



00223486

## WELL HISTORY

OPERATOR: Blue Chip Oil

Well Name LaPoudre South #4

Well Location: SE $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 31-T6N-R66W  
Weld County, Colorado

Field: LaPoudre South

Elevation: GL 4721' KB 4733'

Spud Date: 4/28/92

Completed Drilling: 4/30/92

Surface Casing: 8 5/8" @ 359'

Contractor: Allison Bros. #2

Tool Pusher: Early Zion

Mud Company: Cadillac Mud, Inc.

Engineer: Chuck Dunning

Electric Logs: Phoenix Surveys, Inc.

Engineer: David Jull, John Patterson

DST None

Cores None

Geologist

Samples: 10" 4150' - 4300' ; 10' 4550- 4720'

Total Depth: 4720' Driller 4720' Logger 4724'

Status: Run 4 $\frac{1}{2}$ " Production Casing to Sussex.

# **CHRONOLOGICAL WELL RECORD**

DATE	7:00 AM DEPTH	FOOTAGE MADE 24 HOURS	PRESENT OPERATION	ACTIVITY DURING PREVIOUS 24 HOUR PERIOD
4/28/92	0'	0'	Move in	Move in, rig up, spud 1045 4/28/92 drill 0'-370', trip out, run 8 jts 8 5/8" 25# casing set at 359, cemented w/ 300 sks 5% Cacl, plug down at 1615 W.O.C. (1 1/4 hr) Drill 6 3/4 HR)
4/29/92	1832'	1832'	Drilling	Rig service (1/2 hr) drill 7 1/4 hr) survey (1/4 hr) Drill (7 hr) rig service (1/4 hr) check BOP (1/4 hr) fix pump (1/4 hr) drill (7 1/4 hr) rig service (1/4 hr)
4/30/92	4305'	2473'	Drilling	Drill (4 1/2 hr) rig service (1/4 hr) survey (1/4 hr) trip out of hole (4 3/4 hr) drill (1 1/2 hr) rig service (1/4 hr) drill (3 3/4 hr) T.D. 2240 4/30/92 at 4720' circ. (1 1/2 hr) trip out for logs (2 hr) rig up Phoenix Surveys and run logs (4 3/4 hr)
5/1/92	4720'	425'	Run logs	Rig down Phoenix Surveys (1 hr) Geological supervision released 0800 5/1/92

**BIT RECORD**

NO.	SIZE	MAKE	TYPE	DEPTH OUT	FOOTAGE MADE	HOURS RUN	DEVIATION
1	7 7/8"	RTC	HP-11	4526'	4156'	32 3/4	
2	7 7/8"	HTC	J-2	4720'	194'	4 3/4	1 1/2

**DEVIATION SURVEYS**

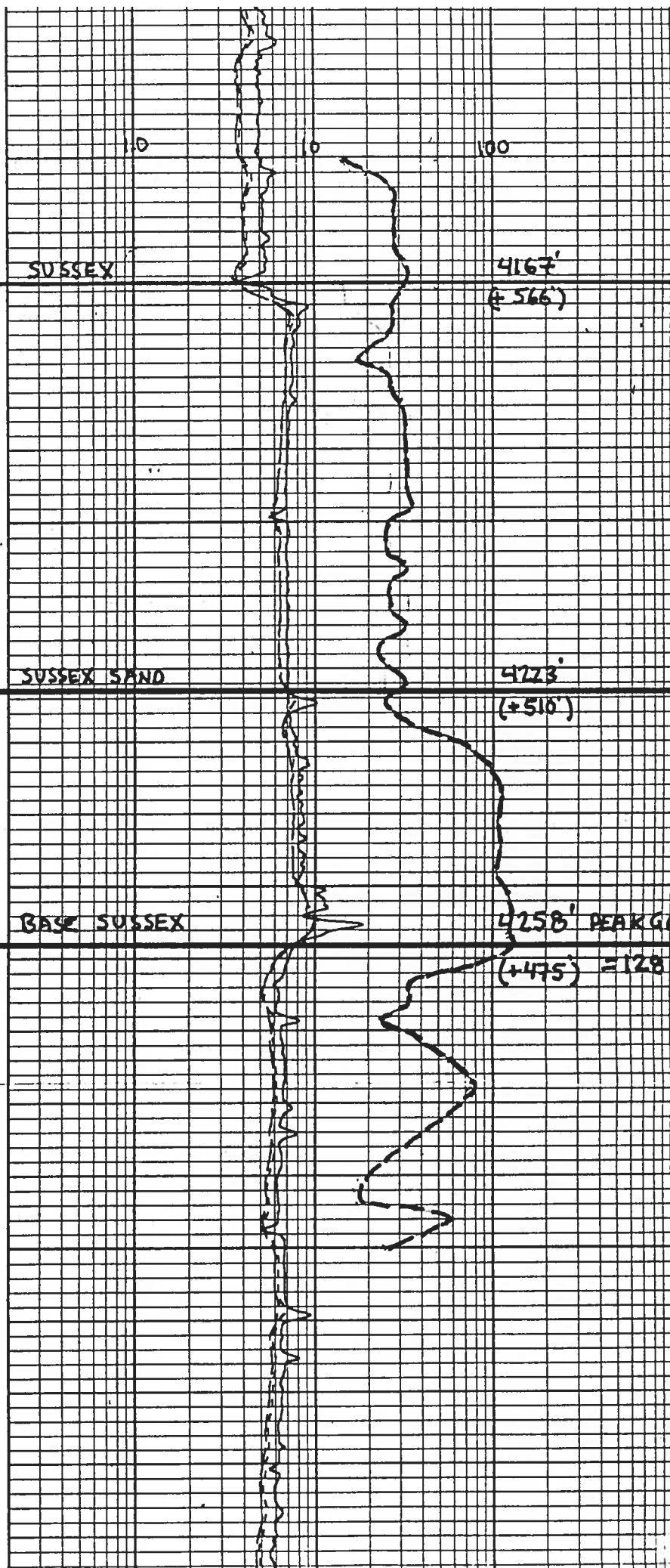
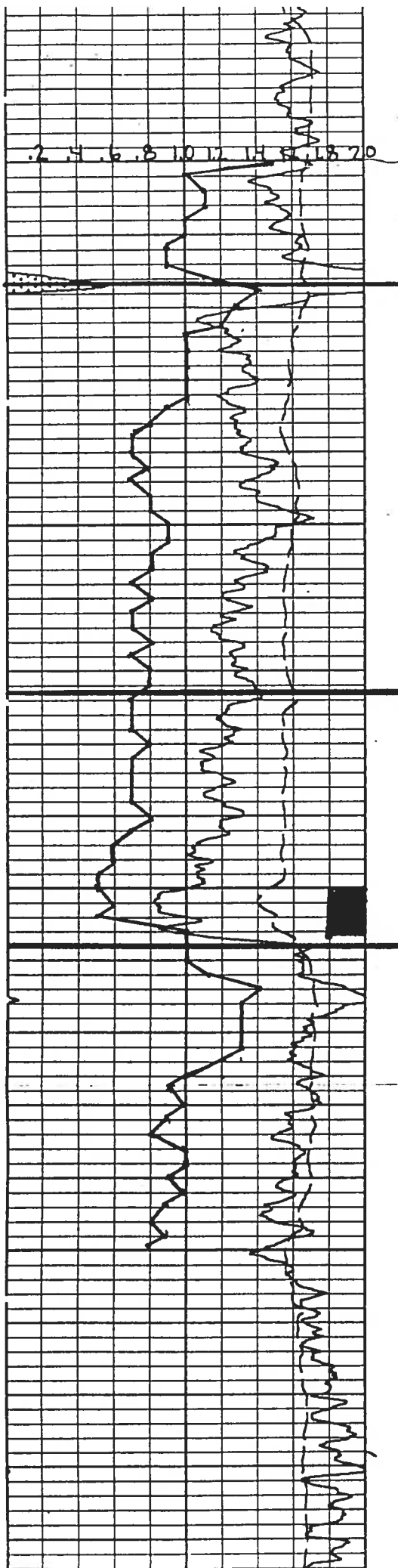
DEPTH	DEVIATION
370'	1
1363'	1 1/2
3399'	1
4526'	1 1/2

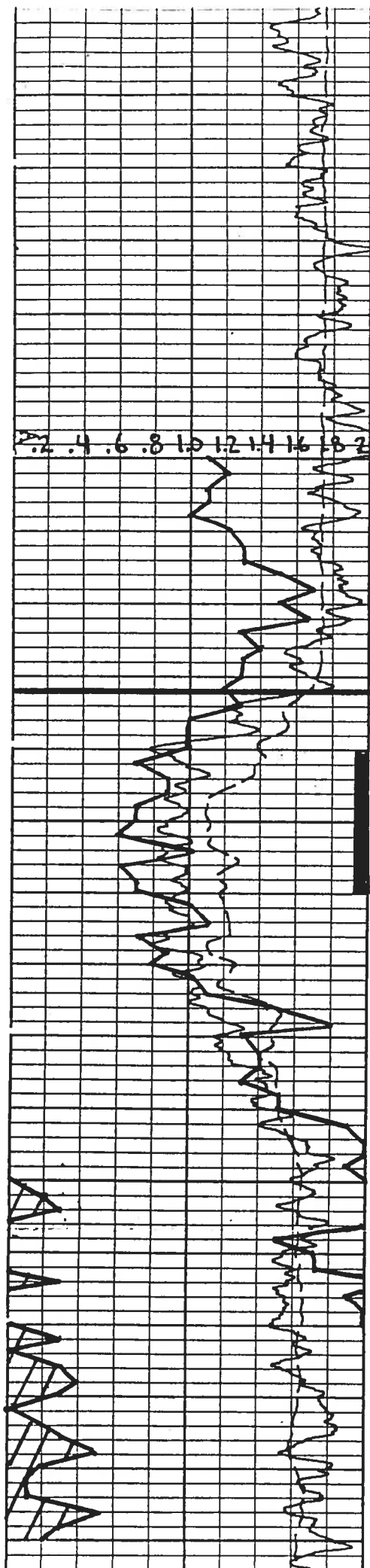
**MUD PROPERTIES**

DATE	DEPTH	VISCOSITY	WEIGHT	WATER LOSS
4/28/92	spud	H <sub>2</sub> O	8.7	N/C
4/30/92	4275'	29	8.7	9.4
4/30/92	4589'	32	9.1	9.0
4/30/92	4680'	42	9.2	8.8

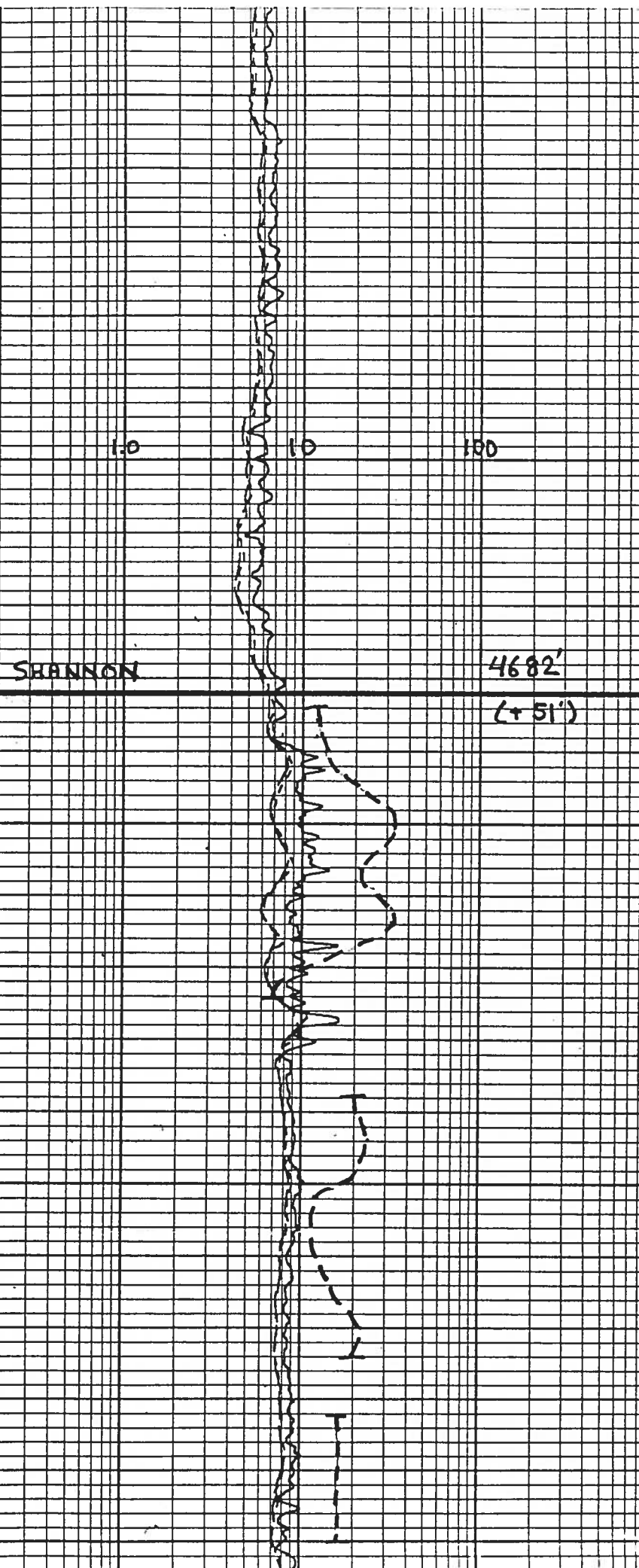
ELECTRIC LOG TOPS

<u>Formation</u>	<u>Log Tops</u>	<u>Sub-Sea</u>
Transition Mbr. "A"	2421'	(+2312')
Greeley Sand		
Greeley Sand "Ø"	2490'	(+2243')
Parkman	3470'	(+1263')
Sussex	4167'	(+ 566')
Sussex Sand	4223'	(+ 510')
Base Sussex	4258'	(+ 475')
Shannon	4682'	(+ 51')
T.D.	4724'	(+ 9')





4500



4600

4700

## FORMATION SUMMARY

### SUSSEX 4168' (+565') SAMPLE 4167' (+566') E-LOG

A subtle reverse drilling break from 0.9 MPF to 1.4 MPF marked the top of the Sussex, which drilled up evenly between 0.9 and 1.1 MPF. Samples consisted of light to medium gray soft bentonitic and calcareous shales with minor amounts of interbedded light to medium gray soft subblocky slightly sandy calcareous siltstones. The Upper Sussex produced background gases of 20 to 32u. No shows of oil were observed within the Upper Sussex.

### SUSSEX SANDSTONE 4222' (+511') SAMPLE 4223' (+510') E-LOG

A poorly defined drilling break from 0.8 MPF to 0.5 MPF and a quick rise in background gas from 32u to 128u indicated the top of the Sussex Sandstone which drilled up quickly between 0.5 and 0.7 MPF. The best apparent visual intergranular porosity occurred between 4244' and 4250' (sample). Cuttings appeared as light gray to graywhite to white speckled very fine to rarely fine grained subangular well sorted chloritic sandstone with poor to some fair visible intergranular porosity. (8-12%) 5-10% patchy light to dark brown oil staining, 40-50% pale yellow hydrocarbon fluorescence, no odor, and poor slow lazy streaming yellow cuts characterized show parameters. A very faint yellow residual ring was observed upon solvent evaporation.

Electric logs indicate 7' of fairly clean sandstone between 4250' and 4257'. This unit calculates to have an average porosity of 10.5% and an average Sw of 64%.

SHANNON SANDSTONE 4684' (+149') SAMPLE 4682' (+151') E-LOG

A gradual increase in penetration rate from 1.4 to 0.6 MPF and the appearance of light gray to speckled to rarely white to clear very fine to fine grained calcareous and glauconitic sandstones in the samples distinguished the top of the Shannon, which drilled up quickly between 0.6 and 1.0 MPF. Trace amounts of pale yellow hydrocarbon fluorescence, trace amounts of light brown oil staining, no odor, and very faint weak residual ring cuts summarized show parameters.

Logs indicate approximately 42' of sandstone having an average porosity of 8.5% and an average  $S_w$  of 83%. No production is likely from the Shannon at this location.



## SUMMARY AND CONCLUSIONS

BLUE CHIP OIL COMPANY spudded the LaPoudre South #4 well at 10:45 AM, 4/28/92 with Allison Brothers Drilling Company's Rig #2. Drilling progressed well with only one minor delay when a HTC J-11 bit wore out at 4526'. A total depth of 4720' (driller) was achieved at 10:40 PM, 4/30/92 below the Shannon Sandstone. Electric logs were run by Phoenix Surveys, Inc. on 5/1/92.

The primary objectives of this LaPoudre South Field development well were the Sussex and Shannon Sandstones. Secondary objectives consisted of the Greeley Sandstone and the Parkman.

Geological supervision commenced at 4:10 AM, 4/30/92 at 4150' above the Sussex through T.D. below the Shannon.

Two shows of oil were encountered at this location. Samples from the interval 4240'-4260' displayed faint oil staining, 40-50% pale yellow hydrocarbon fluorescence and produced poor slow streaming yellow cuts in sand samples from the Sussex Sandstone.

The Shannon Sandstone produced very faint residual ring cuts from samples over the interval 4590'-4610'.

Due to a 7' thick clean sand at the base of the Sussex from 4250'-4257' (E-log) the decision to run 4½" production casing to the Sussex Sandstone was made on 5/1/92.