

CORE ANALYSIS REPORT

FOR

AEC WEST LTD.

AEC (WEST) RENAISSANCE CARCAJOU P-16

CARCAJOU, NORTHWEST TERRITORIES

NEED COPY

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom; and for whose exclusive and confidential use; this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories (all errors and omissions excepted); but Core Laboratories and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitableness of any oil, gas or mineral well or formation in connection with which such report is used or relied upon.

CORE LABORATORIES

Company : AEC WEST LTD.
 Well : AEC (WEST) RENAISSANCE CARCAJOU P-16
 Location :
 Province : NORTHWEST TERRITORIES

Field : CARCAJOU
 Formation : KEE SCARP
 Coring Equip.: DIAMOND
 Coring Fluid : WATER BASE MUD

File No.: 52131-00-0142
 Date : 2000-03-05
 Analysts: DJB
 Core Dia: 66 mm

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH m	INTVL REP m	SAMPLE LENGTH m	PERMEABILITY			CAPACITY (MAXIMUM) Kair mD-m	POROSITY (HELIUM) fraction	CAPACITY (HELIUM) φ-m	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	SATURATION		DESCRIPTION
				(MAXIMUM) Kair mD	(90 DEG) Kair mD	(VERTICAL) Kair mD						(PORE VOLUME) OIL frac	WATER frac	
CORE NO. 1 527.60 - 536.60 m (CORE RECEIVED 8.95 m) (7 BOXES)														
SP 1	527.60- 27.81	0.21	-	0.05	-	-	0.010	0.030	0.006	-	2710.	TRACE	0.073	1s i
FD 2	527.81- 28.67	0.86	0.22	0.04	0.04	0.03	0.034	0.046	0.043	2570.	2690.	0.231	0.064	1s i
NA	528.67- 29.61	0.94												1s tight
FD 3	529.61- 30.20	0.59	0.20	0.07	0.06	0.02	0.041	0.042	0.024	2590.	2710.	TRACE	0.146	1s i sty lam
SP 4	530.20- 30.75	0.55	-	0.14	-	-	0.077	0.023	0.011	-	2710.	-	-	1s i lam
SP 5	530.75- 31.27	0.52	-	0.02	-	-	0.010	0.041	0.021	-	2700.	TRACE	0.573	1s i
AST 6	531.27- 32.61	1.34	-	1.04	-	-	1.394	0.009	0.013	-	2710.	TRACE	0.245	1s i sty
NA	532.61- 33.33	0.72												1s tight
SP 6	533.33- 34.36	1.03	-	1.04	-	-	1.071	0.009	0.010	-	2710.	TRACE	0.245	1s i sty
SP 7	534.36- 35.15	0.79	-	0.02	-	-	0.016	0.029	0.024	-	2700.	TRACE	0.143	1s i
AST 6	535.15- 35.41	0.26	-	1.04	-	-	0.270	0.009	0.003	-	2710.	TRACE	0.245	1s i sty
SP 8	535.41- 35.99	0.58	-	0.04	-	-	0.023	0.055	0.029	-	2710.	-	-	1s i
SP 9	535.99- 36.37	0.38	-	0.02	-	-	0.008	0.040	0.015	-	2710.	-	-	1s i sty
FD 10	536.37- 36.55	0.18	0.07	0.05	0.05	0.03	0.009	0.046	0.009	2560.	2690.	0.098	0.039	1 si sty
	536.55- 36.60	0.05												Lost core

CORELAB

CODE KEY - DESCRIPTIONS

A	= (Prefix A) Horizontal matrix permeability measured by pressure decay profile permeametry through a probe tip due to induced fractures	i	= Intercrystalline	SPH	= Humidity analysis of small plug sample at 60 degrees Celsius and 50 percent relative humidity
ACA	= Removed for advanced core analysis	incl	= Inclusions	SP	= Small plug (sample drilled from core in maximum horizontal direction and parallel to bedding plane where possible) permeability, porosity and grain density are measured
anhy	= Anhydrite	lam	= Laminæ (laminated)	ss	= Sandstone
arg	= Argillaceous	ls	= Limestone	ssdy	= Slightly sandy (<20%)
AST	= Appears similar to	lv	= Large vug	sshy	= Slightly shaly (<20%)
bit	= Bitumen	m	= Medium	sty	= Stylolite (ic)
bk	= Break	mi	= Mud invaded	sulf	= Sulphur
c	= Coarse	mv	= Medium vug	sv	= Small vug
calc	= Calcite (calcareous)	NA	= Not analyzed by request	TEC	= Thermal Extraction Chromatography to determine oil richness
carb	= Carbonaceous	NP	= No permeability measurement possible due to poor sample quality	TS	= Thin section
cbl	= Cobble	NR	= Not received	uncons	= Unconsolidated
cem	= Cemented	ool	= Oolitic	vc	= Very coarse
cgl	= Conglomerate	OB	= Overburden sample (permeability and porosity measured at net overburden stress)	vfrac	= Vertical fracture
cht	= Chert	P	= Preserved for future studies	vf	= Very fine
coal	= Coal/coal inclusion	pbl	= Pebble	VIS	= Viscosity of oil measured
dol	= Dolomite	PFD	= Preliminary Full Diameter sample	VOB	= Vertical overburden sample (vertical permeability measured at net overburden stress)
f	= Fine	PSP	= Preliminary Small Plug sample	vshy	= Very shaly (>40%)
FD	= Full diameter analysis including three directional permeabilities, porosity and densities	PSA	= Particle size analysis	VSP	= Vertical small plug drilled from whole core to measure vertical permeability and occasionally porosity
foss	= Fossil (fossiliferous)	ppv	= Pinpoint vug	vug	= Vuggy (vuggy)
frac	= Fracture (undifferentiated)	pyr	= Pyrite (pyritic)	ws	= Water sand
fri	= Friable	pyrbit	= Pyrobitumen	XRD	= X-ray diffraction
glauc	= Glauconite (glaucous)	ru	= Rubble	*	= Perm unavailable due to broken core
grnl	= Granule	SA	= Sieve analysis	10240	= Permeability >10 Darcies, (maximum routine permeability measurement)
gyp	= Gypsum	sdv	= Sandy		
hfrac	= Horizontal fracture	SEM	= Scanning electron microscope analysis		
hal	= Halite (salt)	sh	= Shale		
IFD	= Inner Full Diameter, (a Full diameter sample is drilled from the bulk portion of the core in the vertical direction for permeability and porosity measurements)	shy	= Moderately shaly (20% - 40%)		
		sid	= Siderite		
		siltst	= Siltstone		
		silty	= Silty		
		SPT	= Small Plug used for tracer analysis		

CORE LABORATORIES

Company : AEC WEST LTD.
Well : AEC (WEST) RENAISSANCE CARCAJOU P-16

Field : CARCAJOU
Formation : KEE SCARP

File No.: 52131-00-0142
Date : 2000-03-05

ANALYTICAL PROCEDURES AND QUALITY ASSURANCE

HANDLING & CLEANING

Core Transportation :
Solvent : Toluene
Extraction Equipment : Vapour Phase Extractor
Extraction Time : 6 Days
Drying Equipment : Gravity Oven
Drying Time : 2 Days
Drying Temperature : 115 Degrees Celsius

ANALYSIS

Grain volume measured by Boyle's Law in a modified U.S.B.M. porosimeter using He
Grain volume measured by Boyle's Law in a matrix cup using He
Bulk volume measured by calipering
Bulk volume by Archimedes Principle
Fluid saturations by retort
Permeabilities measured on 25.4 mm diameter drilled plugs
Core Gamma Composite

CORE LABORATORIES

Company : AEC WEST LTD.
Well : AEC (WEST) RENAISSANCE CARCAJOU P-16

Field : CARCAJOU
Formation : KEE SCARP

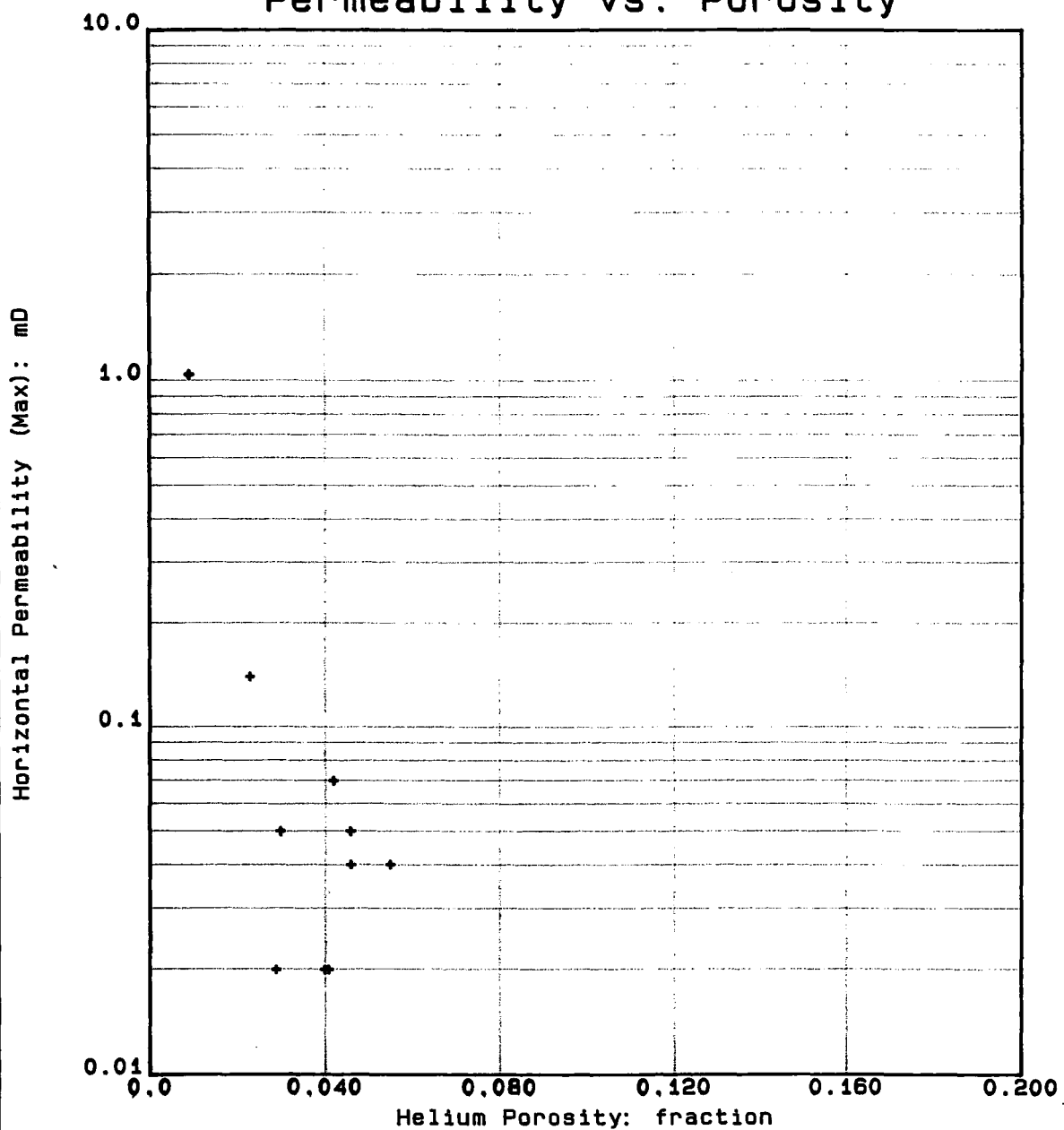
File No.: 52131-00-0142
Date : 2000-03-05

TABLE I

SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA		CHARACTERISTICS REMAINING AFTER CUTOFFS			
ZONE:		ZONE:		PERMEABILITY:	
Identification -----	KEE SCARP	Number of Samples -----	12	Flow Capacity -----	2.96 mD-m
Top Depth -----	527.60 m	Thickness Represented -	7.29 m	Arithmetic Average ----	0.41 mD
Bottom Depth -----	536.60 m			Geometric Average -----	0.13 mD
Number of Samples -----	12			Harmonic Average -----	0.05 mD
DATA TYPE:		POROSITY:		Minimum -----	0.02 mD
Porosity -----	(HELIUM)	Storage Capacity -----	0.207 ϕ -m	Maximum -----	1.04 mD
Permeability -----	(MAXIMUM) Kair	Arithmetic Average ----	0.028 frac	Median -----	0.05 mD
		Minimum -----	0.009 frac	Standard Dev. (Geom) --	$K \cdot 10^{\pm 0.698}$ mD
		Maximum -----	0.055 frac		
		Median -----	0.035 frac		
		Standard Deviation ----	± 0.016 frac		
CUTOFFS:		GRAIN DENSITY:		HETEROGENEITY (Permeability):	
Porosity (Minimum) -----	0.000 frac			Dykstra-Parsons Var. --	0.468
Porosity (Maximum) -----	1.000 frac			Lorenz Coefficient ----	0.842
Permeability (Minimum) ---	0.0000 mD				
Permeability (Maximum) ---	100000. mD			AVERAGE SATURATIONS (Pore Volume):	
Water Saturation (Maximum)	1.000 frac	Arithmetic Average ----	2705. kg/m3	Oil -----	0.068 frac
Oil Saturation (Minimum) -	0.000 frac	Minimum -----	2690. kg/m3	Water -----	0.192 frac
Grain Density (Minimum) --	2000. kg/m3	Maximum -----	2710. kg/m3		
Grain Density (Maximum) --	3000. kg/m3	Median -----	2710. kg/m3		
Lithology Excluded -----	NONE	Standard Deviation ----	± 8 . kg/m3		

Permeability vs. Porosity



AEC WEST LTD.
AEC (WEST) RENAISSANCE CARCAJOU P-16
CARCAJOU

KEE SCARP (527.60 - 536.60 m)

Core Laboratories Canada Ltd.

- LEGEND -
KEE SCARP

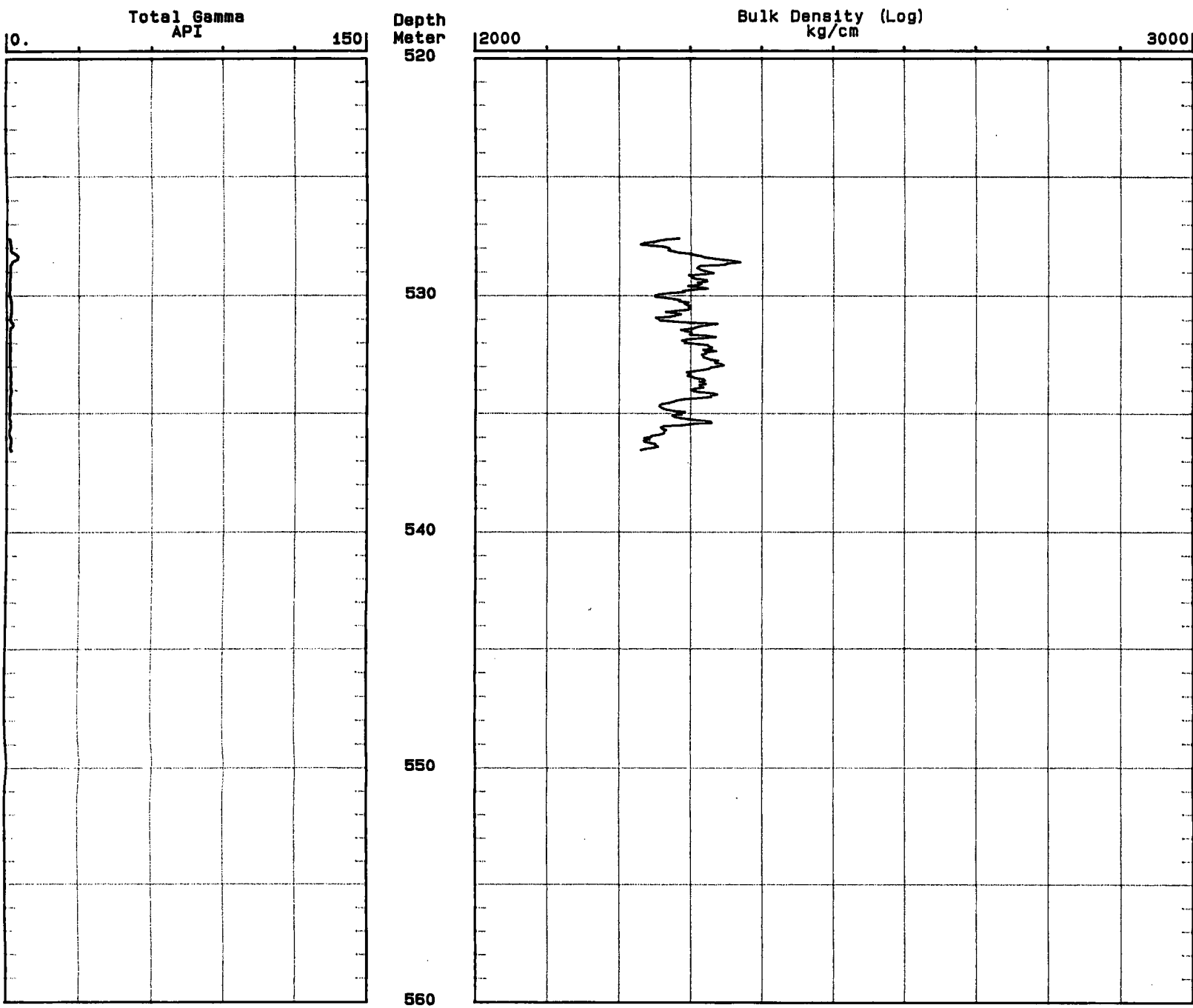
BULK DENSITY INDEX

AEC WEST LTD.
AEC (WEST) RENAISSANCE CARCAJOU P-16
CARCAJOU

KEE SCARP (527.60 - 536.60 m)

Core Laboratories Canada Ltd.

Vertical Scale
10.00 cm = 24.0 meter



CORRELATION COREGRAPH

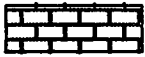
AEC WEST LTD.
AEC (WEST) RENAISSANCE CARCAJOU P-16
CARCAJOU

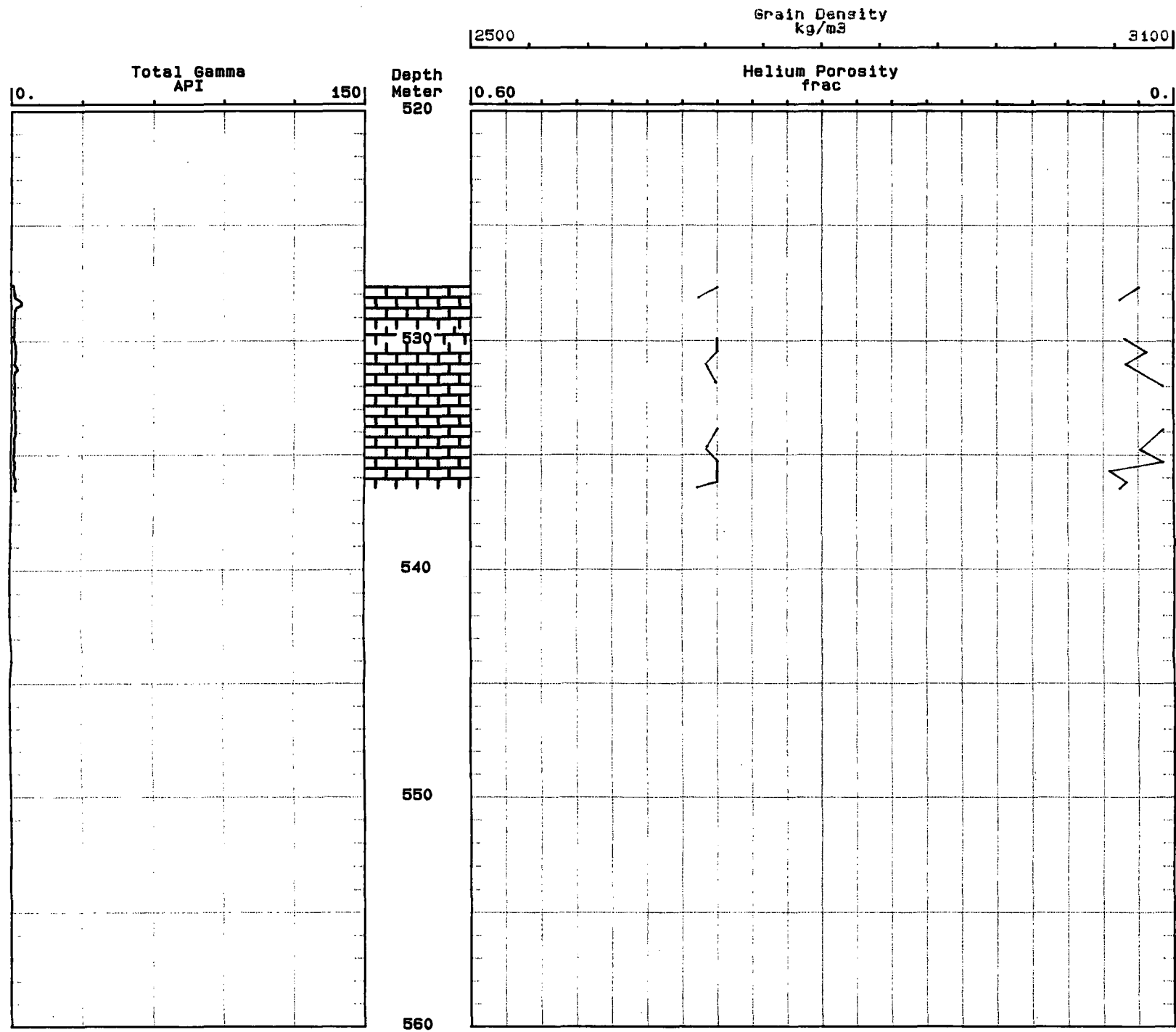
KEE SCARP (527.60 - 536.60 m)

Core Laboratories Canada Ltd.

Vertical Scale
10.00 cm = 24.0 meter

- Lithology Legend -

 Limestone



CORRELATION COREGRAPH

AEC WEST LTD.
AEC (WEST) RENAISSANCE CARCAJOU P-16
CARCAJOU

Vertical Scale
10.00 cm = 24.0 meter

KEE SCARP (527.60 - 536.60 m)

Core Laboratories Canada Ltd.

