

SURVEY REPORT

FOR

NORSKE MURPHY OIL COMPANY

REF: 2/3-1 & 2/TTT 2/3-2

9TH - 14TH JUNE, 1970

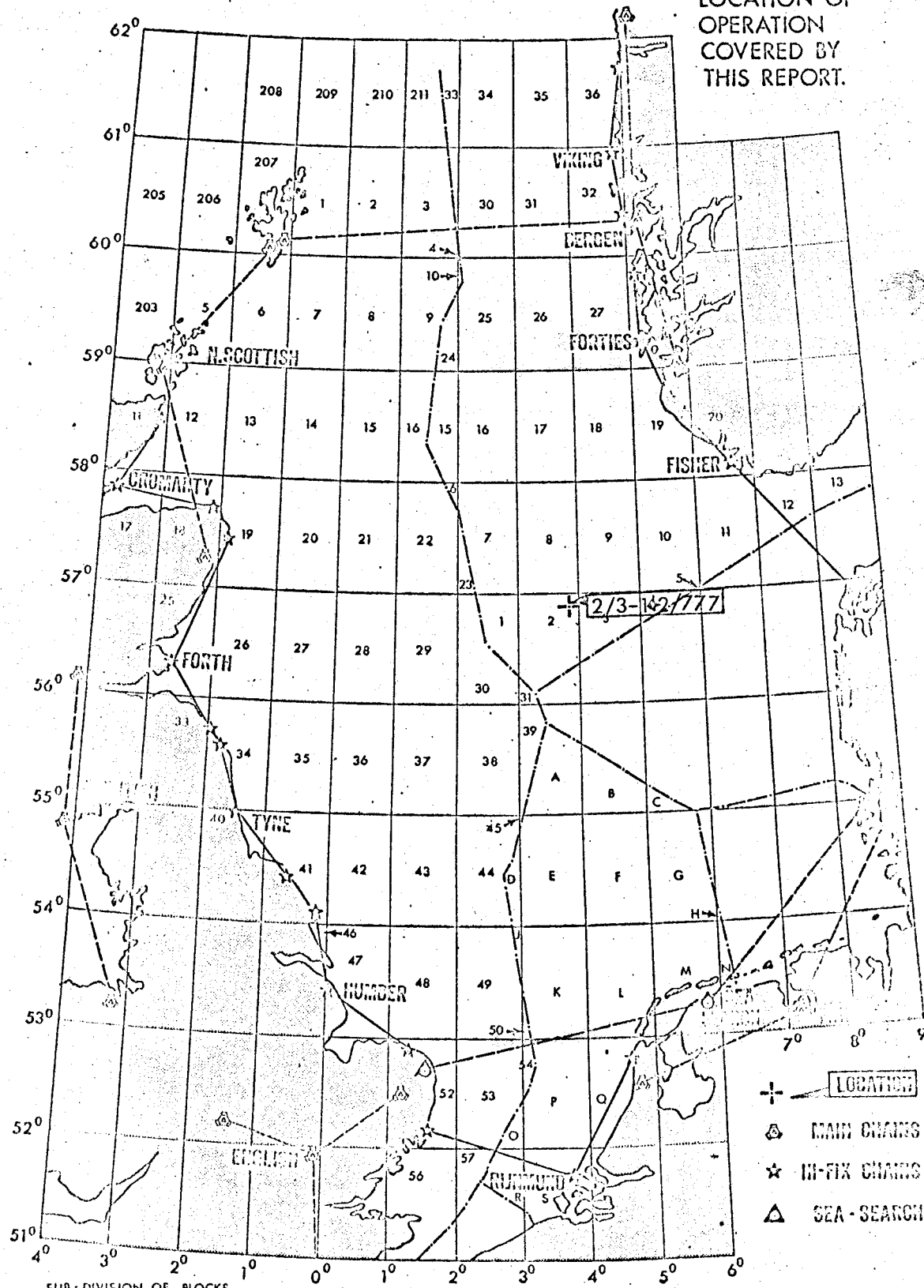
REF: 2/3-1 & 2/777

SURVEY REPORT

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LOCATION OF
OPERATION
COVERED BY
THIS REPORT.



SUB-DIVISION OF BLOCKS
U.K.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30

DUTCH

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18

NORWEGIAN

1	2	3
4	5	6
7	8	9
10	11	12

THE DECCA NAVIGATOR CO. LTD.
Survey Division, (North Sea Area),
Main Cross Road,
Great Yarmouth, Norfolk.



ABSTRACT

M. V. HIGHLAND BLAZER (Capt. W. L. Davies) carried out a wellhead search in Block 2/3 for wellheads No. 1 and No. 2 between the 9th June and 14th June 1970.

The wellheads were located with an Atlas Echo Sounder AN 6014 and marker buoys dropped close to each wellhead.

The survey vessel then stood by the diving vessel JACOMINA which located the 2/3-2 wellhead before the weather deteriorated.

HIGHLAND BLAZER was released to Great Yarmouth, arriving at 1200 on the 14th June, 1970.

1. REQUIREMENTS

- (1) To locate two wellheads in Block 2/3
- (2) To mark each wellhead once located with a marker buoy.
- (3) To assist JACOMINA as required. Letter reference RAG/NC of 7th May, 1970 refers.

2. LOCATION DATA

Wellhead 2/3-1

The position of this wellhead as computed from the final position of OCEAN TRAVELLER (see Report 2/3-1 & 2/651) was as follows:-

Lat: 56° 53' 09.457" North

Long: 03° 51' 38.082" East

Wellhead 2/3-2

The position of this wellhead as computed from the final position of OCEAN TRAVELLER (see Report 2/3-1 & 2/651) was:-

Lat: 56° 54' 53.406" North

Long: 03° 49' 02.284" East

3. OPERATION

At 1100 on 9th June 1970 the survey vessel m.v. HIGHLAND BLAZER arrived on location in Block 2/3 from a location in Block 27/10. The vessel was steamed through the location co-ordinates. Wellhead 2/3-2 was located using an ATLAS AN6014 Survey Echo Sounder at 1236 on 9th June, 1970 (see Echo Sounder Trace No.1)

This operation was repeated and a marker buoy dropped as the wellhead appeared on the echo trace (see Trace No.2).

This completed HIGHLAND BLAZER then steamed to location 2/3-1.

At 1317 on 9th June HIGHLAND BLAZER steamed through the location co-ordinates and the wellhead was picked up on the echo sounder (see Trace No.3). This operation was repeated and as the wellhead appeared on the echo sounder trace a marker buoy was dropped (see Trace No.4).

On completion HIGHLAND BLAZER laid a Reference buoy and anchored close by to await the arrival of JACOMINA whose ETA on location was 2100.

At 2000 contact with JACOMINA was established and information received from the diving superintendent indicated that diving would commence at 0800 on 10th June, 1970.

At 0700 on 10th June HIGHLAND BLAZER weighed anchor and at 0720 checked the float positions of both buoys (see Traces 5 & 6).

At 0800 m.v. JACOMINA anchored close to the 2/3-2 location. At 1100 HIGHLAND BLAZER anchored close to the Reference buoy. At 1600 m.v. JACOMINA called HIGHLAND BLAZER and informed her that the 2/3-2 wellhead had been located by the divers.

M.V. HIGHLAND BLAZER remained at anchor until, in deteriorating weather at 1530 on 11th June she was released to Block 25/10.

HIGHLAND BLAZER arrived back on location at 0730 13th June, 1970 and was released at 1030. She steamed to Great Yarmouth, arriving alongside at 1200 14th June, 1970.

4. POSITION FIXING SYSTEM

The Fisher Hi-Fix system was used as primary control during this operation. The lane width at the location is:-

Pattern 1	430 metres
Pattern 2	250 metres
Angle of cut	27°

5. PERSONNEL

The following personnel were engaged in the survey:-

M. F. STREET	Surveyor in Charge
T. R. SMITH	Assistant Surveyor
P. K. MATHUR	Hi-Fix Engineer.

6. SUMMARY OF EVENTS

8. 6.70	2350 -	Steaming from Block 27/10 to
9. 6.70	1100	location 2/3.
9.6.70	1230	Set up position fixing systems
9.6.70	1230- 1240	Located wellhead 2/3-2 and dropped marker buoy
9. 6.70	1300 - 1325	Located wellhead 2/3-1 and dropped marker buoy
9. 6.70	1340	Anchored
9. 6.70	2100	Diving vessel m.v. JACOMINA arrived
10.6.70	0700- 0730	Weighed anchor and checked marker buoys
10.6.70	0800	M.V. JACOMINA anchored close to location 2/3-2.
10.6.70	1100	M.V. HIGHLAND BLAZER at anchor one mile north of Location 2/3-2 standing by JACOMINA before wellheads located by divers.
11.6.70	1530 -	Released from location by JACOMINA to work
13.6.70	0730	for another client
13.6.70	0730- 1030	Standby 2/3 location - released to return to Great Yarmouth.
14.6.70	1200	Arrived Great Yarmouth

7. ENCLOSURES

1. Summary of Lane Checks
2. Echo Sounder Traces

A.S. Green

for M. F. STREET,
Surveyor in Charge

SUMMARY OF LANE CHECKS

CLIENT *NORSKE MURPHY*

REFERENCE *2/3-1 2/3-2/777*

SERIAL N°

DATE and TIME	LOCATION	SURVEY CHAIN		SURVEY CHAIN		SURVEY CHAIN		MAIN CHAIN			MAIN CHAIN				
		<i>FISHER HI-FIX</i>				<i>SEASARCHI</i>		<i>6C</i>			<i>7B</i>				
		Pat.I / Red	Pat.II/Green	Pat.I / Red	Pat.II/Green	Red	Green	Red	Green	Purple	Red	Green	Purple		
1226 9/6/70	SET UP ON WELLHEAD 2/3-2	504.20	584.63					A12.96	A33.32	B22.32	I44.79	F60.23	A12.24	A36.14	A63.79
1240 9/6/70	DROP POSITION W/HEAD BUOY	504.31	584.63					A12.98	A33.36	B22.32	I44.75	F60.31	A12.28	A36.15	A63.79
1313 9/6/70	WELLHEAD 2/3-1	495.37	599.68					A11.11	A33.46	B22.70	I44.65	F61.20	A12.60	A36.75	A61.95
1325 9/6/70	DROP POSITION W/HOY BUOY	495.36	599.68					A11.11	A33.49	B22.71	I44.62	F61.22	A12.58	A36.75	A51.95
1335 9/6/70	DROP POSITION REF BUOY	494.70	599.57					A10.71	A34.21	B22.60	I44.80	F61.00	A12.57	A36.61	A52.20
1420 10/6/70	2/3-2 WELLHEAD BUOY	504.84	584.63												
1615 11/6/70	CHECK 2/3-1 W/H BUOY	495.25	599.80												
1620 11/6/70	" "	495.26	599.77												
1100 9/6/70	CHECK W/H BUOY 2/3-1	495.28	599.71					A11.12	A33.46	B22.69	I44.62	F61.20	A12.60	A36.75	A61.95

APPENDIX - Explanation of (Computed minus Observed) errors.

A. C-O ERRORS

Fixed (Computed minus Observed) errors to be applied to the observed readings to adjust them to a value comparable with the theoretical computed readings. These fixed errors are determined normally by inter-chain Decca chain analysis, or, inshore, by establishing the ship's position independently. In areas where no C-O readings have been obtained then a best estimated value of the C-O error is used.

B. UNCORRECTED OBSERVED

Observed readings with no fixed C-O (corrected minus observed) errors applied. Quoted, as read, to two decimal places.

C. CORRECTED OBSERVED

Observed readings with C-O errors applied (sign of correction as quoted), and normally used to convert an observed reading into a value from which a geographical position or other Decca chains can be computed.

D. COMPUTED

Theoretical Decca chain reading derived from a position (normally geographicals) using the basic chain parameters. Always quoted to three decimal places of a lane, although the third decimal place is not normally significant.

E. ESTIMATED OBSERVED

A computed reading with minus C-O errors applied (opposite signs to those quoted) to provide the best readings that would be observed in the field.

No 2

2/3-2

DROP

Buoy.

Drop Position of Buoy.

Nº 3

2/3-1

N^o 4.

DROP w/N 2/3-1

Drop position of nuclear Energy.

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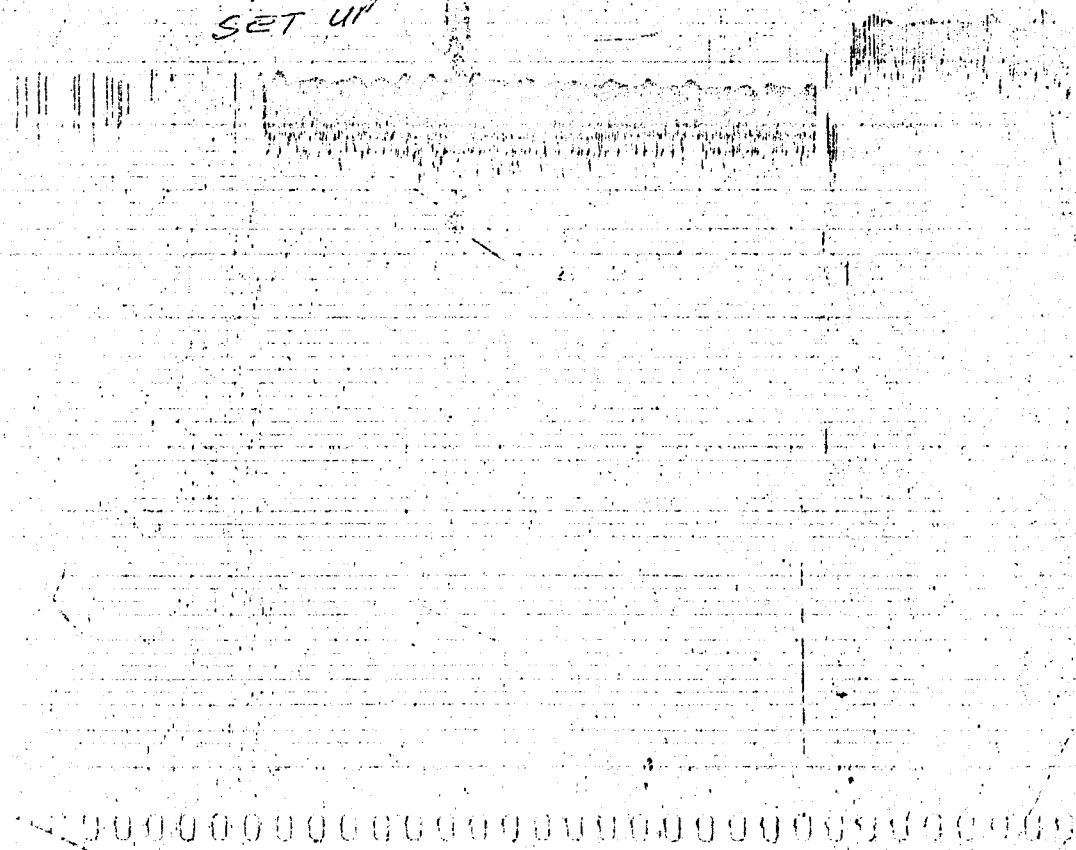
AZ 6000 C

N^o 5

2/3-2

0729
10/6/70
SET UP

2/3-2



N^o 6

F-LO AT
Pos
2/3-1

Pos. position of marker busy.