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REPORT OF GEOPHYSICAL AND
SEISMOGRAPH REFLECTION SURVEY

On and off Federal Permits
6275 and 6276

January 1969

Prepared by: J. L. Hudson
District Geophysicist

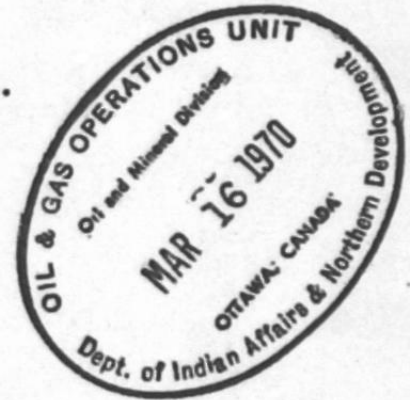
Abstracted for
Geo-Science Data Index

Date _____

REPORT OF GEOPHYSICAL SURVEY

REPORT OF SEISMOGRAPH REFLECTION SURVEY

Conducted by
Western Geophysical Company of Canada Ltd.
for
Pan American Petroleum Corporation
January 17, 1969 to January 29, 1969
North West Territory Permits 6275, 6276



Prepared By

J. L. Hudson

District Geophysicist

February 27, 1970

Submitted in support of application for credit; see affidavit made by

August 5th 1969

~~1970~~ and in accordance with work

obligations under Section , sub-section of the Regulations.

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Enclosures:	Surface Elevation Map
	Spread Diagram
	Top Middle Devonian Carbonate
	Top Middle Devonian Carbonate - Pre-Devonian
	Pre-Devonian Structure

INTRODUCTION

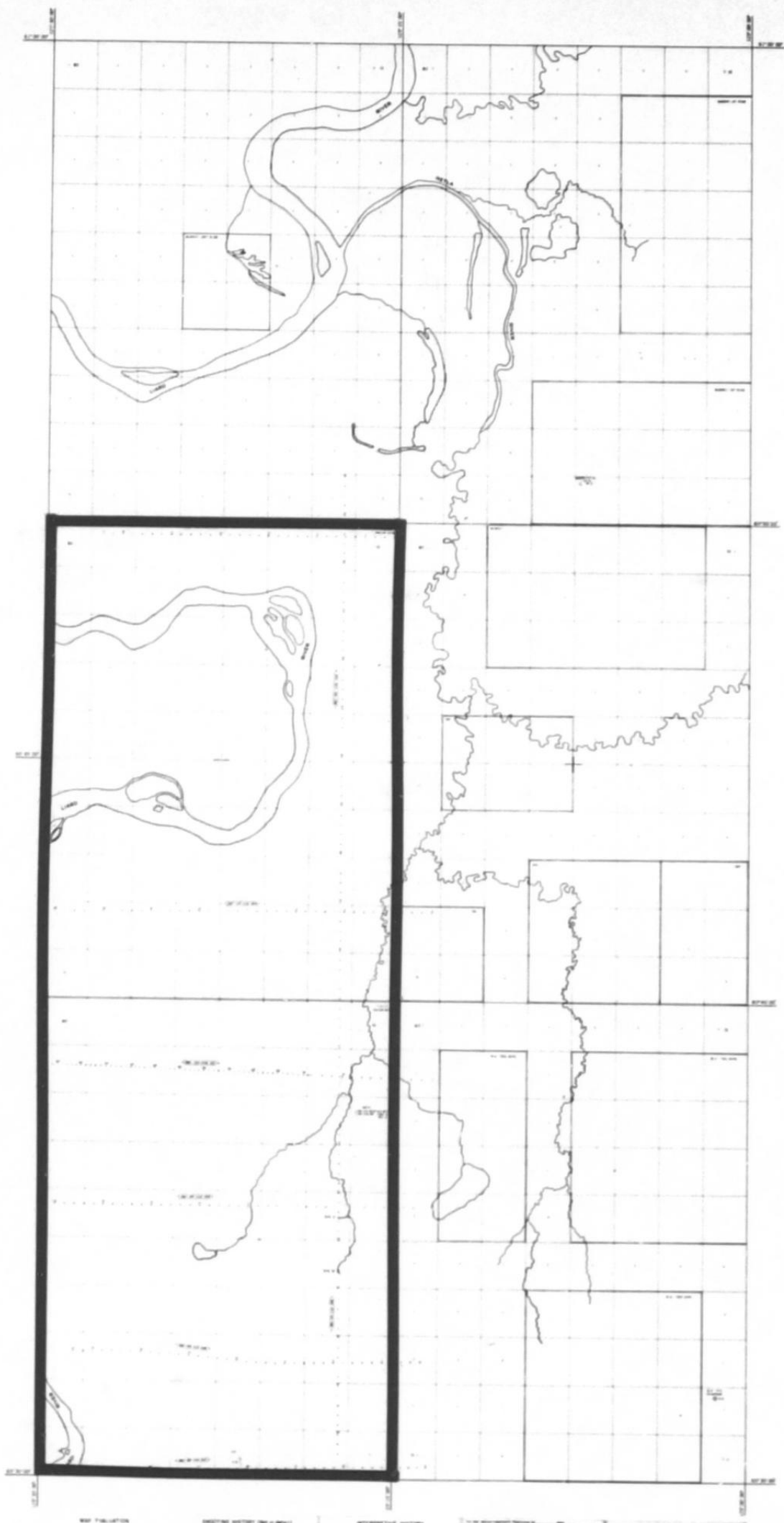
During January 1969 Western Geophysical Party #50 carried out a seismic reflection survey on behalf of Pan American Petroleum Corporation (now Amoco Canada Petroleum Company Ltd.).

The area covered was off and on Federal Permits (N.W.T.) 6275 and 6276 held by Pan American Petroleum Corporation.

A total of 12 days (January 17, 1969 - January 29, 1969) was spent in the field obtaining the data which was processed in Calgary over a period of approximately 100 days.

This work was in addition to that carried out in September 1968 (Line CCQ-001) (as submitted in a report by J. L. Hudson dated July 11, 1969). Western Geophysical Party #50 was under the supervision of Mr. E. Planck, Party Manager. Wheel mounted equipment was used throughout the survey, with the exception of track mounted drilling units.

No unusual difficulties were encountered during the course of the winter operation.



MAP INFORMATION

DATE OF ISSUE: 1998-01-01
SCALE: 1:50,000
PROJECTION: UTM
DATUM: NAD 83
EQUIV. LATITUDE: 49° 00' 00" N
EQUIV. LONGITUDE: 100° 00' 00" W

SHEETING HISTORY (See Appendix)

SHEET NO.	DATE	BY	REVISION
1	1998-01-01	J. Smith	Initial Issue
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3	1998-01-01	J. Smith	Initial Issue
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100	1998-01-01	J. Smith	Initial Issue

INTERPRETIVE HISTORY

DATE: 1998-01-01
BY: J. Smith
REVISION: 1.0
DESCRIPTION: Initial Issue

AMSCO CANADA
1000 Highway 100
Saskatoon, Saskatchewan S7N 3A5
Canada
Tel: (306) 975-1000
Fax: (306) 975-1001
E-mail: info@amsco.ca
Web: www.amsco.ca

STATISTICAL DATA

A. Production

The survey consisted of six seismic lines (CCQ-002, CCQ-004 to 008). covering a total of 67 surface miles and requiring 290 shot holes drilled. The survey began January 19, 1969 and ended January 29, 1969, giving a total of 12 days thus giving an average daily production of 5.6 miles.

B. Personnel

i) Recording

1	Party Manager
1	Computer Clerk
1	Observer
1	Assistant Observer
4	Recording Helpers
2	Surveyors
2	Rodmen
1	Shooter
1	Shooter's Helper
2	Cable Truck Drivers
1	Mechanic
1	Mechanic's Helper
1	Supplyman

TOTAL 19 Men

ii) Drilling

4	Drillers
4	Drillers Helpers
3	Spare water truck drivers

TOTAL 11 Men

iii) Camp Attendants

	1	Cook
	1	Cook's helper
	1	Camp attendant
TOTAL	3	Men

GRAND TOTAL - 33 MEN

C. Equipment

i) Western Geophysical Vehicles

1	Analog recorder 36 traces, wheeled
1	Wheeled shooting truck (1 ton)
2	Wheeled cable units (3/4 ton)
1	Party Manager's pick-up (1/2 ton)
2	Survey pick-ups (3/4 ton)
1	Supply unit wheeled (3/4 ton)
2	Conventional Western drills - tracked
1	Western Sewell drill - wheeled
1	Flite top drill - wheeled
2	Western water trucks - wheeled
1	Portable powder magazine - wheeled
1	Portable cap magazine

ii) Pan American Petroleum Corporation Vehicles

1	Fold out kitchen - sleeper - wheeled
1	Fold out utility - sleeper - wheeled
1	Power trailer - wheeled
1	Gas trailer (Flite rental) - wheeled
3	Water tractor trucks - 4 ton

iii) Bruce Rome Construction Vehicles

1	D6 C bulldozer
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D. Mobilization and Recording Dates

The crew moved up the Simpson Trail from the Dilly Missile area into the East Flett area on existing seismic trails arriving on January 16, 1969. Shooting commenced on January 17, 1969 and the survey was completed by January 29, 1969.

E. Surveying

The survey was tied to the wellsite Murphy et al Netla M-31.

F. Conditions

No unforeseen difficulties were encountered in the area, the operation was normal for that time of year.

Field Procedure

A three hole pattern was used initially, this was changed to a single shot hole pattern with charge size varying from $1\frac{1}{2}$ - 150 lbs. of dynamite. The average charge size was 10 lbs. per hole.

Shot holes varied from 45' - 120' in depth in the area. The depth of the shot was determined by near surface lithology.

Data Processing

Near surface and elevation corrections were applied to a +700' datum plane.

Normal moveout corrections, scaling (average absolute amplitude), deconvolution (800-2000 ms gate) and filtering (3-18-36-66 cps) were applied to the data.

The processing was done by Pan American Petroleum Corporation in Calgary.

RESULTS AND INTERPRETATION

The seismic survey was conducted to further delineate the structural attitude of the Middle Devonian Carbonate.

Three maps were prepared:

- 1) Top Middle Devonian Carbonate
- 2) Pre-Devonian
- 3) Top Middle Devonian Carbonate - Pre-Devonian

Interpretation of the new seismic data has shown no reversal of the general steep south dip, as was indicated by the preliminary interpretation of line CCQ-001.

The data mapped suggests that the greatest possibility of encountering north dip, thereby producing a mappable closure would be between line CCQ-001 and 004.

The present seismic control on permit 6276 precludes an adequate evaluation. The failure of the 1969 program to show any leads tends to downgrade the permit area.

Respectfully submitted,

AMOCO CANADA PETROLEUM COMPANY LTD.

By:


J. L. Hudson

District Geophysicist

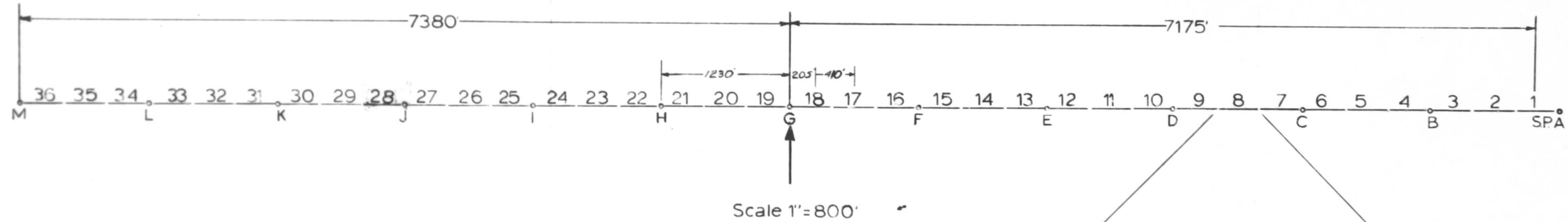
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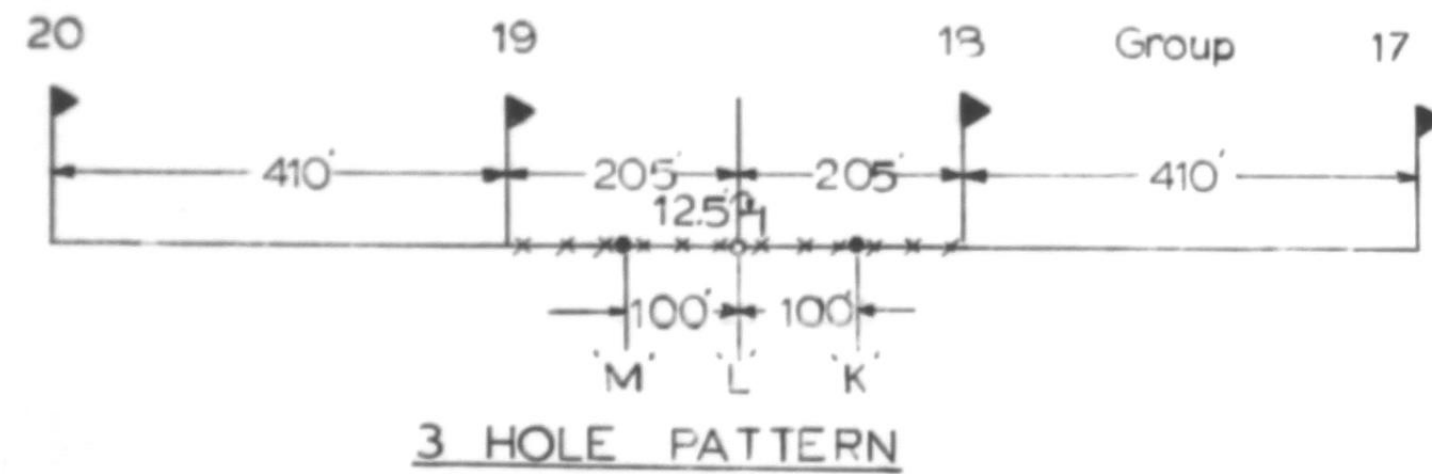
EAST FLETT

PARTY WESTERN #50

JAN.-FEB. 1969

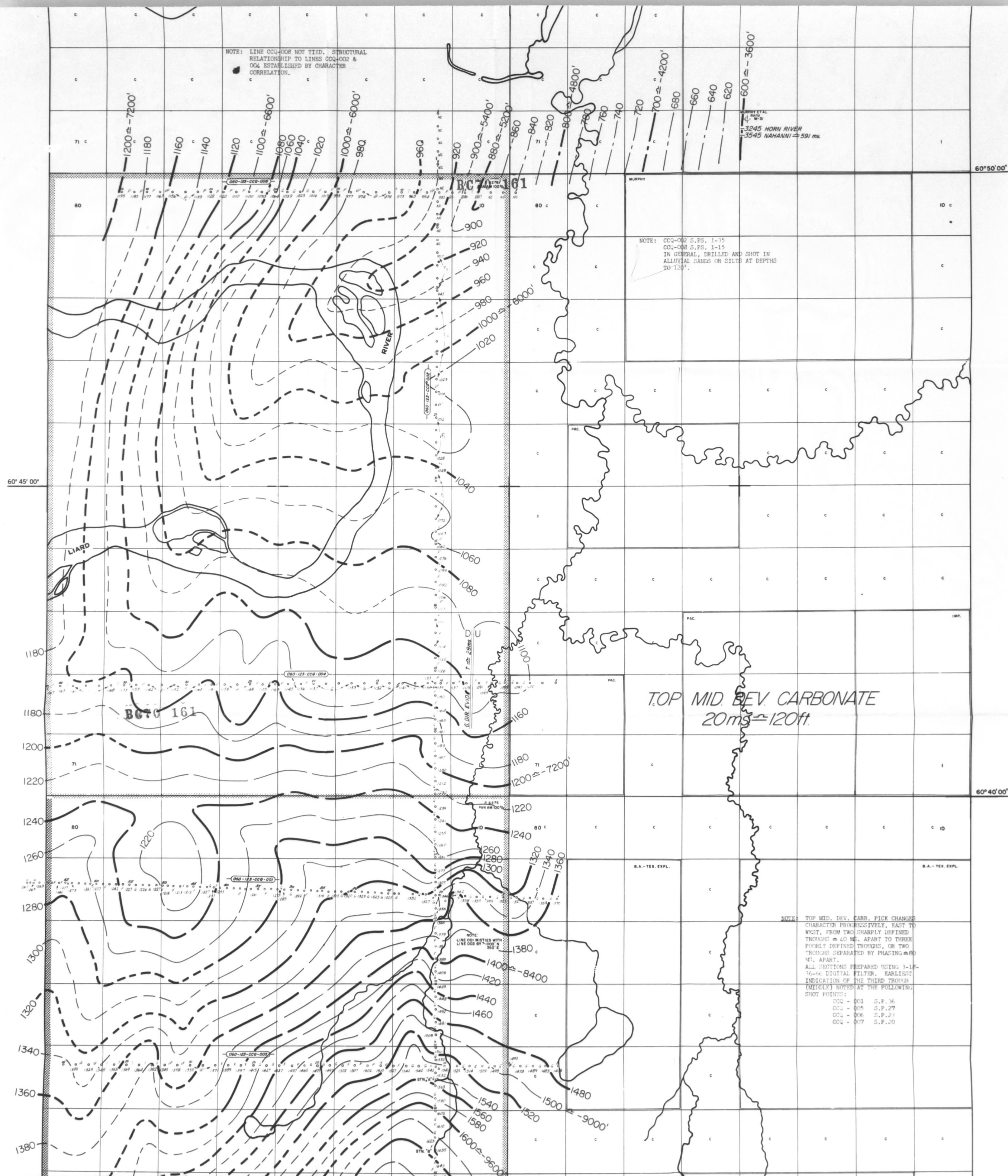


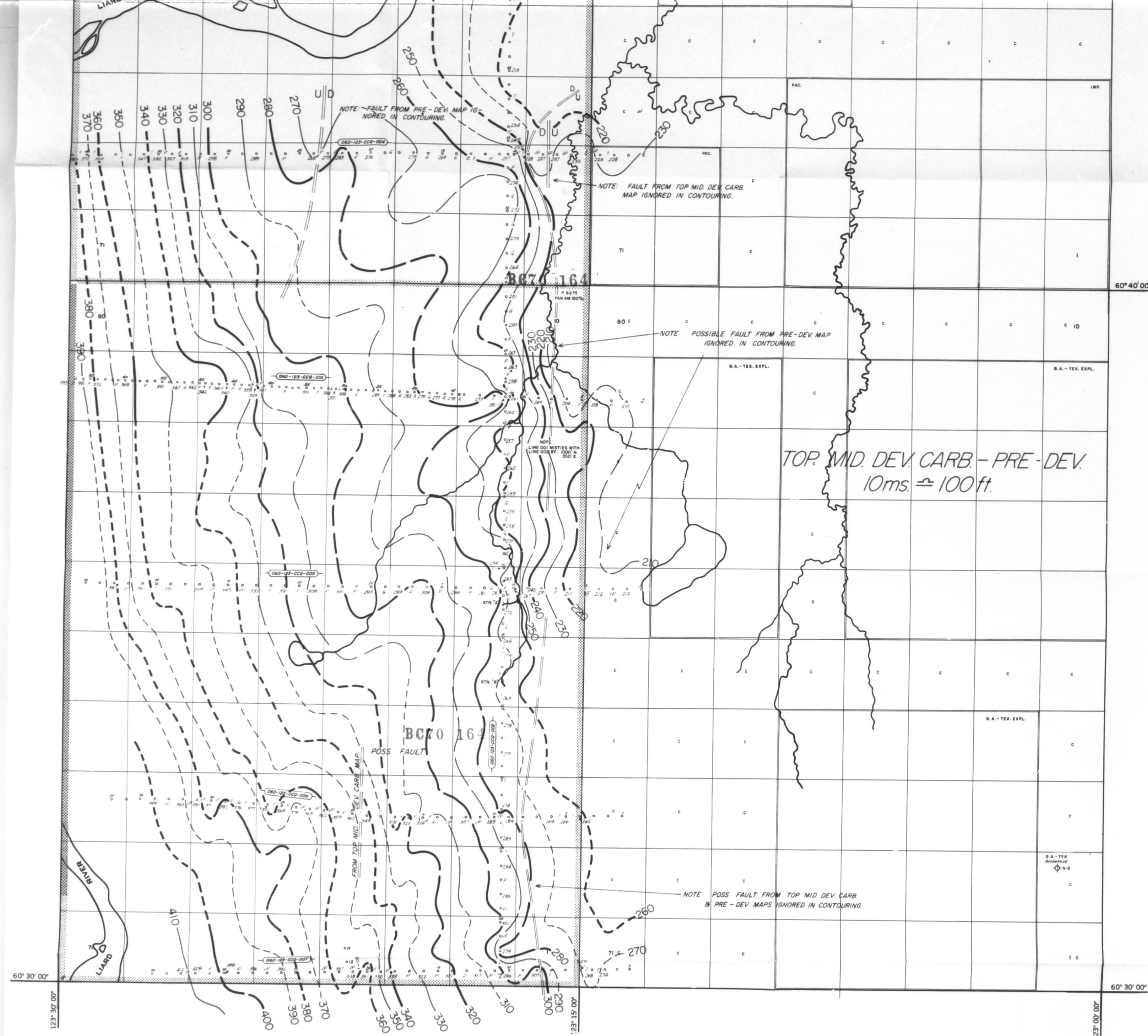
S.P.'G' DETAIL



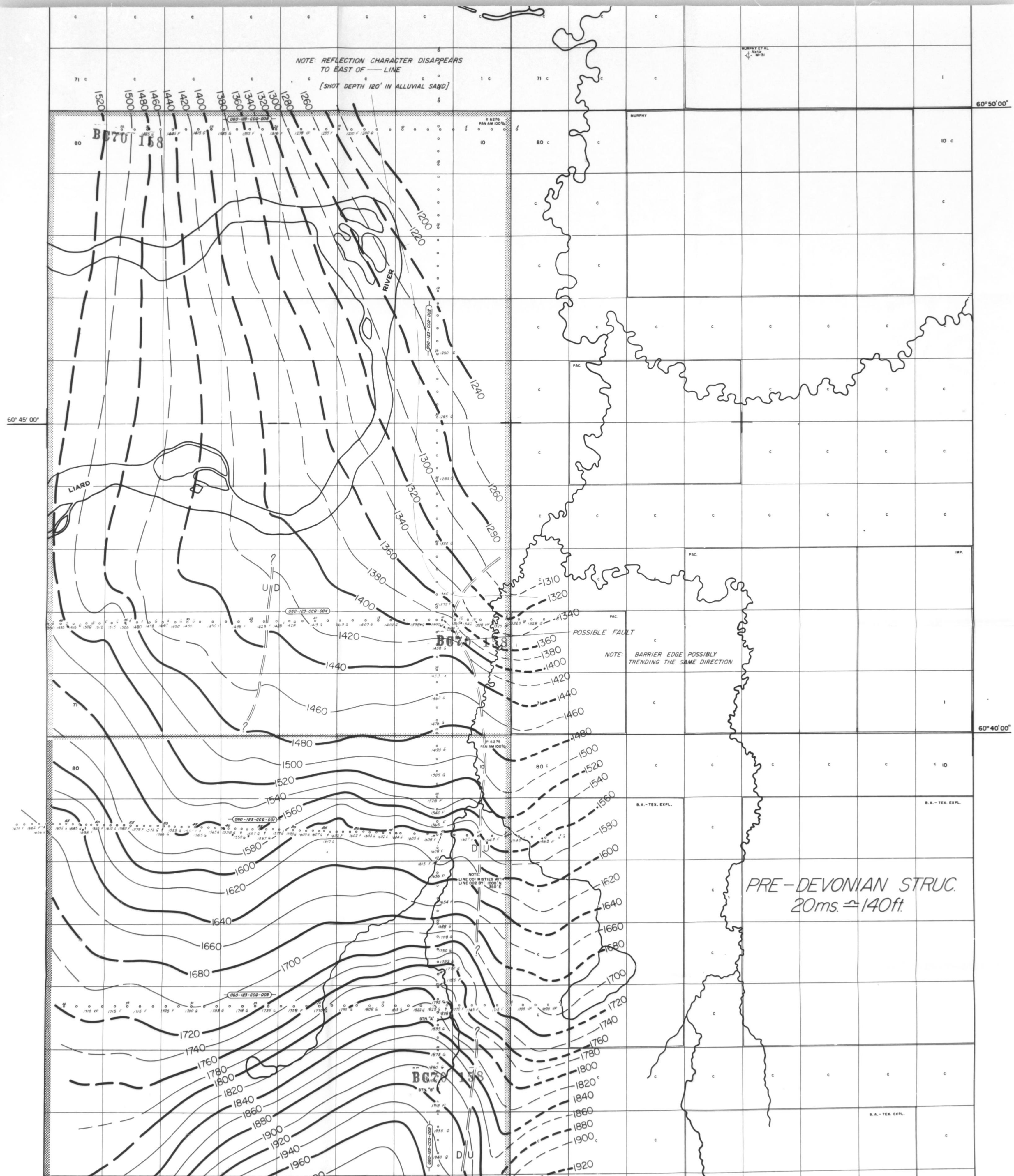
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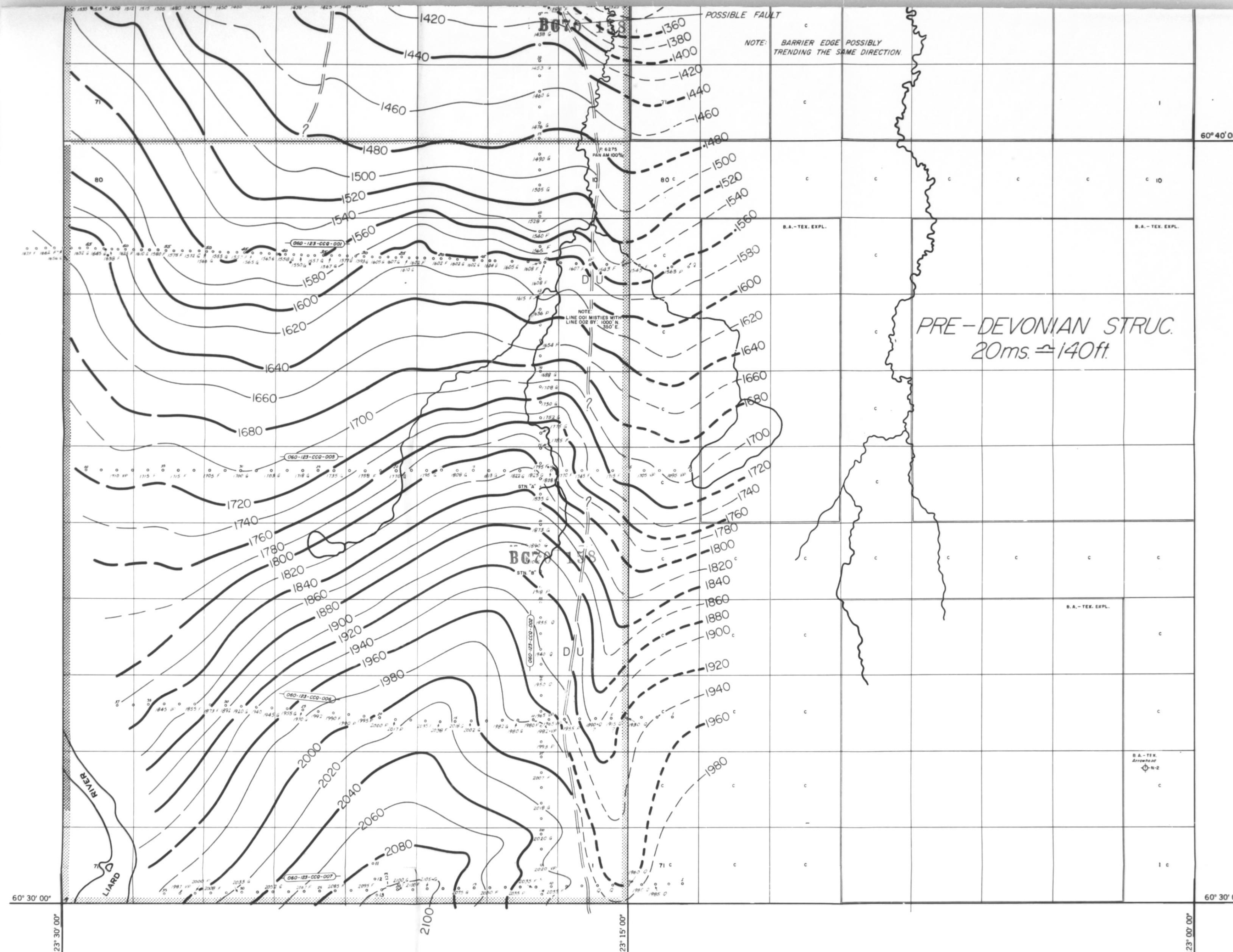




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MAP EVALUATION		SHOOTING HISTORY (Not in detail)				INTERPRETIVE HISTORY				AMOCO CANADA PETROLEUM COMPANY LTD.		
Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological).		INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE NO.	FINAL REPORT NO.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP	AREA: East Mt. Flett	GRID: CM-18 N.E.
———— Geological data ———— Reliable Geophysical Data - - - - - Qualitatively Reliable Geophysical Data - - - - - Unreliable Geophysical Data		SEPT. 1968	WESTERN SO	PAN AM	LINE CCG-001	6971	JULY 23, 1969	W. Le Bay	PAN AM	SW 74	PROVINCE: N.W.T.	SCALE: 1"=4000'
		JANUARY 1969	WESTERN SO	PAN AM	LINE CCG-002, 004, 006						HORIZON: PRE-DEVONIAN STRUCTURE	
											TYPE OF MAP: S.C.M.	CONTOUR INT. 20ms
											SHOT BY: WESTERN SO	FOR: PAN AM
											INCL. DATES: SEPT. 1968 & JAN. 1969	
											INTERP. BY: W. Le Bay	CO. AFFIL.: PAN AM
											REPORT NO. 6971	DATE: JULY 23, 1969
											REMARKS:	
											BC70 158	
											GEOLOGICAL INT: R.L. PEMBERTON	DATE: JULY 23, 1969
											FROM GEDPH REPORT No. (a)	DATED
											REMARKS:	
											CLASS 1	