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Enclosure 10

DATA SUMMARY CHART

WELL

HIBERNIA J-34

JEANNE D'ARC BASIN, EAST COAST CANADA

SCALE 1:240

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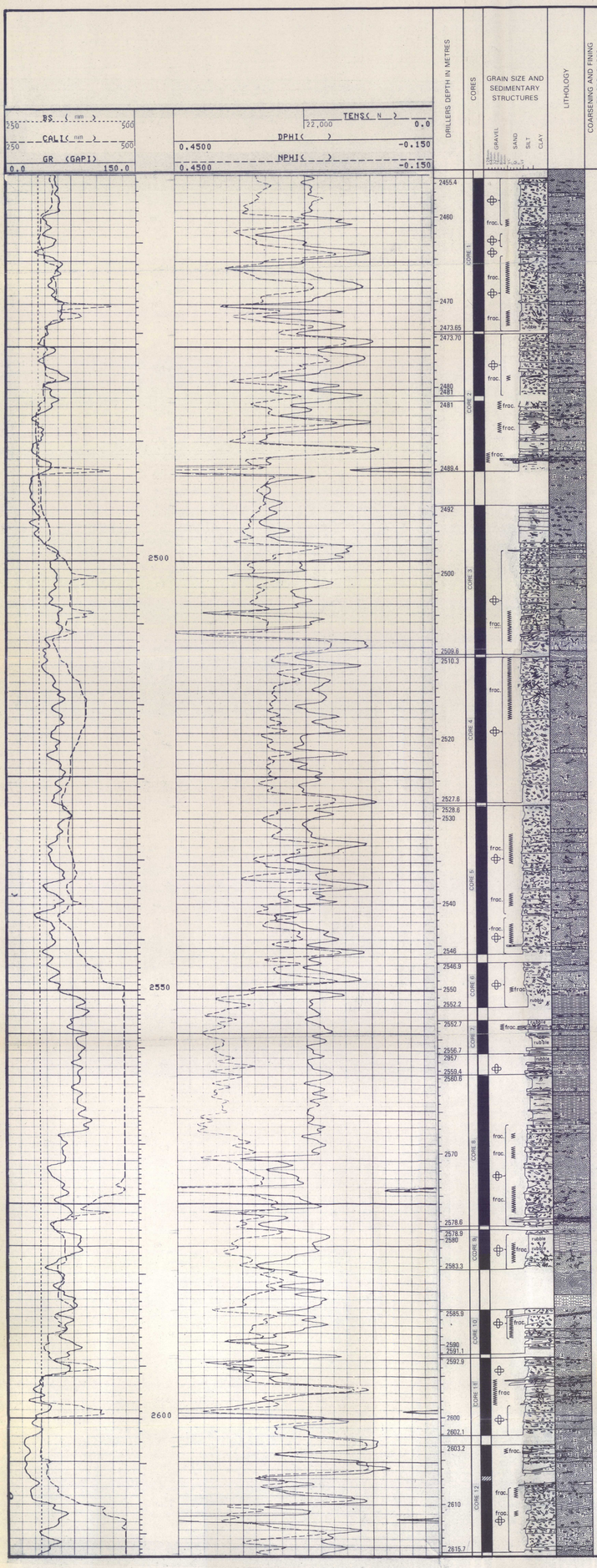
Department of Supply and Services



CORE DESCRIPTION	CORE INTERPRETATION	PETROGRAPHY AND RESERVOIR GEOLOGY
Pale to moderate yellowish brown (oil-stained) to medium dark grey and pale grey (calcite cemented), very fine and fine grained, predominantly argillaceous and bioturbated, occasionally horizontally laminated, containing concentrations of bivalve, brachiopod, gastropod, calcareous, worm tube and indeterminate shell fossils, intraformational mudclasts, carbonaceous wood fragments and common closed fractures (0°-40° from core axis).	ESTUARINE TIDAL FLAT SANDSTONES Predominantly bioturbated muddy sandstones, containing abundant macrofossils and common mudclasts.	**PETROGRAPHY** No analyses performed. **GEOMETRY** Sheet. Ø AND K Moderate porosity (Ø = 12.6% range 0.5-28.1%) and permeability (K = 20.15mD) range 0.01-52mD) retained in argillaceous fine and very fine grained sandstones, frequently reduced by concretionary carbonate cement.
Moderate to pale yellowish brown (oil-stained) and pale grey (calcite cemented), very fine and fine grained sandstones and thin pebble conglomerate containing erosive bases, horizontal lamination with current aligned bivalves and intraformational mudclasts. Local closed fractures, interbedded with thin, dark grey silty shale.	SHALLOW ESTUARINE CHANNEL SANDSTONES Predominantly horizontally laminated, erosively based channel fill sandstones, containing common macrofossil debris and mudclasts.	**PETROGRAPHY** No analyses performed. **GEOMETRY** Ribbon. Ø AND K Good porosity (Ø = 20.8%; range 1.1 - 27.5%) and permeability (K = 220.9mD) range 0.01-873mD) retained in clean, poorly cemented sandstones, locally reduced by concretionary calcite cement.
Pale to moderate yellowish brown (oil-stained) to medium dark grey and pale grey (calcite cemented), very fine to fine grained, predominantly argillaceous and bioturbated, locally horizontally laminated, containing abundant burrows, scattered concentrations of bivalve, brachiopod, gastropod, echinoderm, calcareous worm tube and indeterminate fossil debris carbonaceous wood debris, and common closed fractures (30°-50° from core axis); interbedded with a thin sandy bioclastic packstone containing bivalves and gastropods. Corrinous concretionary calcite, siderite and pyrite cement throughout.	SHALLOW ESTUARINE CHANNEL AND ESTUARINE TIDAL FLAT SANDSTONES Bioturbated channel sandstones at base passing upwards into thoroughly bioturbated muddy sandstones with abundant macrofauna.	**PETROGRAPHY** No analyses performed. **GEOMETRY** Sheet, containing thin, narrow channel ribbons. Ø AND K Moderately good (Ø = 15.4% range 3.6-24.4%) porosity and poor permeability (K = 4.43mD; range 0.01-65.9mD) in argillaceous sandstones, locally further reduced by concretionary calcite cement.
Medium dark grey to dark greenish grey and dark reddish brown silty shales/mudstones interbedded with thin, pale olive grey, very fine to coarse grained, argillaceous and micaceous sandstones containing sharp bases, horizontal lamination, wave ripples, slump structures, burrows and local pebble and shell fossil concentrations. Bedding overstepened to 15° at 2553-54m where heavily fractured. Common concretionary siderite cements throughout.	LAGOONAL SHALE AND SANDSTONE Brackish and ?marginal marine shales, containing thin wave rippled sandstones.	Thin laterally persistent sheet of impermeable mudstones forming a vertical permeability barrier.
Pale yellowish brown (oil-stained) to brownish grey, predominantly argillaceous and bioturbated, very fine and fine grained, containing local horizontal lamination, thin mudclast conglomerates and scattered bivalve and indeterminate fossil fragments, interbedded with medium dark grey, argillaceous and bioturbated siltstones. Interval contains abundant closed fractures throughout, with bedding overstepened to 30°-50° below 2576m.	ESTUARINE TIDAL FLAT SANDSTONES AND SILTSTONES AND MINOR SHALLOW ESTUARINE CHANNEL SANDSTONES Predominantly fossiliferous and bioturbated muddy sandstones, locally erosively based, with mudclasts.	**PETROGRAPHY** No analysis performed **GEOMETRY** Sheet **Ø AND K** Moderatley good porosity (Ø = 18.6%; Range 8.0 — 27.7%) and moderate permeability (K = 36.7md; Range 0.02-297md) in argillaceous sandstones.
Yellowish brown (oil-stained) and pale grey(calcite cemented, fine to coarse grained, locally argillaceous sandstones, containing horizontal lamination, low angle cross-bedding, erosive bases and common concentrations of intraformational mudclasts, carbonaceous wood fragments, quartzose pebbles and bivalve and indeterminate fossil debris. Common calcite concretions and common closed fractures throughout - bedding overstepened, locally up to 50°.	ESTUARINE CHANNEL SANDSTONES Cross-bedded, locally pebbly, fining upwards channel fill sandstones.	**PETROGRAPHY** No analyses preformed. **GOEMETRY** Ribbon, thickening to sheet to South and East. Ø AND K Moderately good (Ø = 16.1%; range 0.8-27.7%) porosity and good (K = 455mD range 0.02-1850mD) permeability retained in clean poorly cemented sandstones, frequently severely reduced by concretionary calcite cement.
Yellowish brown (oil-stained) to pale greenish grey, argillaceous and bioturbated, very fine to medium grained sandstones and argillaceous siltstones containing abundant burrows, bivalve, gastropod and indeterminate shell debris and intraformational mudclasts.	ESTUARINE TIDAL FLAT SANDSTONES AND SILTSTONES Predominantly bioturbated fossiliferous muddy sandstones.	**GEOMETRY, Ø AND K** Sheet of moderately poorly porous (Ø = 9.4%) and poorly permeable (K = 1.48mD) argillaceous and calcite cemented sandstones.

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