

STATE OF TEXAS EXPLORATION	
007518 *15.0KT74	
DATE OF DEPOSIT	FILE NO.
FILE NO.	FILE NO.

WELL HISTORY & OPERATION REPORT

MOBIL EXPLORATION NORWAY INC.

NORWEGIAN NORTH SEA

33/12 - 2

SEPTEMBER, 1974

C.J. ROTHBAUER

J.W. GOERTZ

G. PETTERSEN

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GENERAL INFORMATION

Well:	33/12-2
Classification:	Wildcat
Final Coordinates:	Latitude 61° 13' 31.18" N Longitude 01° 51' 25.97" E
Kelly Bushing Elevation:	+ 82'
Water Depth:	481' LAT
Contractor/Rig:	Rowan/Norskald
Objective:	Jurassic Sandstones
Result:	Oil Well
Present Status:	Abandoned
Total Depth:	14,286'
Spud Date:	2130 hrs. 06.06.74
Date Reached Total Depth:	0900 hrs. 03.08.74
Date Abandoned:	1200 hrs. 23.08.74
Date Rig on Location:	1600 hrs. 05.06.74
Date Rig Released:	0400 hrs. 25.08.74

SUMMARY OF TESTING OPERATIONSDST No. 1: Test of lower Lias to investigate high apparent water saturation.

Interval	9230-42 (4 JSPF)	
Packer	9 5/8" RTTS at 9200'	
PBTD	9400'	
Bottom choke size	2.00"	
Flushion	Sea water to surface	
Gas to surface	91 min.	
Oil to surface	91 min.	
Pressure data:		
Type gauge	Amerada (No.8170)	Amerada (No.8167)
Depth of gauge	9212'	9206'
Clock	<u>24 hr.</u>	<u>48 hr.</u>
Initial hydrostatic pressure, psig	6579	6598
Initial flowing pressure, psig. ( 2 min.)	4852 <sup>x</sup>	4875 <sup>x</sup>
Initial shut-in pressure, psig. (20 min.)	5969 <sup>x</sup>	6000 <sup>x</sup>
Final flowing pressure-20/64" choke (30 min.)	4697 <sup>x</sup>	4742 <sup>x</sup>
" " " 32/64" choke ( 8 min.)	4633 <sup>x</sup>	4637 <sup>x</sup>
" " " 20/64"& 32/64" choke (40 min.)	4253 <sup>x</sup>	4368 <sup>x</sup>
" " " 20/64" choke (25 min.)	5246 <sup>x</sup>	5282 <sup>x</sup>
" " " 32/64" choke (170 min.)	4608 <sup>^</sup>	4644
" " " <del>44/64"</del> choke (253 min.)	4097	4142
Final shut-in pressure, psig. (360 min.)	5823 <sup>xx</sup>	5885 <sup>x</sup>
Final hydrostatic pressure, psig.	-	6524

<sup>x</sup> Not stabilized.<sup>xx</sup> Clock ran out after 190 min. of build up; not stabilized.

Production data:

<u>Choke</u>	<u>WHP</u>	<u>BOPD</u>	<u>GOR</u>	<u>Oil Gravity</u>	<u>Gas Gravity</u>	<u>BS &amp; W</u>	<u>BHT</u>
32/64"	1765	4167	517	-	-	7 %	205° F. (Howco)
44/64"	1305	5515	525	38.5	0.692	5 %	206° F (Flopet.)

Comments:

The percentage of BS & W was trending downward throughout test; it was concluded that the well would probably clean up given enough time. No significant amount of sand was found in the wellbore or production equipment after the test.

DST NO. 2: Test of main body of Lias for productivity and fluid samples.

Interval	9122-34 (4 JSPF)
Packer	9 5/8" RTTS at 9089'
PBTD	9190'
Bottom choke size	2.00"
Cushion	Sea water to surface
Gas to surface	23 min.
Oil to surface	23 min.

Pressure data:

	Amerada (No.8170)		Amerada (No.8167)	
	9098'		9092'	
Clock	24 hr.		48 hr.	
Initial hydrostatic pressure, psig.	6421		6460	
Initial flowing pressure, psig. ( 2 min.)	5285	x	5337	x
Initial shut-in pressure, psig. ( 20 min.)	5846		5905	
Final flowing pressure- 3/4 " choke ( 15 min.)	5107	x	5101	x
Well shut-in to repair leak ( 68 min.)	5845		5906	
Final flowing pressure- 1/2 " choke ( 15 min.)	5547	x	5613	x
" " " 3/4 " choke ( 20 min.)	5193	x	5225	x
" " " 1/4 " choke (195 min.)	5791		5859	

x Not stabilized.

	Amerada (No.8170)	Amerada (No.8167)
Type gauge		
Depth of gauge	9098'	9092'
Clock	24 hr.	48 hr.
Well shut-in ( 60 min.)	5853	5914
Final flowing pressure- 11/16" choke (174 min.)	5323	5370
Final shut-in pressure, psig. (366 min.)	5853	5915
Final hydrostatic pressure, psig.	-	6462

\* Not stabilized.

Production Data:

Choke	WHP	BOPD	GOR	Oil Gravity	Gas Gravity	BS & W	BHT
1/4 "	3080	1,763	703	-	0,732	Tr.	202° F (Howco)
11/16"	2240	12,198	413	39,5	0,720	Tr.	210° F (Flopert.)

Comments:

Two bottom hole reservoir fluid samples were collected, and two sets each of separator oil and gas samples were taken for later recombination PVT analyses. Also five 55 gal. drums and one 5 gal. drum were filled for refinery analyses, etc. No evidence of sand production was noted.

TEST NO. 3: Test of top of Lias to investigate possible presence of gas.

Interval	8861-71 (4 JSPF)
Packer	9 5/8" RTTS at 8817
PBTD	8950'
Bottom choke size	2.00"
Cushion	Sea water to surface
Gas to surface	13 min.
Oil to surface	13 min.

Pressure Data:

	Amerada (No.8170)	Amerada (No.8167)
	24 hr.	48 hr.
Type gauge		
Depth of gauge	8830'	8824'
Clock		
Initial hydrostatic pressure, psig.	6209	6251
Initial flowing pressure, psig. ( 2 min.)	5542 <sup>x</sup>	5613 <sup>x</sup>
Initial shut-in pressure, psig. ( 20 min.)	5763 <sup>x</sup>	-
Final flowing pressure- 3/4" choke ( 30 min.)	5472 <sup>x</sup>	5518 <sup>x</sup>
" " " 1/4" " (220 min.)	5741	5811
Final shut-in pressure, psig. (240 min.)	5780	5825
Final hydrostatic pressure	6186	6241

<sup>x</sup> Not stabilized.

Production Data:

Choke	WHP	BOPD	GOR	Oil Gravity	Gas Gravity	BS & W	BHT
1/4"	3140	1785	738	41.2	0.723	0.0	201 <sup>o</sup> F (Howco & Flopet.)

Comments:

Separator samples of oil (2) and gas (2) were collected for recombination PVT analyses. There was no trace of sand production.

DST NO. 4: Test for productivity os sand stringer within the Lias Shale.

Interval	8289-8312 (4 JSPF)
Packer	9 5/8" RTTS at 8252'
PBTD	8600'
Bottom choke size	2.00"
Cushion	Sea water to surface
Gas to surface	173 min.
Oil to surface	173 min.

Pressure Data:

Type gauge	Amerada (No.8170)	Amerada (No.8167)
	8264'	8258'
Depth of gauge		
Clock	24 hr.	48 hr.
Initial hydrostatic pressure, psig.	5771	5829
Initial flowing pressure, psig. ( 2 min.)	3729 <sup>x</sup>	3800 <sup>x</sup>
Initial shut-in pressure, psig. ( 20 min.)	5575 <sup>x</sup>	5645 <sup>x</sup>
Final flowing pressure- 3/4" choke (756 min.)	632 <sup>x</sup>	693 <sup>x</sup>
Final shut-in pressure, psig. (190 min.)	1998 <sup>x</sup>	2105 <sup>x</sup>
Final hydrostatic pressure, psig.	5784	5842

<sup>x</sup> Not stabilized.

Production Data:

Choke	WHP	BOPD	GOR	Oil Gravity	Gas Gravity	BS & W	BHT
3/4"	0-280	ND	ND	33.9 <sup>xx</sup>	ND	45 %	192° F (Flopet.)

<sup>xx</sup> Probably low due to effect of water dispersed in the crude.

Comments:

Just prior to oil and gas reaching the surface the production rate of water cushion was measured at 1150 B/D. After that, well could not be placed through separator due to low well head pressure causing heading. BS & W was reported at end of 12 hrs. of flow as 45 % sediment ( probably mud and emulsion ), 1 % water, and 0.2 % "mud".

DST NO. 5: Test of sand interval below Upper Jurassic Hot Shale.

Interval	8154-64 (4 JSPF)
Packer	9 5/8" RTTS at 8121'
PBTD	8230'
Bottom choke size	2.00"
Cushion	Sea water to surface



Gas to surface 20 min.  
 Oil to surface 20 min.  
 Pressure Data:

	Amerada (No.8170)	Amerada (No.8167)
	8133'	8127'
Type gauge		
Depth of gauge		
Clock	24 hr.	48 hr.
Initial hydrostatic pressure, psig.	5747	5779
Initial flow pressure, psig. ( 2 min.)	5319 <sup>x</sup>	5354 <sup>x</sup>
Initial shut-in pressure- psig. ( 20 min.)	5485	5525
Final flow pressure- 3/4" choke ( 30 min.)	4542 <sup>x</sup>	4579 <sup>x</sup>
" " " 1/4" " (300 min.)	5376	5417
Final shut-in pressure, psig. ( 10 min.)	5455 <sup>x</sup>	5480 <sup>x</sup>
Final hydrostatic pressure, psig.	6032	6071

<sup>x</sup> Not stabilized.

Production Data:

<u>Choke</u>	<u>WHP</u>	<u>BOPD</u>	<u>GOR</u>	<u>Oil Gravity</u>	<u>Gas Gravity</u>	<u>BS &amp; W</u>	<u>BHT</u>
1/4"	2970	1444	917	37.2	0.720	0.0	195 <sup>o</sup> F (Flopet. & Howco)

Comments:

Collected two bottom hole reservoir fluid samples and two each of separator gas and oil samples for recombination PVT analysis. No evidence of sand was noted.

JWG/JCR/aab  
 17/9/74

## MOBIL EXPLORATION NORWAY INC.

WELL 33/12-2

## HOLE, CASING AND CEMENT DATA

Hole size (in)	Casing Depth (ft. RTE)	Casing size (in)	Casing Weight (PPF)	Grade	Thread	Cement Type	Sacks	Remarks
36	729	30	1" wall		Vetco Squunch	Class B Neat	500	
26	1619	20	1064'x95	K-55	Buttress	Class B+2% CaCl <sub>2</sub>	500	
17 1/2	5248	13 <sup>3</sup> / <sub>8</sub>	2404'x68	N-80	Buttress	Class G Neat	1000	
12 1/4	9542	9 5/8	2279'x72	N-80	Buttress	Class G	1600	
			2707'x47	N-80	Buttress	Class G+6% Gel+0.1% HR-4	500	} 1st Stage
			4605'x43.5	N-80	Buttress	Class G+0.4% HR-4	1000	
			1662'x47	N-80	Buttress	Class G	500	
								D.V. tool at 5207'

PLUG BACK AND ABANDONMENT



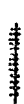
Hole/Casing Size (in)	Plug Depth Bottom (ft.)	Top (ft.)	Method of Placement	Plug Type	Sacks	Remarks
8 1/2	13622	✓ 13022	Balanced	Class E	300	Circulated out to 12700
9 5/8		✓ 9500	Drill Pipe	Howco ez sv Class G	287	Squeezed 250 sx below tool
9 5/8		✓ 9190	Wireline	Bridge Plug		
9 5/8		✓ 8950	Wireline	Bridge Plug		
9 5/8		✓ 8600	Drill Pipe	Howco ez sv Class E	155	Pumped into formation thru perf at 8817 squeezed 36 bbls.
9 5/8		✓ 8230	Wireline	Bridge Plug		
9 5/8		✓ 7846	Drill Pipe	Howco cement retainer Class G	250	
9 5/8-13 5/8	5300	4880	Balanced	Class G	150	
30	1240	682	Balanced	Class G	232	

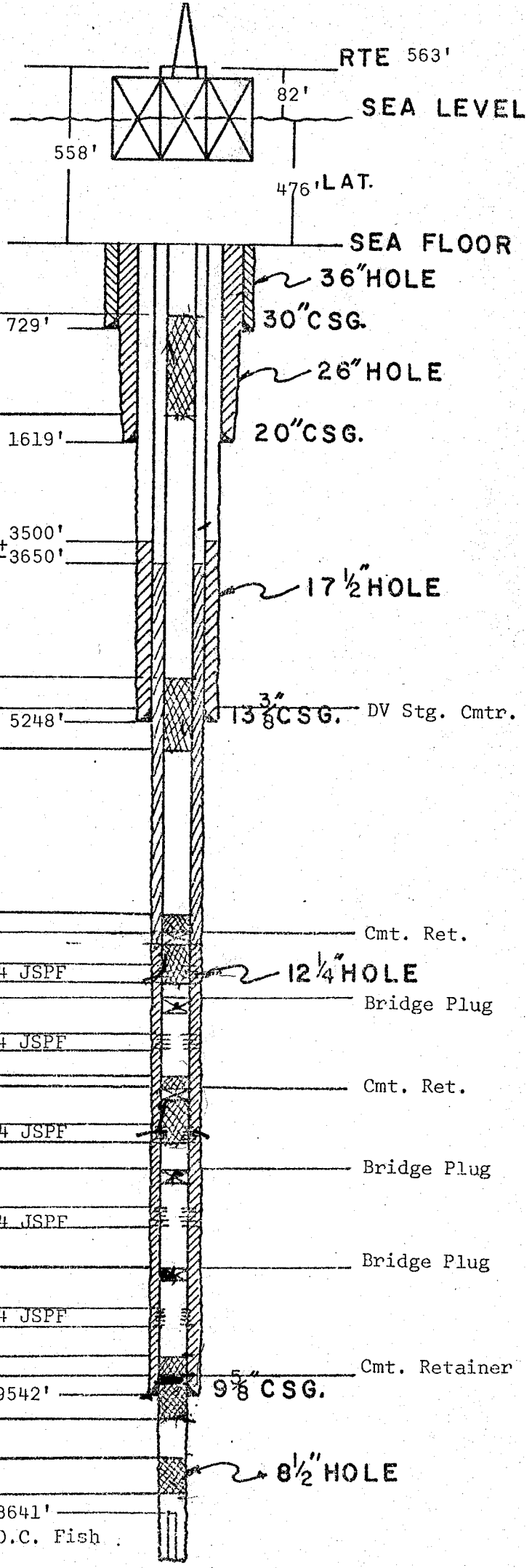
VII

obil Exploration Norway Inc.  
Norwegian Sector North Sea

Well 33/12-2

NOT TO SCALE

-  ORIGINAL CEMENT
-  ABANDONMENT CEMENT PLUG
-  PERFORATED INTERVALS



- TEST No. 5
- TEST No. 4
- TEST No. 3
- TEST No. 2
- TEST No. 1

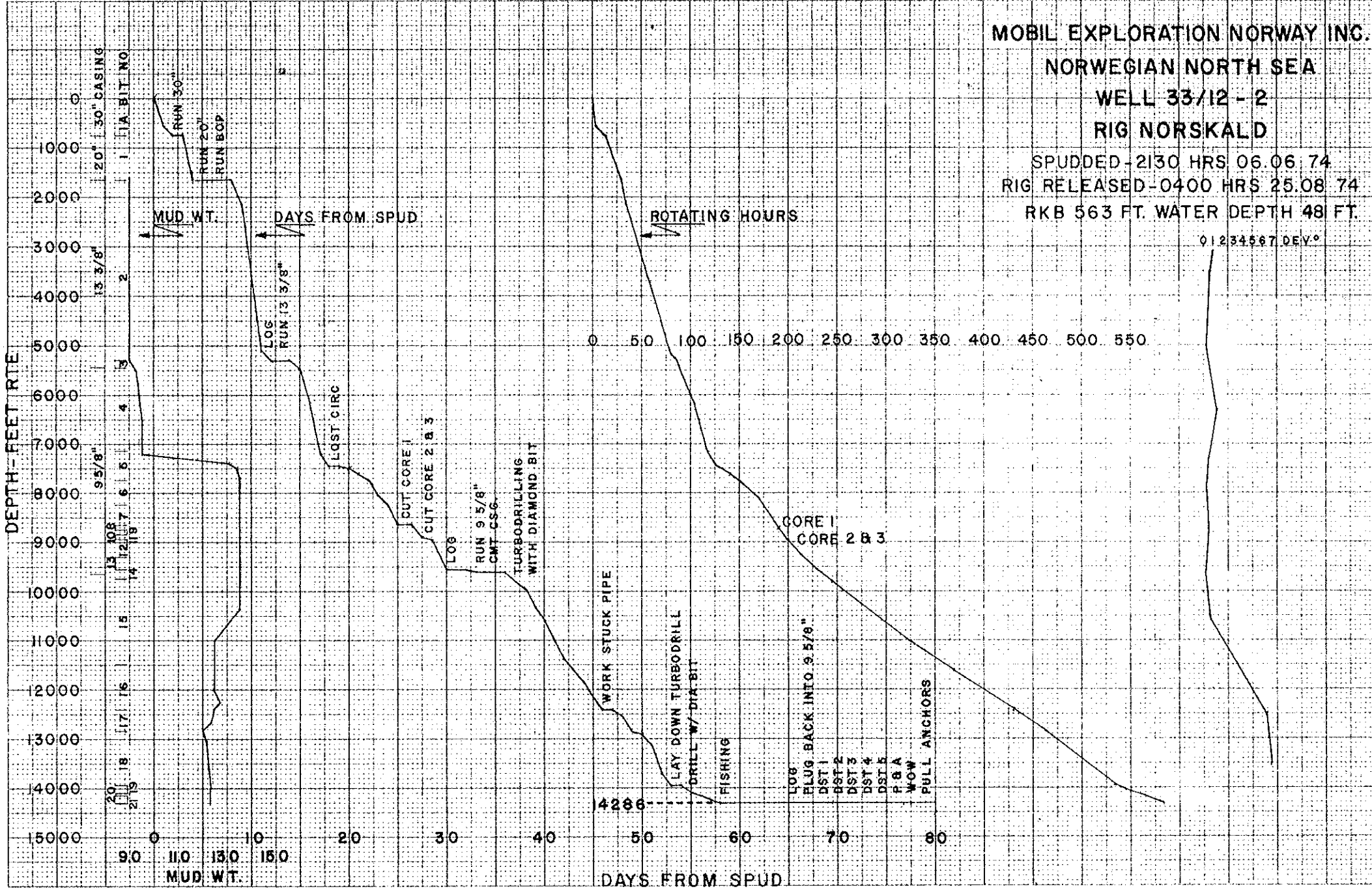
DATE	DEPTH	MOVING FUNCTION						DRILLING FUNCTION								EXPLORATION FUNCTION					REMARKS				
		PULL ANCHRS.	TOW	RUN ANCHRS.	WO WTHR.	SET CONDUCTOR	OTHER	DRILL	TRIP FOR BIT CHANGE	RUN & CEMENT CASING	BOPS RUN TEST	COND. HOLE	FISH	REPAIRS	REAM	WO WTHR	OTHER	LOG	CORE	CIRC. SAMPLE		COND. HOLE	REPAIRS	OTHER	
1974	RTE																								
8-4	14286											24													Circ. kick and cond mud (8 hrs.) Trips (10 hrs.) Fishing and milling (6 hrs.)
8-5	14286											24													Trips (12 hrs.) Fishing (4 1/2 hrs.) Circ. and spot oil (5 hrs.) Run sinker bar (2 1/2 hrs.)
8-6	14286											24													Work pipe (8 1/2 hrs.) Run free point (4 1/2 hrs.) Run string shots and attempt backoff (8 1/2 hrs.) Trip (2 1/2 hrs.)
8-7	14286											24													Trips (16 hrs.) Circ. (5 hrs.) Work die collar (3 hrs.) FISH = 8 1/2" Xsen diamond bit, near bit stabilizer, bit sub, 21-6 1/2" DC, XD sub, btm of Bailey Jar
8-8	14286											7.5					9.5			7					Round trip, lay down fishing tools (7 1/2 hrs.) Ran logs from 13,625' to 9542' Sonic log. (9 1/2 hrs.)
8-9	14286																13.5			10.5					Round trip, sticky hole. Ran Induction, Density, Dipmeter (13 1/2 hrs.)
8-10	14286															11.5	11.5			1					RIH, Condition mud. Place P & A plug No. 1 from 13,622' to 13,022' with 300 sx 'E' cmt. Ran Seismic Reference Log and sidewall cores (11 1/2 hrs.)
8-11	PB13022															15.5						8.5			Set EZ drill cmt retainer on DP at 9500'. Squeeze 250 sx 'G' cmt below pkr. Place 37 sx above pkr to 9400'. Perf 9230'-42'.
8-12	PB13022																					24			Conduct DST No. 1
8-13	PB13022																					24			Finish DST No. 1. POH. Set W.L. bridge plug at 9190'. Perf. 9122'-34'.
8-14	PB 9190																					24			Conduct DST No. 2
8-15	PB 9190																					24			Finish DST No. 2. POH. Set W.L. bridge plug at 8950'. Perf 8861' - 71'.
8-16	PB 8950																					24			Conduct DST No. 3. POH. Set cmt retainer on DP at 8600'.
8-17	PB 8500																					24			Squeeze 130 sx 'E' cmt below retainer. Place 25 sx above pkr. Perf 8289'-8312'. RIH w/DST No. 4
8-18	PB 8500																					24			Conduct DST No. 4. POH. Set W.L. bridge plug at 8230'. Perf 8154'-64' RIH w/DST No. 5
8-19	PB 8230																					24			Conduct DST No. 5
8-20	PB 8230															18							6		POH w/DST No. 5. (6 hrs.) Set cmt retainer on DP at 7846'. Squeeze 257 sx 'G' cmt below retainer. POH to 5300'.
8-21	PB 7846															24									Place P & A plug 5300' to 4840' w/150 sx 'G' cmt. POH to 1240' and place plug 1240' to 682' w/232 sx 'G' cmt. POH.
8-22	PB 682												12				12								Pull riser and stack. (12 hrs.) Weld on BOP stack fork lift to handle same in one piece. (12 hrs.)
8-23	PB 682				12											12									Shoot off casings at 581'. Pull 9 5/8", 13 3/8", 20" csg stubs and 18 3/4" housing. Shoot 30" csg and pull same and guide structure.
8-24	PB 682	8			12		4 <sup>x</sup>																		<sup>x</sup> W.O. repairs to work boat (3 hrs.) Ballast rig (1 hr.)
8-25	PB 682	4																							RIG RELEASE from 33/12-2 at 0400 hrs. 25/8/74 when last anchor was racked. Towed to well 33/9-2.
Cumulative Total		12.0	3.0	29.25	24.0	-	16.25	585.5	185.0	113.5	105.5	120.0	134.5	19.0	6.0	-	180.0	87.5	61.0	-	46.5	-	206.5		
Function Total		84.5						1449.0						401.5											
% of Total		0.62	0.16	1.51	1.24	-	0.84	30.26	9.56	5.87	5.45	6.20	6.95	0.98	0.31	-	9.30	4.52	3.15	-	2.41	-	10.67		
Function %		4.37						74.88						20.75											
Total time Charged to well =								1935 hrs. = 80.625 days																	

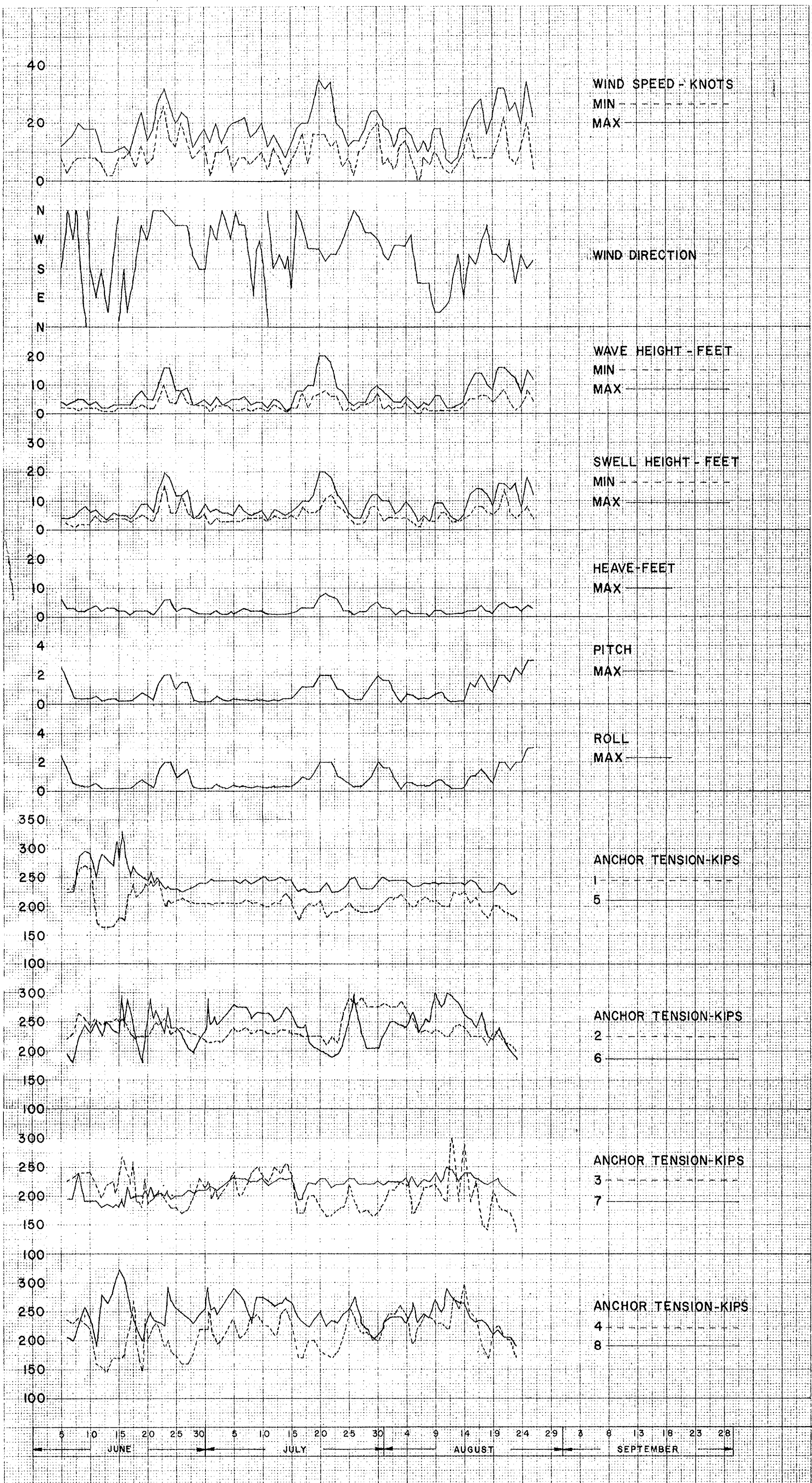




MOBIL EXPLORATION NORWAY INC.  
 NORWEGIAN NORTH SEA  
 WELL 33/12 - 2  
 RIG NORSKALD

SPUDED - 2130 HRS 06.06 74  
 RIG RELEASED - 0400 HRS 25.08 74  
 RKB 563 FT. WATER DEPTH 48 FT.







DATE 1974	DEPTH RTE	MOVING FUNCTION						DRILLING FUNCTION								EXPLORATION FUNCTION					REMARKS			
		PULL ANCHRS.	TOW	RUN ANCHRS.	WO WTHR.	SET CONDUCTOR	OTHER	DRILL	TRIP FOR BIT CHANGE	RUN & CEMENT CASING	BOPS RUN TEST	COND. HOLE	FISH	REPAIRS	REAM	WO WTHR	OTHER	LOG	CORE	CIRC. SAMPLE		COND. HOLE	REPAIRS	OTHER
6-5	-		3	8																				Last anchor racked at 1300 hrs. 6.5.74. Tow commenced. Arrived on location 1600 hrs.
6-6	-			4.75			12.25	2.5																Last anchor run 0445 hrs. Reposition rig and rerun anchors (12 1/4 hrs) Make up BHA. (4.5 hrs) SPUDDED 2130 hrs. 6.6.74.
6-7	588							11	3.5				1	4.5										Mixing pump electric motor repair (4 1/2 hrs). Surveys (4 hrs.)
6-8	729			16.5						4.5			2											Tension anchors, rerun 4 anchors. L.D. 36" hole opener (1 hr). Ran 30" conductor and guide base.
6-9								18	1	0.5			0.5											Position rig over hole (3 hrs.) Surveys (1 hr.)
6-10	1650									21			3											Ran 20" csg. Guide frame jammed. Pulled 20" csg., retrieve guide frame. Run 20" csg. w/rope guide.
6-11										8.5	13		2.5											Work on BOP's, replace connector ring. Reline Rucker guide lines 180°.
6-12											24													Test BOP's work on same.
6-13											24													Run and nipple up BOP's. PT same.
6-14								5.5	2	X3	7		1											Run wear bushing - could not set in position (5 hrs.) Survey (1/2 hr.) X Drill cement (3 hrs.)
6-15	2120							20.5					2.5											Surveys (1 hr) Short trips to condition hole (2 1/2 hrs.)
6-16	3694							21.5					1.5											Surveys (1 hr) Short trips (1 1/2 hrs.)
6-17	5110							3.5									2.5							
6-18	5300																10					4		Condition hole for logging twice.
6-19										23.5							0.5							Ran 13 3/8" casing.
6-20								2.5	7	X6	3.5													X Drill cement (3 hrs) Run wear bushing (3 1/2 hrs.) Check for washout (1 1/2 hrs.)
6-21	5466							17	2.5				0.5											Check for washout (3 1/2 hrs.) Survey (1/2 hr.)
6-22	6180							16.5	4				1.5											Surveys (2 hrs.)
6-23	7185							10	8				1.5											Losing mud. POH to csg. (1 1/2 hrs.) Mix mud and weight up (4 1/2 hrs.)
6-24	7432												24											Mix mud to 13.5 ppg, circ. and cond. hole attempt to regain circulation. Reduce mud wt.
6-25								4.5					19.5											Attempt to stop lost circulation with mica plug.
6-26	7493							7.5					16.5											Ditto
6-27	7616							10	5		X7.5		1											X Pull wear bushing and test BOP's with test plug (7 1/2 hrs.) Survey (1/2 hr.)
6-28	7734							15.5	6				0.5											Surveys (2 hrs.)
6-29	8025							8.5	13.5				2											Stabilizers balled up. Swabbing hole on trip.
6-30	8264							16.5																Circulate drilling breaks (3 1/2 hrs.) Survey (1/2 hr.) Crew blowout drill (1/2 hr.) Circulate for core No. 1 at 8622' and 8654'.
7-1	8654								1															POH. PU core bbl. RIH. Cut core No. 1 (8654-8702) POH. (23 hrs.)
7-2	8702							8	4					1.5										Circulate drilling break. (2 1/2 hrs.) POH. PU core bbl. RIH. (8 hrs.)
7-3	8870																							Cut core No. 2 (8870 - 8919), RT. Cut core No. 3 (8919 - 8939)
7-4	8939							14	5.5					1.5										Recover core No. 3

DATE 1974	DEPTH RTE	MOVING FUNCTION						DRILLING FUNCTION								EXPLORATION FUNCTION					REMARKS				
		PULL ANCHRS.	TOW	RUN ANCHRS.	WO WTHR.	SET CONDUCTOR	OTHER	DRILL	TRIP FOR BIT CHANGE	RUN & CEMENT CASING	BOPS RUN TEST	COND. HOLE	FISH	REPAIRS	REAM	WO WTHR	OTHER	LOG	CORE	CIRC. SAMPLE		COND. HOLE	REPAIRS	OTHER	
7-5	9287							13	7.5																Circulate trip gas (3 hrs.) Survey (½ hr.)
7-6	9540																	13.5			10				Survey (½ hr.)
7-7																		24							Logging (21 ½ hrs.) Wait on tools (2 ½ hrs.)
7-8								2.5																	Prepare to run casing (3 ½ hrs.)
7-9	9580																								Run 9 5/8" casing
7-10																									Cement csg. in two stages with DV tool. Lay down landing joints (1 ½ hrs.) L.D. drill collars (5 ½ hrs.) P.U. drill collars (1 ½ hrs.)
7-11								2	9	6															P.U. DC (2 ½ hrs.) Run seal assembly (1 ½ hrs.) Run wear ring (2 hrs.) Drill DV tool (½ hr.) and shoe (½ hr.)
7-12	9565							16	5.5	1.5															Dr1. cmt. and P.T. formation. POH. PU turbodrill and diamond bit. Survey (½ hr.)
7-13	9772							19.5	2.5																Dr1. w/turbodrill.
7-14	9933							23.5																	Change pump swabs and liners. Dr1. w/turbodrill.
7-15	10281							23																	Short trip for hole conditioning. Turbodrilling.
7-16	10623							24																	Turbodrilling.
7-17	10912							24																	Turbodrilling.
7-18	11412							8.5	7																Pull wear bushing and test BOP'S. Rerun wear bushing (8 hrs.) Turbodrilling.
7-19	11580							13	8.5																Rig service and compensator (1 hr.) Turbodrilling.
7-20	11832							23.5																	Ditto (½ hr.) Turbodrilling.
7-21	12202							22.5																	Ream due to high torque (1 hr) Remove elevators (½ hr.) Turbodrilling.
7-22	12385							1.5	X15.5																X Check turbodrill and service same (3 hrs.) Check hole for flow (1 ½ hrs.) Work on compensator (1 ½ hrs.) Work stuck pipe (3 ½ hrs.)
7-23	12400							14.5																	Work stuck pipe (7 hrs.) Turbodrilling.
7-24	12548							19	4																Circulate and survey (1 hr) Turbodrilling.
7-25	12833							7.5	X11.5																X Check turbodrill (2 ½ hrs.) Change DP rubbers (½ hr.)
7-26	12918							24																	Turbodrilling
7-27	13226							22.5																	Circulate drilling break (1 ½ hrs.) Turbodrilling.
7-28	13662							20	4																Turbodrilling.
7-29	13945								5.5																X Pull wear bushing and test BOP's (5 hrs.) Could not get wear bushing through Hydrils. Had to wash same with jet sub below running tool. (13 ½ hrs.)
7-30	13945							15	7.5																Cat head repair. Drill with tooth bit. Lost stabilizer blade onlast bit. Clean up iron before running diamond bit.
7-31	14076							13.5	10.5																Drill with tooth bit.
8-1	14161							11	12.5																Run diamond bit. w/o turbodrill (subs leaking)
8-2	14234							9	7																Wait on fishing tools. Dailey Jars broke 7.65 feet from bottom connection. Recovered all intervals. Appeared to be fatigue break.
8-3	14286																								Tripping 2 times (19 ½ hrs.) Circ. and wash to fish (4 hrs.) Circ. well kick thru choke (½ hr.).