WELL HISTORY REPORT

INEXCO et al MALLARD YT O-18

KANDIK BASIN

YUKON TERRITORY

September 25, 1972

Prepared by:
H. H. Williams
K. N. Sobkowich, P. Eng.

Signed: K. N. Sobkowich.

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INDEX

SECTION I

SUMMARY OF WELL DATA

(a) INEXCO et al. MALLARD YT O-18

(b) Permittee, Licencee or Lessee: Inexco Oil Co. and Husky Oil Ltd.

(c) Operator: Inexco Oil Company
10th Floor, Aquitaine Tower
540 - 5 Ave. S.W.
Calgary 1, Alberta

(d) Location: Grid: 65-50-140-15
U.W.I. 300018655014015O
U.W.L. 65.79944N, 140.29472W

(e) Co-ordinates: 65°47'58" N, 140°17'41" W

(f) Permit or Lease Number: 6000

(g) Drilling Contractor: Commonwealth Rig 31

(h) Drilling Authority: 598; April 12, 1972

(i) Classification: Wildcat

(j) K.B.: 3665' (estimated)

(k) Spudded: 11:30 a.m., May 2, 1972

(l) Completed Drilling: 7:20 p.m., August 13, 1972

(m) Total Depth: 10,499'

(n) Well Status: Suspended Aug 19/72

(o) Rig Released:

(p) Hole Sizes:

17½"	0 - 961
12¼"	961 - 5563
8¾"	5563 - 10,499

(q) Casing: (1) Ran 32 Jts. 959.82', 13⅜", K-55, 54.5# Casing.
Landed at 956.82' K.B. with 240 sacs Fondu
and 760 sacs Oilwell cement.
Plug down @ 1:53 a.m., May 10, 1972.

(2) Ran 83 Jts. 3180' 9⅝",K-55, 36 and 40# Casing.
Landed at 3178' K.B. with 650 sacs Oilwell cement
Plug down @ 8:00 a.m., July 21, 1972.

SECTION II

GEOLOGICAL SUMMARY

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Formation Tops

K.B. Elevation 3665' (est.)

Formation	Sample	E-Log	Datum
Hart River	Surface	Surface	+3665
Hart River	No Pick	~1700	+1965
Hart River	6530	6550	-2885
Unnamed Shale	9040	8950	-5385
Unnamed Shale	9840	9790	-6125
Unnamed Shale	No Pick	10250	-6585

Cored Intervals

Diamond Core No.	Interval	Formation	Recovery
1	5695 - 5715	Hart River	18'
2	6852 - 6874	Hart River	22'
3	7029 - 7053	Hart River	20.5'
4	10475 - 10492	Unnamed Shale	7'

WELL SYNOPSIS

INEXCO et al. MALLARD YT O-18

Interval	Formation	Faults	Comments
0 - 1700	Lower Hart River	1700'	Major fault thrusting Lower Hart River on Upper Hart River. Location of fault is only approximate.
1700 - 3400	Upper Hart River		
3400 - 6550	Lower Hart River	3650' 3900' 4700' 5200' 5450'	Lower Hart River section anomalously thickened by several small thrust faults. Unnamed Shale may be present near the base of this interval.
6550 - 8000	Upper Hart River	6500'	Repeat section. Major fault thrusting Lower Hart River on Upper Hart River.
8000 - 8950	Lower Hart River		Section from 6550 to 9800 represents a complete unfaulted Hart River - Unnamed Shale section. Fault at 9800 thrusts basal Unnamed Shale onto the top of the Unnamed Shale. Fault at 10250 repeats the top of the Unnamed Shale. T.D. in top of Unnamed Shale.
8950 - 10,500	Unnamed Shale	9800' 10,250'	

Note: Division of the Hart River Formation into an Upper and Lower member was arbitrary and based on the occurrence of a radioactive black shale. The division does not imply new stratigraphic nomenclature; it is used only for ease of illustrating formation repeats by thrust faulting.

CORE DESCRIPTIONS

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Diamond Core #1 5695 - 5715' Cut 20', Recovered 18'

Penetration Rate (mins/ft) 17, 23, 15, 15, 9, 9, 9, 8½, 10, 13, 12, 12, 11, 11, 11, 11, -, -, -

5695 - 5715' Shale - black, blocky, carbonaceous, calcareous, finely disseminated pyrite throughout, contorted bedding. Core breaks @ ≈35 - 45°.

Diamond Core #2 6852 - 6874' Cut 22', Recovered 22'

Penetration Rate (mins/ft) 22, 20, 23, 25, 18, 14, 18, 15, 16, 18, 15, 28, 18, 18, 19, 23, 29, 25, 30, 28, 48, 33

6852 - 6858' Shale - dark grey-black, blocky, in part sub-fissile, hard, variably calcareous and siliceous, slightly carbonaceous, traces disseminated pyrite. No visible bedding. Fractures @ 35 - 45°, filled with white calcite. Traces vertical tension gashes.

6858 - 6860' Shale - as above, highly fractured and brecciated with calcite and pyrite filling fractures. Traces of sphalerite (?) and galena. Bedding highly contorted(?)

6860 - 6865' Shale - dark grey to black, blocky, hard, siliceous. Abundant fine calcite filled fractures @ 90° to bedding (45 - 55°).

6865 - 6874' Shale - dark grey to black, sub-fissile, variably calcareous, fractured as above @ 90° to bedding. Thin 6" limestone band at 6872 - 6872.6, light to medium grey, very fine crystalline, sandy, tight.

Diamond Core #3 7029 - 7052' Cut 23', Recovered 20.5'

Penetration Rate (mins/ft) 19, 15, 20, 17, 6, 15, 18, 14, 16, 10, 26, 27, 25, 25, 20, 33, 27, 27, 21, 23, 28, 18, 18, 39

7029 - 7031.4 Limestone - medium to dark grey, very fine crystalline to sucrosic, sandy, slightly argillaceous, massive. Strong H_2S odor.

7031.4-7033.9' Shale - dark grey to black, blocky, calcareous, trace pyrite, hard. Weak H_2S odor. Bedding @ 30 - 40°. Occassional slickensides.

7033.9-7036' Limestone - as above.

7036 - 7042.4' Shale - as above with occasional thin (1") limestone stringer. Bedding at 30 - 40°. Trace slickensides.

7042.4-7044.9' Limestone - medium to dark grey, very fine crystalline, very sandy, argillaceous, abundant stylolites.

7044.9-7048' Shale - as above. Trace fracturing. Bedding (?) @ 15°. Trace slickensides.

7048 - 7050' Limestone - as above.

Diamond Core #4 10,475 - 10,492' Cut 17', Recovered 7'

Penetration Rate (mins/ft) 16 ($\frac{1}{2}$'), 12, 24, 30, 23, 27, 28, 36, 23, 25, 17, 14, 39, 29, 34, 34, 39

10475-10492' Shale - dark grey - black, blocky, in part sub-fissile, very hard, siliceous, non-calcareous, pyritic, slightly carbonaceous. Fracture @ 45° and parrallel to bedding, in places very highly fractured and brecciated (lost core assumed highly fractured). Abundant slickensides. Quartz and pyrite infill fractures. Bedding predominantly 45° with occassional bedding @ 10 - 15°.

SAMPLE DESCRIPTIONS

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40 - 50	Shale - black, sub-fissile to blocky, micro-micaceous, minor disseminated pyrite, abundant fractures filled with white calcite. Abundant igneous rock fragments.
50 - 60	Shale & Glacial Till - Shale as above. Approximately 50% varicolored igneous rock fragments.
60 - 70	Shale - black, sub-fissile, micro-micaceous, finely disseminated pyrite, hard, in part siliceous, trace calcite filled fractures.
70 - 80	Shale - as above, fissile, in part phyllitic.
80 - 90	Shale - as above.
90 - 100	Shale - black, fissile, micro-micaceous, trace phyllitic, hard, in part siliceous, minor disseminated pyrite, traces white calcite filled fractures.
100 - 140	Shale - as above.
140 - 150	Shale - as above, sub-fissile to blocky.
150 - 160	Shale - black, fissile, micro-micaceous to phyllitic, hard in part siliceous, in part carbonaceous, minor disseminated pyrite, traces white calcite filled fractures, very slightly calcareous to non-calcareous.
160 - 200	Shale - as above.
200 - 240	Shale - as above, becoming slightly calcareous.
240 - 250	Shale - as above, in part calcareous to only slightly calcareous.
250 - 270	Shale - as above.
270 - 280	Shale - as above, calcareous.
280 - 290	Shale - as above.
290 - 300	Shale - as above, abundant calcite filled fractures.

300 - 310	Shale - as above.
310 - 320	Shale - as above, white disseminated calcite throughout (secondary).
320 - 330	Shale - as above.
330 - 340	Shale - as above, abundant calcite filled fractures.
340 - 350	Shale - as above.
350 - 360	Shale - as above, in part carbonaceous.
360 - 370	Shale - as above.
370 - 380	Shale - as above, traces medium grey chert.
380 - 390	Shale - as above, traces medium buff limestone (cavings).
390 - 430	Shale - as above.
430 - 440	Shale - as above, increase in calcite filled fractures.
440 - 470	Shale - as above.
470 - 480	Shale - as above, trace slickensides.
480 - 490	Shale - as above.
490 - 500	Shale - as above, trace massive pyrite.
500 - 510	Shale - as above.
510 - 520	Shale - as above, increase in calcite filled fractures.
520 - 530	Shale - as above.
530 - 570	Shale - as above, very pyritic.
570 - 580	Shale - dark grey and black, fissile to blocky, ashy leached appearance, micro-micaceous to phyllitic, abundant disseminated pyrite and white calcite, highly fractured.
580 - 590	Shale - as above.
590 - 600	Shale - black, fissile, micro-micaceous to phyllitic, disseminated pyrite, calcareous in part fractured.
600 - 630	Shale - as above.

630 - 640	Shale - as above, very pyritic and highly fractured.
640 - 650	Shale - as above, in part very calcareous and blocky.
650 - 660	Shale - as above, occassional thin stringer limestone, dark grey to black, argillaceous, very fine crystalline.
660 - 670	Shale - as above, very pyritic, highly fractured, becoming increasingly blocky.
670 - 680	Shale - as above, highly fractured, cemented with calcite, very pyritic.
680 - 690	Shale - as above, slickensiding, fractured and in part finely brecciated.
690 - 730	Shale - as above.
730 - 810	Shale - black, fissile to sub-fissile, micro-micaceous to phyllitic, minor disseminated pyrite, abundant calcite filled fractures.
810 - 860	Shale - black, sub-fissile to blocky, micro-micaceous to slightly phyllitic, disseminated pyrite, abundant calcite filled fractures, secondary white disseminated calcite imparts a dark grey-black, blocky character to much of the shale.
860 - 870	Shale - as above, increasingly fractured and brecciated (very fine brecciation) with calcite cementing and infilling of fractures.
870 - 880	Shale - black, sub-fissile to blocky, micro-micaceous, in part phyllitic, disseminated pyrite, calcareous interbeds, fractured.
880 - 910	Shale - as above with calcareous interbeds.
910 - 950	Shale - as above with up to 20 - 30% calcareous and siliceous interbeds, grading to sandy limestone, medium-dark grey mottled, argillaceous, very fine crystalline.
950 - 960	Shale - black, fissile to sub-fissile, micro-micaceous, trace of blocky, calcareous black shale.
960 - 970	NO SAMPLE RETURNS

970 - 980 — Shale - dark grey to black mottled, blocky, hard, siliceous, micro-micaceous, disseminated pyrite, cherty, slightly calcareous, traces white calcite filled fractures and thin limestone interbeds, medium to dark grey, silty to sandy, siliceous, argillaceous.

980 - 990 — Shale - as above, increase in calcite filled fractures, in part very silty to sandy grading to sandstone.

990 - 1000 — Shale - as above, highly fractured, increase in disseminated pyrite, minor very siliceous sandstone and very sandy limestone.

1000 - 1010 — Shale - black, blocky, siliceous to fissile, micro-micaceous, and shale, dark grey to black, blocky, siliceous, cherty, very silty grading to siltstone, calcareous, fractured. Minor very calcareous, siliceous sandstone, very fine grained, medium grey, poorly sorted, cherty, tight.

1010 - 1020 — Shale - dark grey to black, blocky, hard, siliceous, disseminated pyrite, in part very silty grading to calcareous siltstone. Abundant white calcite veinlets. Minor sandstone as above.

1020 - 1030 — Shale - as above with thin calcareous and sandy interbeds.

1030 - 1040 — Shale - as above and sandstone, medium to dark grey, fine grained, very calcareous. Minor thin calcareous interbeds and traces white vein calcite.

1040 - 1050 — Shale - black, sub-fissile grading to blocky, in part siliceous, micro-micaceous grading to siltstone dark grey to black, sandy, siliceous, calcareous, in part very fine grained sandstone, tight.

1050 - 1060 — Sandstone - medium to dark grey, very fine grained, poorly sorted, siliceous, hard, slightly calcareous, quartzitic, cherty, grading to siltstone, tight. Shale as above (≈30%).

1060 - 1070 — Sandstone - as above, tight, minor shale as above.

1070 - 1080 — Sandstone - as above, tight, highly fractured, abundant white calcite veinlets, minor very silty shale.

1080 - 1090 — Sandstone - as above, tight, minor siltsone, dark grey, blocky, sandy, slightly calcareous, grading to shale, as above. Abundant white calcite veinlets.

1090 - 1100	Sandstone - as above with interbedded siltstone grading to shale.
1100 - 1110	Sandstone - Siltstone - Shale - as above interbedded. Abundant white calcite veinlets.
1110 - 1120	Shale - dark grey to black, blocky, micro-micaceous, silty grading to Siltstone, medium to dark grey, sandy, micaceous. Minor Sandstone as above. Abundant white calcite veinlets.
1120 - 1130	Shale - as above. Minor Sandstone as above.
1130 - 1140	Shale - as above. Minor calcareous Sandstone interbeds.
1140 - 1150	Shale - dark grey to black, blocky, silty, grading to Siltstone, micro-micaceous. Sandstone - medium to dark grey, very fine grained, silty, very calcareous. White calcite blebs.
1150 - 1160	Shale - as above, in part calcareous. Trace very sandy calcareous interbeds.
1160 - 1180	Shale - as above with minor calcareous siltstone and trace calcareous interbeds.
1180 - 1200	Shale - as above, in part carbonaceous, grading to Siltstone, sandy, calcareous. Thin interbeds calcareous, very fine grained Sandstone.
1200 - 1210	Siltstone - medium-dark grey to black, blocky, calcareous to dolomitic, micro-micaceous, siliceous , hard grading to very silty Shale. Trace Sandstone as above. Abundant fracturing with white calcite infill.
1210 - 1220	Shale - dark grey to black, blocky slightly calcareous, in part siliceous, silty to very silty, grading to Siltstone, micro-micaceous. Minor Sandstone, very fine grained, silty, calcareous, tight.
1220 - 1230	Shale - medium-dark grey to black, blocky, siliceous, slightly cherty, calcareous, micro-micaceous, traces disseminated pyrite, grading to sandy, siliceous Siltstone.
1230 - 1240	Shale - as above.
1240 - 1250	Shale - as above, in part sub-fissile.

1250 - 1260	Shale - Sandstone - Shale as above. Sandstone - medium grey, very fine grained to silty, poorly sorted, siliceous to calcareous, trace chert, micro-micaceous, blocky, slightly carbonaceous, tight. Abundant white calcite blebs.
1260 - 1270	Sandstone - as above, carbonaceous, very calcareous, in part siliceous, trace gilsonite, trace white vein chert, fractured. Abundant Shale as above.
1270 - 1280	Sandstone - as above.
1280 - 1290	Shale - dark grey to black, sub-fissile to blocky, siliceous, in part calcareous, silty grading to very fine Siltstone. Sandstone as above, tight. Trace gilsonite. Trace calcareous interbeds.
1290 - 1300	Shale - Sandstone - as above. Sandstone very calcareous grading to minor, very sandy limestone stringers.
1300 - 1310	Shale - as above, blocky, siliceous, calcareous with Sandstone as above.
1310 - 1320	Limestone - light grey to white, mottled, coarse crystalline, crinoidal, slightly argillaceous. Minor Shale as above.
1320 - 1330	Limestone - medium to dark grey, mottled, coarse grained to crinoidal, slightly argillaceous. Shale- dark grey to black, sub-fissile, micro-micaceous, slightly carbonaceous.
1330 - 1340	Shale - as above (60 - 70%). Limestone - as above, slightly more argillaceous.
1340 - 1350	Limestone - light to medium grey, mottled, coarse crystalline, crinoidal, tight.
1350 - 1360	Limestone and Shale - medium grey, argillaceous to sandy Limestone grading to dark grey to black, sub-fissile, micro-micaceous Shale with trace disseminated pyrite.
1360 - 1370	Shale - as above, slightly silty and in part siliceous, trace crinoid.
1370 - 1380	Shale - medium to dark grey, mottled, very silty, very calcareous in part, grading to very argillaceous Limestone.

1380 - 1390	Shale - dark grey to black, sub-fissile to blocky, micro-micaceous, in part slightly carbonaceous, siliceous, trace disseminated pyrite, trace crinoid (?) fragments.
1390 - 1470	Shale - as above, black, in part silty and calcareous, pyritic, hard, siliceous.
1470 - 1530	Shale - black, blocky, hard, siliceous, in part silty to slightly calcareous, micro-micaceous. Trace calcareous interbeds, trace white vein calcite.
1530 - 1550	Shale - as above, in part fissile and carbonaceous, disseminated pyrite and pyrite occassionally filling fractures.
1550 - 1560	Shale - as above with minor fissile, very carbonaceous Shale. Heavily fractured with abundant calcite veinlets. Minor Sandstone, medium grey, very fine grained to silty, slightly calcareous, hard, siliceous.
1560 - 1570	Shale - as above, trace gilsonite in fractures, pyritic, abundant white calcite crystals and veinlets.
1570 - 1600	Shale - black, sub-fissile to blocky, micro-micaceous, trace disseminated pyrite, slightly silty, in part carbonaceous, fractured. Abundant white calcite crystals and veinlets. Trace Sandstone at 1600.
1600 - 1610	Shale - black, fissile to sub-fissile, micro-micaceous, disseminated pyrite, carbonaceous, in part siliceous. Abundant calcite veinlets and calcite blebs. Occassionly white quartz filling fractures with associated pyrite.
1610 - 1650	Shale - as above, fissile, abundant white calcite veinlets, very pyritic, non-siliceous.
1650 - 1700	Shale - black, fissile, micro-micaceous, very pyritic, carbonaceous, abundant blebs and veinlets of white calcite. Shale has a bronze "phyllitic" sheen.
1700 - 1780	Shale - black, fissile, micro-micaceous, carbonaceous, very pyritic. Occassional thin sandy calcareous stringer.

1780 - 1800	Shale - as above and Limestone, medium grey, mottled, aphanitic, argillaceous, siliceous, dolomitic (?).
1800 - 1820	Shale - dark grey to black, fissile to blocky, micro-micaceous, carbonaceous, pyritic, in part hard, siliceous, with calcareous interbeds. Abundant white calcite blebs and veinlets.
1820 - 1840	Shale - as above, with minor calcareous interbeds, in part siliceous.
1840 - 1850	Shale - dark grey-bronze to black, sub-fissile to fissile, micro-micaceous, carbonaceous, disseminated pyrite. Minor calcareous and siliceous interbeds.
1850 - 1860	Shale - as above, very poor sample. Trip @ 1856.
1860 - 1870	Shale - as above, very heavily fractured - filled with white calcite and quartz. Thin siliceous interbeds.
1870 - 1880	Shale - black, fissile, micro-micaceous, pyritic, carbonaceous.
1880 - 1890	Shale - as above with abundant siliceous and calcareous interbeds.
1890 - 1900	Shale - as above. ≈20% very calcareous, silty shaley interbeds.
1900 - 1910	Shale - as above, minor calcareous, shaley interbeds.
1910 - 1920	Shale - as above.
1920 - 1930	Shale - black, fissile, as above and blocky, siliceous.
1930 - 1950	Shale - black, fissile, micro-micaceous, pyritic, carbonaceous.
1950 - 2000	Shale - dark grey to black, fissile, micro-micaceous, pyritic, carbonaceous. Trace calcareous interbeds at 1960.
2000 - 2010	Shale - dark grey to black, blocky to fissile, calcareous.
2010 - 2040	Shale - dark grey to black, fissile to sub-fissile, carbonaceous, minor disseminated pyrite, in part clacareous, blocky. Occassional thin calcareous, silty interbeds.

2040 - 2060	Shale - dark grey to black, sub-fissile, non-calcareous to blocky calcareous, micro-micaceous, carbonaceous, pyritic. Trace medium grey, silty, very calcareous Shale.
2060 - 2080	Shale - dark grey to black, sub-fissile, micro-micaceous, clacareous to very calcareous, carbonaceous, minor disseminated pyrite.
2080 - 2090	Shale - as above, non-calcareous to calcareous in part. Becoming siliceous.
2090 - 2100	Shale - dark grey to black, blocky, hard, siliceous, micro-micaceous, in part carbonaceous, minor disseminated pyrite, Minor calcareous Shale.
2100 - 2110	Shale - as above, sub-fissile to blocky, calcareous, pyritic.
2110 - 2120	Shale - dark grey to black, sub-fissile to blocky, calcareous, micro-micaceous, in part carbonaceous, minor disseminated pyrite.
2120 - 2150	Shale - dark grey, blocky, minor disseminated pyrite, very calcareous.
2150 - 2160	Shale - dark grey to black, sub-fissile, only slightly calcareous, micro-micaceous, pyritic, carbonaceous.
2160 - 2170	Shale - dark grey to black, fissile to blocky, non-calcareous to slightly calcareous, micro-micaceous, slightly carbonaceous, minor disseminated pyrite, in part siliceous, fractured, fractures filled with calcite and quartz. Trace light grey chert.
2170 - 2180	Shale - as above, variably calcareous, slightly fractured.
2180 - 2200	Shale - black, sub-fissile, micro-micaceous, minor disseminated pyrite, slightly calcareous, in part carbonaceous.
2200 - 2210	Shale - as above, abundant calcite filled fractures.
2210 - 2220	Shale - as above, non-calcareous, minor fracturing.
2220 - 2240	Shale - black, fissile to sub-fissile, micro-micaceous, minor disseminated pyrite, carbonaceous, in part siliceous.

2240 - 2280	Shale - as above, slightly calcareous to calcareous, becoming sub-fissile to blocky.
2280 - 2320	Shale - as above, variably calcareous to non-calcareous, pyritic, occassional silty interbeds.
2320 - 2330	Shale - as above, very calcareous.
2330 - 2340	Shale - dark grey to black, sub-fissile, micro-micaceous, slightly carbonaceous, minor disseminated pyrite, very calcareous, in part siliceous.
2340 - 2360	Shale - as above, slightly calcareous.
2360 - 2370	Shale - dark grey to black, sub-fissile to blocky, micro-micaceous, minor disseminated pyrite, very calcareous, in part siliceous.
2370 - 2390	Shale - black, sub-fissile to fissile, micro-micaceous, minor disseminated pyrite, carbonaceous, slightly calcareous, in part siliceous.
2390 - 2400	Shale - as above, slightly calcareous, siliceous.
2400 - 2410	Shale - as above, calcareous. Minor Limestone - dark grey, mottled, very argillaceous, silty grading to Shale - very silty and calcareous.
2410 - 2420	Shale - as above, very calcareous, grading to very silty, calcareous Shale. Minor argillaceous Limestone interbeds.
2420 - 2430	Shale - as above.
2430 - 2440	Shale - dark grey, sub-fissile to blocky, micro-micaceous, very calcareous, in part carbonaceous. Minor very argillaceous limestone interbeds.
2440 - 2450	Shale - as above.
2450 - 2460	Shale - as above, minor limestone interbeds as above.
2460 - 2470	Shale - as above with Limestone interbeds - medium grey, mottled, fine to medium crystalline, crinoidal (?), argillaceous to very argillaceous, tight.
2470 - 2480	Shale - as above with limestone interbeds as above.

2480 - 2490	Limestone - medium grey, mottled, fine crystalline, argillaceous, slightly dolomitic, trace floating quartz grains, tight. Minor Shale as above.
2490 - 2500	Limestone - as above, in part siliceous, tight. Minor Shale as above. Trace crinoid fragments.
2500 - 2510	Limestone - as above grading to Shale - dark grey to black, very calcareous, abundant crinoid ossicles.
2510 - 2520	Limestone - medium to dark grey, mottled, very fine crystalline, argillaceous to very argillaceous, traces light grey chert, very fossiliferous (crinoid ossicles), in part crinoidal. Shale - dark grey, calcareous, blocky, fossiliferous.
2520 - 2530	Limestone - as above and Shale - dark grey, blocky, calcareous, trace fracturing.
2530 - 2540	Shale - dark grey, blocky, calcareous to very calcareous, slightly micro-micaceous. Trace Limestone as above. Trace fractures filled with calcite.
2540 - 2550	Shale - as above, becoming slightly darker, minor disseminated pyrite. Trace calcareous interbeds.
2550 - 2560	Shale - dark grey to black, blocky, micro-micaceous, calcareous, minor disseminated pyrite, slightly carbonaceous.
2560 - 2570	Shale - as above, trace calcareous interbeds.
2570 - 2580	Shale - as above in part grading to very srgillaceous Limestone.
2580 - 2590	Shale - as above, very calcareous, Minor Limestone - medium to dark grey, argillaceous, carbonaceous, very fine crystalline.
2590 - 2600	Shale - dark grey, blocky, very calcareous, slightly carbonaceous, Minor interbedded Limestone - very dark grey, argillaceous.
2600 - 2610	Shale - as above, with minor interbedded Limestone and thin sandy siliceous, calcareous interbeds.
2610 - 2620	Limestone - medium grey, aphanitic to very fine crystalline, slightly argillaceous, trace floating quartz.

Shale - dark grey, blocky, very calcareous. Abundant white vein calcite.

2620 - 2630 — Shale and Limestone - as above. Quartzite - medium grey, siliceous, slightly calcareous, cherty.

2630 - 2640 — Shale - as above. Limestone - as above, very siliceous to quartzitic.

2640 - 2650 — Shale - dark grey to black, sub-fissile, micro-micaceous, carbonaceous. Thin limestone interbeds as above. Thin siliceous interbeds.

2650 - 2660 — Shale - black, fissile to sub-fissile, micro-micaceous, carbonaceous, only slightly calcareous. Trace siliceous limestone.

2660 - 2700 — Shale - as above.

2700 - 2760 — Shale - as above and Limestone - medium grey, mottled, very fine crystalline, siliceous, argillaceous, in part sandy, tight. Minor very siliceous interbeds.

2760 - 2790 — Shale - dark grey, sub-fissile to blocky, calcareous, micro-micaceous, slightly carbonaceous. Minor Limestone as above, grading to very calcareous Shale.

2790 - 2810 — Shale - as above, in part very calcareous. Limestone as above up to 30%.

2810 - 2820 — Shale - dark grey to black, sub-fissile to blocky, calcareous, micro-micaceous, slightly calcareous to calcareous.

2820 - 2860 — Shale - as above. Trace Limestone interbeds.

2860 - 2870 — Shale - as above. Minor calcareous interbeds.

2870 - 2880 — Shale - as above with ~30% interbedded siliceous Limestone.

2880 - 2890 — Shale - as above and Limestone - light grey to medium grey, mottled, very fine crystalline, in part argillaceous, very siliceous, traces grey chert, in part sandy.

2890 - 2900 — Shale - as above and Limestone as above, very siliceous, very sandy grading to very calcareous sandstone.

2900 - 2910	Limestone - as above grading to very calcareous Shale and very calcareous Sandstone.
2910 - 2920	Shale - as above, calcareous and silty. Sandstone - as above, grading to sandy Limestone as above.
2920 - 2930	Limestone - Sandstone with ≈20 - 30% Shale as above.
2930 - 2940	Limestone - as above and Sandstone - medium grey, very fine grained to silty, very calcareous grading to very silty, sandy Limestone. Minor to 30% Shale - dark grey to black, sub-fissile, micro-micaceous. Fractured - white quartz and calcite infill.
2940 - 2950	Sandstone - as above, grading to siliceous Siltstone. Shale - medium grey, siliceous, blocky, slightly calcareous.
2950 - 2960	Sandstone - as above, becoming very silty to Siltstone, calcareous to very calcareous. Shale - medium to dark grey, calcareous, in part siliceous, abundant dark grey chert.
2960 - 2970	Shale - dark grey to black, sub-fissile to fissile, micro-micaceous, carbonaceous, slightly calcareous. Siltstone - Sandstone as above, up to 30%. Fairly abundant calcite filled fractures.
2970 - 2980	Shale - as above ≈40%. Limestone - medium grey, very fine crystalline, very siliceous and silty, slightly argillaceous, grading to very calcareous Siltstone as above, tight. Trace crinoids.
2980 - 2990	Limestone - light to medium grey, aphanitic with minor fine crystalline crinoidal, very silty, in part grading to calcareous, siliceous Siltstone, slightly argillaceous, trace floating quartz grains, occassional crinoid fragment. Shale - as above.
2990 - 3000	Shale - medium to dark grey - black, sub-fissile, silty, calcareous, micro-micaceous. Limestone - as above.
3000 - 3010	Limestone - light to medium grey, micro-crystalline, slightly argillaceous, in part silty. Shale (40%) medium to dark grey, blocky, calcareous, micro-micaceous.

3010 - 3060	Limestone - as above, trace indistinct crinoid fragments. Shale as above (≈20 - 30% interbeds).
3060 - 3090	Shale - medium to dark grey - black, blocky, calcareous, in part micro-micaceous, grading to argillaceous Limestone. Limestone (≈30%) as above.
3090 - 3100	Limestone - light to medium grey, mottled, micro to very fine crystalline, slightly argillaceous, slightly silty, in part crinoidal (poorly preserved) grading to calcareous Shale (30%) as above. Traces dark grey chert.
3100 - 3110	POOR SAMPLE Limestone - as above becoming very siliceous. Shale - dark grey to black, blocky, micro-micaceous, only slightly calcareous, in part siliceous. Abundant dark grey to black chert.
3110 - 3120	Shale - as above, siliceous and cherty with abundant siliceous and calcareous interbeds. Minor siliceous Limestone interbeds.
3120 - 3130	Shale - as above and Chert - medium grey. Abundant siliceous interbeds. Minor very silty Limestone interbeds.
3130 - 3140	Shale - black, sub-fissile to blocky, micro-micaceous, in part siliceous, carbonaceous, only slightly calcareous. Abundant white calcite crystals - vein filling. Gas Show - 0.08% Methane; shale gas. Trace calcareous interbeds (cavings?).
3140 - 3150	Shale - dark grey to black, blocky, siliceous, hard, micro-micaceous, slightly calcareous in part. Moderate amounts dark grey chert and siliceous interbeds. Minor very calcareous interbeds.
3150 - 3160	Shale and Chert - as above, minor sandy, slightly calcareous, siliceous interbeds.
3160 - 3170	Shale and Chert - as above, Moderate amounts calcareous, silty Sandstone (cavings?)
3170 - 3180	Limestone - light to medium grey, mottled, microcrystalline, slightly argillaceous, silty to very silty, tight, grading to calcareous Siltstone, very cherty (medium grey). Minor siliceous interbeds. Trace crinoid fragments. Minor Shale as above.

3180 - 3190 Shale - black, fissile, micro-micaceous, carbonaceous.

3190 - 3200 Shale - dark grey, blocky, hard, siliceous, in part micro-micaceous, and Chert - dark grey. ≈20-30% quartzite. Minor black Shale as above. Trace Limestone as above.

3200 - 3220 Shale - as above and Quartzite - medium grey-brown, aphanitic, Chert - as above. Trace silty Limestone as above.

3220 - 3230 Shale - black, fissile, carbonaceous and Shale - as above. Chert and Quartzite - as above.

3230 - 3250 Quartzite - as above with Limestone - as above. Minor siliceous Shale and Chert.

3250 - 3260 Shale - black, sub-fissile, micro-micaceous, carbonaceous, slightly calcareous. Traces Chert, Quartzite, and Limestone - as above.

3260 - 3270 Shale - dark grey to black, blocky, siliceous, micro-micaceous. Abundant Chert and Quartzite. ≈20% very silty Limestone grading to calcareous Siltstone as above.

3270 - 3280 Shale - black, siliceous, blocky, in part fissile and carbonaceous, slightly calcareous, micro-micaceous. Abundant Chert and Quartzite as above.

3280 - 3290 Shale - black, sub-fissile to fissile, carbonaceous, micro-micaceous, slightly calcareous. Trace calcareous interbeds.

3290 - 3300 Shale - dark grey, blocky, siliceous, micro-micaceous, cherty. Minor Quartzite.

3300 - 3310 Shale - as above, cherty. Minor Quartzite. Occassional thin calcareous interbeds.

3310 - 3320 Shale and Chert - as above. ≈20% Quartzite as above. Abundant Limestone - very light to medium grey, very silty grading to Silstone, micro-crystalline, tight.

3320 - 3330 Shale - dark grey to black, blocky, slightly calcareous, in part siliceous. Trace quartzite, chert and calcareous interbeds.

3330 - 3340	Shale - dark grey and black, blocky to fissile, carbonaceous, slightly calcareous, in part siliceous, micro-micaceous. Minor calcareous siltstone grading to very silty limestone. Fractured - cabundant white vein calcite.
3340 - 3350	Shale - as above and Limestone - light - medium grey, mottled, micro-crystalline, silty, grading to very calcareous Siltstone. Abundant white vein calcite - fractures.
3350 - 3360	Shale - dark grey to black, sub-fissile to blocky, carbonaceous. Sandstone - light grey-brown, very fine grained, calcareous, hard, siliceous, in part quartzitic. Abundant white vein calcite.
3360 - 3370	Shale and Quartzite - as above. Abundant dark grey chert. Abundant white vein calcite with minor white quartz.
3370 - 3380	Shale - dark grey to black, blocky, siliceous, cherty. Minor amounts light gre, calcareous Siltstone. Very abundant white quartz and calcite veinlets.
3380 - 3390	Shale - medium grey, calcareous, blocky to platy, in part very calcareous with minor interbedded Siltstone - light grey, calcareous. Limestone - medium grey, micro-crystalline, argillaceous grading to calcareous Shale.
3390 - 3400	Shale - in part very calcareous and in part very siliceous. Abundant calcareous Siltstone as above.
3400 - 3410	Shale - dark grey to black, sub-fissile to fissile, carbonaceous and blocky calcareous. Abundant dark grey chert. Traces Siltstone as above.
3410 - 3420	Shale - black, sub-fissile to fissile, carbonaceous, slightly calcareous, medium soft, micro-micaceous, minor disseminated pyrite.
3420 - 3460	Shale - as above, fissile, non-calcareous, pyritic.
3460 - 3600	Shale - black (medium bronze-black sheen), fissile, carbonaceous, non-calcareous, minor disseminated pyrite, medium soft, micro-micaceous.
3600 - 3630	Shale - as above.

3630 - 3650	Shale - dark grey to black, fissile to sub-fissile, slightly carbonaceous, non-calcareous, pyritic, micro-micaceous. Trace chalcopyrite @ 3650.
3650 - 3700	Shale - black, fissile to sub-fissile, carbonaceous, pyritic, non-calcareous, becoming slightly siliceous, micro-micaceous.
3700 - 3710	Shale - black, blocky to sub-fissile, carbonaceous, in part slightly calcareous, pyritic, in part slightly silty, siliceous. Minor calcareous and siliceous interbeds.
3710 - 3720	Shale - as above. Occassional thin calcareous and siliceous interbeds.
3720 - 3770	Shale - dark grey to black, blocky, silty, calcareous, micro-micaceous, pyritic, in part slightly carbonaceous. Trace very calcareous interbeds.
3770 - 3810	Shale - black, fissile to sub-fissile, carbonaceous, non-calcareous, micro-micaceous, trace pyrite. Minor white calcite and quartz in fractures @ 3810.
3810 - 3840	Shale - dark grey to black, blocky to sub-fissile, micro-micaceous, in part slightly carbonaceous, trace pyrite. Trace calcareous interbeds. Abundant white vein quartz. Becoming silty @ 3830.
3840 - 3930	Shale - dark grey to black, blocky, silty, slightly siliceous, micro-micaceous, slightly carbonaceous, traces disseminated pyrite, fractures filled with white calcite and quartz.
3930 - 3960	Shale - as above, minor fracturing, very silty, calcareous.
3960 -4120	Shale - dark grey-black, blocky, silty, micro-micaceous, slightly calcareous, siliceous, hard, minor disseminated pyrite.
4120 - 4220	Shale - as above, becoming less silty, and minor Shale - bleak, sub-fissile, carbonaceous, micro-micaceous.
4220 - 4290	Shale - dark grey, blocky, silty, slightly siliceous, micaceous, slightly calcareous.
4290 - 4300	Shale - dark grey, sub-fissile, micro-micaceous, medium soft, slightly calcareous.

4300 - 4330	Shale - dark grey, subfissile, pyritic. Shale - black, fissile, carbonaceous, micro-micaceous, only slightly calcareous, medium soft. Occassional thin calcareous, sandy interbeds.
4330 - 4420	Shale - dark grey to black, sub-fissile to blocky, in part carbonaceous, slightly to non-calcareous, micro-micaceous, trace disseminated pyrite, cedium soft.
4420 - 4430	POOR SAMPLE - TRIP @ 4426. Shale - dark grey to black, blocky to sub-fissile, carbonaceous, slightly silty in part, micro-micaceous, trace disseminated pyrite, slightly to non-calcareous.
4430 -4460	Shale - dark grey to black, sub-fissile to blocky, micro-micaceous, slightly carbonaceous, non-calcareous, trace disseminated pyrite, medium soft to medium hard. Becoming slightly silty.
4460 - 4500	Shale - as above, becoming slightly silty and increasingly calcareous. Minor thin calcareous and quartzitic interbeds.
4500 - 4510	POOR SAMPLE TRIP @ 4511. Shale - as above with minor calcareous Quartzite as above.
4510 - 4540	Shale - dark grey to black, sub-fissile, carbonaceous, non-calcareous, micro-micaceous, trace disseminated pyrite, medium hard. Minor calcareous Sandstone interbeds @ 4520 - 4530.
4540 - 4550	Shale - as above. Trace fracturing with trace hematite staining. Trace Quartzite interbeds.
4550 - 4560	Shale - as above and Shale - carbonaceous, micro-micaceous, slightly calcareous to siliceous, hard, slightly silty.
4560 - 4590	Shale - dark grey to black, blocky, silty, slightly calcareous, trace carbonaceous, medium hard. Minor black fissile shale.
4590 - 4650	Shale - as above and Shale - black, sub-fissile, micro-micaceous, pyritic, carbonaceous, medium soft. Occassional trace calcareous Quartzite.

4690 - 4700	Shale - as above, slightly silty and slightly siliceous.
4700 - 4790	Shale - black, sub-fissile to blocky, carbonaceous, in part silty and slightly siliceous, medium hard, pyritic, micro-micaceous, in part slightly calcareous.
4790 - 4820	Shale - dark grey to black, sub-fissile to blocky, medium hard, in part carbonaceous, pyritic, micro-micaceous, in part silty, slightly calcareous. Trace thin calcareous, sandy interbeds.
4820 - 4870	Shale - dark grey-black, blocky to sub-fissile, slightly silty and calcareous, in part carbonaceous and pyritic, micro-micaceous, medium hard. Slightly siliceous in places.
4870 - 4890	Shale - dark grey to black, fissile to sub-fissile, micro-micaceous, pyritic, carbonaceous, trace fractures.
4890 - 4920	Shale - dark grey to black, blocky to sub-fissile, silty, slightly calcareous, siliceous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous, medium hard to hard.
4920 - 5000	Shale - as above, becoming sub-fissile, carbonaceous and less siliceous. Trace white vein calcite. Occassional thin sandy, calcareous interbed.
5000 - 5070	Shale - dark grey to black, blocky to sub-fissile, micro-micaceous, in part carbonaceous, slightly calcareous, trace disseminated pyrite, in part siliceous, medium hard to hard. Occassional thin calcareous interbed. Slickensides?
5070 - 5140	Shale - dark grey-black, blocky, siliceous, hard, slightly calcareous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous.
5140 - 5170	Shale - dark grey, blocky, siliceous, hard, slightly calcareous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous.
5170 - 5230	Shale - as above, becoming increasingly carbonaceous and slightly less siliceous. In part sub-fissile and medium soft.

5230 - 5260	Shale - dark grey to black, blocky to sub-fissile, medium hard, carbonaceous, pyritic, micro-micaceous, in part calcareous, trace fracturing with traces chalcopyrite, in part siliceous.
5260 - 5320	Shale - dark grey to black, blocky, siliceous, hard, slightly pyritic, micro-micaceous. Minor sub-fissile, carbonaceous shale.
5320 - 5330	Shale - as above.
5330 - 5440	Shale - dark grey to black, blocky to sub-fissile, carbonaceous, micro-micaceous, slightly calcareous, trace disseminated pyrite, medium soft. In part siliceous. Trace fracturing.
5440 - 5470	Shale - as above, with a slightly silty texture.
5470 - 5480	Shale - dark grey to black, sub-fissile, calcareous, carbonaceous, trace disseminated pyrite, micro-micaceous, medium soft to medium hard.
5480 - 5560	Shale - dark grey to black, blocky, variably siliceous and hard to medium, slightly calcareous, carbonaceous, micro-micaceous, trace disseminated pyrite. Occassional thin calcareous interbeds.
5560 - 5630	Shale - as above, calcareous. Occassional thin calcareous, sandy interbeds.
5630 - 5640	Shale - dark grey to black, sub-fissile, carbonaceous, calcareous to slightly calcareous, medium soft, pyritic, micro-micaceous. Occassional thin calcareous Sandstone interbeds.
5640 - 5690	Shale - dark grey to black, sub-fissile, carbonaceous, only slightly calcareous, pyritic, micro-micaceous, medium soft. Occassional trace Quartzite as above.
5690 - 5700	NO SAMPLE.
5695 - 5715	DIAMOND CORE #1, Recovered 18'. Shale - black as above.
5730 - 5740	Shale - dark grey to black, blocky to sub-fissile, carbonaceous, pyritic, micro-micaceous, slightly calcareous, trace fracturing and trace Quartzite as above.

5740 - 5800	Shale - dark grey to black, fissile, micro-micaceous, carbonaceous, pyritic, calcareous to slightly calcareous.
5800 - 5910	Shale - black, as above, non-calcareous. Occassional trace calcareous Quartzite, increasingly carbonaceous, minor white vein calcite.
5910 - 6000	Shale - dark grey to black, as above becoming sub-fissile to blocky.
6000 - 6130	Shale - black, fissile to sub-fissile, carbonaceous, disseminated pyrite, micro-micaceous, medium hard.
6130 - 6140	Shale - as above, with minor trace hematite staining.
6140 - 6200	Shale - dark grey to black, fissile, carbonaceous, pyritic, micro-micaceous. Trace calcareous Quartzite and fracturing.
6200 - 6240	Shale - as above, very abundant white calcite and quartz. Fractured, trace light grey chert. Thin calcareous Sandstone interbeds, light grey, very fine grained, tight.
6240 - 6340	Shale - dark grey to black, carbonaceous, sub-fissile to fissile, disseminated pyrite, micro-micaceous. Trace fracturing and white vein calcite.
6340 - 6350	Shale - as above, and Limestone (30%) - medium grey, mottled, coarse crystalline, slightly argillaceous, abundant crinoid fragments, sandy with floating quartz grains. Abundant clacareous Quartzite.
6350 - 6360	Shale and Limestone (50%) - as above.
6360 - 6370	Shale - as above with ≈20% Limestone and Quartzite as above.
6370 - 6400	Shale - dark grey to black, sub-fissile, carbonaceous, minor disseminated pyrite, micro-micaceous, slightly to non-calcareous. Trace Limestone as above.
6400 - 6460	Shale - dark grey to black, sub-fissile, carbonaceous, slightly calcareous, disseminated pyrite, micro-micaceous.

6460 - 6530	Shale - as above, becoming increasingly calcareous @6460. Occassional thin calcareous quartzite stringer.
6530 - 6540	Shale - as above and Sandstone - light to medium grey, very fine grained, sub-angular, poorly sorted, very calcareous, grading to very sandy limestone, tight.
6540 - 6550	Shale - as above (50%) and Sandstone - as above with minor sandy Limestone interbeds.
6550 - 6560	Shale - dark grey to black, sub-fissile, non-calcareous, carbonaceous, micro-micaceous, minor disseminated pyrite. Minor Sandstone as above (30%).
6560 - 6570	Shale - as above with Sandstone (30%) - as above.
6570 - 6580	Quartzite - light grey, very fine grained to silt size, very hard, pyritic, in part slightly calcareous. Shale (≈30%) - as above.
6580 - 6600	Shale - dark grey to black, sub-fissile to blocky, minor disseminated pyrite throughout, slightly calcareous, in part slightly siliceous, carbonaceous. Minor Quartzite as above.
6600 - 6760	Shale - as above.
6760 - 6780	Shale - dark grey, blocky to sub-fissile, calcareous, micro-micaceous, slightly carbonaceous, trace disseminated pyrite.
6780 - 6800	Shale - dark grey-black, blocky to sub-fissile, slightly calcareous, trace disseminated pyrite.
6800 - 6820	Shale - dark grey to black, sub-fissile, slightly carbonaceous, trace to slightly calcareous, trace disseminated pyrite. Shale becomes non-calcareous @6810.
6820 - 6840	Shale - as above, calcareous.
6840 - 6850	Shale - dark grey to black, blocky, siliceous, in part calcareous, micro-micaceous, minor disseminated pyrite. Minor very fine grained, calcareous Quartzite.

6852 - 6874 DIAMOND CORE #2, Cut 22', Recovered 22'.

6870 - 6930 Shale - dark grey to black, sub-fissile, carbonaceous, minor disseminated pyrite, variably calcareous, medium hard. Minor white vein calcite

6930 - 6950 Shale - dark grey, blocky, very calcareous.

6950 - 6970 Shale - as above, very calcareous and Limestone (10%) light - dark grey, very fine crystalline, sandy, tight, trace crinoid fragments, trace gilsonite?

6970 - 6990 Shale - as above and Limestone - medium to dark grey, very fine crystalline to aphanitic, argillaceous, grading to very calcareous Shale. Trace light grey, crinoidal Limestone.

6990 - 7000 POOR SAMPLE. Shale and Limestone - as above.

7000 - 7010 Limestone - light to medium grey, mottled, fine crystalline, in part slightly argillaceous, trace crinoid fragments, sandy, tight. Shale - as above (30 - 40%).

7010 - 7020 Limestone - as above with interbedded Shale - dark grey to black, sub-fissile, non-calcareous, trace disseminated pyrite.

7020 - 7030 Limestone - light to medium grey, mottled, medium to fine crystalline, in part crinoidsl, in part slightly argillaceous and sandy, tight. Minor Shale as above.

7029 - 7053 DIAMOND CORE #3, Cut 24', Recovered 20.5'

7050 - 7060 Shale - black, sub-fissile, non-calcareous to slightly calcareous, pyritic, carbonaceous. Limestone (10 - 20%) as above.

7060 - 7070 Shale - as above with Quartzite (10%) - medium grey, very fine grained, calcareous, hard, grading to sandy Limestone.

7070 - 7110 Shale - dark grey to black, sub-fissile to fissile, non-calcareous, pyritic, interbeds. Limestone (40%) light to medium grey, mottled, very fine crystalline, sandy, tight.

7110 - 7120 Limestone - as above with Shale (40%) (as above)interbeds.

7120 - 7140	Limestone - light to medium grey, mottled, very fine crystalline, trace floating sand grains. Minor (30%) Shale interbeds, dark grey to black, blocky, calcareous. Minor calcareous Quartzite.
7140 - 7150	Limestone - light to medium grey, mottled, very fine crystalline, sandy, black chert, in part siliceous. Minor Shale (20%) as above. Abundant calcareous Quartzite.
7150 - 7160	Limestone - as above, very sandy, cherty, grading to Sandstone - light grey, very fine grained, hard, calcareous. Shale - as above.
7160 - 7170	Shale - dark grey to black, sub-fissile to blocky, slightly calcareous, trace disseminated pyrite, carbonaceous, medium hard. Abundant dark grey chert. Minor Limestone and Quartzite as above.
7170 - 7230	Shale - as above, slightly silty and calcareous.
7230 - 7290	Shale - as above with minor Sandstone - light grey, very fine grained, very calcareous, tight, grading to very sandy limestone.
7290 - 7310	Shale - dark grey, blocky, calcareous. Minor Sandstone as above.
7310 - 7320	Shale - dark grey, blocky, calcareous, grading to Shale medium grey, very calcareous, silty. Minor Sandstone as above, very calcareous grading to very sandy Limestone.
7320 - 7340	Shale - as above, very calcareous with a very fine granular texture.
7340 - 7350	Shale - as above, with minor Sandstone - light grey, very calcareous, very fine grained, tight. Shale slightly less calcareous.
7350 - 7390	Shale - as above.
7390 - 7440	Shale - dark grey, blocky, calcareous, minor interbedded Sandstone and sandy Limestone as above. Abundant white vein calcite - fractured.
7440 - 7470	NO SAMPLE - LOST CIRCULATION.

7470 - 7480	Shale - (40%) dark grey, blocky, slightly calcareous, hard, siliceous, silty, cherty. Sandstone - medium-dark grey, very fine grained, hard, grading to Siltstone - calcareous, in part siliceous, silty.
7480 - 7500	Sandstone - medium grey, very fine grained, very calcareous, hard, silty, grading to very calcareous Siltstone. Shale - dark grey to black, blocky siliceous to fissile, minor disseminated pyrite, cherty (dark grey). Traces very sandy, silty Limestone.
7500 - 7510	Siltstone - grading to very fine grained Sandstone - light to medium grey, very calcareous. Shale - as above. Minor very silty, sandy Limestone.
7510 - 7530	Limestone - light-medium grey, very fine crystalline, very silty grading to very calcareous Siltstone. Minor Shale as above. Traces fracturing.
7530 - 7550	Limestone - light-medium grey, fine crystalline, silty, in part grading to very calcareous Siltstone, tight. Minor calcareous Shale.
7550 - 7560	Shale - dark grey, blocky, calcareous, trace disseminated pyrite, Minor Limestone and Siltstone as above. POOR SAMPLE.
7560 - 7580	Shale - dark grey to black, sub-fissile to blocky, carbonaceous, slightly calcareous, in part slightly siliceous, trace disseminated pyrite. Minor Siltstone and Limestone as above.
7580 - 7590	Shale - as above with Sandstone - medium grey, very fine grained to silt, grading to very silty Limestone.
7590 - 7640	Shale - as above, non-calcareous, Sandstone (40%) as above. Abundant sandy, very calcareous Limestone.
7640 - 7670	Shale - as above with Limestone (20 - 30%) - medium grey, aphanitic, tight, slightly argillaceous. Lost Circulation - fractured. Abundant medium grey Chert.
7670 - 7720	Shale - as above, very cherty. Minor calcareous Siltstone interbeds. Abundant white calcite @7710.
7720 - 7730	Shale - dark grey, blocky to sub-fissile. Chert - dark grey. Minor calcareous Sandstone and silty sandy Limestone. Minor black, fissile Shale.

7730 - 7750 Siltstone - light to medium grey, very calcareous grading to very silty Limestone. Shale - dark grey-black, fissile, carbonaceous, non-calcareous, pyritic. Chert - medium grey.

7750 - 7760 Shale - dark grey to black, fissile to blocky, in part siliceous and slightly calcareous, trace disseminated pyrite. Minor calcareous Siltstone as above. Trace Chert.

7760 - 7790 Shale - as above with very abundant dark grey Chert.

7790 - 7800 Shale and Chert - as above. Sandstone - light-medium grey, very calcareous, very fine grained, grading to Siltstone and very silty Limestone.

7800 - 7810 Shale and Chert - as above, minor Siltstone.

7810 - 7860 Shale - dark grey to black, sub-fissile to blocky, hard, siliceous, Minor black, fissile, pyritic Shale and Siltstone. Minor Chert - dark grey. Trace dark grey Quartzite.

7860 - 7880 Shale - as above. Chert - as above. Sandstone (30%) light grey, very fine grained, very calcareous, grading to sandy Limestone, tight, dark-medium grey, fine crystalline, slightly argillaceous.

7880 - 7910 Shale - as above. Chert - as above. Minor Limestone and Siltstone as above.

7910 - 7920 Shale - dark grey, blocky, calcareous to non-calcareous, trace disseminated pyrite. Minor Chert - dark grey and Limestone as above.

7920 - 7930 Shale - medium-dark grey, blocky, slightly calcareous, hard, siliceous. Chert - medium grey. Siltstone medium grey, calcareous, hard. Trace light grey, silty Limestone.

7930 - 7950 Shale - Chert and calcareous Siltstone as above. POOR SAMPLES.

7950 - 7960 Shale - dark grey-black, blocky, hard, siliceous, sub-fissile, carbonaceous, pyritic. Chert - as above. Limestone - light grey, very fine crystalline, slightly silty and argillaceous. Abundant white vein calcite.

7960 - 7980	Shale - dark grey, blocky, calcareous, hard. Minor dark grey quartzite. Minor silty Limestone and calcareous Siltstone.
7980 - 7990	Shale - as above. Siltstone - medium grey, blocky, hard, very calcareous, in part grading to silty Limestone. Minor Chert as above.
7990 - 8010	Limestone - light to medium grey, very fine crystalline, slightly dolomitic, sucrosic, slightly argillaceous, silty grading to very calcareous Siltstone. Tight.
8010 - 8020	Limestone - as above, becoming very argillaceous grading to Shale - medium grey, blocky, very calcareous.
8020 - 8050	Shale - medium grey, blocky, calcareous, minor black, fissile, pyritic Shale. Chert - medium grey. Siltstone - medium grey, very calcareous. Minor Limestone - as above.
8050 - 8060	Shale - medium-dark grey, blocky, calcareous. Trace calcareous Siltstone and silty Limestone. Trace white vein calcite.
8060 - 8070	Shale - dark grey-black, sub-fissile to blocky, trace disseminated pyrite, slightly carbonaceous. Shale - as above, calcareous. Trace white vein calcite.
8070 - 8080	Shale - as above, calcareous, blocky, in part siliceous.
8080 - 8130	Shale - black, sub-fissile, carbonaceous, pyritic, in part siliceous. Trace calcareous Siltstone and white vein calcite.
8140 - 8600	Shale - black, fissile to sub-fissile, carbonaceous, pyritic, non-calcareous, slightly siliceous. Trace chalcopyrite @ 8370 - 8380.
8600 - 8690	Shale - dark grey-black, fissile to blocky, carbonaceous, pyritic, in part siliceous, non-calcareous.
8690 - 8740	Shale - dark grey to black, blocky, hard, siliceous, pyritic, slightly carbonaceous, non-calcareous.
8740 - 8750	Shale - as above. POOR SAMPLE.

8750 - 8800	Shale - dark grey to black, sub-fissile, hard, in part slightly siliceous, slightly carbonaceous, minor disseminated pyrite, non-calcareous.
8800 - 9000	Shale - grey-black, blocky, minor disseminated pyrite, slightly carbonaceous, variably siliceous, non-calcareous.
9000 - 9020	Shale - dark grey-black, blocky, slightly carbonaceous, pyritic, variably siliceous, non-calcareous. POOR SAMPLES.
9020 - 9030	NO SAMPLE.
9030 - 9060	POOR SAMPLES. - as above.
9060 - 9080	Shale - dark grey to black, blocky, inpart sub-fissile, slightly carbonaceous, disseminated pyrite, variably siliceous, non-calcareous.
9080 - 9310	Shale - dark grey, blocky, very siliceous, disseminated pyrite throughout, non-calcareous, hard, slightly carbonaceous. Minor traces white vein calcite. Occassional trace slickensides. Concoidal fracture.
9310 - 9490	Shale - as above with Shale - dark grey-black, sub-fissile, carbonaceous, pyritic, slickensides. Traces white vein calcite.
9490 - 9500	Shale - as above. POOR SAMPLE.
9500 - 9540	Shale - dark grey to black, fissile to sub-fissile, in part siliceous, hard to medium hard, in part carbonaceous, non-calcareous, minor disseminated pyrite. Trace quartz filled fractures.
9540 - 9630	Shale - dark grey, sub-fissile, in part blocky, siliceous, slightly carbonaceous, minor disseminated pyrite.
9630 - 9790	Shale - dark grey, sub-fissile to blocky, slightly carbonaceous, hard, siliceous, non-calcareous, minor disseminated pyrite, micro-micaceous.
9790 - 9800	Shale - as above, abundant white vein quartz - fracturing, increasingly carbonaceous in part.
9800 - 9810	Shale - dark grey, fissile to blocky, in part carbonaceous, silty texture, fractured, minor disseminated pyrite.

9810 - 9820	Shale - dark grey, blocky, siliceous, hard, minor disseminated pyrite, trace fracturing.
9820 - 9860	Shale - dark grey to black, predominantly blocky to sub-fissile, siliceous, with minor fissile Shale, pyritic, minor fracturing with quartz infilling fractures, in part slightly carbonaceous.
9860 - 10060	Shale - dark grey-black, blocky, very siliceous, concoidal fracture, slightly carbonaceous, pyritic, non-calcareous, trace quartz filled fractures. Very minor interbedded (1' beds) black, fissile Shale.
10060 - 10080	Shale - as above, in part becoming less siliceous.
10080 - 10190	Shale - dark grey-black, blocky, very siliceous, in part concoidal fracture, slightly carbonaceous, pyritic, micro-micaceous, non-calcareous. Trace white vein quartz. Minor black, sub-fissile Shale. Shale becoming slightly more carbonaceous.
10190 - 10250	Shale - as above, abundant quartz and calcite infilling fractures.
10250 - 10260	Shale - as above with increasing sub-fissile to fissile, carbonaceous Shale, less siliceous.
10260 - 10310	Shale - dark grey-black, sub-fissile, slightly siliceous, carbonaceous, non-calcareous, trace pyrite, micro-micaceous, Minor blocky, siliceous Shale.
10310 - 10330	Shale - dark grey-black, sub-fissile carbonaceous to blocky siliceous, pyritic. Becoming increasingly blocky and siliceous, non-calcareous.
10330 - 10360	Shale - dark grey-black, sub-fissile to blocky, siliceous, pyritic, slightly carbonaceous, micro-micaceous, non-calcareous. Abundant white vein quartz and calcite.
10360 - 10460	Shale - as above, blocky, siliceous.

SECTION III

ENGINEERING SUMMARY

INEXCO et al MALLARD YT O-18

(a) REPORT OF DRILL STEM TESTS

There were no drill stem tests run during the drilling of Inexco et al Mallard YT O-18.

(b) CASING RECORD

Surface casing: Ran 32 jts. (959.82') 13 3/8", 54.5#, K-55, Smls 8 rd casing. Landed at 957' K.B. Cemented with 240 sx fondu cement and 760 sx oilwell cement. Plug down @ 1:53 A.M., May 10/72.

Intermediate casing: Ran 83 jts. (3180') 9 5/8", 36# & 40#, K-55, Smls 8 rd casing. Landed @ 3178' K.B. Cemented with 650 sx oilwell cement. Plug down @ 8:00 A.M., July 21/72.

(c) BIT RECORD

See page 36 & 37.

(d) MUD REPORT

ADDITIVES	AMOUNT
Gel	156,000 lbs.
Caustic	1,150 lbs.
Lime	150 lbs.
CMC	1,900 lbs.
Bicarb.	1,500 lbs.
X-Pel G	6,825 lbs.
Benex	316 lbs.
Peltex	150 lbs.
Cane Fibre	1,240 lbs.
Kwik seal	2,120 lbs.
Poly seal	1,900 lbs.
Sawdust	121 sx.
Cement	400 lbs.
Soap	154 gal.
Calgon	300 lbs.
Hagatreat	250 lbs.

BIT RECORD

INEXCO et al. MALLARD YT 0-18

Bit No.	Type	Jets	Size	From	To	Footage	Hours	Cond.
1A	M44N	open	12¼	0	356	356	41½	5-4I
2A	DSJ	open	12¼	356	645	289	28½	5-6I
3A	DSJ	open	12¼	645	755	110	17½	7-6I
4A	DMNJ	open	12¼	755	840	85	13	6-5I
5A	M44	3/28	12¼	840	885	45	6¾	6-2I
6A	H76J	3/28	12¼	885	955	70	10¼	5-3I
7A	Hole opener		17½	0	918	918	18¼	8-6I
8A	Hole opener		17½	918	961	43	4¼	4-4I
1	RX55R	open	12¼	961	1124	157	13¾	4-4I
2	SCM5G	open	12¼	1124	1857	733	51¼	7-8I-2 cones locked
3	M88	3/28	12¼	1857	2360	503	35	3-3I
4	DMNJ	3/22	12¼	2360	2442	82	10½	4-2I
5	SC5G	3/22	12¼	2442	3105	663	48	7-8I-1 cone locked
6	M88	2/22;1/18	12¼	3105	3465	360	33¼	4-4I
7	SCH	2/18;1/20	12¼	3465	3604	139	11	2-2I
8	DMNJ	2/18;1/20	12¼	3604	3750	146	19	4-5I
9	SCH(RR#7)	2/22;1/18	12¼	3750	4292	542	67¾	2-2I
10	SC4G	2/18;1/20	12¼	4292	4426	134	23¼	1-1I
11	M44N	2/20;1/18	12¼	4426	4511	85	13½	4-6I
12	SC4G(RR#10)	2/18;1/20	12¼	4511	4890	379	56½	6-5I
13	M88RR		12¼	4890	4890	STUCK IN HOLE		
14	M44N	3/open	12¼					
15	M88RR		12¼	4890	4975	85	18½	4-8I
16	SCM5J	2/22;1/18	12¼	4975	5274	299	49¾	6-3I
17	SCM5J	2/22;1/open	12¼	5274	5340	66	17	1-1I
18	DMNJ	2/22;1/28	12¼	5340	5443	103	22¾	4-4I
19	M44J	2/22;1/28	12¼	5443	5497	54	17½	6-2I
20	DMNJ	2/22;1/28	12¼	5497	5563	66	19¾	4-2I
21	SHGJ	3/open	8¾	5563	5628	65	17	4-3I
22	S88	3/open	8¾	5628	5695	67	24½	2-2I
1B	◇ Chris	open	6 23/32	5695	5715	20	2¾	Good
23	S88RR	open	8¾	5695	5715	20	2¾	2-2I
24	M4LC	18/16/15	8¾	5715	5807	92	15½	4-4I
25	J44	3/15	8¾	5807	6020	213	41¼	1-2I
26	DMJ	2-15/1-14	8¾	6020	6134	114	16	6-7I
27	DMJ	2-15/1-14	8¾	6134	6225	91	13¼	7-6I
28	J44RR	3/15	8¾	6225	6525	300	46	Good
29	M4LG	3/15	8¾	6525	6548	23	9	6-4I
30	DMJ	1/14;2/15	8¾	6548	6611	63	15½	6-5I
31	DMJ	3/15	8¾	6611	6706	95	18¾	6-4I

32	DMJ	1/14;2/15	8¾	6706	6788	82	17½	66I
33	DMJ	2/15;1/14	8¾	6788	6852	62	12½	66I
2B	◇ Chris	open	6 23/32	6852	6874	22	9¾	Good
34	M4LGJ	2/15;1/14	8¾	6852	6900	48	6½	44I
						(22' Ream; 26' Drill)		
35	DMJ	2/15;1/14	8¾	6900	6943	43	11¼	76I
36	DMJ	2/15;1/14	8¾	6943	6992	49	13½	76I
37	DMJ	2/15;1/14	8¾	6992	7029	37	11¼	76I
3B	◇ Chris	open	6 23/32	7029	7053	24	8½	Good
38	SWCH	2/16;1/13	8¾	7029	7076	47	12¾	52I
						(24' Ream-6¼hr; 23' Drill-6½hr)		
39	X55R	2/15;1/14	8¾	7076	7409	333	40	84I
40	M88	2/15;1/14	8¾	7409	7562	153	18¼	86½
41	SWCH	2/15;1/14	8¾	7562	7568	6	1	11I
42	RG7XJ	2/15;1/14	8¾	7568	7685	117	15½	12I
43	W4HJ	open	8¾	7685	7723	38	10¼	66I
44	FCH4J	3/18	8¾	7723	8013	290	56	24I
45	J44RR	3/14	8¾	8013	8405	392	46¼	44I
46	FCM5J	3/14	8¾	8405	8749	344	38¼	72I
47	X55R	3/14	8¾	8749	9002	253	30¾	
48	M4LG	3/16	8¾	Drill out Cement				11I
49	RRX55R	2/14;1/15	8¾	9002	9002	-	-	New
50	M4LG	2/14;1/15	8¾	9002	9037	35	5¾	
51	X55R	2/14;1/15	8¾	9037	9462	425	32	68I
52	7JS	3/16	8¾	9462	9490	28	7¼	22I
53	X55R	3/16	8¾	9490	9611	121	26¼	22I
54	FCM5	3/16	8¾	9611	9727	116	46¼	22I
55	SS1G	3/16;1/18	8¾	9727	9802	75	18¾	86I
56	S88	3/16;1/18	8¾	9802	9936	134	23¼	87¼
57	7JS RR	2/16;1/20	8¾	9936	10043	107	16¾	78I
58	X55R	3/18	8¾	10043	10307	264	36½	68¼
59	X55R	3/18	8½	10307	10475	168	19¾	32I
4B	◇ Chris	open	6 23/32	10475	10492	17	9½	Good
60	7JS RR	3/18	8¾	10492	10499	7	1½	44¼
			Reamed -	10307	10492	185	5¾	

(e) DEVIATION RECORD

See page 39 & 40.

(f) SUSPENSION PLUGS

Plug #1 - 10499' - 10399' with 100 sx neat oilwell cement.
Plug down @ 7:25 P.M., Aug 16, 1972.

Plug #2 - 2000' - 1900' with 100 sx neat oilwell cement.
Plug down @ 11:05 P.M., Aug 16, 1972.
Felt plug #2 @ 1860'.

(g) LOST CIRCULATION ZONES

The Mallard well was drilled from surface to 7685' with no apparent lost circulation zone other than minor additions of LCM on the surface hole. At 7685' drilling operations were stopped for 3 1/4 hrs. to mix LCM. It is suspected that circulation was lost to a highly fractured zone. Circulation was regained following the addition of 700 lbs. of polyseal. From 7685' to TD it was apparent that portions of the hole were taking minor amounts fo fluid. Circulation was maintained by the addition of gel and water to make up the required volume plus the addition of small amounts of LCM to plug fractured intervals.

(h) REPORT OF BLOWOUTS

None

DEVIATION RECORD

INEXCO et al. MALLARD YT 0-18

Depth	Deviation (Degrees)
67	¾
103	½
132	½
160	1
200	1
234	¾
293	1
321	1⅛
350	2
380	1⅞
410	2¾
444	2⅜
473	2⅜
505	2⅜
536	2¼
566	2½
596	2½
620	2
661	2¼
692	2½
720	2¾
755	2¾
787	2¾
819	2¼
850	2¼
880	3
914	2¾
946	2¾
1012	2¾
1105	2½
1165	2½
1272	2¼
1390	2½
1523	2½
1646	2½
1879	3½
1939	4
2034	3⅜
2065	3⅜
2125	3¼
2188	4¼
2245	4½
2310	4¾
2377	5
2409	4¼
2440	4¼
2493	3½
2555	4
2617	4
2753	3
3001	2¾
3283	4
3407	3¾
3596	8½ Misrun (8° chart)
3596	8½ (16° chart)
3655	8¼
3687	8¼
3718	8
3750	7¾
3790	9½
3822	10
3853	9¾
3882	10
3915	9¾
3946	9½
3972	10
4000	9
4030	10
4072	9½
4102	9¾
4133	9¾
4163	10
4193	9¾
4259	9¾
4319	9¾
4384	9

DEVIATION RECORD (continued)

Depth	Deviation (Degrees)
4440	9
4510	8½
4604	8¼
4739	9
4860	7¾
4970	9½
5019	9½
5050	10
5084	10½
5116	11½
5146	12
5170	12¼
5209	12½
5241	12
5273	12½
5290	12¾
5332	13
5360	12½
5426	11½
5489	11½
5563	10¼
5616	10¼
5695	12
5790	13½
5820	14¼
5857	15
5888	15
5920	15¾
5950	16
5982	16½
6013	17
6040	18
6070	18
6106	17
6130	16½
6160	14¾
6225	15
6265	15
6330	16
6360	17
6394	18
6425	19½
6455	20

Depth	Deviation (Degrees)
6485	20
6515	21
6548	22
6570	21
6605	22
6630	22
6695	20
6760	19½
6780	21
6842	22
6895	21
6940	21
6992	Misrun
7000	20
7076	20
7106	20
7137	19½
7231	19½
7324	19
7409	19
7482	18
7542	19
7702	6 (?) Misrun
7723	Misrun (Off 16° clock)
7700	10 (?) Misrun
7734	19
7796	20
7860	19
7990	18
8045	16½
8135	17
8226	17½
8400	17
8580	17
8740	18
9002	Misrun
9250	21
9462	18
9611	17
9802	21
9936	20
10307	19½
10462	21

SECTION IV - LOGS

INEXCO et al. MALLARD YT O-18

Type	Date	Interval	Scale
Dual Induction Laterolog	June 18/72	954 - 5707	2" & 5"
	August 12/72	5500 - 10491	2" & 5"
BHC Sonic-Gamma Ray-Caliper	June 18/72	952 - 5713	2" & 5"
	August 12/72	5500 - 10488	2" & 5"
Formation Density Compensated	August 12/72	3030 - 10492	2" & 5"
Dipmeter	June 18/72	954 - 5707	
	August 12/72	5707 - 10492	

WELL HISTORY LOG

Well Name: INEXCO et al. MALLARD YT 0-18

Location: 65 47 58 N 140 17 41 W

Operator: INEXCO OIL COMPANY

Elevation: Ground: 3650 (est.) K.B. 3665 (est.)

Spud Date: 11:30AM May 2, 1972

Finished Drilling: 7:20 P.M. August 12, 1972

Status: Suspended

Total Depth: 10,499' (Driller)

Bottom Formation: Unnamed Shale

Geologist: Harold H. Williams

SURFACE CASING: Ran 32 Jts. 959.82' 13 3/8" K-55 54.5# CSG. Landed @ 956.82' K.B. with 240 sacs Fondue & 760 sacs Oilwell Cement. Plug down @ 1:53 A.M. May 10, 1972.

INTERMEDIATE CASING: Ran 83 Jts. 3180' 95/8" K-55 36 & 40# CSG. Landed @ 3178' K.B. with 650 sacs oilwell cenent. Plug down @ 8:00 A.M. July 21, 1972.

CORES: #1 5695-5715
#2 6852-6874
#3 7029-7053
#4 10475-10492

LOGS: Dual Induction Laterolog
BHC Sonic Gamma Caliper
Formation Density
Dipmeter

—LEGEND—

- Breccia
- Conglomerate
- Granite Wash
- Sandstone
- Siltstone
- Shale, light color
- Shale, med. color
- Shale, dark color
- Shale, black
- Marlstone
- Limestone
- Dolomite
- Anhydrite
- Gypsum
- Salt
- Coal
- Glacial Till
- Igneous
- Volcanic
- Metamorphic
- Marl, limy
- Marl, dolomitic
- Limestone, streak
- Dolomite, streak
- Sandy
- Silty
- Calcareous
- Dolomitic
- Anhydritic
- Gypsiferous
- Chert, light & dark
- Argillaceous
- Glauconitic
- Salt Cast
- Nodules
- Bioclastic or Frag.
- Oolites
- Pellets
- P Pyrite
- F Fossils
- C Carbonaceous
- E Earthy
- C Chalky
- L Lithographic
- CX Cryptocrystoline
- No Samples

POR

GOOD >20%
FAIR 12-20%
POOR 6-12%
TRACE <6%

GRAIN SIZE

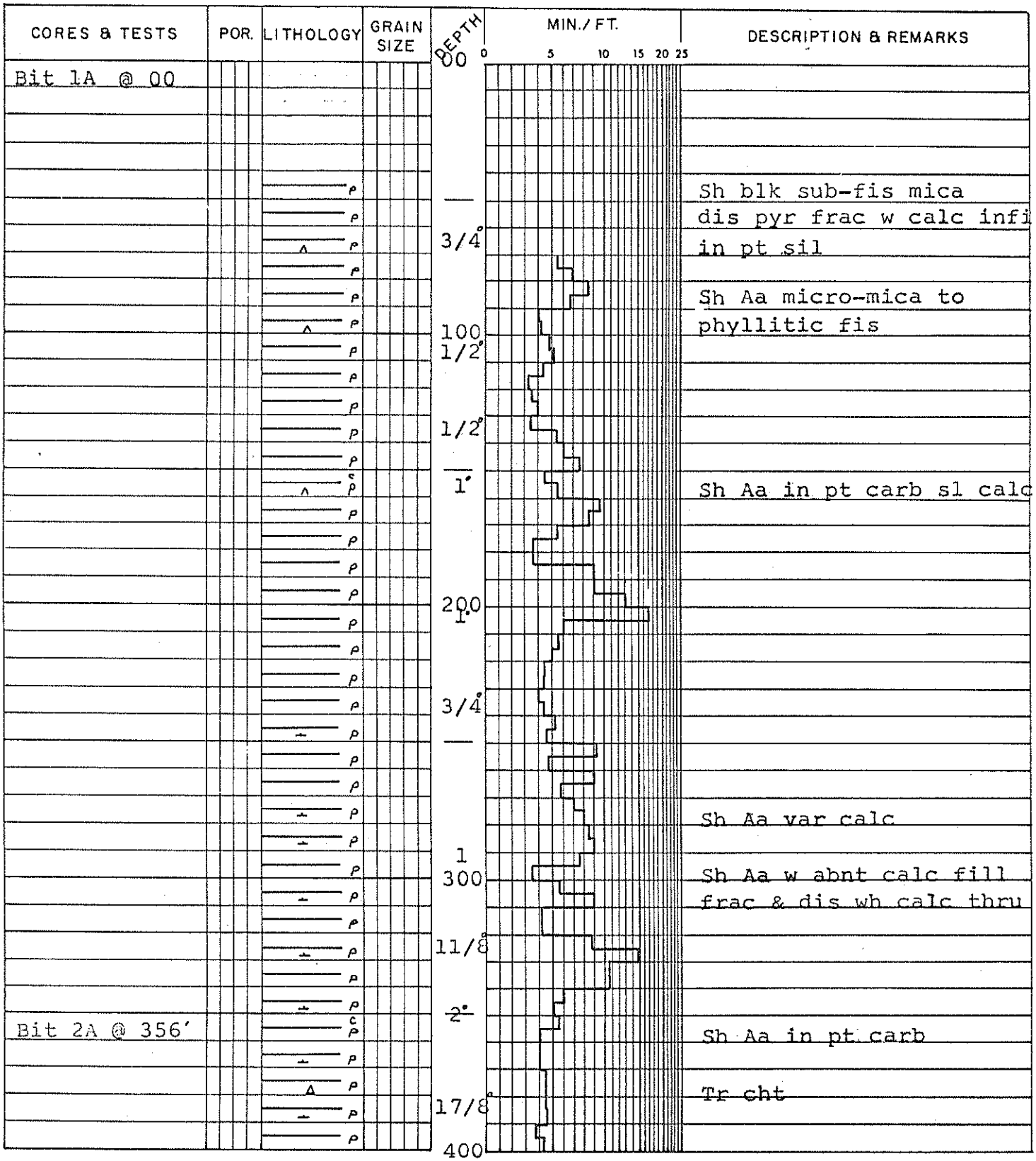
VERY FINE
FINE
MEDIUM
COARSE
VERY COURSE

- Oil, heavy stain
- Oil, med, poor or spotty stain
- O Oil, light, questionable stain
- D Oil, dead or asphaltic
- † Gas, (positive test)
- W Water, (positive test)

WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 8/72

INTERVAL SHOWN: 0 - 400 PAGE NO. 1



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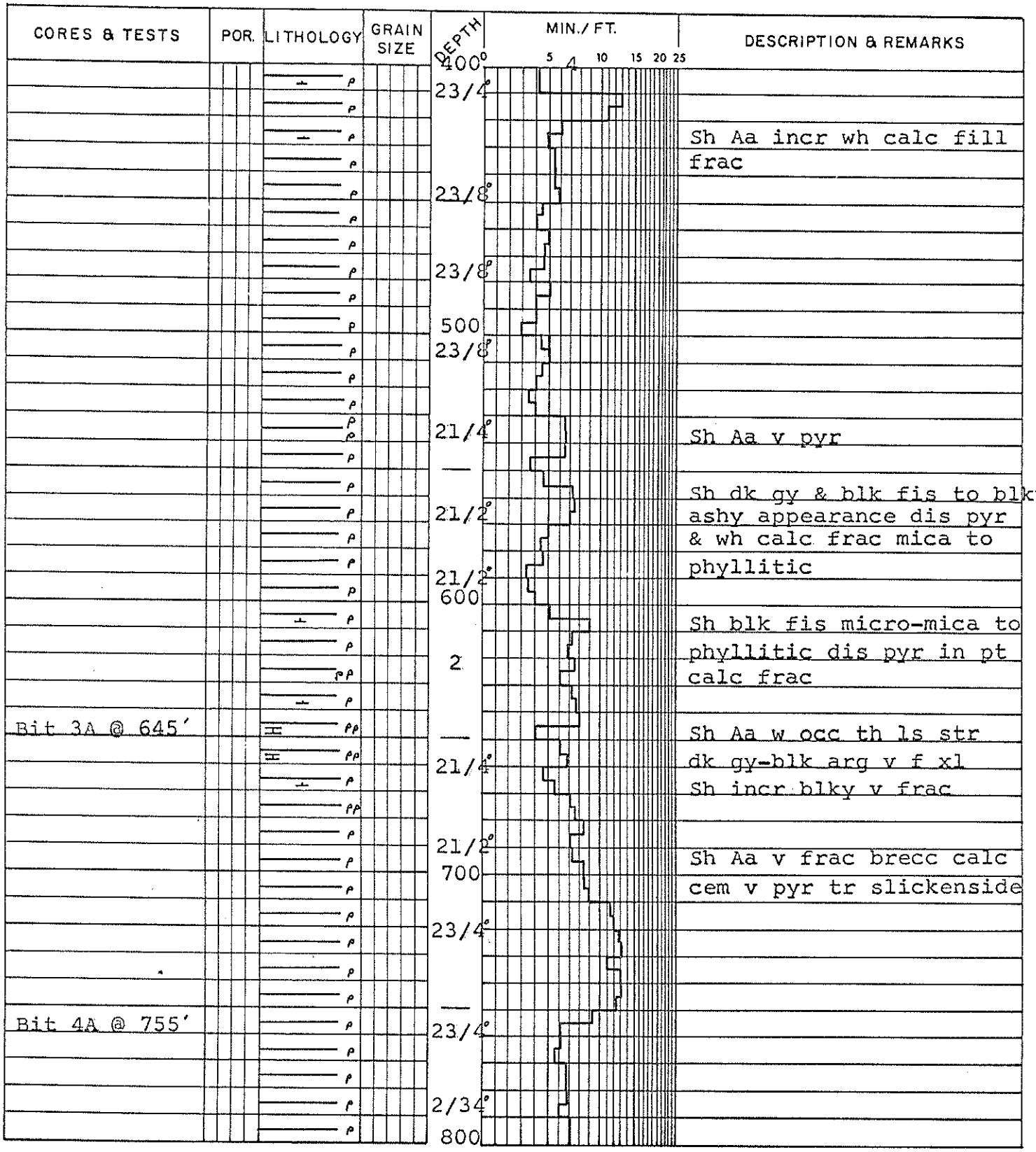
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: May 8/72

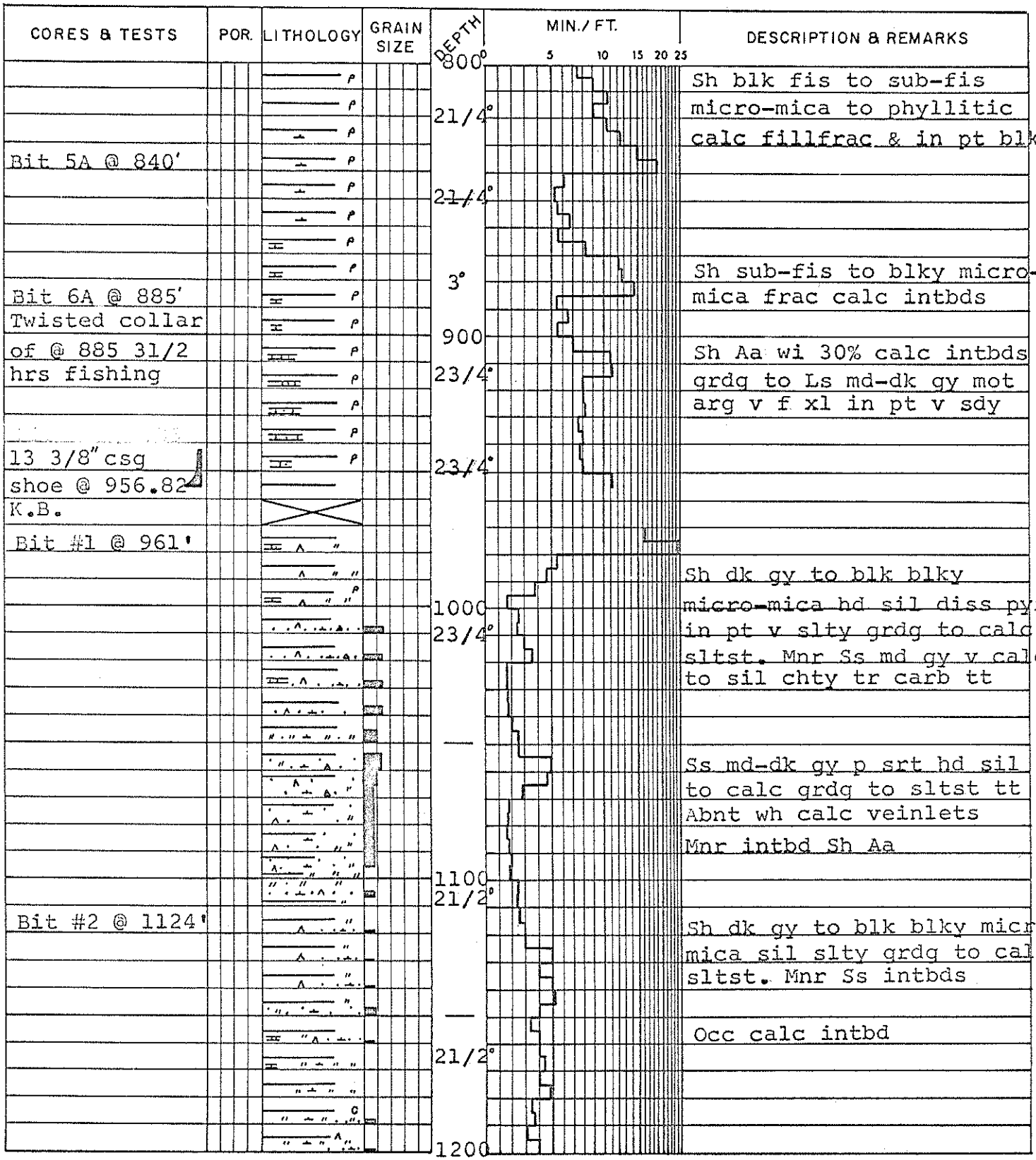
INTERVAL SHOWN: 400 - 800 PAGE NO. 2



WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 8/72

INTERVAL SHOWN: 800 - 1200 PAGE NO. 3



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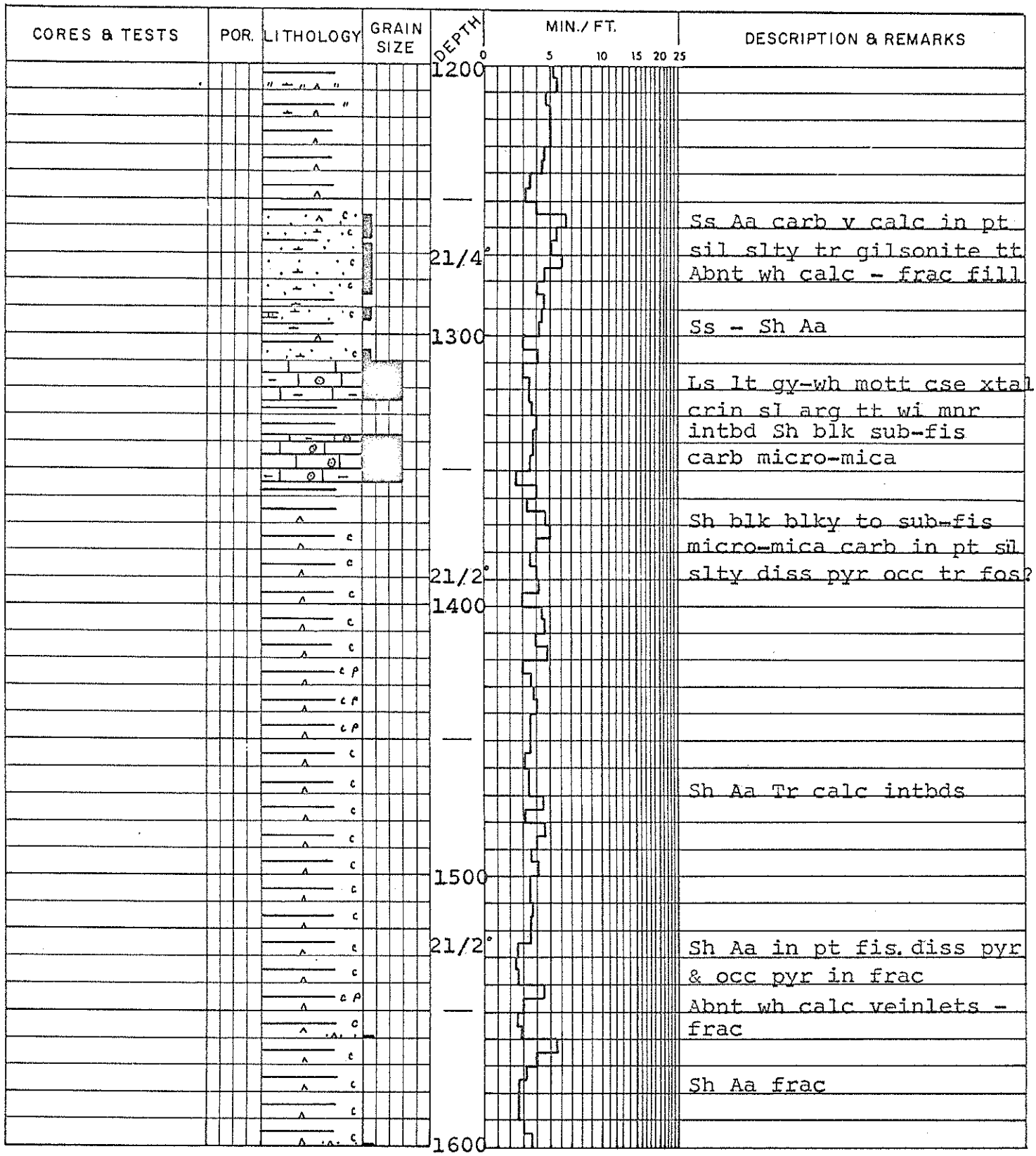
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE May 13-14 /72

INTERVAL SHOWN: 1200 - 1600 PAGE NO. 4



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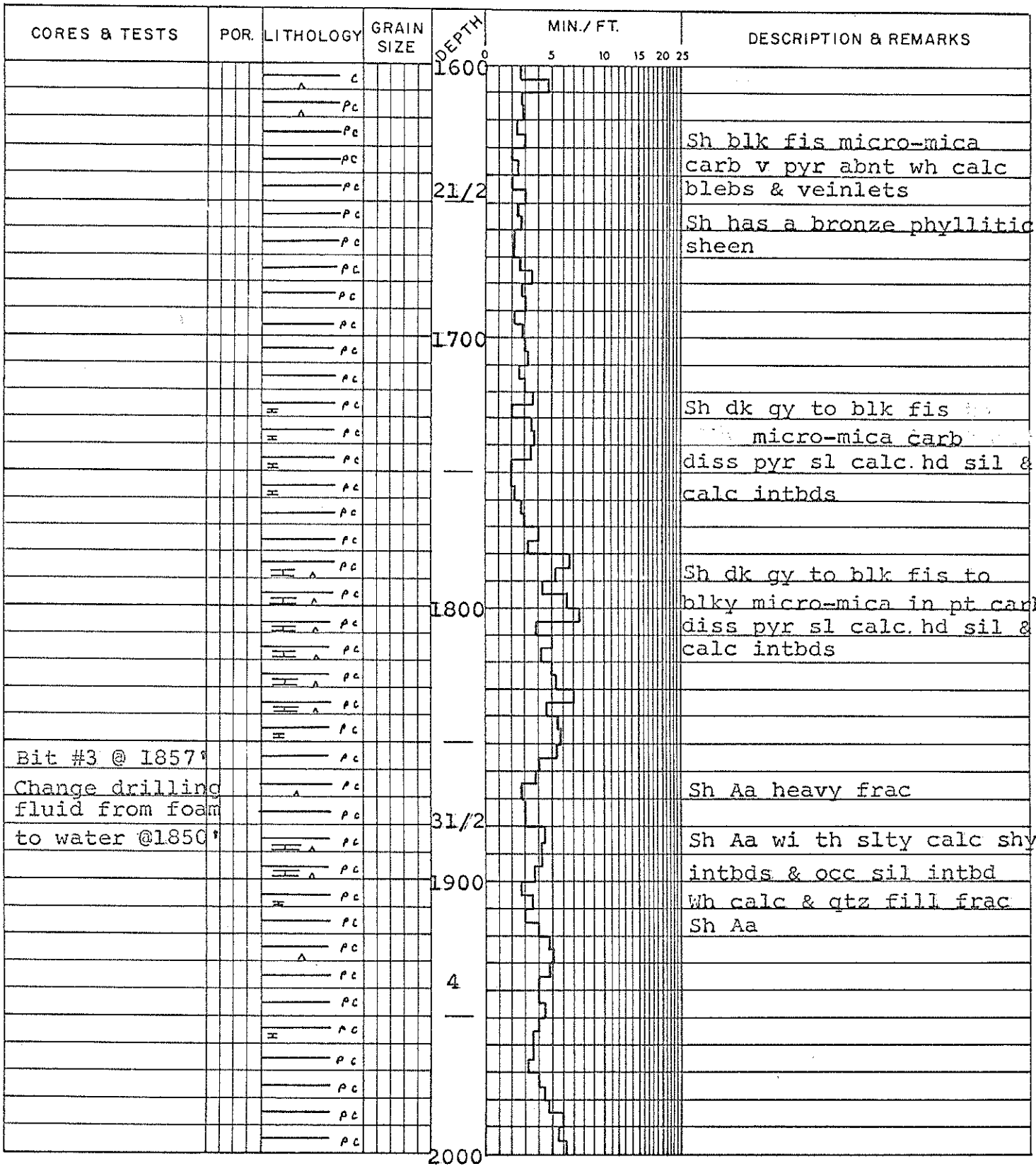
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 15-16/72

INTERVAL SHOWN: 1600 - 2000 PAGE NO. 5



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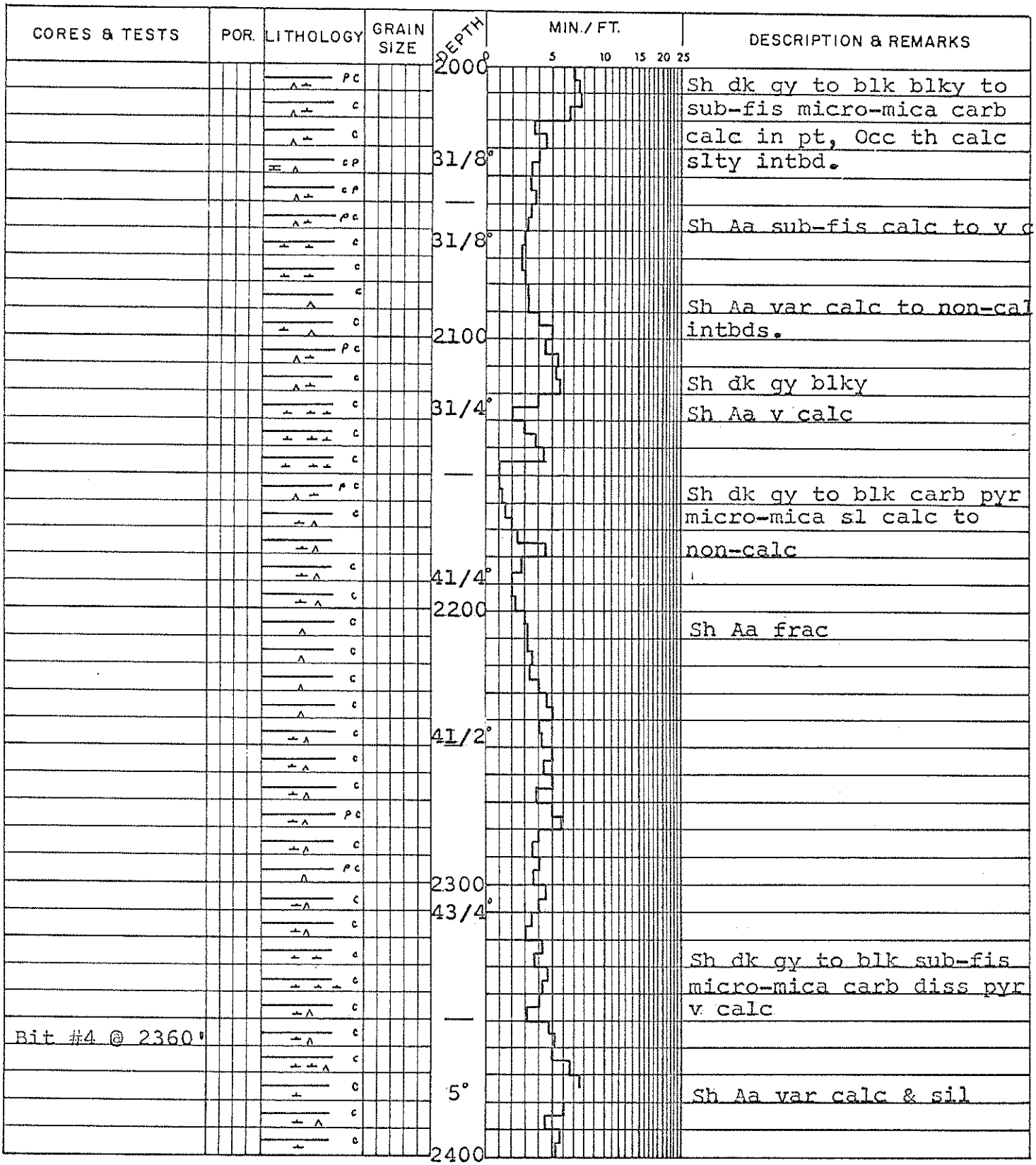
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-I8 DATE: May 16-17/72

INTERVAL SHOWN: 2000 - 2400 PAGE NO. 6



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WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 18-19/72

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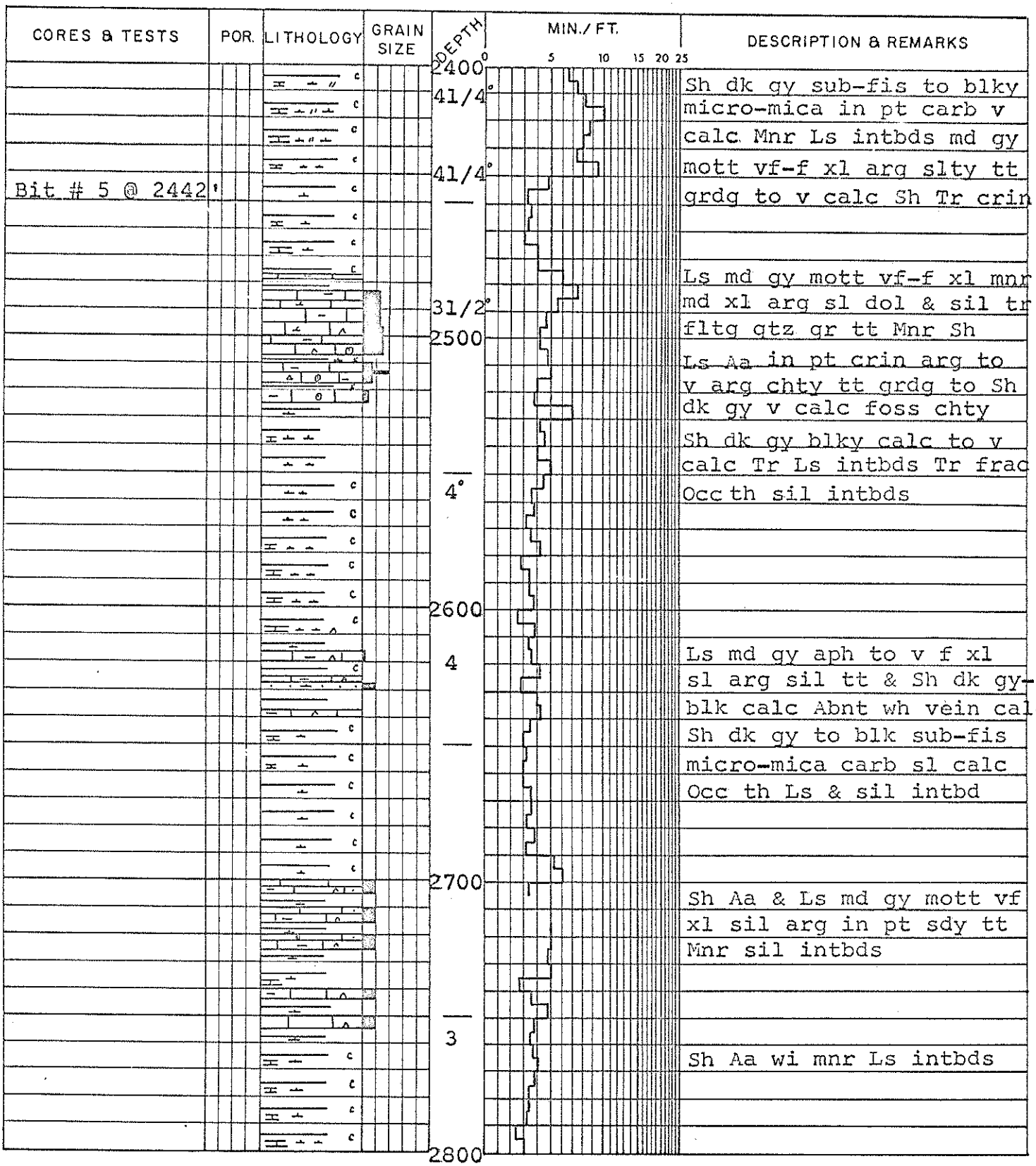

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WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 20/72

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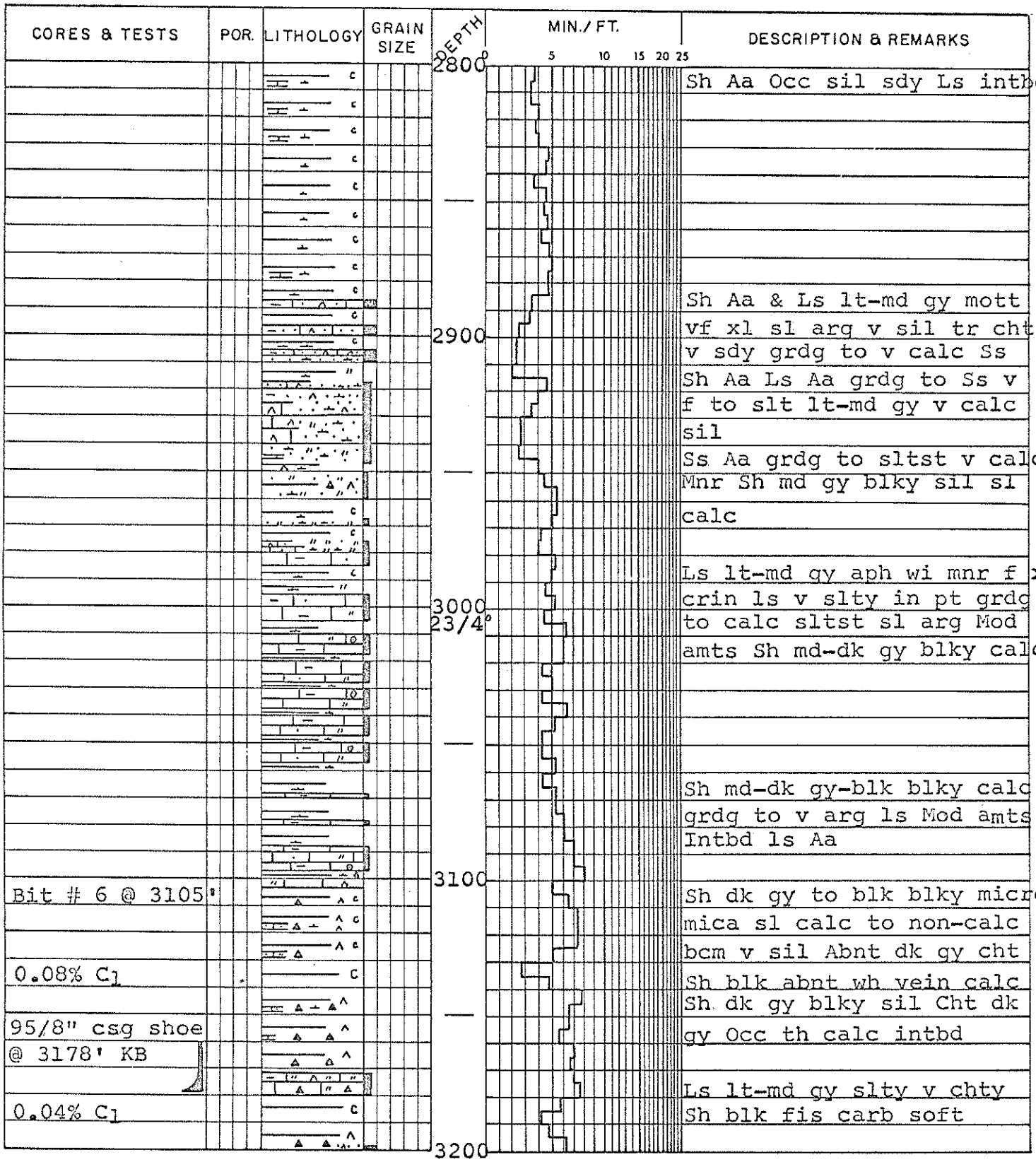

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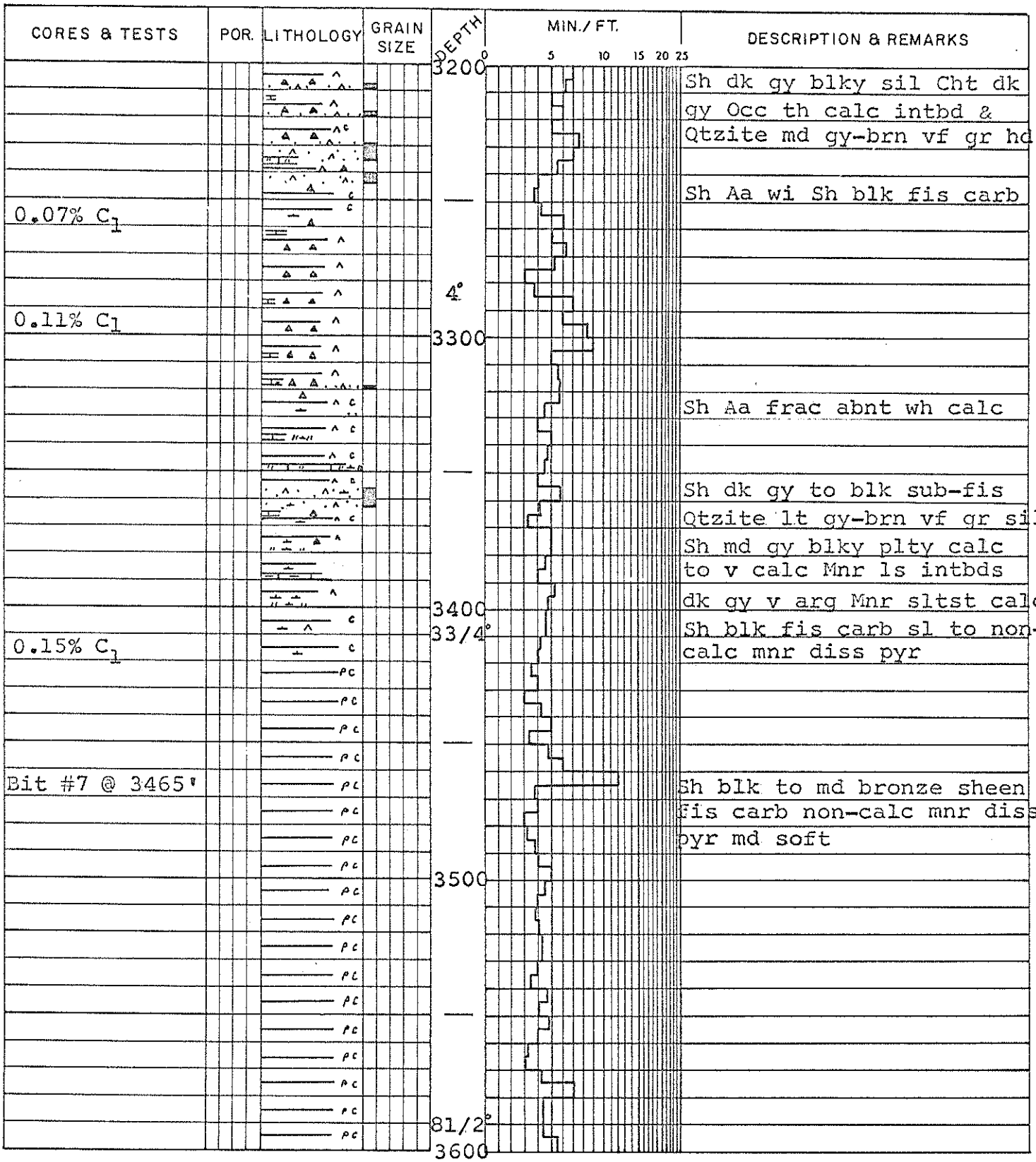
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: May 22/72

INTERVAL SHOWN: 3200 - 3600 PAGE NO. 9



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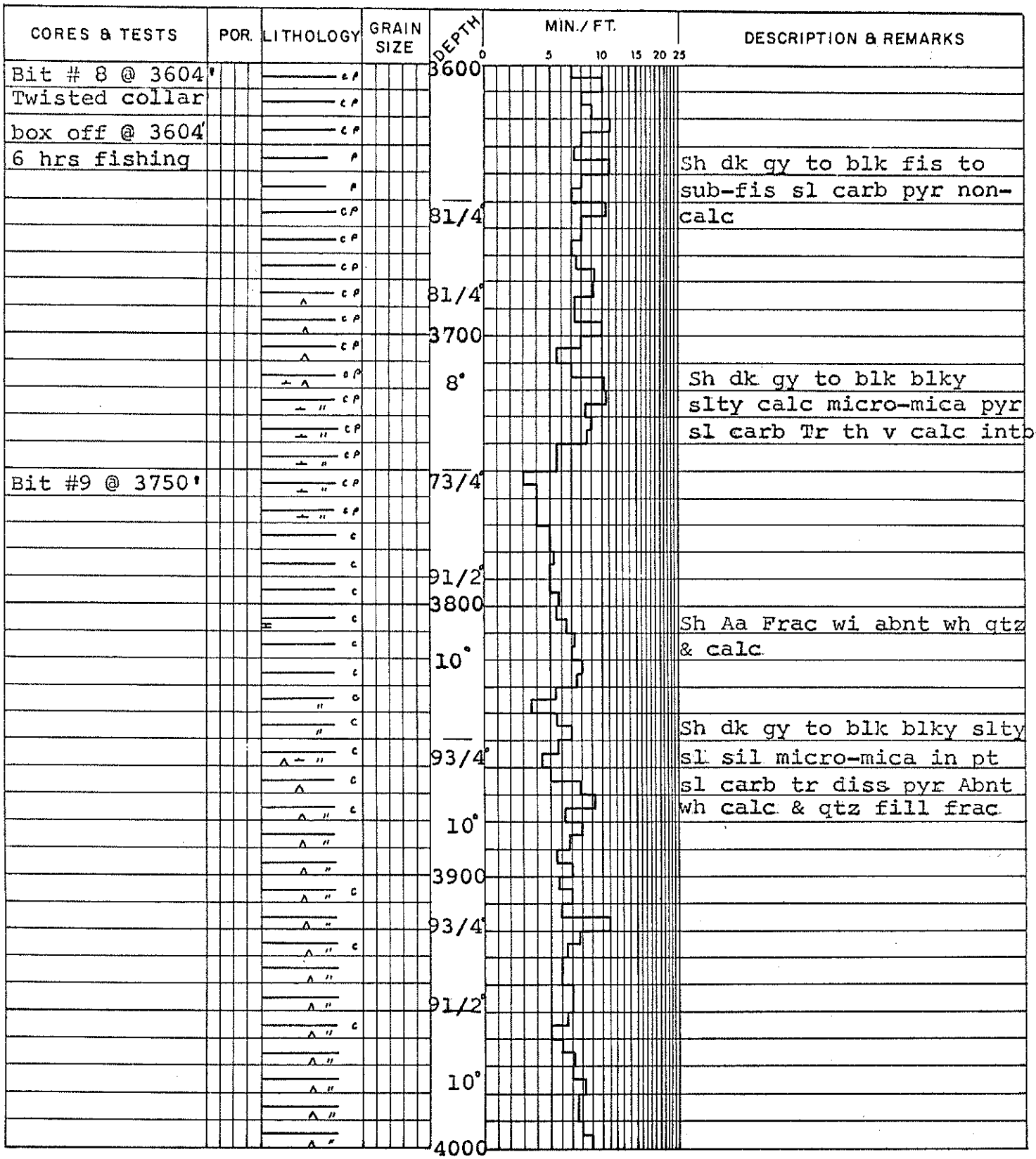
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: May 23-24/72

INTERVAL SHOWN: 3600 - 4000 PAGE NO. 10



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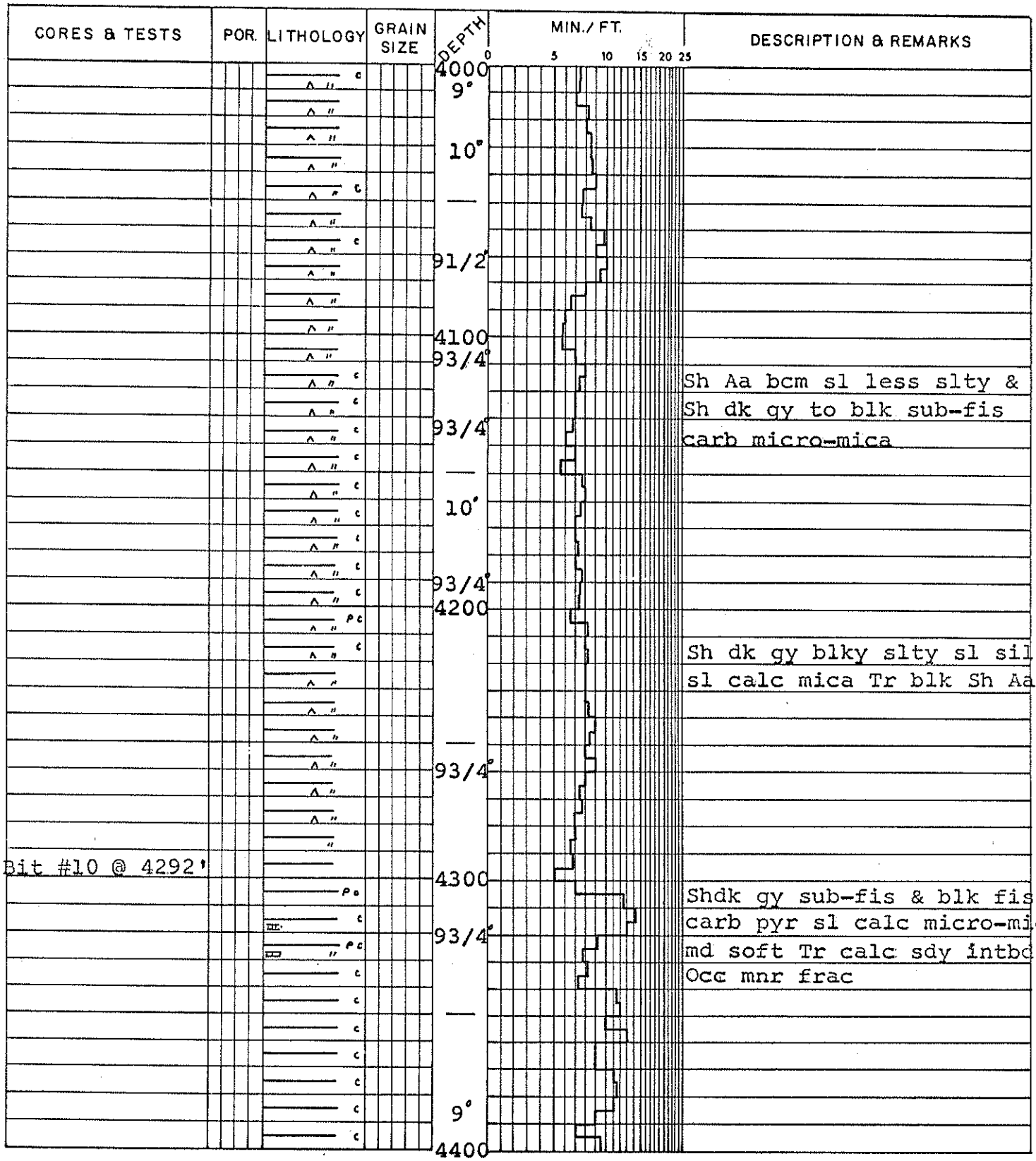
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: May 27-28/72

INTERVAL SHOWN: 4000 - 4400 PAGE NO. 11



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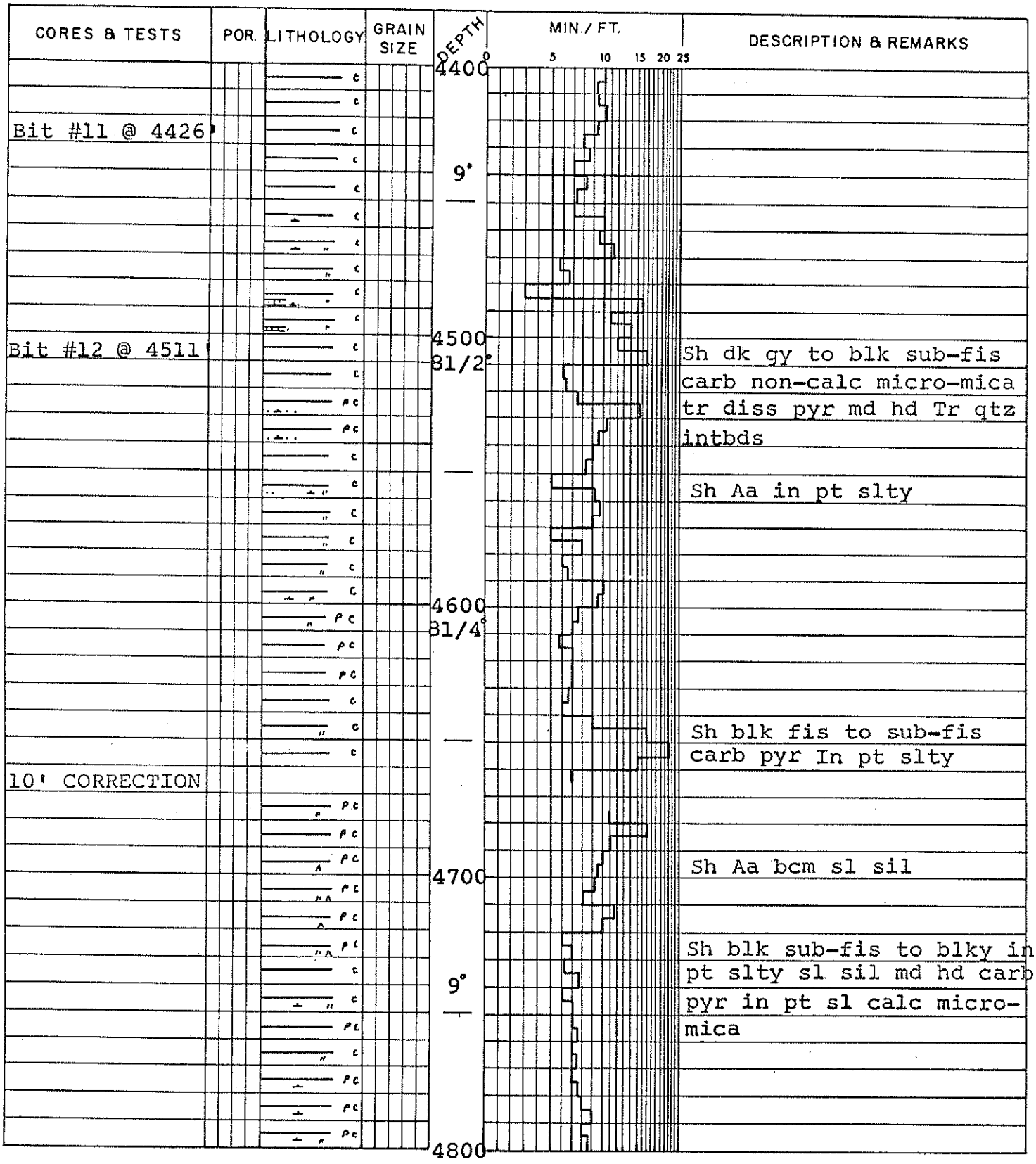
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: May 29-31/72

INTERVAL SHOWN: 4400 - 4800 PAGE NO. 12



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WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18

DATE: June 1-10/72

INTERVAL SHOWN: 4800 - 5200

PAGE NO. 13

CORES & TESTS	POR.	LITHOLOGY	GRAIN SIZE	DEPTH	MIN./FT. 0 5 10 15 20 25	DESCRIPTION & REMARKS
				4800		
						Sh dk gy to blk blky to sub-fis sl slty & calc md hd in pt carb & pyr micro-mica Occ sl sil
				73/4°		
				4900		Sh Aa md hd to hd in pt sil Occ th calc intbd
				91/2°		
Stuck & Fishing 6 days Bits # 13,14 & 15@ 4890' Bit # 16 @ 4975' Change drilling fluid from water to mud @ 4980'				5000		
				91/2°		
				10°		
				10½°		Sh dk gy blky sil hd sl calc micro-mica tr diss pyr
0.15% C_1 C_1 building up in mud due to high vis				5100		
				11½°		
				12°		
				12¼°		Sh Aa bcm incr carb sub-fis md hd less sil
				5200		

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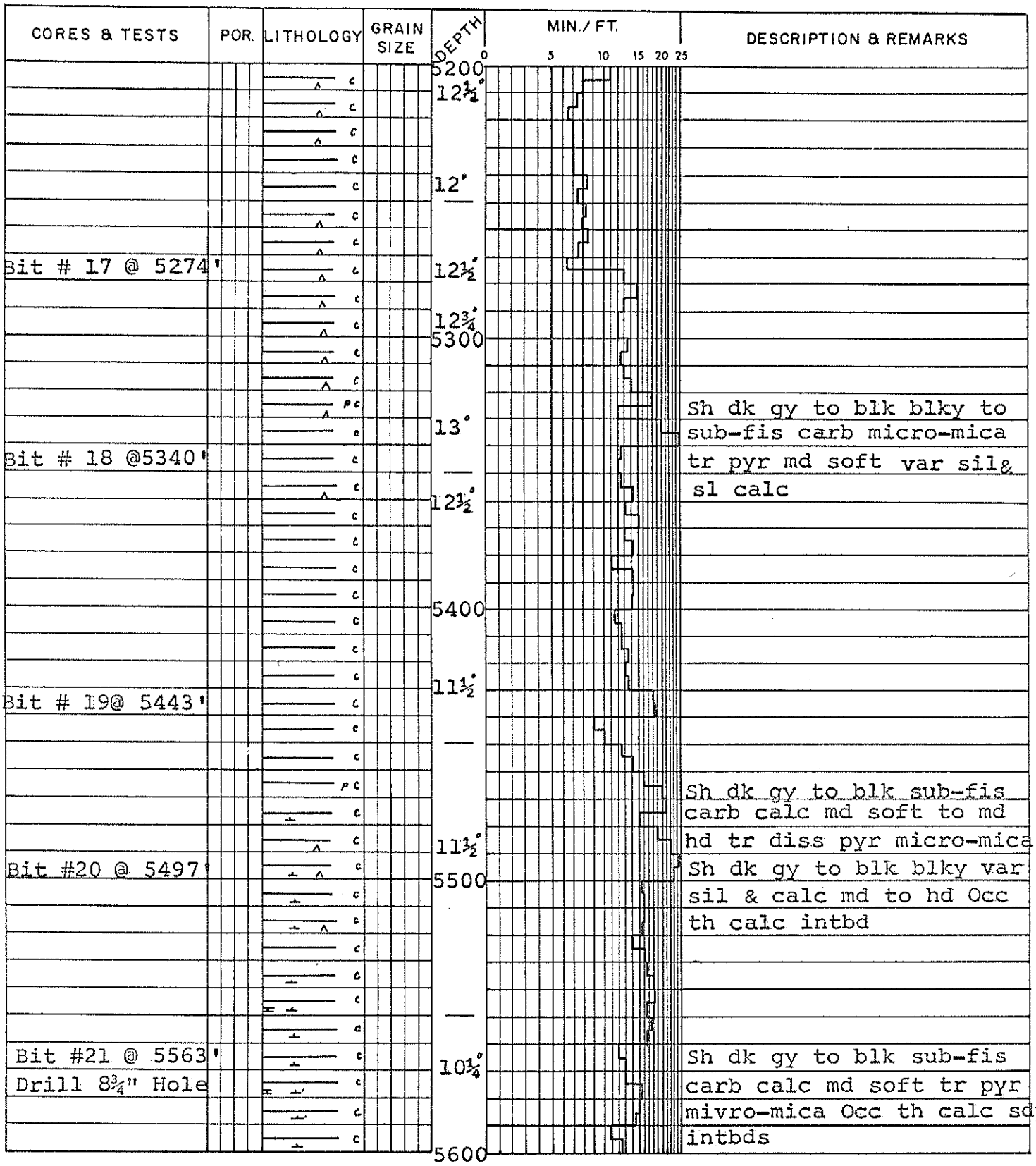
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18

DATE: June 11-15/72

INTERVAL SHOWN: 5200 - 5600

PAGE NO. 14



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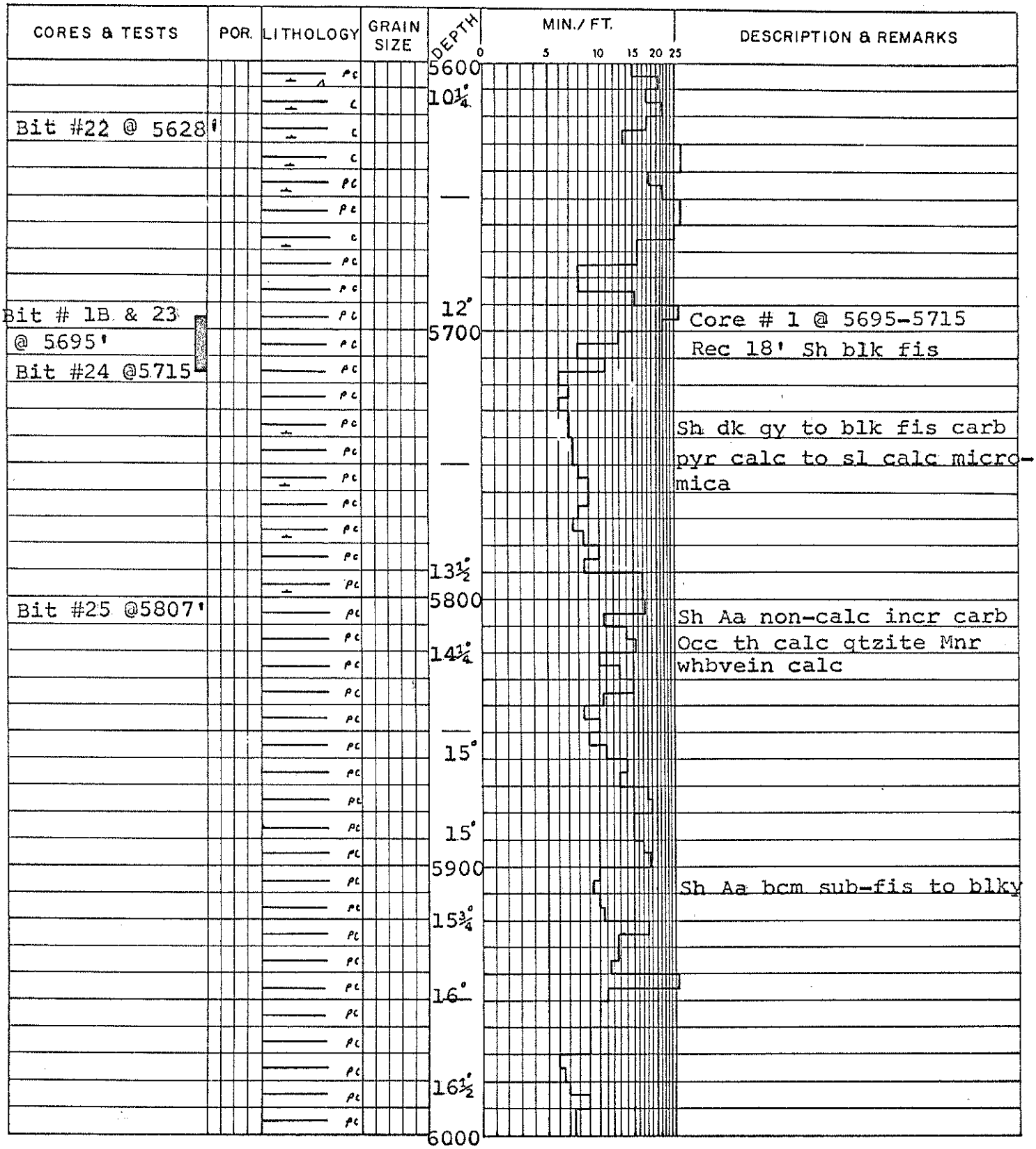
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: June 16-22/72

INTERVAL SHOWN: 5600 - 6000 PAGE NO. 15



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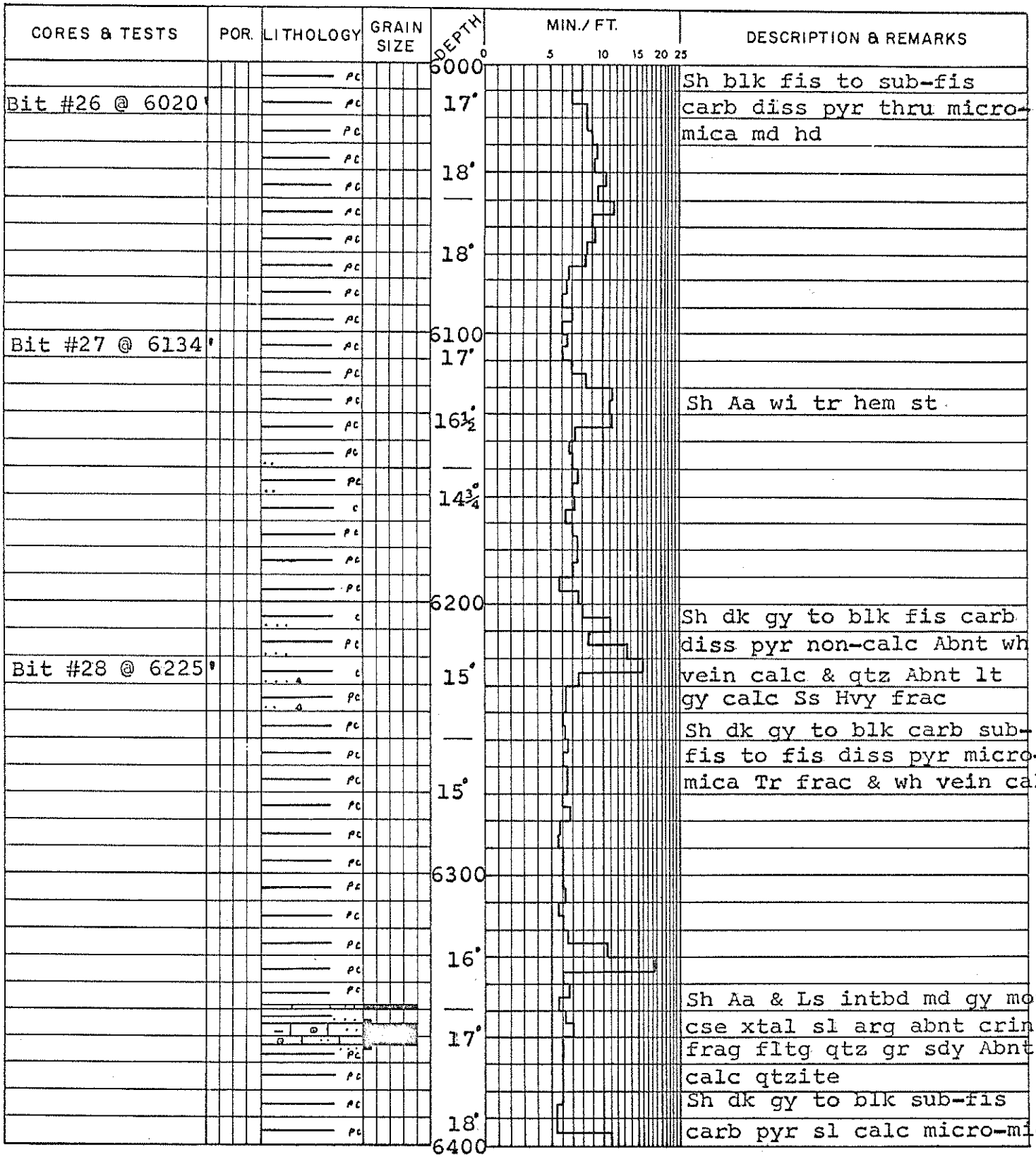
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18

DATE: June 23-25/72

INTERVAL SHOWN: 6000 - 6400

PAGE NO. 16



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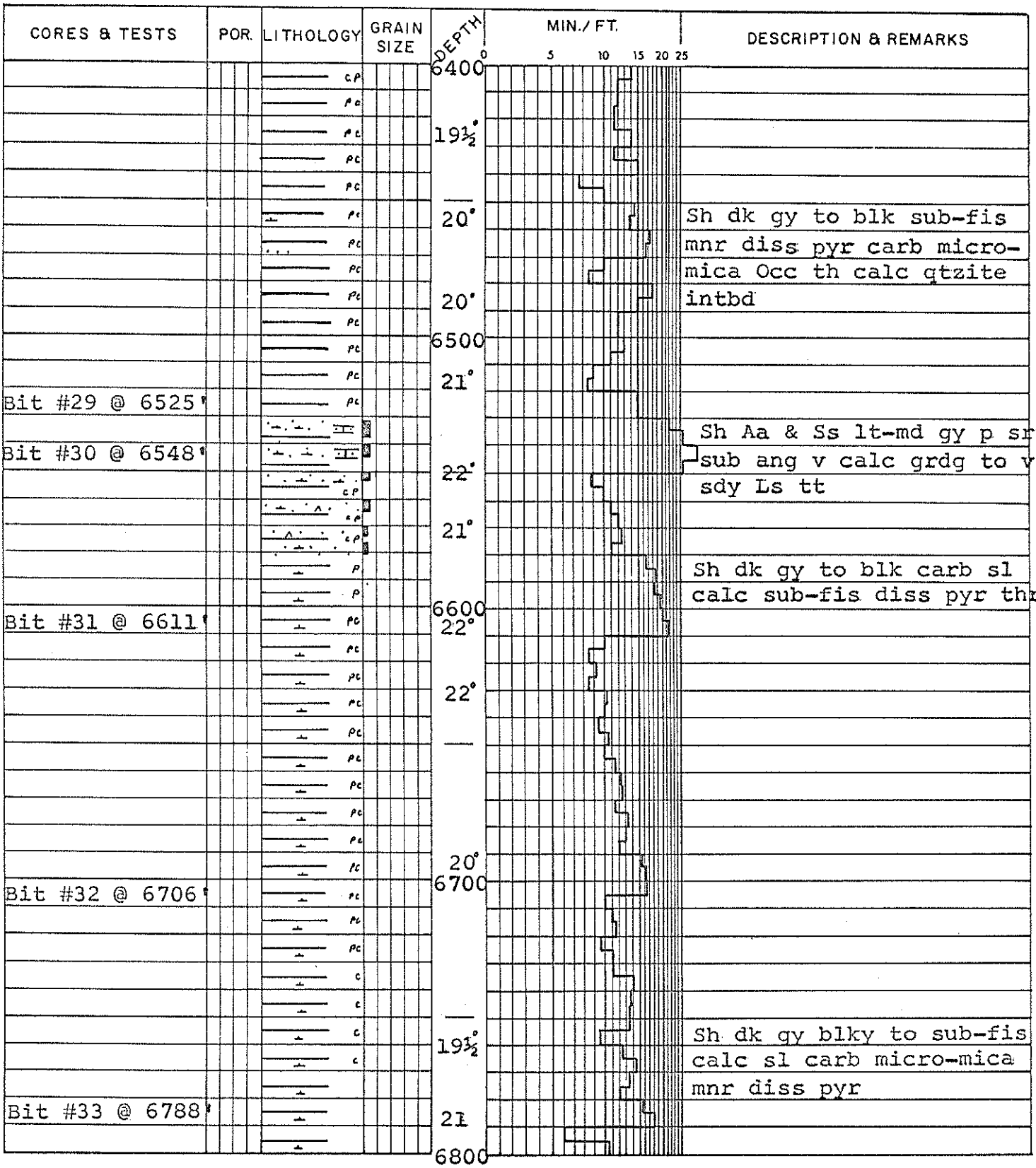
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18

DATE: June 26-30/72

INTERVAL SHOWN: 6400 - 6800

PAGE NO. 17



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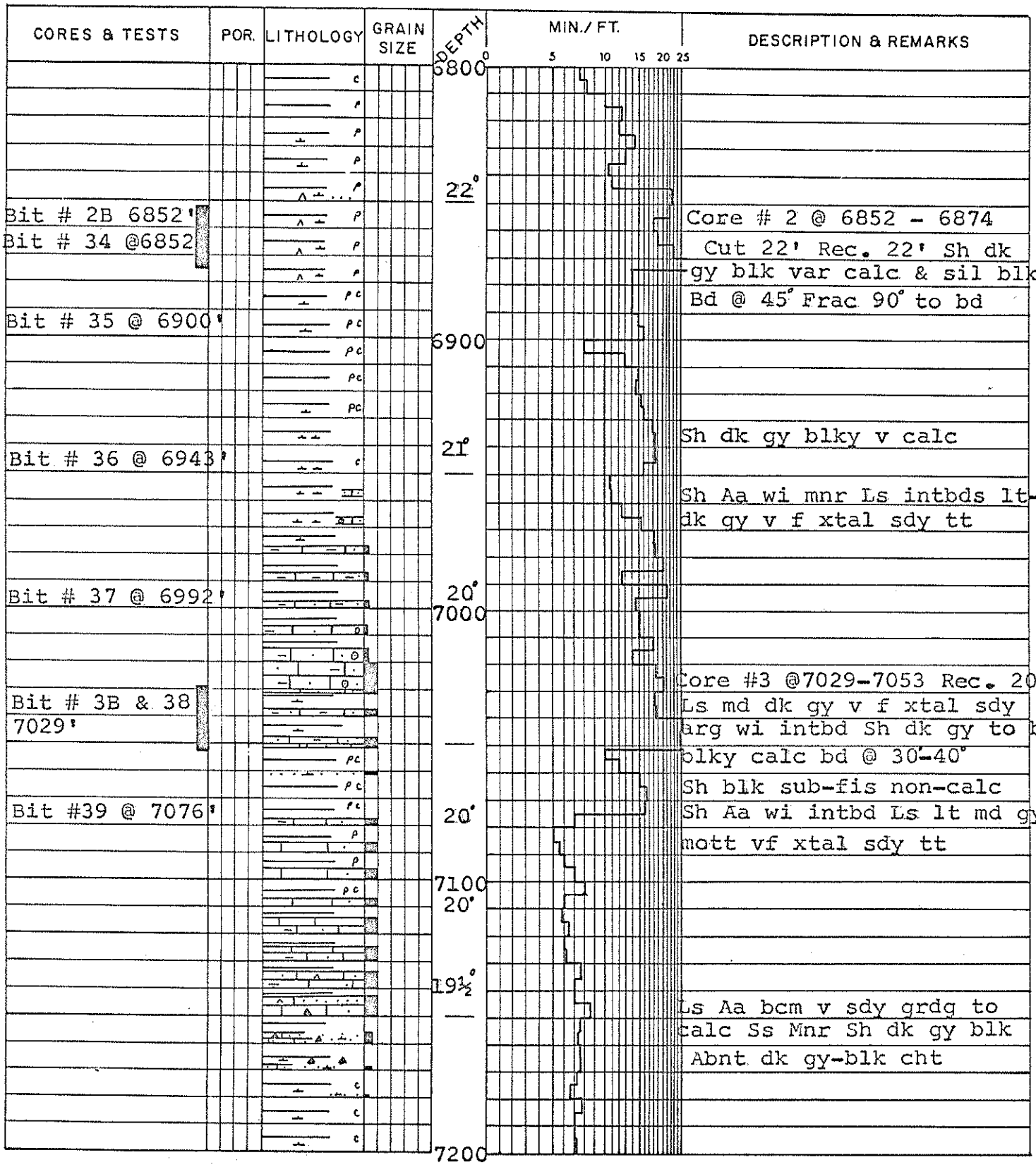
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: July 1-6/72

INTERVAL SHOWN: 6800 - 7200 PAGE NO. 18



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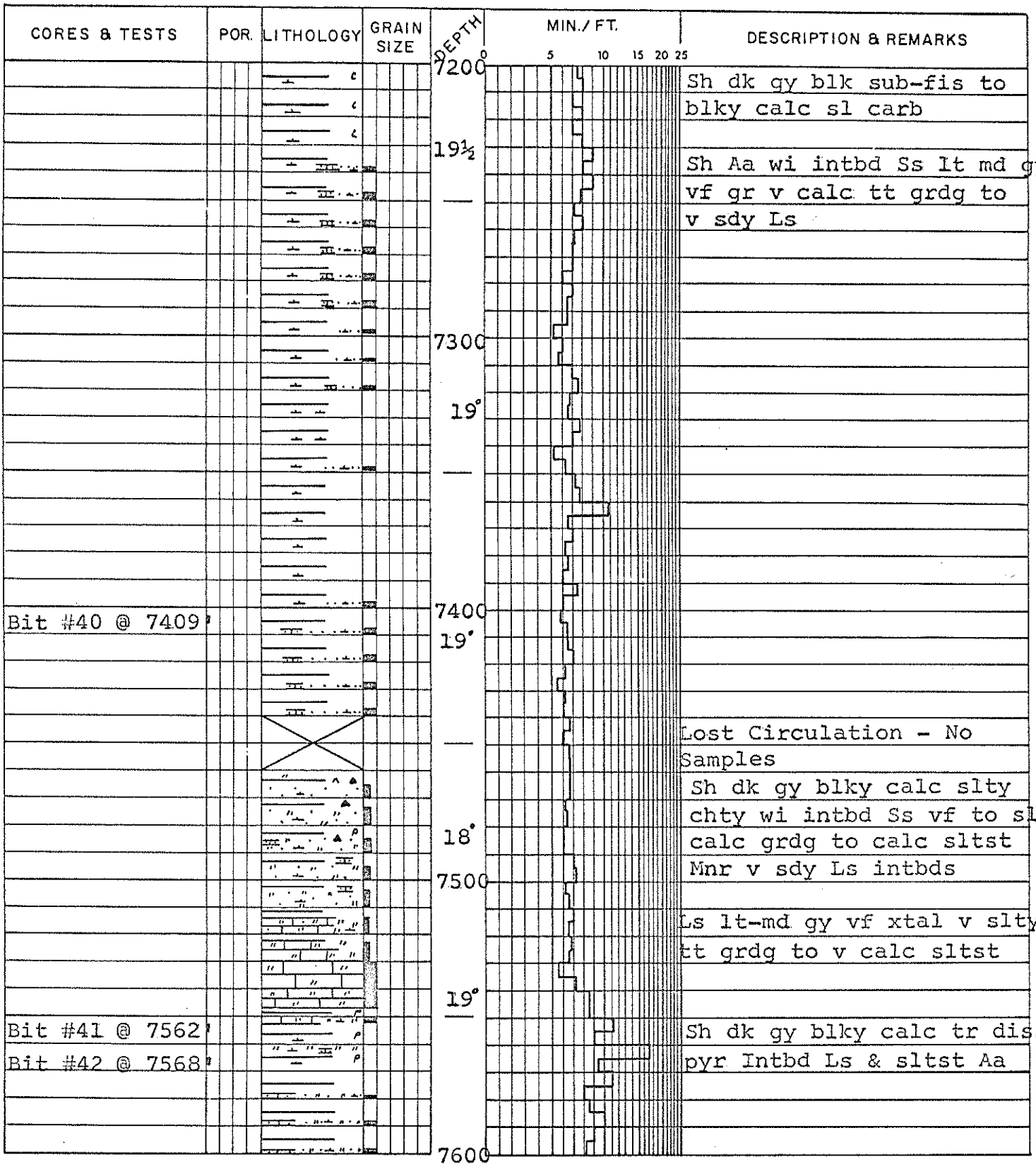
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: July 7-9/72

INTERVAL SHOWN: 7200 - 7600 PAGE NO. 19



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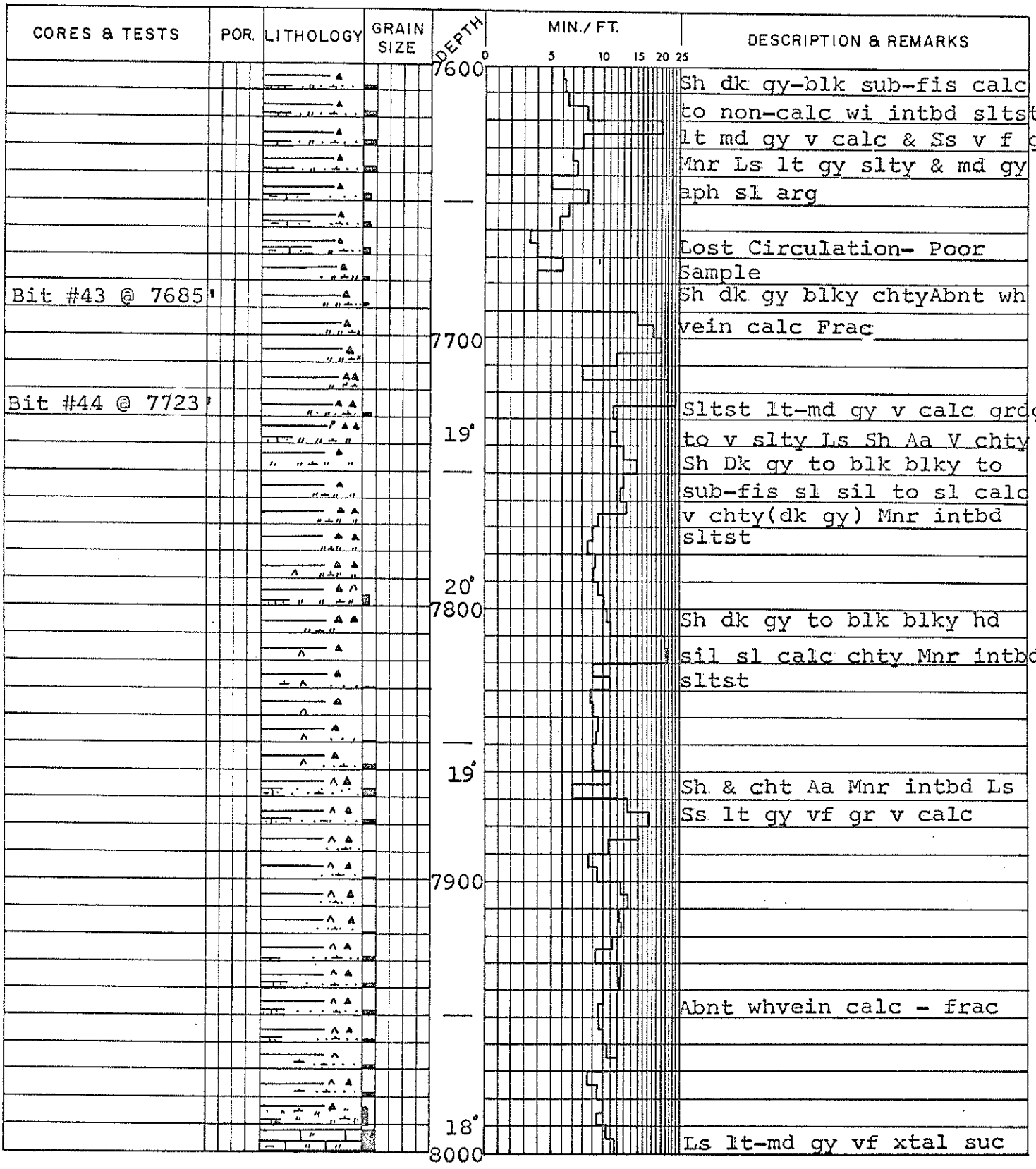
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: July 10-13/72

INTERVAL SHOWN: 7600 - 8000 PAGE NO. 20



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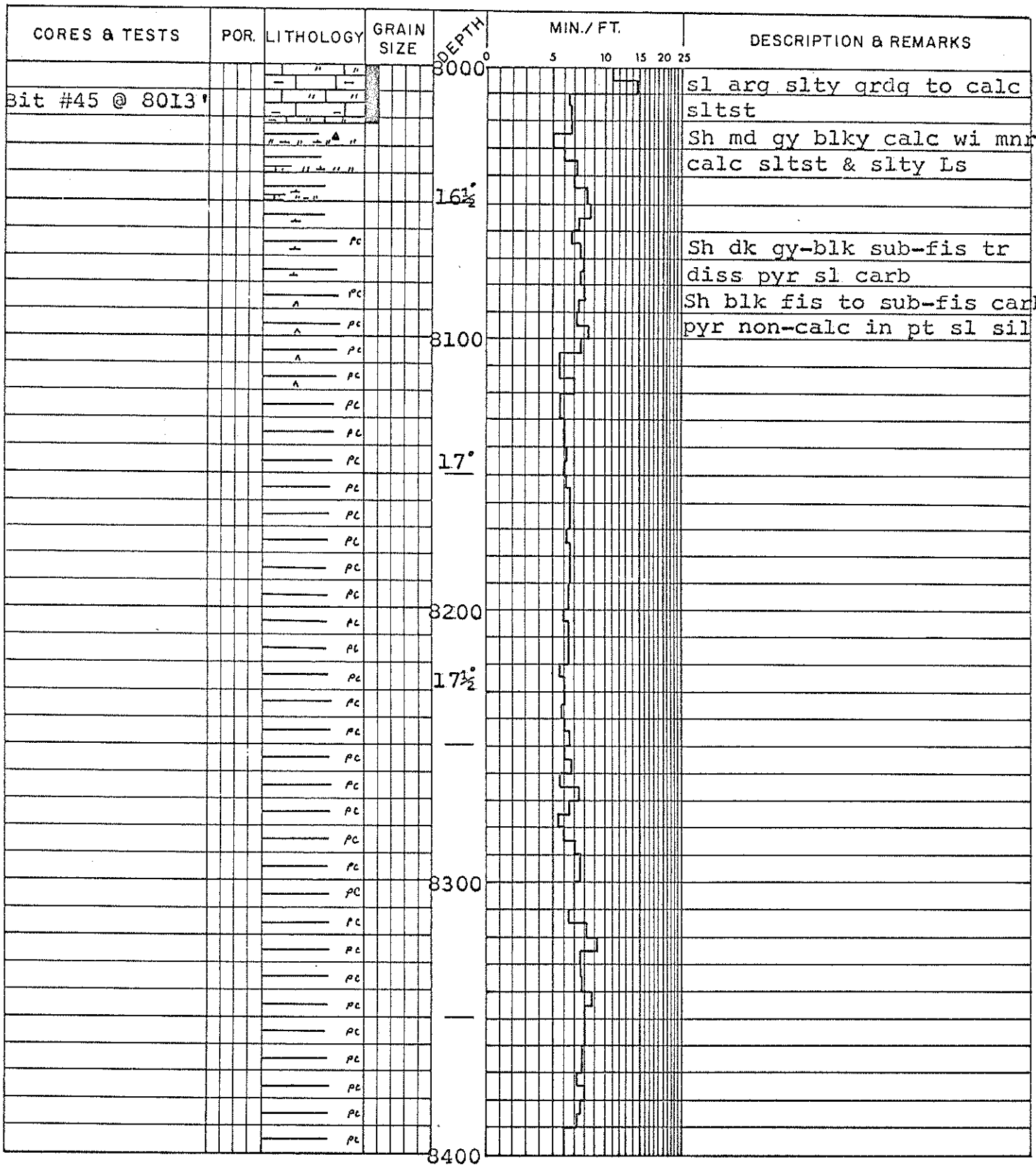
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: July 14-16/72

INTERVAL SHOWN: 8000 - 8400 PAGE NO. 21



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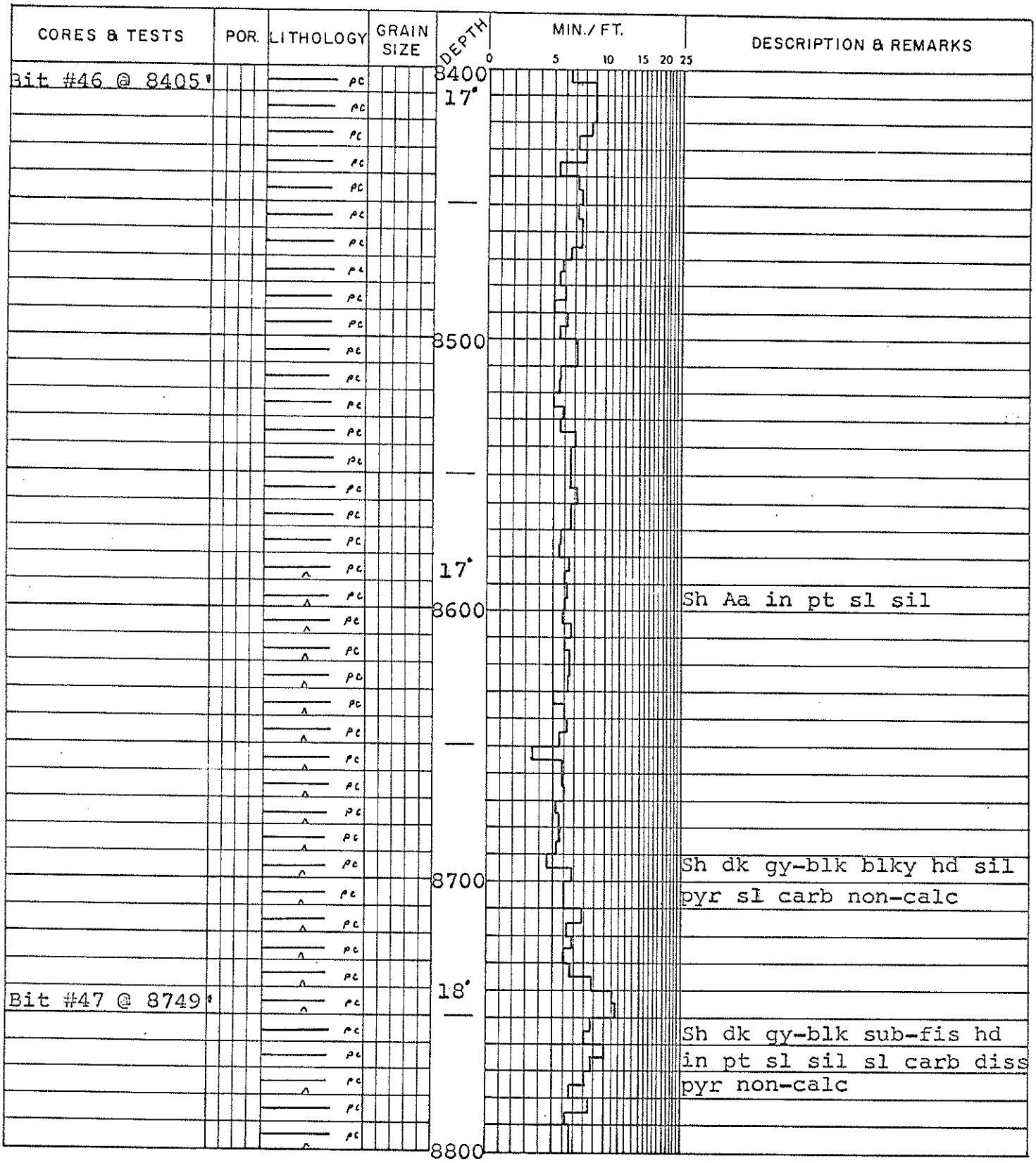
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18

DATE: July 17-18/72

INTERVAL SHOWN: 8400 - 8800

PAGE NO. 22



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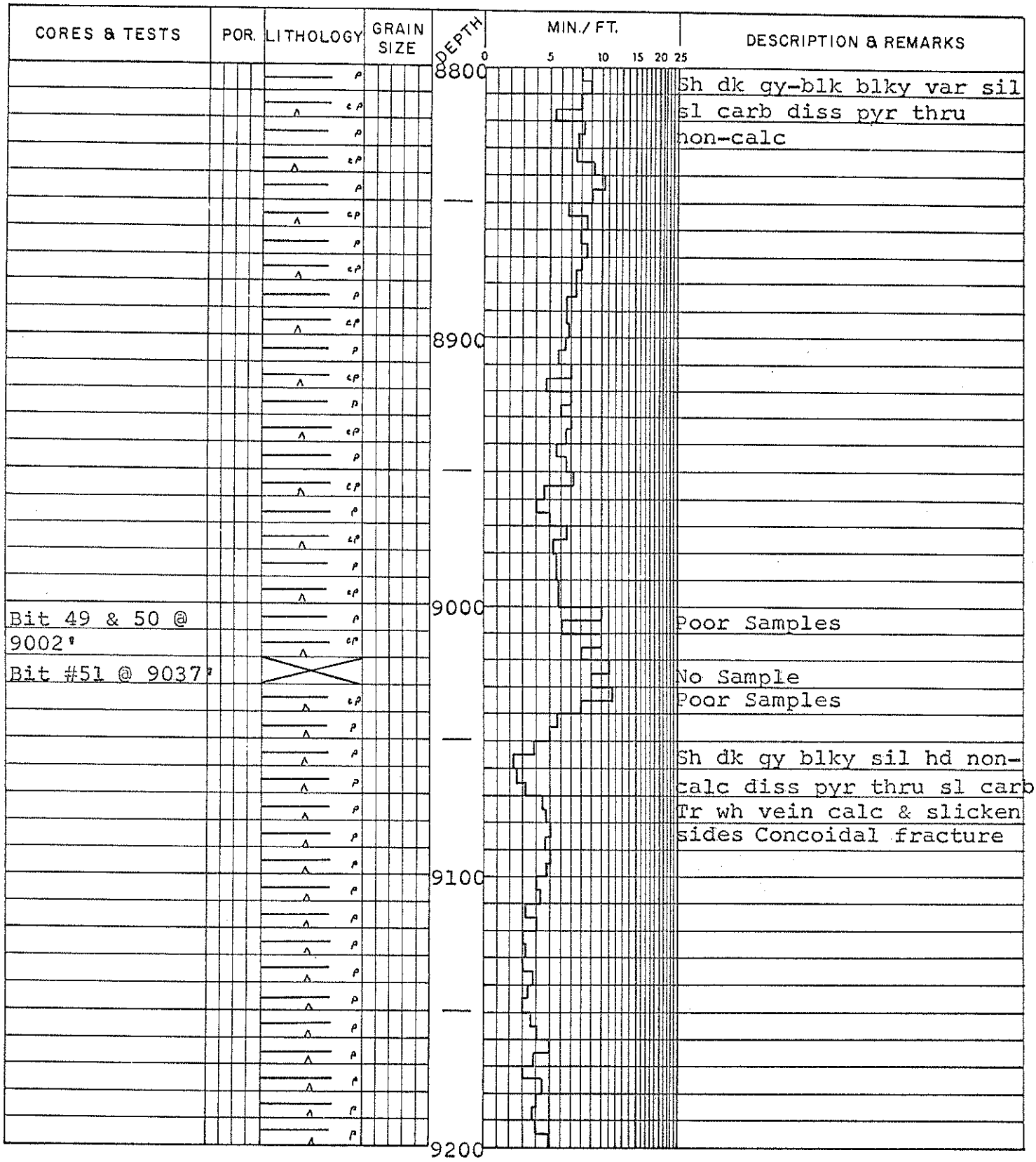
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18

DATE: July 19-30/72

INTERVAL SHOWN: 8800 - 9200

PAGE NO. 23



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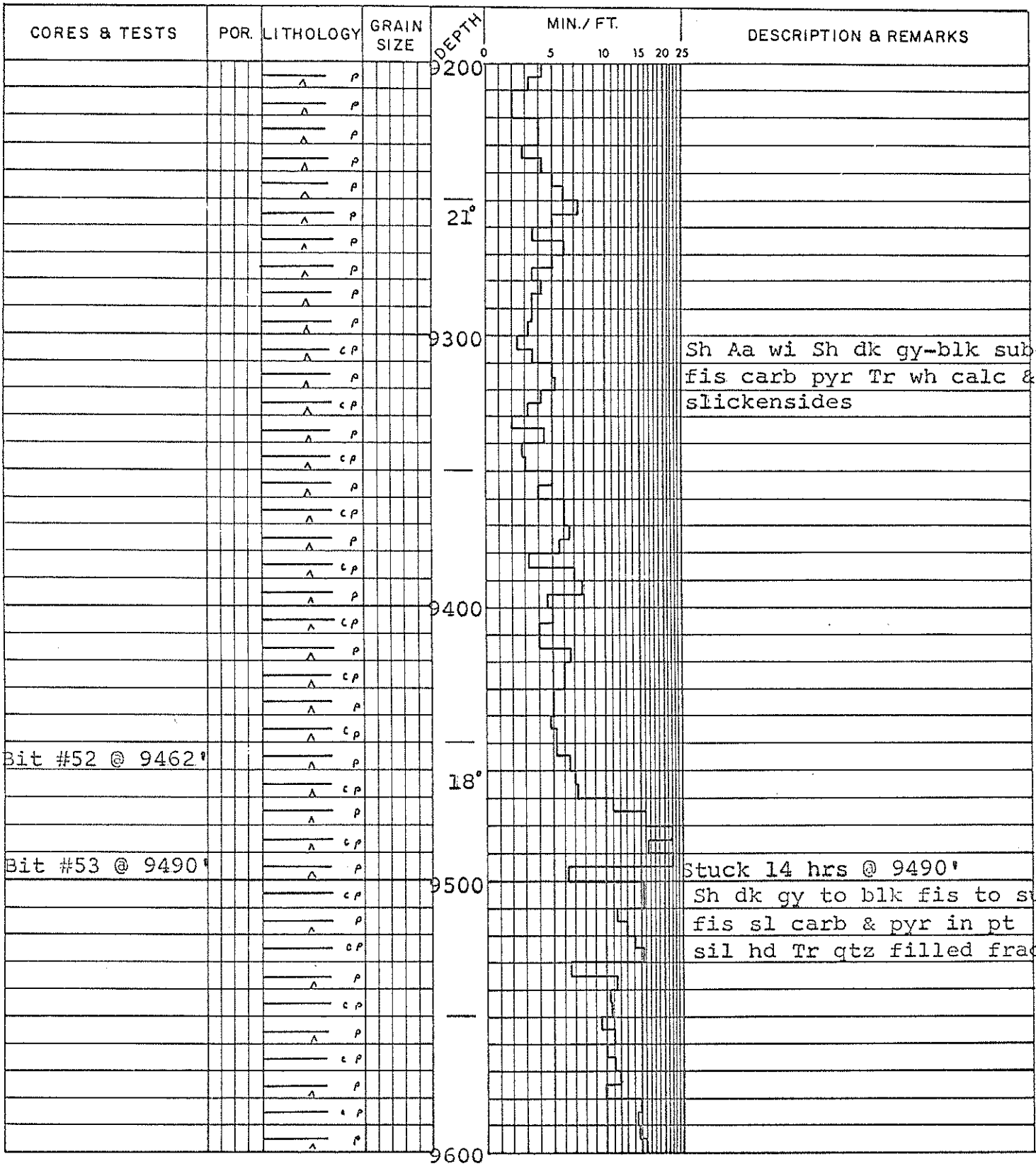
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: July 31-Aug 2/72

INTERVAL SHOWN: 9200 - 9600 PAGE NO. 24



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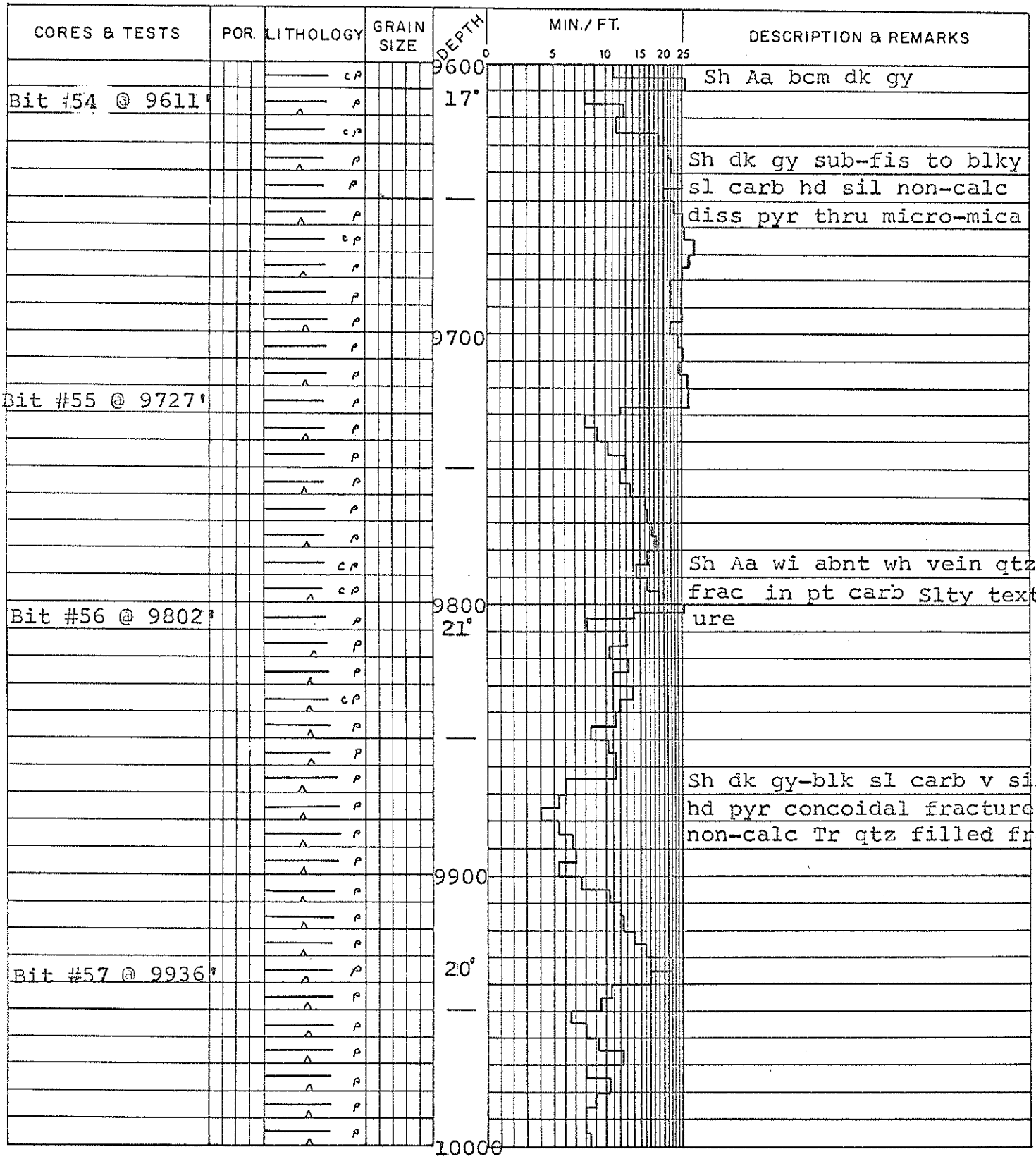
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18 DATE: Aug 3-7/72

INTERVAL SHOWN: 9600 - 10,000 PAGE NO. 25



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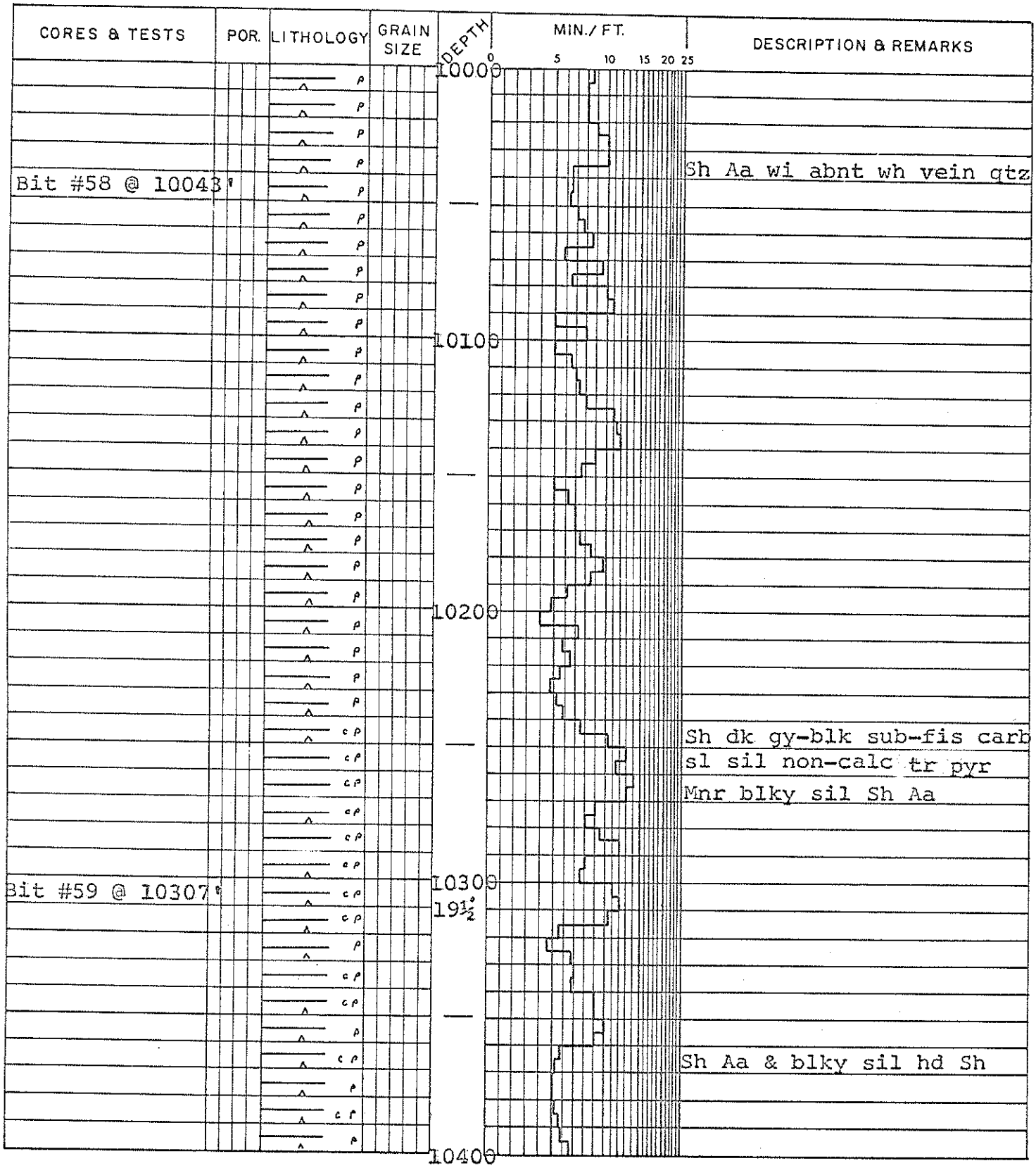
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT O-18

DATE: Aug 8-11/72

INTERVAL SHOWN: 10,000 - 10,400

PAGE NO. 26



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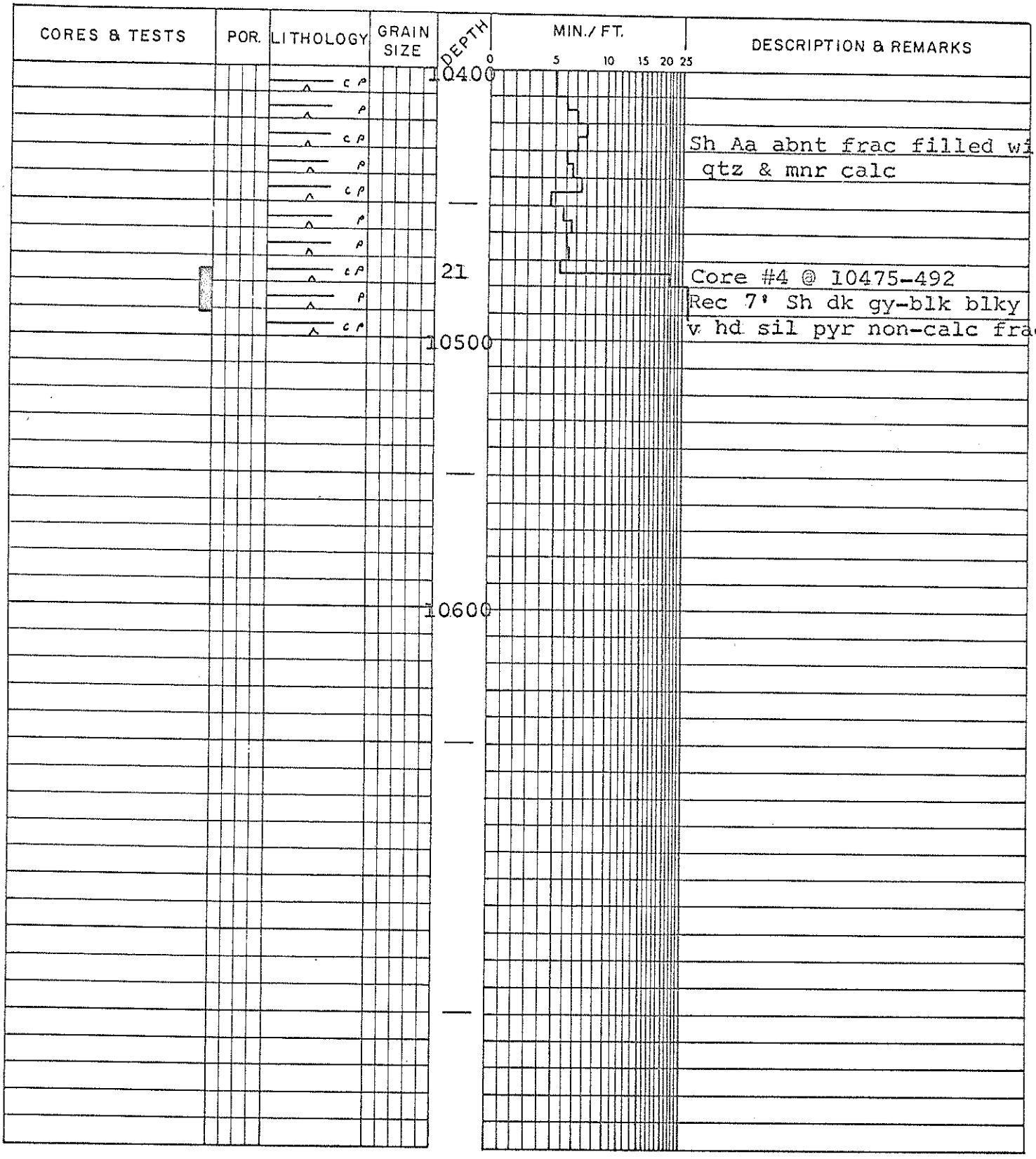
WELL HISTORY LOG

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: Aug 12/72

INTERVAL SHOWN: 10,400 - 10,500 PAGE NO. 27



SECTION V

ANALYSIS

INEXCO et al MALLARD YT O-18

(a) CORE ANALYSIS

Although four cores were cut in this well, none were analyzed.

(b) WATER ANALYSIS

None

(c) GAS ANALYSIS

None

(d) OIL ANALYSIS

None