

Murphy Mesa BP S Whitestone YT N-58 Unit N Section 58 Grid 66-00-138-15 Yukon Territory



WELL HISTORY REPORT

063-11-02-017

Murphy Mesa BP S Whitestone YT N-58

Unit N, Section 58 Grid 66-00-138-15 Lat. 65° 57' 50" N. Long. 138° 25' 30" W.

Yukon Territory

WELLSITE GEOLOGIST

DON R. CLARK

Submitted by:

P. Gell.

Date

SECTION 1 - Summary of Well Data

- (a) Well Name:

 Murphy Mesa BP S Whitestone YT N-58 ✓
- (b) <u>Permittee:</u>

 Imperial Oil Enterprises, Ltd.
- Murphy Oil Company Ltd. 700 Aquitaine Tower, 540 5th Avenue S.W., Calgary, Alberta,
- Unit N, Section 58, Grid 66-00-138-15

 Latitude 65° 57' 50" North, Longitude 138° 25' 30" West
 Unique Well Identifier 300 N 586600138150

 Universal Well Location Reference: Lat. 65.96389° N.,
 Long. 138.42500° W.
- (e) <u>Co-ordinates</u>:

T2P 2M7.

- (f) <u>Permit No.:</u>
 5748
- (g) Drilling Contractor:

 Westburne Drilling Ltd.
 G. P. Drilling Rig No. 24 Rotary/
- (h) Drilling Authority:
 No. 645

- (i) <u>Classification:</u>
 New Field Wildcat.
- (j) <u>Elevations</u>:

 K.B. 2918'

 Ground 2907'
- (k) Spudded:
 February 10, 1973
- (1) Completed Drilling:
 April 10, 1973
- (m) Total Depth:
 6993'
- (n) <u>Status:</u>
 Dry and abandoned
- (o) Rig Released:
 April 17, 1973
- (p) <u>Hole Sizes:</u>

 17½" to 957'

 8-3/4" to 6993'
- (q) <u>Casing:</u> 957' 13-3/8" 48# H40

SECTION 11 - Geological Summary

((a)	Formation Tops:	(K.B.	Elev.	2918")~

<u>Formation</u>	Sample Depth	E-log Depth	<u>Sub-Sea</u>			
Cretaceous	Surface					
Blackie Sandstone Shale	2350 ' 3030 '	2353° 3000°	+ 565° - 82°			
Paleozoic						
Jungle Creek	5900 '	5898'	-2980 *			
Ettrain	6150°	6150°	-3232*			
Total Depth:	6993 '	6963 ' (fi	.11)			

(b) <u>Cored Intervals</u>:

None.

- (c) <u>Core Descriptions:</u>
 N.A.
- (d) <u>Sample Descriptions:</u>
 See Page 4.
- (e) <u>Paleontological Determinations:</u>
 None.

Murphy Mesa BP S Whitestone YT N-58

SAMPLE DESCRIPTION

0-10*	Sandstone, coarse grained, salt-arl-pepper, weathered yellow - brown.
10-30	Siltstone, light grey, micro-micaceous, weathered yellow - brown in part.
30-70	No cuttings.
70-80°	Siltstone, as above.
80-100°	Shale, grey, in part weathered yellow - brown.
100-120 *	Siltstone, black, micro-micaceous, in part weathered yellow - brown.
120-130*	Sandstone, coarse grained, poorly sorted, sub-angular, salt-and-pepper.
130-140*	No sample, lost circulation.
140-160°	Shale, dark grey, micro-micaceous, (partial returns only to 210 feet).
160-170°	Sandstone, coarse grained, poorly sorted, sub-angular, salt-and-pepper.
170-190'	Shale, dark grey, micro-micaceous.
190-200*	Sandstone, coarse grained, poorly sorted, sub-angular, salt- and-pepper. In part weathered yellow - brown.
200-210	Siltstone, black, micaceous.
210-2201	Shale, dark grey.
220-240 *	Siltstone, black, micaceous.
240-250	Shale, medium grey.
250-260	Shale, black, carbonaceous.
260-270*	Siltstone, black, micaceous.
270-280*	Shale, light grey.

280-290*	Siltstone, black, micaceous.
290-300*	Shale, dark grey, micro-micaceous, trace greywacke silt- stone.
300-320'	No sample.
320-350 *	Sandstone, very fine grained, silty. In part weathered yellow-brown. Claystone, weathered yellow - brown.
350-360°	Claystone, weathered yellow - brown.
360-380 ¹	Sandstone, medium grained greywacke, in part weathered yellow - brown. Interbedded, weathered claystone, yellow - brown.
380-420 [†]	Shale, dark grey, micro-micaceous, with thin interbeds of greywacke, argillaceous.
420-470°	Shale, dark grey, micro-micaceous, with siltstone interbeds.
470-500 °	Sandstone, medium grained, sub-angular, poorly sorted, kaolinitic, in part weathered yellow - brown.
500-510°	Shale, dark grey, micro-micaceous.
'510-530°	Sandstone, medium grained, sub-angular, poorly sorted, in part weathered yellow - brown.
530-570°	Sandstone, greywacke, coarse grained, sub-angular, poorly sorted, slightly calcareous.
570-670°	Conglomerate, composed of quartz chert, greenstone, mafics, many loose grains. Porosity probably fair.
670-710°	Sandstone, medium grained, composition as conglomerated above. Interbeds of dark grey shale.
710-730	Siltstone, with dark grey shale interbeds.
730-740°	Sandstone, medium grained, salt and pepper, poorly sorted, silty and argillaceous.
740-790*	Sandstone, greywacke, silty and argillaceous. Fair porosity in part.
790-860 t	Shale, dark grey, trace of coal.

860-9001 Shale, dark grey, micro-micaceous, with siltstone interbeds. Trace coal. Sandstone, greywacke, fine grained, sub-angular, poorly 900-9201 sorted. Trace of porosity. 920-9501 Shale, dark grey, silty. Trace of coal, slickensides. 950-960 No sample. 960-1080* Cement from casing. Coal at 1000-1010'. 1080-10901 Coal. Shale, dark grey. Traces of coal in very thin stringers. 1090-17001 Slickensided shale in all samples. Notable lack of iron pyrite. 1700-1710 Coal. 1710-17201 No sample. Shale, dark grey, with traces of coal, and slickensides 1720-1800* 1800-1820 Siltstone, dark grey, argillaceous. 1820-23501 Shale, dark grey, with traces of coal, and slickensides common. Calcite coating of slickensides at 1940 -1950'. No sample 2100', 2140' and 2160'. Sandstone, fine grained, sub-angular, moderately well sorted, 2350-23601 salt-and-pepper type with kaolinite. Trace of glauconite, slightly siliceous 2380-2400°. Trace of porosity 2390-2460°. Sample missing 2420-2430°. 2360-2370 Siltstone, salt-and-pepper and quartzose, clean, well compacted. 2370-25201 Sandstone and siltstone, interbedded. Sandstone, medium grained, salt-and-pepper; sandstone, fine grained, quartzose; and siltstone, black, greywacke, micromicaceous. Pyrobitumen along some bedding planes and free chunks of bitumen. 2520-2600 Sandstone, fine grained, salt-and-pepper sandstone, and very fine grained greywacke. Trace glauconite. Sandstone, well compacted, silty. Some interbedded black, micro-micaceous shale. Siltstone, in part micro-micaceous. All sandstone and siltstone have flattened or preferred orientation.

2600-2610	Shale, dark grey; and shale, black, micro-micaceous. Trace of coal, slickensides abundant.
2610-2650°	Interbedded sandstone and shale; sandstone, very fine grained, silty quartzose sandstone. Shale, dark grey, in part black. Abundant slickensides.
2650-2690 °	Sandstone, fine grained, salt and pepper, well compacted. Sub-angular, moderately sorted, no porosity.
2690-2700°	Sandstone and siltstone, interbedded. Sandstone, quartzose to salt-and-pepper, very light colored. Siltstone, dark brown - grey, argillaceous.
2700-2710°	Sandstone, siltstone and shale. Sandstone and siltstone, as above. Shale, black, micro-micaceous.
2710-2730°	Sandstone and siltstone, interbedded. Sandstone, salt-and- pepper to quartzose, very fine grained. Siltstone, dark brown - grey, all well compacted.
2730-2740	Siltstone, dark brown - grey; and shale, black, micro-micaceous.
2740-2800*	Sandstone and siltstone. Sandstone, very fine grained, quartz- ose to salt-and-pepper, tight, well compacted, with trace of glauconite. Siltstone, dark brown - grey, argilla- ceous. Siltstone tends to be laminar bedded. Occasional bed of black, micro-micaceous, hard shale.
2800-2820°	Siltstone and shale, as above.
2820-2840	Sandstone and siltstone; sandstone, very fine grained, as above.
2840-2880°	Sillistone and shale, as above.
2880-2940	Very fine grained sandstone and siltstone, as above.
2940-3030 °	Siltstone and shale. Siltstone, salt-and-pepper, to very fine grained quartzose sandstone. Siltstone, dark brown - grey, with laminar bedding. Shale, black, hard, micro-micaceous.
3030-3430 ¹	Distinct lith.break to shale, black, hard, micro-micaceous, with a high luster. At 3210°, decreasing micro-micaceous, and becoming in part dark grey.
3430-3490 ^s	Siltstone, dark brown - grey, argillaceous, with black shale interbedded. Trace of pyrite.
3490-3590 ¹	Siltstone, quartzose, micro-micaceous, tight. Siliceous 3520-3530', becoming dark, argillaceous below 3530' with black shale interbeds.

3590-39801 Shale, black, hard, micro-micaceous, with high luster. 3690-3700 Sample missing. 3850-3860 Trace slickensides. 3930-3940 Trace carbonaceous twigs or tree needles. Trace slickensides. 3980-4100 Shale, as above, and shale, dark grey, micro-micaceous, but smoother than the black shale. Slickensides abundant. Shale, dark grey, micro-micaceous. Trace calcite-coated 4100-4210* fracture 4200-4210". 4210-45301 Shale, dark grey, as above; and shale, black, as above. 4410-4420* Sample missing. 4510-4520° Trace coarse crystalline dolomite, black and white, scattered slickensides. Shale, black, hard, micro-crystalline, slickensides common, 4530-5830° traces of ironstone and pyrite. Glauconite, trace in 4770'. Trace of olive-green bentonite in 4860'. 5760 Trace massive chert. 5800 Dispersed pyrite common. Shale, black, with a trace of dark brown, argillaceous lime-5830-58801 stone. Some black, calcareous shale. Some very glauconitic shale. Trace carbonaceous material. 5870-5880' Limestone stringer, dark brown, coarse crystalline. Stringers of glauconite and pyrite. Crinoid (?). 5880-5900* Siltstone, black, very glauconitic and pyritic. Sandstone, coarse grained, angular, well sorted, composed of 5900-59201 black chert and clear quartz. Sparry calcite cement fills pore space estimated greater than 20%. Diagenesis order: 1) calcite cement, 2) fracturing, 3) siliceous in fracture. Disseminated pyrite common. No porosity. Conclomerate, composed of black chert and white chert, with 5920-59701 quartz and chert sandstone. Sparry calcite cement. Disseminated pyrite common. Trace of porosity, no oil stain, spotty bright fluorescence. Trace of pyrobitumen. Trace of glauconite. Sandstone, white, quartzose to greywacke, with trace of 5970-59901 tripolite. Sub-rounded, moderately well sorted, no porosity. Disseminated pyrite common. Sparry calcite cement. Brachiopod fragments. - 8 -

5990-6020* Conglomerate, as above. 6020-6040* Sandstone, very fine grained quartz to greywacke, with well rounded, black chert and white chert pebbles. Subangular, well sorted, sparry calcite cement. Fragment of brachiopod. Disseminated pyrite common. Trace of pyrobitumen. 6040-60501 Sandstone, quartzose, very fine grained, with well rounded chert pebbles, sub-angular, well sorted. Sparry calcite cement. Trace of porosity. Trace of pyrobitumen. No oil stain. 6050-6060* Poor sample - Trip trash. 6060-6100 Sandstone, fine grained, sub-angular, well sorted, chert and quartz grains, with occasional well rounded chert pebble, abundant disseminated pyrite. Trace of glauconite. Trace of pyrobitumen. Complete sparry, calcite cement. Abundant tripolitic chert 6080-6090'. Trace porosity 6090-6100'. No oil stain, no fluorescence. 6100-6130' Conglomerate, well rounded chert pebbles in fine grained sandstone matrix. Abundant disseminated pyrite. Trace of porosity, trace of pyrobitumen. Trace of glauconite. Nearly complete sparry calcite cement. 6130-6140 Sandstone, coarse grained, sub-rounded, well-sorted cherty grains. Disseminated pyrite abundant. Complete calcareous cement. 6140-61501 Sandstone, as above, and limestone. Limestone, white, sparry, with fossil fragments. Brachiopods, echinoids (?), spines and spicules. 6150-61601 Limestone, sandy (limestone 50%). Limestone, dark brown, coarse crystalline, in part fragmental (spines, brachiopod, echinoid ?). 6160-6170 Siltstone, green, very glauconitic. 6170-6180' Limestone, light brown, fragmental and pelletal (?), in part slightly sandy, medium granular. 6180-6190* Sandstone, medium grained, angular, well-sorted with large white chert pebbles or massive chert.

6190-6200*	Limestone, light buff, sparry, grading to sandy limestone to limy sandstone.
6200-6220	Sandstone, medium grained, angular, calcareous, with sparry limestone stringers. Scattered round chert pebbles, trace of tripolitic chert. Glauconite common.
6220-6450 [†]	Limestone, light brown to grey, coarse granular, in part skeletal, at times pelletal, with abundant white, sparry calcite. It is arenaceous throughout, the grains often being flakes or grains of chert. Insoluble residue of pyrite. Becoming glauconitic below 6420.
6450-6470	Limestone, fine granular, light brown, slightly dolomitic, cherty, pyritic.
6470-6490°	Limestone, as above, with some interbedded, non-calcareous, dark grey shale.
6490-6590°	Limestone, light brown to light grey, fine granular, with massive chert. Interbeds of black, very sandy limestone, very glauconitic and cherty.
6590-6600°	Sandstone, fine grained, calcareous, glauconitic, tight.
6600-6610*	Limestone, as before.
6610-6620°	Limestone, light brown. The extremely sandy portions are dark grey, with abundant glauconite grains.
6620-6630*	Sparry calcite and calcite crystals. Probably fractures.
6630-6860 '	Limestone, light brown, medium granular, strongly arenaceous, pelletal, faintly skeletal, with bedded chert. Glauconite throughout. Abundant sparry calcite 6660-6680 and 6810-6820. Trace brachiopod 6810-6820.
6860-6910*	Limestone, dark, extremely cherty, glauconitic, pyritic, with scattered large chert pebbles below 6890'. Spicules in 6910' sample.
6910-6930°	Sandstone, very fine grained, well sorted, dolomitic, possibly slightly siliceous, medium and dark brown. Glauconitic.
6930-69401	Siltstone, brown, dolomitic, glauconitic, slightly argillaceous, possibly slightly siliceous.

6940-6960 Sandstone, very fine grained, brown, glauconitic, slightly argillaceous, with calcareous and siliceous cement.

6960-6970 Trip trash.

6970-6980 Sandstone, as above, with abundant calcite crystals as fracture filling.

6980-6993 Limestone, medium granular, white to grey, arenaceous. Abundant calcite crystals as fracture fill, pyrite common. Limestone is mostly pelletal.

FLINT Engineering & Construction, Ltd.

DRILLING SUMMARY

for

MURPHY MESA B.P. SOUTH WHITESTONE Y.T. N58



Prepared for MURPHY OIL COMPANY LTD.

bу

Flint Engineering & Construction, Ltd.

TABLE OF CONTENTS

Special	Operations	Reports
Contract the state	COCI GOIGI	

1.	General Data	Page	1			
2.	Coring Data	Page	1			
3.	Logging Data	Page	7			
4.	D.S.T. Data	Page	7			
5.	Casing Data	Page	2			
6.	Bit Data	Page	2	**	3	
7.	Mud Data	Page	3			
8.	Deviation Surveys	Page	3	-	4	
9.	Abandonment Data	Page	4		5	
10.	Services and Suppliers Used	Page	5			
11.	Surface Casing Tally	Page	5			
og Showing D	aily Drilling Progress	Page	7	to)	•

SPECIAL OPERATIONS REPORTS

1. General Data:

Location - Latitude - 65° 57' 50" North / Longitude -138° 25' 30" West / Ground elevation 2907 / K. B. elevation 2918 / February 10, 1973 Rig release date February 10, 1973 - Final total depth 6993

2. Coring Data:

No cores were taken.

Misrun - packer seat failed.

3. Logging Data:

Logged by Schlumberger.

Dual Induction Laterolog - 6950 to 955.

B.H.C. Sonic - G.R. - Caliper - 6947 to 954.

Formation Density - 6938 to 4900 and 3100 to 2250.

T.D. Schlumberger - 6956. T.D. Driller - 6993.

Note: approximately 40' of fill on bottom.

4. D.S.T. Data:

D.S.T. #1 - 5930 to 6002.

Single straddle with bypass using sidewall - anchor by Johnston. Preflow - 5mins., I.S.I. - 60 mins., T.O. - 90 mins., F.S.I. - 90 mins.

Fair I.P. followed by fair air blow decreasing to weak at end of 90 mins.

Recovered 420' muddy fresh water.

Recovered 420' muddy fresh water.

J.H.P. 2825, F.H.P. 2825, I.S.I.P. 2023, F.S.I.P. 1996, I.F.P.

D.S.T. #2 - 2360 to 2450.

Single straddle with bypass using sidewall anchor by Johnston.

Misrun - packer seat failed.

D.S.T. #3 - 2360 to 2450.

Single straddle with bypass using sidewall anchor by Johnston.

Nisrun - packer seat failed.

D.S.T. #4 - 2361 to 2454.

Dual straddle with bypass using sidewall anchor by Johnston.

5. Casing Data:

Ran 25 jts., 958.92' of 13-3/8", 43#, H40, S.T. & C., rge. 2 and 3 surface casing. Shoe landed at 957 K.E. Float landed at 926 K.B. Cemented with 1050 sacks of construction cement with 50 lbs. of Cellex lost circulation material added by B. J. Cementing. P.O.B. at 12 noon, February 19, 1973. Estimated cement returns - 60 bbls. Used guide shoe, float collar and 4 centralizers.

A STANDARD CONTRACTOR OF THE STANDARD CONTRACTOR	
Total casing used - 25 jts.	958.92
Guide shoe	1.30
Float collar	1.58
Total length of string	961.30
Length of cut-off	17.00
Casing left in hole	944.80
Distance K.B. to casing bowl flange	12.20
Shoe landed at	957 K.B.
Float landed at	926 K.B.

Note: I joint left on lease was damaged. It was used to make a road drag.

6. Bit Data:														Jet	
<u>Re</u> No. 1973,	Size	Туре	Jet <u>Size</u>	Depth Out	Feet	Hours	Co		ion <u>G</u>	₩t. 1000#	RPM	Pump Press	Pump . Size	SPM	Vel- city
2/13 1A 2/14 2A	17-1/2 17-1/2		3-15 1-18 2-15	405 610	405 205	45 23	4 6	4 6	I	10 20	100 100	900 600	5½ x 16 5½ x 16	60 60	200 180
2/15 RR 1A	17-1/2	OSC3	7-18 2-15	632	22	3-3/4	6	5	I	20	100	600	5½ x 16	60	180
2/16 3A 2/17 4A	12-1/4 17-1/2		3-16 1-18 2-15	790 906	158 116	17 17	6 8	3 8	I	15 25	120 100	600 800	5½ x 16 5½ x 16	60 60	175 180
2/18 5A 2/18 RR 1A	12-1/4 17-1/2		3-16 Reame	957 d hole	51 to 957	7-3/4	7	5	I	10 10	130 130	600 600	5½ x 16 5½ x 16	60 60	175
2/24 1 2/27 2	8-3/4 8-3/4	XIG XIG	3-10 3-10	1508 2107	55 1 599	25 243 ₅	6	1	I	15 15	160 160	1400 1300	5½ x 16 5½ x 16	64 56	480 420
3/2 3 3/3 4	8-3/4 8-3/4	XIG XDV	3-10 3-10	2360 2432	253 72	27-3/4 17-3/4	3	beste denne	0	20 30	160 60	1300 1300	5½ x 16 5½ x 16	56 56	420 420
3/6 5 3/7 6	8-3/4 8-3/4	X44 JD8	3-10 3-11	2615 2686	183 71	36-1/4 15-1/4	5	2 5	I	25 25	50 60	1300 1300	5½ x 16 5½ x 16	56 56	420 350
3/8 7 3/9 8	8-3/4 8-3/4	JD8 JD8	3-11 3-11	2744 2842	58 98	19 20	6 6	1	I	25 30	60 60	1300 1300	5½ x 16 5½ x 16	56 56	350 350
3/14 9 3/19 10	8-3/4	J44 J44	3-11	4033 4750	717	110 84	6	Part Part	I	15-30 20-30	50-60 60	1250 1000	5½ x 16 5½ x 15	52 52	325 300
3/25 11 3/26 12	3-3/4 8-3/4	J44 XOV	3-11 1-12 2-11	5600 5717	850 117	113 16	2	1 2	I	15-20 15	60 70	1000 1200	54 x 15 54 x 16	48 52	285 310
3/30 13	8-3/4	J44	1-12 2-11	6055	338	63	7	5	0	15-30	40-60	1200	5½ x 16	52	310

Bate	No.	Size	Туре	Jet Size	Depth Out	Feet	Hours	Co	ndit B	ion G	Wt. 1000	RPM	Pump Press	Pump Size	SPM	Jet Vel- ocity
4/4	14	3-3/4	X55R	1-12 2-11	6456	401	89-3/4	6	1	1 2	5-35	50-60	1200	5½ x 16	52	370
4/7	15	8-3/4	J44		6958	512	77-1/4	7	3	I 2	5-33	60	1200	5½ x 16	52	310
4/11	16	8-3/4	J44	3-12	6993	25	5-1/4				30	60	1150	5 ¹ 2 x 16	50	265

7. Mud Data:

Depth Interval	Date 1973	<u> Hight</u>	Funnel Fisc.	P.V.	<u>Y.P.</u>	Gels Init/10m.	W.L.	рН	Solids	Annul. Velocity
0 - 300 300 - 957 957 - 1600 1600 - 2100	2/10 2/14 2/25 2/26	8.9 10 8.4 9.0	Heavy - 60 29 40	mixed 1	ost cire	culation mate	rial	9.5		
2100 - 2300 2300 - 2500 2500 - 2600	2/28 3/2 3/5	9.9 9.2 9.1	50 60 58	20 18 20	12 22 20	5/9 5/9 5/9	11 10 7.8	9.5 9.0 9.5	2 2	148 140 140
2600 - 3000 3000 - 4000 4000 - 4600 4000 - 5400	3/6 3/10 3/14 3/18	8.9 9.0 9.0	50 60 57	20 23 23	13 14 15	3/6 3/8 3/8	8.5 6.8 8.0	9.5 10.5 10	6 5 5	130 130 130 ₋
90 - 6000 6000 - 6400 6400 - 6900	3/24 3/30 4/3	9.2 9.1 9.1 9.0	63 67 65 62	27 32 30 33	18 26 24 22	7/16 4/8 3/8 8/15	7.2 7.2 6.1	9.5 9.5	6 6	100 120 120
6900 - 6993 Log & Test	4/7 4/12	9.0 9.0	90 17 5	42 58	41 74	12/18 15/20	6.8 6.4 5.2	9.5 9.0 9.0	4 4 5	120 120

8. Deviation Surveys:

<u>Depth</u>	<u>Deviation</u>	Depth	Deviation
81	7/3	2260	7/8
140	7/8	2325	1
200	3/4	2358	1-1/3
263	7/8	2390	1,0
325	1	2430	į
387	1	2500	ż
448	7/3	2530	1-3/4
510	1	2562	2
634	1/2	2594	1-1/2
697	1/2	2659	1-3/4
760	3/4	2691	2
323	ì	2744	2
885	1-1/4	2791	2-1/8
957	1	2342	2-1/8
1104	1-1/8	2883	2-1/0
1250	i-i/8	2980	2-1/2
1400	1-1/4	3076	2-7/8
1508	1-3/4	3171	2-1/2

8. Deviation Surveys Continued ...

Depth	Deviation	Depth	Deviation
1600 1700 1800 1910 2013 2103 2200	1-3/4 1-1/2 1-1/2 1 1 1-3/4 1-1/4	3262 3353 3452 3547 3642 - 3737	2-3/4 3 2 2-1/3 2-1/2 3
3831 3925 4020 4110 4170 4270 4363 4459 4550 4648 4741 4870 4964 5059 5154 5248 5340 5435 5562 5653 5717 5781 5876 5939 6000	3-3/4 3 3-1/2 1-1/4 2-1/2 2-1/2 2 2 2-1/8 2-1/4 3 3-1/4 3 4-1/4 4 4-1/3 4-1/2 5-1/2 5-1/2 6	6034 6097 6160 6223 6318 6349 5411 6456 6539 5633 6968	5-3/4 6 6 6 6-3/4 5-3/4 6-3/4 6-3/4 7-1/4 8-3/4

9. Abandonment Data:

Plug #1 - 6993 to 6700. Used 100 sacks cement. Displaced with 95 bbls. P.O.B. at 11:25 p.m., April 15th, 1973.

Plug #2 - 6200 to 5800. Used 225 sacks cement. Displaced with 74 bbls. P.O.B. at 12:45 a.m., April 16th, 1973. Felt for Plug #2 at 9:15 a.m., April 16th, 1973. Found top at 5820 K. \aleph .

Plug #3 - 2650 to 2300. Used 200 sacks cement. Displaced with 27 bbls. P.O.B. at 10:30 a.m., April 16th, 1973. Felt for Plug #3 at 6:30 o.m., April 16th, 1973. Found top at 2 $\frac{1}{2}$ 40 K.B.

9. Abandonment Data continued

Plug #4 - 1007 - 907. Used 120 sacks cement. Displaced with 10 bbls. P.O.B. at 8 p.m., April 16th, 1973. Felt for Flug 44 at 4 a.m., April 17th, 1973. Found top at 908 K.B.

Cut casing off. Placed 5 sacks came t in top. Welded on plate. Welded piece of 2" pipe to plate and welded identification sign on to the pipe.

10. Services and Supoliers Used:

Drilling Contractor Road and Lease Construction Mahanni Construction Airplane Charter Trucking (rig move) Trucking (supplies)
Trucking (water) Cementing Logging Testing Mud

G.P. HacKenzie Airways Falcon Tran sport Whitebass & Yukon Toron Construction 3. J. Schlumberger Johnston Magcobar

PIPE TALLY

2	i i				D.	an Eur	· .**	s 19, 1	G-73
		10 . 2.2		010					
								IN.	1
Size & D	es crip	ntion Su	REHL	<u> </u>	2, 4	LE, " H	40	STYC	
FEET	10ths	FEET	zf101	FEET	10ths	FEET	lOihs	FEET	10ths
Automorphic Committee Comm		21. 39				Casi	1.5	Seconone	
40	70	41	55		-				
40	52	38	92					258	92
36	48	.39	70		G	2 colo -S1	ne.	1	30
36	•			general and a second second and a second a second s	LE	1001 Co	Wax		58
36	25	26年36	. 00		-57C	Strin	.	961	80.
40	50			THE TAX TO SERVE THE TA					
34.	12								
38	71	ĺ			Llux	L L	ind	957	K.15
.36	34			F	1000	Conce	1.0	926	KB
.38	10								
.39	78			K.F	まて	F Spar	1	13.	80
41	2.5								
32	58			K,6	1 15	CIG	J	12	130
36.	0.2								
40	68								
,39	94							- Gladeryn	
and a second sec	8.3	1							
and the second s	62	1						and the second s	
20 .39		•			-				
159	4	1	1/6						1
Tota	d Thi	s Sheet	?	Tallie	1 By .	C. 12	.75.	111.5	Transference en constituent en const
No. Of P	laces	LFEET	lorns	1		A. S. S.			ggreen noor waterous see to distribe
26		994	192	1 - 5 . 5	f ,2c	. da.	-3-16		

LOG SHOUTING DAILY PROGRESS

February 11 - 8 a.m. Report:

Spudded in at 7 p.n., February 10, 1973. Drilled 17%" hole to 109'.

February 12 - 8 a.m. Report:

Drilled $17\frac{1}{2}$ " hole to 160. Lost circulation for $15\frac{1}{2}$ hours. Hixed gel and lost circulation material.

February 13 and 14 - 8 a.m. Reports:

Drilled 1713" hole to 556.

February 15 - 8 a.m. Report:

Drilled 17'2" hole to 632. Drilled 12'4" hole to 668.

February 16 - 8 a.m. Report:

Drilled 124" hole to 790. Began reaming hole to $17\frac{1}{2}$ " at 632.

February 17 - 3 a.m. Report:

Reamed 12½" hole to $17\frac{1}{2}$ " to 790. Continued drilling $17\frac{1}{2}$ " hole to 352.

February 18 - 8 a.m. Report:

Drilled 17°_{2} " hole to 906. Orilled 124° hole to 957 (reduced size because deviation more than 1 degree).

February 19 - 8 a.m. Report:

Reamed hole to $17\frac{1}{2}$ " to 957. Began running surface casing.

February 20 - 8 a.m. Report:

Ran and cemented 13-3/8" surface casing. P.O.B. at 12 noon, February 19, 1973. Circulated hot water inside casing to prevent cement from freezing.

February 21 - 8 a.m. Report:

Circulated hot water inside casing to prevent cement from freezing.

February 22 - 8 a.m. Report:

Circulated hot water inside casing (total circulating time - 48 hours). Welded on 13-3/8" casing bowl.

February 23 - 8 a.m. Report:

Installed B.O.P.'s and manifold. Changing rubbers on $4\frac{1}{3}$ pipe rams.

February 24 - 3 a.m. Report:

Pressure tested Bland Rams to 1500 psi - okay. Pressure tested Hydril to 1500 psi - okay. Morking on hydraulic system for Φ_3 " Pipe Pams.

February 25 - 8 a.m. Report:

Repaired 45" Pipe Ram system. Pressure tested Pipe Rams to 1500 psi - okay. (pressure tested Kelly cock). Found top of cement at 927. Brilled out plug, cement and shoe. Drilled 8-3/4" hole to 1173.

February 26 - 3 a.m. Report:

Drilled 8-3/4" hole to 1508. Tripped for new bit - hole good with 20' of fill. Drilled 8-3/4" hole to 1571.

February 27 and 28 - 8 a.m. Report:

Drilled 8-3/4" hole to 2103. Tripped for new bit. First 4 stands pulled tight on trip out. Had to start reaming tight hole at 1700 on trip in.

March 1 - 8 a.m. Report:

Finished reaming to bottom - total time - 7½ hours. Hixed mud and raised viscosity to 45. Drilled 8-3/4" hole to 2245.

March 2 - 8 a.m. Report:

Drilled 8-3/4" hole to 2352. Tripped for new bit. First 2 stands pulled tight on trip out. On trip in - bridge 150' off bottom and 30' of fill on bottom - total time - Γ_2 hours.

March 3 and 4 - D a.m. Report:

Orilled 8-3/4" hole to 2430. Tripped for new bit - hole good. Layed down 9 washed drill collars. Installed that bit 3 - point reamer above bit on trip in.

March 5 and 6 - 8 a.m. Report:

Orilled 8-3/4" hole to 2615. Tripped to find washout in string. Layed down 5 washed drill collars. Tripped in with near bit reamer in string.

March 7 - 8 a.m. Report:

Drilled 8-3/4" hole to 2636. Tripped for new bit - hole good.

March 8 - C a.m. Report:

Drilled 9-3/4" hole to 2744. Tripped for new bit - hole good. Bottom hole assembly - bit, M.B. Reamer, 2 - 7-3/4" collars, Blade Stabalizer, 8 - 7" collars.

March 9 - 8 a.m. Report:

Orilled C-3/4" hole to 2842. Tripped for new bit - hole good. Cottom hole assembly - bit, N.B. Reamer, 1 - 10' - 7-3/4" collar, Blade Stabalizer, 1 - 7-3/4" collar, 1 - 7" collar, Blade Stabalizer, 13 - 7" collars.

flarch 10 to 14 - 8 a.m. Report:

Urilled 8-3/4" hole to 3038.

<u>Harch 15 - 8 a.m.</u> Report:

Drilled 8-3/4" hole to 4033. Tripped for new bit. Cleaned 270' to bottom. Drilled 3-3/4" hole to 4045. Bottom hole assembly - bit, N.B. Reamer, 1 - 10' - 7-3/4" collar, Blade Stabalizer, 1 - 7-3/4" collar, 1 - 7" collar, Blade Stabalizer, 13 - 7" collars.

March 16 to 19 - 8 a.m. Report:

Drilled 8-3/4" hole to 4750. Tripped out for new bit.

March 20 - 8 a.m. Report:

Tripped in. Bit plugged. Tripped to unplug bit. Cleaned 180' to bottom. Drilled 3-3/4" hole to 4703. Bottom hole assembly - bit, N.S. Reamer, 1-10'-7-3/4" collar, Blade Stabalizer, 1-7-3/4" collar, 1-7" collar, Blade Stabalizer, 13-7" collars.

<u>ilarch 21 to 25 - 8 a.m. Report:</u>

Drilled 8-3/4" hole to 5600. Tripped out for new bit.

March 26 - 8 a.m. Report:

Changed 4 - 7" collars. Tripped in - cleaned 150' to bottom. Drilled 8-3/4" hole to 5684. Bottom hole assembly - bit, M.B. Reamer, 1 - 10' - 7-3/4" collar, Blade Stabalizer, 1 - 7-3/4" collar, 1 - 7" collar, Blade Stabalizer, 13 - 7" collars.

March 27 - 8 a.m. Report:

Drilled 8-3/4" hole to 5717. Tripped for new lit - cleaned 75' to bottom. Drilled 8-3/4" hole to 5750. Bottom hole assembly - bit, N.B. Reamer, 1 - 10' - 7-3/4" collar, Blade Stabalizer, 1 - 7" collar, Blade Stabalizer, 13 - 7" collars.

March 28 to 30 - 8 a.m. Report:

Drilled 8-3/4" hole to 6055. Tripped out for new bit.

March 31 - 8 a.m. Report:

Tripped in. Cleaned 120' to bottom. Drilled 8-3/4" hole to 6115. Bottom hole assembly - bit, N.B. Reamer, I - 10' - 7-3/4" collar, Blade Stabalizer, I - 7-3/4" collar, I - 7" collar, Blade Stabalizer, 13 - 7" collars.

April 1 to 3 - 3 a.m. Report:

Orilled 8-3/4" hole to 6421.

April 4 - 8 a.m. Report:

Drilled 8-3/4" hole to 6456. Tripped for new bit. Layed down 3 - 7" collars. Cleaned 90' to bottom. Drilled 8-3/4" hole to 6460. Bottom hole assembly - bit, 11.3. Reamer, 1 - 10' - 7-3/4" collar, Blade Stabalizer, 1 - 7-3/4" collar, 1 - 7" collar, Blade Stabalizer, 10 - 7" collar.

April 5 - 8 a.m. Report:

Brilled 8-3/4" hole to 6587. Hole taking some mud - mixed sawdust.

April 6 - 8 a.m. Recort:

Drilled 8-3/4" hole to 6722. Loss of mud stopped. Rig checked by Conservation Board representative.

April 7 - 8 a.m. Report:

Drilled 8-3/4" hole to 6906.

April 8 - 3 a.m. Report:

Drilled 8-3/4" hole to 6963. Tripped for new bit. Cleaning out bridge at 5300.

April 9 - 3 a.m. Report:

Working tight hole. Pipe stuck intermittently. Lost mud to formation and had to mix new tank of mud.

April 10 - 8 a.m. Report:

Working stuck pipe. Cleaning out hole.

April 11 - 8 a.m. Report:

Cleaned to bottom and conditioned hole. Orilled 8-3/4" hole to 6993 (final total depth).

April 12 - 8 a.m. Report:

Tripped to condition hole to log. Circulated and conditioned mud. Tripped out to log.

April 13 - 8 a.m. Report:

Logged hole by Schlumberger.

April 14 - 3 a.m. Report:

Ran D.S.T. #1 by Johnston.

April 15 - 8 a.m. Report:

Attempt D.S.T. 2, 3 and 4 by Johnston. All misruns - packer seat failed.

April 16 - 8 a.m. Report:

Set 2 abandonment plugs by B. J.

April 17 - 8 a.m. Report:

Complete abandonment. Began dismantling rig at 4 a.m., April 17, 1973.

CORE LABORATORIES - CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS



								File 7	021-364	B Page	l of l
Company	Murphy	Oil Co	ompany 1	Ltd.	TO COMPANY OF THE BUILDING STREET, MADE SHOWN A MADE IN A STREET, MADE SHOWN AS A STREET, MADE SHOWN A	at the Magnetic with minimal model at the attribution before the stage	error (1984-1981) (1987-1988) salahin da menengan bilga Sanahan da m	Olivini all'all'all'all'a sa sa senerali rationale all'aggio suggio	BOOKS IN NOTICE OF A STREET OF		
Well				iteston	9 YT N-	58	K.B.		Gra	1	2300'
Location	65° 5 138° 2	7'50.00 5'30.00) W.L.	Fic			River				
Formation	<u> </u>	oic			e construire de la cons		Interval	59:	30' - 60	002'	The state of the s
Sampled from	DST #1	(Top c	of Tool)				by				
Date sampled	#H-FACE Residence of the Control of		642 hojan vinci yiri dilah kumanggu kasaya				73				
Recovery						Monadaromannakapunaspalajon, anndo mobilesa kar					
Brathermore are the continued of the second		•					Wa	ter cushior			Freedom site with the manage of ground new annual and an addition
	•					Total S					
Resistivity	2.09	Ohm	-meters @		oF.	Calcula	ted	PON Thichelick was a speed principle or whose exceptions in a	4,467		mg/liter
Specific gravity	Control of the Second S	1.	0 033	<u> </u>)oE	By evap	oration @ 11				rng/liter
pH8.2	. H ₂ S	Ab	sent		· ·		oration @ 18			minima mendenta de la composição de la c	mg/liter
fractive Index		•	3330 @	70°F			tion			propriesco's colores (gracys) in grating and the constitution of	
								et vide-tulen del la vestigat en principio y colònique de società en e	rmila milijar ng salas tilulanin) sa minijar sijaraminiy meta mujuk dipundik	Authority (Manager) and Authority (Age	mg/liter
Na+K	Ca I	Mg	Fe	MILL Ba	IGRAMS Br	PER LITE	R CI	Luco	Colo	Accession of the Contract of t	an influence of the face in the control control of the face in the control of the face in the control of the co
1290	25	THE PARTY OF THE P	Trace	Abs.	<u> </u>	Total Control of the		HCO3	SO ₄	CO3	ОН
12901	45]		1	L	IT CALC	JLATED S	442	2577	130	0	0
			***************************************	*****************************	LOALO	LATED S	OLIDS				
28.9	5]	1	Trace	Abs.			9,9	57.7	2.9	.()	.()
				AMERICAN STATE OF A PARTIES AND A PARTIES AN	MEQ PER	R LITER	a diferentia di Aria and angulari da galari da di da		orders to contract the contract of the contrac		
56.11	1.21	2	Trace	Abs.		Marie	12.5	42.3	2.7	[]	
			LOG	SARITHMI	C PATTE	ERN MEQ	PER LITER		,		
0,000	6,00 8,00 8,00 8,00 8,00 8,00 8,00 8,00	8 8	20 20	, n	N		6	8	8)	50,000
Ca Ca											SO ₄
2523. 1	290.0										J.

Sillindegge

JOHNSTON TESTERS

4 DOOR AVEN IT SECATIONAY ALBERTA FOR THE

TEST DATA	YOOL 3	EQUENCE	
Type of Test Open hole Straddle, Bypass.	To al	Longth	0.0
ima Started in Hole 223() Hrs Tool Opened 0,35 Hrs.	P.O. 5ab	1.00	-
irst Flow 5 Min. Initial Shut-In 60 Min.	D.P. Sub	1.00	
econd Flow 90 Min. Second Shut In Min.	MER Tool	9,10	
hird Flow Min. Final Shut In 90 Min.	Bypass Tool		
u''ed Loose (a 0830 Hrs. Out of Hole 1200 Hrs	Jara	3.50	
(t. Set/on Packers 40.000 # Pulled Loose Wt. 60.000 #	Hunger Sub	.50	
	Safety Joint	1.75	
ecreasing throughout test.	S.S. & Packer	8,25	7 3/4
	Total	33.35	
	The second secon		
	Stub	1.00	
	On Fo	24,00	
2.115 P. C.	Receiver Sub	.85	-
	Recorder	5.60	
	Recorder	4.40	1
	5:15	,90	
near battam).	Drill Collars	31.15	-
	13:16	1.00	
	Travel Collar	3.50	-
	Total Interval	72.40	-
GAS BLOW MEASUREMENT	Packer	2,9()	7 3/4
Measured With ID. Riser	Darf	5.00	
Time Sice. Choke M. Cubic Feet Day	Selec. Zone Tool	1.00	
	And the state of t	for age construent of the first first self-self-self-self-self-self-self-self-	
	September 1 - The Approximate Application of Equipment of Machinery (Control of the Application of Control of the Application of Control of Con	- Advance-Market - Advance-Market - Advance-Market - Advance-Market - Advance-Market - Advance -	1
		Para sanda berapat hanna basa, aranana canta dia aranana dia arana pana basa da Patra arana da P	
	In the control of the second control of the control		
A ASSESSMENT OF THE PROPERTY O			-1
NII			
The Control of Particular (1917) and the Control			
MERCHANDERS DESCRIPTION OF THE PROPERTY OF THE			
	September 1994 (Austrian Latinovice Control of Austrian control of		
	TOTAL LENGTH		
	AND AND ADDRESS OF THE PARTY AND ADDRESS OF TH	N/A KB.	1.380
	Battom Hale Chake Size		THE RESERVE OF THE PERSON NAMED OF THE PERSON
		III Amt	
REMARKS: Test satisfactory.	AND ALCOHOLOGICAL CONTINUES OF THE PROPERTY OF	O HOLE DATA	
Had to jar a few times with 60,000 psi to	The second secon	managanalating appropriation of the control of the	enemana productiva esta esta esta esta esta esta esta est
DALLA GOS PARAMENTO DE CONTROL DE	Mud Type Gel C		6.6
	Definition of the contract of	isc 109 Wt	9.0
	Time Taken		o con manus commission con quantitativo con quantitativo con quantitativo con quantitativo con quantitativo co
		The second test of the first particular and the condition of the first particular and the first particular and	g No.24
	Drill Pipe Size 4 1/2	'' EH	volument de mei i likelije indominara meninjelije kaja i delek m
	Drill Collar Size 2 7/8	" ID &	
RESISTIVITY SALT CONTENT	Drill Collar Length 337	Ex.	THE SECTION SE
The contract of the contract o	il our course condition in	and the contract of the second	AND DESCRIPTION OF THE PARTY OF
Recovery Water @ °F. 2,500 ppm.	Apple Control	" Rat Hole	en allen granden Chemisteren jegan für all met dien met der
Recovery Water @ °F. 2,500 ppm. Wud Pit sample filtrate @ °F ppm.	Main Hole Size 8 3/4		T No 1
Recovery Water @ °F. 2.500 ppm. Mud Pit sample filtrate @ °F ppm. District Inuvik Ticket No 108043 Date April	Main Hole Size 8 3/4 13, 1973 Test N	40 L J	T No L
Recovery Water @ °F. 2,500 ppm. Mud Pit sample filtrate @ °F. ppm. District Inuvik Ticket No 108043 Date April Company Murphy Oil Company Ltd. Address 700 A	Main Hole Size 8 3/4 13, 1973 Fest N guittaine Tower, 540	- Stb Ave.	and an increase a many different
Recovery Water @ °F. 2,500 ppm. Mud Pit sample filtrate @ °F. ppm. District Inuvik Ticket No. 108043 Date April Company Murphy Oil Company Ltd. Address 700 A Well Name Murphy Mesa BP S Whitestone YT N-58 Box 2	Main Hole Size 8 3/4 13, 1973 Fest N quitting Tower, 540 731, Calvary, Alber	40 1 J - 5th Ave.	and an increase a manage white
Recovery Water @ °F. 2.500 ppm. Mud Pit sample filtrate @ °F ppm. Oistrict Inuvik Ticket No. 108043 Date April Company Murphy Oil Company Ltd. Address 700 A Well Name Murphy Mesa BP'S Whitestone YT N-58 Box 2 Number 65°17'50"N 138°25'30"W heid Wildo	Main Hole Size 8 3/4 13, 1973 Fest N quitaine Tower, 5/40 731, Calvary, Alber ac Province V.W.	40 1 J - 5th Ave.	and an increase a many different
Recovery Water @ °F. 2.500 ppm. Mud Pit sample filtrate @ °F ppm. District Inuvik Ticket No. 108043 Date April Company Murphy Oil Company Ltd. Address 700 A Well Name Murphy Mesa BP'S Whitestone YT N-58 Box 2 Number 65°17'50"N 138°25'30"W Field Wilde	Main Hole Size 8 3/4 13, 1973 Fest N quitting Tower, 540 731, Calvary, Alber	40 1 J - 5th Ave.	and an included a second
Recovery Water @ °F. 2.500 ppm. Mud Pit sample filtrate @ °F ppm. District Inuvik Ticket No. 108043 Date April Company Murphy Oil Company Ltd. Address 700 A Well Name Murphy Mesa BP'S Whitestone YT N-58 Box 2 Number 65°17'50"N 138°25'30"W Field Wilde	Main Hole Size 8 3/4 13, 1973 Fest N quitaine Tower, 540 731, Calvary, Alber as Province N.W. evenson	40 1 J - 5th Ave.	and an included a second

JOHNSTON

Salumbaca:

JOHNSTON TESTERS

A PROPERTY OF MALE AND AREA OF THE SECOND SECON

. D08043	THE VIEW OF THE PARTY OF THE PA	mentioned and inspiration properties and the properties of the second se	PRE	SSURE DATA		FLUID SA	AMPLE REPORT
I JMENI No		AK1-3859	AK1-2111			Sample No	· · · · · · · · · · · · · · · · · · ·
CAPACITY prig:		3700	4000			Tyle	ÿn
INSTRUMENT DEPTH FT		5956	5962	T		O-uth	50071
INSTRUMENT OPENING		Outside	Outside		·	Viringe	2500 ca
WELL TEMP "F. 116					4		More and pull test Juny Contr.
		The second secon				Simple Proviure:	
INITIAL HYDROSTATIC	A	2814#	2815#				plag, at Surface
FIRST FLOW	8	57#	59#			Gravity	API 91 F
	B-1	66#	68#		1	Gas Oil Ratio	Cu Ft - bbl.
INITIAL SHUT-IN	c	2039#	2038#			And the second s	to any manufacture of speed of the second of
SECOND FLOW	D	7.3#	85#				
	D-1	226#	227#			Recovery.	
SECOND SHUT-IN	Æ					Cu. Fr. Gas	To the Industrial Characteristic Control of the Con
THIRD FLOW	F					cc. Oil	- Maria di Maria di Maria di Amerika di Amer
	F-1			A THE PARTY OF THE	The second secon	cc. Water	2 A VIII Marking Market of a selection of the control of the contr
FINAL SHUTIN	G	1987#	1987#			cc Mud	The state of the s
FINAL HYDROSTATIC	н	2815#	2813#			Total Liquid cc.	
REMARKS:		MFE sample	sent to Core	Lab.	and the second s		The second section of the second seco

PRESSURE INCREMENTS ON RECORDER

POINT MINUTES	PRESSURE	<u>T + \(\Delta\) t</u>	POINT MINUTES	PRESSURE	T + 4 †	POINT	PRESSURE	
		Δ 7	WIMUIES		A *	MINUTES		. T
				and the second s	NO SECTION OF THE PROPERTY AND ADMINISTRATION OF A MARKET AND ADMINISTRATION OF THE PROPERTY O	1:	P	
9		onalitis alikularitikan manana ini artan - 1991 - 1980 manana asam-ususa asaliman mananan mususa asamuni				 	the territories between mineral and any organization	
nanananan sanan sana						4		
Complete Control of the control of t		Does og gjalggar i van synnergijkyng hydrafel og cyrp bydraedd by Calgid all hydr a dylchon ar ar ar yn gygang addiblos a a'r				1		
		tet te de 1941 en opskrift skipte 1960 til kritisk skipt skener ockspring af til skilling på tre skipt ockstille sener og	 			Transmission of the second		and the contract of the contra
Catalogue Constitution (Constitution Constitution Constit						()		
						- Marie		
				with the second section in the second section is a second section of the second section in the second section is a second section of the second section in the second section is a second section of the second section in the second section is a second section of the second section in the second section is a second section of the second section of the second section is a second section of the second section of the second section is a second section of the second section of the second section is a second section of the section of the second section of the section	THE CONTRACTOR OF STREET PROPERTY AND STREET STREET, STREET STREET, STREET STREET, STR	1	Article (MAPONE), solid to believe before a transportation by and	The state of the s
						1	Property and the second	Andrew Colonia
e de la companya de							Marine Company and the Company of th	Parties Co. Colores - Land Commission Control Control Control Control
						1:		
						1	in the control of the consequence of the description of the consequence of the consequenc	
						11		
						-		
						1.41		
	Control of the Contro					-		All and a second order Madellor a record or properly a prompt account for particular and a particular
						 		
						-		
					The state of the s	1	en entreter	
					Property and the second	 	Market Control Control of the Contro	The second control of
				Property and the state of the s	per la termina de la companya de la	4		No. 2. Comment of Contract Con
The state of the s						1		
					PROF. 1994(sh.464) (1-164)	I		ender and home a surprise man when
	OFF COST POPULATION CONTRACTOR	Note that the second control of the second c			market a contract of the paper of agreement and the contract of the contract o	†		
						¥	Barren et et en en jaron et en	MATERIAL CONTRACTOR CO
		MATERIAL STREET, STREE				The state of the s		
	and the second							The state of the s
	The state of the s			The state of the state of the state of the state of		1		Water Commission of the Commis
					PLANTA PARAMETERS AND	1		The Control of the Co
					The commence of the contract o	-		
h		TO A STATE OF THE				Polymer Care		
7				en transfer en 1880 en	and province of the second sec		decrees the second relation to the second of	A MINISTER CONTRACTOR OF THE STATE OF THE ST
	and the second s	AND AND THE PROPERTY OF THE PARTY OF THE PAR		n. Comment of the Com	60 100 000 declaration and 1 miles 1 years 10 miles 2 miles		No short new street or a support of the street of the stre	
			ļ l			1	B	
1		Anana				Boundary of		
			1				Market Control of the	PATE A TENNESSEE AND ASSESSEE AND ADDRESSEE
						 		
						H		
į.						11		

онизтон Schlumberger

JOHNSTON TESTERS

A THE OTH OF THE SMHERHER CANADA MICE.

21 SOTH AVENUE SE CALLARY ALBERTA TON, SHO

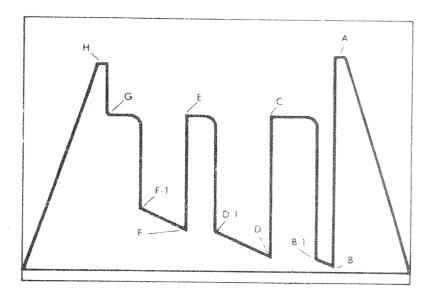
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

FIELD REPORT NO

RECORDER NO

P08043

AK1-3859

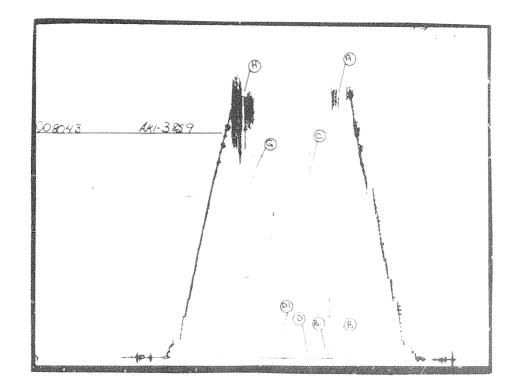


- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures

Z — Special pressure points such as pumping pressures recorded for formation breakdown.



ониятон Schlumberger

JOHNSTON TESTERS

A COOK OF SHE MBER TO MESSIVE METERS THE STATE OF SHEET OF SHEET AS THE SHEET OF SHE

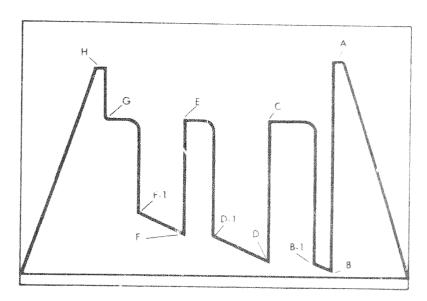
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

FIELD REPORT NO

RECORDER NO

D08043

AK1-2111

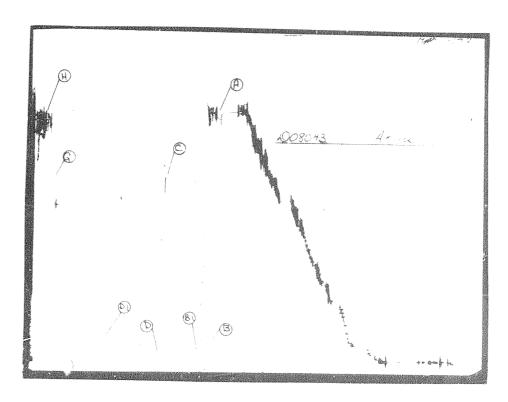


- A. Initial Hyd. Mud.
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F Third Flow
- G Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures
Z — Special pressure points such as

pumping pressures recorded for formation breakdown.



JOHNSTON Schlimberger

JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA CHAPTO 321 - SORN AVENUE S E CALGARY, ALBERTA - 12G 2B3

Annual An							7001	7 P M 1 1 1 1 1 1 P	
Tuna - 4 T			DATA				TOOL	SEQUENCE	
Type of Tes	ı Upen	nole, Strag	idle, Bypass.	et deleganisations		Tool		Length	0.0.
Time Started First Flow	in Hole	Santana Santana (.,	Hrs.	P.O. Sub		1.00	
The second second second second second		Min.	Initial Shut-In		Min.	D.P. Sub		1.00	
Second Flow		Min.	and the second contract of the second contrac	The second and appropriate the property of the second and the seco	Min.	MFE Tool	manifestation would be an income	9.10	
Third Flow		Min.	Final Shut In		Min.	Bypass Tool	Managarathan was to become him	2.95	
Pulled Loose		Hrs.	Out of Hole	2000	Hrs.	Jara		8.50	
Wt. Set/on P			Pulled Loose Wt.		#	Hanger Sub		.80	
Description o	f Blow Duri	ing Test	material de la company de la c	-		Safety Join	**************************************	1.75	
January	-			niap quantum ros anning parant di comunica co		S.S. & Pack	cer	8.25	7 3/4"
· Stationican and colorina physical action as a consideration of the second state of t	de de la companya de	NIL	ened, who may retrack the end of section and an example of disposary "section, section	#1664-www.eigenoophiss-ussian-valuosasec-orangenique		Total	des es estables de Mantenando Ministra	33.35	
HERMANIAN - ALEGOP NAVARONI A CALLAND	entrice and a second second	direktoration (direktoration disektoration d		The substantial region in the continues of the con-		Stub	yes announced to the material businesses	1.00	
		radilira electricistate e ; a reconstructo e registro e con escuente e con	report par in the following company was ready a series (a December and assessment about a	Chlemical Option Communicated Strike the Province Control	***************************************	Perfs		24.00	Annual Control of the
FLUID RECO	VERY	Was Test Rev	rerse Circulated Y	es 🗀	No 🖂	Receiver Su	ıh	1.85	-
Total Fluid R					Ft.	Recorder		4.40	
Description o		overad		-		Recorder		4.40	
Cau (2110) O	THUR REC	UTEI SU	ka da siriyida e karlika qar uu muu sabuuninin mada aa yar abbiiya ili ahlaka in iy kida qob abay M	Minde and the second section of the second s			MANAGEMENT - MINERAL MANAGEMENT		
						Sub		.90	
Anna (Marie) (Marie and Anna (Marie Anna (Marie Anna Anna Anna Anna Anna Anna Anna Ann		NIL				Drill Colla	ırs	60.35	-}
CACCAGO AN ANTANAS ANT						Sub		1.00	
Property St. Property St. Suppose State St.	CHANGE AS A PERSON OF THE PROPERTY OF THE PROP		. prince make, "kiningan" mendesa mangradikan penangikina menangan bandan penangan banda ke			Travel Coll		3.50	
enemer significant solutiones and analysis and		permanentapusa sergi usuannajaspanusani sepanannonjassarum	"Angipalanganganganganganganganganganganganganga			Total Inter	<u>val</u>	100.40	
***************************************	TO A MARIO PROPERTY OF THE PARTY OF THE PART	GAS BLOW /	MEASUREMENT			Packer	anadictioneranium of deputing in expension	2.90	7 3/4"
Measured W	ith				I.D. Riser	Perfs		5.00	
Time	Sfce. Cho	ke	M	Cubic Feet/D	ay	Selec. Zone	Tool	1.00	
		l						Commence of the Commence of th	1
		***************************************				The second secon	AND DELICATION OF THE PARTY OF		
				er ener egile agenteratur maner uniqui sichy, arrenen	***************************************			PROCESSOR STATE OF THE STATE OF	
				***************************************			***************************************		
				THE THE STREET STREET, AND THE		- programme and			
na saata in di santaa varinda minagan daasa aa	CONTROL OF STREET, STR			dentirentificana provinciana					
ent. All highworth transporters and an extension		NYTT	733 harring and a supplemental transfer of the supplemental transfer of th				COMMENT WASHINGTON WAY		
		NII.							
-				· · · · · · · · · · · · · · · · · · ·		***************************************	A AT ANGLES AND STREET OF STREET		
						70741 (5)0711	olida, januari maganara menganara dan salah s		
						TOTAL LENGTH	STANDONINATO FINADAMANA	7/1	-
				uminum manastra parameter anticarian		Elevation G.L.	-	J/A K.B.	13.80
	L		<u> </u>			Bottom Hole Chi			***************************************
REMARKS		n, seat fai		*		Fluid Cushion Ty		Vil Amt.	ti-land statement and a superior of the consequence and a superior of the consequence and the consequence and the consequence and the consequence are consequences as the consequence and the consequences are consequences as the consequences are consequences are consequences as the consequences are consequenc
-			ling slowly t			Mad T		HOLE DATA	
			3' Finally		skid-	Mud Type	Gel Che	em W.L.	
	<u>ding.</u>	<u>but mud st</u>	ill dropped	<u>slowly.</u>		Filter Cake	2/32 V	isc. 109 Wt.	9.0
Andre American	glist And palacies in the terror and gris realists on the	- Depoise of the section of the sect	Marrie (1971) Marie Marie Anna Anna (1971) Anna Anna (1971) Anna (1971) Anna (1971) Anna (1971)	optiumentus, v. Paintal ett Attibuteen bission		Time Taken	A. 10. 10.		
-		and the second s			***************************************	Contractor	G.P. Dr	The same of the sa	g No. 24
			dagangun kalangan menganya, sang menganggan menghalanggan mejant dan kerang			Drill Pipe Size	4 1/2"		***************************************
		SISTIVITY		SALT C	ONTENT	Drill Collar Size		annual de Neil Communica principal de la communica de la compunica de la compu	THE STREET WAS THE STREET OF T
Recovery Wa	-	@	oF.	trointraljouers, viente giprir, et distance de la projection de la project	ppm,	Drill Coliar Lengt			EXPORTE PROPERTY CONTRACTOR OF THE PROPERTY OF
Mud Pit samp	ole filtrate	@	erionalista production	National Action and Park Come Spirituals	ppm,	Main Hole Siza	8 3/4"	Rat Hole	Political States of Chapter Submitted Control on the States of Sta
District	Inuvik	Ticket	and the second s			4. 1973	Test N	the same of the sa	T. No. 2
Company		Oil Company				<u>itaine Tower</u>		- 5 Ave. S.	W
	Murphy	Mesa BP S V	Mitestone YT	V-58 E	30x 272	entransacione in consensacione managina in traballa internacional de la companya de la companya de la companya		enternamenter (hij dat j.). Anatzan renete este saturationistic (est funda program	direction concentracy participation and contributable square
Number	65 17'5	0"N 138°25	'30"W	Field I	<i>l</i> ildcat		E N.W.	T	
Formation	Blackie		Thickness		L. Sway		CONTROL OF THE PROPERTY OF THE		
interval	2360 -		T.D. 69931	Technician	V. Young	3	onto the second property of the second secon		
Distribution of	of Reports	<u> 14 - Calear</u>	y Attenti	on: E. V	an Wier	cen	***************************************		
									The second second second

JOHNSTON ត្តត្រីព្រះស្រី**ខេ**ទ្ធខេត្ត

JOHNSTON TESTERS

A DAVISION OF STHEOMREROUR CANADA - MILED 321 - 50th AVENUE S.E. CALCARY ALEERIA. T2'S 283

D08044			PRESSURE DATA	FLUID SIMPLE REPORT
MENT No.		AK1-3859	AK1-2111	Sample No.
CAPAC'TY (psig.		3700	4000	C:1
INSTRUMENT DEPTH FT.		2386	2390	Depth 2338'
INSTRUMENT OPENING		Outside	Outside	Volume 2500 cc
WELL TEMP. °F.	·	and the second s	The state of the s	
		The state of the s		Sample Pressure:
INITIAL HYDROSTATIC	A	1134#	1138#	psig. at Surface
FIRST FLOW	В	192#	204#	Gravity API @ or
	B-1	200#	210#	Gas/Oil Ratio Cu.Ft./bbl
INITIAL SHUT-IN	С			
SECOND FLOW	D			
	D-1			Rocovery:
SECOND SHUT-IN	E			Cu. Ft. Gas
THIRD FLOW	F			cc. Oil
	F-1			cc. Water
FINAL SHUT-IN	G			cc. Mud
FINAL HYDROSTATIC	н	1112#	1115#	Total Liquid cc.
REMARKS:	1		made on recorder " AVI-1	

PRESSURE INCREMENTS ON RECORDER

POINT MINUTES	PRESSURE	<u>T + \(\Delta\) t</u>	POINT MINUTES	PRESSURE	<u>T + \(\Delta\) t</u>	POIN! MINUTES	PRESSURE	$\frac{T + \Delta t}{\Delta t}$
						-		and another the section of the secti
								
						-		-
						#		
						#		
						-		
						#		
						#	<u> </u>	
		~~~~				#		
						#		
						#		
	***************************************					#		
1								
		harden and the second s				1		
						1		The first of the control of the cont
						1		
								and the same of th
						<b>  </b>		The second secon
a£-59			<u> </u>			1		

онивтон Schilumberger

#### **JOHNSTON TESTERS**

A DIVISION OF SCHLUMBERGER CANADA LIMITED 321 50th AVENUE S.E. CALGARY, ALBERTA T2G 2B3

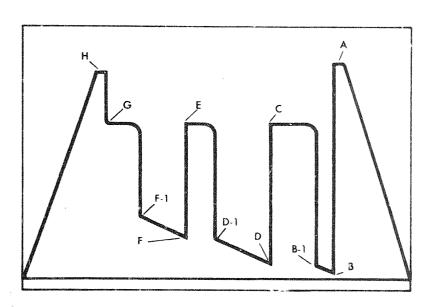
### **GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS**

FIELD REPORT NO.

RECORDER NO.

D08044

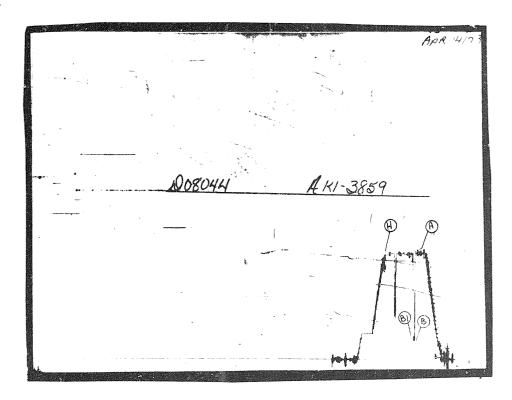
AK1-3859



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures
 Z — Special pressure points such as pumping pressures recorded for formation breakdown.



# Schlumberger

#### JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA L'MITED 321 50th AVENUE S.E. CALGARY, ALBERTA - T26 283

TEST DATA	TOOL :	SEQUENCE	
Type of Test Open hole Straddle Bypass.	Tool	Length	O.D.
Time Started in Hole 2115 Hrs. Tool Opened Hrs	P.O. Sub	1.00	
First Flow Min. Initial Shut-In Min.	D.P. Sub	1.00	
Second Flow Min. Second Shut In Min.	MFE Tool	9.10	
Third Flow Min. Final Shut In Min.	Bypass Tool	2.95	
Pulled Loose @ 2345 Hrs. Out of Hole 0130 Hrs.	Jars	8.50	
Wt. Set/on Packers 35,000 # Pulled Loose Wt. #	Hanger Sub	.80	
Description of Blow During Test	Safety Joint	1.75	/ /
	S.S. & Packer	8.25	7 3/4"
NII	Total	33.35	<u> </u>
		1 00	<u> </u>
	Stub	1.00	<u> </u>
	Perfs	29.00	<u></u>
	Receiver Sub	.85	
Total Fluid Recovered Ft.	Recorder	4.40	<b></b>
Description of Fluid Recovered	Recorder		<b></b>
	Sub	.90	<del> </del>
NTI.	Drill Collars	60.35	<del> </del>
	Sub	1.00	<del> </del>
	Travel Collar	3.50	<b></b>
	Total Interval	105.40	<del> </del>
		2.00	7 2//!!
GAS BLOW MEASUREMENT  I.D. Riser	Packer	2.90 5.00	7 3/4"
Websited 1710.	Perf	***************************************	
Time Sfce. Choke M Cubic Feet/Day	Selec. Zone Tool	1.00	
			<del> </del>
		<u> </u>	ļ
		<del> </del>	<del> </del>
			<del> </del>
NIL			-
			<del> </del>
			<b>_</b>
			ļ
	TOTAL LENGTH	N. D.	1200
	- Company of the Comp	N/A K.B.	1380
	Bottom Hole Choke Size. Fluid Cushion Type	- <del></del>	
REMARKS: Misrun, set packer and mud dropped	<u> </u>	Nil Amt.  D HOLE DATA	
immediately.	Mud Type Gel Ch	CONTRACTOR	6.6
		risc. 109 Wt.	ON THE PROPERTY OF THE PARTY OF
	Time Taken	ISE. LUD WY.	J.U
		rilling Rig	No. 24
	Drill Pipe Size 4 1/2'		<u> </u>
RESISTIVITY SALT CONTENT	Drill Collar Size 2 7/81	anning the second secon	
Recovery Water @ °F. ppm.		8	halidigin argit diran yannyangan wanan andih ula siba
Mud Pit sample filtrate @ °F. ppm.	Main Hole Size 8 3/4"		randising sold open and the stance latter or this plant
	1 14 1973 Test N		Г. No. 3
TIMOLE TIERCE TO ADEL	Aguitaine Tower, 540	and the second s	
	2721 Calgary Albei		enne di Territoria de la Transcacione
Number 65°17'50"N 138°25'30"W Field Wilde			communication of electric mentions before
	tevenson	militaris de malegrapia de la grafia de promo de medio de período de medio de la promo de la grafia del grafia de la grafia del la grafia del la grafia del la grafia de la grafia de la grafia del la grafia de la grafia de la grafia del la grafia de la grafia de la grafia del la g	**************************************
	oung		
Interval 2355 - 2460 T.D. 6993 Technician N. Y.			

# JOHNSTON Selifumberger

# JOHNSTON TESTERS A DIVISION OF SCHLIMBERGER CALADA LIMITED 321 - 50th AVENUE SIE CALADRY, ALBERTA 100 283

<b>2</b> 08045			PRE	SSURE DATA		FLUID SA	MPLE REP	TRO
LUMENT No.		AK1-3859	AK1-2111			Sample No.	A DE LOCALISMO CONTRACTOR OF THE STATE OF TH	
CAPACITY (psig)		3700	4000			Туре	5"	
INSTRUMENT DEPTH FT.		2386	2890			Depth	2333'	
INSTRUMENT OPENING		Outside	Outside			Volume	2500 cc	
WELL TEMP. °F.								
						Sample Pressure:		
INITIAL HYDROSTATIC	Α						psig. at Sur	face
FIRST FLOW	8					Gravity	API @	۰F
	B-1					Gas, Oil Ratio	Cu.Ft.	./bbt.
INITIAL SHUT-IN	c							
SECOND FLOW	D	NO PRESSURES	AVAIL <b>A</b> BLE					
	D-1					Recovery:		
SECOND SHUT-IN	£					Cu. Ft. Gas		
THIRD FLOW	F					cc. Oil		
	F-1					cc. Water		
FINAL SHUT-IN	G					cc. Mud		
FINAL HYDROSTATIC	Н					Total Liquid cc.		
REMARKS:		No prints ma	de on recor	der #AK1-2111	•			

## PRESSURE INCREMENTS ON RECORDER #

POINT MINUTES	PRESSURE	<u>T + \( \Delta\) t</u>	POINT MINUTES	PRESSURE	<u>T + Δ †</u> Δ †	POINT MINUTES	PRESSURE	$\frac{T + \Delta t}{\Delta t}$
***************************************								The state of the s
							<del> </del>	
						<b> </b>		
						<u> </u>		
						<b> </b>		
				****	***************************************			
								The second secon
		ar var mangaalan kanada ka			annahmer er inn å nämber en premi knorfy den årnikerskrikelsen knorf til primer blev med signifike megagemenn er prime			
			<u> </u>				<u> </u>	
						<del>  </del>	<b></b>	
						H		
						#	<del> </del>	
						<del> </del>		
						<del>  </del>	<del> </del>	
				***************************************		<b>H</b>		

JOHNSTON

Schlumberger

#### **JOHNSTON TESTERS**

A DIVISION OF SCHLUMBERGER CANADA DIMITED
321 50th AVENUE S.E. CALGARY, ALBERTA T2G 283

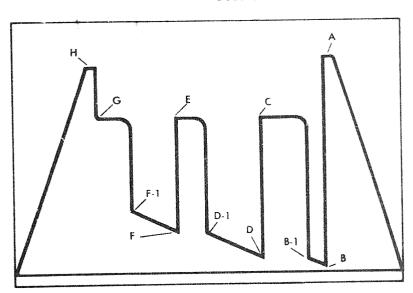
# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

FIELD REPORT NO.

RECORDER NO.

D08045

AK1-3859

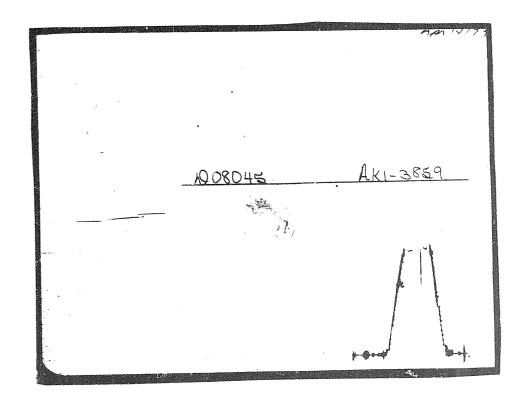


- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures

Z — Special pressure points such as pumping pressures recorded for formation breakdown.



# **JOHNSTON**Schlumberger

#### JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA LIMITED
321 50th AVENUE S'E CALGARY, ALBERTA T2G 283

<u></u>	TECT	DATA	TOOL SEQUENCE					
Type of Test	Open hole, Stra				Tool	Length	O.D.	
Tirne Started in	role 0345 Hrs.	Tool Opened		Hrs.	P.O. Sub	1.00		
First Flow	Min,	Initial Shut-In	1	Min.	D.P. Sub	1.00		
Second Flow	Min.	Second Shut In	,	Min.	MFE Tool	9,10		
Third Flow	Min.	Final Shut In	1	Min.	Bypass Tool	2.95		
Pulled Loose @	0630 Hrs.	Out of Hole	0900	Hrs.	Jars	8.50		
Wt. Set/on Packe		Pulled Loose Wt.		#	Hanger Sub	.80		
Description of Blo	ow During Test				Safety Joint	1.75		
					S.S. & Packer	9.25		
	N.	Π			T.C. & Packer	5.40	7 3/4"	
					Total	39.75		
					Stub	1.00		
FLUID RECOVER	Y Was Test Re	verse Circulated Y	res □ N	40 🗆	Perfs	17.00		
Total Fluid Recov	ered			Ft.	Receiver Sub	.85		
Description of Flu	uid Recovered				Recorder	4.40		
					Recorder	4.40		
	У.	II.			Sub	.90	<u> </u>	
					Drill Collars	60.35		
					Sub	1.00		
					Travel Collar	3.50		
					Total Interval	93.40		
ADDRESS OF THE PARTY OF T	GAS BLOW	MEASUREMENT						
Measured With				Riser	Packer	2.90	7 3/4"	
Time Sfe	ce. Choke	М	Cubic Feet/Day		T.C. & Packer	6.40		
					Selec. Zone Tool	1.00		
					•			
	P.J	IL						
					TOTAL LENGTH			
						/ _A K.B.	13.80	
					Bottom Hole Choke Sizel	/2"		
REMARKS:	Misrun, packer	did not hold	1.		Fluid Cushion Type N	il Amt.	***	
	Opened tool an	d slid about			D HOLE DATA			
	7				Mud Type Gel C	hem W.L.	6.6	
					Filter Cake 2/32 \	/isc. 109 Wt.	9.0	
					Time Taken			
						ittina ittinatitti antikaani kaasi kaasi ka	No. 24	
					Drill Pipe Size 4 1/2	'' FH		
	RESISTIVITY		Drill Collar Size 2 7/8 ^{tt} TD &					
Recovery Water	, @	°F.		ppm.	Drill Collar Length 337	&	and the same of th	
Mud Pit sample f	filtrate @	°F.		ppm.	Main Hole Size 8 3/4	Mark Definition (International Service research Structure (include the pres	ers sent the engage and control with the	
District In	uvik Ticke	t No. D08046			5, 1973 Test 1		Г. No. 4	
	rphy Cil Compan	y Ltd.	The same of the sa			- 5 Ave. S.W	*	
Well Name Mu	rphy Mesa BP S	Whitestone Y	г <u>N-58</u> Воз	x 272		**************************************		
Number 65	^o 17'50"N 138 ⁹ 25	' 30''V	Field Wil	1dcat	Province N.W.	Τ,		
	ackie	Thickness	Same and the same		venson	****		
Interval 23	61 - 2454	T.D. 6993'	Technician N.	Your	18			
	Reports 14 - Calga	ry Attent	tion: E. Va	n Wie	∍ren			
			and which is recorded to a constant or which the state of the constant of the		saan Caraconas saagat congressor seemajanko varangus sakonas et . // paasen konstitutus seeminis mantuks miss			

### JOHNSTON

JOHNSTON

JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA HAMTED

321 - 50th AVENUE SE CALGARY, ALBERTA T2G 2B3

Vziškova i se sa					20224412	T DATA	who has properly and a first of the second s	FILLIN S	AMPLE REPORT	
	D08046			1		E DATA	<u> </u>	MARKET TOTAL CONTRACTOR STREET, - STORY SPICE	201218 Prop 8 grad Ph. 18	
INSKUMENT			AK1-3859		2111			Sample No.	AND A SECURITY OF A SECURITY PROPERTY FAIR AS A SECURITY FOR A SEC	
CAPACITY (ps			3700		4000			Type	ser uterface of the time of the security of th	
INSTRUMENT DEPTH FT.			2380		2384		1	Depth		
			Outside	Outs	rae			volume	printer (47 dates), and a second No. 1977 common of the content depth appeal of Trial Section (48 conducted various de	
WELL TEMP.	Γ.							Sample Pressure	3 .	
INITIAL HYD	ROSTATIC								psig. at Surface	
INITIAL HYDROSTATIC A FIRST FLOW B							Gravity API @ °			
		B-1						Gas/Oil Ratio	Cu.Ft./bbl.	
INITIAL SHUT	r-IN	С								
SECOND FLO	)W	D	NO PRESSU	RES AVAI	LABLE			Recovery:		
		D-1								
SECOND SHU	IT-IN	E						Cu. Ft. Gas		
THIRD FLOW		F						cc. Oil cc. Water		
		F-1						cc. Water cc. Mud		
FINAL SHUT-		<u>G</u>						Total Liquid o		
FINAL HYDRO	OSTATIC	H	<u> </u>			// A771 03.1.2				
REMARKS:			No prints	made o	n recorde	# AK1-2111.				
							AND THE PROPERTY OF THE PARTY O			
						and the second section to the second of the second second section sect				
			PRE	SSURE IN	CREMENT	ON RECORDE	₹ #			
				7		<b>T</b> 1 A *	1	T	$T + \Delta t$	
POINT	PRESSURE		$\frac{\Gamma + \Delta \uparrow}{\Delta \uparrow}$	POINT MINUTES	PRESSURE	$\frac{T + \triangle \; t}{\triangle \; t}$	POINT	PRESSURE	$\frac{1 + \Delta t}{\Delta t}$	
UTES			Δ <b>T</b>	MINUIES		<u> </u>	-		ture I	
							+	1	The state of the s	
								+		
							#	1		
						M-1/2/2014				
							1	1		
				-						
-										
	<u> </u>									
								-		
						A West		-		
					<del> </del>					
	-									
9	<u> </u>						-#			
				<b></b>						
<u> </u>		<b> </b>								
	<del> </del>	<b></b>			<b></b>					
	<b> </b>	<u> </u>		H			_			
	ļ	<u> </u>		<del>                                     </del>			1			
	ļ	<del> </del>		<b>H</b>						
	<del> </del>	<del> </del>		-						
	<u> </u>	<del> </del>		<b> </b>						
	1	-		#						
	<del> </del>	<b>†</b>								
<del></del>	1	<b>T</b>								

JOHNSTON
Schlumberger

#### JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA - MITEL.
321 50th ALENUE S.E. CALGARY ALBERTA - T2G

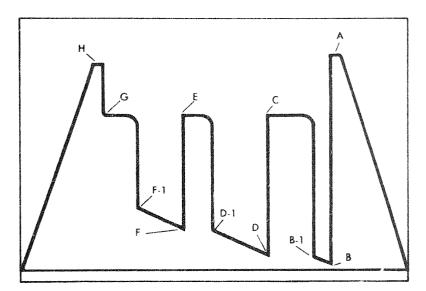
#### **GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS**

FIELD REPORT NO.

RECORDER NO.

D08046

AK1-3859



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures
 Z — Special pressure points such as pumping pressures recorded for formation breakdown.

