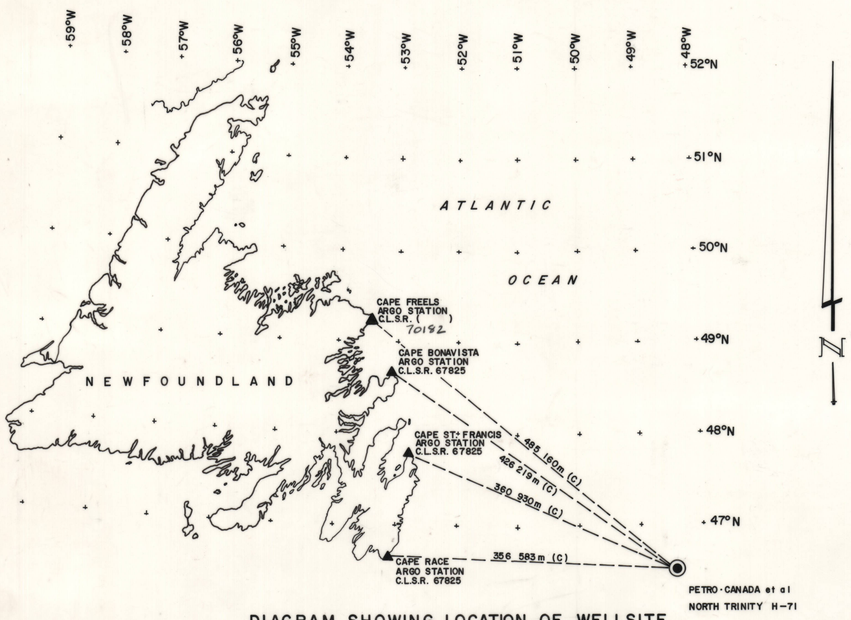
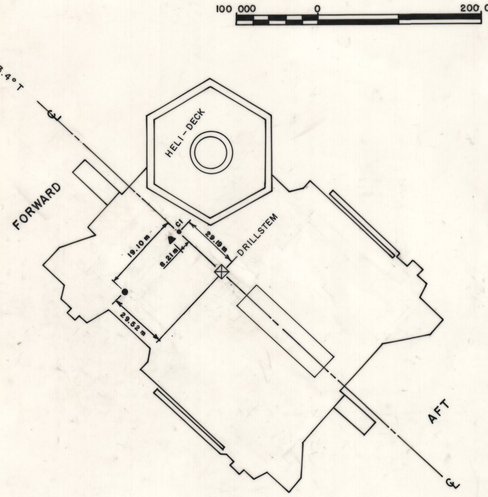


DIAGRAM SHOWING LOCATION OF WELLSITE

UNIVERSAL TRANSVERSE MERCATOR PROJECTION

SCALE 1 : 4 000 000

100 000 0 200 000

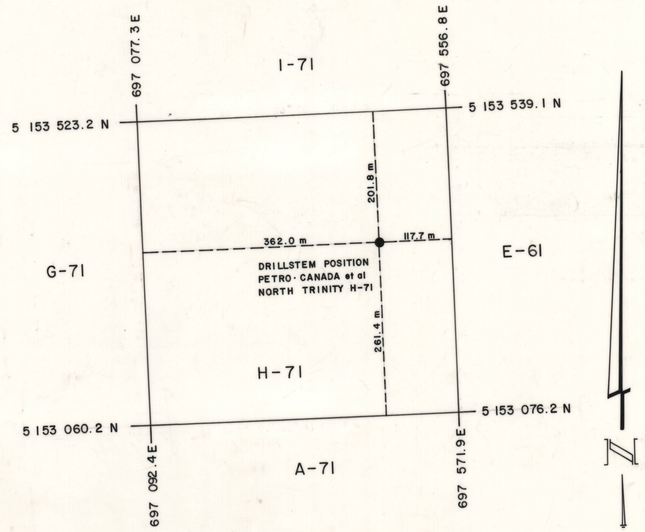


MINI-RANGER III & SATELLITE ANTENNA OFFSETS FROM DRILLSTEM ON VINLAND

NOT TO SCALE

- TRAVERSE POINT
- SATELLITE ANTENNA
- MINI-RANGER ANTENNA

NOTE: Redundant measurements were observed using Imperial units. These observations are shown in the survey report.



DETAIL OF UNIT H SECTION 71

SCALE 1 : 5 000

100m 0 100 200m

OIL AND GAS GRID COORDINATES, NAD 27

		GEOGRAPHIC		UTM (ZONE 22, C.M. 51°W)	
	CORNER	LATITUDE, N	LONGITUDE, W	NORTHING (m)	EASTING (m)
GRID AREA	NE	46° 40'	48° 15'	5 171 578.2	710 368.9
	NW	46° 40'	48° 30'	5 170 940.5	691 245.2
	SE	46° 30'	48° 15'	5 153 059.8	711 015.0
	SW	46° 30'	48° 30'	5 152 421.8	691 832.5
UNIT H SECTION 71	NE			5 153 539.1	697 556.8
	NW			5 153 523.2	697 077.3
	SE			5 153 076.2	697 571.9
	SW			5 153 060.2	697 092.4

FINAL WELL SITE COORDINATES, NAD 27

	GEOGRAPHIC		UTM (ZONE 22, C.M. 51°W)	
	LATITUDE, N	LONGITUDE, W	NORTHING (m)	EASTING (m)
MINI-RANGER III ANTENNA	46° 30' 24.13"	48° 25' 36.78"	5 153 346.8	697 418.4
TRAVERSE POINT C 1	46° 30' 24.32"	48° 25' 36.52"	5 153 352.9	697 423.8
VINLAND DRILL STEM AS DETERMINED BY ARGO AND MINI-RANGER III RANGES	46° 30' 23.67"	48° 25' 35.52"	5 153 333.5	697 445.8

PRIMARY SURVEY

ARGO SHORE STATION COORDINATES, NAD 27

STATION	GEOGRAPHICS	UTM ZONE 22 C.M. 51° W	ELLIPSOIDAL DISTANCE TO DRILLSTEM (COMPUTED)
CAPE RACE ARGO STATION C.L.S.R. PLAN 67825	46° 39' 34.353" N 53° 04' 26.883" W	5 169 202.51 N 341 311.02 E	356 583 m
CAPE ST. FRANCIS ARGO STATION C.L.S.R. PLAN 67825	47° 48' 23.049" N 52° 47' 19.563" W	5 296 113.41 N 366 065.44 E	360 930 m
CAPE BONAVISTA ARGO STATION C.L.S.R. PLAN 67825	48° 41' 09.709" N 53° 05' 26.650" W	5 394 444.44 N 346 118.84 E	426 219 m
CAPE FREELS ARGO STATION (awaiting registration)	49° 15' 02.671" N 53° 28' 20.516" W	5 458 052.87 N 320 076.83 E	485 160 m

ARGO DM – 54 INFORMATION

RANGE FREQUENCY	1 759.0 kHz
LANE IDENTIFICATION FREQUENCY	1 934.9 kHz
PROPAGATION VELOCITY (ASSUMED)	299 650 km/sec
LANE WIDTH (COMPUTED)	85.176 237 m

CONFIRMATION SURVEY

SUMMARY OF DOPPLER SATELLITE POINT SURVEY

		PUBLISHED DATUM ② SHIFTS	ANTENNA POSITION VINLAND OBSERVED GEOCENTRIC COORDINATES ① (broadcast ephemeris datum)	ANTENNA POSITION VINLAND DERIVED 1927 NAD COORDINATES (Geocentric minus Datum shift)
cartesian coordinates	x	−44.0	+2 918 233.9	+ 2 918 277.9
	y	+151.0	− 3 289 899.4	− 3 290 050.4
	z	+177.0	+ 4 604 214.6	+ 4 604 037.6
Latitude				46° 30' 24.06" N
Longitude				48° 25' 37.00" W
Ht. above sea level	H			21.54 m
Geoid ht.(GEM 10B) ②	N			47.12 m
Ht. above ellipsoid	h			68.66 m
Number of accepted passes			31	

① Coordinates are on the geocentric NWL 10 D System as provided by the satellite broadcast ephemeris.

② GEM 10B is the Goddard Earth Model of the geoid for which the given heights are computed relative to an eccentric 1927 NAD ellipsoid. The eccentricity used was the published datum shift at station SATANT $x_0 = -44$, $y_0 = +151$, $z_0 = +177$ (in Surveying Offshore Canada Lands for Mineral Resource Development , Second Edition, 1975).

DRILLSTEM POSITION BY SATELLITE 3-D POSITIONING (CONFIRMATION)	46° 30' 23.85"N	48° 25' 35.37" W	5 153 339.2 N	697 448.9 E

Survey Report for this plan is recorded as number F.B. 33446 C.L.S.R.

CANADA LANDS SURVEYS RECORDS
7 0 0 0 1
DATE 8 OCT. 1985

PLAN AND FIELD NOTES

OF SURVEY OF OFFSHORE

EXPLORATORY WELL LOCATION

PETRO•CANADA et al

NORTH TRINITY H-71

LATITUDE 46° 30' 23.67" N

LONGITUDE 48° 25' 35.52" W

GRID AREA 46° 40'N, 48° 15'W

SURVEYED JANUARY 23 to FEBRUARY 1, 1985

BY McELHANNEY OFFSHORE SURVEYS LTD.

FOR PETRO•CANADA

CANADA OIL AND GAS LAND REGULATIONS

EXPLORATION AGREEMENT No. 196

LEGEND

Positioning was done by the survey vessel M.V. Balder Cabot using an **ARGO** DM-54 positioning system with shore stations in Newfoundland (see report 1B 67818 CLSR). Information about the **ARGO** DM-54 can be obtained from Cubic Corporation, San Diego, California. The post-processing of the **ARGO** DM-54 ranges was carried out using the program GEOPAN, documentation for which is available from GEODETIC SURVEYS of CANADA. Monuments at Cape Race, Cape St. Francis, and Cape Bonavista are shown on Survey Control Plan (67818 CLSR). The ties to these ARGO stations are shown on Plan of Survey of Offshore Exploratory Well Location Mobil et al Sheridan J-87 (67825 CLSR). Cape Freels ARGO station is located at Monument Cape Freels No. 1, 1983, which is presently awaiting registration.

The final position was confirmed by a Magnavox MX-1107RS satellite positioning system (Three dimensional solution with 31 acceptable passes). Documentation for its program can be obtained from Magnavox of Torrance, California. The values used for the local datum shift from broadcast ephemeris datum to NAD27 were x=−44m y=+151m z=+177m and were obtained from the Geodetic Surveys of Canada.

Coordinates and distances shown on the Unit Details are UTM plane referred to Zone 22, Central Meridian 51°W, using a false easting of 500 000m.

(c) indicates calculated distances.

All other distances are ellipsoidal distances (in metres) and are not reduced to the UTM plane unless indicated.

All geographic coordinates are referred to 1927 North American Datum (1927 NAD), Clarke 1866 ellipsoid.

Water depth at the location is approximately 98.0 metres.

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED ON THIS PLAN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Don Edwards
C.L.S.

M. J. Cole
WITNESS

June 17, 1985
DATE

PETRO • CANADA

J S Bright

85-07-02
DATE

McELHANNEY OFFSHORE SURVEYS LTD. 083850

Ermil Allen 8-10-85

CANADA LANDS SURVEYS RECORDS 7 0 0 0 1