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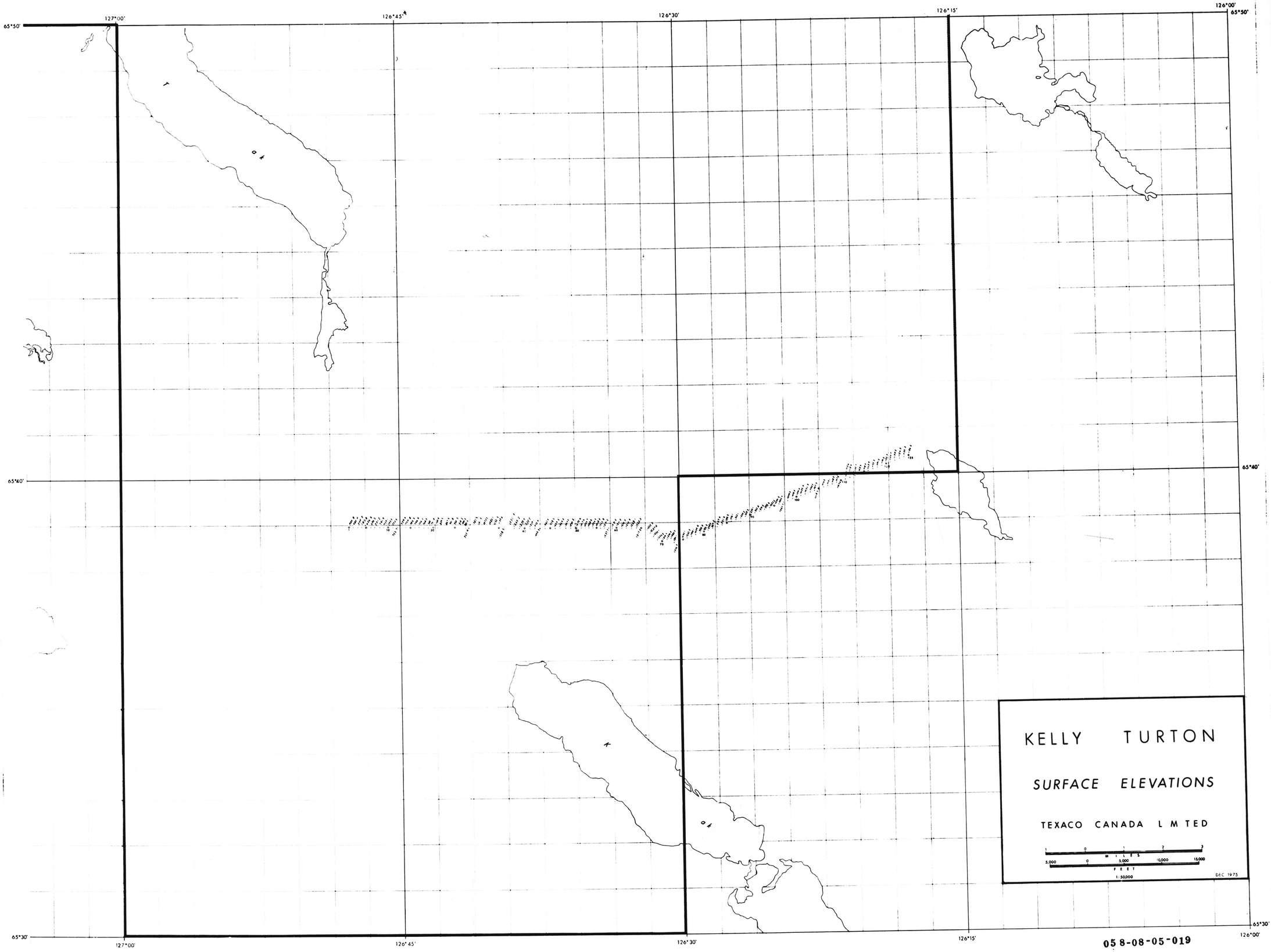

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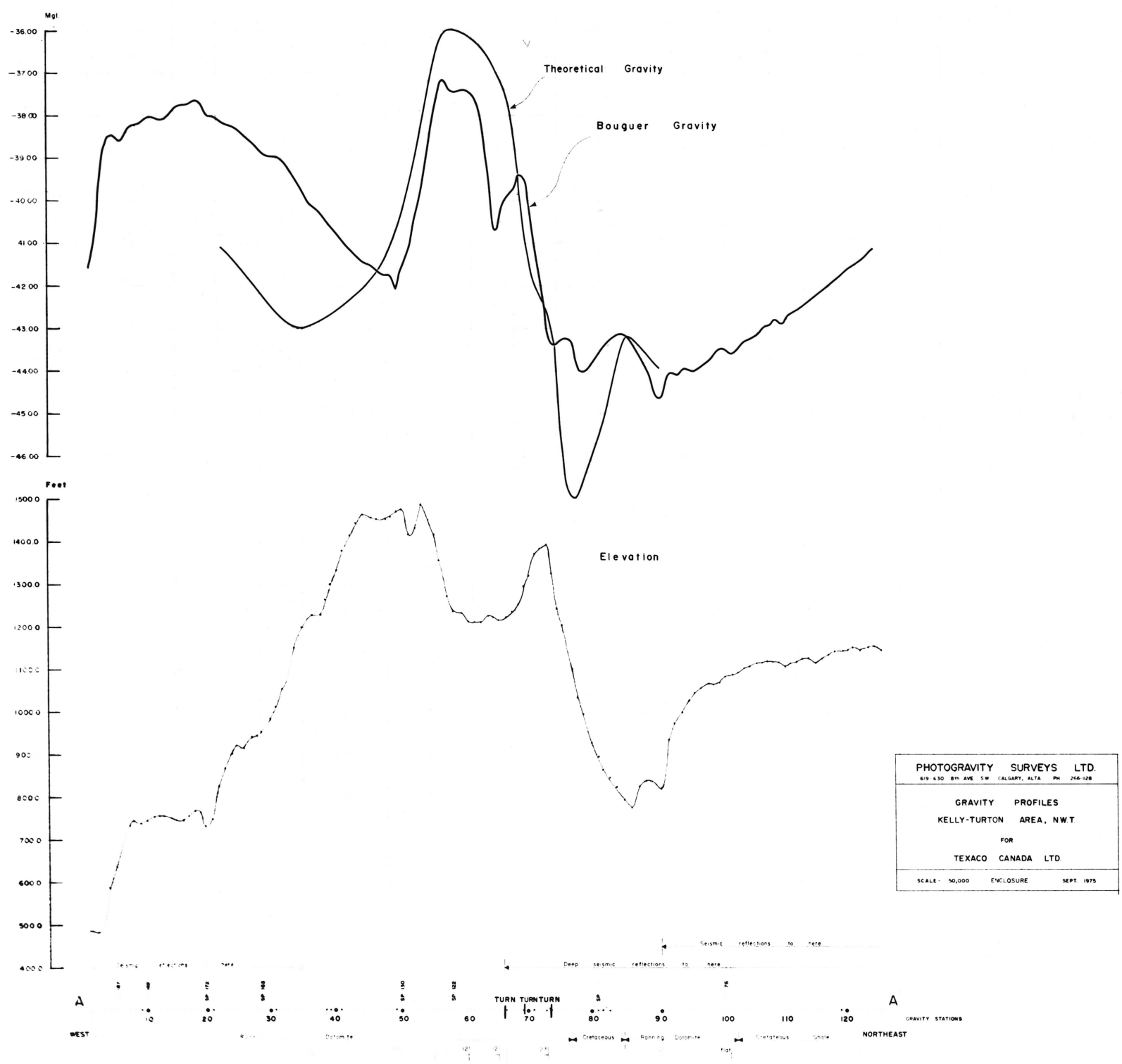


PHOTOGRAVITY SURVEYS LTD.
619 630 8th AVE SW CALGARY, ALTA PH 266-1128

GRAVITY PROFILES
KELLY-TURTON AREA, N.W.T.
FOR
TEXACO CANADA LTD.

SCALE - 50,000 ENCLOSURE SEPT. 1975

058-08-05 019

GRAVITY SURVEY
KELLY-TURTON LAKES NWT
FOR
TEXACO CANADA LTD.

REPORT OF GRAVITY SURVEY

KELLY-TURTON LAKES AREA, N.W.T.

1975

Permittee: Texaco Canada Limited

Contractor: Photogravity Surveys Limited

Permits: 5695 - 98; 5700 - 02; 5705, 5706.

Author: T. Bell

Date of Report: December, 1975

Project Number: 58-8-5-75-1

Oil and Gas Operation Unit
Oil and Mineral Division
FEB 2 1976
Ottawa, Canada
Indian Affairs & Northern Development

D.I.A.N.D.
OTTAWA
COPY

058-08-05-019

YUKON AND N.W.T.

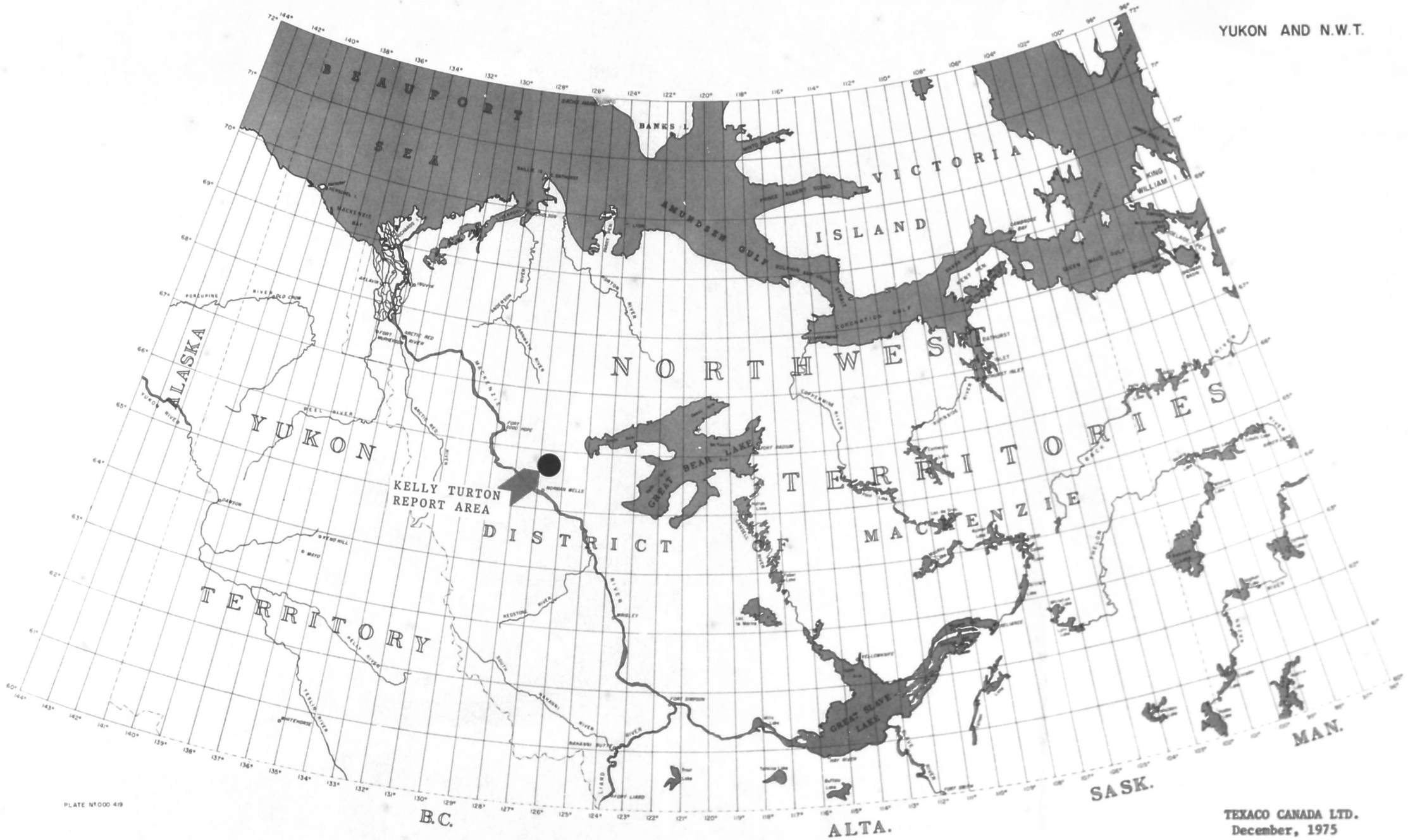
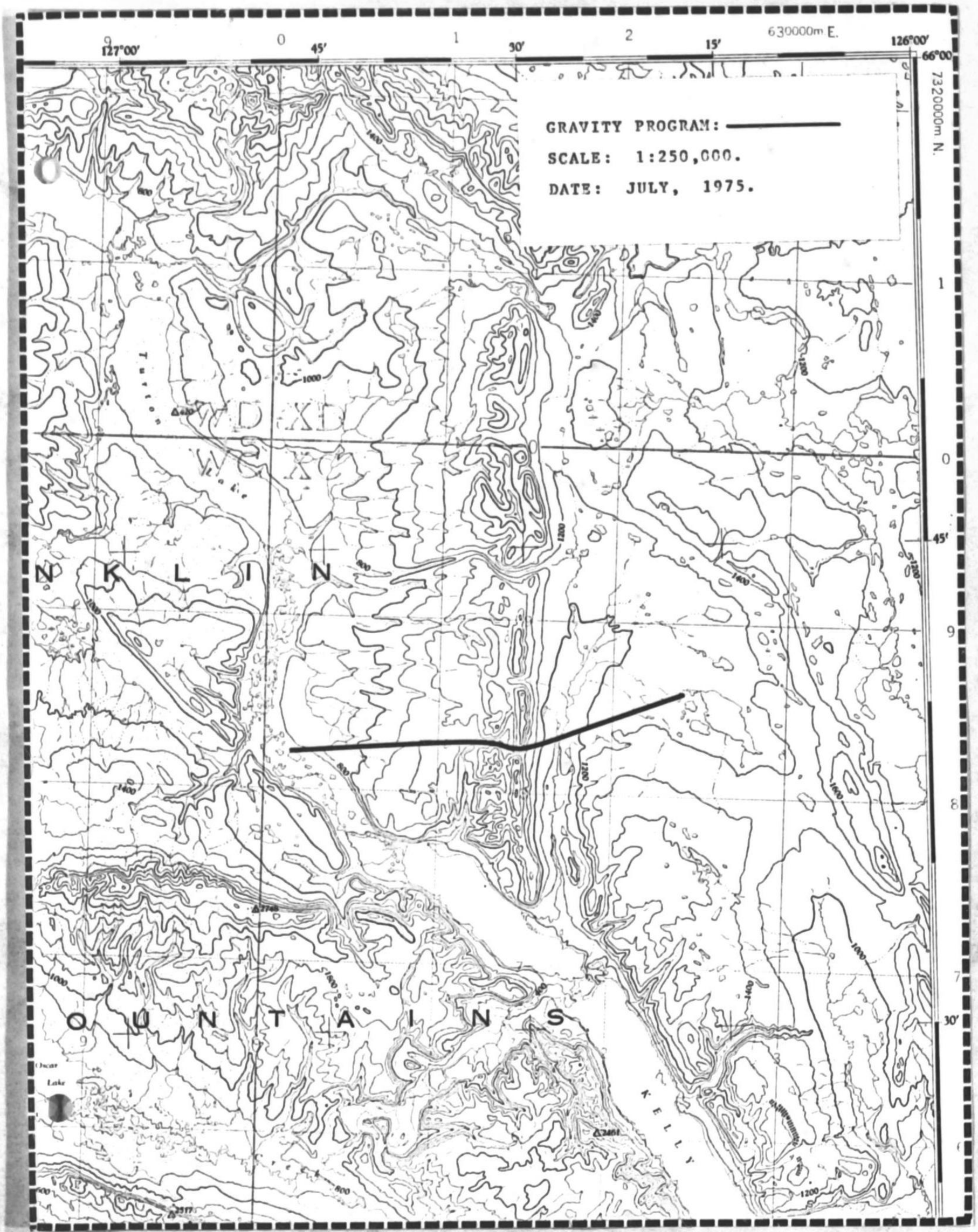


PLATE N°000 4/9

TEXACO CANADA LTD.
December, 1975


630000m E.
127°00'
45'
30'
15'
126°00'
66°00
7320000m N.
GRAVITY PROGRAM:
SCALE: 1:250,000.
DATE: JULY, 1975.
MOUNTAINS
Lake

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INTRODUCTION

The survey was located in the Franklin Mountains near Kelly Lake, in the Northwest Territories, approximately 25 miles north of the town of Norman Wells. The program consisted of one fifteen mile line and was conducted by Photogravity Surveys Ltd. of Calgary, Alberta. Field operations commenced on July 14, 1975 and were completed on July 18, 1975. The field operations were under the direction of Mr. Dale Waddell (Party Chief and Surveyor) and supervised by Dr. G.K. Sirrine, Photogravity Surveys, Ltd. Headquarters were established in Norman Wells with transportation to and from the field operations supplied by Okanagan Helicopters Ltd.

The gravity survey was run along a pre-existing seismic trail. Readings were taken every 1/8 mile.

FINAL FIELD REPORT

ABSTRACT:

A. Party History

1. Area Location Kelly-Tu[illegible]on Area, N.W.T.'s

a. Headquarters town Norman Wells
b. County or parish
c. State or province N.W.T.'s
d. Country

2. Survey Period

a. Date begun July 14, 1975
b. Date completed July 18, 1975
c. Total months
d. Total weeks
e. Total working days five

3. Key Personnel

a. Party Chief Dale Waddell
b. Computer
c. Meter Operator(s) Kim Sirrine

d. Surveyor(s) Dale Waddell

e. Rodman Bill Sefcik

B. Equipment

1. Vehicles

a. No. & make, 2-wheel drive

b. No. & make, 4-wheel drive

c. Description of extra equipment

2. Aircraft

a. No. of units one copter
b. Description Bell 206B
c. Av. daily flight time 1.8 hours
d. Days lost due to
   1. weather 0
   2. equipment failure 0
   3. other (explain) _____

3. Instrumentation

a. Gravity Meter(s) and Calibration Factor(s) (C)

   1. L&R Meter G237 C= _____
   2. _____ C= _____
   3. _____ C= _____

b. Magnetometer(s), Make and Type

   1. _____
   2. _____
   3. _____

c. Surveying Instruments, Make and Type

   1. TIA Wild
   2. T16 Wild
   3. _____

C. Survey Statistics

1. Total Area (sq mi) 15 line miles
2. Total No. of Stations 126
3. Total Cost (includes reimbursibles) $6,400.00
4. Ave. Sta. Spacing 8 per mile
5. Ave. Sta. Density (Sta./sq. mi) _____
6. Ave. Cost per Station approx $50.00

OPERATIONAL PROCEDURES:

A. Surveying

1. Station Marking
   a. Numbering sequence(s) 1 - 126
   b. Material for sta. markers _____
   c. Flagging colors _____

2. Vertical Control
   a. Method
      1. Differential leveling _____
      2. Vertical angles X
      3. Stepping _____
      4. Water levels _____
      5. Theodolite X

   b. Datum Plane
      1. Sea level X
      2. Other (explain) _____
      3. Established by USCGS & USGS _____

   c. Quality Control
      1. Max. allowable error of closure ___
      2. No. of elevation ties _____
      3. Ave. error per tie _____

3. Horizontal Control
   a. Method
      1. Spotting _____
      2. Stadia survey X
      3. Tellurometer _____
      4. Radio navigation (specify) _____
      5. Other _____

   b. Geodetic Control
      1. USCGS, USGS other triangulation sta. _____
      2. Topographic maps _____
      3. Aerial Photography _____

   c. Quality Control
      1. Max. allow. error of closure _____
      2. No. of horizon ties _____

B. Gravity

1. Gravity Bases
   a. Number of bases 1
   b. Max. allow. error of closure per leg of base network _____

c. Gravity datum plane
   1. Assumed value _____
   2. Estab. from prev. survey X
   3. Other _____

d. Gravity base differences obtained by "double running" so that a minima of two separate drift determinations were made on each pair of bases.

2. Metered Stations

a. Allowable "drift" interval all day
b. % repeat readings _____
c. Allowable error of repeat readings _____
d. Ave. error of repeat readings _____

GRAVITY COMPUTATIONS:

A. Elevation Correction Factor

1. Method of Determination

a. Density profile _____
b. Statistical (triplet) summation _____
c. Surface sampling _____
d. Other surface outcrop is dolomite & used density of 2.8 gms. per cc for a factor of 0.0583

2. Formation(s) and Respective Factor(s) used in Survey

a. Ronning dolomite - .05833
b. _____
c. _____
d. _____

3. Gravity ~~was~~ (was not) adjusted from formation to formation by Photogravity's digital program.

B. Latitude Correction

1. The latitude correction used to reduce the data was (was not) based on the 1930 International Gravity Formula:

$$g_1 = 987.049\ (1 + 0.0052884 \sin^2 \phi - 0.0000059 \sin^2 2\phi)$$

where g_1 = theoretical gravity of latitude correction in gals
ϕ = latitude

2. 980 gals were arbitrarily subtracted from the theoretical values for the purpose of:

   a. facilitating the computations X
   b. tieing to previous data _____

3. Method of determination

   a. Computing from station latitudes _____
   b. Proportionately scaling between even 5 mgl. correction lines X
   c. Computing from coordinate tables _____
   d. Other (explain) _____

C. Terrain Correction

1. Need

   Terrain corrections were ~~[illegible]~~ necessary due to the nature of the topography.

2. Procedure

   a. Inner zone corrections through Zone D were read by surveyors and meter operators in the field.

   b. Outer zone corrections, Zone E through Zone I were computed from topographic sheets in the ~~Houston~~ Calgary ~~(Field)~~ Office.

   c. Corrections were based on those compiled by Sigmund Hammer (see "Terrain Corrections for Gravimeter Stations". Geophysics. IV, 1930).

3. Comments

_____
_____
_____
_____

D. Final (Bouguer) Gravity Computation

Final gravity values were computed by the following equation:

$G = g_o - g_1 + g_t + Kh + C$

where G = final (Bouguer) gravity

g_o = observed gravity corrected for drift and calibration

g_1 = latitude correction

g_t = terrain correction

K = elevation correction factor

h = elevation above datum plane

C = survey constant

E. Special Computations (list and explain any used)

Area Line 2

Location Norman Wells

Party No. _____

PHOTOGRAVITY SURVEYS LTD.

COMPUTATION AND IBM SHEET

K factor _____ $\bar{K}$ _____ (42-44)

Extra Ident. _____ (7-8, 10-11) $\bar{E}$ _____ (45-49)

Calib. Factor _____ (30-33) C _____ (50-54)

.059608 .058332 .059608 | .058332

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page	2.7σ	Elev. Corr. 2.8σ	Lat. Corr. 17-21	Adj. Rd.(G_o) 22-26	Date			T. C. 27-29	G_f σ 2.7σ	σ 2.8σ	K_1 34-36	$\bar{E}$ 37-41
01		484.8	1	28.90	28.28	338.47	268.21	7/25/75			.39	-40.97	-41.59		
02		482.0		28.73	28.12	.47	269.33				.39	-40.82	-40.63		
03		500.3		29.82	29.18	.47	269.63				.63	-38.39	-39.03		
04		542.6		35.04	34.29	.47	265.05				.63	-37.75	-38.50		
(187) 05		636.5		37.94	37.13	338.47	262.24				.63	-37.66	-38.47		
06		696.5		41.52	40.63	.48	258.66				.50	-37.78	-38.67		
(185) 07		731.5		43.60	42.67	.48	256.89				.66	-37.38	-38.31		
(184) 08		741.9	1	44.22	43.28	.48	256.42				.53	-37.31	-38.25		
(183) 09		739.1	2	44.06	43.11	.48	256.71				.45	-37.26	-38.21		
(182) 10		743.5		44.32	43.37	338.46	256.55				.47	-37.14	-38.09		
(181) 11		752.5		44.86	43.89	.48	256.02				.62	-36.99	-37.95		
(180) 12		753.7		44.93	43.96	.48	255.93				.44	-37.18	-38.15		
(179) 13		754.6		44.98	44.02	.47	255.94				.37	-37.18	-38.14		
(178) 14		750.8		44.75	43.80	.47	256.33				.31	-37.08	-38.03		
(177) 15		746.3		44.49	43.53	338.47	256.63				.31	-36.84	-37.80		
(176) 16		746.4	2	44.49	43.54	.47	256.61				.31	-36.86	-37.81		
(175) 17		756.0	3	45.06	44.10	.47	256.29				.35	-36.82	-37.78		
(174) 18		768.5		45.81	44.83	.47	255.62				.36	-36.68	-37.66		
(173) 19		764.1		45.55	44.57	.47	255.92				.34	-36.66	-37.64		
(172) 20		731.4		43.60	42.66	338.47	257.46				.37	-37.04	-37.98		
(171) 21		749.4		44.67	43.71	.46	256.28				.40	-37.11	-38.07		
(170) 22		824.2		49.13	48.08	.46	251.96				.48	-36.87	-37.92		
(169) 23		867.2		51.69	50.59	.46	249.07				.55	-37.15	-38.25		
(168) 24		901.8	3	53.75	52.60	.46	247.12				.49	-37.10	-38.25		
(167) 25		920.5	4	54.87	53.69	338.46	245.96				.56	-37.07	-38.26		
26		914.3		54.60	53.53	.46	246.31				.35	-37.25	-38.42		
27		940.3		56.05	54.85	.46	244.62				.38	-37.41	-38.61		
(166) 28		942.6		56.19	54.98	.46	244.46				.31	-37.48	-38.69		
(165) 29		953.4		56.83	55.61	.46	243.74				.28	-37.61	-38.83		
30		983.5		58.62	57.37	338.46	241.78				.29	-37.77	-39.02		
31		1011.3		60.28	58.99	.45	240.08				.41	-37.68	-38.97		
32		1053.5	4	62.80	61.45	.45	237.62				.42	-37.61	-38.96		
33		1085.1	5	64.68	63.30	.45	235.56				.33	-37.86	-39.24		
34		1152.3		68.69	67.22	.45	231.49				.23	-38.04	-39.51		
35		1199.6		71.51	69.98	.45	228.59				.18	-38.16	-39.67		
36		1228.5		73.23	71.66	.45	226.91				.19	-38.62	-40.19		
37		1230.3		73.34	71.77	.45	226.29				.24	-38.58	-40.15		
38		1265.2		75.42	73.80	.45	224.19				.21	-38.73	-40.35		
39		1299.7	5	77.47	75.81	.45	221.66	7/25/75	221.91	8/6/75	.16	-38.94	-40.60		
40		1332.5	6	79.43	77.73	.45	219.91	7/25/75			.23	-38.88	-40.58		
41		1379.1		82.21	80.45	.45	216.99				.17	-39.09	-40.85		
42		1415.0		84.35	82.54	.45	214.69				.12	-39.29	-41.10		
43		1444.3		86.09	84.26	.45	212.76				.16	-39.42	-41.26		
44		1462.0		87.16	85.28	.45	211.55				.12	-39.13	-41.50		
45		1458.2		86.92	85.06	.45	211.84				.10	-39.59	-41.45		
46		1454.2		86.68	84.83	.45	211.99				.09	-39.74	-41.59		
47		1454.3	6	86.69	84.83	.45	211.76				.11	-39.90	-41.76		
(1[illegible]) 48		1457.5	7	86.88	85.02	.45	211.64				.10	-39.93	-41.79		
49		1470.2		87.64	85.76	.44	210.80				.09	-40.81	-42.09		
(190) 50		1475.6	7	87.96	86.07	338.44	210.57	7/25/75			.15	-39.76	-41.65		

FORM PCI 1

Area Line 2

Location Norman Wells, NWT

Party No. _____

PHOTOGRAVITY COMPANY, INC.
COMPUTATION AND IBM SHEET

K factor _____ K (43-44)

Extra Ident. _____ (7-8, 10-11) E (45-46)

Calib. Factor _____ (80-83) C (83-84)

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page	G 2.70	Elev. Corr. 2.80	Lat. Corr. 17-21	Adj. Rd.(G_o) 22-26	Date			T. C. 27-29	G_t @ 2.70	@ 2.80	K 34-36	E 37-41
51		1417.6	7	84.50	82.69	338.44	214.39	7/6/64			.19	- 39.26	- 41.17		
52		1430.7	|	85.28	83.46	.44	219.09				.26	- 38.81	- 40.63		
(127) 53		1481.8	|	88.34	86.84	.44	211.49				.30	- 37.96	- 39.86		
(126) 54		1450.5	|	86.46	84.61	.44	214.29				.10	- 37.59	- 39.44		
55		1418.0	7	84.52	82.71	.44	216.90				.60	- 36.42	- 38.25		
56		1355.8	8	80.82	79.09	.44	220.97				.78	- 35.87	- 37.60		
57		1271.2	|	76.77	74.15	.44	226.29				.89	- 35.55	- 37.17		
(123) 58		1237.7	|	73.78	72.20	.44	228.16				.60	- 35.90	- 37.48		
59		1231.5	|	73.41	71.84	.43	228.47				.66	- 35.89	- 37.46		
60		1211.5	|	72.22	70.67	.43	229.59				.69	- 35.93	- 37.48		
61		1210.7	8	72.17	70.62	.40	229.39				.90	- 35.94	- 37.49		
62		1210.9	9	72.18	70.63	.38	229.10				.75	- 36.27	- 37.82		
63		1228.1	|	73.20	71.64	.35	226.95				1.07	- 37.13	- 38.69		
64		1222.5	|	72.87	71.31	.37	226.41				1.12	- 37.97	- 39.53		
65		1217.5	9	72.57	71.02	338.37	226.19				.89	- 38.21	- 40.77		
66		1222.3	10	72.86	71.30	.36	225.96				.91	- 38.63	- 40.19		
67		1237.4	|	73.76	72.18	.30	225.23				1.05	- 38.26	- 39.84		
68		1252.1	|	74.64	73.04	.20	224.20				1.07	- 38.21	- 39.81		
69		1295.3	|	77.21	75.56	.11	221.67				1.30	- 37.78	- 39.38		
70		1319.7	11	78.66	76.98	338.64	219.93				1.45	- 38.00	- 39.63		
71		1370.9	11	81.72	79.97	.01	N.V.				1.07	N.V	N.V		
(107) 72		1382.5	|	82.41	80.64	.07	218.12				1.56	- 39.98	- 41.75		
73		1391.1	|	82.92	81.16	.04	217.49				1.51	- 40.92	- 42.69		
(105) 74		1326.3	|	79.06	77.37	337.90	215.44				1.67	- 41.68	- 43.37		
75		1242.1	11	74.04	72.45	338.02	N.V.				1.41	N.V	N.V		
76		1203.5	12	71.74	70.20	.07	223.04			v	1.40	- 41.89	- 43.58		
77		1100.1	|	65.57	64.17	.12	229.51	7/6/64	229.62	10/6/64	1.18	- 41.96	- 43.26		
78		1034.4	12	61.66	60.34	.17	232.96	7/6/64			1.34	- 42.21	- 43.93		
79		994.0	13	59.25	57.98	.22	234.92				1.12	- 42.89	- 44.70		
80		926.5	|	55.23	54.04	.27	239.28				.95	- 42.81	- 44.60		
(97) 81		894.8	|	53.34	52.20	.33	241.60				.89	- 42.64	- 43.60		
82		864.3	|	51.52	50.42	.35	243.39				.93	- 42.51	- 43.61		
(95) 83		847.4	|	50.51	49.43	.41	244.78				.90	- 42.28	- 43.36		
84		821.4	|	48.96	47.91	.46	246.69				.81	- 42.20	- 43.25		
85		794.3	17	47.35	46.33	.52	248.48				.59	- 42.10	- 43.12		
86		776.1	14	46.26	45.27	.57	249.53				.57	- 42.21	- 43.20		
87		823.1	|	49.06	48.01	.63	246.85				.39	- 42.38	- 43.43		
88		818.3	|	48.77	47.90	.68	245.70				.28	- 42.34	- 43.80		
89		838.3	|	49.97	48.90	.72	245.61				.30	- 42.08	- 43.11		
90		820.1	|	48.88	47.84	338.80	245.64				.29	- 42.69	- 43.79		
91		933.8	14	55.66	54.47	.85	240.62				.34	- 42.93	- 43.98		
92		971.2	15	57.89	56.65	.89	237.59				.21	- 42.80	- 43.84		
93		999.6	|	59.58	58.31	.95	235.24				.19	- 42.90	- 43.92		
94		1027.2	|	61.23	59.92	339.00	232.44				.19	- 42.62	- 43.64		
(84) 95		1044.6	|	62.26	60.93	.00	230.91				.19	- 42.34	- 43.37		
96		1055.7	|	62.93	61.58	.09	229.79				.15	- 42.69	- 43.72		
97		1067.7	|	63.64	62.28	.15	228.47				.10	- 42.92	- 43.93		
(-) 98		1074.9	|	64.09	62.67	.16	227.91				.11	- 42.99	- 43.96		
99		1072.4	|	70.24	62.91	.23	228.17				.11	- 42.67	- 43.64		
74) 100		1081.0	16	64.44	63.06	339.27	227.24				.19	- 42.11	- 43.19		

FORM PCI 2

D. Final (Bouguer) Gravity Computation

Final gravity values were computed by the following equation:

$G = g_o - g_l + g_t + Kh + C$

where G = final (Bouguer) gravity

g_o = observed gravity corrected for drift and calibration

g_l = latitude correction

g_t = terrain correction

K = elevation correction factor

h = elevation above datum plane

C = survey constant

E. Special Computations (list and explain any used)

e. Total working days five

3. Key Personnel

a. Party Chief Dale Waddell
b. Computer
c. Meter Operator(s) Kim Sirrine
d. Surveyor(s) Dale Waddell
e. Rodman Bill Sefcik

B. Equipment

1. Vehicles

a. No. & make, 2-wheel drive

b. No. & make, 4-wheel drive

c. Description of extra equipment

b. Magnetometer(s), Make and Type

1. _____
2. _____
3. _____

c. Surveying Instruments, Make and Type

1. TIA Wild
2. T16 Wild
3. _____

C. Survey Statistics

1. Total Area (sq mi) 15 line miles
2. Total No. of Stations 126
3. Total Cost (includes reimbursibles) $6,400.00
4. Ave. Sta. Spacing 8 per mile
5. Ave. Sta. Density (Sta./sq. mi) _____
6. Ave. Cost per Station approx $50.00

Area Line 2
Location Norman Wells
Party No.

PHOTOGRAVITY SURVEYS LTD.
COMPUTATION AND IBM SHEET

K factor R 42-44
Extra Ident. 1-8 10-11 E 45-48
Calib. Factor 30-33 C 50-54

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page		Elev. Corr.	Lat. Corr. 17-21	Adj. Rd.(G.) 22-26	Date		T.C. 27-29	G. 6'. 3.7m	E. 2.8m 34-36	K 37-41
101	10284	16	64.94	63.55	339.33	252.00	7/6/6			.18	-42.27	-43.46	
02	10293	1	65.15	63.95	.37	AIC				.15	N.V.	N.V.	
03	1103.3		65.71	64.30	.42	281.68				.08	-41.99	-43.96	
04	1104.9		66.04	64.63	.47	281.68				.06	-41.93	-43.96	
05	1106.7		66.45	65.02	.51	281.18				.05	-41.86	-42.89	-
06	1108.3		66.84	65.42	.55	281.23				.04	-41.79	-43.16	
07	1109.1	16	66.91	65.28	.60	281.35				.05	-41.61	-42.94	
08	1108.9	17	66.70	65.07	.64	281.87				.05	-41.64	-42.91	
09	1107.6		66.62	65.19	.68	281.70				.03	-41.83	-42.76	
10	1107.0		65.99	64.57	339.73	282.17				.03	-41.83	-42.94	
11	1107.0		66.24	64.92	.70	282.18				.03	-41.88	-42.70	
12	1107.0		66.22	64.92	.82	281.68				.05	-41.80	-42.62	
13	1106.7		67.10	65.66	.88	281.66				.03	-41.17	-42.61	
14	1106.4	17	67.07	65.83	.91	281.66				.02	-41.09	-42.48	
15	1106.4	16	66.67	65.04	339.97	282.16				.02	-40.93	-42.36	
16	1106.4		67.32	65.88	340.00	281.66				.01	-40.83	-42.21	
17	1105.3		67.67	66.22	.06	281.36				0	-40.65	-42.10	
18	1104.2		68.02	66.57	.12	281.57				0	-40.53	-41.98	
19	1104.1		68.04	66.59	.15	281.52				0	-40.59	-41.89	
20	1105.7		68.29	66.82	.20	281.67				0	-40.64	-41.70	
21	1106.7	18	68.59	67.12	.25	281.62				0	-40.70	-41.61	
22	1106.5	19	68.23	66.76	.31	282.06				0	-40.81	-41.97	
23	1104.5		68.40	67.13	.36	281.92				0	-40.84	-41.93	
24	1104.3		68.92	67.65	.42	281.84	7/6/6			0	-40.66	-41.93	
25	1106.2	19	68.32	66.86	340.47	N.V.				N.V.	N.V.	N.V	

Area Line 2
Location Norman Wells, NWT
Party No.

PHOTOGRAVITY COMPANY, INC.
COMPUTATION AND IBM SHEET

K factor R 42-44
Extra Ident. 1-8 10-11 E 45-48
Calib. Factor 30-33 C 50-54

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page		Elev. Corr. 17-20	Lat. Corr. 17-21	Adj. Rd.(G.) 22-26	Date		T.C. 27-29	G. 0.70	G. 0.80	G. 0.90	K 34-36	T 37-41
	51	14736	7	84.80	80.69	338.69	216.89	7/6/6		.19	-9886	-9.17			
	52	1484.7		85.08	80.96	66	216.09			.06	-38.81	-39.46			
(147)	53	1483.3		86.74	81.84	69	211.68			.80	-37.24	-39.84			
(146)	54	1484.3		86.96	81.61	44	216.29			.10	-37.59	-39.99			
	55	1483.8	7	87.50	82.21	44	216.50			.60	-36.40	-38.28			
	56	1355.8	8	80.82	79.03	69	220.57			.78	-37.83	-37.60			
	57	1376.3		76.73	74.15	44	226.28			.69	-35.85	-37.12			
(133)	58	1237.7		73.78	72.20	44	226.16			.60	-35.90	-37.98			
	59	1233.5		73.92	71.85	43	226.43			.66	-35.89	-37.96			
	60	1231.6		76.82	76.67	43	329.69			.63	-35.93	-37.94			
	61	1214.7	8	76.12	74.42	40	229.30			.90	-36.94	-37.46			
	62	1214.9	9	76.18	74.63	88	229.10			.96	-36.87	-37.83			
	63	1233.1		73.00	71.09	35	226.96			1.62	-37.13	-37.69			
	64	1232.6		72.81	71.31	37	227.81			1.18	-37.97	-39.43			
	65	1231.5	9	72.51	71.01	388.37	224.59			.87	-38.21	-40.77			
	66	1232.5	10	72.86	71.20	36	226.96			.51	-38.63	-40.19			
	67	1234.4		72.74	70.98	30	226.74			1.06	-38.26	-39.84			
	68	1233.1		72.49	71.06	20	226.26			1.07	-38.21	-39.81			
	69	1232.3		72.21	70.76	11	227.47			1.80	-37.28	-39.38			
	70	1231.7	10	72.16	70.58	338.69	219.93			INF	-38.08	-38.83			
	71	1230.9	11	81.72	79.71	.01	N.V.			1.87	N.V.	N.V.			
(147)	72	1383.5		80.98	80.05	.07	210.12			1.26	-39.98	-41.35			
(147)	73	1394.1		80.92	80.16	.44	207.49			1.07	-40.72	-42.62			
	74	1384.1		78.06	77.32	327.99	216.66			1.67	-41.68	-43.37			
	75	1248.1	11	74.06	72.67	328.02	N.V.			INF	N.V.	N.V.			
	76	1243.5	12	74.74	74.20	.07	223.14			INF	-41.88	-43.98			
	77	1246.1		68.53	69.11	.12	222.51	7/6/6	229.62	1.18	-41.86	-43.26			
	78	1214.4	13	61.66	60.95	.17	232.96	7/6/6		1.24	-42.21	-43.53			
	79	996.0	13	59.25	57.98	.20	234.52			1.12	-42.85	-44.10			
	80	974.5		55.23	54.04	.27	235.78			.96	-42.81	-44.00			
(99)	81	894.8		50.87	50.20	.33	241.60			.89	-42.64	-43.60			
	82	844.3		51.52	50.42	.35	243.30			.93	-42.27	-43.61			
(95)	83	845.4		50.51	48.43	.41	266.71			.90	-42.08	-43.26			
	84	821.4		48.36	47.21	.46	241.49			.81	-42.20	-43.25			
	85	796.3	14	47.36	46.33	.48	240.08			.69	-42.12	-43.12			
	86	776.1	15	46.26	45.21	.57	240.63			.57	-42.21	-43.26			
	87	833.1		48.06	46.61	.63	242.52			.59	-42.30	-43.43			
	88	818.1		48.31	46.80	.68	240.30			.66	-42.24	-43.20			
	89	818.3		47.97	46.30	.72	240.61			.80	-42.28	-43.11			
	90	824.1		46.88	45.64	338.60	240.64			.89	-42.47	-44.75			
	91	833.3	16	45.16	43.87	.81	240.62			.94	-42.32	-44.18			
	92	837.2	17	57.80	56.65	.89	240.59			.87	-42.20	-44.08			
	93	999.6		63.58	58.31	.95	241.20			.79	-42.30	-44.17			
	94	1027.2		61.23	59.92	339.00	242.44			.79	-42.64	-44.04			
(15)	95	1024.5		62.86	60.98	.00	241.81			.73	-42.24	-44.07			
	96	1052.7		60.95	61.08	.05	241.19			.76	-42.68	-44.09			
	97	1027.7		62.49	62.06	.10	240.14			.70	-42.49	-44.01			
	98	1027.3		64.88	62.87	.12	241.01			.71	-42.49	-44.01			
(97)	99	1027.4		70.84	62.91	.23	240.44			.71	-42.17	-43.84			
	100	1031.4		64.44	62.06	339.37	242.42			.69	-42.11	-43.99			

Area Line 2
Location Norman Wells
Party No.

PHOTOGRAVITY SURVEYS LTD.
COMPUTATION AND IBM SHEET

K factor R 42-44
Extra Ident. 1-8 10-11 E 45-48
Calib. Factor 30-33 C 50-54

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page		Elev. Corr.	Lat. Corr. 17-21	Adj. Rd.(G.) 22-26	Date		T.C. 27-29	G. 6'. 3.7m	E. 2.8m 34-36	K 37-41
101	10284	16	64.94	63.55	339.33	252.00	7/6/6			.18	-42.27	-43.46	
02	10293	1	65.15	63.95	.37	AIC				.15	N.V.	N.V.	
03	1103.3		65.71	64.30	.42	281.68				.08	-41.99	-43.96	
04	1104.9		66.04	64.63	.47	281.68				.06	-41.93	-43.96	
05	1106.7		66.45	65.02	.51	281.18				.05	-41.86	-42.89	-
06	1108.3		66.84	65.42	.55	281.23				.04	-41.79	-43.16	
07	1109.1	16	66.91	65.28	.60	281.35				.05	-41.61	-42.94	
08	1108.9	17	66.70	65.07	.64	281.87				.05	-41.64	-42.91	
09	1107.6		66.62	65.19	.68	281.70				.03	-41.83	-42.76	
10	1107.0		65.99	64.57	339.73	282.17				.03	-41.83	-42.94	
11	1107.0		66.24	64.92	.70	282.18				.03	-41.88	-42.70	
12	1107.0		66.22	64.92	.82	281.68				.05	-41.80	-42.62	
13	1106.7		67.10	65.66	.88	281.66				.03	-41.17	-42.61	
14	1106.4	17	67.07	65.83	.91	281.66				.02	-41.09	-42.48	
15	1106.4	16	66.67	65.04	339.97	282.16				.02	-40.93	-42.36	
16	1106.4		67.32	65.88	340.00	281.66				.01	-40.83	-42.21	
17	1105.3		67.67	66.22	.06	281.36				0	-40.65	-42.10	
18	1104.2		68.02	66.57	.12	281.57				0	-40.53	-41.98	
19	1104.1		68.04	66.59	.15	281.52				0	-40.59	-41.89	
20	1105.7		68.29	66.82	.20	281.67				0	-40.64	-41.70	
21	1106.7	18	68.59	67.12	.25	281.62				0	-40.70	-41.61	
22	1106.5	19	68.23	66.76	.31	282.06				0	-40.81	-41.97	
23	1104.5		68.40	67.13	.36	281.92				0	-40.84	-41.93	
24	1104.3		68.92	67.65	.42	281.84	7/6/6			0	-40.66	-41.93	
25	1106.2	19	68.32	66.86	340.47	N.V.				N.V.	N.V.	N.V	

Area Line 2

Location Norman Wells

Party No. _____

PHOTOGRAVITY SURVEYS LTD.

COMPUTATION AND IBM SHEET

K factor _____ (80-83) $\bar{K}$ _____ (42-44)

Extra Ident. _____ (7-8, 10-11) $\bar{E}$ _____ (45-49)

Calib. Factor _____ (80-83) C _____ (80-84)

Sta. No. 1-6	ID. 9	Elev. 12-16	Book Page		Elev. Corr.	Lat. Corr. 17-21	Adj. Rd.(G_o) 22-26	Date			T. C. 27-29	G_f $\sigma = 2.70$	$\sigma = 2.80$	K_1 34-36	$\bar{E}$ 37-41
101		1089.4	16	64.94	63.55	339.33	232.00	7/10/75			.12	-42.27	-43.66		
02		1092.9		65.15	63.75	.37	N.V.				.09	N.V	N.V.		
03		1102.3		65.71	64.30	.42	231.64				.08	-41.99	-43.40		
04		1107.9		66.04	64.63	.47	231.94				.06	-41.93	-43.34		
05		1114.7		66.45	65.02	.51	231.15				.05	-41.86	-43.29		
06		1116.3		66.54	65.12	.55	231.23				.04	-41.74	-43.16		
07		1119.1	16	66.71	65.28	.60	231.35				.03	-41.51	-42.94		
08		1118.9	17	66.70	65.27	.64	231.37				.03	-41.54	-42.97		
09		1117.6		66.62	65.19	.68	231.70				.03	-41.33	-42.76		
110		1107.0		65.99	64.57	339.72	232.17				.03	-41.53	-42.94		
11		1113.0		66.34	64.92	.78	232.14				.02	-41.28	-42.70		
12		1118.0		66.64	65.22	.82	231.93				.05	-41.20	-42.62		
13		1125.7		67.10	65.66	.88	231.66				.03	-41.17	-42.61		
14		1128.6	17	67.27	65.83	.91	231.55				.02	-41.04	-42.48		
15		1118.4	16	66.67	65.24	339.97	232.35				.02	-40.93	-42.36		
16		1129.4		67.32	65.88	340.00	231.89				.01	-40.83	-42.27		
17		1135.3		67.67	66.22	.06	231.74				0	-40.65	-42.10		
18		1141.2		68.02	66.57	.12	231.57				0	-40.53	-41.98		
19		1141.5		68.04	66.59	.15	231.72				0	-40.39	-41.84		
120		1145.7		68.29	66.83	.20	231.67				0	-40.24	-41.70		
21		1150.7	18	68.59	67.12	.25	231.52				0	-40.14	-41.61		
22		1144.5	19	68.22	66.76	.31	232.05				0	-40.01	-41.47		
23		1150.9		68.60	67.13	.36	231.92				0	-39.84	-41.31		
24		1156.3		68.92	67.45	.42	231.69	7/10/75			0	-39.66	-41.13		
25		1146.2	19	68.32	66.86	340.47	N.V.				N.V.	N.V.	N.V		
26															
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FORM PCI 1

RESULTS AND INTERPRETATION

The bouguer gravity data obtained in the survey are shown on the accompanying interpreted gravity profile (Enclosure 1).

To interpret the bouguer gravity, seven geologic cross-section models were constructed and the theoretical gravity computed for each. The theoretical gravity for model #6 was similar to the bouguer therefore the model is considered to be an approximation of the geology (see Enclosures 1 and 2). The computed theoretical gravity for model #6 has been transposed onto the bouguer gravity profile, in Enclosure 1. Below the elevation profile on Enclosure 1, the gravity traverse is shown and three changes in direction are indicated. The formation contacts, dip of the outcrops, and the extent of seismic reflections are also plotted along the gravity traverse. Four thrust faults are shown on the profile and cross-section; the easternmost fault is indicated by the gravity gradient and the other three faults have been mapped at the surface outcrop. The thrust faults are interpreted to become progressively higher angle from east to west.

Lithologic units in the cross-section model of Enclosure 2 are modifications of formations to fit the gravity. The units are actually assumed density units and may not correspond to formation boundaries. The Saline River unit with a density of 2.10 gm/cc was included in the model, but is probably essentially absent in the fault blocks. The Cretaceous inlier mapped on the surface and shown in the eastermost fault block (Enclosure 2) is probably a very thin surface remnant and not as thick as modelled.

The computed theoretical gravity for this Cretaceous unit gives a much larger minimum than the observed bouguer gravity. A comparative difference in magnitude between the theoretical and bouguer gravity maximum and minima of 1 mgl. and 3 mgl. respectively (Enclosure 1), could be lessened by adjusting the densities used in the model without changing the structure. However, this would not appreciably enhance the interpretation, but would require considerably more computer time, hence additional models were not computed.

A sharp minimum reentrant in the strong gravity maximum over the area of thrusting was not matched on the theoretical gravity. This minimum occurs at the turns in direction of the gravity field traverse and where the gravity line crossed the ridge through a valley. It is believed that the change in direction of the traverse, near surface faulting, and density changes cause the sharp minimum.

In order for the minima on the theoretical and bouguer gravity profiles on the west flank of the thrusting to be more closely matched, the model would have to extended westward and structure to the west included. This is beyond the data of this study and was not included.

In summary, the bouguer gravity profile in the Kelly-Turton area, N.W.T.'s is approximately matched by the theoretical gravity computed for model #6 in Enclosure 1. The structure for the area interpreted from the gravity and correlated with seismic data and surface geology is shown in the cross-section model of Enclosure 2.

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OPERATIONS REPORT

038-06-06-047

HORTON RIVER PROJECT
N.W.T.

TEXACO CANADA PERMITS 6042 to 6073
(68° to 69°15'N)
(124°45' to 126°15'W)

GEOPHYSICAL SEISMIC SURVEY
CONDUCTED IN PERIOD JANUARY TO APRIL, 1975
BY
G.S.I. PARTY #1481
FOR
HUDSON'S BAY OIL AND GAS COMPANY LIMITED*

By
A. J. FERNORN, P.Geoph.
Hudson's Bay Oil and Gas Company Limited
Calgary, Alberta

* Acting as Operator on behalf of Itself and Great Plains Development Company of Canada Ltd.

ry

C = survey constant

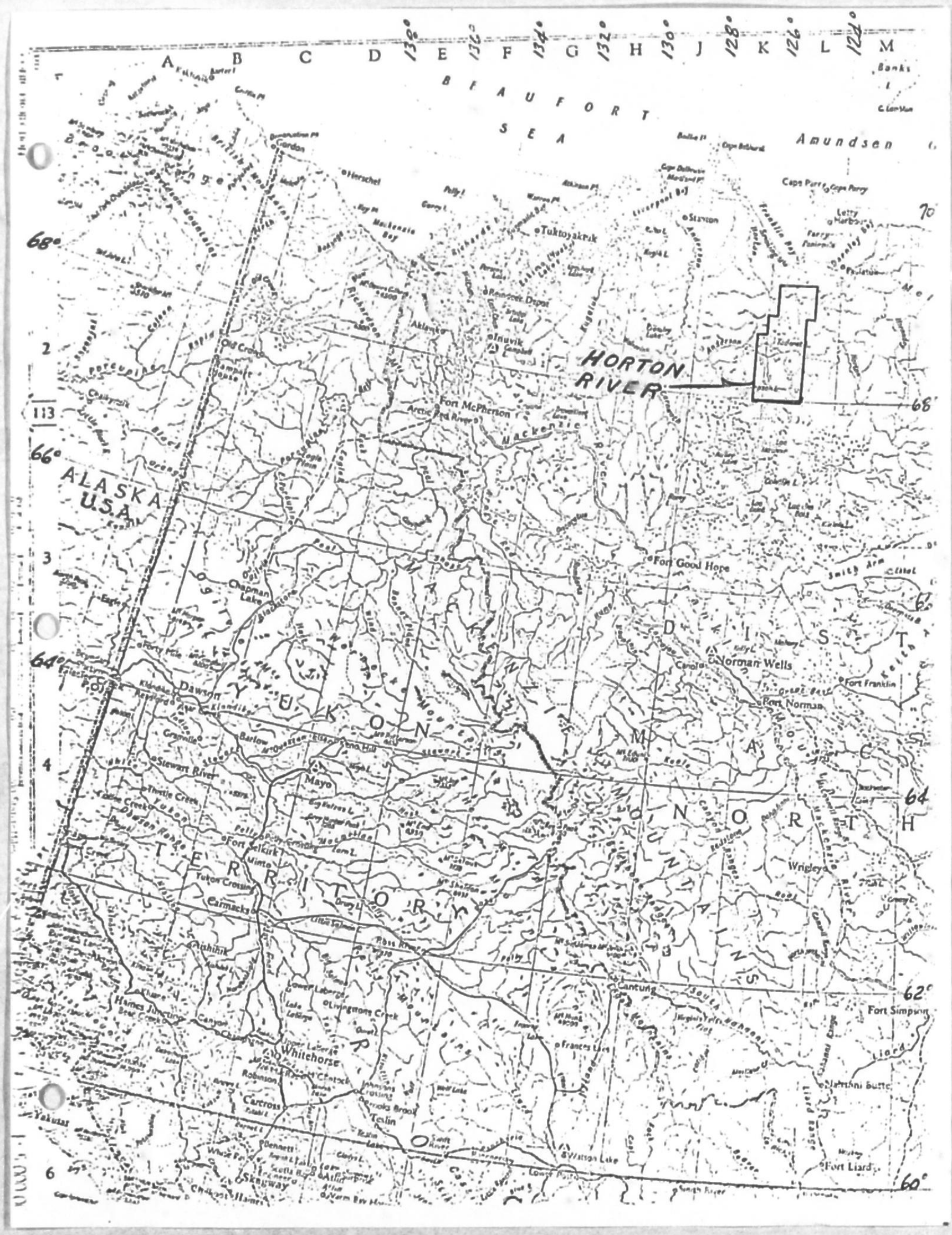
E. Special Computations (list and explain any used)

(176)	16		746.4	2	44.49	43.54	.47	256.81						.21	-36.86	-37.81			
(175)	17		756.0	3	45.06	44.10	.47	256.29						.25	-36.82	-37.78			
(174)	18		768.5		45.81	44.83	.47	255.62						.26	-36.68	-37.66			
(173)	19		764.1		45.55	44.57	.47	255.92						.34	-36.66	-37.64			
(172)	20		731.4		42.60	42.66	338 .47	257.46						.37	-37.04	-37.98			
(171)	21		749.4		44.67	43.71	.46	256.28						.40	-37.11	-38.07			
(170)	22		824.2		49.13	48.08	.46	251.56						.48	-36.87	-37.92			
(169)	23		867.2		51.69	50.59	.46	249.07						.55	-37.15	-38.25			
(168)	24		901.8	3	53.75	52.60	.46	247.12						.49	-37.10	-38.25			
(167)	25		920.5	4	54.87	53.69	338 .46	245.96						.56	-37.07	-38.25			
	26		914.3		54.50	53.33	.46	246.31						.35	-37.25	-38.42			
	27		940.3		56.05	54.85	.46	244.62						.38	-37.41	-38.61			
(166)	28		942.6		56.19	54.98	.46	244.46						.31	-37.48	-38.69			
(165)	29		953.4		56.83	55.61	.46	243.74						.28	-37.61	-38.83			
	30		983.5		58.62	57.37	338 .46	241.78						.29	-37.77	-39.02			
	31		1011.3		60.28	58.99	.45	240.08						.41	-37.68	-38.97			
	32		1053.5	4	62.80	61.45	.45	237.62						.42	-37.61	-38.96			
	33		1085.1	5	64.68	63.30	.45	235.56						.33	-37.86	-39.24			
	34		1152.3		68.69	67.22	.45	231.49						.23	-38.04	-39.51			
	35		1199.6		71.51	69.98	.45	228.59						.18	-38.76	-39.67			
	36		1228.5		73.23	71.66	.45	226.41						.19	-38.62	-40.19			
	37		1230.3		73.34	71.77	.45	226.29						.24	-38.58	-40.15			
	38		1265.2		75.42	73.80	.45	224.19						.21	-38.73	-40.35			
	39		1299.7	5	77.47	75.81	.45	221.66	[illegible]	221.91	[illegible]			.16	-38.74	-40.60			
	40		1332.5	6	79.43	77.73	.45	219.91	[illegible]					.22	-38.88	-40.58			
	41		1379.1		82.21	80.45	.45	216.99						.17	-39.09	-40.85			
	42		1415.0		84.35	82.54	.45	214.69						.12	-39.29	-41.10			
	43		1444.3		86.09	84.26	.45	212.76						.16	-39.42	-41.26			
	44		1462.0		87.16	85.28	.45	211.53						.12	-39.13	-41.50			
	45		1458.2		86.92	85.06	.45	211.84						.10	-39.59	-41.45			
	46		1454.2		86.68	84.83	.45	211.94						.09	-39.74	-41.59			
	47		1454.3	6	86.69	84.83	.45	211.92						.11	-39.80	-41.76			
(1[illegible]	48		1457.5	7	86.88	85.02	.45	211.84						.10	-39.93	-41.79			
	49		1470.2		87.64	85.76	.44	210.80						.09	-40.31	-42.09			
(150)	50		1475.6	7	87.96	86.07	338 .44	210.57	[illegible]					.15	-39.76	-41.65			

FORM PCI 1

	66		1222.3	10	72.86	71.80	.36	226.96					.89	-39.21	-40.77		
	67		1237.4		73.76	72.18	.30	225.73					.91	-38.63	-40.19		
	68		1252.1		74.64	73.04	.20	224.20					1.05	-38.24	-39.84		
	69		1295.3		77.27	76.56	.11	221.47					1.07	-38.81	-39.91		
	70		1319.7	11	78.66	76.58	338.64	219.93					1.20	-37.78	-39.38		
	71		1370.9	11	81.72	79.57	.01	N.V.					1.45	-38.00	-39.68		
(107)	72		1382.5		82.41	80.64	.07	210.12					1.07	N.V.	N.V.		
	73		1391.1		82.92	81.15	.04	212.19					1.56	-39.98	-41.75		
(105)	74		1326.3		79.06	77.37	337.99	215.66					1.51	-40.92	-42.69		
	75		1242.1	11	74.04	72.45	338.02	N.V.					1.67	-41.68	-43.37		
	76		1203.5	12	71.74	70.20	.07	223.64					1.41	N.V.	N.V.		
	77		1100.1		65.57	64.17	.12	229.51	Wabash	229.62	Norfolk	v	1.40	-41.89	-43.43		
	78		1034.4	12	61.66	60.34	.17	232.86	Wabash				1.18	-41.86	-43.26		
	79		994.0	13	59.25	57.98	.22	234.92					1.24	-42.21	-43.57		
	80		926.5		55.23	54.04	.27	239.70					1.12	-42.82	-44.16		
(99)	81		894.8		53.34	52.20	.33	241.60					.95	-42.81	-44.00		
	82		864.3		51.52	50.42	.35	242.34					.89	-42.44	-43.60		
(95)	83		847.4		50.51	49.43	.41	244.77					.93	-42.51	-43.61		
	84		821.4		48.96	47.91	.46	246.69					.90	-42.28	-43.36		
	85		794.3	17	47.35	46.33	.52	248.08					.81	-42.20	-43.25		
	86		776.1	14	46.26	45.27	.57	249.53					.69	-42.10	-43.12		
	87		823.1		49.06	48.01	.63	246.85					.57	-42.21	-43.20		
	88		838.3		49.97	48.90	.68	245.70					.59	-42.28	-43.43		
	89		838.3		49.97	48.90	.72	245.81					.28	-42.72	-43.80		
	90		820.1		48.88	47.84	338.80	245.64					.20	-43.04	-44.11		
	91		933.8	14	55.66	54.47	.85	239.62					.29	-42.67	-44.12		
	92		971.2	15	57.89	56.65	.89	237.59					.24	-42.93	-44.12		
	93		999.6		59.58	58.31	.95	236.28					.21	-43.80	-44.89		
	94		1027.2		61.23	59.92	339.00	234.44					.19	-42.90	-44.17		
(91)	95		1044.5		62.26	60.93	.04	233.91					.19	-42.62	-43.94		
	96		1055.7		62.93	61.58	.09	233.39					.15	-42.74	-44.07		
	97		1067.7		63.64	62.28	.15	232.84					.12	-42.64	-43.99		
	98		1072.3		64.09	62.67	.18	232.54					.10	-42.47	-43.83		
	99		1072.4	16	70.24	62.91	.23	232.67					.11	-42.47	-43.81		
(76)	100		1081.0	16	64.44	63.06	339.27	232.52					.14	-42.11	-43.49		

FORM PCI 2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Amundsen G.
Cape Parry
Tuktoyaktuk
Inuvik
HORTON RIVER
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ALASKA U.S.A.
66°
Fort McPherson
Mackenzie R.
Fort Good Hope
DISTRICT OF MACKENZIE
Norman Wells
Fort Franklin
Fort Norman
YUKON TERRITORY
Dawson
Mayo
Stewart River
Fort Selkirk
Tutor Crossing
Carmacks
Whitehorse
Carcross
Yakutat
Skagway
NORTHWEST TERRITORIES
Wrigley
Cantung
Fort Simpson
Nahanni Butte
Fort Liard
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Old Crow
Eagle
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Klondike
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Alaska Highway
Klondike Highway
Dempster Highway
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Liard Highway
Campbell Highway
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Watson Lake
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Fort Simpson
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Fort Norman
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Tuktoyaktuk
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Old Crow
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Dawson
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Stewart River
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INTRODUCTION

The Horton River Project consisted of 340 miles of 600% CDP coverage designed as a semi-reconnaissance program to follow-up prior, surface-geology leads.

G.S.I. Party #1481 recorded the data from January through April of 1975 under supervisiin of Party Manager Neil Vanson, GSI Supervisors Ted Popilchak and Doug Holder, and Al Ferworn of Hudson's Bay Oil and Gas Company Limited. Work was conducted under N.W.T. License No. 2150 and D.I.N.A. Land Use Permit #N74B892.

The crew mobilized at Little Chicago on December 27, 1974, moved out January 1, 1975 and arrived at the prospect January 15th. Average move temperatures ranged between -45°F to -65°F. In spite of the extreme cold, of considerable concern was the location of lakes with sufficient ice to hold cats (due to very heavy early snow fall). Consequently, fuel supply by planes was very tedious and difficult.

There were normally 40 men, including all contractors stationed in a portable, sled-mounted camp.

OPERATIONS

A. Logistics

All equipment, including cats and drills, were barged up the Mackenzie River from Tuktoyaktuk and Inuvik during the summer of 1974, staging at Little Chicago. The existing airstrip at Little Chicago was utilized for total air support from Inuvik during mobilization. All other airstrips were cleared on lakes. On-site, fuel and expendables for the operation were received by Twin-Otter and DC-3 from Inuvik (Aklavik Air Services).

All catering and camp servicing were looked after by GSI's own personnel.

Upon job completion the crew returned, via the original access route, to Little Chicago.

B. Equipment

5 FN-60 Nodwells --------Line, Shooting and Survey Units
1 Yukon Recorder
1 Snowmobile (Party Manager)
3 Nodwell-mounted Air Drills (Seisform Drilling)

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3 D-7 Cats (Beattie Contractors)
1 D-6 Cat (Beattie Constractors)
1 Flextrak (Cat Foreman - Shift Vehicle)
1 FN-110 (Drill Foreman - Shift Vehicle)

1 Snowmelter/Power Plant
1 Power Plant/Sleeper
1 Kitchen/Diner
1 Utility/Office Sleeper
5 6 Man Sleepers
1 2 Man Sleeper/Cable Repair
1 Shop and Parts
1 Power Plant/Kitchen
1 4 Man Survival/Power Plant Unit
1 Sleeper (10 Man)
3 Fuel Sloops

C. Recording Equipment

- Texas Instruments 48 channel DFS IV Binary-gain Digital "Floating Point" system with a Mandrel SDW-400 Electro Static Camera

- 120 Stations of 54 pair CDP Cables

- 200 Strings of 14 HZ Seismometers, 9 per string

- Shooting Equipment, including TI "Tone-Box" and Model K Blaster

- T2 Theodolite, K&E Transit, Gyro Instrument, Rods and Chaining Equipment

- 12 Motorola V.H.F. Radios for Field Communication

- Two Spilsbury-Tindal S.S.B. Radios for Camp

- 1 Air-to-Ground Radio

- 60% Geogel in 10 pound sticks

D. Surveying

Horizontal control was maintained by tieing to prominent land features such as lakes, creeks and existing lines. Rearings were frequently checked by star observations coupled with Gyro compass.

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Polariod photos were taken (from aircraft) of all key line intersections by Al McDougall, GSI's Survey Supervisor.

The highest elevation encountered was 1,086 feet at Shotpoint 101, Line 8.

Lowest elevation was 521 feet at Shotpoint 69, Line 18.

E. Drilling

Drilling conditions south of the Anderson River were extremely difficult in limestone and cemented gravels. Conditions improved as the work progressed northward.

Holes were preloaded with 20 pounds; charges at 60' for most of the program.

F. Bulldozing

The dozers were utilized for some line cutting (mainly pushing snow and sparse brush), moving camp, hauling fuel sleds and constructing air-strips. All dozer blades were fitted with "mushrooms" to prevent terrain damage.

The east end of Line 6 had to be cancelled due to extremely rugged terrain. No crossings of the Anderson or Horton Rivers were attempted save for the ice bridge constructed at the start of Line 4.

G. Recording

1. Experimentation

Source and receptor tests conducted on Line 1, at the start of the program, were inconclusive due to very poor data.

2. Production Recording

Spread: 5280'-220'-0-220'-5280'(1)
Nests: 18 phones/trace inline over 255'
Source: 20 pounds at 60'
Coverage: 600% CDP; S.P. Interval 880'
Records: 6 sec. at .002 sec. sample rate; I.F.P. mode
Record Filters: 8-124 Hz (18 Hz slopes); notch filters out.

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(1) Lines 19 and 30 were shot with assymetrical 12/36 trace splits to compare interference of first breaks in the shallow data

PROCESSING

All traces were referenced to 700' using a replacement velocity of 17,500'/sec. Data were processed by Sefel J. & Associates Ltd. using the following sequence:

i) Demultiplex, edit, recover gain and resample to .004 sec.

ii) Decon - 19 point (.300 to 3.600 sec. window)

iii) Filter: 20-80 Hz (0 to 1.200 sec.)
15-80 Hz (1.200 to 4.000 sec.)

iv) Elevation and weathering statics (computed by Sefel using first break plots) to 700' datum

v) N.M.O. and Autostatics for trim

vi) Constant Velocity Stack and Stack

vii) Filter: 25 to 70 Hz (o to 4.000 sec.)

All data were displayed at 7.5"/sec. in variable-area mode.

DISPOSITION OF ORIGINAL DATA

Hudson's Bay Oil and Gas Company Limited as Group Operator, holds the following data:

1. Observer's, Driller's, Shooter's and Surveyor's Reports
2. Digital Field Tapes and Field Monitor Records
3. Film Sections and 1/2 scale vellums of all 30 lines
4. Velocity Scan Data and Experimental Sections

STATISTICS

Pertinent Dates

Mobilized at Little Chicago	December 27, 1974
Commenced Move to Prospect	January 1, 1975
Commenced Recording	January 18, 1975
Completed Recording	March 29, 1975
Arrive Back - Little Chicago	April 5, 1975

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Actual Recording hours	682.5
Travel hours	197.0
Total hours	879.5(2)
Profiles recorded	2,056.0
Total miles coverage	339.2
Total dynamite used	39,892.5 lbs.
Dynamite used per shot	20.0 lbs.
Total number of caps used	2,124.0
Total footage drilled	104,145.0'
Total drill hours (working)	1,748.5
Total drill hours (move)	902.0
Total bulldozer hours (including move-in)	6,887.0(3)

Submitted By: A. J. Fernorn
A. J. FERNORN, P.Geoph.

DATE: Aug 13, 1975.

(2) Experimental program conducted at start of Line 1 and at the junction of Lines 7 and 9. (These were conducted on an hourly basis versus the "turnkey" rate of normal production recording).

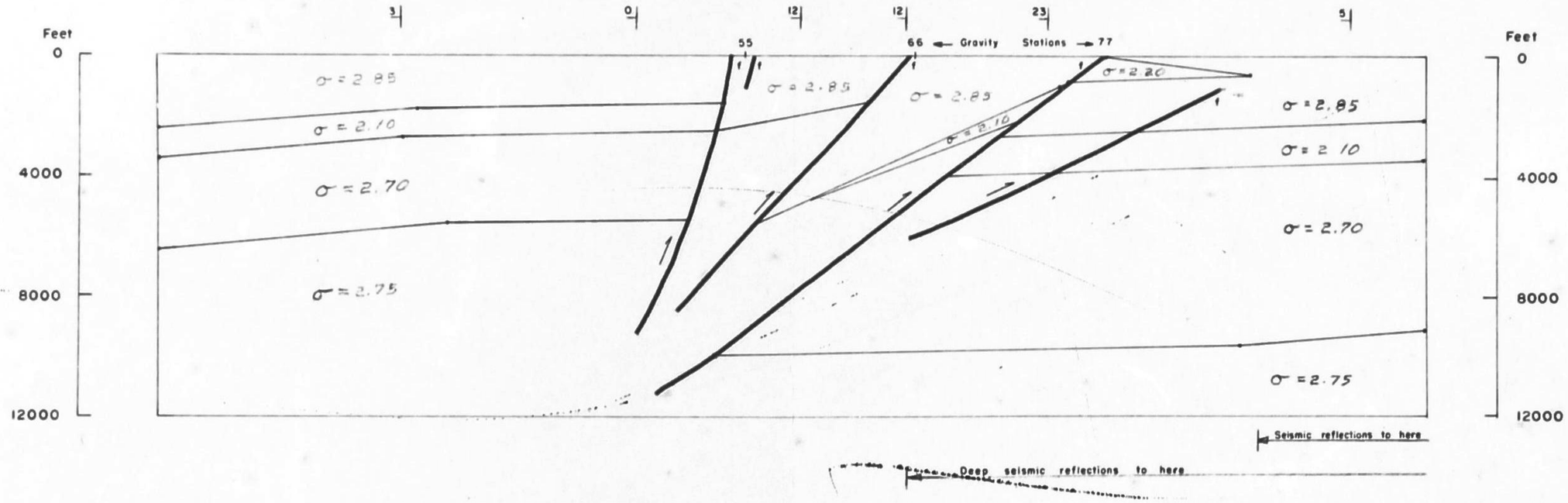
(3) An extremely, heavy, early snowfall necessitated many hours in bulldozing, especially detours around lakes where the ice was not thick enough for trespass.

058-08-05-019

ENCLOSURE 2

KELLY-TURTON AREA, N.W.T.

CROSS-SECTION MODEL 6



SCALE - 1:50,000