

# MAR 19770034: WHITECOURT EAST

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REPORT ON  
QUARTZ MINERAL EXPLORATION PERMIT  
6876090005

August 2, 1977

19770034

ECONOMIC MINERALS
FILE REPORT No
<u>PHS-AF-031(1)</u>

J. R. Century Petroleum Consultants, Ltd.



REPORT ON PROGRESS OF EXAMINATION

Permit No. 6876090005

1. Geological Interpretation: (Maps and Cross-sections)
  - A. Nordegg Phosphorite Isopach (enclosure 1)
  - B. Correlations (enclosures 2 & 3)
  - C. Lithology (enclosed lithologs)
  - D. Core Analysis (enclosures 2 & 3)
  - E. Drill Stem Tests (enclosures 2 & 3)
2. Geochemical Analysis and X-Ray Mineralogy
  - A.  $P_2O_5$  % (enclosures 1, 2 & 3)
  - B. X-Ray Diffraction (enclosed X-Ray Diffraction patterns)
3. Expenditure during First Year (see attached schedule)
4. Work Program for 1977-78
  - A. Refinement and continuation of items 1 & 2 above -  
J. R. Century and the Geological Survey of Canada.
  - B. Research on the kinetics of in situ solution processes -  
Alberta Research Council and J. Hyne
  - C. Seismic interpretation of Nordegg paleotopography -
  - D. Estimated expenditures - \$5,000.00



## EXPENDITURES

Quartz Mineral Exploration Permit No. 6876090005

1. [REDACTED] P. Geol.

Technical Consulting Fee for geologic interpretation and preparation of report.

\$2,000.00

2. Paid Employees:

One full time technician -

[REDACTED] Petroleum Tech.

850.00

One part-time assistant and one part time draftsman

250.00

3. Outside Services:

Field Log Library, Rileys, Western Canadian Reproduction, ERCB, Laboratory costs for geochemistry and x-ray mineralogy.

600.00

4. Outside Consultants

University and Government Research and Consulting services. (Deemed value in lieu of expenditure)

1,200.00

5. Travel, Field Work, Long Distance calls

100.00

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Estimated Total Expenditure

\$5,000.00

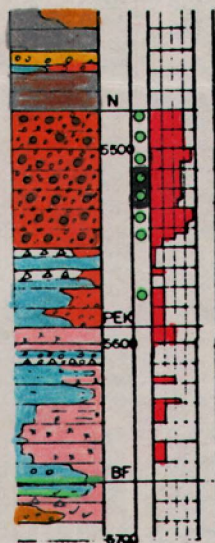


## CONCLUDING REMARKS

### Request for Waiver of Renewal Rental

The negative reaction of a number of corporations to the proposal for in situ solution extraction of phosphate indicates that industry is not currently prepared to risk a long-term investment of this kind. This is unfortunate; a domestic phosphate industry is so obviously in the national interest, and so potentially profitable, that this indifference is surprising. The Department of Energy, Mines and Resources recognizes the import, and the Alberta Research Council has favourably judged the technical merit of the project; but they are unable to support it financially. This lack of financial assistance is taxing to the continuation of research, and for this reason I request that the Minister waive rental fees for the upcoming year.





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7-17-59-1065

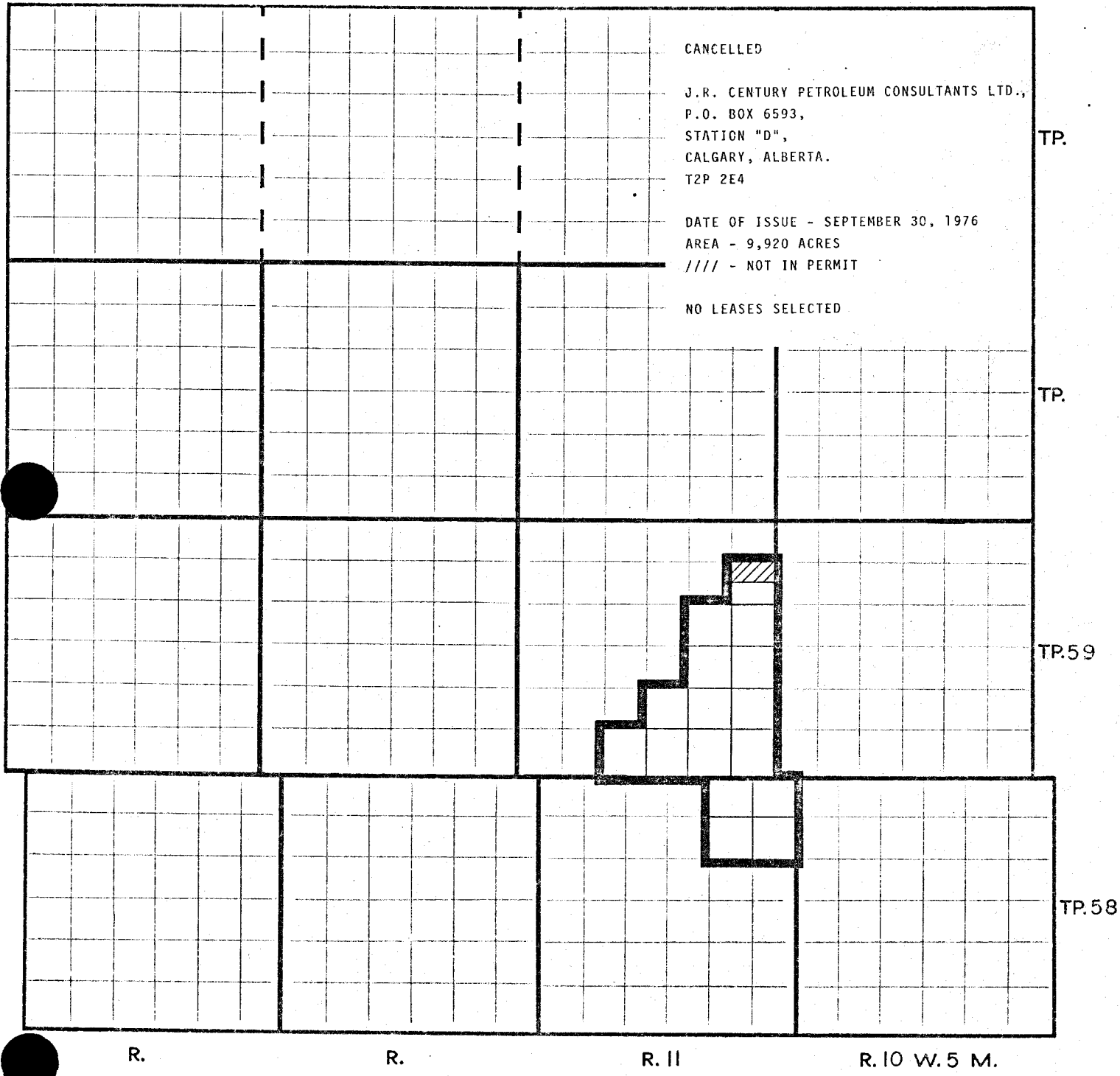






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QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090005





6-22-59-12w5

KB 2316

2/1969

11-14-59-12w5

KB 2591

2/1971

10-13-59-12w5

KB 2424

3/1969

7-9-59-11w5

KB 2620

10/1974

QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090006

WHITECOURT E.

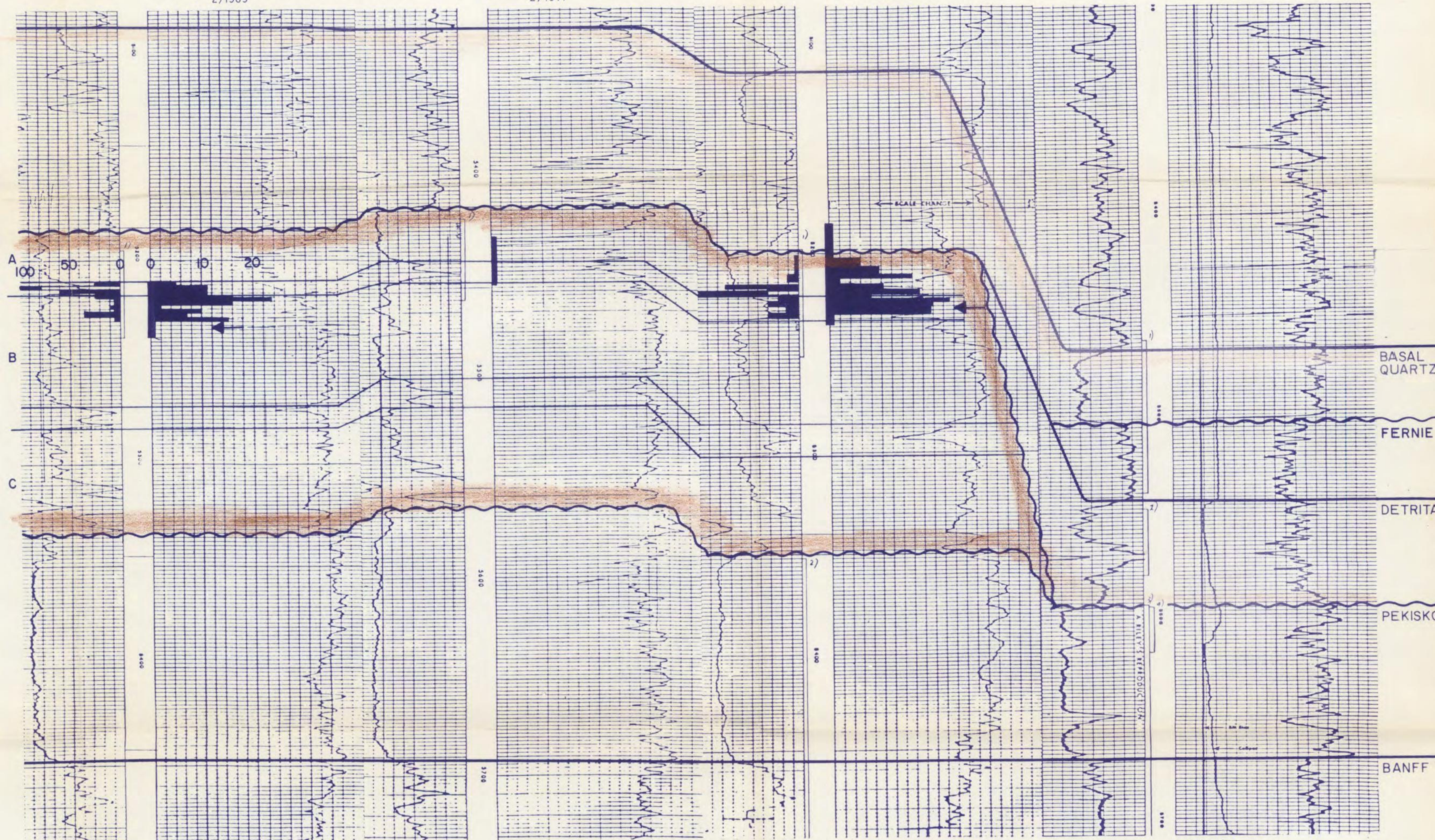
NORDEGG PHOSPHORITE  
STRATIGRAPHIC CROSS SECTION E-E'

Vert. Scale: 1" = 40'  
Datum - Top Banff

Enclosure 2

J.R. CENTURY PETROLEUM CONSULTANTS LTD.

DEC. 1976



DST 1) GTS-TSTM, 180' cond & ocm,  
270' wc oil, 1105' sw

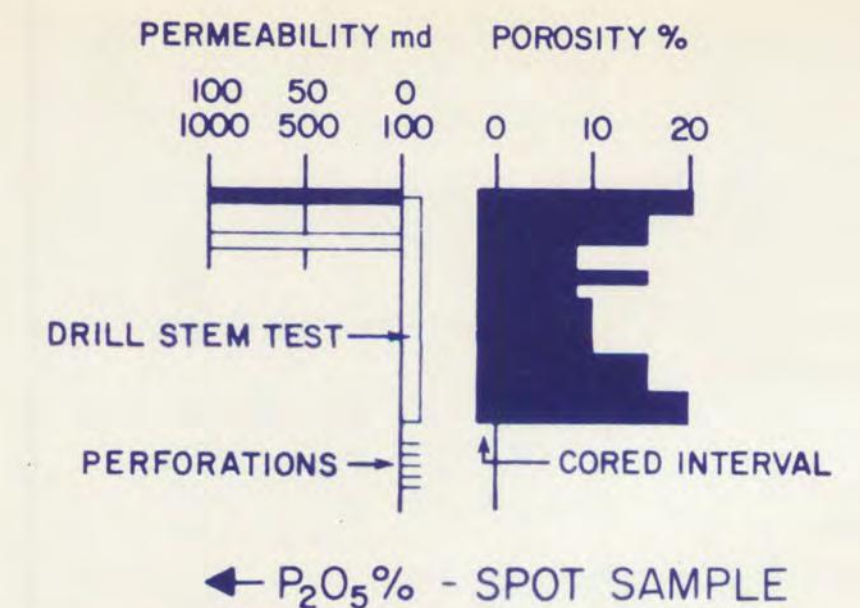
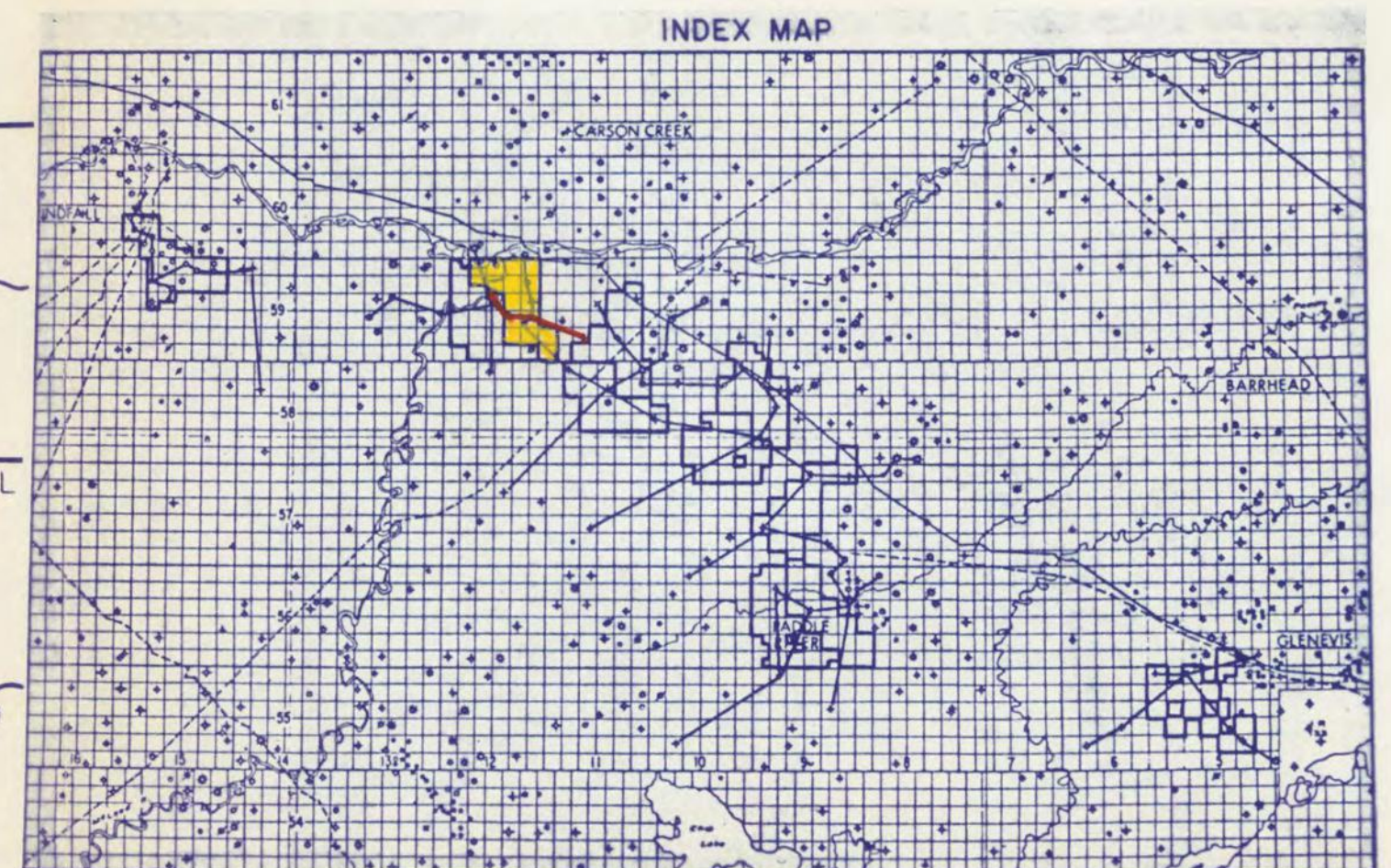
← P<sub>2</sub>O<sub>5</sub>%  
4.04

DST 1) 8.4 mmcf/d, 5' cond with tr ocw  
Perfs 1) 5 mmcf/d

DST 1) 4.22 mmcf/d, 20' w & cond  
2) 900' hv bl sul m, 3070' sul sw  
Perfs 5227-40) 1.65 mmcf/d at  
1180 psi

← P<sub>2</sub>O<sub>5</sub>%  
3.1

DST 1) 90' m  
2) 20' m  
3) 135 mcf/d, 29 bbls w  
4) 260 dec 60 mcf/d, 1900' hv oil,  
1000' sw

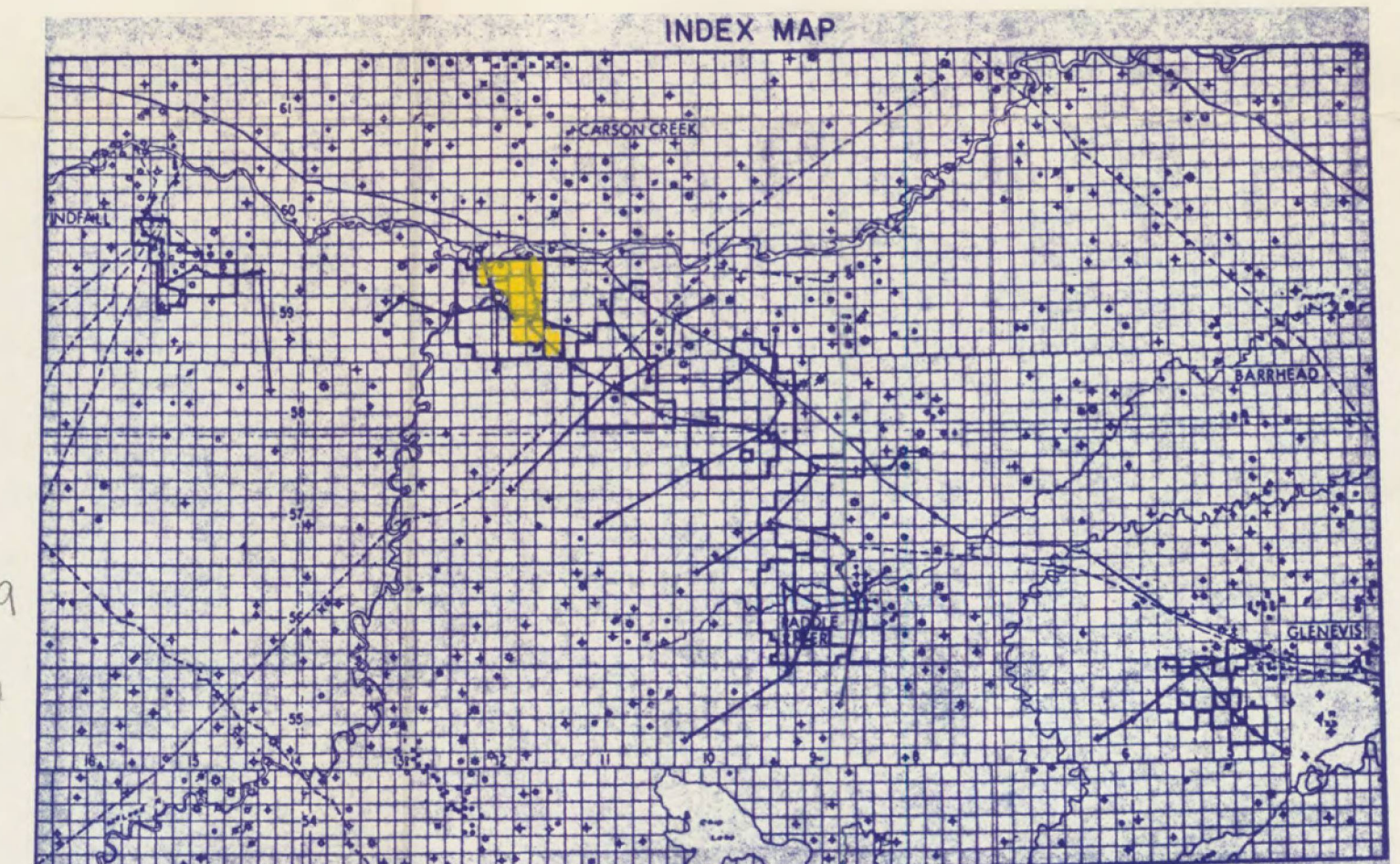
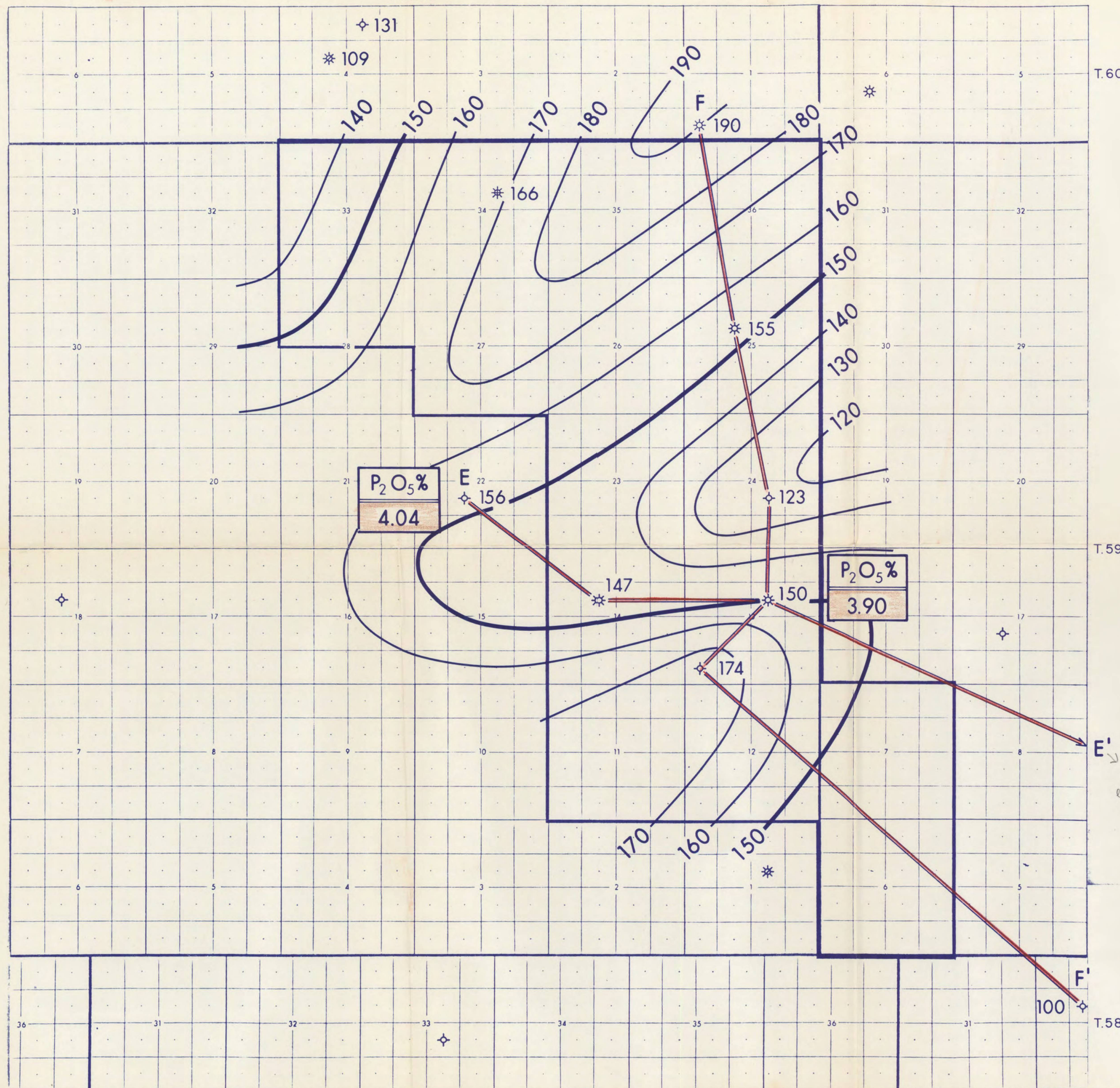


← P<sub>2</sub>O<sub>5</sub>% - SPOT SAMPLE



R.12w5

R.11w5



QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090006		
ISOPACH NORDEGG PHOSPHORITE WHITECOURT E.		
Scale: 2" = 1 mile	C.I. = 10'	Enclosure 1
J.R. CENTURY PETROLEUM CONSULTANTS LTD.		DEC. 1976

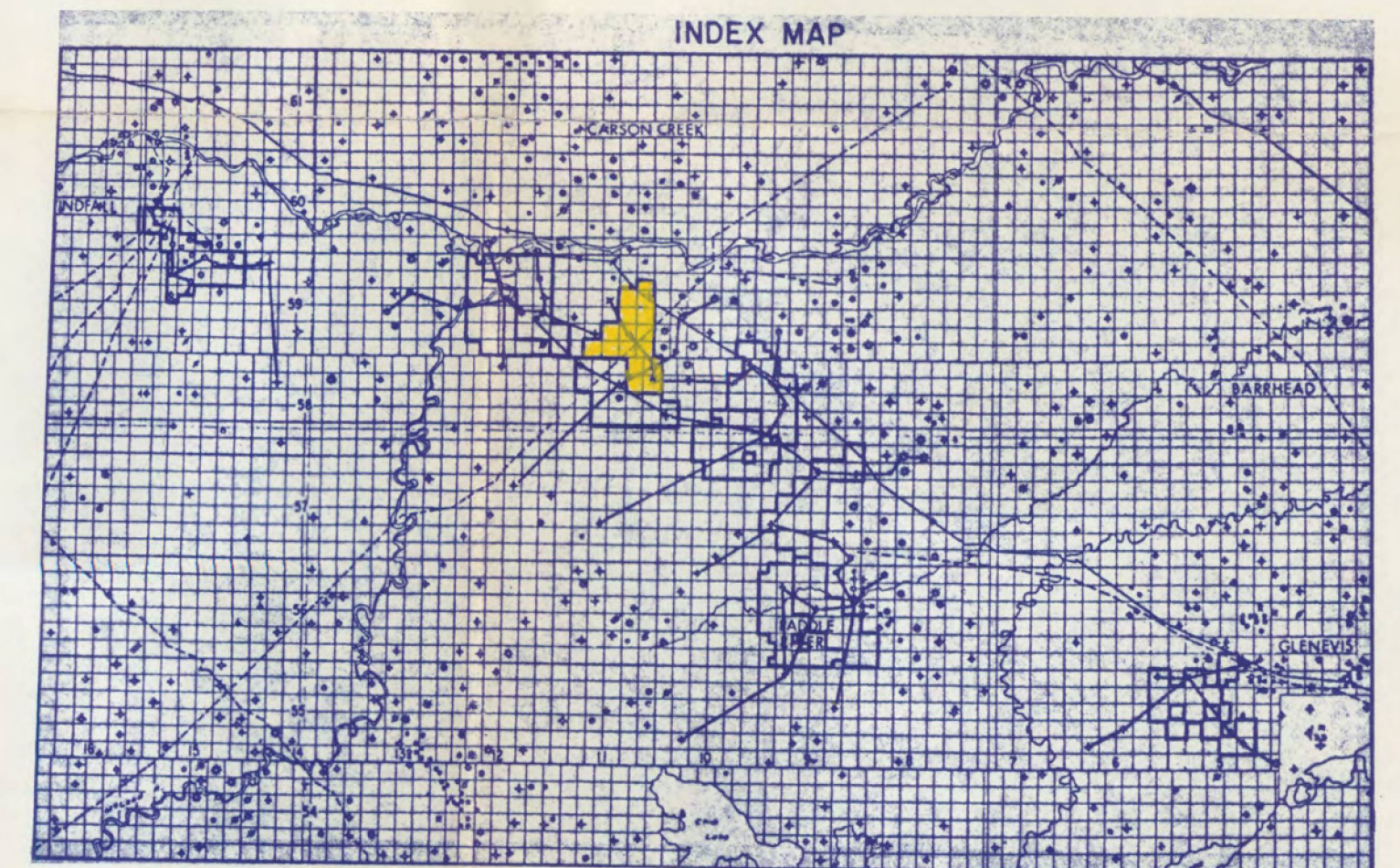
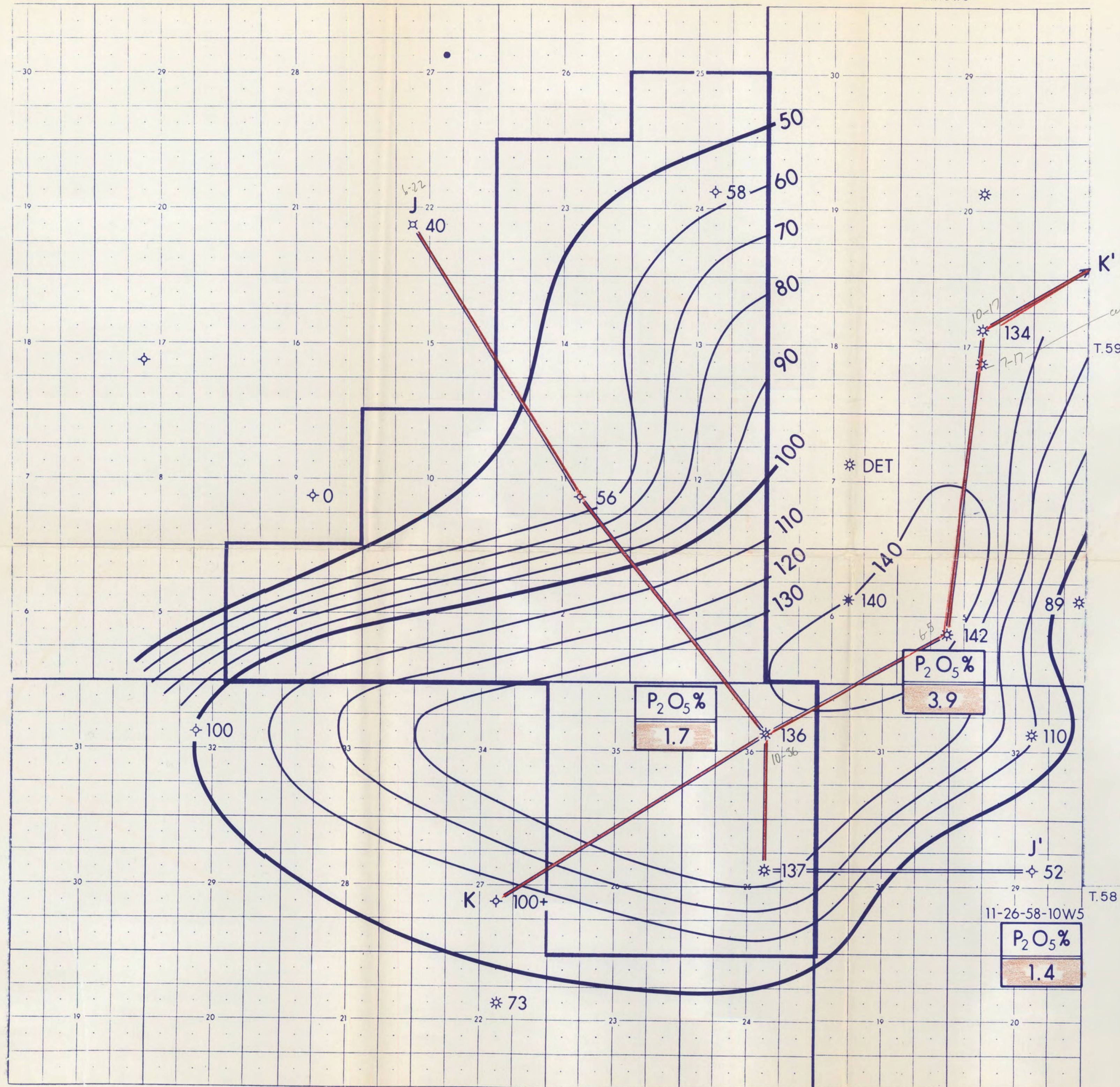






R.11w5

R.10w5



QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090005	
ISOPACH NORDEGG PHOSPHORITE BLUERIDGE N.	
Scale: 2" = 1 mile	C.I. = 10'
J.R. CENTURY PETROLEUM CONSULTANTS LTD.	Enclosure 1 DEC. 1976

19770034

(150)



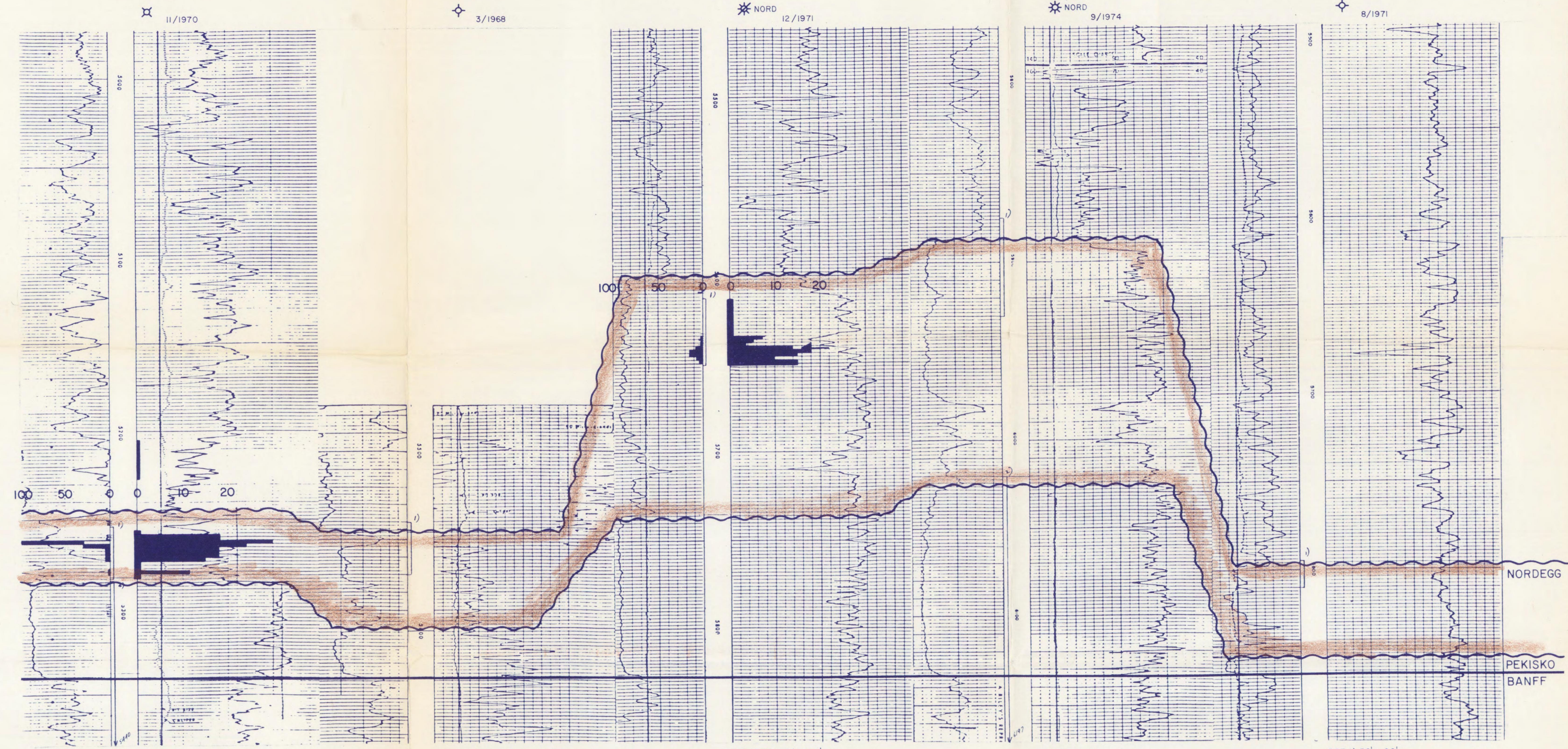
6-22-59-11w5  
KB 2480

7-11-59-11w5  
KB 2754

10-36-58-11w5  
KB 2968

10-25-58-11w5  
KB 3227

10-29-58-10w5  
KB 3028



DST 1) GTS-TSTM, 720' gc oil  
2) 180' 140 mcf/d, 100' gc oil  
Perfs 5298-5305) 127 bbls sw  
5258-62) 206 mcf/d

DST 1) GTS-TSTM, 105'm, 245' sw

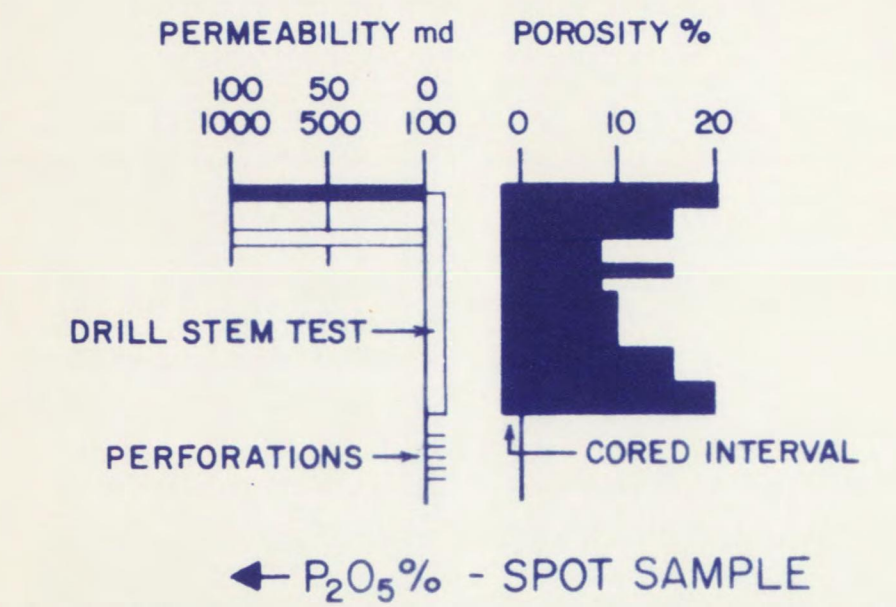
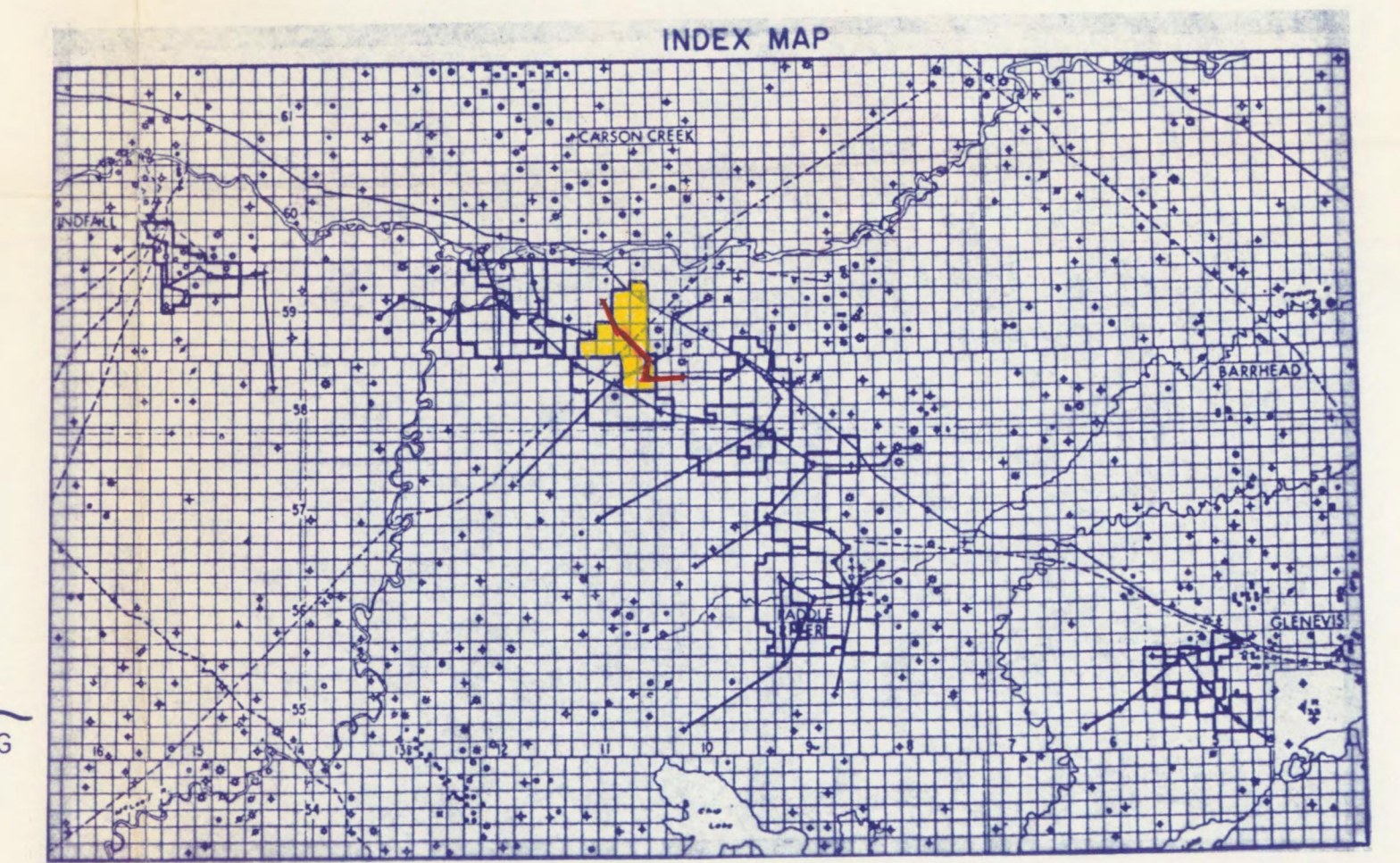
DST 1) 175 mcf/d, 270' gc m

DST 1) 960 mcf/d, 120' br sw  
2) GTS-TSTM, 280' ocm, 3870' oc br w

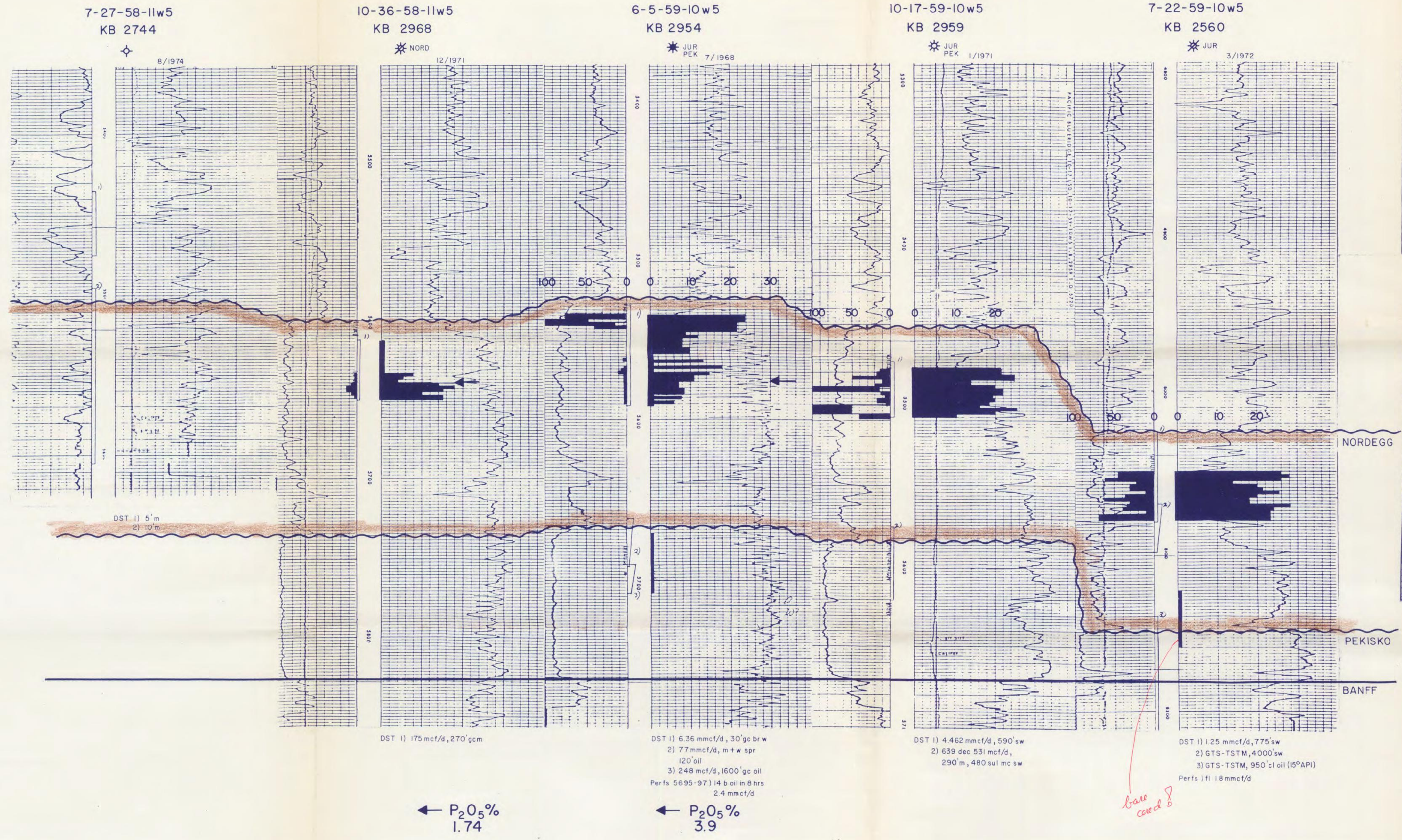
DST 1) 50'm, 90' sw

← P<sub>2</sub>O<sub>5</sub>%  
1.74

QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090005  
BLUERIDGE N.  
NORDEGG PHOSPHORITE  
STRATIGRAPHIC CROSS SECTION J-J'  
Vert. Scale: 1" = 40'  
Datum - Top Banff  
Enclosure 2  
J.R. CENTURY PETROLEUM CONSULTANTS LTD. DEC. 1976







QUARTZ MINERAL EXPLORATION PERMIT NO.6876090005

BLUERIDGE N.

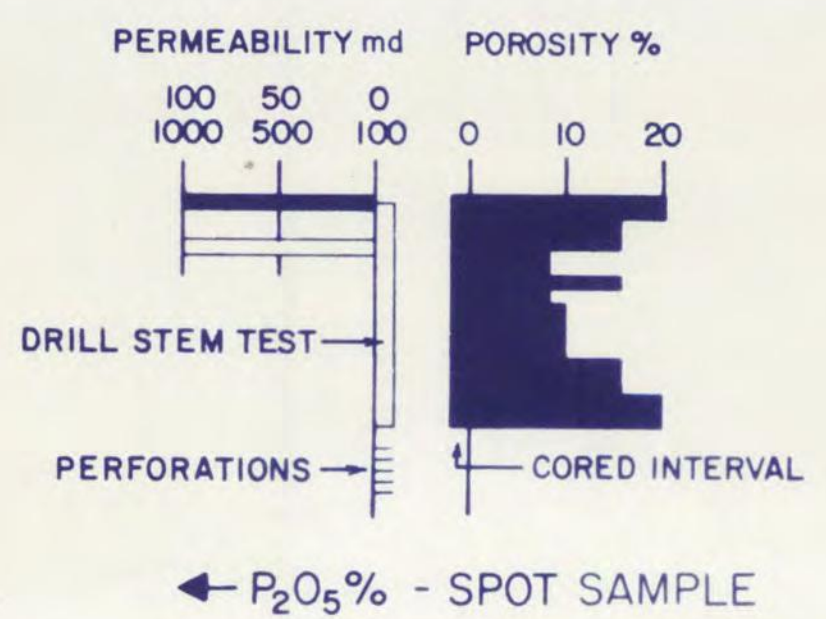
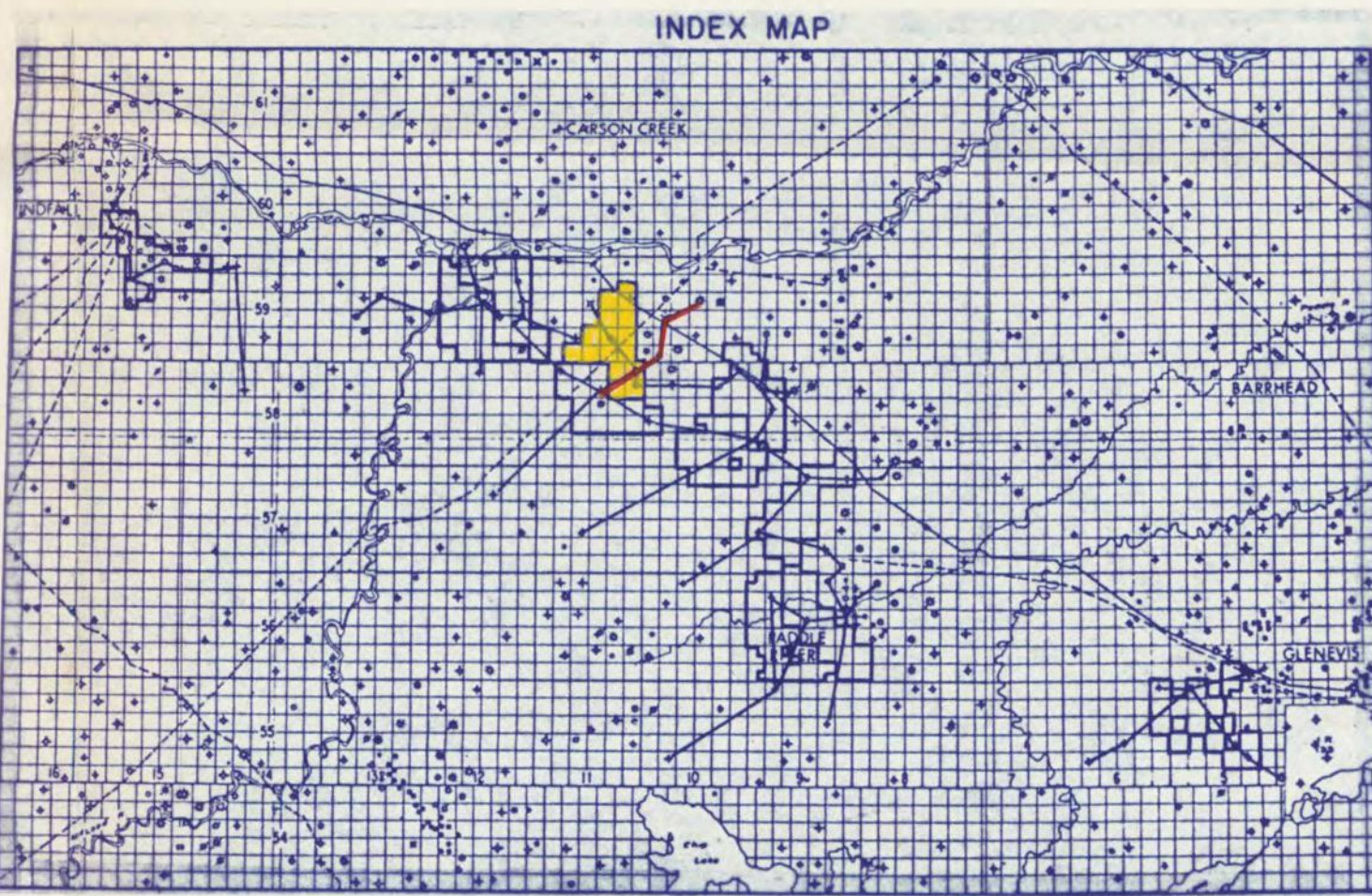
NORDEGG PHOSPHORITE

STRATIGRAPHIC CROSS SECTION K-K'

Vert. Scale: 1"=40'  
Datum - Top Banff

Enclosure 3

J.R. CENTURY PETROLEUM CONSULTANTS LTD. DEC. 1976





4-1-60-12w5

KB 2274

BL 11/1974

11-25-59-12w5

KB 2387

 JUR 1/1970

7-24-59-12w5

KB 2410

10/1971

10-13-59-12w5

KB 2424

 NORD  
3/1969

4-13-59-12w5

KB 2668

12/1961

11-32-58-11w5

KB 2736

9/1969

QUARTZ MINERAL EXPLORATION PERMIT NO. 6876090006

WHITECOURT E.

NORDEGG PHOSPHORITE  
STRATIGRAPHIC CROSS SECTION F-F'

Vert. Scale: 1" = 40'  
Datum - Top Banff

Enclosure 3

J.R. CENTURY PETROLEUM CONSULTANTS LTD.

DEC. 1976

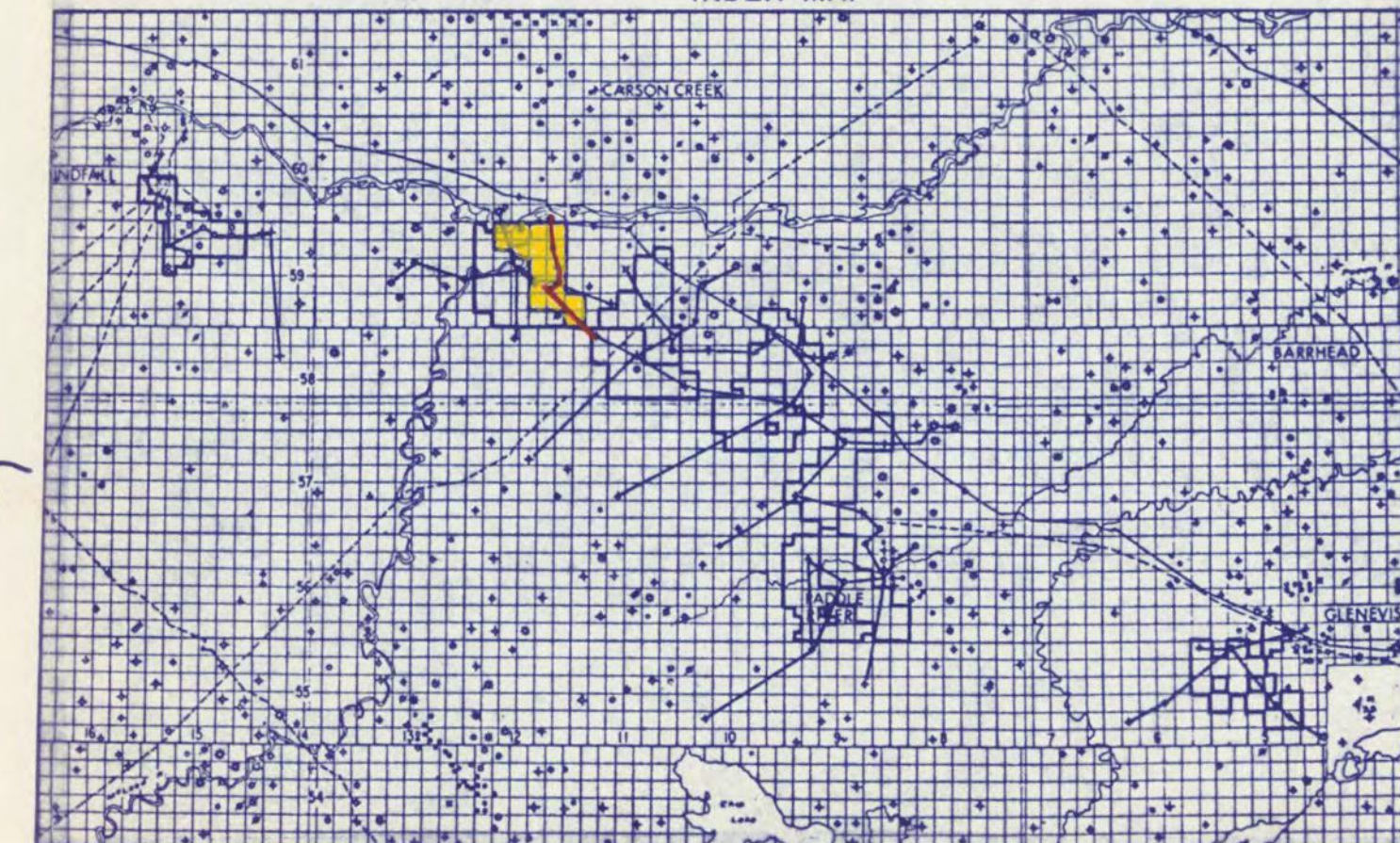
BASAL QUARTZ

NORDEGG

PEKISKO

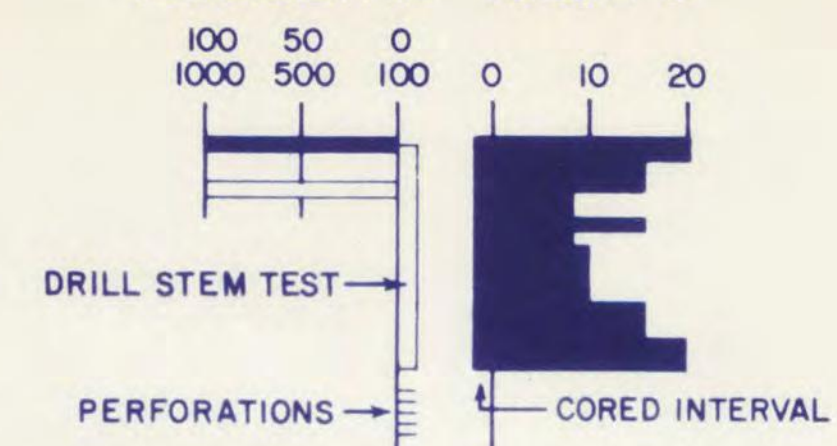
BANFF

INDEX MAP



PERMEABILITY md

POROSITY %



← P<sub>2</sub>O<sub>5</sub>% - SPOT SAMPLE

←  $P_2O_5$  %

DST 1) 4.02 mmcf/d, 1' cond  
2) 3.4 mmcf/d, 135' cond, 135' fr w  
3) 3 mmcf/d, 450' mc fr w  
4) GTS-TSTM, 3520' brsw

DST 1) GTS-TSTM, 270' mcsw, 900' bl sw  
2) 4.527 mmcf/d, 40' cond, 30' bl w

DST 1) 80' m

DST 1) 4.22 mmcf/d, 20' w & cond  
2) 900' hv bl sul m, 3070' sul sw  
Perfs 5227-40) fl 1.65 mmcf/d  
at 1180 psi

No DST's

DST 1) 260' ocm