, friable, no visual porosity, no oil fluorescence with probable cavings of
Claystone: light to dark grey, common medium to dark brown grey, dominantly medium to dark grey, moderately silty, rare dispersed very fine to occasionally coarse rounded quartz sand grains, rare off white very fine sandstone laminations, abundant dark green glauconite, moderately carbonaceous, slightly calcareous, trace white calcilutite, trace medium brown cryptocrystalline dolomite often with dispersed very fine to fine quartz grains and light green glauconite grains, trace pyrite, trace micromica, soft to firm, moderately dispersive, slightly subfissile.

2.4.5.2 Unit C (1517.0 - 1544.0 metres)

Sandstone: off white to very light brown, very fine to fine with common medium to very coarse clear subangular quartz grains, angular to subrounded, very poorly sorted, weak silica and trace weak calcareous cements, abundant white argillaceous matrix - matrix supported, quartzose with common brown to black lithics, trace glauconite, friable, no visual porosity, no oil fluorescence with probable cavings of
Claystone: light to dark grey, common medium to dark brown grey, dominantly medium to dark grey, moderately silty, rare dispersed very fine to occasionally coarse rounded quartz sand grains, rare off white very fine sandstone laminations, abundant dark green glauconite, moderately carbonaceous, slightly calcareous, trace white calcilutite, trace medium brown cryptocrystalline dolomite often with dispersed very fine to fine quartz grains and light green glauconite grains, trace pyrite, trace micromica, soft to firm, moderately dispersive, slightly subfissile.

2.4.5.3 Unit B (1544.0 - 1579.0 metres)

Claystone: off white to medium grey to medium brown grey, often very silty grading to siltstone, often very finely arenaceous grading to argillaceous sandstone, slightly to moderately calcareous in part, trace black carbonaceous detritus, trace medium brown cryptocrystalline dolomite, trace pyrite, trace to common very fine to fine off white partially altered feldspar grains, trace micromica, soft, very dispersive, slightly subfissile with minor interlaminated
Sandstone: off white, very fine to dominantly fine, angular to subrounded, moderately sorted, weak silica cement, occasional strong dolomite cement, common to abundant white argillaceous matrix, common off white partially altered feldspar grains, trace to common brown green grey and black lithics, trace to common fine black to dark brown carbonaceous detritus, trace pyrite, friable to hard, no visual porosity, no oil fluorescence.
Sandstone: light grey, very fine to very coarse, dominantly fine, angular to subrounded, poorly sorted, strong silica cement in part, trace strong dolomite cement, common to abundant white argillaceous matrix, trace partially altered feldspar grains, common black carbonaceous detritus, friable to hard, poor visual porosity, fair inferred porosity, no oil fluorescence interbedded and laminated with
Claystone: off white to medium grey to medium brown grey, often very silty grading to siltstone, often very finely arenaceous grading to argillaceous sandstone, slightly to moderately calcareous in part, trace black carbonaceous detritus, trace medium brown cryptocrystalline dolomite, trace pyrite,

trace to common very fine to fine off white partially altered feldspar grains, trace micromica, soft, very dispersive, slightly subfissile.

2.4.5.4 Unit A (1579.0 - 1595.0 metres)

Sandstone: off white, very fine to fine, nil to common medium to very coarse grains, angular to subrounded, moderately sorted, weak silica cement, trace weak calcareous cement, abundant white argillaceous matrix - often matrix supported, common red green and black lithics, trace off white partially altered feldspar grains, trace fine black coaly detritus, rare pyrite, friable, poor visual porosity, no oil fluorescence with minor laminated Claystone: off white to dominantly medium brown grey, slightly to moderately silty, trace very fine off white partially altered feldspar grains, trace to common black carbonaceous flecks, trace pyrite, firm, moderately dispersive, slightly subfissile.

2.5 OTWAY GROUP (1595.0 - 2419.0 metres)

2.5.1 Eumeralla Formation (1595.0- 2305.0 metres)

Claystone: light blue grey to light green grey, light to medium brown, slightly silty, trace multicoloured lithics in part, trace quartz and partially altered feldspar grains in part, trace micromica, trace black coaly matter, trace coarse brown mica flakes, soft, sticky interbedded with
Sandstone: off white to light green grey, mottled, very fine to occasionally coarse, dominantly fine to medium, subangular to subrounded, moderately sorted, weak calcareous cement, abundant green lithics, common brown red grey and black lithics, common partially altered feldspar grains, rare carbonaceous material, trace coarse brown mica flakes, trace pyrite, friable but with only loose grains in sample, very poor inferred porosity, no oil fluorescence.
Claystone: light to medium green grey, light to medium brown grey, off white to medium grey, slightly to often very silty in part grading to siltstone, occasionally very finely arenaceous, common very fine partially altered feldspar grains in part, trace brown to black carbonaceous flecks, trace micromica, firm to moderately hard, subfissile interbedded with minor
Sandstone: off white to light grey to light greenish grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, common to dominantly abundant white argillaceous matrix, common green lithics, abundant off white partially altered feldspar grains, trace orange brown grey and black lithics, trace black to brown carbonaceous detritus, rare pyrite, friable to moderately hard, very poor visual porosity.
Fluorescence: 2176-2177m, 2179-2184m, 2201-2203m, 2210-2212m, 2215-2220m, 2227-2229m. The sandstone has trace to 5% dull to rarely moderately bright pinpoint very pale yellowish white fluorescence giving a very dull to dull milky white crush cut, trace residue.

2.5.2 Heathfield Sandstone (2305.0 - 2419.0 metres)

Claystone: off white to medium green grey, light to medium brown grey, dominantly light to medium brown grey, slightly to very silty, occasional abundant very fine to fine dispersed quartz and lithic sand grains - in part grading to very fine sandstone, non to slightly calcareous, common brown to black carbonaceous flecks and detritus, trace to common micromica, firm, moderately dispersive, subfissile interbedded and finely laminated with Sandstone: off white to light brown grey to light green, very fine to occasionally medium, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, trace weak calcareous cement, common to abundant white argillaceous matrix, abundant partially altered feldspar grains, common grey and green lithics, trace red brown and black lithics, trace fine to medium brown mica flakes, common black to occasionally brown carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.

3.0 Relevance to the Occurrence of Hydrocarbons

3.1 Shows

Haliburton Energy Services provided the mud logging services for Dunbar East-1. The unit was equipped with a total gas detector and chromatograph for gas analysis. The Haliburton mud loggers were responsible for collecting samples and checking the samples for fluorescence under the fluoroscope.

The primary target zone was the early Upper Cretaceous Waarre Sandstone, the section above this was assumed to be non prospective at Dunbar East-1. The first gas reading detected in the well was C1 at 780 mKB, C2 was detected from 1240 mKB, C3 from 1300 mKB, and C4 at 1474 mKB. C5 was not detected until 1567 mKB over a 3m interval within the Eumeralla Formation. C5 was present in small intervals within the Eumeralla Formation usually located within sandy layers directly under an intra-Eumeralla claystone.

Background gas through the Paaratte to Skull Creek Formations was 10 units (97/ 3/ tr) increasing to 40 units (91/ 7/ 2/ tr) just above the Waarre Formation.

The Waarre Formation came in 43m high to prognosed. Mud gas readings through the Waarre remained low averaging 50-60 units (95/ 4/ 1/ tr) /total gas in the sands. Log analysis results showed the Waarre Sandstone to be water wet (Appendix-4).

Gas reading through the Heathfield remained low at the top, but increased to more than 3 % at around 2334 mKB.

Gas peaks as well as oil fluorence was observed within the Upper Eumeralla. Several sand packages displayed gas peaks consisting of C1 to C4 with traces of C5 in parts.
Oil fluorescence was observed in the Upper Eumeralla Formation over the following zones, 2176-2177m, 2179-2184m, 2201-2203m, 2210-2212m, 2215-2220m, 2227-2229m. The sandstone has trace to 5% dull to rarely moderately bright pinpoint very pale yellowish white fluorescence giving a very dull to dull milky white crush cut, trace residue.

Apart from these occurrences no other oil fluorescence was observed from cuttings during the drilling of Dunbar East-1.

3.2 Source Potential and Maturation

Basin Oil believes the source to be the Early Cretaceous Casterton Beds. With other proven fields within the PPL1 license we did not forecast a problem with the source rock. The large fault to the north of Dunbar East-1 (Figure-6) cuts deep into the Early Cretaceous and was therefore assumed to be a suitable migration pathway for the reservoir targets at Dunbar East-1.

3.3 Reservoir

The **Waarre Unit C** Formation is a proven reservoir within the Port Campbell Embayment. All current discoveries and producing fields are producing from the Waarre Sandstone. Generally it has excellent reservoir properties, with porosity ranging from 22 % to 25 % and permeability's up to multi-darcies at depths of about 1500m (Smith,1988). At Dunbar East-1 the Waarre was intersected between 1517 m and 1597 m. The sandstone is described as very fine dominantly medium to coarse, poorly sorted, weak silica, with good inferred porosity.

The **Heathfield Sandstone** is not a recognised reservoir within the Port Campbell Embayment. The Heathfield Sandstone was encountered at Dunbar East-1 between 2329 mKB and Total Depth of 2419 mKB. The Heathfield is described as very fine to dominantly fine, moderately sorted, moderate silica cement, common to white argillaceous matrix, with nil to very poor visual porosity. The main problem with the Heathfield as a reservoir is the silica cementation combined also with the minor calcareous cement, leaving practically no porosity.

The **Eumeralla Formation** consists of interbeded siltstone, claystone, sandstone and minor coal. The sandstone units are thin, fine grained and dominantly lithics of volcanogenic origin. The sand is highly argillaceous and appears to have lost most of its primary porosity due to the substantial amount of calcareous and siliceous cement (Geological Survey Report 103, 1995).

Examination of cuttings samples at Dunbar East -1 showed the Intra Eumeralla to be tight and this was confirmed by RFT pressure survey. However the sandstone at 1865 to 1895 mKB displays low travel times of 90 us/ft suggesting high porosity. The RFT tool failed to record any pressures over this zone, therefore porosity within this zone may prove to be higher than the deeper sands.

3.4 Seal

The Belfast Mudstone provides the seal for the Waarre Formation. The Upper Cretaceous (mainly Turonian to Campanian) Belfast Mudstone is a major basinwide formation. It was deposited under low-energy marine conditions, below the storm wave base. The Belfast Mudstone at Dunbar East-1 was intersected at 1131.5 and was 178.5 metres thick. The Belfast Mudstone directly overlies the Waarre Sandstone and with its thickness at Dunbar East-1 location would provide an adequate top seal for the Waarre Sandstone

The Heathfield Sandstone relies on the Eumeralla Formation for its seal. As the Heathfield Sandstone is a intra-Eumeralla sand lens, the siltstones and claystones of the Eumeralla provide top and lateral seal for the Heathfield Formation.

3.5 Structure

The Dunbar East -1 well at the Waarre Formation level is a large titled fault block on the downthrown side of a major southerly dipping fault (Figure-7). The well was deviated to intersect the seismic anomaly of the Heathfield Member. As a result the well track intersects the major southerly dipping fault within the Upper Eumeralla Formation. At the Heathfield Sandstone level the structure is within the Skull Creek horst block (Figure-8).

Post drilling analysis of the well would indicate a valid test of the Waarre Formation at Dunbar East-1. Pre-drill mapping of the Top Heathfield sandstone showed no closure at this level. The well was drilled to intersect a seismic anomaly which appeared to be a sandstone lens within the Top Heathfield Formation. The well proved the seismic anomaly was not due to the presence of hydrocarbons.

4. GEOPHYSICAL ANALYSIS

4.1 Seismic Coverage

The Dunbar East-1 structure was identified from the Waarre 3D Seismic Survey. The Waarre 3D was conducted by Gas & Fuel Corporation of Victoria on behalf of Bridge Oil Limited and the acquisition contractor was Schlumberger-Geco Prakla Australia. The 3-Dimensional multiplicity of the recorded data was 12-fold in 12.5 x 12.5 metre bins.

Data quality around the Dunbar East-1 prospect is good with reasonable continuity of reflectors at the Waarre and Heathfield levels.

4.2 Pre-Drill Mapping

Two-way time structure maps were generated at the Top Waarre Formation and the Top Heathfield Sandstone. The Top Waarre pick is based on the Top of the Waarre C Unit, the pick was tied to the seismic through generation of synthetics for each of the wells within the Waarre 3D. The sharp kick of the gamma ray log at the Belfast Mudstone - Waarre Formation boundary is clearly evident in all the wells within the Waarre 3D. Production of synthetics on these wells show a large peak (normal polarity) in amplitude for the interface between the clean sandstone of the Waarre Formation and the overlying mudstone of the Belfast Formation. It was this large peak that was mapped as the Top Waarre Formation at Dunbar East-1 and carried throughout the Waarre 3D. The pre-drill two-way time structure map showed structural closure at the Waarre Formation level, a depth map of the prospect was produced by GFE Resources prior to the take over by Cultus Petroleum in 1995. This depth map was done using a regional time / depth table (Table -2) GFE used for all their wells in PEP132, PEP 108, PPL1 and PPL2.

No detailed depth map for the Dunbar East-1 prospect was produced by Basin. The post-drill Top Waarre TWT structure Map (Figure-7) showed that the Dunbar East -1 well was drilled within closure.

The Top of the Heathfield seismic marker was not as readily tied as the Top Waarre seismic event. Within the Waarre 3D only two wells penetrated the Heathfield Sandstone, the two wells being Braeside-1 and Port Campbell-4. Port Campbell 4 was drilled in 1964 and the quality of the data is poor. Beach Petroleum who operated Braeside-1 did not run a velocity survey at the well. Basin picked the top of the Heathfield as a peak at the top of the seismic anomaly package within the base of the Upper Eumeralla Formation. The anomaly consists of two high peaks with a high trough in between, the top peak was mapped as the Top of the Heathfield.

The pre-drill Heathfield map did not show structural closure to the east of the prospect. The reason for drilling was the presence of a strong seismic anomaly which was thought to be due to the presence of hydrocarbons. The anomaly appeared to pinch out to the east setting up a stratigraphic play at the Top Heathfield level.

4.3 Post Drill Mapping

The actual top of the Waarre C Formation came in 36 m high to the prognosed depth. The difference is interpreted to be the velocity used for the predicted section over the actual velocity The difference at the Waarre C level did not affected the integrity of the structure.

The actual top of the Heathfield Sandstone came in 134 metres higher than the prognosed depth. The variance is interpreted to be differences in the interval velocity of the Lower Eumeralla section. As discussed above only two wells within PPL1 went to this depth and as a result we have limited and poor data control. The two-way time structure map was changed accordingly (Figure-8).

4.4 Velocities

The well velocity survey showed the variation of prognosed to actual depth (Appendix 2). The velocities used for the prognosed depth at the Waarre level were based on the Dunbar-1, Vaughan-1 and the Wallaby Creek wells. At the Heathfield level only the check shot data form Port Campbell-4 was used. The difference in pre and post-drill seismic velocities and depth conversions are shown in Table 3.

Table 2 Time Depth Table used by GFE Resources

Depth (mss)	TWT (below SRD = 0m asl)
100	104
200	205
300	307
400	409
500	491
600	575
700	653
800	720
900	788
1000	861
1100	930
1200	1004
1300	1073
1400	1137
1500	1204
1600	1268
1700	1329
1800	1386
1900	1444

Table 3 Time -Depth Relationships for Dunbar East-1

Horizon	Predicted			Actual		
	Depth m-subsea	TWT msec	Vint	Depth m-subsea	TWT msec	Vint
Clifton	342	350		322.7	347	
			2028			2025.6
Mepunga	413	420		401.7	425	
			2428.5			2332
Dilwyn	464	462		460.7	475.6	
			2512			2573.5
Pebble Point	724	669		714.7	673	
			3037			2797.6
Paaratte	765	696		761.7	706.6	
			2827.6			2761.7
Skull Creek	1175	986		1133.7	976	
			2891			2853.6
Nullawarre	1308	1078		1250.7	1058	
			3125			3428.6
Belfast	1358	1110		1280.7	1075.5	
			3025.6			2898.8
Waarre	1476	1188		1439.7	1185.2	
			3100			3319.1
Eumeralla	1538	1228		1517.7	1232.2	
			3719			3602.2
Heathfield	2386	1684		2227.7	1626.4	

5.0 Well Summary

Dunbar East-1 was plugged and abandoned on April 21st, 1996. It is located within the PPL1 production license, in western onshore Victoria, approximately 200 km west of Melbourne. The nearest wells are Dunbar-1, Port Campbell-3 and the two gas discovery wells of Wallaby Creek 1 & 2. The nearest production facilities are located at North Paaratte, 4 km to the north east. Basin Oil NL ,one of the Cultus Petroleum group of companies has a 100 % interest in the production license,

PPL1 was granted to Beach Petroleum in early 1985 and in mid 1989 farmed out an interest to Gas and Fuel Corporation, who became GFE Resources in 1993. The company GFE Resources was sold to Cultus Petroleum on 15th September 1995. Basin Oil NL acquired PPL1 via an *in specie* distribution of GFE's assets on the 26th June, 1996. The Dunbar East-1 lead was identified following the Waarre 3D seismic program over PPL1, and extending into PEP 108, in early 1994. Cultus remapped and confirmed the lead as a prospect and Dunbar East-1 was spudded on March 26th, 1996. The well reached its total depth of 2419m in the Early Cretaceous Eumeralla Formation on April 18th, 1996.

The well tested a stratigraphic section in the Port Campbell Embayment in the eastern part of the Otway Basin. It was drilled to ascertain the hydrocarbon prospectivity of Early and Late Cretaceous sandstones. The primary target was the channel sands of the Waarre Formation and the secondary target was the fluvial/lacustrine lithic sandstones of the Heathfield Member of the Eumeralla Formation.
The seal above the Waarre Formation is a proven seal within the production license, being the massive claystones of the Belfast Mudstone. Sealing potential is fair for the Heathfield at Dunbar East-1, as there is an overlying sequence of interbedded and interlaminated lithic sandstone, argillaceous sandstone, siltstone and claystone, making up the enclosing Eumeralla Formation.

The occurrence of hydrocarbons has already been proved by the existence of the number of producing fields in this portion of the Otway Basin, the Port Campbell Embayment. It is known that the Aptian to Albian Eumeralla Formation contains carbonaceous shale and coal in the lower and middle sections with high TOC, and has an oil generative potential with the level of maturity required. Analyses indicate that the source for the oil, gas and condensates recovered from the Eumeralla and Waarre appear to emanate from the Eumeralla itself. Hydrocarbons have also been traced to have been sourced from carbonaceous lacustrine shales in the older Late Jurassic to Early Cretaceous Casterton Formation, although not as organically rich as the younger source.

Dunbar East-1 intersected the seismic objective and all well information indicates that the trap is consistent with the structural geometry mapped prior to drilling. Depth predictions of the target horizons were out by a considerable margin (Waarre- 36m high, Heathfield 180m high) this was due to velocity variations and emphasised the potential for unpredictable velocity variations within this region.

The main results of Dunbar East-1 is that the primary objective Waarre Formation is water wet as indicated by RFT pressure data, log evaluation and mud gas readings. The Heathfield Sandstone secondary objective is tight as indicated by DST-1 results, log data and cutting descriptions. Intra Eumeralla sandstones displayed gas shows of up to 4 % total gas C1 to C5 with minor fluorescence in parts. However, cuttings descriptions, log data and RFT pressures indicated that they are tight or likely to produce at non commercial rates.

6.0 REFERENCES

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FIGURES:

PE905739

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The enclosure PE905739 has the following characteristics:

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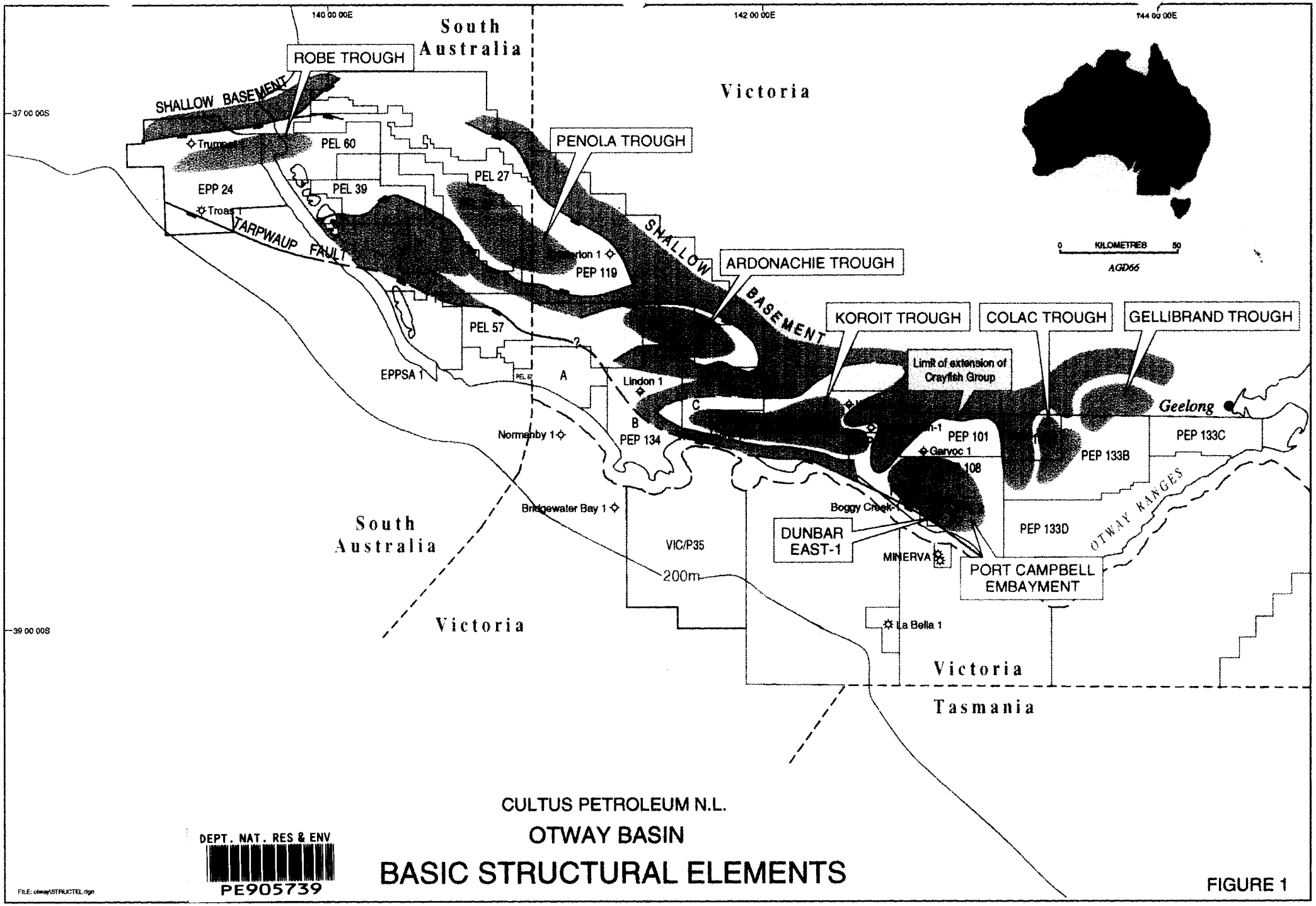
CONTAINER_BARCODE	= PE900835
NAME	= Basic Structural Elements Map
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= MAP
DESCRIPTION	= Basic Structural Elements Map (Figure 1 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)



CULTUS PETROLEUM N.L.

OTWAY BASIN

BASIC STRUCTURAL ELEMENTS

FIGURE 1

FILE: otway\STRUCTEL.dgn

PE905740

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The enclosure PE905740 has the following characteristics:

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CONTAINER_BARCODE	= PE900835
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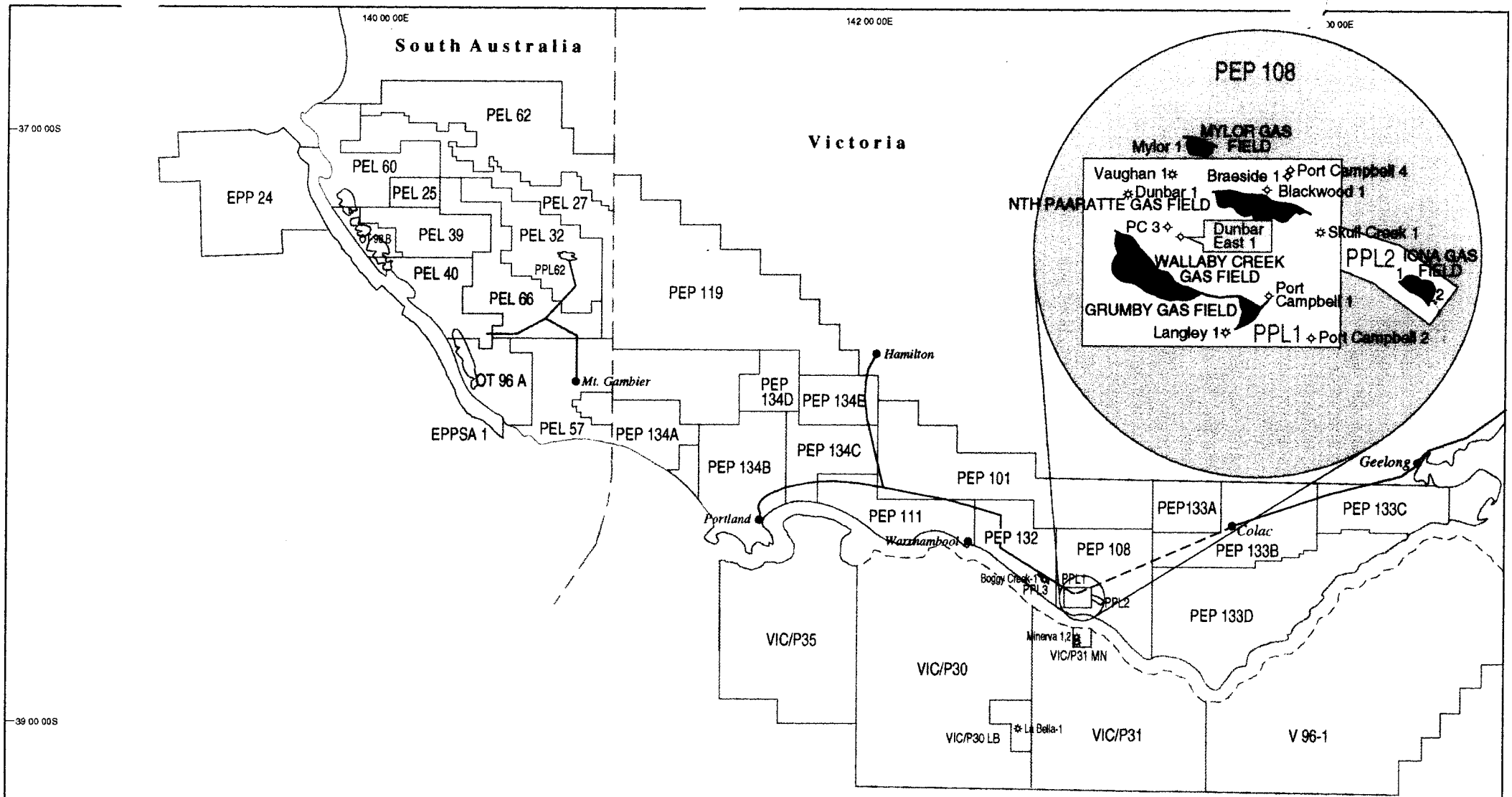
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= MAP
DESCRIPTION	= PPL-1 Location Map (Figure 2 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)


140 00 00E
142 00 00E
37 00 00S
39 00 00S
South Australia
Victoria
PEL 62
PEL 60
PEL 25
PEL 27
PEL 39
PEL 32
PEL 40
PPL62
PEL 66
EPP 24
PEP 119
OT 96 A
Mt. Gambier
Hamilton
PEP 134D
PEP 134E
EPPSA 1
PEL 57
PEP 134A
PEP 134C
PEP 134B
PEP 101
Portland
PEP 111
Warrnambool
PEP 132
PEP133A
PEP 133C
Colac
PEP 108
PEP 133B
Geelong
Boggy Creek-1
PPL1
PPL3
PPL2
PEP 133D
VIC/P35
Minerva 1,2
VIC/P31 MN
VIC/P30
VIC/P30 LB
La Bella-1
VIC/P31
V 96-1
PEP 108
MYLOR GAS FIELD
Mylor 1
Vaughan 1
Braeside 1
Port Campbell 4
Dunbar 1
Blackwood 1
NTH PAARATTE GAS FIELD
PC 3
Dunbar East 1
Skull Creek 1
WALLABY CREEK GAS FIELD
PPL2
IONA GAS FIELD
Port Campbell 1
GRUMBY GAS FIELD
Langley 1
PPL1
Port Campbell 2
LEGEND
Cultus tenement
Pipeline
Proposed Pipeline
0
km
100
AGD66
CULTUS PETROLEUM N.L.
OTWAY BASIN
PPL1 - LOCATION MAP
DEPT. NAT. RES & ENV
PE905740
FILE: OTWAY\OTWBASE3.DGN
FIGURE 2

PE905741

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BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= MAP
DESCRIPTION	= PPL-1 and PPL-2 Well Location Map (Figure 3 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

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LEGEND

- Gas well with oil show
- Dry hole
- Gas well
- Suspended gas well

0 km 5

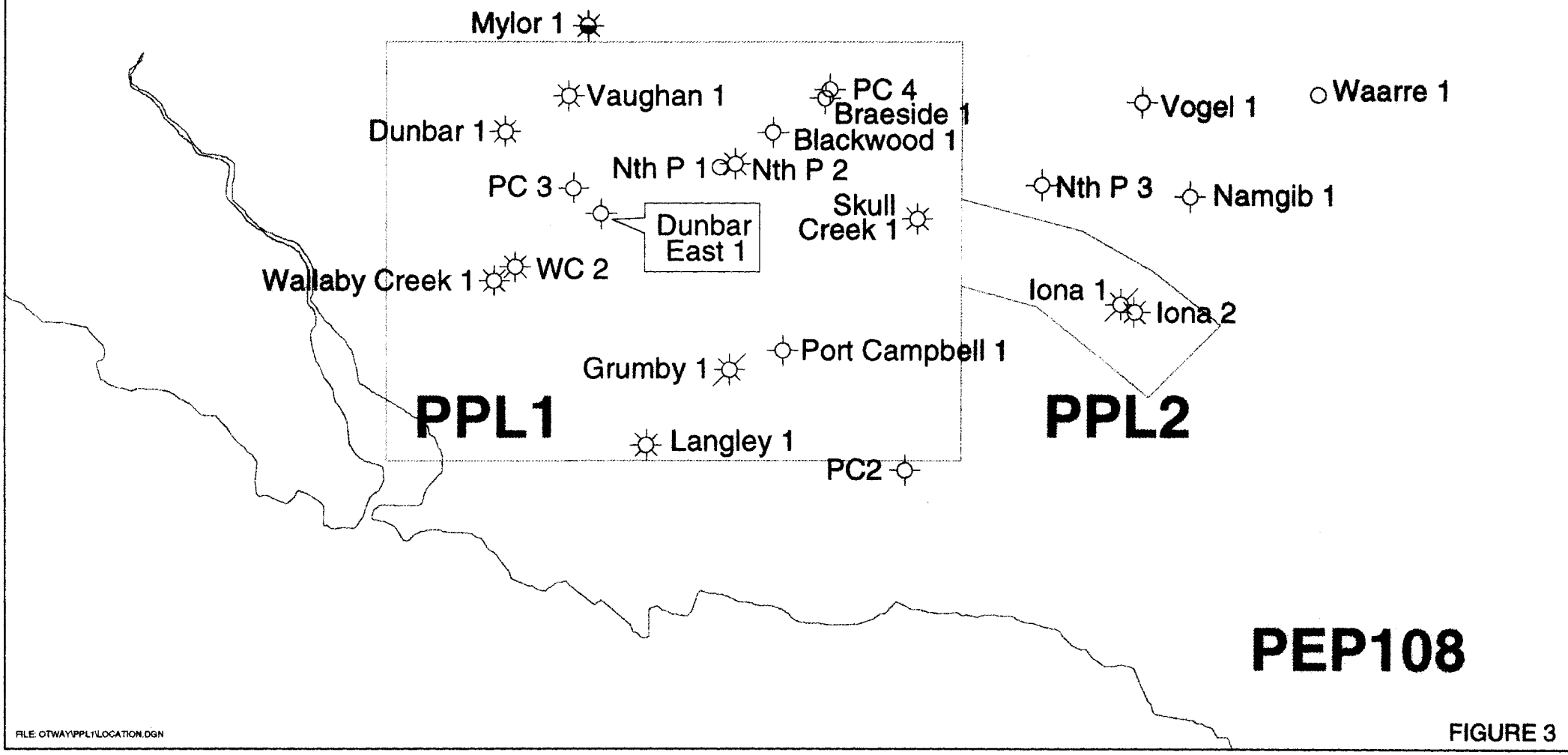
AGD66

CULTUS PETROLEUM NL

ONSHORE OTWAY BASIN - VICTORIA

PPL1 & PPL2

WELL LOCATION MAP



FILE: OTWAY\PPL1\LOCATION.DGN

FIGURE 3

PE905742

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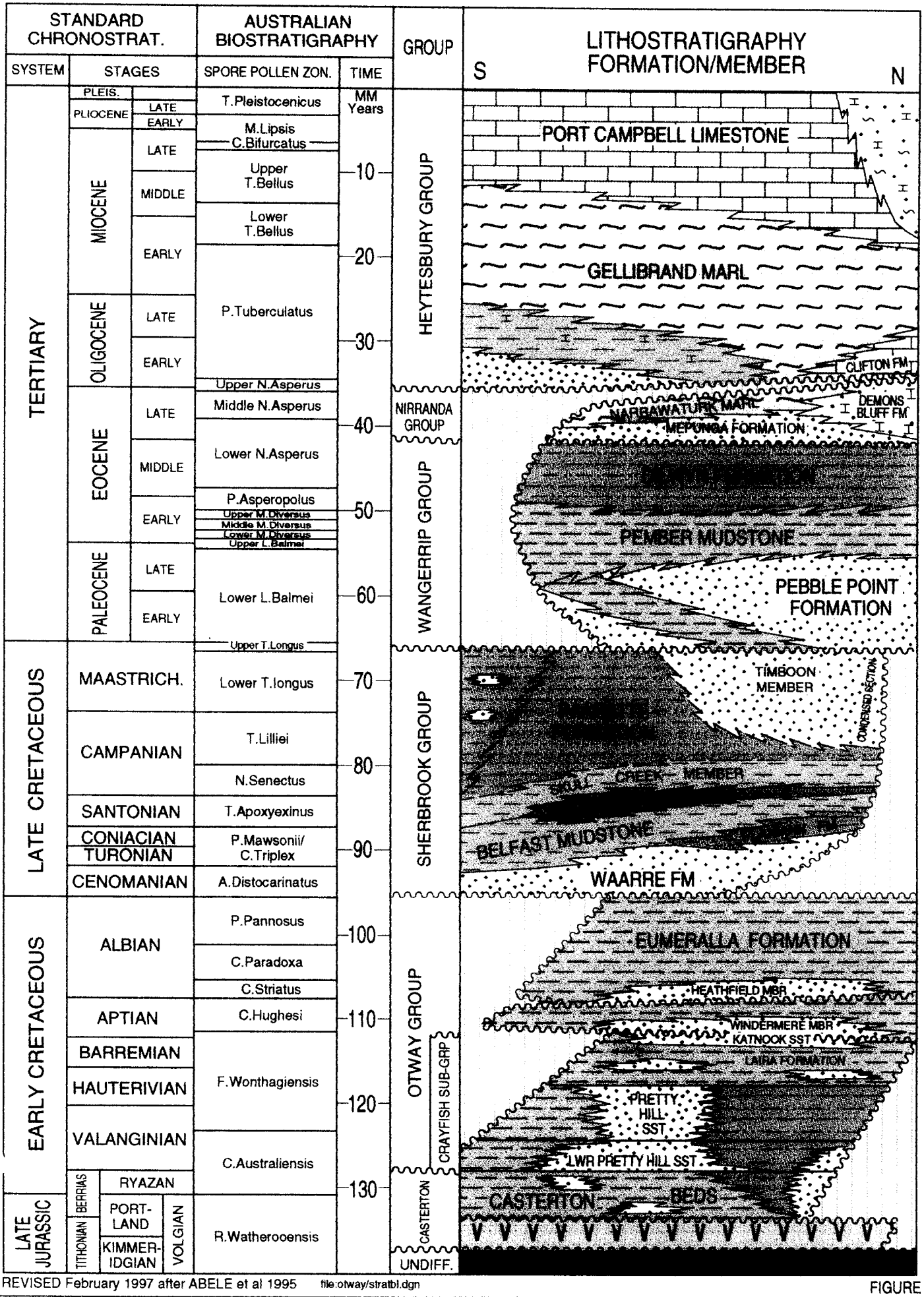
NAME	= Schematic Stratigraphic Table
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= STRAT_COLUMN
DESCRIPTION	= Schematic Stratigraphic Table (Figure 4 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 28/02/97
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

CULTUS PETROLEUM N.L. **OTWAY BASIN - VICTORIA**

SCHEMATIC STRATIGRAPHIC TABLE



REVISED February 1997 after ABELE et al 1995 file:otway/stratbl.dgn

FIGURE 4

PE905743

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CONTAINER_BARCODE	= PE900835
NAME	= Predicted Actual Stratigraphic Section
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= STRAT_COLUMN
DESCRIPTION	= Predicted Actual Stratigraphic Section (Figure 5 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 21/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

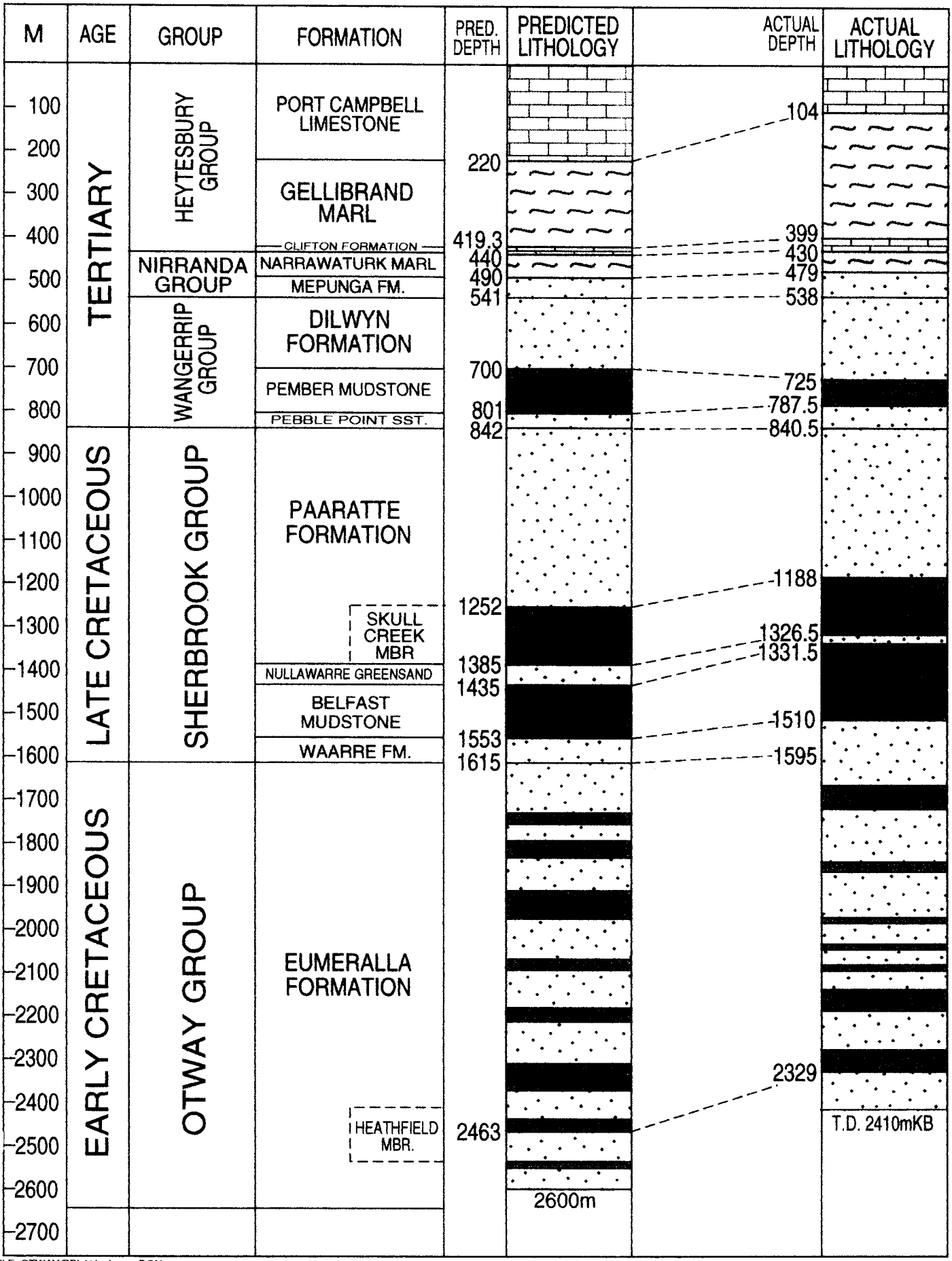
CULTUS

ONSHORE OTWAY BASIN - VICTORIA **PPL1**

DUNBAR EAST-1

Predicted v. Actual Stratigraphic Section

G.L.: 73m LAT: 38°33'38.26" RIG: ODE RIG 30
R.T.: 4.3m LONG: 142°55'36.74"
SPUD: MARCH 26, 1996 P & A: APRIL 21, 1996 T.D.: 2419mKB



FILE: OTWAY/PPL1/dunbarea.DGN

FIGURE 5

PE905744

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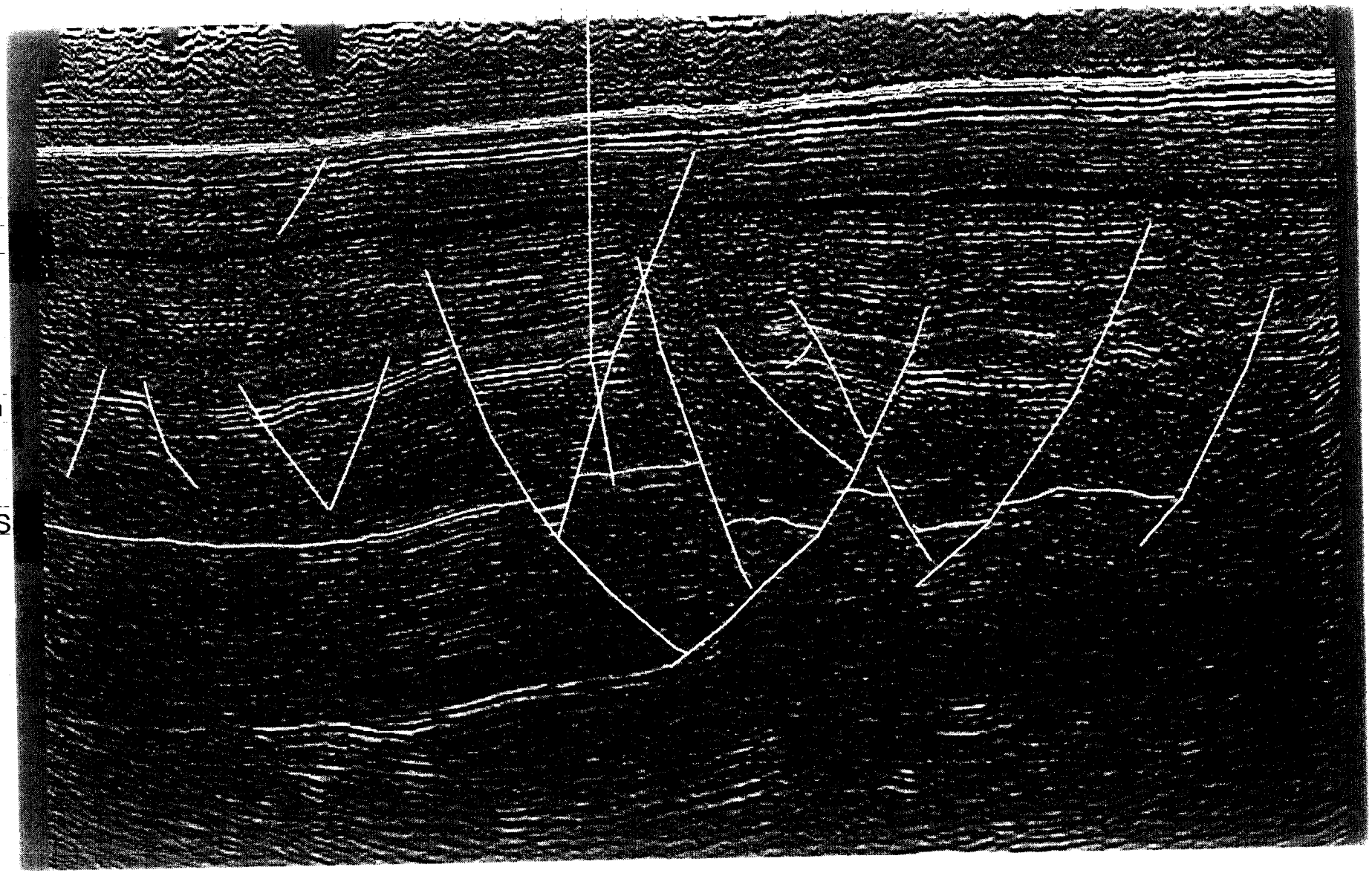
CONTAINER_BARCODE	= PE900835
NAME	= Interpreted Seismic Section
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= SEISMIC
SUBTYPE	= SECTION
DESCRIPTION	= Interpreted Seismic Section (Figure 6 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

Dunbar East- 1



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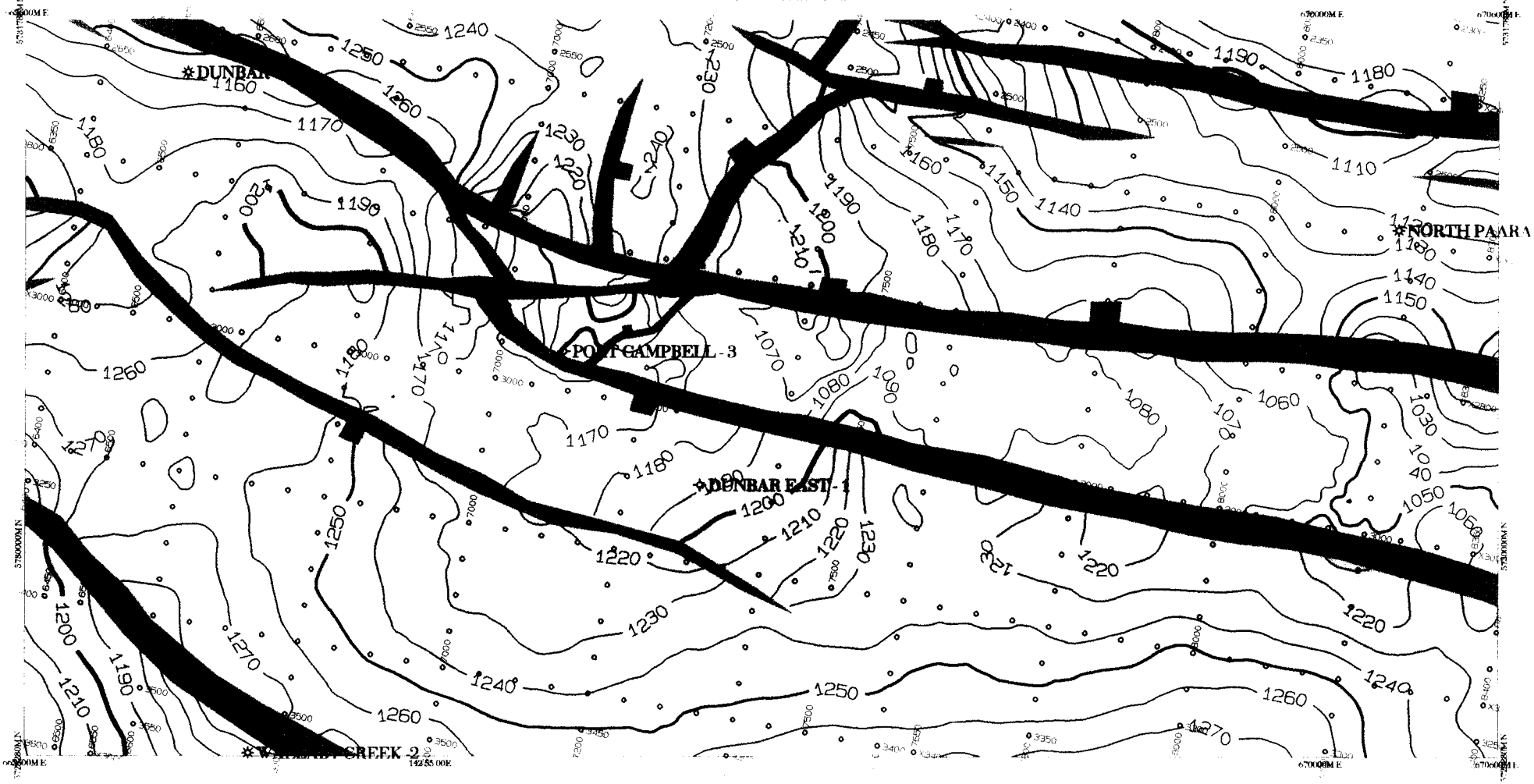
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= SEISMIC
SUBTYPE	= STRUCTURE_MAP
DESCRIPTION	= Interpreted Seismic Structure Map, TWT Structure on top of Waarre C Sandstone, (Figure 7 from WCR vol. 1) for Dunbar East-1
REMARKS	= may be HRZN_CNTR_MAP
DATE_CREATED	= 1/08/97
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

Dunbar East-1



881
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1513

0 1
KILOMETRES

CULTUS PETROLEUM N.L.

PPL1 and PPL2
Otway Basin, Victoria
DUNBAR EAST 1 (POST DRILL)

TWT Structure On Top
Waarre C Sandstone
Datum = MSL

FIGURE-7

PE905746

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The enclosure PE905746 has the following characteristics:

ITEM_BARCODE	= PE905746
CONTAINER_BARCODE	= PE900835
NAME	= Seismic Structure Map (post-drill)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= SEISMIC
SUBTYPE	= STRUCTURE_MAP
DESCRIPTION	= Interpreted Seismic Structure Map, TWT Structure on top of Heathfeild Sandstone, (Figure 8 from WCR vol. 1) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 4/08/97
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	=
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

Dunbar East-1

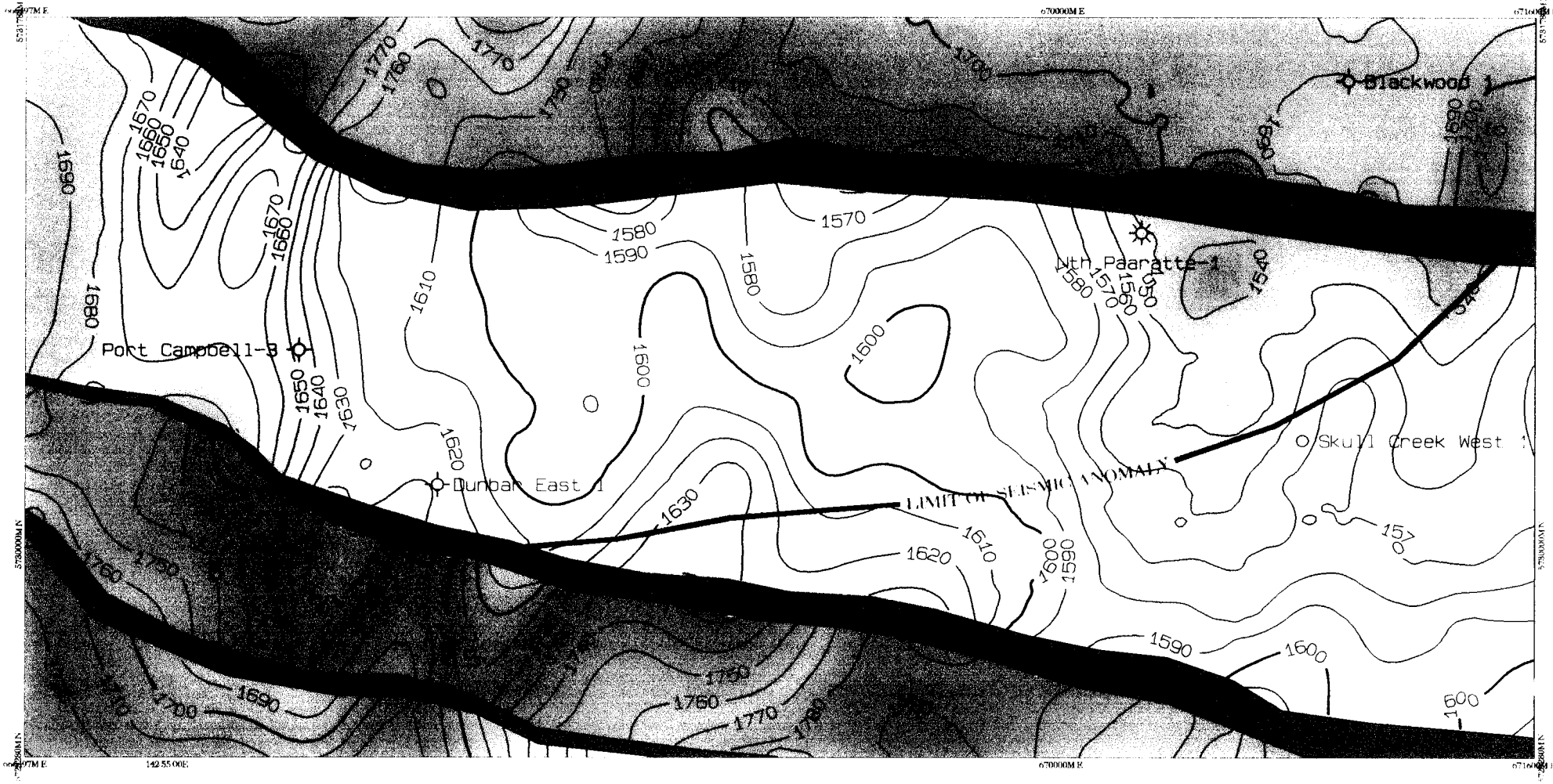


FIGURE-8

ENCLOSURES:

PE600659

This is an enclosure indicator page.
The enclosure PE600659 is enclosed within the container PE900835 at this location in this document.

The enclosure PE600659 has the following characteristics:

ITEM_BARCODE	= PE600659
CONTAINER_BARCODE	= PE900835
NAME	= Well Composite Log
BASIN	= OTWAY
PERMIT	= PPL/1
TYPE	= WELL
SUBTYPE	= COMPOSITE_LOG
DESCRIPTION	= Well Composite Log (enclosure from WCR vol.1) for Dunbar East 1
REMARKS	=
DATE_CREATED	= 21/04/98
DATE_RECEIVED	= 21/08/97
W_NO	= W1150
WELL_NAME	= Dunbar East -1
CONTRACTOR	= Basin Oil N.L.
CLIENT_OP_CO	= Basin Oil N.L.

(Inserted by DNRE - Vic Govt Mines Dept)

PE600660

This is an enclosure indicator page.
The enclosure PE600660 is enclosed within the container PE900835 at this location in this document.

The enclosure PE600660 has the following characteristics:

ITEM_BARCODE	= PE600660
CONTAINER_BARCODE	= PE900835
NAME	= Formation Evaluation Log/Mud Log
BASIN	= OTWAY
PERMIT	= PPL/1
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Formation Evaluation Log/Mud Log (enclosure from WCR vol.1) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 18/04/96
DATE_RECEIVED	= 21/08/97
W_NO	= W1150
WELL_NAME	= Dunbar East -1
CONTRACTOR	= Halliburton Energy Services
CLIENT_OP_CO	= Cultus Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

Australian D.S.T

Drill Stem Test

Results & Charts

Enclosure - 4

AUSTRALIAN D.S.T. File Reference DBE1DST1

Company ..... CULTUS PETROLEUM LTD
Street ..... LEVEL 4,828 PACIFIC HWY
City ..... GORDON NSW 2072
Country ..... AUSTRALIA
Service Company/Rep ..... AUSTRALIAN D.S.T.CO.PTY.LTD. KEVIN PERRIN & RICHARD SMITH

Well Name ..... DUNBAR EAST #1
Well Location ..... OTWAY BASIN PERMIT PPL-1
Field / Pool ..... DUNBAR
Status (Oil, Gas, Other) ..... GAS & OIL

Test Type ..... CONVENTIONAL BOTTOM HOLE TEST
Date of Test 16-04-1996
Producing Interval ..... 7620.48 TO 7690.28 ft
Perf. Type ..... O
Producing Through ..... PERF
Elevation ..... (CF to KB): 14.1 ft (CF): 239.5 ft (KB): 253.6 ft
Pool Datum (subsea).....
Mid Point of Prod. Intvl (MPP)..
Datum Depth of Well from (KB)... 7690.2 ft

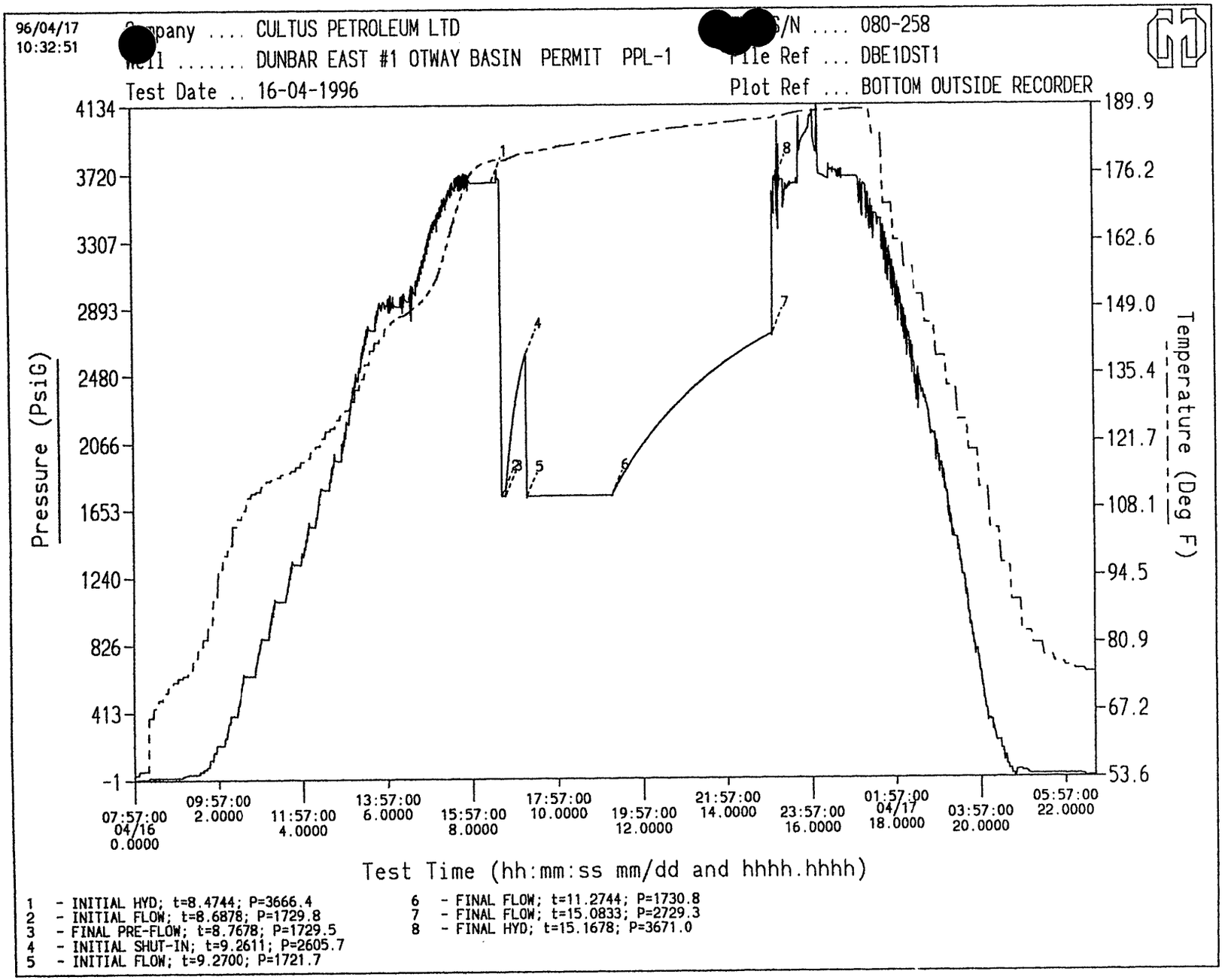
Recorder Depth (KB) ..... 7638.8 ft
Recorder Position ..... BOTTOM OUTSIDE RECORDER

McAllister EMP Identification

EMP Serial Number 258
EMP Model Number 168
Pressure Range ..... 5000.0 PSIA
EMP Battery Usage (Probe) ... 23.7322 (0 23:43:56)
Connected 96/04/16 07:57:00
Disconnected 96/04/17 07:40:56
EMP Calibration I.D. 344-11059
EMP Last Calibration 91/02/28

EMP Setup Parameters

Probe Set Up Time 96/04/15 1:27
Time Delay to First Reading 00:00:00
Data Recording Interval ..... VARIES due to custom setup
Data Recording Format ..... VARIES due to custom setup
Custom Program I.D. ..... Custom 3.2 / 0 - var. interval
Abs. to Ga. pressure adjustment. 13.5 PsiG


96/04/17
10:32:51
Company .... CULTUS PETROLEUM LTD
Well ..... DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Test Date .. 16-04-1996
S/N 080-258
File Ref ... DBE1DST1
Plot Ref ... BOTTOM OUTSIDE RECORDER
Pressure (PsiG)
4134
3720
3307
2893
2480
2066
1653
1240
826
413
-1
Temperature (Deg F)
189.9
176.2
162.6
149.0
135.4
121.7
108.1
94.5
80.9
67.2
53.6
07:57:00 04/16 0.0000
09:57:00 2.0000
11:57:00 4.0000
13:57:00 6.0000
15:57:00 8.0000
17:57:00 10.0000
19:57:00 12.0000
21:57:00 14.0000
23:57:00 16.0000
01:57:00 04/17 18.0000
03:57:00 20.0000
05:57:00 22.0000
Test Time (hh:mm:ss mm/dd and hhhh.hhhh)
1 - INITIAL HYD; t=8.4744; P=3666.4
2 - INITIAL FLOW; t=8.6878; P=1729.8
3 - FINAL PRE-FLOW; t=8.7678; P=1729.5
4 - INITIAL SHUT-IN; t=9.2611; P=2605.7
5 - INITIAL FLOW; t=9.2700; P=1721.7
6 - FINAL FLOW; t=11.2744; P=1730.8
7 - FINAL FLOW; t=15.0833; P=2729.3
8 - FINAL HYD; t=15.1678; P=3671.0

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/[redacted]	16:13:44	8.2778	3664.25	178.23		
04/16	16:14:00	8.2822	3664.35	178.23		
04/16	16:14:16	8.2867	3664.41	178.38		
04/16	16:14:32	8.2911	3664.41	178.38		
04/16	16:14:48	8.2956	3664.31	178.38		
04/16	16:15:04	8.3000	3664.41	178.38		
04/16	16:15:20	8.3044	3664.31	178.38		
04/16	16:15:36	8.3089	3664.31	178.38		
04/16	16:15:52	8.3133	3664.41	178.38		
04/16	16:16:08	8.3178	3664.43	178.45		
04/16	16:16:24	8.3222	3664.53	178.45		
04/16	16:16:40	8.3267	3664.43	178.45		
04/16	16:16:56	8.3311	3664.34	178.45		
04/16	16:17:12	8.3356	3664.83	178.45		
04/16	16:17:28	8.3400	3665.61	178.45		
04/16	16:17:44	8.3444	3666.10	178.45		
04/16	16:18:00	8.3489	3666.51	178.52		
04/16	16:18:16	8.3533	3666.51	178.52		
04/16	16:18:32	8.3578	3666.61	178.52		
04/16	16:18:48	8.3622	3666.51	178.52		
04/16	16:19:04	8.3667	3666.42	178.52		
04/16	16:19:20	8.3711	3666.32	178.52		
04/16	16:19:36	8.3756	3666.42	178.52		
04/16	16:19:52	8.3800	3666.45	178.60		
04/16	16:20:08	8.3844	3666.35	178.60		
04/16	16:20:24	8.3889	3666.35	178.60		
04/16	16:20:40	8.3933	3666.35	178.60		
04/16	16:20:56	8.3978	3666.35	178.60		
04/16	16:21:12	8.4022	3666.25	178.60		
04/16	16:21:28	8.4067	3666.35	178.60		
04/16	16:21:44	8.4111	3666.38	178.67		
04/16	16:22:00	8.4156	3666.38	178.67		
04/16	16:22:16	8.4200	3666.28	178.67		
04/16	16:22:32	8.4244	3666.38	178.67		
04/16	16:22:48	8.4289	3666.28	178.67		
04/16	16:23:04	8.4333	3666.38	178.67		
04/16	16:23:20	8.4378	3666.28	178.67		
04/16	16:23:36	8.4422	3666.40	178.74		
04/16	16:23:52	8.4467	3666.40	178.74		
04/16	16:24:08	8.4511	3666.40	178.74		
04/16	16:24:24	8.4556	3666.40	178.74		
04/16	16:24:40	8.4600	3666.40	178.74		
04/16	16:24:56	8.4644	3666.31	178.74		
04/16	16:25:12	8.4689	3666.40	178.74		
04/16	16:25:28	8.4733	3666.43	178.81		INITIAL HYD
04/16	16:25:44	8.4778	3666.34	178.81		
04/16	16:26:00	8.4822	3666.43	178.81		
04/16	16:26:16	8.4867	3666.43	178.81		
04/16	16:26:32	8.4911	3666.53	178.81		
04/16	16:26:48	8.4956	3666.43	178.81		
04/16	16:27:04	8.5000	3666.53	178.81		
04/16	16:27:20	8.5044	3666.56	178.88		
04/16	16:27:36	8.5089	3666.46	178.88		
04/16	16:27:52	8.5133	3666.56	178.88		
04/16	16:28:08	8.5178	3666.56	178.88		
04/16	16:28:24	8.5222	3666.56	178.88		
04/16	16:28:40	8.5267	3666.56	178.88		
04/16	16:28:56	8.5311	3666.66	178.88		
04/16	16:29:12	8.5356	3666.78	178.96		
04/16	16:29:28	8.5400	3666.78	178.96		
04/16	16:29:44	8.5444	3666.78	178.96		
04/16	16:30:00	8.5489	3666.88	178.96		
04/16	16:30:16	8.5533	3666.88	178.96		
04/16	16:30:32	8.5578	3666.88	178.96		
04/16	16:30:48	8.5622	3666.88	178.96		
04/16	16:31:04	8.5667	3667.01	179.03		
04/16	16:31:20	8.5711	3666.91	179.03		
04/16	16:31:36	8.5756	3666.81	179.03		
04/16	16:31:52	8.5800	3666.91	179.03		
04/[redacted]	16:32:08	8.5844	3667.01	179.03		
04/16	16:32:24	8.5889	3667.01	179.03		
04/16	16:32:40	8.5933	3667.01	179.03		
04/16	16:32:56	8.5978	3667.13	179.10		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/[redacted]	16:33:12	8.6022	3667.13	179.10		
04/16	16:33:28	8.6067	3748.60	179.10		
04/16	16:33:44	8.6111	3710.60	179.10		
04/16	16:34:00	8.6156	3698.00	179.10		
04/16	16:34:16	8.6200	3694.58	179.10		
04/16	16:34:32	8.6244	3692.04	179.10		
04/16	16:34:48	8.6289	3691.84	179.10		
04/16	16:35:04	8.6333	3689.40	179.10		
04/16	16:35:20	8.6378	3687.06	179.10		
04/16	16:35:36	8.6422	3686.18	179.10		
04/16	16:35:52	8.6467	3684.32	179.10		
04/16	16:36:08	8.6511	3692.82	179.10		
04/16	16:36:24	8.6556	3688.33	179.10		
04/16	16:36:40	8.6600	3685.43	179.17		
04/16	16:36:56	8.6644	3682.89	179.17		
04/16	16:37:12	8.6689	3684.84	179.17		
04/16	16:37:28	8.6733	1893.19	179.17		
04/16	16:37:44	8.6778	1892.12	179.17		
04/16	16:38:00	8.6822	1745.25	179.17		
04/16	16:38:16	8.6867	1729.83	179.17		INITIAL FLOW
04/16	16:38:32	8.6911	1729.67	179.10		
04/16	16:38:48	8.6956	1729.96	179.10		
04/16	16:39:04	8.7000	1729.87	179.10		
04/16	16:39:20	8.7044	1729.87	179.10		
04/16	16:39:36	8.7089	1729.87	179.10		
04/16	16:39:52	8.7133	1729.87	179.10		
04/16	16:40:08	8.7178	1729.77	179.10		
04/16	16:40:24	8.7222	1729.70	178.88		
04/16	16:40:40	8.7267	1729.70	178.88		
04/16	16:40:56	8.7311	1729.70	178.88		
04/16	16:41:12	8.7356	1729.61	178.88		
04/16	16:41:28	8.7400	1729.70	178.88		
04/16	16:41:44	8.7444	1729.70	178.88		
04/16	16:42:00	8.7489	1729.61	178.88		
04/16	16:42:16	8.7533	1729.70	178.88		
04/16	16:42:32	8.7578	1729.61	178.88		
04/16	16:42:48	8.7622	1729.61	178.88		
04/16	16:43:04	8.7667	1729.51	178.88		FINAL PRE-FLOW
04/16	16:43:20	8.7711	1732.13	178.88		
04/16	16:43:36	8.7756	1751.14	178.88		
04/16	16:43:52	8.7800	1769.37	178.88		
04/16	16:44:08	8.7844	1786.89	178.96		
04/16	16:44:24	8.7889	1802.60	178.96		
04/16	16:44:40	8.7933	1818.22	178.96		
04/16	16:44:56	8.7978	1833.16	178.96		
04/16	16:45:12	8.8022	1847.62	178.96		
04/16	16:45:28	8.8067	1861.79	178.96		
04/16	16:45:44	8.8111	1875.47	178.96		
04/16	16:46:00	8.8156	1889.49	179.03		
04/16	16:46:16	8.8200	1902.21	179.03		
04/16	16:46:32	8.8244	1915.02	179.03		
04/16	16:46:48	8.8289	1927.53	179.03		
04/16	16:47:04	8.8333	1939.96	179.03		
04/16	16:47:20	8.8378	1951.99	179.03		
04/16	16:47:36	8.8422	1963.83	179.03		
04/16	16:47:52	8.8467	1975.97	179.17		
04/16	16:48:08	8.8511	1987.04	179.17		
04/16	16:48:24	8.8556	1998.30	179.17		
04/16	16:48:40	8.8600	2009.37	179.17		
04/16	16:48:56	8.8644	2020.43	179.17		
04/16	16:49:12	8.8689	2031.11	179.17		
04/16	16:49:28	8.8733	2041.79	179.17		
04/16	16:49:44	8.8778	2052.76	179.32		
04/16	16:50:00	8.8822	2062.67	179.32		
04/16	16:50:16	8.8867	2072.86	179.32		
04/16	16:50:32	8.8911	2082.86	179.32		
04/16	16:50:48	8.8956	2092.77	179.32		
04/16	16:51:04	8.9000	2102.48	179.32		
04/16	16:51:20	8.9044	2112.09	179.32		
04/[redacted]	16:51:36	8.9089	2121.95	179.39		
04/16	16:51:52	8.9133	2130.98	179.39		
04/16	16:52:08	8.9178	2140.01	179.39		
04/16	16:52:24	8.9222	2149.14	179.39		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/[redacted]	16:52:40	8.9267	2158.17	179.39		
04/16	16:52:56	8.9311	2166.92	179.39		
04/16	16:53:12	8.9356	2175.75	179.39		
04/16	16:53:28	8.9400	2184.79	179.53		
04/16	16:53:44	8.9444	2192.95	179.53		
04/16	16:54:00	8.9489	2201.40	179.53		
04/16	16:54:16	8.9533	2209.65	179.53		
04/16	16:54:32	8.9578	2217.91	179.53		
04/16	16:54:48	8.9622	2226.07	179.53		
04/16	16:55:04	8.9667	2234.13	179.53		
04/16	16:55:20	8.9711	2242.29	179.68		
04/16	16:55:36	8.9756	2249.97	179.68		
04/16	16:55:52	8.9800	2257.64	179.68		
04/16	16:56:08	8.9844	2265.22	179.68		
04/16	16:56:24	8.9889	2272.90	179.68		
04/16	16:56:40	8.9933	2280.28	179.68		
04/16	16:56:56	8.9978	2287.66	179.68		
04/16	16:57:12	9.0022	2295.29	179.75		
04/16	16:57:28	9.0067	2302.38	179.75		
04/16	16:57:44	9.0111	2309.48	179.75		
04/16	16:58:00	9.0156	2316.67	179.75		
04/16	16:58:16	9.0200	2323.66	179.75		
04/16	16:58:32	9.0244	2330.56	179.75		
04/16	16:58:48	9.0289	2337.46	179.75		
04/16	16:59:04	9.0333	2344.50	179.82		
04/16	16:59:20	9.0378	2351.02	179.82		
04/16	16:59:36	9.0422	2357.62	179.82		
04/16	16:59:52	9.0467	2364.14	179.82		
04/16	17:00:08	9.0511	2370.65	179.82		
04/16	17:00:24	9.0556	2376.96	179.82		
04/16	17:00:40	9.0600	2383.38	179.82		
04/16	17:00:56	9.0644	2389.89	179.97		
04/[redacted]6	17:01:12	9.0689	2395.91	179.97		
04/[redacted]6	17:01:28	9.0733	2402.13	179.97		
04/[redacted]6	17:01:44	9.0778	2408.16	179.97		
04/[redacted]6	17:02:00	9.0822	2414.19	179.97		
04/16	17:02:16	9.0867	2420.11	179.97		
04/16	17:02:32	9.0911	2425.95	179.97		
04/16	17:02:48	9.0956	2432.12	180.04		
04/16	17:03:04	9.1000	2437.56	180.04		
04/16	17:03:20	9.1044	2443.29	180.04		
04/16	17:03:36	9.1089	2448.93	180.04		
04/16	17:03:52	9.1133	2454.57	180.04		
04/16	17:04:08	9.1178	2460.02	180.04		
04/16	17:04:24	9.1222	2465.56	180.04		
04/16	17:04:40	9.1267	2471.24	180.11		
04/16	17:04:56	9.1311	2476.30	180.11		
04/16	17:05:12	9.1356	2481.64	180.11		
04/16	17:05:28	9.1400	2486.89	180.11		
04/16	17:05:44	9.1444	2492.14	180.11		
04/16	17:06:00	9.1489	2497.30	180.11		
04/16	17:06:16	9.1533	2502.45	180.11		
04/16	17:06:32	9.1578	2507.65	180.18		
04/16	17:06:48	9.1622	2512.51	180.18		
04/16	17:07:04	9.1667	2517.47	180.18		
04/16	17:07:20	9.1711	2522.43	180.18		
04/16	17:07:36	9.1756	2527.19	180.18		
04/16	17:07:52	9.1800	2532.05	180.18		
04/16	17:08:08	9.1844	2536.91	180.18		
04/16	17:08:24	9.1889	2541.82	180.25		
04/16	17:08:40	9.1933	2546.39	180.25		
04/16	17:08:56	9.1978	2550.96	180.25		
04/16	17:09:12	9.2022	2555.63	180.25		
04/16	17:09:28	9.2067	2560.20	180.25		
04/16	17:09:44	9.2111	2564.77	180.25		
04/16	17:10:00	9.2156	2569.34	180.25		
04/16	17:10:16	9.2200	2573.86	180.33		
04/16	17:10:32	9.2244	2578.23	180.33		
04/16	17:10:48	9.2289	2582.51	180.33		
04/[redacted]	17:11:04	9.2333	2586.89	180.33		
04/16	17:11:20	9.2378	2591.17	180.33		
04/16	17:11:36	9.2422	2595.35	180.33		
04/16	17:11:52	9.2467	2599.63	180.33		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	17:12:08	9.2511	2603.95	180.40		
04/16	17:12:24	9.2556	2608.04	180.40		
04/16	17:12:40	9.2600	2605.70	180.40		INITIAL SHUT-IN
04/16	17:12:56	9.2644	2213.53	180.40		
04/16	17:13:12	9.2689	1721.74	180.40		INITIAL FLOW
04/16	17:13:28	9.2733	1732.50	180.40		
04/16	17:13:44	9.2778	1728.91	180.40		
04/16	17:14:00	9.2822	1730.46	180.40		
04/16	17:14:16	9.2867	1730.46	180.40		
04/16	17:14:32	9.2911	1730.46	180.40		
04/16	17:14:48	9.2956	1730.46	180.40		
04/16	17:15:04	9.3000	1730.46	180.40		
04/16	17:15:20	9.3044	1730.46	180.40		
04/16	17:15:36	9.3089	1730.56	180.40		
04/16	17:15:52	9.3133	1730.41	180.33		
04/16	17:16:08	9.3178	1730.51	180.33		
04/16	17:16:24	9.3222	1730.41	180.33		
04/16	17:16:40	9.3267	1730.41	180.33		
04/16	17:16:56	9.3311	1730.41	180.33		
04/16	17:17:12	9.3356	1730.41	180.33		
04/16	17:17:28	9.3400	1730.41	180.33		
04/16	17:17:44	9.3444	1730.51	180.33		
04/16	17:18:00	9.3489	1730.41	180.33		
04/16	17:18:16	9.3533	1730.41	180.33		
04/16	17:18:32	9.3578	1730.41	180.33		
04/16	17:18:48	9.3622	1730.31	180.33		
04/16	17:19:04	9.3667	1730.41	180.33		
04/16	17:19:20	9.3711	1730.31	180.33		
04/16	17:19:36	9.3756	1730.46	180.40		
04/16	17:19:52	9.3800	1730.37	180.40		
04/16	17:20:08	9.3844	1730.37	180.40		
04/16	17:20:24	9.3889	1730.46	180.40		
04/16	17:20:40	9.3933	1730.37	180.40		
04/16	17:20:56	9.3978	1730.37	180.40		
04/16	17:21:12	9.4022	1730.37	180.40		
04/16	17:21:28	9.4067	1730.46	180.40		
04/16	17:21:44	9.4111	1730.46	180.40		
04/16	17:22:00	9.4156	1730.46	180.40		
04/16	17:22:16	9.4200	1730.37	180.40		
04/16	17:22:32	9.4244	1730.37	180.40		
04/16	17:22:48	9.4289	1730.46	180.40		
04/16	17:23:04	9.4333	1730.37	180.40		
04/16	17:23:20	9.4378	1730.52	180.47		
04/16	17:23:36	9.4422	1730.42	180.47		
04/16	17:23:52	9.4467	1730.52	180.47		
04/16	17:24:08	9.4511	1730.42	180.47		
04/16	17:24:24	9.4556	1730.52	180.47		
04/16	17:24:40	9.4600	1730.42	180.47		
04/16	17:24:56	9.4644	1730.52	180.47		
04/16	17:25:12	9.4689	1730.57	180.54		
04/16	17:25:28	9.4733	1730.57	180.54		
04/16	17:25:44	9.4778	1730.48	180.54		
04/16	17:26:00	9.4822	1730.57	180.54		
04/16	17:26:16	9.4867	1730.48	180.54		
04/16	17:26:32	9.4911	1730.48	180.54		
04/16	17:26:48	9.4956	1730.57	180.54		
04/16	17:27:04	9.5000	1730.63	180.62		
04/16	17:27:20	9.5044	1730.63	180.62		
04/16	17:27:36	9.5089	1730.53	180.62		
04/16	17:27:52	9.5133	1730.63	180.62		
04/16	17:28:08	9.5178	1730.53	180.62		
04/16	17:28:24	9.5222	1730.73	180.62		
04/16	17:28:40	9.5267	1730.63	180.62		
04/16	17:28:56	9.5311	1730.63	180.62		
04/16	17:29:12	9.5356	1730.63	180.62		
04/16	17:29:28	9.5400	1730.63	180.62		
04/16	17:29:44	9.5444	1730.63	180.62		
04/16	17:30:00	9.5489	1730.63	180.62		
04/16	17:30:16	9.5533	1730.63	180.62		
04/16	17:30:32	9.5578	1730.63	180.62		
04/16	17:30:48	9.5622	1730.78	180.69		
04/16	17:31:04	9.5667	1730.68	180.69		
04/16	17:31:20	9.5711	1730.68	180.69		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	17:31:36	9.5756	1730.59	180.69		
04/16	17:31:52	9.5800	1730.68	180.69		
04/16	17:32:08	9.5844	1730.68	180.69		
04/16	17:32:24	9.5889	1730.68	180.69		
04/16	17:32:40	9.5933	1730.74	180.76		
04/16	17:32:56	9.5978	1730.64	180.76		
04/16	17:33:12	9.6022	1730.64	180.76		
04/16	17:33:28	9.6067	1730.64	180.76		
04/16	17:33:44	9.6111	1730.64	180.76		
04/16	17:34:00	9.6156	1730.74	180.76		
04/16	17:34:16	9.6200	1730.64	180.76		
04/16	17:34:32	9.6244	1730.79	180.83		
04/16	17:34:48	9.6289	1730.79	180.83		
04/16	17:35:04	9.6333	1730.79	180.83		
04/16	17:35:20	9.6378	1730.79	180.83		
04/16	17:35:36	9.6422	1730.79	180.83		
04/16	17:35:52	9.6467	1730.70	180.83		
04/16	17:36:08	9.6511	1730.70	180.83		
04/16	17:36:24	9.6556	1730.79	180.83		
04/16	17:36:40	9.6600	1730.70	180.83		
04/16	17:36:56	9.6644	1730.79	180.83		
04/16	17:37:12	9.6689	1730.70	180.83		
04/16	17:37:28	9.6733	1730.70	180.83		
04/16	17:37:44	9.6778	1730.79	180.83		
04/16	17:38:00	9.6822	1730.70	180.83		
04/16	17:38:16	9.6867	1730.85	180.90		
04/16	17:38:32	9.6911	1730.75	180.90		
04/16	17:38:48	9.6956	1730.85	180.90		
04/16	17:39:04	9.7000	1730.85	180.90		
04/16	17:39:20	9.7044	1730.85	180.90		
04/16	17:39:36	9.7089	1730.85	180.90		
04/16	17:39:52	9.7133	1730.85	180.90		
04/16	17:40:08	9.7178	1731.00	180.98		
04/16	17:40:24	9.7222	1730.90	180.98		
04/16	17:40:40	9.7267	1730.90	180.98		
04/16	17:40:56	9.7311	1730.90	180.98		
04/16	17:41:12	9.7356	1730.90	180.98		
04/16	17:41:28	9.7400	1730.90	180.98		
04/16	17:41:44	9.7444	1730.90	180.98		
04/16	17:42:00	9.7489	1730.96	181.05		
04/16	17:42:16	9.7533	1730.86	181.05		
04/16	17:42:32	9.7578	1730.96	181.05		
04/16	17:42:48	9.7622	1730.96	181.05		
04/16	17:43:04	9.7667	1730.96	181.05		
04/16	17:43:20	9.7711	1730.96	181.05		
04/16	17:43:36	9.7756	1730.96	181.05		
04/16	17:43:52	9.7800	1730.96	181.05		
04/16	17:44:08	9.7844	1730.96	181.05		
04/16	17:44:24	9.7889	1730.96	181.05		
04/16	17:44:40	9.7933	1730.96	181.05		
04/16	17:44:56	9.7978	1730.86	181.05		
04/16	17:45:12	9.8022	1730.96	181.05		
04/16	17:45:28	9.8067	1730.86	181.05		
04/16	17:45:44	9.8111	1731.01	181.12		
04/16	17:46:00	9.8156	1731.01	181.12		
04/16	17:46:16	9.8200	1731.01	181.12		
04/16	17:46:32	9.8244	1731.01	181.12		
04/16	17:46:48	9.8289	1731.01	181.12		
04/16	17:47:04	9.8333	1730.92	181.12		
04/16	17:47:20	9.8378	1731.01	181.12		
04/16	17:47:36	9.8422	1731.36	181.19		
04/16	17:47:52	9.8467	1731.07	181.19		
04/16	17:48:08	9.8511	1731.16	181.19		
04/16	17:48:24	9.8556	1731.07	181.19		
04/16	17:48:40	9.8600	1731.07	181.19		
04/16	17:48:56	9.8644	1731.07	181.19		
04/16	17:49:12	9.8689	1731.07	181.19		
04/16	17:49:28	9.8733	1731.22	181.26		
04/16	17:49:44	9.8778	1731.22	181.26		
04/16	17:50:00	9.8822	1731.22	181.26		
04/16	17:50:16	9.8867	1731.22	181.26		
04/16	17:50:32	9.8911	1731.22	181.26		
04/16	17:50:48	9.8956	1731.22	181.26		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	17:51:04	9.9000	1731.22	181.26		
04/16	17:51:20	9.9044	1731.37	181.34		
04/16	17:51:36	9.9089	1731.37	181.34		
04/16	17:51:52	9.9133	1731.27	181.34		
04/16	17:52:08	9.9178	1731.27	181.34		
04/16	17:52:24	9.9222	1731.27	181.34		
04/16	17:52:40	9.9267	1731.27	181.34		
04/16	17:52:56	9.9311	1731.27	181.34		
04/16	17:53:12	9.9356	1731.27	181.34		
04/16	17:53:28	9.9400	1731.27	181.34		
04/16	17:53:44	9.9444	1731.27	181.34		
04/16	17:54:00	9.9489	1731.27	181.34		
04/16	17:54:16	9.9533	1731.27	181.34		
04/16	17:54:32	9.9578	1731.37	181.34		
04/16	17:54:48	9.9622	1731.37	181.34		
04/16	17:55:04	9.9667	1731.42	181.41		
04/16	17:55:20	9.9711	1731.33	181.41		
04/16	17:55:36	9.9756	1731.33	181.41		
04/16	17:55:52	9.9800	1731.23	181.41		
04/16	17:56:08	9.9844	1731.33	181.41		
04/16	17:56:24	9.9889	1731.33	181.41		
04/16	17:56:40	9.9933	1731.33	181.41		
04/16	17:56:56	9.9978	1731.48	181.48		
04/16	17:57:12	10.0022	1731.38	181.48		
04/16	17:57:28	10.0067	1731.38	181.48		
04/16	17:57:44	10.0111	1731.38	181.48		
04/16	17:58:00	10.0156	1731.38	181.48		
04/16	17:58:16	10.0200	1731.48	181.48		
04/16	17:58:32	10.0244	1731.38	181.48		
04/16	17:58:48	10.0289	1731.53	181.55		
04/16	17:59:04	10.0333	1731.53	181.55		
04/16	17:59:20	10.0378	1731.44	181.55		
04/16	17:59:36	10.0422	1731.53	181.55		
04/16	17:59:52	10.0467	1731.44	181.55		
04/16	18:00:08	10.0511	1731.44	181.55		
04/16	18:00:24	10.0556	1731.44	181.55		
04/16	18:00:40	10.0600	1731.53	181.55		
04/16	18:00:56	10.0644	1731.44	181.55		
04/16	18:01:12	10.0689	1731.44	181.55		
04/16	18:01:28	10.0733	1731.44	181.55		
04/16	18:01:44	10.0778	1731.44	181.55		
04/16	18:02:00	10.0822	1731.44	181.55		
04/16	18:02:16	10.0867	1731.53	181.55		
04/16	18:02:32	10.0911	1731.59	181.63		
04/16	18:02:48	10.0956	1731.49	181.63		
04/16	18:03:04	10.1000	1731.59	181.63		
04/16	18:03:20	10.1044	1731.59	181.63		
04/16	18:03:36	10.1089	1731.49	181.63		
04/16	18:03:52	10.1133	1731.59	181.63		
04/16	18:04:08	10.1178	1731.49	181.63		
04/16	18:04:24	10.1222	1731.64	181.70		
04/16	18:04:40	10.1267	1731.55	181.70		
04/16	18:04:56	10.1311	1731.55	181.70		
04/16	18:05:12	10.1356	1731.55	181.70		
04/16	18:05:28	10.1400	1731.55	181.70		
04/16	18:05:44	10.1444	1731.55	181.70		
04/16	18:06:00	10.1489	1731.55	181.70		
04/16	18:06:16	10.1533	1731.64	181.70		
04/16	18:06:32	10.1578	1731.55	181.70		
04/16	18:06:48	10.1622	1731.55	181.70		
04/16	18:07:04	10.1667	1731.55	181.70		
04/16	18:07:20	10.1711	1731.55	181.70		
04/16	18:07:36	10.1756	1731.55	181.70		
04/16	18:07:52	10.1800	1731.55	181.70		
04/16	18:08:08	10.1844	1731.70	181.77		
04/16	18:08:24	10.1889	1731.60	181.77		
04/16	18:08:40	10.1933	1731.70	181.77		
04/16	18:08:56	10.1978	1731.60	181.77		
04/16	18:09:12	10.2022	1731.70	181.77		
04/16	18:09:28	10.2067	1731.60	181.77		
04/16	18:09:44	10.2111	1731.70	181.77		
04/16	18:10:00	10.2156	1731.70	181.77		
04/16	18:10:16	10.2200	1731.60	181.77		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	18:10:32	10.2244	1731.60	181.77		
04/16	18:10:48	10.2289	1731.60	181.77		
04/16	18:11:04	10.2333	1731.70	181.77		
04/16	18:11:20	10.2378	1731.60	181.77		
04/16	18:11:36	10.2422	1731.70	181.77		
04/16	18:11:52	10.2467	1731.75	181.84		
04/16	18:12:08	10.2511	1731.75	181.84		
04/16	18:12:24	10.2556	1731.66	181.84		
04/16	18:12:40	10.2600	1731.75	181.84		
04/16	18:12:56	10.2644	1731.75	181.84		
04/16	18:13:12	10.2689	1731.75	181.84		
04/16	18:13:28	10.2733	1731.75	181.84		
04/16	18:13:44	10.2778	1731.75	181.84		
04/16	18:14:00	10.2822	1731.75	181.84		
04/16	18:14:16	10.2867	1731.75	181.84		
04/16	18:14:32	10.2911	1731.75	181.84		
04/16	18:14:48	10.2956	1731.85	181.84		
04/16	18:15:04	10.3000	1731.75	181.84		
04/16	18:15:20	10.3044	1732.04	181.84		
04/16	18:15:36	10.3089	1731.90	181.91		
04/16	18:15:52	10.3133	1731.90	181.91		
04/16	18:16:08	10.3178	1731.90	181.91		
04/16	18:16:24	10.3222	1731.81	181.91		
04/16	18:16:40	10.3267	1731.90	181.91		
04/16	18:16:56	10.3311	1732.00	181.91		
04/16	18:17:12	10.3356	1731.81	181.91		
04/16	18:17:28	10.3400	1731.90	181.91		
04/16	18:17:44	10.3444	1731.90	181.91		
04/16	18:18:00	10.3489	1731.90	181.91		
04/16	18:18:16	10.3533	1731.81	181.91		
04/16	18:18:32	10.3578	1731.81	181.91		
04/16	18:18:48	10.3622	1731.81	181.91		
04/16	18:19:04	10.3667	1731.81	181.91		
04/16	18:19:20	10.3711	1731.86	181.99		
04/16	18:19:36	10.3756	1731.86	181.99		
04/16	18:19:52	10.3800	1731.86	181.99		
04/16	18:20:08	10.3844	1731.86	181.99		
04/16	18:20:24	10.3889	1731.86	181.99		
04/16	18:20:40	10.3933	1731.86	181.99		
04/16	18:20:56	10.3978	1731.86	181.99		
04/16	18:21:12	10.4022	1731.96	181.99		
04/16	18:21:28	10.4067	1731.86	181.99		
04/16	18:21:44	10.4111	1731.96	181.99		
04/16	18:22:00	10.4156	1731.86	181.99		
04/16	18:22:16	10.4200	1731.96	181.99		
04/16	18:22:32	10.4244	1731.86	181.99		
04/16	18:22:48	10.4289	1731.96	181.99		
04/16	18:23:04	10.4333	1732.01	182.06		
04/16	18:23:20	10.4378	1731.92	182.06		
04/16	18:23:36	10.4422	1731.92	182.06		
04/16	18:23:52	10.4467	1731.92	182.06		
04/16	18:24:08	10.4511	1731.92	182.06		
04/16	18:24:24	10.4556	1731.92	182.06		
04/16	18:24:40	10.4600	1731.92	182.06		
04/16	18:24:56	10.4644	1731.92	182.06		
04/16	18:25:12	10.4689	1732.11	182.06		
04/16	18:25:28	10.4733	1731.92	182.06		
04/16	18:25:44	10.4778	1731.82	182.06		
04/16	18:26:00	10.4822	1731.92	182.06		
04/16	18:26:16	10.4867	1731.92	182.06		
04/16	18:26:32	10.4911	1731.92	182.06		
04/16	18:26:48	10.4956	1732.07	182.13		
04/16	18:27:04	10.5000	1731.97	182.13		
04/16	18:27:20	10.5044	1731.97	182.13		
04/16	18:27:36	10.5089	1731.88	182.13		
04/16	18:27:52	10.5133	1731.97	182.13		
04/16	18:28:08	10.5178	1731.97	182.13		
04/16	18:28:24	10.5222	1731.97	182.13		
04/16	18:28:40	10.5267	1731.97	182.13		
04/16	18:28:56	10.5311	1731.97	182.13		
04/16	18:29:12	10.5356	1731.97	182.13		
04/16	18:29:28	10.5400	1731.97	182.13		
04/16	18:29:44	10.5444	1731.97	182.13		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	18:30:00	10.5489	1731.97	182.13		
04/16	18:30:16	10.5533	1731.97	182.13		
04/16	18:30:32	10.5578	1732.03	182.20		
04/16	18:30:48	10.5622	1732.03	182.20		
04/16	18:31:04	10.5667	1732.03	182.20		
04/16	18:31:20	10.5711	1732.03	182.20		
04/16	18:31:36	10.5756	1731.93	182.20		
04/16	18:31:52	10.5800	1732.03	182.20		
04/16	18:32:08	10.5844	1731.93	182.20		
04/16	18:32:24	10.5889	1732.03	182.20		
04/16	18:32:40	10.5933	1732.03	182.20		
04/16	18:32:56	10.5978	1731.93	182.20		
04/16	18:33:12	10.6022	1732.03	182.20		
04/16	18:33:28	10.6067	1731.93	182.20		
04/16	18:33:44	10.6111	1731.93	182.20		
04/16	18:34:00	10.6156	1732.03	182.20		
04/16	18:34:16	10.6200	1732.03	182.20		
04/16	18:34:32	10.6244	1732.03	182.20		
04/16	18:34:48	10.6289	1732.03	182.20		
04/16	18:35:04	10.6333	1732.03	182.20		
04/16	18:35:20	10.6378	1732.03	182.20		
04/16	18:35:36	10.6422	1732.03	182.20		
04/16	18:35:52	10.6467	1732.03	182.20		
04/16	18:36:08	10.6511	1732.18	182.28		
04/16	18:36:24	10.6556	1732.08	182.28		
04/16	18:36:40	10.6600	1731.98	182.28		
04/16	18:36:56	10.6644	1732.08	182.28		
04/16	18:37:12	10.6689	1731.98	182.28		
04/16	18:37:28	10.6733	1732.08	182.28		
04/16	18:37:44	10.6778	1732.08	182.28		
04/16	18:38:00	10.6822	1732.14	182.35		
04/16	18:38:16	10.6867	1732.14	182.35		
04/16	18:38:32	10.6911	1732.04	182.35		
04/16	18:38:48	10.6956	1732.14	182.35		
04/16	18:39:04	10.7000	1732.04	182.35		
04/16	18:39:20	10.7044	1732.04	182.35		
04/16	18:39:36	10.7089	1732.04	182.35		
04/16	18:39:52	10.7133	1732.14	182.35		
04/16	18:40:08	10.7178	1732.04	182.35		
04/16	18:40:24	10.7222	1732.14	182.35		
04/16	18:40:40	10.7267	1732.04	182.35		
04/16	18:40:56	10.7311	1732.04	182.35		
04/16	18:41:12	10.7356	1732.04	182.35		
04/16	18:41:28	10.7400	1732.04	182.35		
04/16	18:41:44	10.7444	1732.19	182.42		
04/16	18:42:00	10.7489	1732.09	182.42		
04/16	18:42:16	10.7533	1732.09	182.42		
04/16	18:42:32	10.7578	1732.09	182.42		
04/16	18:42:48	10.7622	1732.09	182.42		
04/16	18:43:04	10.7667	1732.09	182.42		
04/16	18:43:20	10.7711	1732.09	182.42		
04/16	18:43:36	10.7756	1732.09	182.42		
04/16	18:43:52	10.7800	1732.09	182.42		
04/16	18:44:08	10.7844	1732.09	182.42		
04/16	18:44:24	10.7889	1732.09	182.42		
04/16	18:44:40	10.7933	1732.09	182.42		
04/16	18:44:56	10.7978	1732.00	182.42		
04/16	18:45:12	10.8022	1732.09	182.42		
04/16	18:45:28	10.8067	1732.15	182.49		
04/16	18:45:44	10.8111	1732.15	182.49		
04/16	18:46:00	10.8156	1732.15	182.49		
04/16	18:46:16	10.8200	1732.15	182.49		
04/16	18:46:32	10.8244	1732.25	182.49		
04/16	18:46:48	10.8289	1732.15	182.49		
04/16	18:47:04	10.8333	1732.15	182.49		
04/16	18:47:20	10.8378	1732.30	182.56		
04/16	18:47:36	10.8422	1732.20	182.56		
04/16	18:47:52	10.8467	1732.30	182.56		
04/16	18:48:08	10.8511	1732.20	182.56		
04/16	18:48:24	10.8556	1732.20	182.56		
04/16	18:48:40	10.8600	1732.30	182.56		
04/16	18:48:56	10.8644	1732.20	182.56		
04/16	18:49:12	10.8689	1732.30	182.56		

Company: CULTUS PETROLEUM LTD
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Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/[redacted]	18:49:28	10.8733	1732.20	182.56		
04/[redacted]	18:49:44	10.8778	1732.20	182.56		
04/16	18:50:00	10.8822	1732.20	182.56		
04/16	18:50:16	10.8867	1732.20	182.56		
04/16	18:50:32	10.8911	1732.20	182.56		
04/16	18:50:48	10.8956	1732.20	182.56		
04/16	18:51:04	10.9000	1732.26	182.64		
04/16	18:51:20	10.9044	1732.26	182.64		
04/16	18:51:36	10.9089	1732.26	182.64		
04/16	18:51:52	10.9133	1732.26	182.64		
04/16	18:52:08	10.9178	1732.26	182.64		
04/16	18:52:24	10.9222	1732.26	182.64		
04/16	18:52:40	10.9267	1732.26	182.64		
04/16	18:52:56	10.9311	1732.31	182.71		
04/16	18:53:12	10.9356	1732.31	182.71		
04/16	18:53:28	10.9400	1732.31	182.71		
04/16	18:53:44	10.9444	1732.31	182.71		
04/16	18:54:00	10.9489	1732.31	182.71		
04/16	18:54:16	10.9533	1732.31	182.71		
04/16	18:54:32	10.9578	1732.22	182.71		
04/16	18:54:48	10.9622	1732.31	182.71		
04/16	18:55:04	10.9667	1732.31	182.71		
04/16	18:55:20	10.9711	1732.31	182.71		
04/16	18:55:36	10.9756	1732.22	182.71		
04/16	18:55:52	10.9800	1732.31	182.71		
04/16	18:56:08	10.9844	1732.22	182.71		
04/16	18:56:24	10.9889	1732.31	182.71		
04/16	18:56:40	10.9933	1732.37	182.78		
04/16	18:56:56	10.9978	1732.37	182.78		
04/16	18:57:12	11.0022	1732.37	182.78		
04/16	18:57:28	11.0067	1732.27	182.78		
04/16	18:57:44	11.0111	1732.37	182.78		
04/16	18:58:00	11.0156	1732.27	182.78		
04/16	18:58:16	11.0200	1732.37	182.78		
04/16	18:58:32	11.0244	1732.42	182.85		
04/[redacted]	18:58:48	11.0289	1732.33	182.85		
04/[redacted]	18:59:04	11.0333	1732.33	182.85		
04/16	18:59:20	11.0378	1732.33	182.85		
04/16	18:59:36	11.0422	1732.33	182.85		
04/16	18:59:52	11.0467	1732.33	182.85		
04/16	19:00:08	11.0511	1732.33	182.85		
04/16	19:00:24	11.0556	1732.42	182.85		
04/16	19:00:40	11.0600	1732.33	182.85		
04/16	19:00:56	11.0644	1732.33	182.85		
04/16	19:01:12	11.0689	1732.33	182.85		
04/16	19:01:28	11.0733	1732.33	182.85		
04/16	19:01:44	11.0778	1732.33	182.85		
04/16	19:02:00	11.0822	1732.33	182.85		
04/16	19:02:16	11.0867	1732.48	182.93		
04/16	19:02:32	11.0911	1732.38	182.93		
04/16	19:02:48	11.0956	1732.38	182.93		
04/16	19:03:04	11.1000	1732.38	182.93		
04/16	19:03:20	11.1044	1732.38	182.93		
04/16	19:03:36	11.1089	1732.38	182.93		
04/16	19:03:52	11.1133	1732.38	182.93		
04/16	19:04:08	11.1178	1732.44	183.00		
04/16	19:04:24	11.1222	1732.44	183.00		
04/16	19:04:40	11.1267	1732.44	183.00		
04/16	19:04:56	11.1311	1732.44	183.00		
04/16	19:05:12	11.1356	1732.44	183.00		
04/16	19:05:28	11.1400	1732.44	183.00		
04/16	19:05:44	11.1444	1732.44	183.00		
04/16	19:06:00	11.1489	1732.44	183.00		
04/16	19:06:16	11.1533	1732.44	183.00		
04/16	19:06:32	11.1578	1732.34	183.00		
04/16	19:06:48	11.1622	1732.44	183.00		
04/16	19:07:04	11.1667	1732.34	183.00		
04/16	19:07:20	11.1711	1732.44	183.00		
04/16	19:07:36	11.1756	1732.34	183.00		
04/16	19:07:52	11.1800	1732.49	183.07		
04/[redacted]	19:08:08	11.1844	1732.49	183.07		
04/[redacted]	19:08:24	11.1889	1732.39	183.07		
04/16	19:08:40	11.1933	1732.49	183.07		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	19:08:56	11.1978	1732.39	183.07		
04/16	19:09:12	11.2022	1732.49	183.07		
04/16	19:09:28	11.2067	1732.39	183.07		
04/16	19:09:44	11.2111	1732.54	183.14		
04/16	19:10:00	11.2156	1732.45	183.14		
04/16	19:10:16	11.2200	1732.45	183.14		
04/16	19:10:32	11.2244	1732.45	183.14		
04/16	19:10:48	11.2289	1732.45	183.14		
04/16	19:11:04	11.2333	1732.45	183.14		
04/16	19:11:20	11.2378	1732.54	183.14		
04/16	19:11:36	11.2422	1732.54	183.14		
04/16	19:11:52	11.2467	1732.45	183.14		
04/16	19:12:08	11.2511	1732.54	183.14		
04/16	19:12:24	11.2556	1732.45	183.14		
04/16	19:12:40	11.2600	1732.54	183.14		
04/16	19:12:56	11.2644	1732.25	183.14		
04/16	19:13:12	11.2689	1732.35	183.14		
04/16	19:13:28	11.2733	1730.76	183.21		FINAL FLOW
04/16	19:13:44	11.2778	1732.31	183.21		
04/16	19:14:00	11.2822	1735.51	183.21		
04/16	19:14:16	11.2867	1738.51	183.21		
04/16	19:14:32	11.2911	1741.32	183.21		
04/16	19:14:48	11.2956	1744.03	183.21		
04/16	19:15:04	11.3000	1746.65	183.21		
04/16	19:15:20	11.3044	1749.32	183.29		
04/16	19:15:36	11.3089	1751.84	183.29		
04/16	19:15:52	11.3133	1754.17	183.29		
04/16	19:16:08	11.3178	1756.69	183.29		
04/16	19:16:24	11.3222	1759.11	183.29		
04/16	19:16:40	11.3267	1761.44	183.29		
04/16	19:16:56	11.3311	1763.96	183.29		
04/16	19:17:12	11.3356	1766.53	183.36		
04/16	19:17:28	11.3400	1768.66	183.36		
04/16	19:17:44	11.3444	1770.99	183.36		
04/16	19:18:00	11.3489	1773.32	183.36		
04/16	19:18:16	11.3533	1775.54	183.36		
04/16	19:18:32	11.3578	1777.87	183.36		
04/16	19:18:48	11.3622	1780.20	183.36		
04/16	19:19:04	11.3667	1782.43	183.36		
04/16	19:19:20	11.3711	1784.95	183.36		
04/16	19:19:36	11.3756	1787.27	183.36		
04/16	19:19:52	11.3800	1789.40	183.36		
04/16	19:20:08	11.3844	1791.73	183.36		
04/16	19:20:24	11.3889	1793.86	183.36		
04/16	19:20:40	11.3933	1796.09	183.36		
04/16	19:20:56	11.3978	1798.38	183.43		
04/16	19:21:12	11.4022	1800.51	183.43		
04/16	19:21:28	11.4067	1802.64	183.43		
04/16	19:21:44	11.4111	1804.77	183.43		
04/16	19:22:00	11.4156	1806.90	183.43		
04/16	19:22:16	11.4200	1809.13	183.43		
04/16	19:22:32	11.4244	1811.17	183.43		
04/16	19:22:48	11.4289	1813.74	183.50		
04/16	19:23:04	11.4333	1815.78	183.50		
04/16	19:23:20	11.4378	1817.81	183.50		
04/16	19:23:36	11.4422	1819.95	183.50		
04/16	19:23:52	11.4467	1821.98	183.50		
04/16	19:24:08	11.4511	1824.12	183.50		
04/16	19:24:24	11.4556	1826.25	183.50		
04/16	19:24:40	11.4600	1828.38	183.50		
04/16	19:24:56	11.4644	1830.32	183.50		
04/16	19:25:12	11.4689	1832.45	183.50		
04/16	19:25:28	11.4733	1834.49	183.50		
04/16	19:25:44	11.4778	1836.52	183.50		
04/16	19:26:00	11.4822	1838.56	183.50		
04/16	19:26:16	11.4867	1840.59	183.50		
04/16	19:26:32	11.4911	1842.78	183.58		
04/16	19:26:48	11.4956	1844.72	183.58		
04/16	19:27:04	11.5000	1846.75	183.58		
04/16	19:27:20	11.5044	1848.79	183.58		
04/16	19:27:36	11.5089	1850.73	183.58		
04/16	19:27:52	11.5133	1852.77	183.58		
04/16	19:28:08	11.5178	1854.80	183.58		

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Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	19:28:24	11.5222	1856.93	183.58		
04/16	19:28:40	11.5267	1858.78	183.58		
04/16	19:28:56	11.5311	1861.01	183.58		
04/16	19:29:12	11.5356	1862.94	183.58		
04/16	19:29:28	11.5400	1865.37	183.58		
04/16	19:29:44	11.5444	1867.60	183.58		
04/16	19:30:00	11.5489	1869.54	183.58		
04/16	19:30:16	11.5533	1871.63	183.65		
04/16	19:30:32	11.5578	1873.56	183.65		
04/16	19:30:48	11.5622	1875.41	183.65		
04/16	19:31:04	11.5667	1877.44	183.65		
04/16	19:31:20	11.5711	1879.28	183.65		
04/16	19:31:36	11.5756	1881.22	183.65		
04/16	19:31:52	11.5800	1883.65	183.65		
04/16	19:32:08	11.5844	1885.74	183.72		
04/16	19:32:24	11.5889	1887.58	183.72		
04/16	19:32:40	11.5933	1889.42	183.72		
04/16	19:32:56	11.5978	1891.36	183.72		
04/16	19:33:12	11.6022	1893.30	183.72		
04/16	19:33:28	11.6067	1895.04	183.72		
04/16	19:33:44	11.6111	1896.98	183.72		
04/16	19:34:00	11.6156	1899.02	183.72		
04/16	19:34:16	11.6200	1900.76	183.72		
04/16	19:34:32	11.6244	1902.61	183.72		
04/16	19:34:48	11.6289	1904.54	183.72		
04/16	19:35:04	11.6333	1906.39	183.72		
04/16	19:35:20	11.6378	1908.23	183.72		
04/16	19:35:36	11.6422	1910.17	183.72		
04/16	19:35:52	11.6467	1912.35	183.79		
04/16	19:36:08	11.6511	1914.10	183.79		
04/16	19:36:24	11.6556	1915.94	183.79		
04/16	19:36:40	11.6600	1917.78	183.79		
04/16	19:36:56	11.6644	1919.63	183.79		
04/16	19:37:12	11.6689	1921.47	183.79		
04/16	19:37:28	11.6733	1923.21	183.79		
04/16	19:37:44	11.6778	1925.15	183.79		
04/16	19:38:00	11.6822	1926.90	183.79		
04/16	19:38:16	11.6867	1928.74	183.79		
04/16	19:38:32	11.6911	1930.58	183.79		
04/16	19:38:48	11.6956	1932.33	183.79		
04/16	19:39:04	11.7000	1934.17	183.79		
04/16	19:39:20	11.7044	1936.01	183.79		
04/16	19:39:36	11.7089	1937.91	183.87		
04/16	19:39:52	11.7133	1939.55	183.87		
04/16	19:40:08	11.7178	1941.40	183.87		
04/16	19:40:24	11.7222	1943.14	183.87		
04/16	19:40:40	11.7267	1944.98	183.87		
04/16	19:40:56	11.7311	1946.73	183.87		
04/16	19:41:12	11.7356	1948.57	183.87		
04/16	19:41:28	11.7400	1950.42	183.87		
04/16	19:41:44	11.7444	1952.06	183.87		
04/16	19:42:00	11.7489	1953.81	183.87		
04/16	19:42:16	11.7533	1955.55	183.87		
04/16	19:42:32	11.7578	1957.30	183.87		
04/16	19:42:48	11.7622	1959.05	183.87		
04/16	19:43:04	11.7667	1960.79	183.87		
04/16	19:43:20	11.7711	1962.69	183.94		
04/16	19:43:36	11.7756	1964.43	183.94		
04/16	19:43:52	11.7800	1966.08	183.94		
04/16	19:44:08	11.7844	1967.92	183.94		
04/16	19:44:24	11.7889	1969.57	183.94		
04/16	19:44:40	11.7933	1971.41	183.94		
04/16	19:44:56	11.7978	1973.06	183.94		
04/16	19:45:12	11.8022	1974.90	183.94		
04/16	19:45:28	11.8067	1976.46	183.94		
04/16	19:45:44	11.8111	1978.20	183.94		
04/16	19:46:00	11.8156	1979.95	183.94		
04/16	19:46:16	11.8200	1981.60	183.94		
04/16	19:46:32	11.8244	1983.34	183.94		
04/16	19:46:48	11.8289	1985.09	183.94		
04/16	19:47:04	11.8333	1986.88	184.01		
04/16	19:47:20	11.8378	1988.53	184.01		
04/16	19:47:36	11.8422	1990.86	184.01		

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Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	19:47:52	11.8467	1992.41	184.01		
04/16	19:48:08	11.8511	1994.06	184.01		
04/16	19:48:24	11.8556	1995.71	184.01		
04/16	19:48:40	11.8600	1997.65	184.01		
04/16	19:48:56	11.8644	1999.06	184.08		
04/16	19:49:12	11.8689	2000.71	184.08		
04/16	19:49:28	11.8733	2002.35	184.08		
04/16	19:49:44	11.8778	2004.00	184.08		
04/16	19:50:00	11.8822	2005.65	184.08		
04/16	19:50:16	11.8867	2007.30	184.08		
04/16	19:50:32	11.8911	2008.95	184.08		
04/16	19:50:48	11.8956	2010.60	184.08		
04/16	19:51:04	11.9000	2012.15	184.08		
04/16	19:51:20	11.9044	2013.80	184.08		
04/16	19:51:36	11.9089	2015.45	184.08		
04/16	19:51:52	11.9133	2017.00	184.08		
04/16	19:52:08	11.9178	2018.65	184.08		
04/16	19:52:24	11.9222	2020.30	184.08		
04/16	19:52:40	11.9267	2021.95	184.08		
04/16	19:52:56	11.9311	2023.50	184.08		
04/16	19:53:12	11.9356	2025.15	184.08		
04/16	19:53:28	11.9400	2026.70	184.08		
04/16	19:53:44	11.9444	2028.35	184.08		
04/16	19:54:00	11.9489	2029.90	184.08		
04/16	19:54:16	11.9533	2031.55	184.08		
04/16	19:54:32	11.9578	2033.25	184.15		
04/16	19:54:48	11.9622	2034.80	184.15		
04/16	19:55:04	11.9667	2036.45	184.15		
04/16	19:55:20	11.9711	2037.90	184.15		
04/16	19:55:36	11.9756	2039.55	184.15		
04/16	19:55:52	11.9800	2041.20	184.15		
04/16	19:56:08	11.9844	2042.75	184.15		
04/16	19:56:24	11.9889	2044.40	184.15		
04/16	19:56:40	11.9933	2045.86	184.15		
04/16	19:56:56	11.9978	2047.51	184.15		
04/16	19:57:12	12.0022	2049.06	184.15		
04/16	19:57:28	12.0067	2050.51	184.15		
04/16	19:57:44	12.0111	2052.16	184.15		
04/16	19:58:00	12.0156	2053.71	184.15		
04/16	19:58:16	12.0200	2055.41	184.23		
04/16	19:58:32	12.0244	2056.87	184.23		
04/16	19:58:48	12.0289	2058.42	184.23		
04/16	19:59:04	12.0333	2059.97	184.23		
04/16	19:59:20	12.0378	2061.52	184.23		
04/16	19:59:36	12.0422	2063.08	184.23		
04/16	19:59:52	12.0467	2064.63	184.23		
04/16	20:00:08	12.0511	2066.28	184.23		
04/16	20:00:24	12.0556	2067.73	184.23		
04/16	20:00:40	12.0600	2069.28	184.23		
04/16	20:00:56	12.0644	2070.84	184.23		
04/16	20:01:12	12.0689	2072.29	184.23		
04/16	20:01:28	12.0733	2073.84	184.23		
04/16	20:01:44	12.0778	2075.40	184.23		
04/16	20:02:00	12.0822	2077.09	184.30		
04/16	20:02:16	12.0867	2078.45	184.30		
04/16	20:02:32	12.0911	2080.00	184.30		
04/16	20:02:48	12.0956	2081.56	184.30		
04/16	20:03:04	12.1000	2083.01	184.30		
04/16	20:03:20	12.1044	2084.56	184.30		
04/16	20:03:36	12.1089	2086.02	184.30		
04/16	20:03:52	12.1133	2087.57	184.30		
04/16	20:04:08	12.1178	2089.03	184.30		
04/16	20:04:24	12.1222	2090.58	184.30		
04/16	20:04:40	12.1267	2092.03	184.30		
04/16	20:04:56	12.1311	2093.49	184.30		
04/16	20:05:12	12.1356	2095.04	184.30		
04/16	20:05:28	12.1400	2096.50	184.30		
04/16	20:05:44	12.1444	2098.10	184.37		
04/16	20:06:00	12.1489	2099.55	184.37		
04/16	20:06:16	12.1533	2101.01	184.37		
04/16	20:06:32	12.1578	2102.56	184.37		
04/16	20:06:48	12.1622	2103.92	184.37		
04/16	20:07:04	12.1667	2105.47	184.37		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	20:07:20	12.1711	2106.93	184.37		
04/16	20:07:36	12.1756	2108.43	184.44		
04/16	20:07:52	12.1800	2109.89	184.44		
04/16	20:08:08	12.1844	2111.34	184.44		
04/16	20:08:24	12.1889	2112.80	184.44		
04/16	20:08:40	12.1933	2114.25	184.44		
04/16	20:08:56	12.1978	2115.80	184.44		
04/16	20:09:12	12.2022	2117.16	184.44		
04/16	20:09:28	12.2067	2118.71	184.44		
04/16	20:09:44	12.2111	2120.07	184.44		
04/16	20:10:00	12.2156	2121.53	184.44		
04/16	20:10:16	12.2200	2123.08	184.44		
04/16	20:10:32	12.2244	2124.44	184.44		
04/16	20:10:48	12.2289	2125.80	184.44		
04/16	20:11:04	12.2333	2127.25	184.44		
04/16	20:11:20	12.2378	2128.85	184.52		
04/16	20:11:36	12.2422	2130.31	184.52		
04/16	20:11:52	12.2467	2131.57	184.52		
04/16	20:12:08	12.2511	2133.03	184.52		
04/16	20:12:24	12.2556	2134.48	184.52		
04/16	20:12:40	12.2600	2135.94	184.52		
04/16	20:12:56	12.2644	2137.39	184.52		
04/16	20:13:12	12.2689	2138.80	184.59		
04/16	20:13:28	12.2733	2140.16	184.59		
04/16	20:13:44	12.2778	2141.61	184.59		
04/16	20:14:00	12.2822	2143.07	184.59		
04/16	20:14:16	12.2867	2144.43	184.59		
04/16	20:14:32	12.2911	2145.78	184.59		
04/16	20:14:48	12.2956	2147.24	184.59		
04/16	20:15:04	12.3000	2148.70	184.59		
04/16	20:15:20	12.3044	2149.96	184.59		
04/16	20:15:36	12.3089	2151.41	184.59		
04/16	20:15:52	12.3133	2152.77	184.59		
04/16	20:16:08	12.3178	2154.13	184.59		
04/16	20:16:24	12.3222	2155.49	184.59		
04/16	20:16:40	12.3267	2156.94	184.59		
04/16	20:16:56	12.3311	2158.45	184.66		
04/16	20:17:12	12.3356	2159.71	184.66		
04/16	20:17:28	12.3400	2161.16	184.66		
04/16	20:17:44	12.3444	2162.62	184.66		
04/16	20:18:00	12.3489	2163.78	184.66		
04/16	20:18:16	12.3533	2165.24	184.66		
04/16	20:18:32	12.3578	2166.40	184.66		
04/16	20:18:48	12.3622	2167.96	184.66		
04/16	20:19:04	12.3667	2169.22	184.66		
04/16	20:19:20	12.3711	2170.67	184.66		
04/16	20:19:36	12.3756	2172.03	184.66		
04/16	20:19:52	12.3800	2173.29	184.66		
04/16	20:20:08	12.3844	2174.75	184.66		
04/16	20:20:24	12.3889	2176.11	184.66		
04/16	20:20:40	12.3933	2177.51	184.73		
04/16	20:20:56	12.3978	2178.87	184.73		
04/16	20:21:12	12.4022	2180.23	184.73		
04/16	20:21:28	12.4067	2181.59	184.73		
04/16	20:21:44	12.4111	2182.95	184.73		
04/16	20:22:00	12.4156	2184.21	184.73		
04/16	20:22:16	12.4200	2185.57	184.73		
04/16	20:22:32	12.4244	2187.02	184.73		
04/16	20:22:48	12.4289	2188.28	184.73		
04/16	20:23:04	12.4333	2189.64	184.73		
04/16	20:23:20	12.4378	2190.90	184.73		
04/16	20:23:36	12.4422	2192.26	184.73		
04/16	20:23:52	12.4467	2193.62	184.73		
04/16	20:24:08	12.4511	2194.98	184.73		
04/16	20:24:24	12.4556	2196.29	184.80		
04/16	20:24:40	12.4600	2197.55	184.80		
04/16	20:24:56	12.4644	2198.91	184.80		
04/16	20:25:12	12.4689	2200.17	184.80		
04/16	20:25:28	12.4733	2201.53	184.80		
04/16	20:25:44	12.4778	2202.79	184.80		
04/16	20:26:00	12.4822	2204.15	184.80		
04/16	20:26:16	12.4867	2205.56	184.88		
04/16	20:26:32	12.4911	2206.82	184.88		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	20:26:48	12.4956	2208.08	184.88		
04/16	20:27:04	12.5000	2209.34	184.88		
04/16	20:27:20	12.5044	2210.70	184.88		
04/16	20:27:36	12.5089	2211.96	184.88		
04/16	20:27:52	12.5133	2213.22	184.88		
04/16	20:28:08	12.5178	2214.68	184.88		
04/16	20:28:24	12.5222	2215.84	184.88		
04/16	20:28:40	12.5267	2217.20	184.88		
04/16	20:28:56	12.5311	2218.37	184.88		
04/16	20:29:12	12.5356	2219.72	184.88		
04/16	20:29:28	12.5400	2220.99	184.88		
04/16	20:29:44	12.5444	2222.34	184.88		
04/16	20:30:00	12.5489	2223.65	184.95		
04/16	20:30:16	12.5533	2224.92	184.95		
04/16	20:30:32	12.5578	2226.08	184.95		
04/16	20:30:48	12.5622	2227.44	184.95		
04/16	20:31:04	12.5667	2228.60	184.95		
04/16	20:31:20	12.5711	2229.96	184.95		
04/16	20:31:36	12.5756	2231.22	184.95		
04/16	20:31:52	12.5800	2232.58	184.95		
04/16	20:32:08	12.5844	2233.75	184.95		
04/16	20:32:24	12.5889	2235.01	184.95		
04/16	20:32:40	12.5933	2236.27	184.95		
04/16	20:32:56	12.5978	2237.53	184.95		
04/16	20:33:12	12.6022	2238.79	184.95		
04/16	20:33:28	12.6067	2239.96	184.95		
04/16	20:33:44	12.6111	2241.46	185.02		
04/16	20:34:00	12.6156	2242.53	185.02		
04/16	20:34:16	12.6200	2243.79	185.02		
04/16	20:34:32	12.6244	2245.05	185.02		
04/16	20:34:48	12.6289	2246.31	185.02		
04/16	20:35:04	12.6333	2247.57	185.02		
04/16	20:35:20	12.6378	2248.74	185.02		
04/16	20:35:36	12.6422	2250.10	185.02		
04/16	20:35:52	12.6467	2251.26	185.02		
04/16	20:36:08	12.6511	2252.52	185.02		
04/16	20:36:24	12.6556	2253.69	185.02		
04/16	20:36:40	12.6600	2254.95	185.02		
04/16	20:36:56	12.6644	2256.21	185.02		
04/16	20:37:12	12.6689	2257.47	185.02		
04/16	20:37:28	12.6733	2258.78	185.09		
04/16	20:37:44	12.6778	2259.95	185.09		
04/16	20:38:00	12.6822	2261.21	185.09		
04/16	20:38:16	12.6867	2262.37	185.09		
04/16	20:38:32	12.6911	2263.64	185.09		
04/16	20:38:48	12.6956	2264.80	185.09		
04/16	20:39:04	12.7000	2266.06	185.09		
04/16	20:39:20	12.7044	2267.32	185.09		
04/16	20:39:36	12.7089	2268.39	185.09		
04/16	20:39:52	12.7133	2269.65	185.09		
04/16	20:40:08	12.7178	2270.82	185.09		
04/16	20:40:24	12.7222	2272.08	185.09		
04/16	20:40:40	12.7267	2273.24	185.09		
04/16	20:40:56	12.7311	2274.41	185.09		
04/16	20:41:12	12.7356	2275.72	185.17		
04/16	20:41:28	12.7400	2276.88	185.17		
04/16	20:41:44	12.7444	2278.05	185.17		
04/16	20:42:00	12.7489	2279.21	185.17		
04/16	20:42:16	12.7533	2280.38	185.17		
04/16	20:42:32	12.7578	2281.64	185.17		
04/16	20:42:48	12.7622	2282.71	185.17		
04/16	20:43:04	12.7667	2284.07	185.17		
04/16	20:43:20	12.7711	2285.13	185.17		
04/16	20:43:36	12.7756	2286.30	185.17		
04/16	20:43:52	12.7800	2287.46	185.17		
04/16	20:44:08	12.7844	2288.72	185.17		
04/16	20:44:24	12.7889	2289.79	185.17		
04/16	20:44:40	12.7933	2290.96	185.17		
04/16	20:44:56	12.7978	2292.22	185.17		
04/16	20:45:12	12.8022	2293.29	185.17		
04/16	20:45:28	12.8067	2294.55	185.17		
04/16	20:45:44	12.8111	2295.62	185.17		
04/16	20:46:00	12.8156	2296.78	185.17		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
[redacted]						
04/16	20:46:16	12.8200	2297.95	185.17		
04/16	20:46:32	12.8244	2299.11	185.17		
04/16	20:46:48	12.8289	2300.42	185.24		
04/16	20:47:04	12.8333	2301.49	185.24		
04/16	20:47:20	12.8378	2302.65	185.24		
04/16	20:47:36	12.8422	2303.82	185.24		
04/16	20:47:52	12.8467	2304.88	185.24		
04/16	20:48:08	12.8511	2306.05	185.24		
04/16	20:48:24	12.8556	2307.21	185.24		
04/16	20:48:40	12.8600	2308.48	185.24		
04/16	20:48:56	12.8644	2309.54	185.24		
04/16	20:49:12	12.8689	2310.61	185.24		
04/16	20:49:28	12.8733	2311.87	185.24		
04/16	20:49:44	12.8778	2312.94	185.24		
04/16	20:50:00	12.8822	2314.11	185.24		
04/16	20:50:16	12.8867	2315.27	185.24		
04/16	20:50:32	12.8911	2316.48	185.31		
04/16	20:50:48	12.8956	2317.65	185.31		
04/16	20:51:04	12.9000	2318.71	185.31		
04/16	20:51:20	12.9044	2319.88	185.31		
04/16	20:51:36	12.9089	2320.95	185.31		
04/16	20:51:52	12.9133	2322.11	185.31		
04/16	20:52:08	12.9178	2323.28	185.31		
04/16	20:52:24	12.9222	2324.44	185.31		
04/16	20:52:40	12.9267	2325.41	185.31		
04/16	20:52:56	12.9311	2326.67	185.31		
04/16	20:53:12	12.9356	2327.74	185.31		
04/16	20:53:28	12.9400	2328.81	185.31		
04/16	20:53:44	12.9444	2329.97	185.31		
04/16	20:54:00	12.9489	2331.04	185.31		
04/16	20:54:16	12.9533	2332.30	185.31		
04/16	20:54:32	12.9578	2333.27	185.31		
04/16	20:54:48	12.9622	2334.44	185.31		
04/16	20:55:04	12.9667	2335.60	185.31		
04/16	20:55:20	12.9711	2336.58	185.31		
04/16	20:55:36	12.9756	2337.84	185.31		
04/16	20:55:52	12.9800	2338.81	185.31		
04/16	20:56:08	12.9844	2340.12	185.38		
04/16	20:56:24	12.9889	2341.09	185.38		
04/16	20:56:40	12.9933	2342.25	185.38		
04/16	20:56:56	12.9978	2343.32	185.38		
04/16	20:57:12	13.0022	2344.39	185.38		
04/16	20:57:28	13.0067	2345.46	185.38		
04/16	20:57:44	13.0111	2346.62	185.38		
04/16	20:58:00	13.0156	2347.79	185.38		
04/16	20:58:16	13.0200	2348.76	185.38		
04/16	20:58:32	13.0244	2349.92	185.38		
04/16	20:58:48	13.0289	2350.89	185.38		
04/16	20:59:04	13.0333	2352.06	185.38		
04/16	20:59:20	13.0378	2353.12	185.38		
04/16	20:59:36	13.0422	2354.10	185.38		
04/16	20:59:52	13.0467	2355.40	185.46		
04/16	21:00:08	13.0511	2356.37	185.46		
04/16	21:00:24	13.0556	2357.44	185.46		
04/16	21:00:40	13.0600	2358.61	185.46		
04/16	21:00:56	13.0644	2359.68	185.46		
04/16	21:01:12	13.0689	2360.65	185.46		
04/16	21:01:28	13.0733	2361.81	185.46		
04/16	21:01:44	13.0778	2362.98	185.46		
04/16	21:02:00	13.0822	2363.95	185.46		
04/16	21:02:16	13.0867	2365.01	185.46		
04/16	21:02:32	13.0911	2366.08	185.46		
04/16	21:02:48	13.0956	2367.15	185.46		
04/16	21:03:04	13.1000	2368.22	185.46		
04/16	21:03:20	13.1044	2369.29	185.46		
04/16	21:03:36	13.1089	2370.45	185.46		
04/16	21:03:52	13.1133	2371.42	185.46		
04/16	21:04:08	13.1178	2372.49	185.46		
04/16	21:04:24	13.1222	2373.46	185.46		
04/16	21:04:40	13.1267	2374.63	185.46		
04/16	21:04:56	13.1311	2375.60	185.46		
04/16	21:05:12	13.1356	2376.66	185.46		
04/16	21:05:28	13.1400	2377.88	185.53		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
[redacted]						
04/16	21:05:44	13.1444	2378.85	185.53		
04/16	21:06:00	13.1489	2379.82	185.53		
04/16	21:06:16	13.1533	2380.89	185.53		
04/16	21:06:32	13.1578	2381.95	185.53		
04/16	21:06:48	13.1622	2382.92	185.53		
04/16	21:07:04	13.1667	2384.09	185.53		
04/16	21:07:20	13.1711	2385.16	185.53		
04/16	21:07:36	13.1756	2386.03	185.53		
04/16	21:07:52	13.1800	2387.20	185.53		
04/16	21:08:08	13.1844	2388.17	185.53		
04/16	21:08:24	13.1889	2389.14	185.53		
04/16	21:08:40	13.1933	2390.21	185.53		
04/16	21:08:56	13.1978	2391.27	185.53		
04/16	21:09:12	13.2022	2392.39	185.60		
04/16	21:09:28	13.2067	2393.36	185.60		
04/16	21:09:44	13.2111	2394.43	185.60		
04/16	21:10:00	13.2156	2395.40	185.60		
04/16	21:10:16	13.2200	2396.47	185.60		
04/16	21:10:32	13.2244	2397.53	185.60		
04/16	21:10:48	13.2289	2398.50	185.60		
04/16	21:11:04	13.2333	2399.57	185.60		
04/16	21:11:20	13.2378	2400.64	185.60		
04/16	21:11:36	13.2422	2401.61	185.60		
04/16	21:11:52	13.2467	2402.58	185.60		
04/16	21:12:08	13.2511	2403.55	185.60		
04/16	21:12:24	13.2556	2404.62	185.60		
04/16	21:12:40	13.2600	2405.69	185.60		
04/16	21:12:56	13.2644	2406.76	185.60		
04/16	21:13:12	13.2689	2407.63	185.60		
04/16	21:13:28	13.2733	2408.70	185.60		
04/16	21:13:44	13.2778	2409.67	185.60		
04/16	21:14:00	13.2822	2410.74	185.60		
04/16	21:14:16	13.2867	2411.71	185.60		
04/16	21:14:32	13.2911	2412.68	185.60		
04/16	21:14:48	13.2956	2413.79	185.67		
[redacted]	21:15:04	13.3000	2414.86	185.67		
[redacted]	21:15:20	13.3044	2415.74	185.67		
04/16	21:15:36	13.3089	2416.71	185.67		
04/16	21:15:52	13.3133	2417.77	185.67		
04/16	21:16:08	13.3178	2418.75	185.67		
04/16	21:16:24	13.3222	2419.72	185.67		
04/16	21:16:40	13.3267	2420.78	185.67		
04/16	21:16:56	13.3311	2421.76	185.67		
04/16	21:17:12	13.3356	2422.73	185.67		
04/16	21:17:28	13.3400	2423.70	185.67		
04/16	21:17:44	13.3444	2424.67	185.67		
04/16	21:18:00	13.3489	2425.64	185.67		
04/16	21:18:16	13.3533	2426.71	185.67		
04/16	21:18:32	13.3578	2427.78	185.67		
04/16	21:18:48	13.3622	2428.65	185.67		
04/16	21:19:04	13.3667	2429.62	185.67		
04/16	21:19:20	13.3711	2430.59	185.67		
04/16	21:19:36	13.3756	2431.56	185.67		
04/16	21:19:52	13.3800	2432.63	185.67		
04/16	21:20:08	13.3844	2433.50	185.67		
04/16	21:20:24	13.3889	2434.62	185.75		
04/16	21:20:40	13.3933	2435.59	185.75		
04/16	21:20:56	13.3978	2436.46	185.75		
04/16	21:21:12	13.4022	2437.53	185.75		
04/16	21:21:28	13.4067	2438.50	185.75		
04/16	21:21:44	13.4111	2439.38	185.75		
04/16	21:22:00	13.4156	2440.35	185.75		
04/16	21:22:16	13.4200	2441.42	185.75		
04/16	21:22:32	13.4244	2442.29	185.75		
04/16	21:22:48	13.4289	2443.36	185.75		
04/16	21:23:04	13.4333	2444.23	185.75		
04/16	21:23:20	13.4378	2445.20	185.75		
04/16	21:23:36	13.4422	2446.17	185.75		
04/16	21:23:52	13.4467	2447.05	185.75		
04/[redacted]	21:24:08	13.4511	2448.12	185.75		
04/[redacted]	21:24:24	13.4556	2448.99	185.75		
04/16	21:24:40	13.4600	2449.96	185.75		
04/16	21:24:56	13.4644	2450.93	185.75		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/[redacted]	21:25:12	13.4689	2451.90	185.75		
04/[redacted]	21:25:28	13.4733	2452.78	185.75		
04/[redacted]	21:25:44	13.4778	2453.75	185.75		
04/16	21:26:00	13.4822	2454.76	185.82		
04/16	21:26:16	13.4867	2455.73	185.82		
04/16	21:26:32	13.4911	2456.61	185.82		
04/16	21:26:48	13.4956	2457.58	185.82		
04/16	21:27:04	13.5000	2458.45	185.82		
04/16	21:27:20	13.5044	2459.42	185.82		
04/16	21:27:36	13.5089	2460.40	185.82		
04/16	21:27:52	13.5133	2461.46	185.82		
04/16	21:28:08	13.5178	2462.24	185.82		
04/16	21:28:24	13.5222	2463.21	185.82		
04/16	21:28:40	13.5267	2464.18	185.82		
04/16	21:28:56	13.5311	2465.06	185.82		
04/16	21:29:12	13.5356	2466.03	185.82		
04/16	21:29:28	13.5400	2467.00	185.82		
04/16	21:29:44	13.5444	2468.02	185.89		
04/16	21:30:00	13.5489	2468.89	185.89		
04/16	21:30:16	13.5533	2469.76	185.89		
04/16	21:30:32	13.5578	2470.73	185.89		
04/16	21:30:48	13.5622	2471.61	185.89		
04/16	21:31:04	13.5667	2472.48	185.89		
04/16	21:31:20	13.5711	2473.45	185.89		
04/16	21:31:36	13.5756	2474.42	185.89		
04/16	21:31:52	13.5800	2475.30	185.89		
04/16	21:32:08	13.5844	2476.27	185.89		
04/16	21:32:24	13.5889	2477.24	185.89		
04/16	21:32:40	13.5933	2478.02	185.89		
04/16	21:32:56	13.5978	2478.99	185.89		
04/16	21:33:12	13.6022	2479.86	185.89		
04/16	21:33:28	13.6067	2480.93	185.89		
04/16	21:33:44	13.6111	2481.71	185.89		
04/16	21:34:00	13.6156	2482.68	185.89		
04/16	21:34:16	13.6200	2483.55	185.89		
04/[redacted]	21:34:32	13.6244	2484.43	185.89		
04/[redacted]	21:34:48	13.6289	2485.40	185.89		
04/16	21:35:04	13.6333	2486.27	185.89		
04/16	21:35:20	13.6378	2487.29	185.96		
04/16	21:35:36	13.6422	2488.16	185.96		
04/16	21:35:52	13.6467	2489.04	185.96		
04/16	21:36:08	13.6511	2490.01	185.96		
04/16	21:36:24	13.6556	2490.78	185.96		
04/16	21:36:40	13.6600	2491.76	185.96		
04/16	21:36:56	13.6644	2492.63	185.96		
04/16	21:37:12	13.6689	2493.70	185.96		
04/16	21:37:28	13.6733	2494.47	185.96		
04/16	21:37:44	13.6778	2495.35	185.96		
04/16	21:38:00	13.6822	2496.32	185.96		
04/16	21:38:16	13.6867	2497.19	185.96		
4/16	21:38:32	13.6911	2497.97	185.96		
04/16	21:38:48	13.6956	2498.94	185.96		
04/16	21:39:04	13.7000	2499.91	185.96		
4/16	21:39:20	13.7044	2500.69	185.96		
4/16	21:39:36	13.7089	2501.66	185.96		
4/16	21:39:52	13.7133	2502.44	185.96		
4/16	21:40:08	13.7178	2503.41	185.96		
4/16	21:40:24	13.7222	2504.28	185.96		
4/16	21:40:40	13.7267	2505.16	185.96		
4/16	21:40:56	13.7311	2506.17	186.03		
4/16	21:41:12	13.7356	2506.95	186.03		
4/16	21:41:28	13.7400	2507.82	186.03		
4/16	21:41:44	13.7444	2508.70	186.03		
4/16	21:42:00	13.7489	2509.57	186.03		
4/16	21:42:16	13.7533	2510.45	186.03		
4/16	21:42:32	13.7578	2511.32	186.03		
4/16	21:42:48	13.7622	2512.29	186.03		
4/16	21:43:04	13.7667	2512.97	186.03		
4/16	21:43:20	13.7711	2513.94	186.03		
4/16	21:43:36	13.7756	2514.82	186.03		
4/16	21:43:52	13.7800	2515.69	186.03		
4/16	21:44:08	13.7844	2516.47	186.03		
4/16	21:44:24	13.7889	2517.44	186.03		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	21:44:40	13.7933	2518.36	186.11		
04/16	21:44:56	13.7978	2519.23	186.11		
04/16	21:45:12	13.8022	2520.01	186.11		
04/16	21:45:28	13.8067	2520.88	186.11		
04/16	21:45:44	13.8111	2521.76	186.11		
04/16	21:46:00	13.8156	2522.63	186.11		
04/16	21:46:16	13.8200	2523.41	186.11		
04/16	21:46:32	13.8244	2524.38	186.11		
04/16	21:46:48	13.8289	2525.25	186.11		
04/16	21:47:04	13.8333	2526.13	186.11		
04/16	21:47:20	13.8378	2526.90	186.11		
04/16	21:47:36	13.8422	2527.78	186.11		
04/16	21:47:52	13.8467	2528.65	186.11		
04/16	21:48:08	13.8511	2529.43	186.11		
04/16	21:48:24	13.8556	2530.40	186.11		
04/16	21:48:40	13.8600	2531.18	186.11		
04/16	21:48:56	13.8644	2532.05	186.11		
04/16	21:49:12	13.8689	2532.93	186.11		
04/16	21:49:28	13.8733	2533.70	186.11		
04/16	21:49:44	13.8778	2534.58	186.11		
04/16	21:50:00	13.8822	2535.45	186.11		
04/16	21:50:16	13.8867	2536.37	186.18		
04/16	21:50:32	13.8911	2537.24	186.18		
04/16	21:50:48	13.8956	2538.02	186.18		
04/16	21:51:04	13.9000	2538.80	186.18		
04/16	21:51:20	13.9044	2539.77	186.18		
04/16	21:51:36	13.9089	2540.55	186.18		
04/16	21:51:52	13.9133	2541.42	186.18		
04/16	21:52:08	13.9178	2542.29	186.18		
04/16	21:52:24	13.9222	2543.17	186.18		
04/16	21:52:40	13.9267	2543.95	186.18		
04/16	21:52:56	13.9311	2544.72	186.18		
04/16	21:53:12	13.9356	2545.60	186.18		
04/16	21:53:28	13.9400	2546.37	186.18		
04/16	21:53:44	13.9444	2547.25	186.18		
04/16	21:54:00	13.9489	2548.17	186.25		
04/16	21:54:16	13.9533	2549.04	186.25		
04/16	21:54:32	13.9578	2549.72	186.25		
04/16	21:54:48	13.9622	2550.59	186.25		
04/16	21:55:04	13.9667	2551.47	186.25		
04/16	21:55:20	13.9711	2552.25	186.25		
04/16	21:55:36	13.9756	2553.02	186.25		
04/16	21:55:52	13.9800	2553.90	186.25		
04/16	21:56:08	13.9844	2554.77	186.25		
04/16	21:56:24	13.9889	2555.45	186.25		
04/16	21:56:40	13.9933	2556.33	186.25		
04/16	21:56:56	13.9978	2557.10	186.25		
04/16	21:57:12	14.0022	2557.98	186.25		
04/16	21:57:28	14.0067	2558.75	186.25		
04/16	21:57:44	14.0111	2559.63	186.25		
04/16	21:58:00	14.0156	2560.41	186.25		
04/16	21:58:16	14.0200	2561.18	186.25		
04/16	21:58:32	14.0244	2562.06	186.25		
04/16	21:58:48	14.0289	2562.74	186.25		
04/16	21:59:04	14.0333	2563.61	186.25		
04/16	21:59:20	14.0378	2564.49	186.25		
04/16	21:59:36	14.0422	2565.31	186.32		
04/16	21:59:52	14.0467	2566.08	186.32		
04/16	22:00:08	14.0511	2566.86	186.32		
04/16	22:00:24	14.0556	2567.64	186.32		
04/16	22:00:40	14.0600	2568.51	186.32		
04/16	22:00:56	14.0644	2569.29	186.32		
04/16	22:01:12	14.0689	2570.07	186.32		
04/16	22:01:28	14.0733	2570.84	186.32		
04/16	22:01:44	14.0778	2571.72	186.32		
04/16	22:02:00	14.0822	2572.49	186.32		
04/16	22:02:16	14.0867	2573.27	186.32		
04/16	22:02:32	14.0911	2574.05	186.32		
04/16	22:02:48	14.0956	2574.83	186.32		
04/16	22:03:04	14.1000	2575.60	186.32		
04/16	22:03:20	14.1044	2576.48	186.32		
04/16	22:03:36	14.1089	2577.25	186.32		
04/16	22:03:52	14.1133	2578.03	186.32		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1
Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. tc 13.5 PsiG Atm.
04/16	22:04:08	14.1178	2578.81	186.32		
04/16	22:04:24	14.1222	2579.68	186.32		
04/16	22:04:40	14.1267	2580.36	186.32		
04/16	22:04:56	14.1311	2581.24	186.32		
04/16	22:05:12	14.1356	2582.06	186.40		
04/16	22:05:28	14.1400	2582.74	186.40		
04/16	22:05:44	14.1444	2583.51	186.40		
04/16	22:06:00	14.1489	2584.29	186.40		
04/16	22:06:16	14.1533	2585.07	186.40		
04/16	22:06:32	14.1578	2585.94	186.40		
04/16	22:06:48	14.1622	2586.62	186.40		
04/16	22:07:04	14.1667	2587.40	186.40		
04/16	22:07:20	14.1711	2588.18	186.40		
04/16	22:07:36	14.1756	2588.95	186.40		
04/16	22:07:52	14.1800	2589.73	186.40		
04/16	22:08:08	14.1844	2590.51	186.40		
04/16	22:08:24	14.1889	2591.19	186.40		
04/16	22:08:40	14.1933	2592.06	186.40		
04/16	22:08:56	14.1978	2592.94	186.40		
04/16	22:09:12	14.2022	2593.52	186.40		
04/16	22:09:28	14.2067	2594.39	186.40		
04/16	22:09:44	14.2111	2595.07	186.40		
04/16	22:10:00	14.2156	2595.85	186.40		
04/16	22:10:16	14.2200	2596.73	186.40		
04/16	22:10:32	14.2244	2597.41	186.40		
04/16	22:10:48	14.2289	2598.32	186.47		
04/16	22:11:04	14.2333	2599.10	186.47		
04/16	22:11:20	14.2378	2599.78	186.47		
04/16	22:11:36	14.2422	2600.56	186.47		
04/16	22:11:52	14.2467	2601.33	186.47		
04/16	22:12:08	14.2511	2602.01	186.47		
04/16	22:12:24	14.2556	2602.89	186.47		
04/16	22:12:40	14.2600	2603.76	186.47		
04/16	22:12:56	14.2644	2604.35	186.47		
04/16	22:13:12	14.2689	2605.12	186.47		
04/16	22:13:28	14.2733	2605.90	186.47		
04/16	22:13:44	14.2778	2606.68	186.47		
04/16	22:14:00	14.2822	2607.45	186.47		
04/16	22:14:16	14.2867	2608.13	186.47		
04/16	22:14:32	14.2911	2609.01	186.47		
04/16	22:14:48	14.2956	2609.69	186.47		
04/16	22:15:04	14.3000	2610.37	186.47		
04/16	22:15:20	14.3044	2611.24	186.47		
04/16	22:15:36	14.3089	2611.92	186.47		
04/16	22:15:52	14.3133	2612.70	186.47		
04/16	22:16:08	14.3178	2613.48	186.47		
04/16	22:16:24	14.3222	2614.30	186.54		
04/16	22:16:40	14.3267	2614.98	186.54		
04/16	22:16:56	14.3311	2615.75	186.54		
04/16	22:17:12	14.3356	2616.43	186.54		
04/16	22:17:28	14.3400	2617.31	186.54		
04/16	22:17:44	14.3444	2617.89	186.54		
04/16	22:18:00	14.3489	2618.67	186.54		
04/16	22:18:16	14.3533	2619.45	186.54		
04/16	22:18:32	14.3578	2620.22	186.54		
04/16	22:18:48	14.3622	2620.90	186.54		
04/16	22:19:04	14.3667	2621.58	186.54		
04/16	22:19:20	14.3711	2622.46	186.54		
04/16	22:19:36	14.3756	2623.24	186.54		
04/16	22:19:52	14.3800	2623.92	186.54		
04/16	22:20:08	14.3844	2624.79	186.54		
04/16	22:20:24	14.3889	2625.37	186.54		
04/16	22:20:40	14.3933	2626.15	186.54		
04/16	22:20:56	14.3978	2626.83	186.54		
04/16	22:21:12	14.4022	2627.61	186.54		
04/16	22:21:28	14.4067	2628.38	186.54		
04/16	22:21:44	14.4111	2629.16	186.54		
04/16	22:22:00	14.4156	2629.98	186.61		
04/16	22:22:16	14.4200	2630.66	186.61		
04/16	22:22:32	14.4244	2631.34	186.61		
04/16	22:22:48	14.4289	2632.12	186.61		
04/16	22:23:04	14.4333	2632.80	186.61		
04/16	22:23:20	14.4378	2633.58	186.61		

Company: CULTUS PETROLEUM LTD
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Ref: DBE1DST1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. t
13.5 PsiG Atm.						
[redacted]	22:23:36	14.4422	2634.26	186.61		
[redacted]	22:23:52	14.4467	2635.13	186.61		
[redacted]	22:24:08	14.4511	2635.71	186.61		
04/16	22:24:24	14.4556	2636.49	186.61		
04/16	22:24:40	14.4600	2637.17	186.61		
04/16	22:24:56	14.4644	2637.95	186.61		
04/16	22:25:12	14.4689	2638.63	186.61		
04/16	22:25:28	14.4733	2639.41	186.61		
04/16	22:25:44	14.4778	2640.09	186.61		
04/16	22:26:00	14.4822	2640.77	186.61		
04/16	22:26:16	14.4867	2641.54	186.61		
04/16	22:26:32	14.4911	2642.22	186.61		
04/16	22:26:48	14.4956	2642.90	186.61		
04/16	22:27:04	14.5000	2643.68	186.61		
04/16	22:27:20	14.5044	2644.36	186.61		
04/16	22:27:36	14.5089	2645.18	186.69		
04/16	22:27:52	14.5133	2645.76	186.69		
04/16	22:28:08	14.5178	2646.54	186.69		
04/16	22:28:24	14.5222	2647.32	186.69		
04/16	22:28:40	14.5267	2648.00	186.69		
04/16	22:28:56	14.5311	2648.68	186.69		
04/16	22:29:12	14.5356	2649.46	186.69		
04/16	22:29:28	14.5400	2650.14	186.69		
04/16	22:29:44	14.5444	2650.82	186.69		
04/16	22:30:00	14.5489	2651.50	186.69		
04/16	22:30:16	14.5533	2652.18	186.69		
04/16	22:30:32	14.5578	2652.95	186.69		
04/16	22:30:48	14.5622	2653.63	186.69		
04/16	22:31:04	14.5667	2654.31	186.69		
04/16	22:31:20	14.5711	2655.09	186.69		
04/16	22:31:36	14.5756	2655.77	186.69		
04/16	22:31:52	14.5800	2656.45	186.69		
04/16	22:32:08	14.5844	2657.13	186.69		
04/16	22:32:24	14.5889	2657.91	186.69		
04/16	22:32:40	14.5933	2658.59	186.69		
[redacted]	22:32:56	14.5978	2659.27	186.69		
[redacted]	22:33:12	14.6022	2660.09	186.76		
04/16	22:33:28	14.6067	2660.67	186.76		
04/16	22:33:44	14.6111	2661.35	186.76		
04/16	22:34:00	14.6156	2662.03	186.76		
04/16	22:34:16	14.6200	2662.81	186.76		
04/16	22:34:32	14.6244	2663.49	186.76		
04/16	22:34:48	14.6289	2664.17	186.76		
04/16	22:35:04	14.6333	2664.85	186.76		
04/16	22:35:20	14.6378	2665.53	186.76		
04/16	22:35:36	14.6422	2666.21	186.76		
04/16	22:35:52	14.6467	2666.89	186.76		
04/16	22:36:08	14.6511	2667.57	186.76		
04/16	22:36:24	14.6556	2668.35	186.76		
04/16	22:36:40	14.6600	2668.93	186.76		
04/16	22:36:56	14.6644	2669.71	186.76		
04/16	22:37:12	14.6689	2670.39	186.76		
04/16	22:37:28	14.6733	2670.97	186.76		
04/16	22:37:44	14.6778	2671.75	186.76		
04/16	22:38:00	14.6822	2672.33	186.76		
04/16	22:38:16	14.6867	2673.11	186.76		
04/16	22:38:32	14.6911	2673.69	186.76		
04/16	22:38:48	14.6956	2674.51	186.83		
04/16	22:39:04	14.7000	2675.19	186.83		
04/16	22:39:20	14.7044	2675.77	186.83		
04/16	22:39:36	14.7089	2676.45	186.83		
04/16	22:39:52	14.7133	2677.23	186.83		
04/16	22:40:08	14.7178	2677.81	186.83		
04/16	22:40:24	14.7222	2678.49	186.83		
04/16	22:40:40	14.7267	2679.27	186.83		
04/16	22:40:56	14.7311	2679.85	186.83		
04/16	22:41:12	14.7356	2680.44	186.83		
04/16	22:41:28	14.7400	2681.21	186.83		
04/16	22:41:44	14.7444	2681.80	186.83		
04/16	22:42:00	14.7489	2682.48	186.83		
04/[redacted]	22:42:16	14.7533	2683.16	186.83		
04/16	22:42:32	14.7578	2683.84	186.83		
04/16	22:42:48	14.7622	2684.52	186.83		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
[redacted]						
04/[redacted]	22:43:04	14.7667	2685.20	186.83		
04/[redacted]	22:43:20	14.7711	2685.78	186.83		
04/[redacted]	22:43:36	14.7756	2686.46	186.83		
04/16	22:43:52	14.7800	2687.14	186.83		
04/16	22:44:08	14.7844	2687.82	186.83		
04/16	22:44:24	14.7889	2688.64	186.90		
04/16	22:44:40	14.7933	2689.13	186.90		
04/16	22:44:56	14.7978	2689.90	186.90		
04/16	22:45:12	14.8022	2690.49	186.90		
04/16	22:45:28	14.8067	2691.17	186.90		
04/16	22:45:44	14.8111	2691.75	186.90		
04/16	22:46:00	14.8156	2692.53	186.90		
04/16	22:46:16	14.8200	2693.21	186.90		
04/16	22:46:32	14.8244	2693.79	186.90		
04/16	22:46:48	14.8289	2694.47	186.90		
04/16	22:47:04	14.8333	2695.15	186.90		
04/16	22:47:20	14.8378	2695.73	186.90		
04/16	22:47:36	14.8422	2696.41	186.90		
04/16	22:47:52	14.8467	2697.00	186.90		
04/16	22:48:08	14.8511	2697.77	186.90		
04/16	22:48:24	14.8556	2698.36	186.90		
04/16	22:48:40	14.8600	2699.04	186.90		
04/16	22:48:56	14.8644	2699.72	186.90		
04/16	22:49:12	14.8689	2700.20	186.90		
04/16	22:49:28	14.8733	2700.88	186.90		
04/16	22:49:44	14.8778	2701.56	186.90		
04/16	22:50:00	14.8822	2702.29	186.98		
04/16	22:50:16	14.8867	2702.87	186.98		
04/16	22:50:32	14.8911	2703.45	186.98		
04/16	22:50:48	14.8956	2704.13	186.98		
04/16	22:51:04	14.9000	2704.81	186.98		
04/16	22:51:20	14.9044	2705.40	186.98		
04/16	22:51:36	14.9089	2706.17	186.98		
04/16	22:51:52	14.9133	2706.85	186.98		
04/16	22:52:08	14.9178	2707.34	186.98		
04/[redacted]	22:52:24	14.9222	2708.02	186.98		
04/[redacted]	22:52:40	14.9267	2708.70	186.98		
04/16	22:52:56	14.9311	2709.28	186.98		
04/16	22:53:12	14.9356	2709.96	186.98		
04/16	22:53:28	14.9400	2710.64	186.98		
04/16	22:53:44	14.9444	2711.32	186.98		
04/16	22:54:00	14.9489	2711.91	186.98		
04/16	22:54:16	14.9533	2712.49	186.98		
04/16	22:54:32	14.9578	2713.17	186.98		
04/16	22:54:48	14.9622	2713.75	186.98		
04/16	22:55:04	14.9667	2714.43	186.98		
04/16	22:55:20	14.9711	2715.11	186.98		
04/16	22:55:36	14.9756	2715.70	186.98		
04/16	22:55:52	14.9800	2716.28	186.98		
04/16	22:56:08	14.9844	2716.96	186.98		
04/16	22:56:24	14.9889	2717.54	186.98		
04/16	22:56:40	14.9933	2718.13	186.98		
04/16	22:56:56	14.9978	2718.71	186.98		
04/16	22:57:12	15.0022	2719.39	186.98		
04/16	22:57:28	15.0067	2720.01	187.05		
04/16	22:57:44	15.0111	2720.69	187.05		
04/16	22:58:00	15.0156	2721.28	187.05		
04/16	22:58:16	15.0200	2721.86	187.05		
04/16	22:58:32	15.0244	2722.54	187.05		
04/16	22:58:48	15.0289	2723.12	187.05		
04/16	22:59:04	15.0333	2723.71	187.05		
04/16	22:59:20	15.0378	2724.39	187.05		
04/16	22:59:36	15.0422	2725.07	187.05		
04/16	22:59:52	15.0467	2725.55	187.05		
04/16	23:00:08	15.0511	2726.23	187.05		
04/16	23:00:24	15.0556	2726.91	187.05		
04/16	23:00:40	15.0600	2727.40	187.05		
04/16	23:00:56	15.0644	2728.18	187.05		
04/16	23:01:12	15.0689	2728.76	187.05		
04/[redacted]	23:01:28	15.0733	2729.25	187.05		
04/[redacted]	23:01:44	15.0778	2729.93	187.05		
04/16	23:02:00	15.0822	2729.34	187.05		FINAL FLOW
04/16	23:02:16	15.0867	2715.45	187.05		

Company: CULTUS PETROLEUM LTD Ref: DBE1DST1
Well: DUNBAR EAST #1 OTWAY BASIN PERMIT PPL-1

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure PsiG	Temp Deg F	DeltaP PsiG	Comment Ga. Press Ref. to 13.5 PsiG Atm.
04/16	23:02:32	15.0911	3064.73	187.05		
04/16	23:02:48	15.0956	3608.81	187.05		
04/16	23:03:04	15.1000	3589.82	187.12		
04/16	23:03:20	15.1044	3577.15	187.12		
04/16	23:03:36	15.1089	3567.30	187.12		
04/16	23:03:52	15.1133	3559.02	187.12		
04/16	23:04:08	15.1178	3551.90	187.12		
04/16	23:04:24	15.1222	3545.66	187.12		
04/16	23:04:40	15.1267	3540.21	187.12		
04/16	23:04:56	15.1311	3469.90	187.26		
04/16	23:05:12	15.1356	3677.64	187.26		
04/16	23:05:28	15.1400	3686.81	187.26		
04/16	23:05:44	15.1444	3687.88	187.26		
04/16	23:06:00	15.1489	3692.95	187.26		
04/16	23:06:16	15.1533	3697.54	187.26		
04/16	23:06:32	15.1578	3700.46	187.26		
04/16	23:06:48	15.1622	3697.40	187.41		
04/16	23:07:04	15.1667	3670.97	187.41		FINAL HYD
04/16	23:07:20	15.1711	3678.67	187.41		
04/16	23:07:36	15.1756	3686.38	187.41		
04/16	23:07:52	15.1800	3707.05	187.41		
04/16	23:08:08	15.1844	3697.49	187.41		
04/16	23:08:24	15.1889	3639.37	187.41		
04/16	23:08:40	15.1933	3652.34	187.41		
04/16	23:08:56	15.1978	3686.57	187.41		
04/16	23:09:12	15.2022	3731.83	187.41		
04/16	23:09:28	15.2067	3486.14	187.41		
04/16	23:09:44	15.2111	3681.69	187.41		
04/16	23:10:00	15.2156	3457.00	187.41		
04/16	23:10:16	15.2200	3666.58	187.41		
04/16	23:10:32	15.2244	4028.54	187.48		
04/16	23:10:48	15.2289	3426.63	187.48		
04/16	23:11:04	15.2333	3746.00	187.48		
04/16	23:11:20	15.2378	3877.03	187.48		
04/16	23:11:36	15.2422	3373.54	187.48		
04/16	23:11:52	15.2467	3687.38	187.48		
04/16	23:12:08	15.2511	3610.35	187.48		
04/16	23:12:24	15.2556	3657.44	187.48		
04/16	23:12:40	15.2600	3887.09	187.48		
04/16	23:12:56	15.2644	3751.46	187.48		
04/16	23:13:12	15.2689	3643.59	187.48		
04/16	23:13:28	15.2733	3634.62	187.48		
04/16	23:13:44	15.2778	3697.62	187.48		
04/16	23:14:00	15.2822	3687.38	187.48		
04/16	23:14:16	15.2867	3684.94	187.48		
04/16	23:14:32	15.2911	3683.28	187.48		
04/16	23:14:48	15.2956	3682.11	187.48		
04/16	23:15:04	15.3000	3680.45	187.48		
04/16	23:15:20	15.3044	3680.06	187.48		
04/16	23:15:36	15.3089	3679.87	187.48		
04/16	23:15:52	15.3133	3679.67	187.48		
04/16	23:16:08	15.3178	3679.51	187.55		
04/16	23:16:24	15.3222	3679.12	187.55		
04/16	23:16:40	15.3267	3678.92	187.55		
04/16	23:16:56	15.3311	3678.63	187.55		
04/16	23:17:12	15.3356	3681.16	187.55		
04/16	23:17:28	15.3400	3680.48	187.55		
04/16	23:17:44	15.3444	3679.21	187.55		
04/16	23:18:00	15.3489	3678.53	187.55		
04/16	23:18:16	15.3533	3678.63	187.55		
04/16	23:18:32	15.3578	3677.95	187.55		
04/16	23:18:48	15.3622	3508.42	187.55		
04/16	23:19:04	15.3667	3517.77	187.55		
04/16	23:19:20	15.3711	3584.25	187.55		
04/16	23:19:36	15.3756	3530.05	187.55		
04/16	23:19:52	15.3800	3545.78	187.63		
04/16	23:20:08	15.3844	3549.19	187.63		
04/16	23:20:24	15.3889	3582.04	187.63		
04/16	23:20:40	15.3933	3582.43	187.63		
04/16	23:20:56	15.3978	3609.92	187.63		
04/16	23:21:12	15.4022	3608.65	187.63		
04/16	23:21:28	15.4067	3611.48	187.63		
04/16	23:21:44	15.4111	3616.09	187.70		

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PE604387

This is an enclosure indicator page.
The enclosure PE604387 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604387 has the following characteristics:

ITEM_BARCODE	= PE604387
CONTAINER_BARCODE	= PE900835
NAME	= Compensated Neutron Photodensity Log (1:500)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Compensated Neutron Photodensity Log, 1:500, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 19/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604388

This is an enclosure indicator page.
The enclosure PE604388 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604388 has the following characteristics:

ITEM_BARCODE	= PE604388
CONTAINER_BARCODE	= PE900835
NAME	= Compensated Neutron Photodensity Log (1:200)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Compensated Neutron Photodensity Log, 1:200, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 19/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604079

This is an enclosure indicator page.
The enclosure PE604079 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604079 has the following characteristics:

ITEM_BARCODE	= PE604079
CONTAINER_BARCODE	= PE900835
NAME	= Dual Laterolog/Micro Laterolog (1:500)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Dual Laterolog/ Micro Laterolog, 1:500, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 18/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604386

This is an enclosure indicator page.
The enclosure PE604386 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604386 has the following characteristics:

ITEM_BARCODE	= PE604386
CONTAINER_BARCODE	= PE900835
NAME	= Dual Laterolog/Micro Laterolog (1:200)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Dual Laterolog/ Micro Laterolog, 1:200, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 18/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604077

This is an enclosure indicator page.
The enclosure PE604077 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604077 has the following characteristics:

ITEM_BARCODE	= PE604077
CONTAINER_BARCODE	= PE900835
NAME	= Compensated Sonic Log (1:500)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Compensated Sonic Log , 1:500, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 18/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604078

This is an enclosure indicator page.
The enclosure PE604078 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604078 has the following characteristics:

ITEM_BARCODE	= PE604078
CONTAINER_BARCODE	= PE900835
NAME	= Compensated Sonic Log (1:200)
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Compensated Sonic Log , 1:200, (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 18/04/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)

PE604389

This is an enclosure indicator page.
The enclosure PE604389 is enclosed within the container PE900835 at this location in this document.

The enclosure PE604389 has the following characteristics:

ITEM_BARCODE	= PE604389
CONTAINER_BARCODE	= PE900835
NAME	= Repeat Formation Tester
BASIN	= OTWAY BASIN
PERMIT	= PP/L1
TYPE	= WELL
SUBTYPE	= RFT
DESCRIPTION	= Repeat Formation Tester (enclosure 3 from WCR) for Dunbar East-1
REMARKS	=
DATE_CREATED	= 1/06/96
DATE_RECEIVED	=
W_NO	= W1150
WELL_NAME	= DUNBAR EAST-1
CONTRACTOR	= BPB
CLIENT_OP_CO	= CULTUS PETROLEUM NL.

(Inserted by DNRE - Vic Govt Mines Dept)