W. D. A. CORPORATION

WELL COMPLETION REPORT

WELL NAME: #1 Grynberg-Federal AREA: Gold Blossom Creek

LOCATION: 2022' FNL & 618' FEL of Section 1, 11N-88W, Routt County, Colorado

ELEVATION: 7471' GL., 7483' KB. (Depth Datum)

COMMENCED DRILLING: September 14, 1971 COMPLETED DRILLING: September 22, 1971

CASING: 9 5/8" at 400' with 175 sacks

TOTAL DEPTH: 4,090' FORMATION: Mancos shale

PLUGGED INTERVALS AND FORMATIONS:

3,800'-3,900', 35 sacks
2,950'-3,060', 35 sacks
1,650'-1,835', 60 sacks
850'- 950', 35 sacks
5 sacks at surface with marker
Rudy Bear, U.S.G.S., Denver, Colorado

GEOLOGICAL INTERPRETATION:

System Formation Member	Porous Bed	Depth	Datum Of Top	Fluid Content	How Determined
Cretaceous		0-4090'	+7483'		Logs & Samples
Lewis sh		0- 831'	+7483'		Logs & Samples
Mesaverde		831-4039'	+6652'		Logs & Samples
	Sand	831- 902'	+6652'	Water	Logs & Samples
	Sand	910- 954'	+6573'	Water	Logs & Samples
	Sand	963-1030'	+6520'	Water	Logs & Samples
	Sand	1086-1304'	+6397'	Water	Logs & Samples
	Sand	1360-1485'	+6123'	Water	Logs & Samples
	Sand	1520-1675'	+5963'	Tight	Logs & Samples
Trout Creek	Sand	1694-1786'	+5789'	Water	Logs & Samples
Iles		1834-	+5649'		Logs & Samples
	Sand	1834-1909'	+5649'	Water	Logs & Samples
	Sand	2902-2944'	+4581'	Water	Logs & Samples
Buck sh		2944-3016'	+4539'		Logs & Samples
Loyd	Sand	3016-3194'	+4467'	Water	Logs & Samples
Hatfield	Sand	3324-3460'	+4150'	Water	Logs & Samples
	Sand	3560-3664'	+3923'	Water	Logs & Samples
Espy	Sand	3748-3764'	+3735'	Water	Logs & Samples
Deep Creek	Sand	3859-4039'	+3624'	Tight	Logs & Samples
Mancos sh		4039-4090'	+3444'		Logs & Samples

CORES AND TESTS: None

[redacted]

LOG ANALYSIS BY WELEX:

DEPTH	Ø	SW	
843- 849'	Tight	100%	Rw .8
849- 870'	15 Avg.	80% Avg.	
1696-1722'	19% Avg.	75	Rw 3.2
1722-1724'	21 Avg.	75	
1724-1732'	21 Avg.	80	
1732-1740'	21 Avg.	85	
1740-1750'	21 Avg.	99	
3022-3024'	10	100	Rw .70
3024-3030'	Tight	100	
3030-3034'	11	88	
3034-3038'	13	81	
3038-3042'	11	73	
3042-3047'	13	78	
3047-3050'	11	82	
3266-3271'	10.5	65	Rw .35
3271-3274'	11	70	
3274-3278'	8	100	
3418-3422'	14 1/2 Avg.	84	Rw .70
3422-3430'	16	81	
3430-3433'	15	86	
3433-3441'	14 1/2	90	
3441-3450'	15 1/2	88	
3861-3865'	13.5	41	Rw .13
3865-3869'	10	61	
3869-3878'	5	100	
3878-3886'	9 Avg.	75	

By: Harold Steitz

DEVIATIONS AND BITS:

DEVIATIONS

Deviations	Depth
	0'
1/4°	208'
3/4°	400'
1 °	845'
1 1/4°	1090'
1 3/4°	1302'
1 1/4°	1466'
1 1/4°	1676'
1 °	1941'
3/4°	2161'
3/4°	2406'
	2450'
1/4°	3080'
	3083'
1/4°	3026'
1 3/4°	3526'
2 1/2°	3855'
2 3/4°	3911'
2 1/2°	4055'
3 °	4090'

BITS

No.	Type	Diameter
1	Retip OSC	12 1/4"
2	S3SJ	7 7/8"
3	S3T	7 7/8"
4	S3T	7 7/8"
5	S3	7 7/8"
6	S3	7 7/8"
7	S3	7 7/8"
8	S3T	7 7/8"

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GEOLOGICAL REPORT
W. D. A. CORPORATION
#1 Grynberg-Federal
Section 1-11N-88W
Routt County, Colorado

COMMENTS AND RECOMMENDATIONS

The purpose of this well was to evaluate the oil and gas potential of several sands on Gold Blossom Creek anticline. The previous interpretation of Mancos shale outcrop was found in error with the result that the well encountered the several sands of the Mesaverde at a shallow depth and bottomed in the lower most sand of the Mesaverde.

Porous sands were encountered throughout the Mesaverde section, but the only indication of oil and gas was oil stain and fluorescence in the Deep Creek sand member at total depth. This sand drilled hard, had no apparent porosity in samples, had no gas in the mud, and the porosity indicated on the Density log was interpreted to be impermeable based on drill-stem tests of the same sand in nearby wells. Fifteen to eighteen percent porosity is required on the Density log to be permeable in the Deep Creek sand in this area.

A maximum deviation of the hole of three degrees indicates the formation dips are nearly flat. A reinterpretation of the structure indicates that this well is located along the crest of the northwest plunge of a Domal feature with the crest of this dome being two miles southeast of this well.

This well was 725 feet high to the Kirby dry hole three miles south and 2,142 feet low to the Kirby producing well three miles northeast. Because the subsurface control in the Kirby producing well indicates north dip, it is likely that a major fault occurs between the producing well and this hole.

No sills or dikes were encountered in this hole. Because other holes in this area contain sills and dikes between the surface and 4,000 feet, it is not likely that these intrusive rocks might be at a deeper depth. This is the first well ever drilled in northern Routt County that did not encounter sills and dikes.

The several sands of the Mesaverde as well as the deeper Dakota, Sundance, and Entrada sands may contain oil and gas on this structural feature on the crest to the southeast. However, the Deep Creek sand is thinning to the east and appears prospective to the west of this hole where better porosity might be encountered. The Deep Creek sand produces gas at Slater Dome eight miles northwest of this hole.

There were no lost circulation or water flows encountered in this hole.

John S. Runge
Petroleum Geologist
Ocotober 1, 1971

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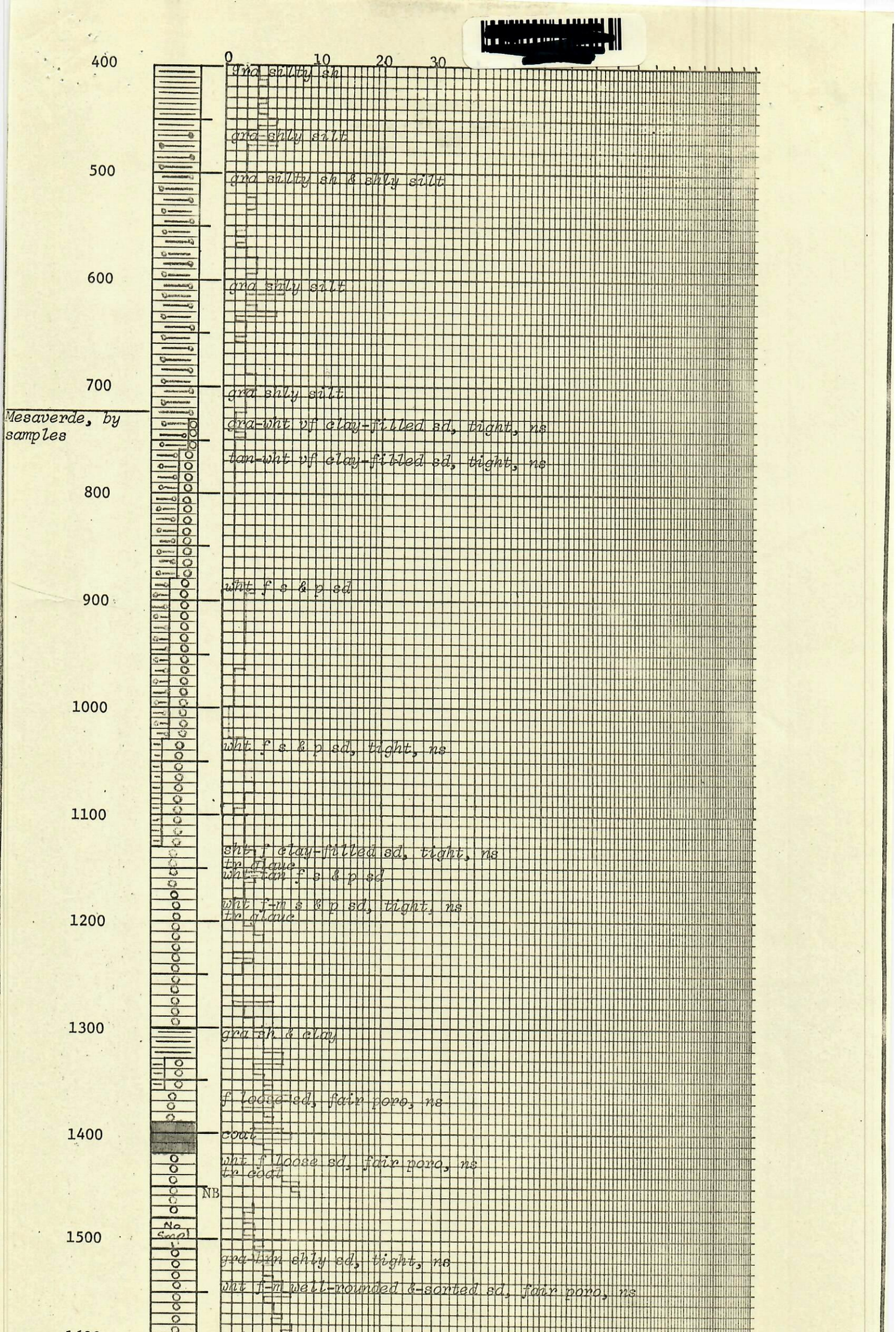
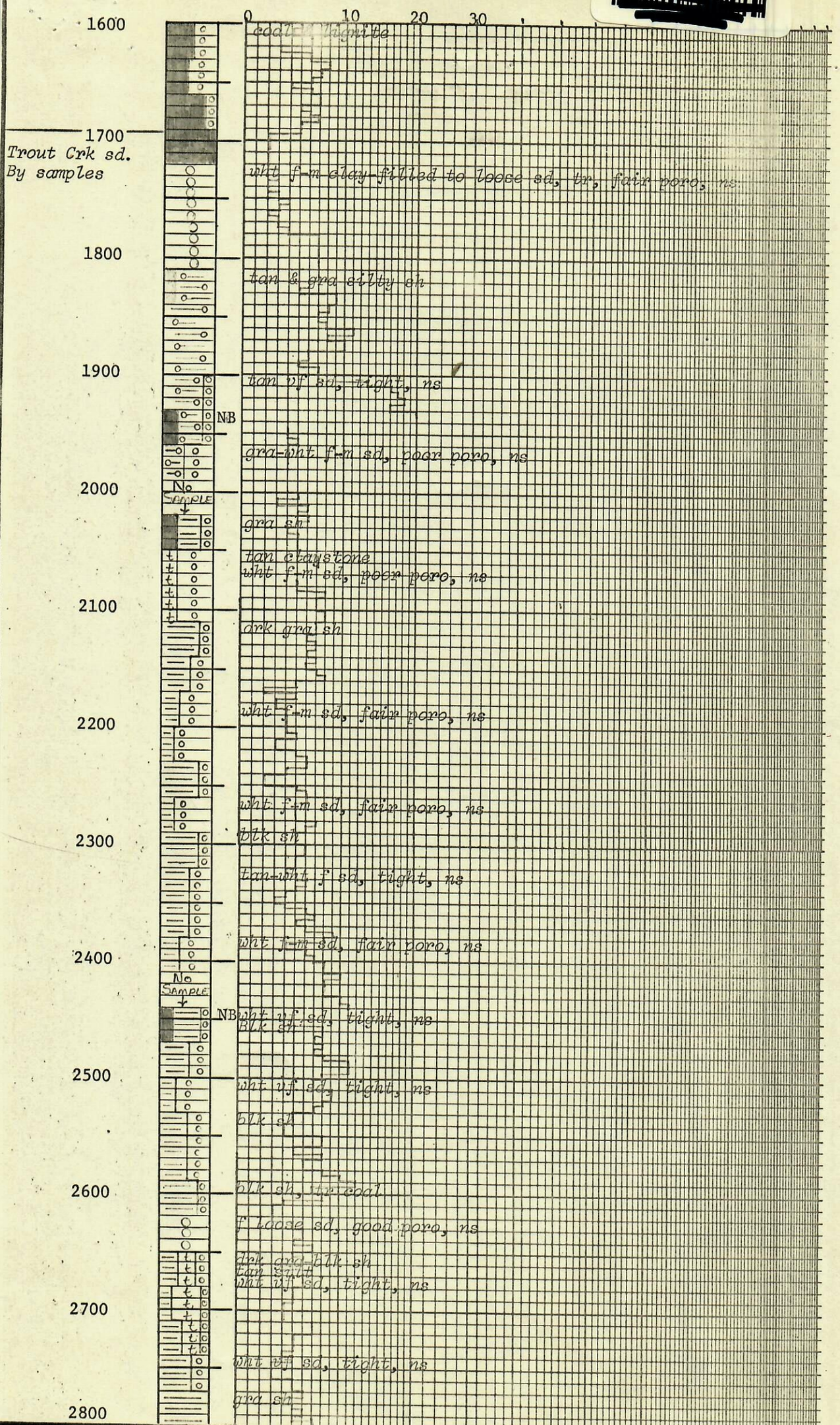


FORMATIONS By Samples | DEPTHS | LITHOLOGY POROSITY OIL & GAS SHOWS PENETRATION RATE (min/ 5 ft.) | FORMATIONS By Penetration Rate

OPERATOR W. D. A. Corporation WELL #1 Grynberg-Federal LOCATION 1-11N-88W ELEVATION 7471' GL 7483' KB

JOHN S. RUNGE, PETROLEUM GEOLOGIST, CASPER, WYOMING



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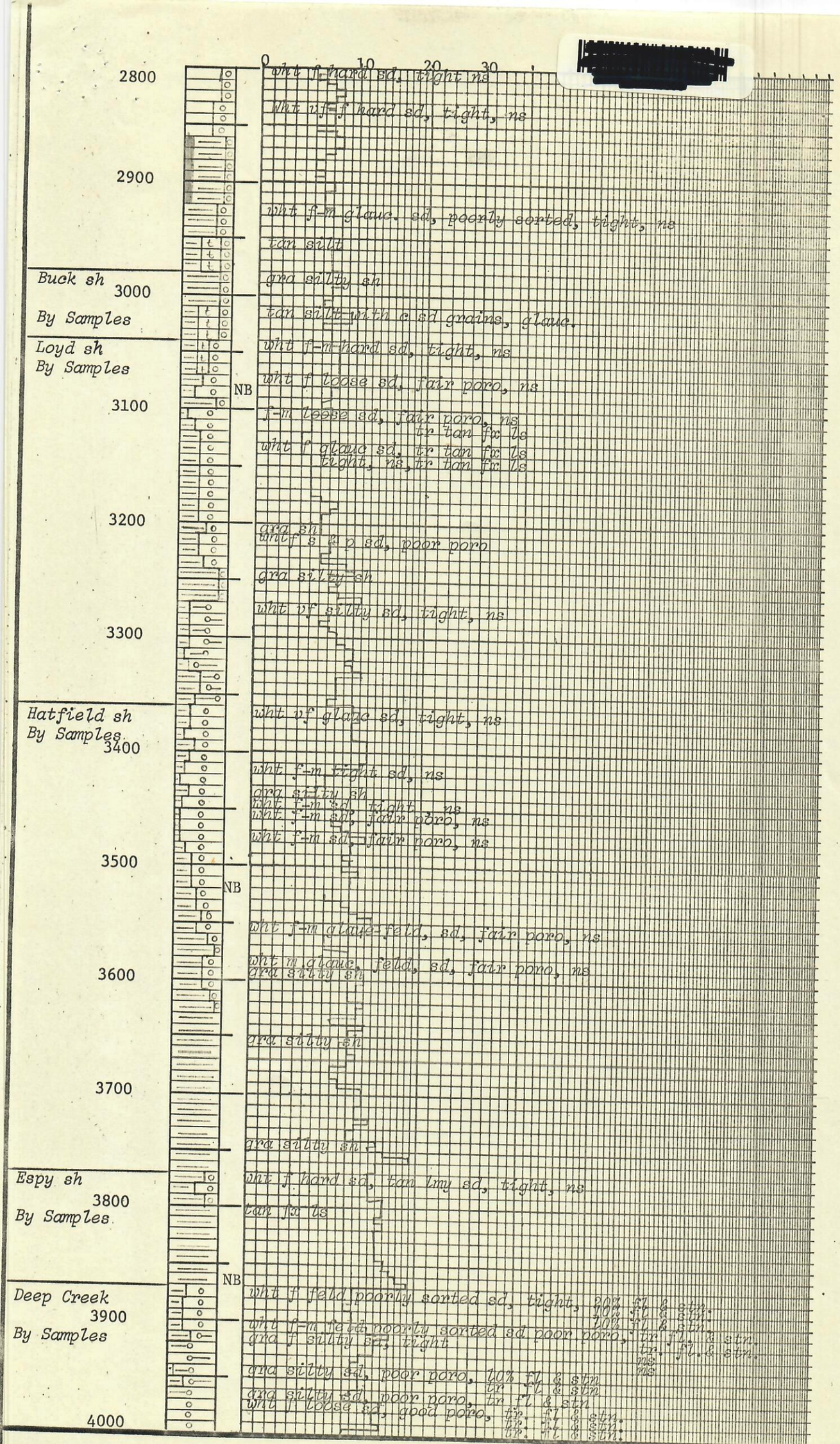

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JOHN S. RUNGE, PETROLEUM GEOLOGIST

4000

0 10 20 30

tr. fl. & stn.

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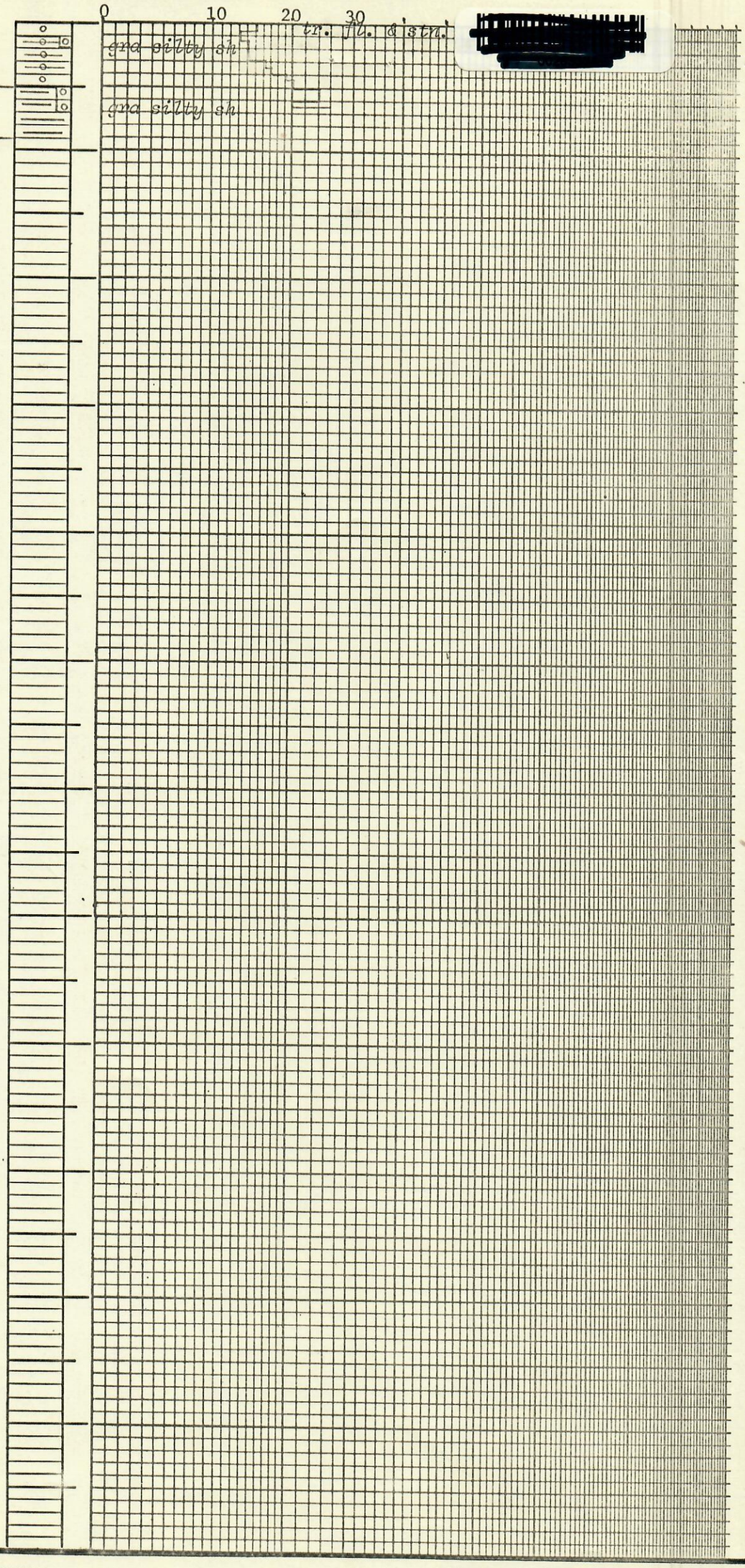
gra silty sh

Mancos sh
By Samples
TD-4090' 4100

gra silty sh



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