SOUTH AUSTRALIA

DEPARTMENT OF MINES AND ENERGY

OPEN FILE ENVELOPE NO. 5878

PPL 6

EROMANGA BASIN

GIDGEALPA 24

TEST REPORTS

Submitted by

Delhi Petroleum Pty Ltd

1985

ENVELOPE 5878

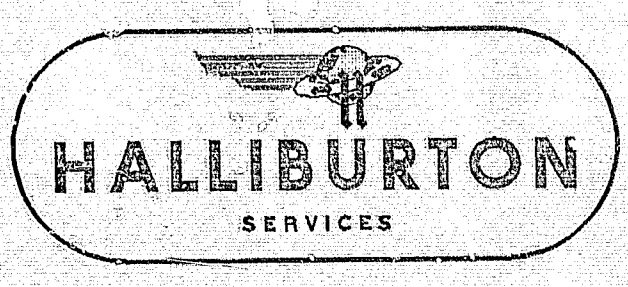
TENEMENT: PPL 6; Eromanga Basin

TENEMENT HOLDER: Delhi Petroleum Pty Ltd (operator), Santos Ltd, South Australian Oil and Gas Corporation Pty Ltd and Vamgas Ltd

CONTENTS OF VOLUME ONE

CONTENTS OF VOLUME TWO

END OF CONTENTS



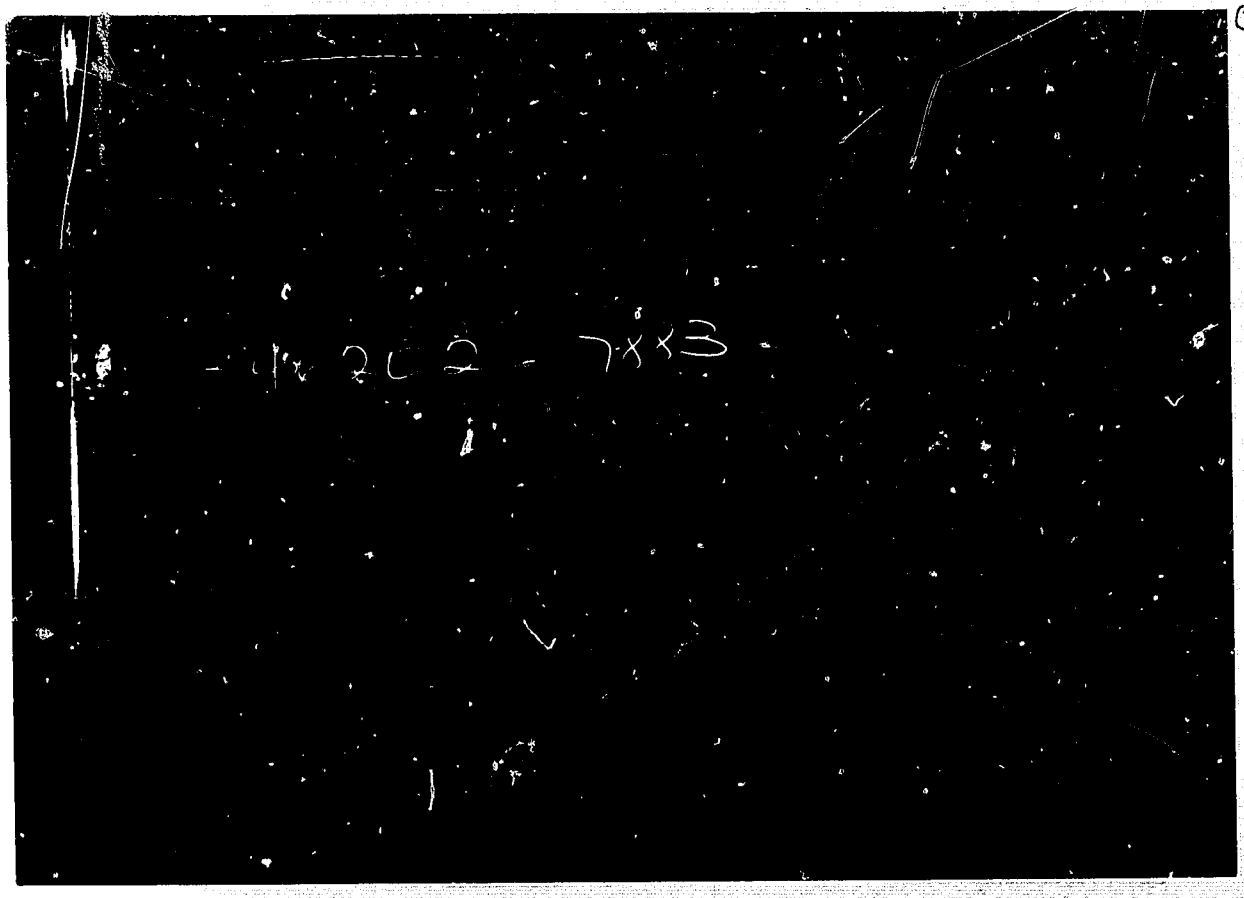
TICKET NO. 34620200
03-JUN-85
MOOMBA

FORMATION TESTING SERVICE REPORT

GIDGEALPA	24	1	6502.1 - 6519.5
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL

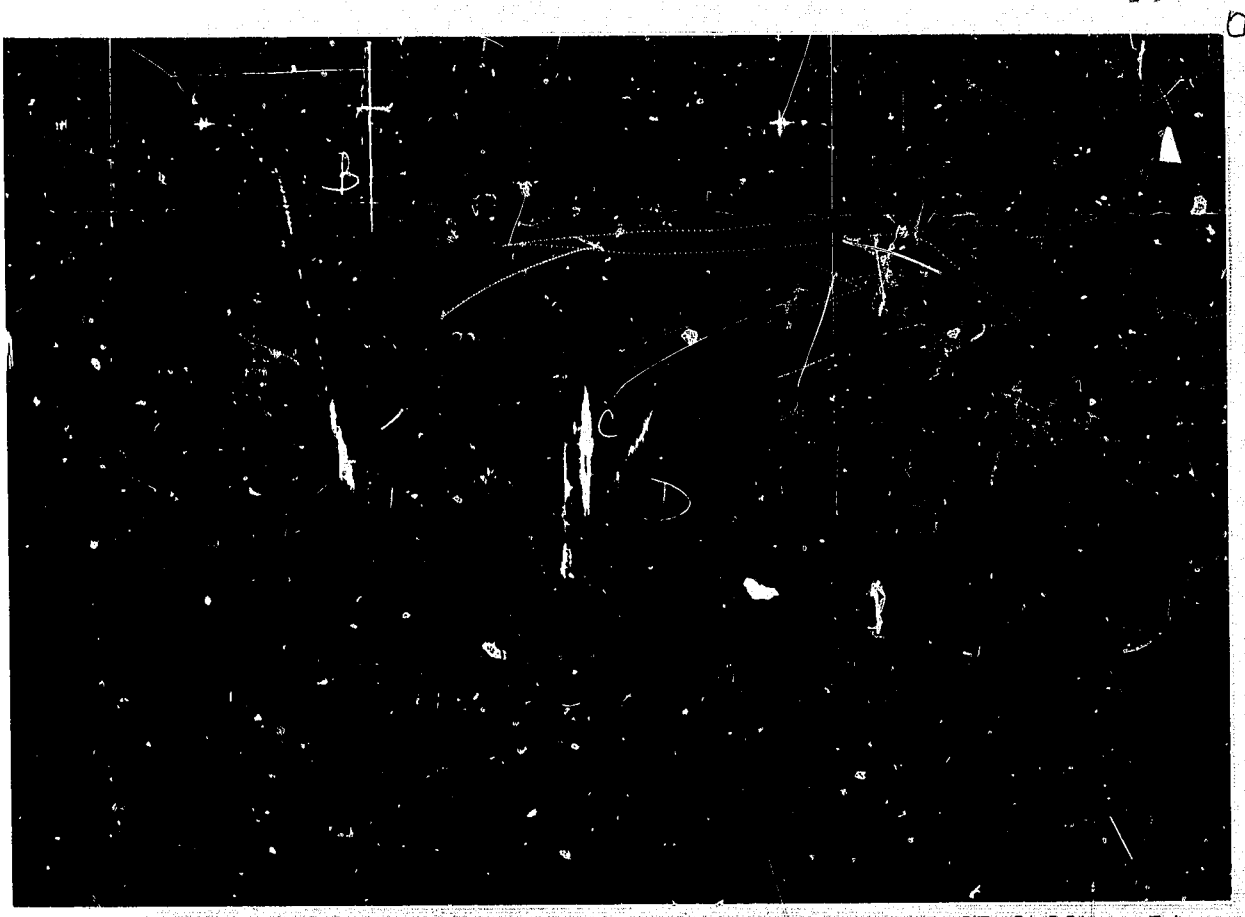
DELHI PETROLEUM PTY. LTD.
LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. _ TWP. _ RNG.	SEE REMARKS	FIELD AREA	COOPER BASIN
COUNTY SOUTH AUSTRALIA	STATE AUSTRALIA		



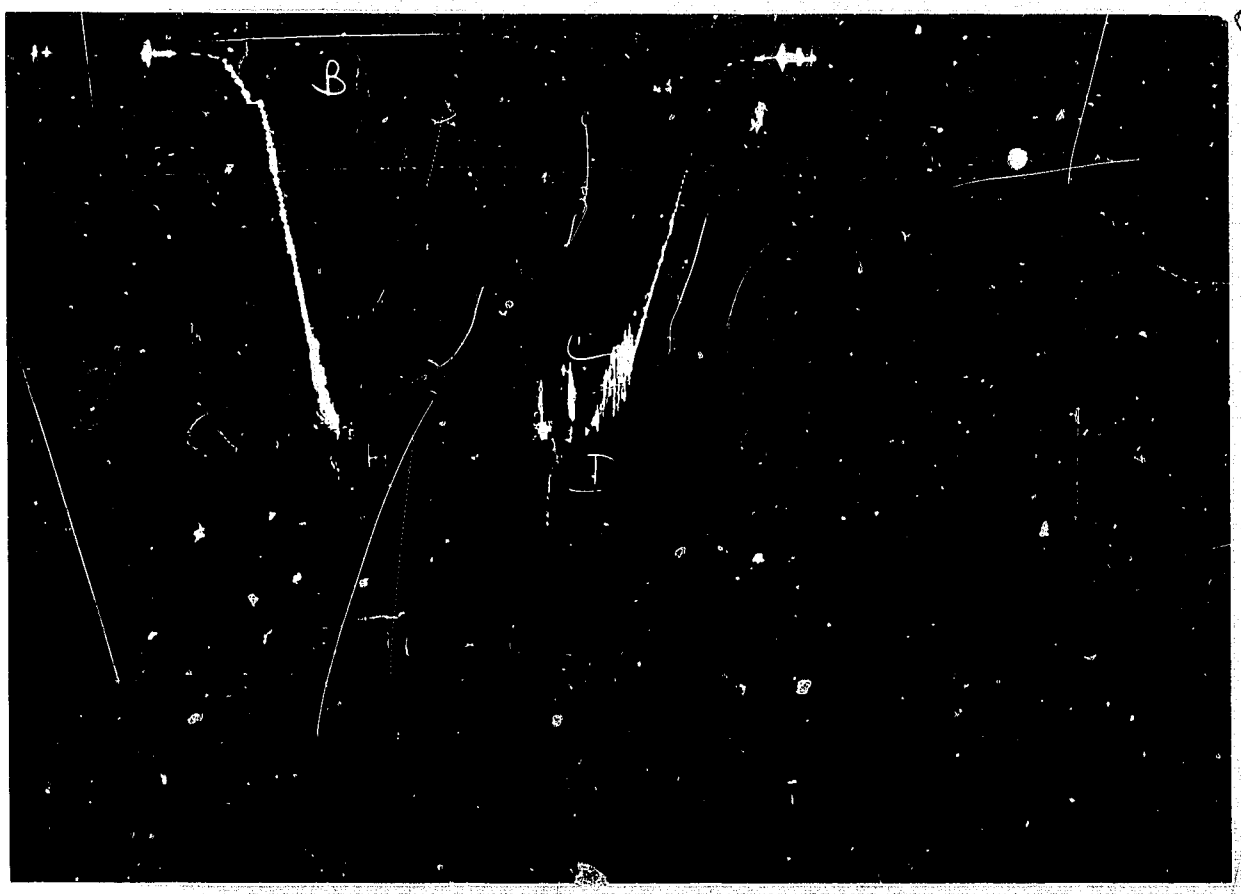
GAUGE NO: 7883 DEPTH: 6457.3 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW			264.0		F
C	FINAL FIRST FLOW					
D	FINAL HYDROSTATIC					
E	HYDROSTATIC RELEASE					



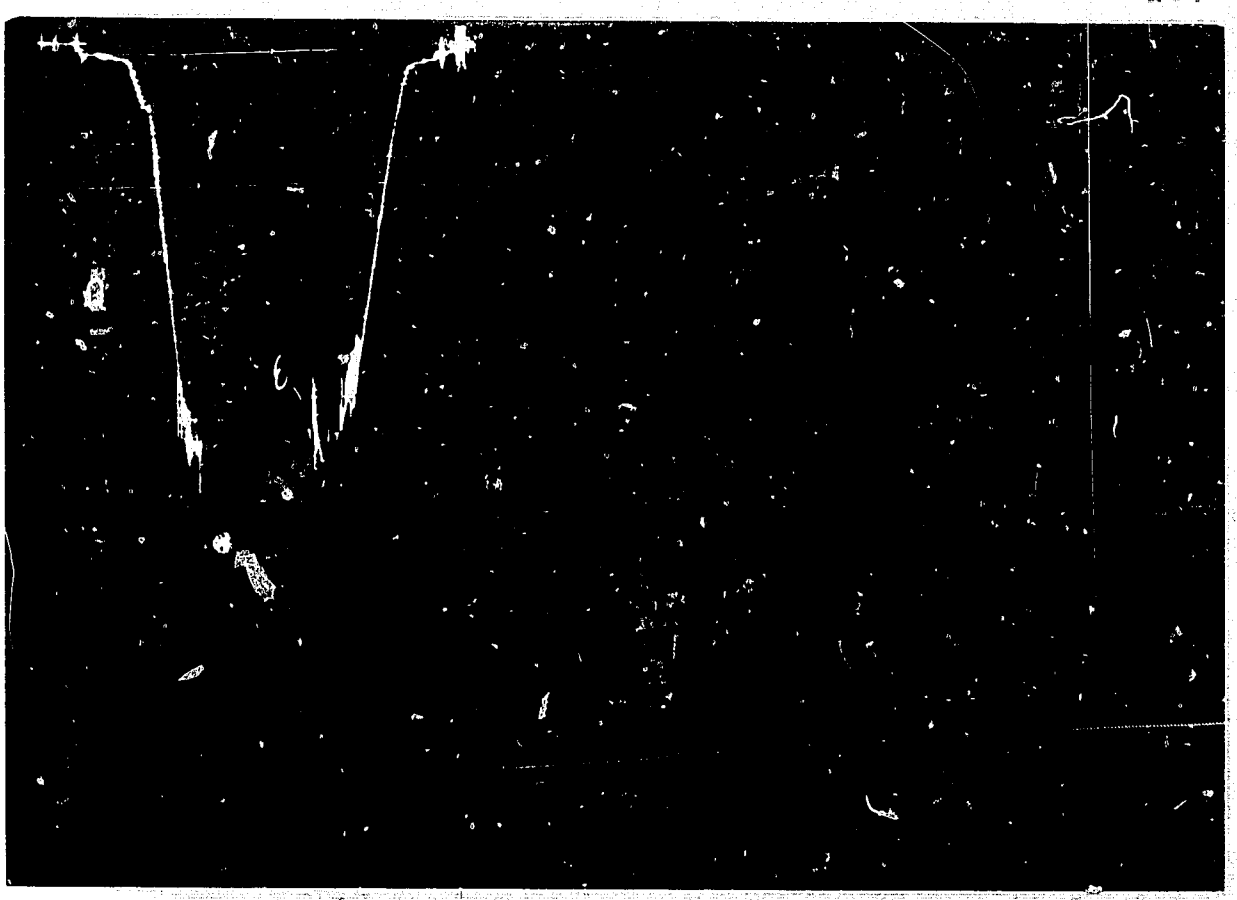
GAUGE NO: 3288 DEPTH: 6478.3 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3270	3261.1			
B	INITIAL FIRST FLOW	419	534.1	264.0	264.0	F
C	FINAL FIRST FLOW	2757	2751.9			
D	FINAL HYDROSTATIC	3270	3261.1			
E	HYDROSTATIC RELEASE					



GAUGE NO: 3289 DEPTH: 6514.9 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3341	3335.3			
B	INITIAL FIRST FLOW	128	128.6	264.0	264.0	F
C	FINAL FIRST FLOW	2806	2807.4			
D	FINAL HYDROSTATIC	3341	3335.3			
I	HYDROSTATIC RELEASE					



GAUGE NO: 3896 DEPTH: 6775.0 BLANKED OFF: YES HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3261	3499.6			
B	INITIAL FIRST FLOW			264.0		F
C	FINAL FIRST FLOW					
D	FINAL HYDROSTATIC	3432	3499.6			
E	HYDROSTATIC RELEASE		3463.6			

0008

EQUIPMENT & HOLE DATA

FORMATION TESTED: HUTTON
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 17.4
ALL DEPTHS MEASURED FROM: KB
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 114.0
TOTAL DEPTH (ft): 6778.0
PACKER DEPTH(S) (ft): 6494, 6502, 6519, 6527
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.60
MUD VISCOSITY (sec): 45
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 218 @ 6774.0 ft

TICKET NUMBER: 34620200

DATE: 2-24-85 TEST NO: 1

TYPE DST: ON BTM. STRADDLE

HALLIBURTON CAMP: MOOMBA

TESTER: R.W. BLANTON / G.M. WILINSKI

WITNESS: F. HODGKIN

DRILLING CONTRACTOR: O D & E #6

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
_____	_____ @	°F	_____ ppm
_____	_____ @	°F	_____ ppm
_____	_____ @	°F	_____ ppm
_____	_____ @	°F	_____ ppm
_____	_____ @	°F	_____ ppm

SAMPLER DATA

Pstg AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ ___°F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

GAS CUT WATER TO THE SURFACE

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: LAT. 28 DEGREES - 01' - 07.6" SOUTH
LONG. 139 DEGREES - 59' - 35.1" EAST

CLOCK FAILED TO START ON GAUGE #7883.....

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE | TICKET NO: 34620200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
2-24-85					
0330					MADE-UP TOOLS
0515					RUN IN HOLE
0615					MADE-UP HEAD
0625					LAID DOWN HEAD AND RUN IN HOLE
0800					WORKED TOOL TO BOTTOM
0810					HEAD UP
0822					SET 25,000# ON PACKERS
0824	.50"				OPENED TOOL - WEAK BLOW
0825	.50"				WEAK TO MODERATE
0827	.50"				MODERATE BLOW
0830	.50"				STRONG BLOW
0835	.50"				MODERATE BLOW
0836	.50"				WEAK TO MODERATE BLOW
0837	.50"				WEAK BLOW
0838	.50"				VERY WEAK BLOW
0840	.50"				"
0850	.50"				"
0900	.50"				SAME
0915	.50"				SAME
0930	.50"				SAME
0945	.50"				SAME
1000	.50"				SAME
1015	.50"				SAME
1030	.50"				SAME
1045	.50"				SAME
1100	.50"				SAME
1115	.50"				SAME
1130	.50"				SAME
1140	.50"				GAS TO THE SURFACE
1150	.50"				VERY WEAK BLOW
1200	.50"				SAME
1210	.50"				SAME
1220	.50"				SAME
1224					ATTEMPTED TO CLOSE TOOL.
					TURNED 3 TIMES AND RELEASED
					TORQUE. WORKED PIPE AND

490

0010

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE					TICKET NO: 34620200
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					TRIED AGAIN - FAILED TO GET
					ANY TURNS IN.
1230					ATTEMPTED TO CLOSE HYDROSPRING
					BY PULLING UP. PULLED 80,000#
					OVER AND STILL STUCK.
1244					DROPPED BAR TO REVERSE
					CIRCULATE.
1248					SHEARED PIN AND BEGAN REVERSE
					CIRCULATING AND WORKING PIPE.
1255					PULLED FREE WITH 230,000# PULL
1300					WORKED PIPE WHILE REVERSE
					CIRCULATING.
1330					LAID DOWN HEAD AND PULLED 2
					STANDS OF DRILL PIPE.
1350					MADE-UP KELLY AND PUMPED PILL
1400					STOPPED AND PULLED OUT OF HOLE
1730					BREAK OUT TOOLS
1845					TOOLS OUT OF HOLE

TICKET NO: 34620200

CLOCK NO: 7407 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 3288

DEPTH: 6478.3

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	534.1			
☐1	2	10.2	540.9	6.9		
☐1	3	11.8	599.1	58.2		
☐1	4	22.4	810.6	211.5		
	5	30.0	1018.8	208.2		
☐1	6	35.0	1124.6	105.8		
☐1	7	46.7	1281.2	156.6		
	8	50.0	1397.3	116.2		
	9	60.0	1562.2	164.8		
	10	70.0	1712.8	150.7		
	11	80.0	1848.5	135.6		
	12	90.0	1971.9	123.5		
	13	100.0	2079.7	107.8		
	14	110.0	2175.4	95.6		
	15	120.0	2261.2	85.8		
	16	130.0	2335.1	73.9		
	17	140.0	2401.5	66.4		
	18	150.0	2458.2	56.6		
	19	160.0	2510.7	52.5		
	20	170.0	2551.4	40.7		
	21	180.0	2591.1	39.7		
	22	190.0	2624.0	32.9		
	23	200.0	2653.2	29.2		
	24	210.0	2679.3	26.1		
	25	220.0	2700.2	20.9		
	26	230.0	2719.2	19.0		
	27	240.0	2734.9	15.7		
	28	250.0	2750.5	15.7		
C	29	264.0	2751.9	1.3		

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

LEGEND:
☐1 STAIR-STEP

REMARKS:

0012

TICKET NO: 316202OO

CLOCK NO: 7499 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 3289

DEPTH: 6514.9

	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	128.6			
	2	10.0	507	378.7		
	3	20.0	762.4	255.2		
	4	30.0	1005.2	242.8		
	5	40.0	1229.5	224.2		
	6	50.0	1426.9	197.4		
	7	60.0	1604.8	177.9		
	8	70.0	1762.9	158.1		
	9	80.0	1898.5	135.6		
	10	90.0	2020.8	122.3		
	11	100.0	2131.2	110.4		
	12	110.0	2230.1	98.9		
	13	120.0	2315.2	85.1		
	14	130.0	2391.8	76.6		
	15	140.0	2460.6	68.8		
	16	150.0	2518.8	58.2		
	17	160.0	2570.1	51.3		
	18	170.0	2612.8	42.6		
	19	180.0	2651.7	38.9		
	20	190.0	2685.3	33.5		
	21	200.0	2713.2	27.9		
	22	210.0	2737.9	24.7		
	23	220.0	2759.3	21.4		
	24	230.0	2778.4	19.0		
	25	240.0	2793.7	15.4		
	26	250.0	2804.8	11.0		
C	27	264.0	2807.4	2.6		

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

REMARKS:

TICKET NO. 34620200 0013

			O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	5841.0	
4		FLEX WEIGHT.....	4.500	2.764	182.8	
3		DRILL COLLARS.....	6.250	2.875	367.7	
51	D	PUMP OUT REVERSING SUB.....	6.000	3.000	1.0	6392.3
3		DRILL COLLARS.....	6.250	2.875	30.2	
50	D	IMPACT REVERSING SUB.....	6.000	3.000	1.0	6423.5
3		DRILL COLLARS.....	6.250	2.875	31.1	
5		CROSSOVER.....	5.750	2.250	1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.1	6457.3
5		CROSSOVER.....	5.000	2.250	1.0	
12	D	DUAL CIP VALVE.....	5.000	0.870	4.9	
97		SAMPLE CHAMBER.....	5.000	2.500	4.9	6466.1
33	D	DRAIN VALVE.....	5.000	2.200	.9	
60	D	HYDROSPRING TESTER.....	5.000	0.750	5.3	6477.2
80		AP RUNNING CASE.....	5.000	2.250	4.1	6478.3
15		JAR.....	5.000	1.750	5.0	
16	V	VR SAFETY JOINT.....	5.000	1.000	2.8	
17	D	PRESSURE EQUALIZING CROSSOVER...	5.000	3.000	1.0	
70		OPEN HOLE PACKER.....	5.000	1.530	5.8	6494.3
18	D	DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70		OPEN HOLE PACKER.....	5.000	1.530	5.8	6502.1
20		FLUSH JOINT ANCHOR.....	5.000	2.370	9.0	
5		CROSSOVER.....	5.000	2.750	1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.1	6514.9
70		OPEN HOLE PACKER.....	5.000	1.530	5.8	6519.5
18	D	DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70		OPEN HOLE PACKER.....	5.000	1.530	5.8	6527.3

CONTINUED

EQUIPMENT DATA

494

0064

TICKET NO. 34620200

		O.D.	I.D.	LENGTH	DEPTH
	CROSSOVER.....	5.000	2.250	1.0	
19	ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3	
20	FLUSH JOINT ANCHOR.....	5.000	2.370	20.0	
5	CROSSOVER.....	5.750	2.500	1.0	
3	DRILL COLLARS.....	6.250	2.875	215.1	
5	CROSSOVER.....	5.750	2.500	1.0	
31	BLANKED-OFF RUNNING CASE.....	5.000		4.1	6775.0
	TOTAL DEPTH				6778.0

EQUIPMENT DATA

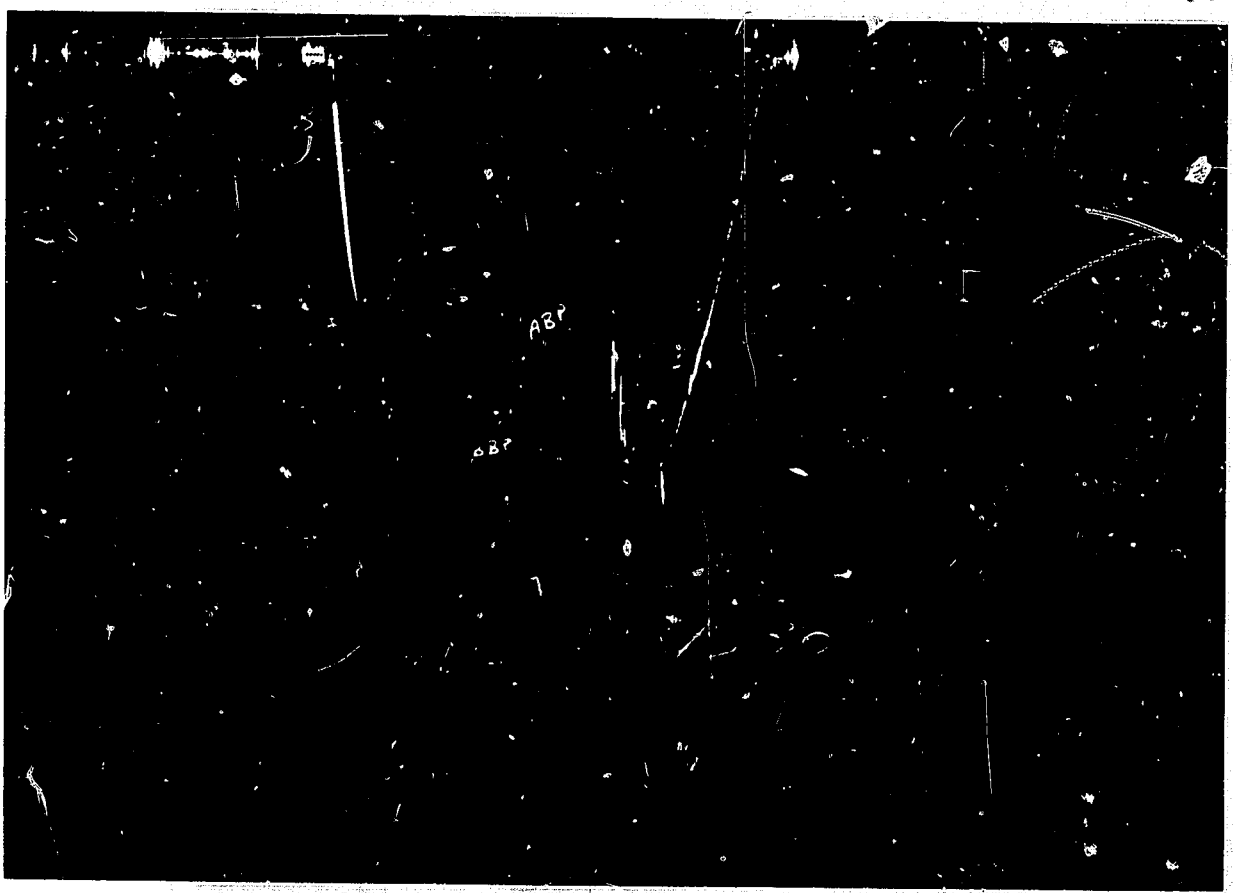
0015

HALLIBURTON
SERVICES

TICKET NO. 34620300
12-JUN-85
MOOMBA

FORMATION TESTING SERVICE REPORT

GIOGEALPA	24	2	5448.0 - 5458.0
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL
LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD AREA	COOPER BASIN
COUNTY SOUTH AUSTRALIA	STATE AUSTRALIA IC		DELHI/SANTOS
			LEASE OWNER/COMPANY NAME

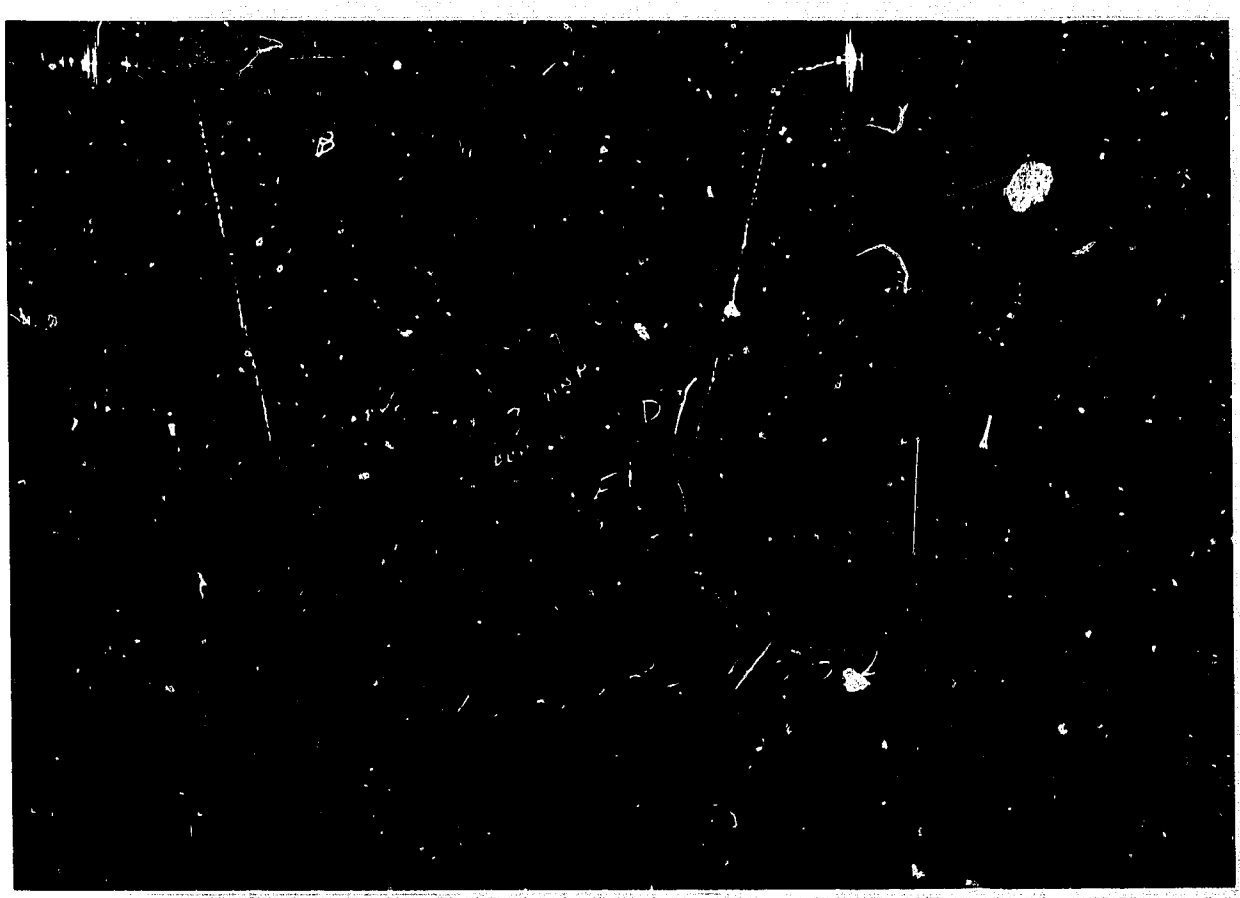


GAUGE NO: 4530 DEPTH: 5327.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		318.7	192.0	192.1	F
C	FINAL FIRST FLOW	2078	2073.4			
C	INITIAL FIRST CLOSED-IN	2078	2073.4	154.0	153.9	C
D	FINAL FIRST CLOSED-IN		2019.4			
E	FINAL HYDROSTATIC					
F	HYDROSTATIC RELEASE					

GAUGE NO: 4531 DEPTH: 5336.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2637	2662.9			
B	INITIAL FIRST FLOW	330	326.8	192.0	192.1	F
C	FINAL FIRST FLOW	2053	2071.4			
C	INITIAL FIRST CLOSED-IN	2053	2071.4	154.0	153.9	C
D	FINAL FIRST CLOSED-IN	2344	2368.0			
E	FINAL HYDROSTATIC	2663	2676.7			
F	HYDROSTATIC RELEASE					



GAUGE NO: 4532 DEPTH: 5465.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2735	2738.3			
B	INITIAL FIRST FLOW	676	671.8	192.0	192.1	F
C	FINAL FIRST FLOW	2127	2128.9			
C	INITIAL FIRST CLOSED-IN	2127	2128.9	154.0	153.9	C
D	FINAL FIRST CLOSED-IN	2419	2422.0			
E	FINAL HYDROSTATIC	2741	2721.0			
F	HYDROSTATIC RELEASE					

19

GAUGE NO: 8014 DEPTH: 5470.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2694	2705.3			
B	INITIAL FIRST FLOW			192.0		F
C	FINAL FIRST FLOW					
C	INITIAL FIRST CLOSED-IN			154.0		C
D	FINAL FIRST CLOSED-IN					
E	FINAL HYDROSTATIC		2696.8			
F	HYDROSTATIC RELEASE		2622.9			

0020

EQUIPMENT & HOLE DATA

FORMATION TESTED: NAMUR
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 10.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 114.0
TOTAL DEPTH (ft): 6778.0
PACKER DEPTH(S) (ft): 5448, 5458
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.40
MUD VISCOSITY (sec): 38
ESTIMATED HOLE TEMP. (°F): 218
ACTUAL HOLE TEMP. (°F): 206 @ 5469.9 ft

TICKET NUMBER: 34620300

DATE: 2-25-85 TEST NO: 2

TYPE DST: HYDROF. STRADDLE

HALLIBURTON CAMP: MOOMBA

TESTER: R. W. BLANTON
G. WILINSKI

WITNESS: FRED HODGKIN

DRILLING CONTRACTOR: O.D. AND E. RIG #6

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
_____	_____ @ ___°F	_____ ppm
_____	_____ @ ___°F	_____ ppm
_____	_____ @ ___°F	_____ ppm
_____	_____ @ ___°F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ ___°F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

OIL TO SURFACE

MEASURED FROM TESTER VALVE

REMARKS:

CHARTS INDICATE TOOL WAS NOT CLOSED AT 13:21 (2-25-85) AS REPORTED - THE CLOSED IN PERIOD ACTUALLY BEGAN WITH THE SURFACE CLOSURE AT 13:33. THE TOOLS WERE MOMENTARILY BYPASSED AT 14:00. HOWEVER, WHEN WEIGHT WAS SET BACK DOWN, THE TOOL WAS CLOSED AND THE CLOSED IN PERIOD CONTINUED.

LEGAL LOCATION: LAT. 28 DEG., 01', 07.6"S; LONG. 139 DEG., 59', 35.1"E.

TEST WAS CONDUCTED 2 FEBRUARY 1985.

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0021

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE | TICKET NO: 34620300

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
2-25-85					
0500					MADE UP TOOLS
0650					RAN IN HOLE
0915					HEAD UP
0940					STARTED ROTATING PIPE AT 65 RPM
1018					SET 10000# ON TOOL
1021	.5	0			OPENED TOOL WITH MODERATE BLOW
1022					STRONG BLOW
1025					STRONG BLOW
1030					STRONG BLOW
1035					MODERATE BLOW
1040					WEAK TO MODERATE BLOW
1045					WEAK TO MODERATE BLOW
1050					WEAK BLOW
1051					GAS TO SURFACE
1102		15			OIL CUT MUD
1103		35			
1105		50			GAS CUT OIL TO SURFACE
1110		68			
1115		65			
1120		57			
1125		60			
1130		53			
1145		55			
1200		55			
1215		52			
1230		50			
1245		50			
1300		46			
1315		46			
1321					CLOSED TOOL
1333					CLOSED FLARE LINE
1355					OPENED FLARE LINE
1400					WAS NOT SURE TOOL WAS CLOSED-
					PULLED 80000# OVER STRING WEIGHT
					WHEN PIPE CAME FREE-SET BACK
					DOWN TO SEE IF PACKERS WERE

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE					TICKET NO: 34620300
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					STILL SET
1607					PULLED FREE
1612					DROPPED BAR TO REVERSE CIRCULATE
1615					SHEARED PIN AND BEGAN REVERSE
					CIRCULATING
1640					STOPPED AND LAID DOWN HEAD
1700					MADE UP KELLY AND PUMPED PILL
1715					PULLED OUT OF HOLE
1945					BROKE OUT TOOLS
2100					TOOLS OUT OF HOLE

TICKET NO: 34620300

CLOCK NO: 9394 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 4530

DEPTH: 5327.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	318.7			
	2	10.0	1047.6	729.0		
	3	20.0	1521.2	473.6		
	4	30.0	1837.8	316.5		
	5	40.0	2034.9	197.1		
[1]	6	40.9	2035.7	0.8		
	7	50.0	2048.8	13.1		
	8	60.0	2051.2	2.4		
	9	70.0	2052.2	1.0		
	10	80.0	2053.8	1.6		
	11	90.0	2056.6	2.8		
	12	100.0	2059.7	3.1		
	13	110.0	2063.5	3.8		
	14	120.0	2065.7	2.3		
	15	130.0	2067.2	1.5		
	16	140.0	2068.5	1.3		
	17	150.0	2071.3	3.1		
	18	160.0	2072.6	1.0		
	19	170.0	2072.1	-0.5		
	20	180.0	2071.9	-0.2		
	21	190.0	2073.9	2.0		
C	22	192.1	2073.4	-0.5		
			FIRST CLOSED-IN			
C	1	0.0	2073.4			
[2]	2	25.3	2373.1	299.7	22.4	0.934
[3]	3	27.6	2010.6	-62.8	24.1	0.901
D	4	153.9	2019.4	-54.0	85.4	0.352

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

LEGEND:
[1] FLUID TO SURFACE [2] BEFORE BY-PASS [3] AFTER BY-PASS

REMARKS:

TICKET NO: 34620300

CLOCK NO: 16055 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 4531

DEPTH: 5936.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	32?.8			
	2	10.0	900.5	573.6		
	3	20.0	1391.4	490.9		
	4	30.0	1736.2	344.8		
	5	40.0	1994.7	258.5		
[1]	6	40.9	2004.5	9.7		
	7	50.0	2043.0	38.6		
	8	60.0	2046.0	3.0		
	9	70.0	2047.7	1.7		
	10	80.0	2049.0	1.3		
	11	90.0	2052.2	3.1		
	12	100.0	2054.8	2.6		
	13	110.0	2056.5	1.7		
	14	120.0	2058.9	2.5		
	15	130.0	2059.8	0.8		
	16	140.0	2062.4	2.6		
	17	150.0	2065.4	3.0		
	18	160.0	2066.6	1.2		
	19	170.0	2066.2	-0.3		
	20	180.0	2064.9	-1.3		
	21	190.0	2072.0	7.1		
C	22	192.1	2071.4	-0.7		
			FIRST CLOSED-IN			
C	1	0.0	2071.4			
	2	1.0	2267.4	196.0	1.0	2.286
	3	2.0	2325.7	254.3	2.0	1.987
	4	3.0	2340.6	269.2	2.9	1.818
	5	4.0	2346.2	274.8	3.9	1.691
	6	5.0	2351.5	280.1	4.9	1.593
	7	6.0	2353.0	281.6	5.8	1.517
	8	7.0	2354.3	282.9	6.8	1.452
	9	8.0	2356.0	284.6	7.6	1.400
	10	9.0	2356.8	285.4	8.6	1.348
	11	10.0	2357.6	286.3	9.5	1.305
	12	20.0	2359.3	287.9	18.1	1.026
[2]	13	25.3	2359.6	288.2	22.4	0.934
[3]	14	27.6	2360.3	288.9	24.1	0.901
	15	30.0	2361.4	290.1	26.0	0.869
	16	40.0	2365.9	294.5	33.1	0.764
	17	50.0	2366.7	295.4	39.7	0.685
	18	60.0	2366.7	295.4	45.7	0.623
	19	70.0	2366.7	295.4	51.3	0.574
	20	80.0	2366.1	294.7	56.5	0.532
	21	90.0	2364.1	292.7	61.3	0.496
	22	100.0	2365.4	294.0	65.8	0.465
	23	110.0	2367.5	296.2	69.9	0.439
	24	120.0	2367.5	296.2	73.9	0.415
	25	130.0	2366.6	295.2	77.5	0.394
			FIRST CLOSED-IN - CONTINUED			
	26	140.0	2366.7	295.4	81.0	0.375
	27	150.0	2368.0	296.7	84.2	0.358
D	28	153.9	2368.0	296.7	85.4	0.352

LEGEND:
[1] FLUID TO SURFACE [2] BEFORE BY-PASS [3] AFTER BY-PASS

REMARKS:

TICKET NO: 34620300

CLOCK NO: 16139 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 4532

DEPTH: 5465.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	671.8			
	2	10.0	1132.2	460.4		
	3	20.0	1526.7	394.4		
	4	30.0	1810.1	283.5		
	5	40.0	2015.3	205.2		
[1]	6	40.9	2027.7	12.4		
	7	50.0	2101.1	73.4		
	8	60.0	2104.2	3.1		
	9	70.0	2107.0	2.8		
	10	80.0	2108.5	1.5		
	11	90.0	2110.8	2.3		
	12	100.0	2112.6	1.8		
	13	110.0	2114.5	2.0		
	14	120.0	2118.1	3.6		
	15	130.0	2119.2	1.1		
	16	140.0	2120.7	1.5		
	17	150.0	2122.7	2.0		
	18	160.0	2124.3	1.6		
	19	170.0	2125.0	0.7		
	20	180.0	2124.3	-0.7		
	21	190.0	2129.4	5.1		
C	22	192.1	2128.9	-0.5		
			FIRST CLOSED-IN			
C	1	0.0	2128.9			
	2	1.0	2270.1	141.3	1.0	2.282
	3	2.0	2364.8	235.9	2.0	1.990
	4	3.0	2382.7	253.8	3.0	1.814
	5	4.0	2389.6	260.7	3.9	1.693
	6	5.0	2394.0	265.1	4.9	1.592
	7	6.0	2396.7	267.9	5.8	1.519
	8	7.0	2400.0	271.1	6.8	1.452
	9	8.0	2401.6	272.8	7.7	1.398
	10	9.0	2402.6	273.7	8.6	1.350
	11	10.0	2403.8	274.9	9.5	1.304
	12	20.0	2409.5	280.6	18.1	1.026
[2]	13	25.3	2410.8	281.9	22.4	0.934
[3]	14	27.6	2411.9	283.0	24.1	0.902
	15	30.0	2413.5	284.7	25.9	0.870
	16	40.0	2417.1	288.3	33.1	0.764
	17	50.0	2418.3	289.4	39.6	0.685
	18	60.0	2418.6	289.7	45.7	0.624
	19	70.0	2419.1	290.2	51.3	0.574
	20	80.0	2419.2	290.4	56.5	0.532
	21	90.0	2419.2	290.4	61.3	0.496
	22	100.0	2419.2	290.4	65.8	0.466
	23	110.0	2420.2	291.4	70.0	0.439
	24	120.0	2420.9	292.0	73.9	0.415
	25	130.0	2421.0	292.2	77.5	0.394
			FIRST CLOSED-IN - CONTINUED			
	26	140.0	2421.0	292.2	81.0	0.375
	27	150.0	2421.2	292.3	84.2	0.358
D	28	153.9	2422.0	293.1	85.4	0.352

LEGEND:
[1] FLUID TO SURFACE [2] BEFORE BY-PASS [3] AFTER BY-PASS

REMARKS:

0026

TICKET NO. 34620300

			O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	4933.0	
4		FLEX WEIGHT.....	4.500	2.764	182.8	
3		DRILL COLLARS.....	6.250	2.875	244.7	
51	D	PUMP OUT REVERSING SUB.....	6.000	3.000	1.0	5260.0
3		DRILL COLLARS.....	6.250	2.875	30.2	
50	D	IMPACT REVERSING SUB.....	6.000	3.000	1.0	5292.0
3		DRILL COLLARS.....	6.250	2.875	31.3	
97		BAR CATCHER SUB.....	5.750	2.250	1.0	5326.0
80		AP RUNNING CASE.....	5.000	3.060	4.1	5327.0
60	D	HYDROSPRING TESTER.....	5.000	0.750	5.3	5334.0
80		AP RUNNING CASE.....	5.000	3.060	4.1	5336.0
5		CROSSOVER.....	6.250	2.375	1.0	
3		DRILL COLLARS.....	6.250	2.875	31.0	
5		CROSSOVER.....	6.250	2.500	1.0	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
5		CROSSOVER.....	6.250	2.375	1.0	
3		DRILL COLLARS.....	6.250	2.875	30.9	
5		CROSSOVER.....	6.250	2.375	1.0	
15		JAR.....	5.000	1.750	5.0	
16	V	VR SAFETY JOINT.....	5.000	1.000	3.5	
26	D	PUMP ASSEMBLY.....	5.000	0.880	7.0	
27		SCREEN ASSEMBLY.....	5.000	1.000	4.4	
25		TORQUE LIMITER ASSEMBLY.....	5.000	1.000	4.9	
74	O	TOP HYDROFLATE PACKER.....	7.000	1.080	7.4	5448.0
28	D	PORT ASSEMBLY.....	5.000	2.370	3.4	
22		BLANK ANCHOR.....	5.000	3.060	2.0	

CONTINUED

EQUIPMENT DATA

		O.D.	I.D.	LENGTH	DEPTH
75	LOWER HYDROFLATE PACKER.....	7.000	2.000	7.8	5458.0
85	BELLY SPRINGS W/ B.O. GAUGE CASE	7.250	3.060	5.1	5465.0
81	BLANKED-OFF RUNNING CASE.....	5.000		4.1	5470.0
	TOTAL DEPTH				6778.0

EQUIPMENT DATA

GIDGEALPA #24

HUTTON

PRODUCTION TEST & BUILD UP

BOTTOM HOLE SAMPLING

11.4.85/24.4.85

EXPERTEST PTY LTD

WIRELINE & WELL TESTING SERVICE

x	**Wireline Report**
x	**Wellhead Data**
x	**Production Data**
x	**B.H.P. Flow / Buildup Data**
	Production Rate Calculations
F.G. S.G.	**Flowing/Static Gradient**
x	**Bottom Hole Sampling**

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
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136 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

0030

WIRELINE REPORT

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24 HUTTON

DATE 11/4/85

PROGRAMME BLIND BOX RUN

PURPOSE OF WORK ENSURE TUBING IS CLEAR FOR AMERADAS.

REPORT OF WORK PERFORMED

RIG UP W/L UNIT #40 WITH 3' STEM, 1 SET OF JARS & 5' STEM AS 1.50" BLIND BOX. RUN IN HOLE TAG BOTTOM AT 6252' KB.

Operator's Signature

WORKED PERFORMED BY R. YATES OF EXPERTEST

WELL DATA:

Tubing Size 2 3/8" FWHP SIWHP 725 PSI

Subsurface S.V./Landing Nipple @ S.S.D. @ 5845'

'X' Nipple @ 5917' 'N'/'XN' Nipple @ Other @

Min. I.D. 1.791" @ 5917' Packer @ 5880

Perforated Interval: 5995–6011

E1

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 (HUTTON)

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

DATE 13/4/85 PAGE No 2

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A					L.P. SEPARATOR N/A					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
						H.P. METER RUN I.D. =					L.P. METER RUN I.D. =								
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
13/4/85		LOWER	UPPER	TEMP		CHOKE SIZE													
02:00	1	616	527	89°F		10/64											261.61		
06:00	0	617	527	86	0	10/64											296.83		
08:40		617	527	86	0	10/64		SHUT IN WELL									233.94		
08:45		731	513																
08:50		733	510																
08:55	↓	733	508					END CLEAN-UP											

0031

E6

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 (HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 TELEPHONE (08) 354 0488 TELEX AA87183
POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

DATE 11/4/85 PAGE No 1

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
		LOWER	UPPER	TEMP		CHOKE SIZE													
			CLEAN - UP																
16:00	0	725	510					OPEN WELL ON 12/64 CHOKE TO TANK											
18:00	1	630	520	86°F	0	12/64													
20:00		628	521			12/64		OPEN CHOKE TO 14/64									216.34		
22:00		597	522			14/64													
24:00		598	523	↓		14/64		OPEN CHOKE TO 18/64									159.56		
12/4/85																			
04:00		563	530	90		18/64		REDUCE CHOKE TO 16/64									427.64		
08:00		540	531	93		16/64		REDUCE CHOKE TO 15/64									376.30		
09:00								REDUCE CHOKE TO 14/64											
12:00		531	527	104		14/64											472.91		
16:00		506	531	106		14/64											452.79		
16:45	↓	507	533	106		14/64		SHUT IN WELL									375.65		
18:00	0	725	493					OPEN WELL TO TANK ON 10/64											
22:00	1	614	537	89	↓	10/64											140.87		

0032

FLOW/BUILD-UP SURVEY

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 (HUTTON)

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 18/4/85 PAGE No 2

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING HUTTON PSI	TUBING M-NAMUR PSI	TEMP °F	B.S.W. %	CHOKE SIZE	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
01:00	625	553	543	100	TRACE	10/64											396.93		
05:00	625	553	544	100	TRACE												399.96		
09:00	624	564	543	102	TRACE												413.80		
13:00	625	555	545	104	TRACE												407.51		
17:00	624	555	543	102	.2%												410.03		
21:00	627	551	546	102	.2%												417.59		
19/4/85																			
01:00	626	557	545	102	.2%												399.97		
05:00	625	558	544	100	TRACE												407.51		
08:00						AMERADAS OFF BOTTOM													
09:00	625	558	545	100	TRACE	↓											407.51		
13:00	625	566	545	102	TRACE		SHUT IN WELL										412.54		
13:01	626	710	545																
13:02	622	722	542																
13:03	619	726	539										CUMULATIVE FLUIDS			SALINITY			
13:04	617	729	537																
13:05	615	731	532										OIL	H20		H20 37,500 PPM			
13:10	604	734	524									1217.39 BBLS		1.05 BBLS					
13:15	597	736	517																

1033

FLOW/BUILD-UP SURVEY

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 (HUTTON)

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EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMANDILLA 5033

DATE 16/4/85 PAGE No 1

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TUBING PSI	TEMP °F	B.S.W. %	CHOKE SIZE	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
11:51		HUTTON	MID NAMUR			BOMBS ON 5965'KB													
13:00	0	733	511			OPEN WELL TO TANK ON 10/64 FIXED BEAN													
13:05		524	525			10/64													
13:10		521	533	86															
13:15		521	547	86															
15:00		535	538	88	0														
16:00		533	537	90	0												402.48		
17:00		532	535	90	.2												402.48		
21:00		547	540	90	.2												412.54		
17/4/85	↓																		
01:00	1	545	540	91	.2												389.90		
05:00	0	547	540	91	0												415.06		
09:00	↓	545	542	91	.2												382.36		
13:00	621	550	542	91	0												422.60		
		AG VALVE IN ANNULUS FOUND TO BE BLOCKED																	
		PREVIOUS ANNULUS READINGS IN ERROR																	
17:00	623	550	543	95	.2												402.48		
21:00	625	555	547	97	TRACE	↓											410.03		

0034

E6

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 HUTTON

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONWEALTH 5033

DATE 19/4/85 PAGE No 3

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING HUTTON PSI	TUBING M-NAMUR PSI	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
13:15	597	736	517																
13:20	596	737	515																
13:25	596	738	516																
13:30	596	738	516																
13:35	598	738	516																
13:40	598	738	518																
13:45	598	740	518																
13:50	598	738	518																
13:55	601	741	521																
14:00	601	738	520																
14:15	604	740	523																
14:30	603	738	521																
14:45	606	740	525																
15:00	604	738	523																
15:15	606	738	524																
15:30	607	738	524																
15:45	608	738	526																
16:00	607	737	526																
16:15	607	737	525																

0035

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMANDILLA 5033

DATE 19/4/85 PAGE No 4

OPERATOR B TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING HUTTON PSI	TUBING M-NAMUR PSI	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
16:30	608	737	525																
16:45	608	738	526																
17:00	607	736	525																
18:00	611	739	528																
19:00	610	736	527																
20:00	610	735	527																
21:00	610	734	526																
22:00	609	735	525																
23:00	609	733	525																
24:00	608	732	524																
20/4/85																			
01:00	608	734	525																
05:00	607	734	528																
09:00	610	734	528																
13:00	611	732	527																
17:00	611	732	526																
21:00	611	733	527																

0036

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 - HUTTON

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

DATE 21/4/85 PAGE No 5

OPERATOR L KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR					L.P. SEPARATOR					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
						H.P. METER RUN I.D. =					L.P. METER RUN I.D. =								
	CASING PSI	TUBING HUTTON PSI	TUBING MID NAMUR PSI	TEMP °F	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
21/4/85																			
01:00	611	733	527																
05:00	612	733	527																
09:00	611	732	527																
13:00	609	732	527																
17:00	611	732	527																
21:00	610	731	526																
22/4/85																			
01:00	610	731	526																
05:00	610	731	527																
07:22	610	731	527		START TO PULL TANDEM 3000 PSI AMERADAS OUT OF HOLE														
09:00	611	731	527																
12:00	610	730	525		OPEN WELL ON 4/64 FIXED CHOKE TO CONDITION FOR BH SAMPLING														
13:00	614	692	525	84	0												60.48		
14:00	614	694	526	84	0												60.48		
15:00	612	695	528	84	0												60.48		
16:00	611	696	527	84	0												80.40		
16:30	611	695	527	84	0	ADJUST TO 7/64 ADJUSTABLE CHOKE											60.48		

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 - HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87163
136 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 22/4/85 PAGE No 6

OPERATOR L KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING HUTTON PSI	TUBING M-NAMUR PSI	TEMP o F	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
22/4/85																			
17:00	610	712	526	81	0												60.48		
18:00	611	716	527	77	0	SWITCH TO 4/64 FIXED CHOKE											20.16		
22:00	613	702	529	77	0												65.40		
23/4/85																			
02:00	608	693	526	75	0												65:40		
06:00	610	695	527	75	0												62.88		
07:42	610	703	528	79		START FLOWING GRADIENT													
10:00	610	704	529	81													65.40		
10:05	610	704	529			FINISH FLOWING GRADIENT													
12:00	611	704	528			START BOTTOM HOLE SAMPLING PROCEDURE													
14:00	610	703	528	86													75.48		
18:00	612	704	529	82		SAMPLING UNUSCCESSFUL CONTINUE FLOW											65.40		
22:00	613	701	528	81													65.40		
24/4/85																			
02:00	612	702	528	79													65.40		
06:00	614	704	529	77	0												65.40		
06:50	614	702	529	79		START FLOWING GRADIENT													

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CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 - HUTTON

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONILLA 5033

DATE 24/4/85 PAGE No 7

OPERATOR L KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
24/4/85																			
09:13	612	702	529	79		FINISH FLOWING GRADIENT													
10:00	613	701	528	79		START BTM HOLE SAMPLE PROCEDURE											65.40		
14:00	612	700	528	86													65.40		
17:00	611	704	528	81	0	SAMPLING SUCCESSFUL, SHUT IN WELL											67.04		
						END OF TEST													

E6

0039

FLOW/BUILD-UP SURVEY

CLIENT ... DELHI PETROLEUM ...

TANK:— CAPACITY ... 377 BBLS ...

SCALE .. 1.677 BBLS/IN ...

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

WELL ... GIDGEALPA #24 (HUTTON) ...

DATE ... 16/4/85 ... PAGE No ... 1

OPERATOR ... B TICKLE ...

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG N/A	TANK DIP IN	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG N/A	TANK DIP IN	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
13:00	0		89.0		OPEN WELL ON 10/64				5.5					
15:00	2		109.25	33.96	407.51	33.96			↓	-	-	0		
15:15			111.50	3.77						↓	↓	↓		
15:15			CHANGE TO TANK #29						↓					
		TARE	13					TARE	2.25					
17:00	4		30.75	29.77	402.48	67.50	48.5		↓					
21:00	8		71.75	68.76	412.54	136.26	48.7		↓					
17/4/85									↓					
01:00	12		110.5	64.98	389.90	201.24	48.5		↓					
05:00	16		151.75	69.18	415.06	270.42	48.7		↓					
09:00	20		189.75	63.73	382.36	334.15	48.8		↓					
		TARE	7.25	CHANGE TO TANK #13				TARE	2.0					
13:00	24		49.25	70.43	422.60	404.58	49.1		↓					
17:00	28		89.25	67.08	402.48	471.66	48.6		↓					
21:00	32		130.00	68.34	410.03	540.00	48.9		↓	↓	↓	↓		
		TARE	4	CHANGE TO TANK #13				TARE	0					
18/4/85														
01:00	36		44.125	65.94	395.67	605.94	48.7		.125	.21	1.26	.21		
05:00	40		83.875	66.66	399.96	672.60	48.9		.125	-	-	.21		
09:00	44		124.875	68.76	412.54	741.36	48.6		.25	.21	1.26	.42	37,500	

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 356 BBLS

SCALE 1.677 BBLS/IN

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

TELEPHONE (08) 354 0488 TELEX AA87183
139 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

WELL GIDGEALPA #24 (HUTTON)

DATE 11/4/85 PAGE No 1

OPERATOR B TICKLE

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG N/A	TANK DIP IN	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG N/A	TANK DIP IN	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
				CLEAN-UP										
16:00	0		.5	TANK #29					2.0		OPEN WELL ON 12/64 CHOKE			
20:00	4		21.75	35.64	213.82	35.64	45.7		2.25	.42	2.52	.42		INCREASE CHOKE TO 14/64
24:00	8		37.25	25.99	159.56	61.63	46.0			-	-			INCREASE CHOKE TO 18/64
12/4/85														
04:00	12		79.75	71.27	427.64	132.90	47.7							DECREASE CHOKE TO 16/64
08:00	16		116.75	62.72	376.30	195.62	48.5							DECREASE CHOKE TO 15/84
09:00	17													DECREASE CHOKE TO 14/64
12:00	20		163.75	78.82	472.91	274.44	48.3							
16:00	24		208.75	75.47	452.79	349.91	48.0							
16:00		TARE	0		CHANGE TO TANK #13			TARE	3					
16:45	24.75		7	11.74	375.65	361.65	47.9							SHUT IN WELL
18:00			7								OPEN WELL ON 10/64 CHOKE			
22:00			21	23.48	140.87	385.13								
13/4/85														
02:00			47	43.60	261.61	428.73								
06:00				49.47	296.83	478.20								
08:40			92.0	25.99	233.94	504.19								SHUT IN WELL
					END CLEAN-UP									

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 377 BBLS

SCALE 1.677 BBLS/IN

TELEPHONE (08) 354 0466 TELEX AA87183

EXPERTEST PTY LTD

WIRELINE & WELL TESTING SERVICE

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

WELL GIDGEALPA #24 HUTTON

DATE 18/4/85 PAGE No 2

OPERATOR B TICKLE

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG N/A	TANK DIP IN	TANK PROD. BBLS/D	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG N/A	TANK DIP IN	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
13:00	48		162.25	67.71	406.25	809.07	48.7		.375	.21	1.26	.63		
17:00	52		206.0	68.34	410.03	877.41	48.8		.375	-	-	.63		
		TARE	49.25	CHANGE TO TANK #29				TARE	.25					
20:45			86.75	62.89	CHANGE TO TANK #13				.25	-				
		TARE	29.75					TARE						
21:00	56		33.75	6.71	417.59	947.01	49.0		1.00	-	-	.63		
19/4/85														
01:00	60		73.375	66.45	398.71	1013.46	48.9		1.125	.21	1.26	.84		
05:00	64		113.75	67.71	406.25	1080.71	48.8		1.25	.21	1.26	1.05		
09:00	68		154.25	67.92	407.51	1148.63	48.9		1.25	-	-	1.05		
13:00	72		195.25	68.76	412.54	1217.39	48.9		1.25	-	-	1.05		
				SHUT IN WELL										

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CLIENT . . DELHI PETROLEUM . . . . . .

TANK:— CAPACITY . . . 356 BBLS . . . . . .

SCALE . . 1" = 1.677 BBLS . . . . . .

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

WELL . . GIDGEALPA #24 HUTTON . . . . . .

DATE . . 22/4/85 . . . . . PAGE No . . . . .

OPERATOR . . . . . L KNOX . . . . . .

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
22/4/85			18.25			0			0.25			0		
12:00	0		OPEN WELL ON 4/64 FIXED CHOKE FOR CONDITIONING FLOW											
13:00	1.0		19.75	2.52	60.48	2.52			0.25	0	0	0		
14:00	2.0		21.25	2.52	60.48	5.04								
15:00	3.0		22.75	2.52	60.48	7.56								
16:00	4.0		24.75	3.35	80.40	10.91								
16:30	4.5		25.50	1.26	60.48	12.17								*ADJUST CHOKE TO 7/64 ADJUSTABLE
17:00	5.0		26.25	1.26	60.48	13.43								
18:00	6.0		26.75	0.84	20.16	14.27								*ADJUST CHOKE TO 4/64 POSITIVE
22:00	10.0		33.25	10.90	65.40	25.17								
23/4/85														
02:00	14.0		39.75	10.90	65.40	36.07								
06:00	18.0		46.00	10.48	62.88	46.55	48.0							
10:00	22.0		52.50	10.90	65.40	57.45								
14:00	26.0		60.00	12.58	75.48	70.03								
18:00	30.0		66.50	10.90	65.40	80.93								
22:00	34.0		73.00	10.90	65.40	91.83								
24/4/85														
02:00	38.0		79.50	10.90	65.40	102.73								
06:00	42.0		86.00	10.90	65.40	113.63	48.1							

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CLIENT .. DELHI PETROLEUM .....

TANK:— CAPACITY .. 356 BBLS .....

SCALE .. 1" = 1.677 BBLS .....

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

WELL .. GIDGEALPA #24 - HUTTON .....

DATE .. 24/4/85 .. PAGE No .. 2 ...

OPERATOR .. L KNOX .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
24/4/85			86:00			113.63			0.25			0		
10:00	46.0		92.50	10.90	65.40	124.53			0.25	0	0	0		
14:00	50.0		99.00	10.90	65.40	135.43			0.25	0	0	0		
*17:00	53.0		104.00	8.38	67.04	143.81	47.8		0.25	0	0	0		
*SHUT IN WELL, SHIP 446.08 BBLS OF OIL TO MOOMBA														

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EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 WEST BEACH ROAD MARLESTON SA 5033
TELEPHONE (08) 354 0488 TELEX AA87183
POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

0045

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24 HUTTON

OPERATOR B TICKLE DATE 16/4/85

SURVEY FLOW & BUILD-UP SURVEY

TOP BOMB 24708 X 3300 PSI REC. No. 12993 X 15 TLS CLOCK DATA E-152140 X 72hr

MID BOMB - REC. No. - CLOCK DATA -

BTM BOMB 56429 X 3000 PSI REC. No. 14628 X 15 TLS CLOCK DATA E-19381 X 72hr

ENG. STYLUS 10:30 DISENGAGE STYLUS 09:09

DWT IN 732 PSI DWTOUT 559 PSI MBHT 228°F

Date	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
16/4/85	10:55		LUB	.444	720.8			.471	728.6	PRESSURE LUB
	11:00			.444	720.8			.471	728.6	
	11:05			.444	720.8			.471	728.6	
	11:10			.444	720.8			.471	728.6	
	11:15			.444	720.8			.471	728.6	
	11:20			.444	720.8			.471	728.6	
	11:25			.444	720.8			.471	728.6	RIH
	11:51		5965	1.600	2633.0			1.702	2639.3	HANG @ 5965' KB
	13:00	0		1.601	2634.6			1.704	2642.4	OPEN WELL 10/64
	13:01			1.485	244.09			1.573	2438.8	
	13:02			1.483	2437.5			1.571	2435.6	
	13:03			1.482	2435.8			1.570	2434.0	
	13:04			1.480	2432.0			1.569	2432.5	
	13:05			1.479	2430.8			1.569	2432.5	
	13:10			1.476	2425.8			1.567	2429.4	
	13:15			1.476	2425.8			1.567	2429.4	
	13:20			1.476	2425.8			1.567	2429.4	
	13:25			1.476	2425.8			1.567	2429.4	
	13:30	.5		1.476	2425.8			1.567	2429.4	
	13:45	.75		1.477	2427.5			1.568	2430.9	
	14:00	1		1.477	2427.5			1.568	2430.9	
	14:30	1.5		1.478	2429.2			1.569	2432.5	
	15:00	2		1.478	2429.2			1.570	2434.0	
	16:00	3		1.480	2432.5			1.571	2435.6	
	17:00	4		1.480	2432.5			1.572	2437.2	
	21:00	8		1.483	2437.5			1.574	244.03	
17/4/85	01:00	12		1.484	2439.2			1.576	2443.4	
	05:00	16		1.485	2440.9			1.577	2444.9	
	09:00	20		1.487	2444.2			1.577	2444.9	
	13:00	24		1.487	2444.2			1.578	2446.5	

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

0046

LIENT .... DELHI PETROEUM ... WELL GIDGEALPA #24 HUTTON

PERATOR .... B.TICKLE ... DATE 19/4/85

IRVEY FLOW & BUILD UP SURVEY

)P BOMB 28515 X 3000 REC. No. 13027 X 15 TLS CLOCK DATA 3042 X 24 HR

:D BOMB 24708 X 3300 REC. No. 12993 X 15 TLS CLOCK DATA 1759 X 72 HR

'M BOMB 56429 X 3000 REC. No. 14628 X 15 TLS CLOCK DATA E-19381 X 72 HR

G. STYLUS 10:17 DISENGAGE STYLUS 08:28

VT IN 567 PSI DWTOUT 733 PSI MBHT 228°F

ate	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
4/85	10:30		LUB	.366	561.9	.343	555.9	.363	561.3	PRESSURE LUB
	10:35			.366	561.9	.343	555.9	.363	561.3	
	10:40			.366	561.9	.343	555.9	.363	561.3	
	10:45			.367	563.4	.343	555.9	.363	561.3	
	10:50			.367	563.4	.343	555.9	.363	561.3	
	10:55			.367	563.4	.343	555.9	.363	561.3	
	11:00			.367	563.4	.343	555.9	.363	561.3	RIH
	11:21		5965	1.586	2457.7	1.492	2452.5	1.586	2458.9	HANG @ 5965'K
	13:00	0		1.584	2454.5	1.493	2454.2	1.587	2460.5	SIW
	13:01			1.604	2485.8	1.515	2490.9	1.600	2480.7	
	13:02			1.660	2573.3	1.565	2574.5	1.678	2602.0	
	13:03			1.668	2585.8	1.568	2579.5	1.682	2608.2	
	13:04			1.678	2601.4	1.572	2586.2	1.685	2612.8	
	13:05			1.682	2607.7	1.576	2592.8	1.687	2616.0	
	13:10			1.689	2618.6	1.588	2612.9	1.691	2622.2	
	13:15			1.691	2621.7	1.591	2617.9	1.693	2625.3	
	13:20			1.692	2623.3	1.593	2621.3	1.695	2628.4	
	13:25			1.693	2624.9	1.594	2622.9	1.696	2630.0	
	13:30	.5		1.694	2626.4	1.595	2624.6	1.696	2630.0	
	13:45			1.695	2628.0	1.596	2626.3	1.697	2631.5	
	14:00	1		1.696	2629.6	1.596	2626.3	1.689	2633.1	
	14:30			1.696	2629.6	1.597	2627.9	1.699	2634.6	
	15:00	2		1.696	2629.6	1.598	2629.6	1.699	2634.6	
	16:00	3		1.696	2629.6	1.598	2629.6	1.699	2634.6	
	17:00	4		1.696	2629.6	1.598	2629.6	1.698	2633.1	
	21:00	8		1.695	2628.0	1.598	2629.6	1.698	2633.1	
35	01:00	12		1.693	2624.9	1.598	2629.6	1.698	2633.1	
	05:00	16		1.692	2623.3	1.598	2629.6	1.697	2631.5	
	09:00	20		1.692	2623.3	1.598	2629.6	1.697	2631.5	
	13:00	24		1.692	2623.3	1.598	2629.6	1.697	2631.5	

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24 HUTTON

OPERATOR B TICKLE DATE 17/4/85

SURVEY FLOW AND BUILD-UP SURVEY

TOP BOMB 24708 X 3300 PSI REC. No. 12993 X 15 TLS CLOCK DATA E15240 X 72hr

MID BOMB / REC. No. / CLOCK DATA /

BTM BOMB 56429 X 3000 PSI REC. No. 14628 X 15 TLS CLOCK DATA E19381 X 72hr

ENG. STYLUS 10:30 DISENGAGE STYLUS 09:09

DWT IN 732 PSI DWTOUT 559 PSI MBHT 228°F

Date	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
17/4/85	17:00	28	5965	1.487	2444.2			1.578	2446.5	
	21:00	32		1.488	2445.9			1.578	2446.5	
18/4/85	01:00	36		1.488	2445.9			1.578	2446.5	
	05:00	40		1.488	2445.9			1.579	2448.0	
	09:00	44		1.488	2445.9			1.579	2448.0	
	13:00	48		1.488	2445.9			1.579	244.80	
	17:00	52		1.489	2447.5			1.579	2448.0	
	21:00	56		1.489	2447.5			1.579	2448.0	
19/4/85	01:00	60		1.489	2447.5			1.579	2448.0	
	05:00	64		1.489	2447.5			1.580	2449.6	
	08:00	67		1.489	2447.5			1.579	2448.0	OFF BOTTOM
	08:25		LUB	.344	557.5			.363	561.3	ARRIVE LUB
	08:30			.344	557.5			.363	561.3	
	08:35			.344	557.5			.363	561.3	
	08:40			.344	557.5			.363	561.3	
	08:45			.344	557.5			.363	561.3	
	08:50			.344	557.5			.363	561.3	
	08:55			.344	557.5			.363	561.3	DEPRESSURE LUB

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0048

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24 HUTTON

OPERATOR B TICKLE DATE 20/4/85

SURVEY FLOW & BUILD UP

TOP BOMB 28515 x 3000 REC. No. 13027 x 15 TLS CLOCK DATA 3042 x 24 HR

MID BOMB 24708 x 3300 REC. No. 12993 x 15 TLS CLOCK DATA 1759 x 72 HR

BTM BOMB 56429 x 3000 REC. No. 14628 x 15 TLS CLOCK DATA E19381 x 72 HR

ENG. STYLUS 10:17 DISENGAGE STYLUS 08:28

DWT IN 567 PSI DWTOUT 733 PSI MBHT 228°F

Date	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
20/4/85	17:00	28	5965			1.598	2629.6	1.697	2631.5	
	21:00	32				1.598	2629.6	1.697	2631.5	
21/4/85	01:00	36				1.599	2631.3	1.697	2631.5	
	05:00	40				1.599	2631.3	1.697	2631.5	
	09:00	44				1.599	2631.3	1.697	2631.5	
	13:00	48				1.599	2631.3	1.697	2631.5	
	17:00	52				1.600	2633.0	1.697	2631.5	
	21:00	56				1.600	2633.0	1.697	2631.5	
22/4/85	01:00	60				1.600	2633.0	1.696	2630.0	
	05:00	64				1.600	2633.0	1.696	2630.0	
	07:22		↓			1.600	2633.0	1.696	2630.0	OFF BOTTOM
	07:45					.451	732.3	.475	737.8	ARRIVE LUB
	07:50					.451	732.3	.475	737.8	
	07:55					.451	732.3	.475	737.8	
	08:00					.451	732.3	.475	737.8	
	08:05					.451	732.3	.475	737.8	
	08:10					.451	732.3	.475	737.8	
	08:15					.451	732.3	.475	737.8	DEPRESSURE LUB

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CLIENT DELHI PETROLEUM

STATIC GRADIENT SURVEY

WELL GIDGEALPA #24 (HUTTON) OPERATOR B TICKLE DATE 15/4/85

BOMB No. 1 DATA TOP		BOMB No 2 DATA BOT		DWT IN
ELEMENT No. 56429	ELEMENT RANGE 3000 PSI	ELEMENT No. 24708	ELEMENT RANGE 3300 PSI	732 PSI
RECORDER No 14628 X 15 TLS	CLOCK DATA 25509 X 3 HR	RECORDER No 12993 X 15 TLS	CLOCK DATA 25512 X 3 HR	DWT OUT
ENGAGE STYLUS 08:32	DISENGAGE 11.24	ENGAGE STYLUS 08.32	DISENGAGE 11:24	732 PSI
PRESSURE LUBRICATOR 08:41		BLEED LUBRICATOR 11:16		

DATE	TIME	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	REMARKS
15/4/85	08:41	LUB	.469	725.5		LUB	.448	727.4		
	08:46	LUB	.470	727.1		LUB	.448	727.4		
	08:51	LUB	.471	728.6		LUB	.449	729.0		
	08:56	LUB	.471	728.6		LUB	.449	729.0		
	09:01	1000	.682	1055.7	.327	1000	.649	1056.4	.327	
	09:10	2000	.892	1381.4	.325	2000	.847	1382.0	.326	
	09:20	3000	1.100	1704.2	.323	3000	1.042	1704.1	.322	
	09:30	4000	1.305	2022.4	.318	4000	1.234	2022.6	.319	
	09:39	5000	1.507	2336.1	.314	5000	1.422	2335.7	.313	
	09:46	5500	1.607	2491.6	.311	5500	1.516	2492.6	.314	
	09:53	5750	1.658	2570.9	.317	5750	1.563	2571.1	.314	
	09:59	5965	1.700	2636.2	.304	5965	1.602	2636.3	.303	
	10:10	6005	1.708	2648.6	.310	6005	1.610	2649.7	.335	
	10:26	6045	1.716	2661.1	.313	6045	1.617	2661.4	.293	
	11:01	LUB	.473	731.7		LUB	.452	733.9		MBHT 226°F
	11:06	LUB	.472	730.2		LUB	.451	732.3		
	11:16	LUB	.472	730.2		LUB	.451	732.3		

GENERAL REMARKS:

E4

0049

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CLIENT DELHI PETROLEUM

FLOWING **GRADIENT SURVEY**

WELL GIDGEALPA #24 - HUTTON

OPERATOR L KNOX

DATE 23/4/85

BOMB No. 1 DATA		BOMB No 2 DATA		DWT IN
ELEMENT No. 56429	ELEMENT RANGE 3000 PSI	ELEMENT No. 24708	ELEMENT RANGE 3300 PSI	703 PSI
RECORDER No 14628 X 15 TLS	CLOCK DATA 25509 X 3 HR	RECORDER No 12993 X 15 TLS	CLOCK DATA 25512 X 3 HR	DWT OUT
ENGAGE STYLUS 0725 HRS	DISENGAGE 1035 HRS	ENGAGE STYLUS 0725 HRS	DISENGAGE 1035 HRS	704 PSI
PRESSURE LUBRICATOR 0742 HRS		BLEED LUBRICATOR 1005 HRS		

DATE	TIME	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	REMARKS
23/4/85	0742	LUB	0.450	696.1	-	LUB	0.428	694.7	-	MBHT = 228°F
	0805	1000	0.667	1032.5	.3364	1000	0.632	1028.6	.3339	
	0815	2000	0.877	1358.2	.3257	2000	0.831	1355.6	.3270	*STOPPED @ 45' KB
	0825	3000	1.085	1680.9	.3227	3000	1.027	1679.2	.3236	TO ADJUST COUNTER HEAD
	0834	4000	1.290	1999.1	.3182	4000	1.220	1999.3	.3201	
	0844	5000	1.493	2314.4	.3153	5000	1.409	2314.0	.3147	
	0850	5250	1.543	2392.1	.3108	5250	1.456	2392.4	.3136	
	0856	5500	1.594	2471.4	.3172	5500	1.503	2470.9	.3140	
	0902	5750	1.644	2549.1	.3108	5750	1.550	2549.4	.3140	
	0908	5965	1.687	2616.0	.3112	5965	1.591	2617.9	.3186	
	0914	6005	1.695	2628.4	.3100	6005	1.598	2629.6	.2925	
	0919	6045	1.706	2645.5	.4275	6045	1.608	2646.3	.4175	
	0950	LUB	0.453	700.7	-	LUB	0.433	702.8	-	

GENERAL REMARKS:

0530

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CLIENT DELHI PETROLEUM

FLOWING GRADIENT SURVEY

WELL GIDGEALPA #24 - HUTTON

OPERATOR L KNOX

DATE 24/4/85

BOMB No. 1 DATA

ELEMENT No. 56429 ELEMENT RANGE 3000 PSI

RECORDER No 14628 X 15 TLS CLOCK DATA 25509 X 3 HR

ENGAGE STYLUS 0640 HRS DISENGAGE 0922 HRS

PRESSURE LUBRICATOR 0650 HRS

BOMB No 2 DATA

ELEMENT No. 24708 ELEMENT RANGE 3300 PSI

RECORDER No 12993 X 15 TLS CLOCK DATA 25512 X 3 HR

ENGAGE STYLUS 0640 HRS DISENGAGE 0922

BLEED LUBRICATOR 0913 HRS

DWT IN 702

DWT OUT 702

DATE	TIME	DEPTH' KB	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	REMARKS
	06:50	LUB	0.449	694.5	-	LUB	0.428	694.7	-	MBHT = 228°F
	07:13	1000	0.662	1024.7	0.3302	1000	0.630	1025.3	0.3306	
	07:22	2000	0.874	1353.5	0.3288	2000	0.830	1354.0	0.3287	
	07:32	3000	1.084	1679.3	0.3258	3000	1.027	1679.2	0.3252	
	07:42	4000	1.290	1999.1	0.3198	4000	1.221	2001.0	0.3218	
	07:52	5000	1.493	2314.4	0.3153	5000	1.410	2315.7	0.3147	
	07:58	5250	1.543	2392.1	0.3108	5250	1.457	2394.1	0.3136	
	08:05	5500	1.594	2471.4	0.3172	5500	1.504	2472.6	0.3140	
	08:11	5750	1.645	2550.6	0.3168	5750	1.551	2551.1	0.3140	
	08:18	5965	1.688	2617.5	0.3112	5965	1.592	2619.6	0.3186	
	08:24	6005	1.696	2630.0	0.3125	6005	1.599	2631.3	0.2925	
	08:30	6045	1.706	2645.5	0.3875	6045	1.609	2648.0	0.4175	
	08:58	LUB	0.455	703.8	-	LUB	0.435	706.1	-	

GENERAL REMARKS:

0051

E4

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0052

BOTTOM HOLE SAMPLING REPORT

PAGE ONE

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24

FORMATION HUTTON PERFORATIONS 5995-6011

OPERATOR P HANKINSON DATE 23/4/85

SAMPLING CONDITIONS 1ST RUN

	SAMPLE No 1	SAMPLE No 2
Date Well Sampled	23/4/85	
Time Well Sampled	1240	LEAKED
Hours ~~Shut-in~~/Flowing Prior to Sampling	24	ABANDONED
Choke Setting	4/64	
Flow Rate	65 BPD	
Gas-Oil Contact in the tubing (ft)	-	
Oil-Water Contact in the tubing (ft)	6045	
Sampling Depth (ft)	5500	
Sampling Depth Pressure (psig)	2471	
Sampling Depth Temperature (°F)	228	
Tubing Pressure at Surface (psig)	704	
Sampler Opening Press at Surface (psig)	315	
Bubble Point Determined at	358	
Sample Transfer Temperature		
Ambient Temp °F	90	
Sample Transfer Pressure (psig)	1000	
Liquid Used to Transfer Sample	MERCURY	
Sample Transferred to Container No	9024.44	
Volume of Sampler	570 cc	
Volume of Sample Container (cc)	628	
Sample Shipping Pressure (psig)	1000	
Container Opening Press. in the Lab (psig)		
Lab Saturation Pressure (psig)		

REMARKS:

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139 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 154 COWANDILLA 5033

BOTTOM HOLE SAMPLING REPORT

PAGE TWO

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24

FORMATION HUTTON PERFORATIONS 5995-6011

OPERATOR P HANKINSON DATE 23/4/85

SAMPLING CONDITIONS

	2ND RUN SAMPLE No 3	3RD RUN SAMPLE No 4
Date Well Sampled		
Time Well Sampled	LEAKED	
Hours Shut-in/Flowing Prior to Sampling	ABANDONED	UNABLE TO
Choke Setting		OBTAIN BUBBLE
Flow Rate		POINT. DUE TO
Gas-Oil Contact in the tubing (ft)		LEAK IN MARTIN
Oil-Water Contact in the tubing (ft)		DECKER GAUGE
Sampling Depth (ft)		
Sampling Depth Pressure (psig)		
Sampling Depth Temperature (°F)		
Tubing Pressure at Surface (psig)		
Sampler Opening Press at Surface (psig)		
Bubble Point Determined at		
Sample Transfer Temperature		
Ambient Temp °F		
Sample Transfer Pressure (psig)		
Liquid Used to Transfer Sample		
Sample Transferred to Container No		
Volume of Sampler		
Volume of Sample Container (cc)		
Sample Shipping Pressure (psig)		
Container Opening Press. in the Lab (psig)		
Lab Saturation Pressure (psig)		

REMARKS:

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138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

BOTTOM HOLE SAMPLING REPORT

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24

FORMATION HUTTON PERFORATIONS 5995-6011

OPERATOR P HANKINSON DATE 24/4/85

SAMPLING CONDITIONS

	4TH RUN SAMPLE No 5	SAMPLE No
Date Well Sampled	24/4/85	24/4/85
Time Well Sampled	10:40	14:20
Hours Shut-in/Flowing Prior to Sampling	47	51
Choke Setting	4/64	4/64
Flow Rate	65	65
Gas-Oil Contact in the tubing (ft)	-	-
Oil-Water Contact in the tubing (ft)	6045	6045
Sampling Depth (ft)	5500	5500
Sampling Depth Pressure (psig)	2471	2471
Sampling Depth Temperature (°F)	228	228
Tubing Pressure at Surface (psig)	704	704
Sampler Opening Press at Surface (psig)	295	327
Bubble Point Determined at	305	315
Sample Transfer Temperature	-	-
Ambient Temp °F	90	90
Sample Transfer Pressure (psig)	1000	1000
Liquid Used to Transfer Sample	MERCURY	MERCURY
Sample Transferred to Container No	12689/81	80-291/137
Volume of Sampler	570	570
Volume of Sample Container (cc)	628	628
Sample Shipping Pressure (psig)	1000	1000
Container Opening Press. in the Lab (psig)		
Lab Saturation Pressure (psig)		

REMARKS:

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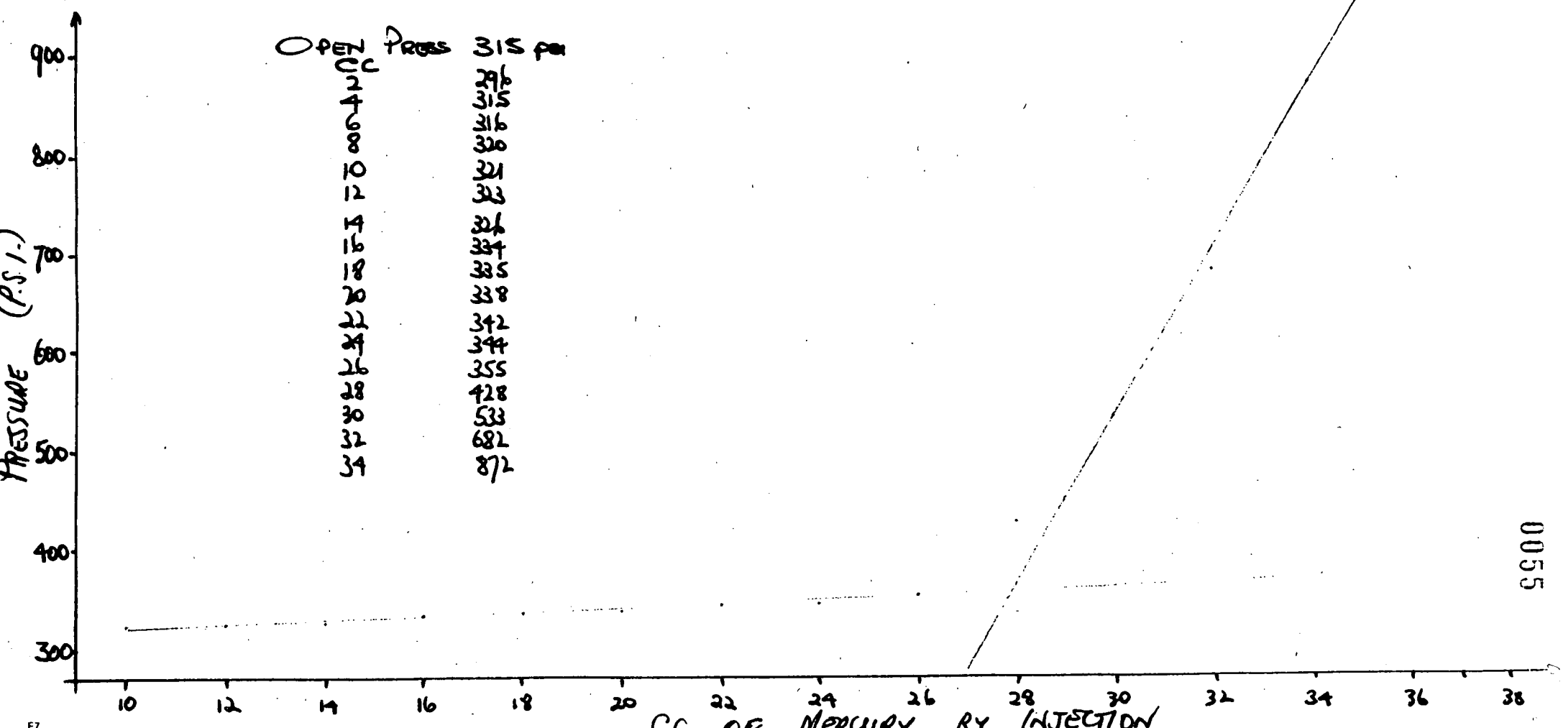
CLIENT .....
WELL GIDGEALPA #24 HUTTON
DATE 23/4/85 RUN No ONE
CONTAINER No 9024-44 (1)
BUBBLE POINT 358 PSI

OPEN PRESS 315 psi

CC	
2	296
4	315
6	316
8	320
10	321
12	323
14	326
16	334
18	335
20	338
22	342
24	344
26	355
28	428
30	533
32	682
34	872



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E7

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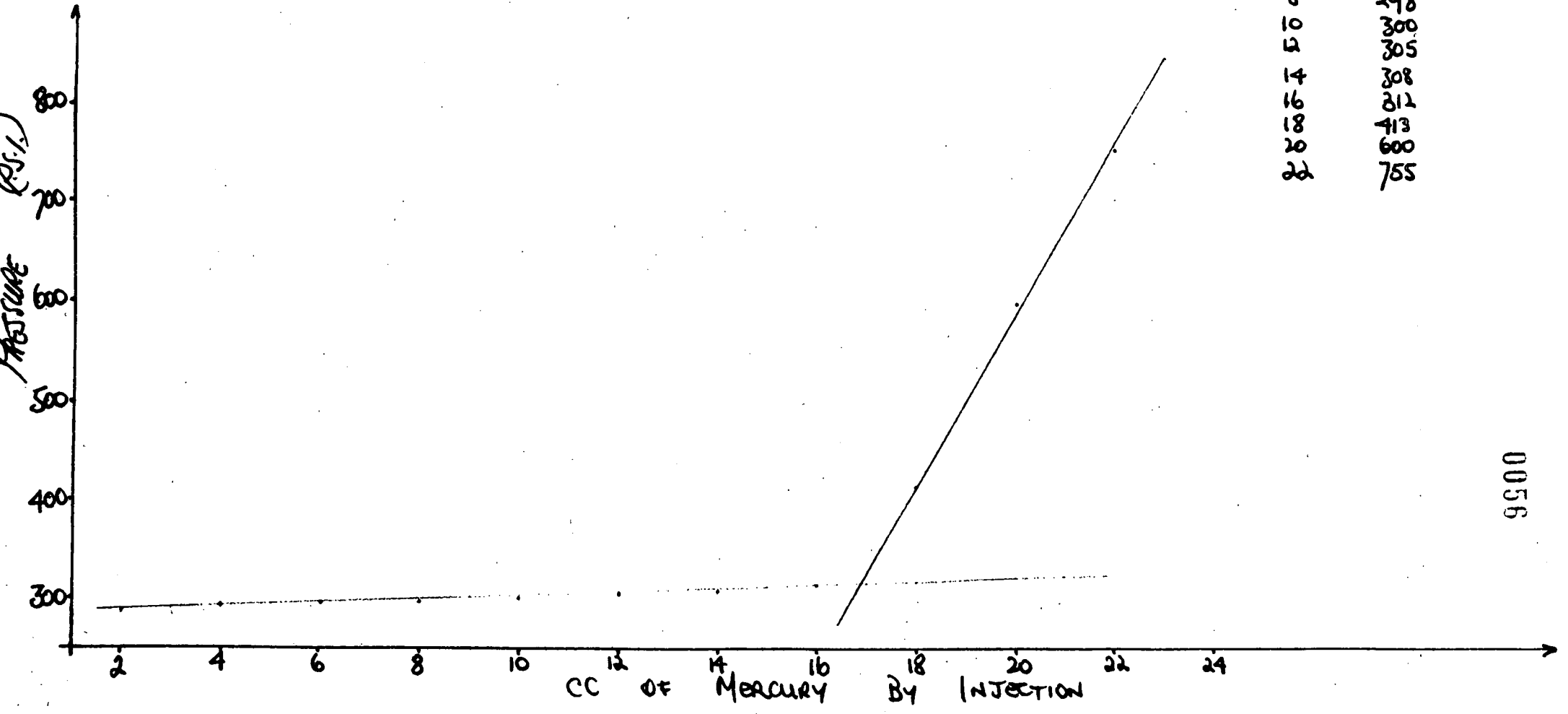
CLIENT DELHI PETROLEUM
WELL GUGUALPA #24 HUTTON
DATE 24/4/85 RUN No FIVE
CONTAINER No 80-291/137 (3)
BUBBLE POINT 315 PSI

OPEN. PRESS	327 PSI
2 cc	289
4	292
6	296
8	298
10	300
12	305
14	308
16	312
18	413
20	600
22	755



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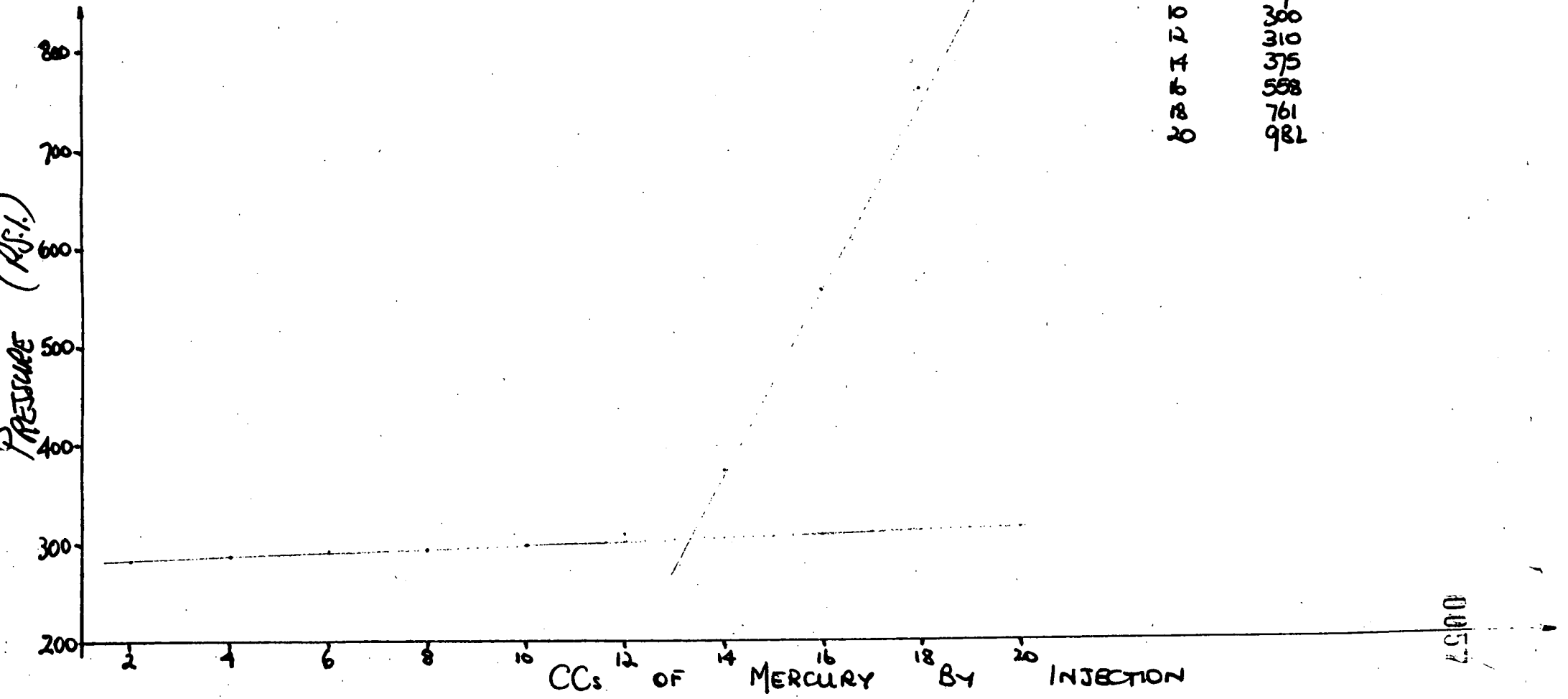
128 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

CLIENT DELHI PETROLEUM
WELL GIDGEALPA #24 HUTTON
DATE 29/4/85 RUN No FOUR
CONTAINER No 12689/81 (2)
BUBBLE POINT 305 PSI

OPEN. PRESS 295 PSI.	
2cc	281
4	287
6	291
8	295
10	300
12	310
14	375
16	558
18	761
20	982



E7

GIDGEALPA NO. 24
HUTTON
RESERVOIR ENGINEERING REPORT

PRODUCTION TEST 11/4/85 TO 24/4/85

PREPARED BY: S. J. BORCHERS

AUGUST 1985

SUMMARY

Gidgealpa No. 24 was the first oil development well drilled in Gidgealpa field and was designed to provide a crestal and northern drainage point for the Namur/Hutton. All reservoirs came in low to prognosis, being downstructure from Gidgealpa No. 17. The well encountered 6' of Basal Birkhead pay not prognosed, discovered a new small lower Namur pool, and was deepened to appraise the northern extent of the Basal Hutton gas accumulation. Despite the Hutton being 18' low to prognosis, and the Namur level 27', the well encountered 17' of good quality pay in the Mid-Namur and 27' of good quality pay in the Hutton and was completed as a dual oil producer from these formations.

The Hutton formation was production tested during the period 11 - 24 April 1985. This report is an evaluation of the production test from which the following conclusions and recommendations are drawn:

CONCLUSIONS AND RECOMMENDATIONS

1. A flow capacity of 2373 md-ft was calculated for the Hutton reservoir using conventional Horner analysis.

2. Permeability is estimated at 216 md based on 11' of pay accessed.

3. An apparent skin of +3.5 was calculated. This is taken as being entirely due to mechanical skin damage as the whole section between two shale barriers was perforated, implying no partial penetration effect.

4. A P.I. of 2.41 bbl/day/psi drawdown was calculated based on actual flow data, which compares well with a P.I. of 2.43 bbl/day/psi drawdown from the theoretical approximation.

5. The initial reservoir pressure of Gidgealpa No. 24 Hutton is taken as 2648 psig at the midpoint of perforations, 6003' KB.

6. The present offtake target rate of 300 BFPD should be maintained. This rate will give a drawdown of approximately 125 psi.

7. Although the well appears to have some damage, stimulation is not considered necessary in view of the good production history to date and the possibility that sustained production may further reduce the amount of damage.

TABLE OF CONTENTS

WELL INFORMATION

NAME:	GIDGEALPA NO. 24
ZONE(S):	MID NAMUR, HUTTON
LOCATION:	LATITUDE 28° 01' 07.6" LONGITUDE 139° 59' 35.1"
ELEVATIONS:	KELLY BUSHING 114' ASL GROUND LEVEL 98' ASL PBTD 6175' KB (CBL/VDL OF 3/4/85) TOTAL DEPTH 6778' KB (DRLR)
COMPLETION:	DUAL STRING, DUAL OIL PRODUCER
PERFORATED INTERVALS:	5192' - 5198' KB MID NAMUR 5995' - 6011' KB HUTTON
MID-POINT OF PERFORATIONS:	5195' KB (MID NAMUR) 6003' KB (HUTTON)
PRODUCTION CASING:	7", MIXED 23 AND 26 LB/FT J-55 TO 6220'
TUBING:	SHORT STRING : 2-3/8" ATLAS BRADFORD 4.7 LB/FT J-55 WITH TAIL AT 5168'. LONG STRING : 2-3/8" ATLAS BRADFORD 4.7 LB/FT J-55 STABBED INTO PACKER AT 5880' WITH 2-3/8" EUE 4.7 LB/FT J-55 TAILPIPE TO 5930'

CHRONOLOGICAL WELL HISTORY

15/2/85	Well spudded.
18/2/85	Cut core No. 1 : Top Namur 5080' - 5110' KB (97% recovery).
19/2/85	Cut core No. 2 : Mid Namur 5178' - 5238' KB (51% recovery).
24/2/85	DST No. 1 Hutton 6502' - 6519' KB (DRLR), 6507' - 6524' KB (LGR). Gas to surface at RTSTM. Water to surface at 50 BPD. Recovered 820' muddy water and 5650' gas cut water.
25/2/85	DST No. 2 Basal Namur 5448' - 5458' KB (DRLR), 5454' - 5464' KB (LGR). G.T.S. at RTSTM. Oil to surface in 41 minutes at 480 BOPD. Oil cut water to surface in 139 minutes at 320 BWPD. Recovered 4200' water and gas cut oil and 1150' water.
27/2/85	Rig released.
30/3/85	Rig up service rig.
5/4/85	Perforate Hutton 5995' - 6011' KB and Mid Namur 5192' - 5198' KB, with 4" casing guns at 4 s.p.f. (120° phasing).
8-9/4/85	Rig to and swab Hutton. Pull 8 swabs and flow Hutton to frac tank through 16/64" choke for 16 hours. Final rate 450 BOPD with a flowing THP of 475 psig.
9/4/85	Displace short string and annulus to crude oil. Flow Mid Namur to clean up on a 16/64" choke over 4 hours. Final rate 96 BOPD with 0 psig FTHP. Rig released.
10/4/85	Run static gradient survey (Hutton).

11-13/4/85	Flow Hutton to cleanup. Produced 504 BBLS oil. Final rate 265 BOPD with 617 psig FTHP on a 10/64" fixed bean choke.
13/4/85	Run static gradient survey (Mid Namur).
13-16/4/85	Flow Mid Namur to cleanup. Produced 291 BBLS oil. Final rate 117 BOPD on an 8/64" fixed choke with a flowing THP of 112 psig.
16/4/85	Start Hutton production test.
19/4/85	SWI to record the buildup.
22/4/85	End buildup. Flow Hutton to condition for bottom hole sampling.
23/4/85	Run flowing gradient survey (Hutton). Begin bottomhole sampling.
24/4/85	Run flowing gradient survey (Hutton). Complete bottomhole sampling. End Hutton production test.
25/4/85	Begin Mid Namur production test.
27/4/85	S.W.I. to record the buildup.
30/4/85	End of test. Run static gradient survey (Mid Namur). Hutton placed on extended test.
1/5/85	Mid Namur placed on extended test.

GIDGEALPA NO. 24 - HUTTON
PRESSURE HISTORY

1. Static Gradient 10/4/85

   Top Gauge : 2648.6 psig at 5999' KB.
   Bottom Gauge : 2649.7 psig at 6005' KB

   Average of top and bottom gauges corrected to mid-point of perforations (using 0.32 psi/ft gradient) : 2649.5 psig at 6003' KB.

2. Buildup Analysis 19-22/4/85

   Average buildup pressure (three Amerada gauges) : 2635.5 psig at 5965' KB.
   or corrected to midpoint of perforations using a 0.32 psi/ft gradient : 2647.7 psig at 6003' KB.

GIDGEALPA NO. 24 - HUTTON

SUMMARY OF RESULTS

RESERVOIR ANALYSIS

Static Gradient Reservoir Pressure	2637.2 psig at 5965' KB
Post Test Average Reservoir Pressure	2635.5 psig at 5965' KB
Total Oil Produced during Test	1217 BBLS
Buildup Formation Flow Capacity	2373 md-ft
Buildup Effective Permeability	216 md
Buildup Apparent Skin Factor	3.5
Pressure Loss due to Skin	50.0 psi
Flow Efficiency	70%
Productivity Index	2.41 BBL/Day/psi
Total Flow Time	72.0 hours
Total Effective Flow Time	70.8 hours
Total Shut-in Time	66.4 hours

DISCUSSION

As shown in the downhole diagram (Figure 13), Gidgealpa No. 24 is a dual string, dual zone completion. During the Hutton production test bottomhole pressures were recorded at 5965' KB using tandem Amerada gauges for the flow period and three Ameradas for the buildup.

The production plot (Figure 1) shows stable flowing conditions were achieved, with the flowing T.H.P. indicating the well to be cleaning up slightly over the duration of the test. Actual and effective flow times are similar. Figure 2 is the type plot for the top gauge based on Delhi - read Amerada charts. Wellbore storage effects are estimated to have ceased within 10 - 15 minutes after shut in. Although not presented, type plots for the mid and bottom gauges (Delhi - read charts) resulted in the same estimates of storage time. The buildup charts were re-read at Delhi as the Expertest data was found to consistently give lines greater than a unit slope on the log-log plot, as illustrated in Figures 3, 4 and 5. With the Expertest data, an adjustment of only 30 seconds (on average) brought the first data point back on to a unit slope through the second data point. When reading early time data on an Amerada chart an error of this magnitude is probably not difficult to make when using 72 or even 24 hour clocks. (With a 72 hour clock one thousandth of an inch corresponds to approximately one minute on the time scale and also to the magnitude of width of trace drawn by the stylus. It is apparent that when reading the steep (early) part of a pressure buildup curve from a chart, small time measurement errors can induce large errors in pressure measurement).

Horner plots for all three recorders - both the Expertest and Delhi - read data - are presented in Figures 6 through 11. The Horner plots based on the chart reading at Delhi were used for analysis as slopes were generally slightly better defined and the plots did not display the late-time drop in pressure that was evident on two of the Expertest Horner plots. The first slope evident after wellbore storage effects had ceased was taken as being characteristic of the buildup. Values of m are 16.1 psi/cycle for the top, 12.9 psi/cycle for the mid and 20.3 psi/cycle for the bottom gauges respectively. These values were averaged to give a slope of 16.4 psi/cycle for use in calculations. The range in 'm' values is attributed to a lack of sensitivity of mechanical gauges in this situation.

A permeability of 216 md for the interval accessed, with a mechanical skin of +3.5 was calculated.

Extrapolated reservoir pressure was determined by Mead analysis using the average of all three gauges. This gave 2635.5 psig at 5965' KB which compares well with the inital static gradient pressure of 2637.2 psig at the same depth.

The positive skin indicates some improvement in productivity can be achieved through stimulation. However, the sensitivity of Ameradas is such that they have difficulty distinguishing slope ('m') values of 20 psi/cycle and less. From the Expertest and Delhi data it has been seen how the interpretation can change simply on the reading of the charts. For these reasons it is considered a retest with a high resolution gauge would be required to confirm whether the well was damaged if stimulation were to be considered. Given the good production history of the well to date (at the time of writing Gidgealpa No. 24 Hutton had produced 30 MSTBO and 0 MSTBW), the cost of retesting and possible stimulation, likely achievable increase in productivity and possibility of water production if acid were used as a stimulating medium, no retest is recommended and no stimulation is considered necessary. It is also possible sustained production will result in a reduction of damage.

As seen in the DLL-MSFL log (Figure 12) a shale break exists around 6012' KB. Of the 27' pay mapped for Gidgealpa No. 24 Hutton, 11' is considered to have been accessed. From the extended production test history, this shale break appears to be acting as a vertical permeability barrier and preventing water production by coning. This is supported by evidence from a similar situation in Gidgealpa No. 25 Hutton and the reverse situation in Gidgealpa No. 21 Hutton where there is no shale break between the perforations and OWC and the well produces with a 62% BS+W. (Although in mitigation, Gidgealpa No. 21 has less height between the perfs and OWC than the other two wells). At present there is uncertainty as to the areal extent and continuity of the shale barriers seen on logs. Effective drainage of the Hutton oil pool is anticipated, but should this shale break later prove to be confining a significant amount of oil, perforation of the sand below the barrier (while maintaining maximum possible distance from the perforations to OWC because of the demonstrated high vertical permeability in Gidgealpa Hutton) is obviously recommended.

GIDGEALPA NO. 24 HUTTON
CALCULATIONS FOR PRESSURE BUILDUP ANALYSIS

DATA:

t_p	= 72.0 hrs	- Measured
ϕ	= 16.2% (for 27' pay)	- Log analysis
	14.4% (for 11' pay accessed)	- Log analysis
h	= 27' pay, 11' of which is accessed	- Log analysis
μ	= 0.52 cp	- PVT Study (Gidgealpa #24 Hutton)
B_o	= 1.136	- PVT Study (Gidgealpa #24 Hutton)
C_o	= 10.32×10^{-6}/psi	- PVT Study (Gidgealpa #24 Hutton)
C_w	= 3.27×10^{-6}/psi	- Calculated, HP Petroleum Fluid Pac
C_R	= 4.18×10^{-6}/psi (for ϕ=14.4%)	- Calculated, HP Petroleum Fluid Pac
S_w	= 0.41 (for 27' pay)	- Log analysis
	= 0.61 (for 11' pay accessed)	- Log analysis
C_t	= 10.2×10^{-6}/psi	- Calculated
T	= 230°F	- Field data
r_w^2	= 0.1253 ft^2	- Calculated
q	= 406 BOPD	- Measured
P_{wf}	= 2468.1 psig	- Measured (and averaged)

Averaged values for the three Horner plots are:

m = 16.4 psi/cycle

P_{1hr} = 2617.8 psig

1. Formation Flow Capacity (kh):

$$kh = \frac{162.6\ q\ B\ \mu}{m} = 2373 \text{ md-ft}$$

2. Permeability (k):

$$k = \frac{kh}{h} = 216 \text{ md} \quad \text{(for 11' pay accessed)}$$

3. Apparent Skin Factor (s):

$$s = 1.1513 \left[\frac{P_{1hr} - P_{wf}(\Delta t=0)}{m} - \log \left(\frac{k}{\phi u C_t r_w^2} \right) + 3.2275 \right] = 3.50$$

4. Productivity Index:

$$\text{Actual P.I.} = \frac{q(av)}{\bar{P} - P_{wf}} = 2.41 \text{ bbl/day/psi}$$

Theoretical P.I. (Darcy equation, radial flow):

$$\text{Theoretical P.I.} = \frac{7.08 \times 10^{-3} \, kh}{\mu B \ln (re/r'w)} = 2.40 \text{ bbl/day/psi}$$

where $r_w' = r_w e^{-s}$

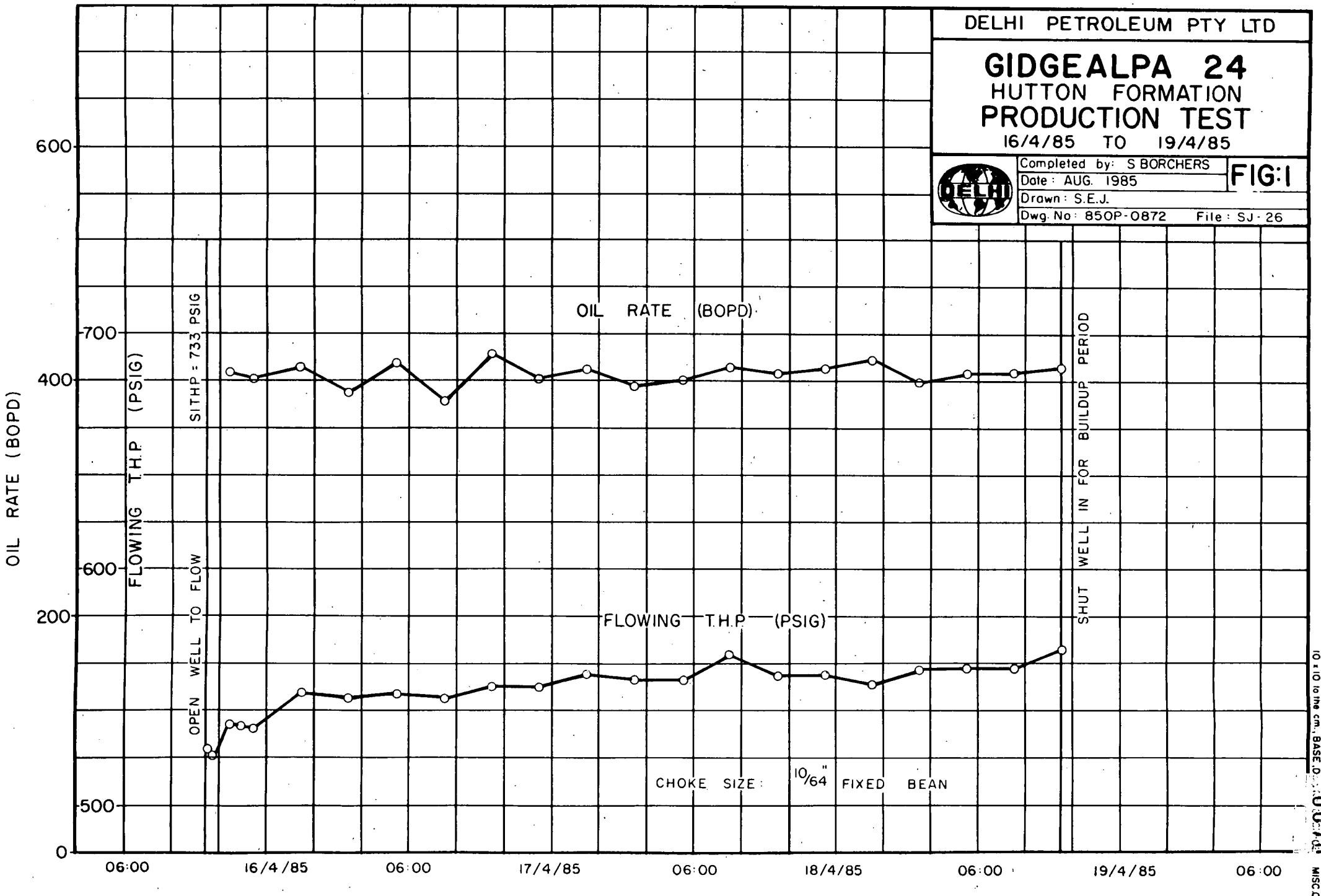
and $r_e = 1490'$ based on assumed 160 acre drainage area

$$\text{Ideal P.I.} = \frac{\bar{P} - P_{wf}}{\bar{P} - P_{wf} - \Delta P_s} \times \text{Actual P.I.} = 3.43 \text{ bbl/day/psi}$$

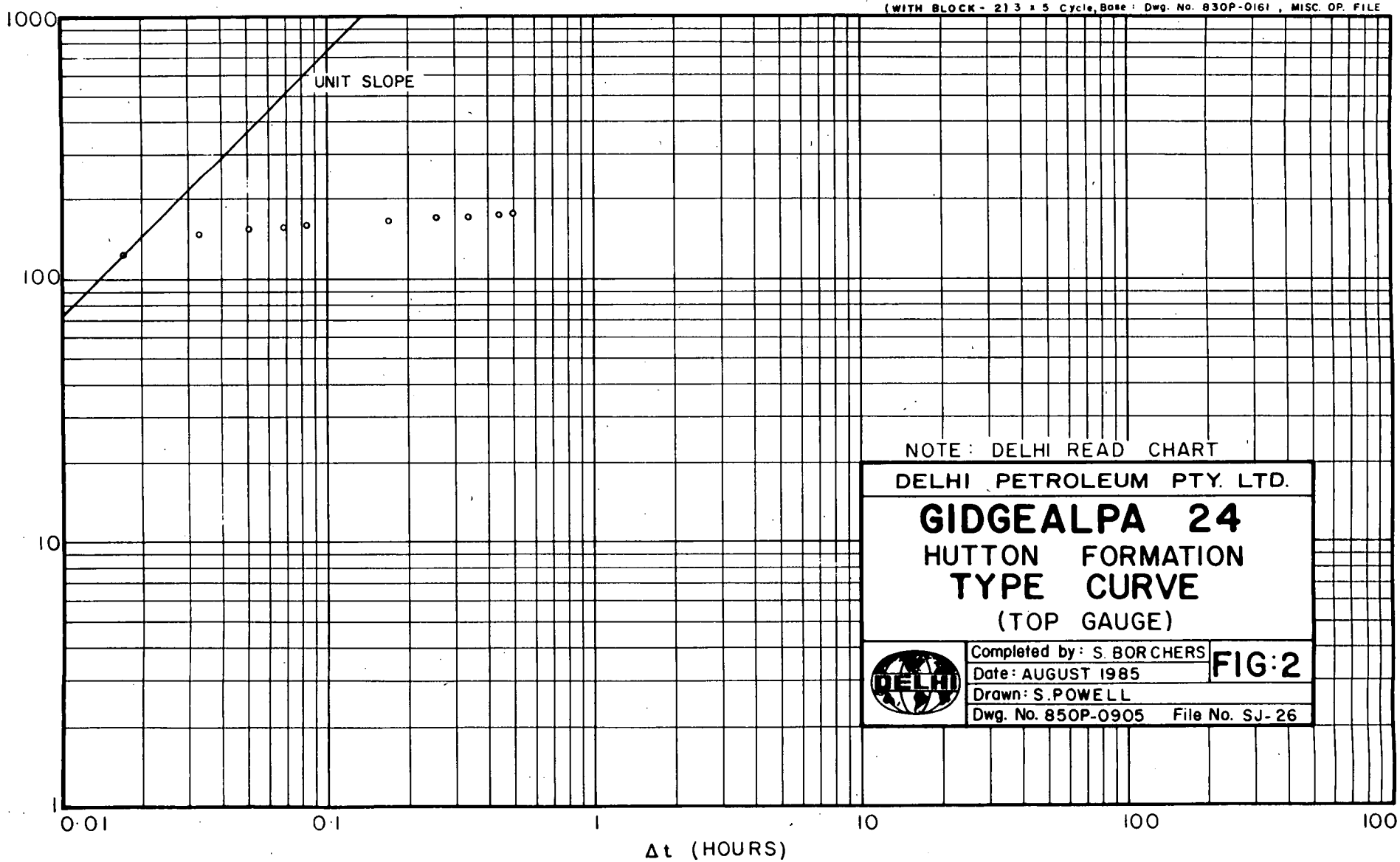
where $\Delta P_s = 0.87 \text{ ms} = 50.0 \text{ psi}$

5. Flow Efficiency:

$$\text{Flow Efficiency} = \frac{\text{PI Actual}}{\text{PI Ideal}} = 70\%$$


DELHI PETROLEUM PTY LTD
GIDGEALPA 24
HUTTON FORMATION
PRODUCTION TEST
16/4/85 TO 19/4/85
Completed by: S BORCHERS
Date: AUG. 1985
Drawn: S.E.J.
Dwg. No: 850P-0872
File: SJ-26
FIG:1
OIL RATE (BOPD)
FLOWING T.H.P (PSIG)
SITHP = 733 PSIG
OPEN WELL TO FLOW
SHUT WELL IN FOR BUILDUP PERIOD
OIL RATE (BOPD)
FLOWING T.H.P (PSIG)
CHOKE SIZE: 10/64" FIXED BEAN
600
700
400
600
200
500
0
06:00
16/4/85
06:00
17/4/85
06:00
18/4/85
06:00
19/4/85
06:00

(WITH BLOCK - 2) 3 x 5 Cycle, Base : Dwg. No. 830P-0161 , MISC. OP. FILE



NOTE: DELHI READ CHART

DELHI PETROLEUM PTY. LTD.

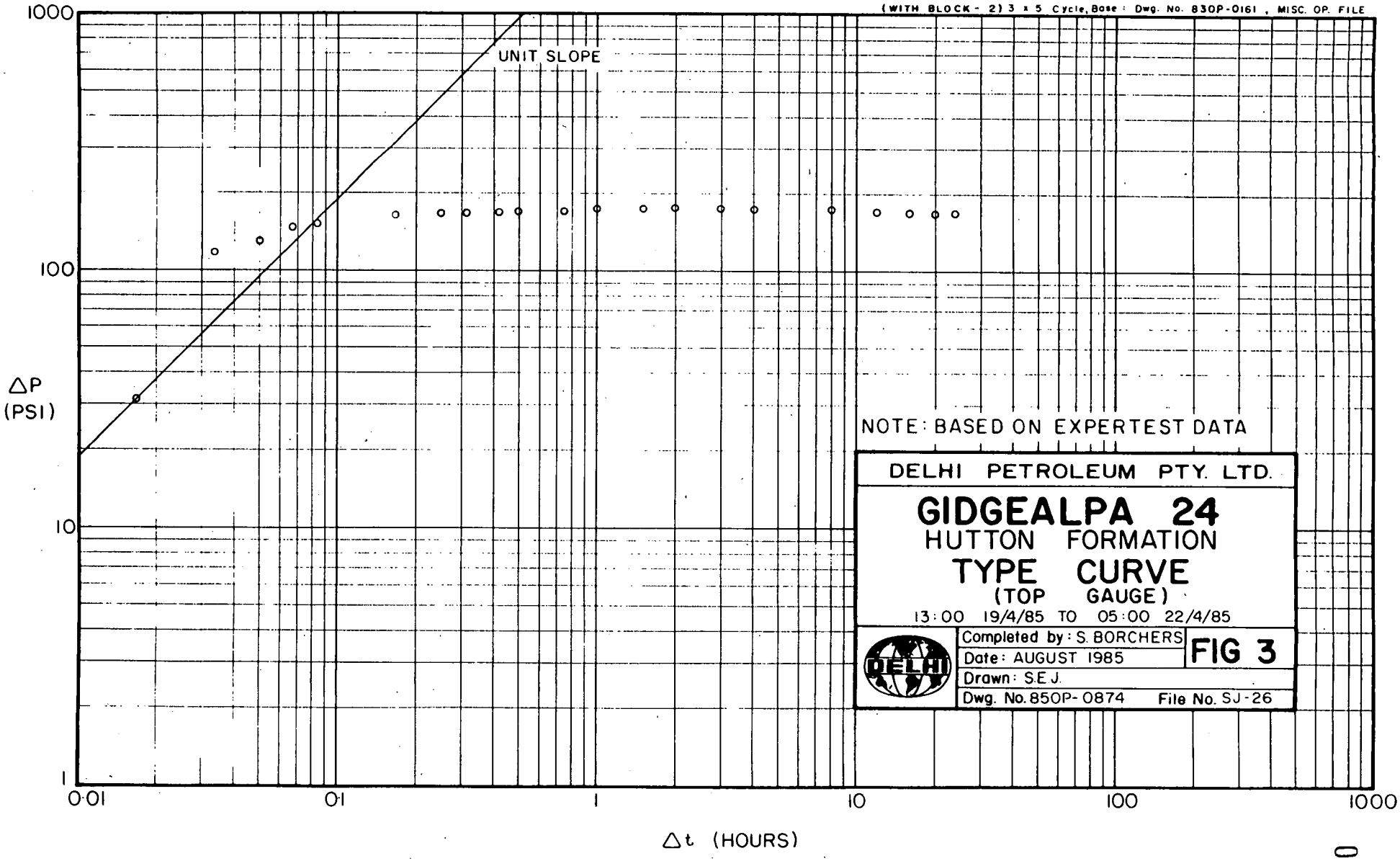
GIDGEALPA 24

HUTTON FORMATION TYPE CURVE

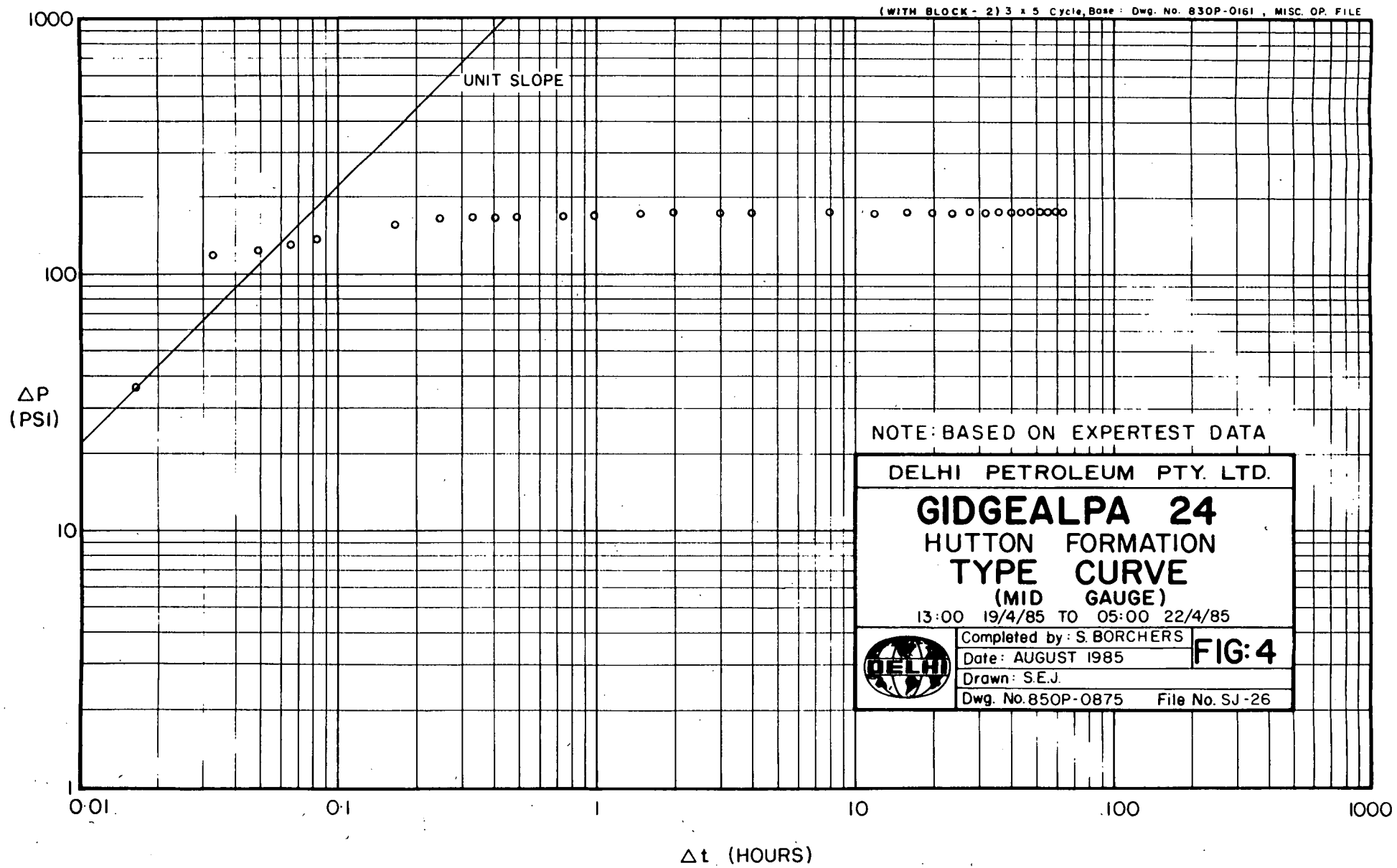
(TOP GAUGE)

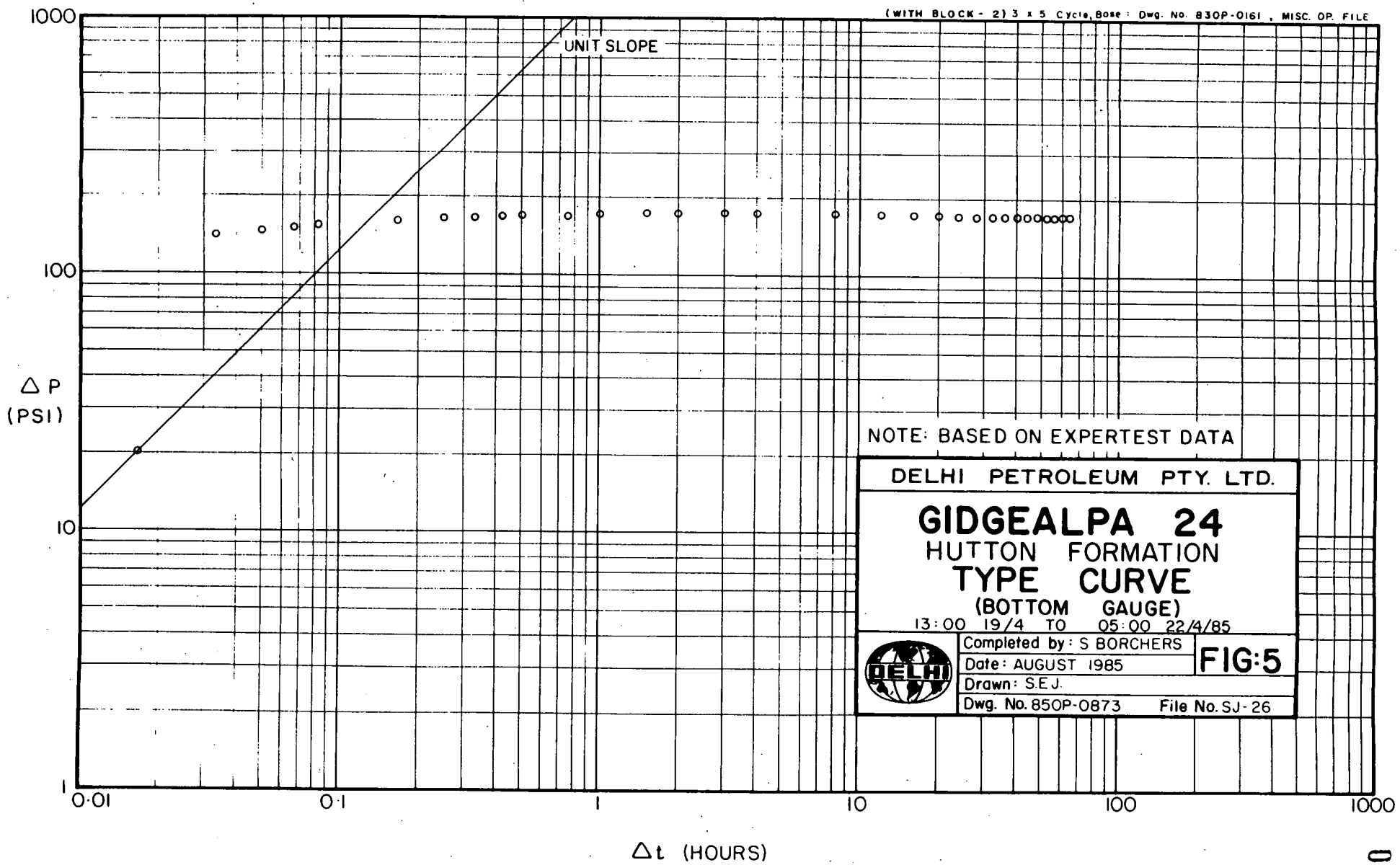
Completed by: S. BORCHERS	FIG:2
Date: AUGUST 1985	
Drawn: S.POWELL	
Dwg. No. 850P-0905	File No. SJ-26

0071

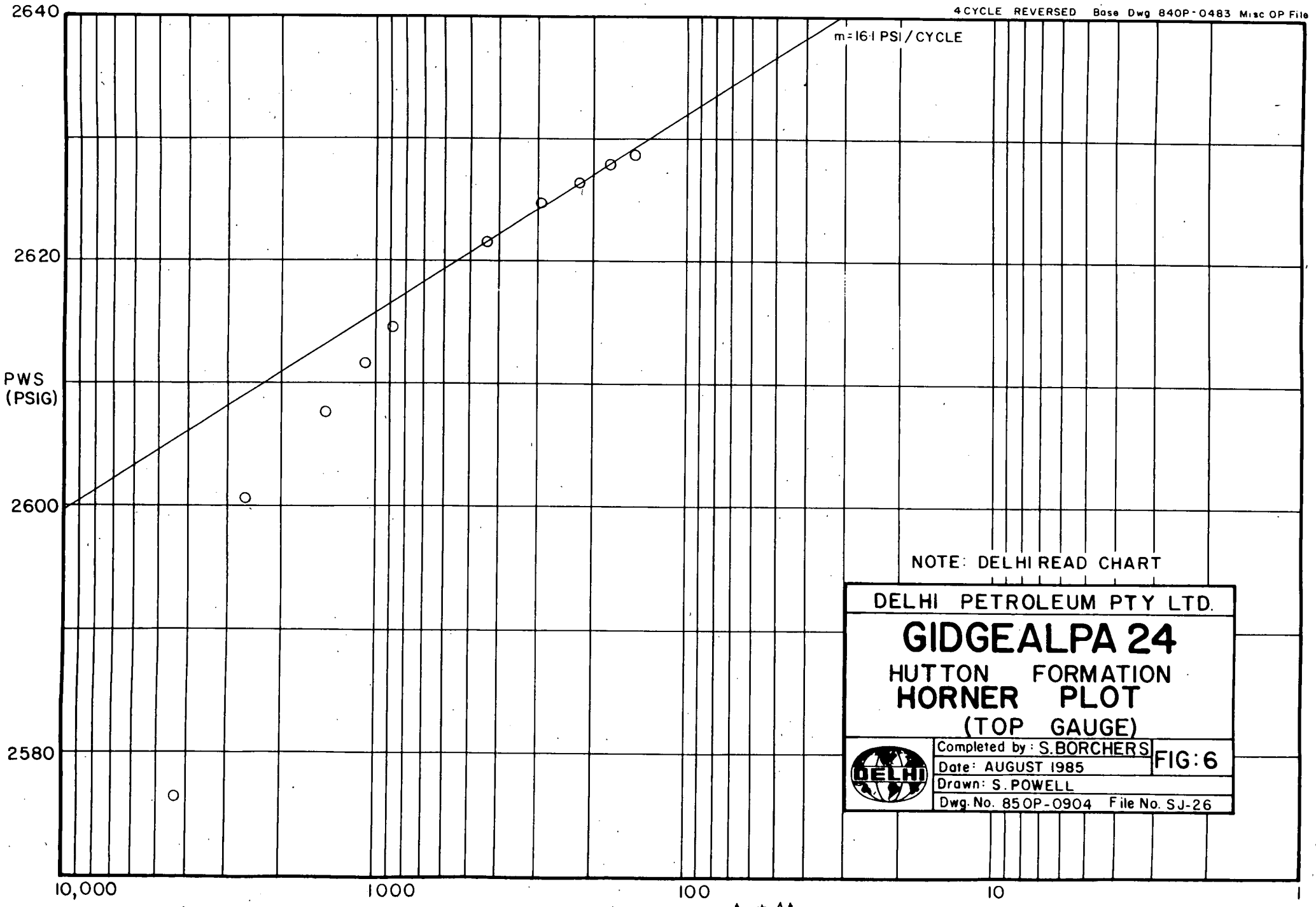

(WITH BLOCK - 2) 3 x 5 Cycle, Base : Dwg. No. 830P-0161 , MISC. OP. FILE
UNIT SLOPE
1000
100
10
1
ΔP
(PSI)
0·01
0·1
1
10
100
1000
Δt (HOURS)
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
TYPE CURVE
(TOP GAUGE)
13:00 19/4/85 TO 05:00 22/4/85
Completed by: S. BORCHERS
Date: AUGUST 1985
Drawn: S.E.J.
Dwg. No. 850P-0874
File No. SJ-26
FIG 3

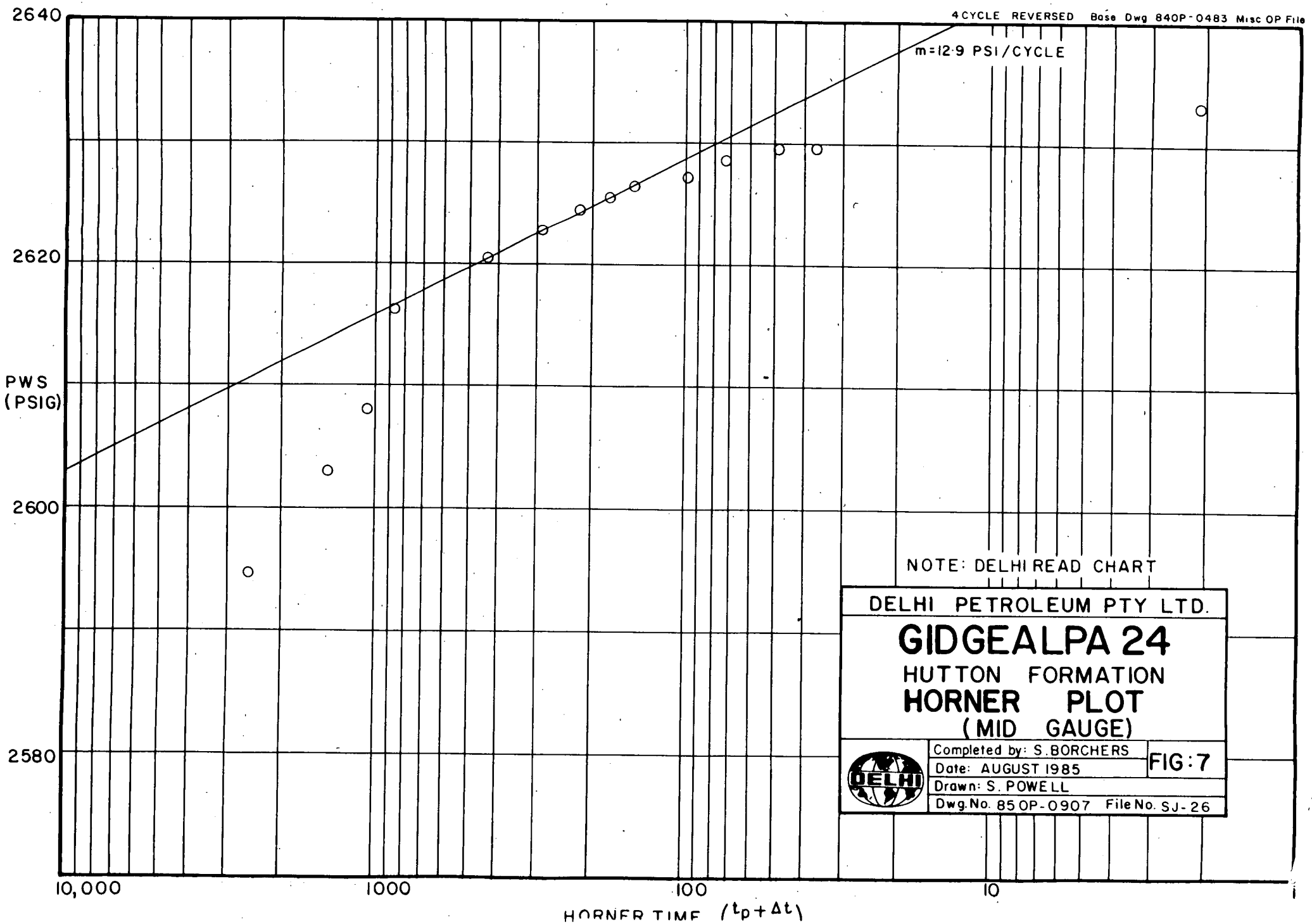
0072

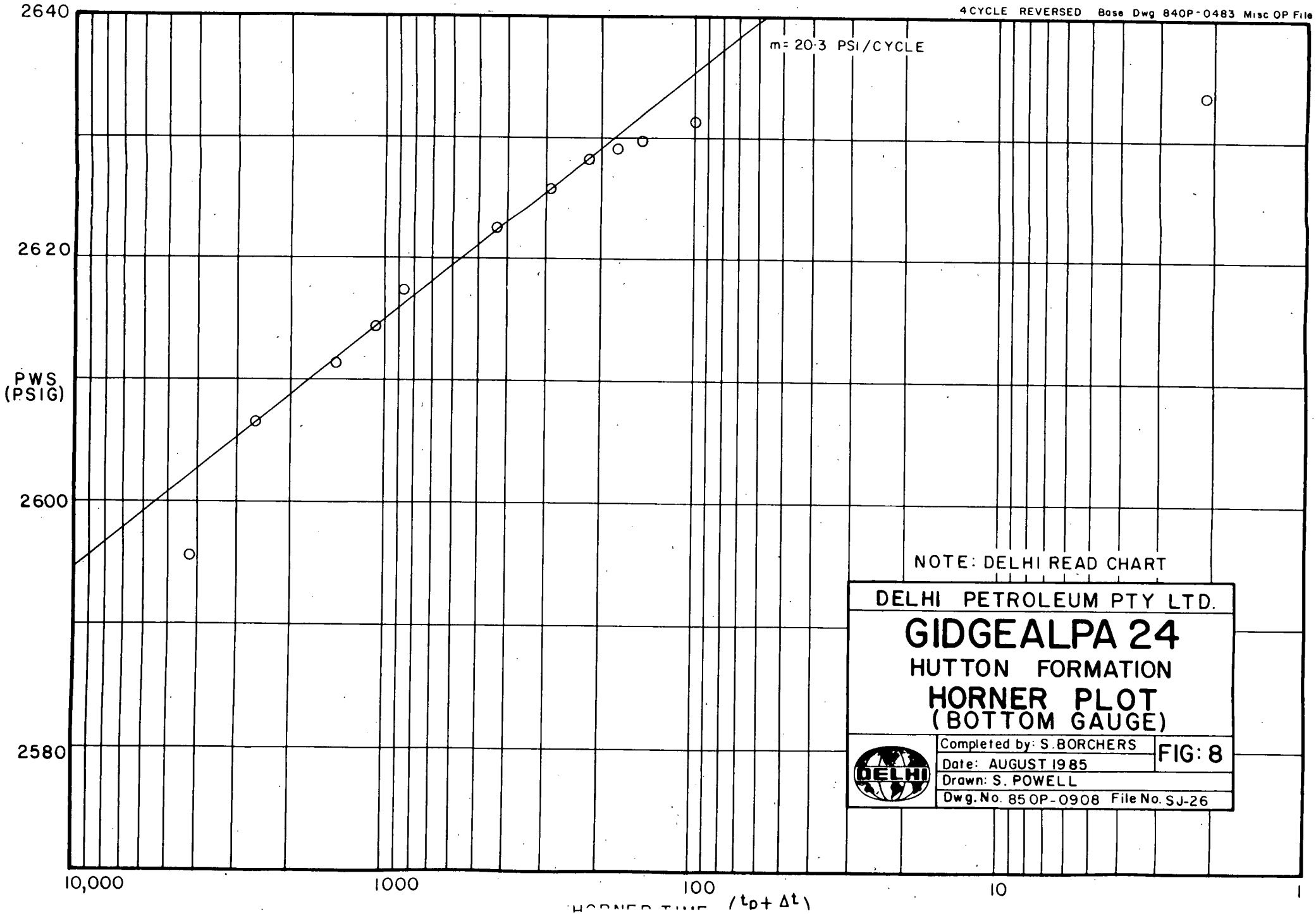

(WITH BLOCK - 2) 3 x 5 Cycle, Base : Dwg. No. 830P-0161 , MISC. OP. FILE
1000
100
10
1
ΔP
(PSI)
UNIT SLOPE
0·01
0·1
1
10
100
1000
Δt (HOURS)
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
TYPE CURVE
(MID GAUGE)
13:00 19/4/85 TO 05:00 22/4/85
DELHI
Completed by : S. BORCHERS
Date : AUGUST 1985
Drawn : S.E.J.
Dwg. No. 850P-0875
File No. SJ-26
FIG: 4

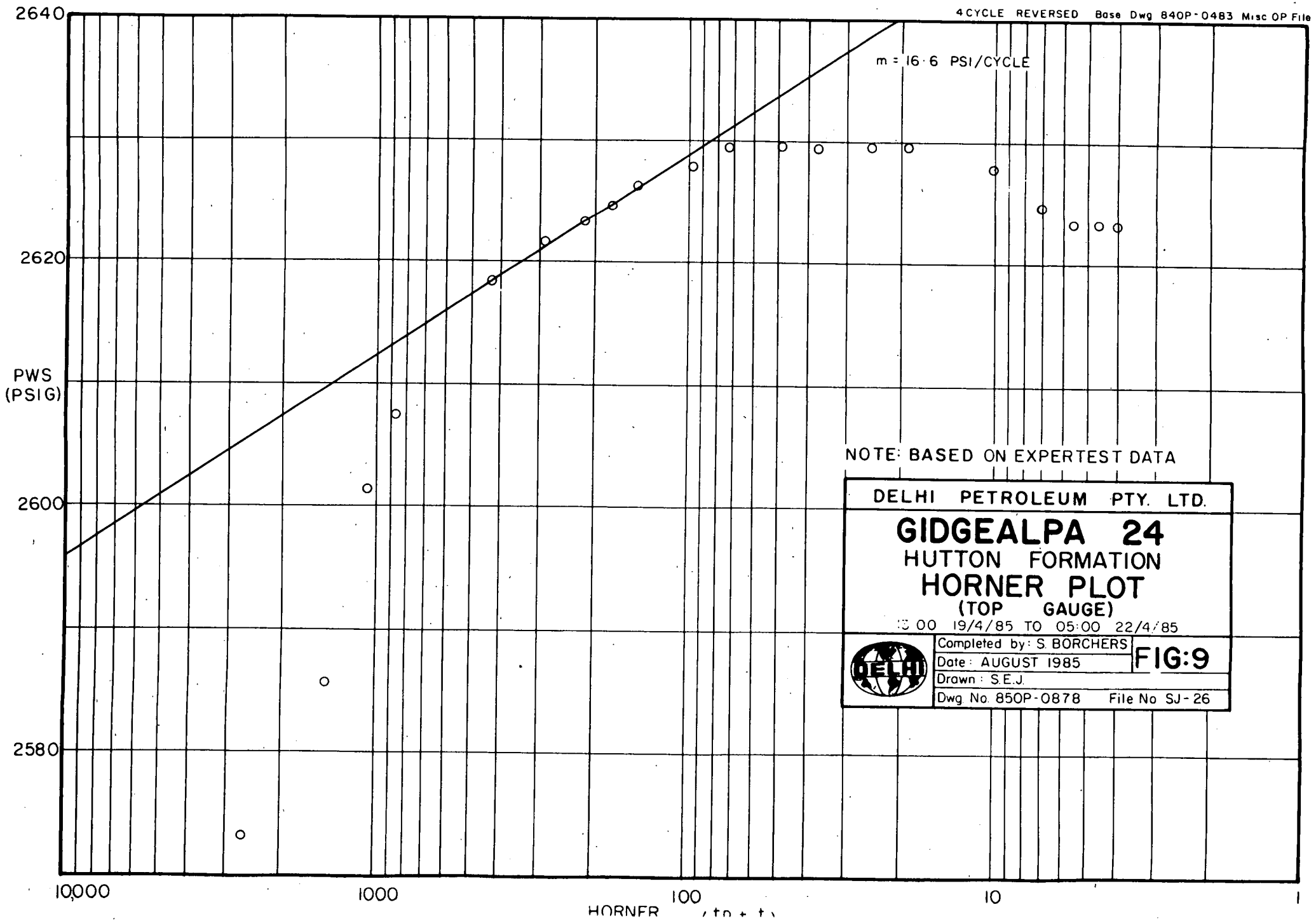

(WITH BLOCK - 2) 3 x 5 Cycle, Base : Dwg. No. 830P-0161 , MISC. OP. FILE
UNIT SLOPE
1000
100
10
1
ΔP
(PSI)
0·01
0·1
1
10
100
1000
Δt (HOURS)
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
TYPE CURVE
(BOTTOM GAUGE)
13:00 19/4 TO 05:00 22/4/85
DELHI
Completed by: S BORCHERS
Date: AUGUST 1985
Drawn: S.E.J.
Dwg. No. 850P-0873
File No. SJ-26
FIG:5

0074

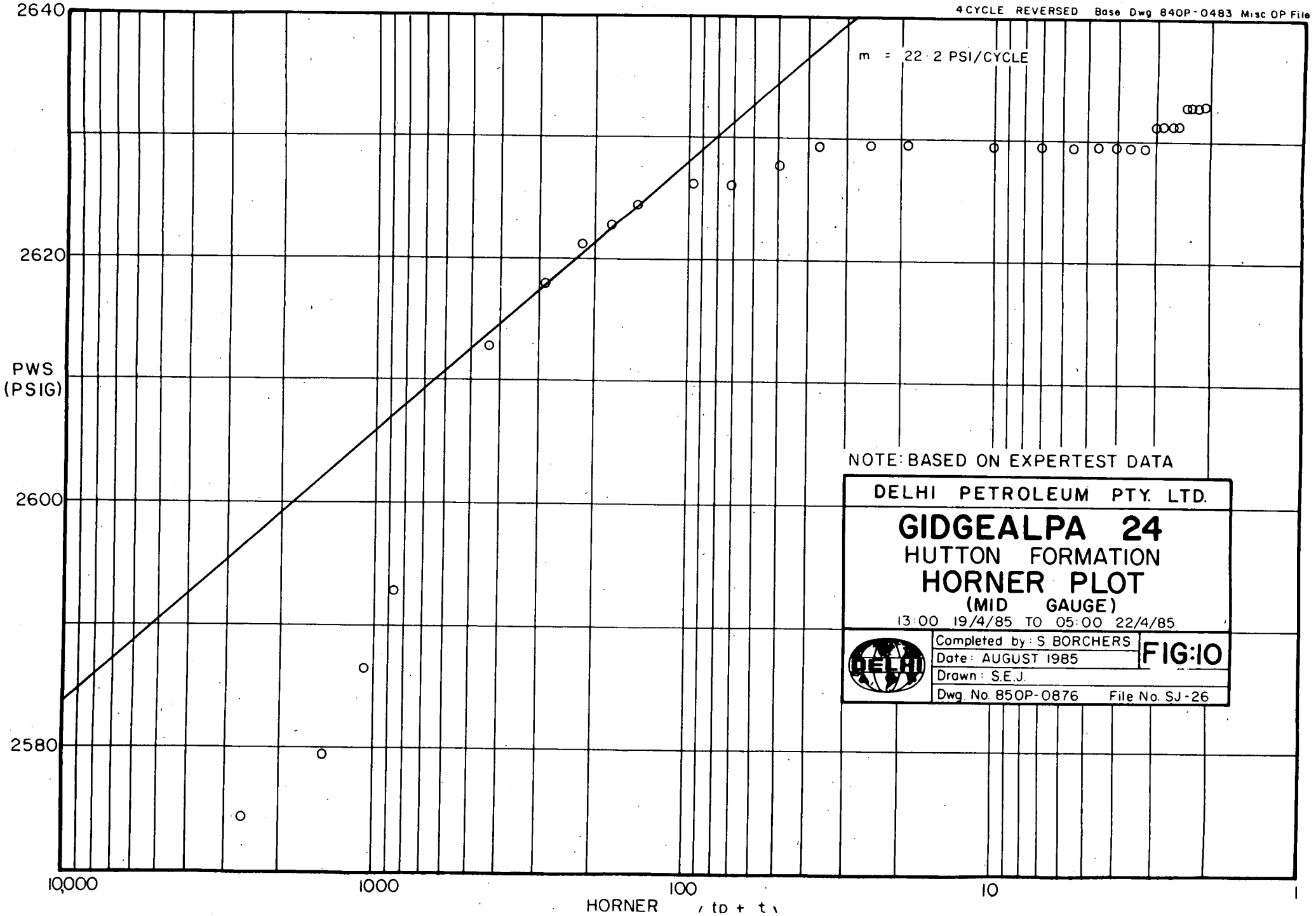

4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m = 16·1 PSI / CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
$t_p + \Delta t$
NOTE: DELHI READ CHART
DELHI PETROLEUM PTY LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(TOP GAUGE)
Completed by : S. BORCHERS
Date: AUGUST 1985
Drawn: S. POWELL
Dwg. No. 850P-0904 File No. SJ-26
FIG: 6


4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m=12·9 PSI/CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
HORNER TIME (tp+Δt)
NOTE: DELHI READ CHART
DELHI PETROLEUM PTY LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(MID GAUGE)
DELHI
Completed by: S. BORCHERS
Date: AUGUST 1985
Drawn: S. POWELL
Dwg. No. 85 OP-0907 File No. SJ-26
FIG: 7

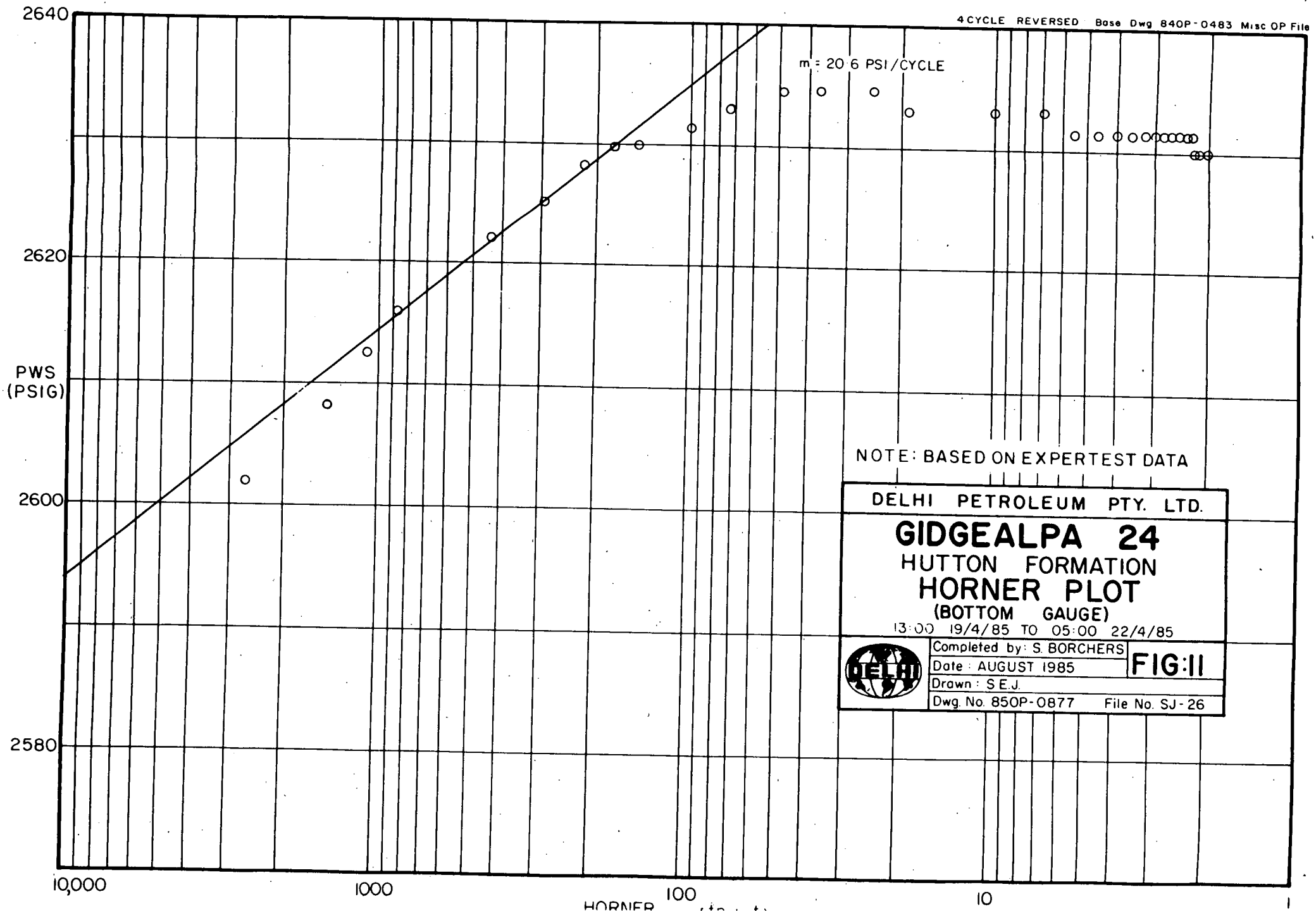

4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m= 20·3 PSI/CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
NOTE: DELHI READ CHART
DELHI PETROLEUM PTY LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(BOTTOM GAUGE)
Completed by: S.BORCHERS
Date: AUGUST 1985
Drawn: S. POWELL
Dwg. No. 850P-0908 File No. SJ-26
FIG: 8
DELHI


4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m = 16·6 PSI/CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
HORNER (tp + t)/t
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(TOP GAUGE)
13 00 19/4/85 TO 05:00 22/4/85
DELHI
Completed by: S. BORCHERS
Date: AUGUST 1985
Drawn: S.E.J.
FIG:9
Dwg No. 850P-0878 File No SJ-26

0078


4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m = 22·2 PSI/CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
HORNER (to + t)
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(MID GAUGE)
13:00 19/4/85 TO 05:00 22/4/85
DELHI
Completed by: S. BORCHERS
Date: AUGUST 1985
Drawn: S.E.J.
Dwg. No. 850P-0876
File No. SJ-26
FIG:10

0079


4 CYCLE REVERSED Base Dwg 840P-0483 Misc OP File
m = 20·6 PSI/CYCLE
2640
2620
2600
2580
PWS (PSIG)
10,000
1000
100
10
1
HORNER
NOTE: BASED ON EXPERTEST DATA
DELHI PETROLEUM PTY. LTD.
GIDGEALPA 24
HUTTON FORMATION
HORNER PLOT
(BOTTOM GAUGE)
13:00 19/4/85 TO 05:00 22/4/85
Completed by: S. BORCHERS
Date: AUGUST 1985
Drawn: S.E.J.
Dwg. No. 850P-0877
File No. SJ-26
FIG:11

0081

Figure 12

DLL-MSFL-LOG

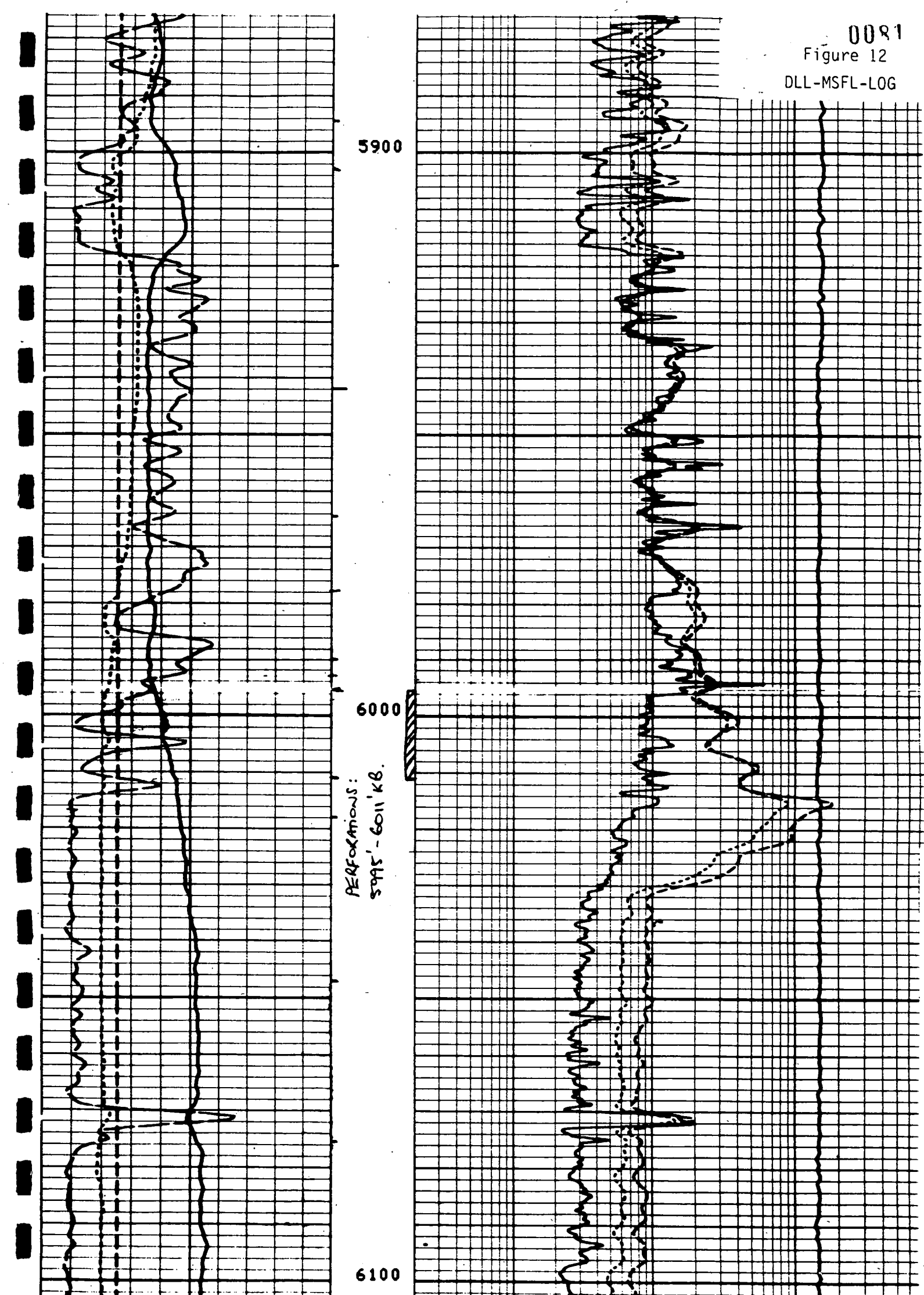


Figure 13 A
Downhole Installation
(Long String)

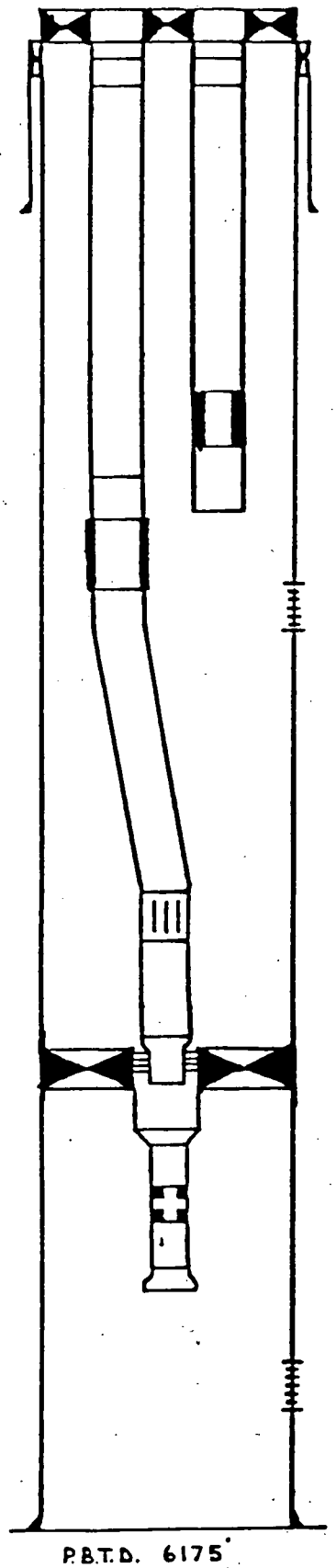
DELHI PETROLEUM PTY. LTD

DOWNHOLE INSTALLATION

0082

WELL : GIDGEALPA #24 LONG STRING

DATE : 1/5/85



DESCRIPTION	FOOTAGE (LESS THREADS) LENGTH	FROM	TO
KB to top of tubing spool	16.00	0	16.00
Hanger, DCB 2-7/8" x 2-3/8" A/B DSS HTC box down by hydril CS box up.	0.67	16.00	16.67
X over, 2-7/8" A/B pin x 2-3/8" A/B pin.	1.03	16.67	17.70
Tubing, (171 joints) 2-3/8" A/B J-55 4.7#	5173.23	17.70	5190.93
X over, 2-3/8" A/B box x 2-3/8" EUE pin.	0.85	5190.93	5191.78
Blast joint, 20' x 2-3/8" EUE	20.00	5191.78	5211.78
Tubing, (20 joints) 2-3/8" EUE J-55 4.7#	633.07	5211.78	5844.85
Otis Sliding sleeve, 2-3/8" EUE XO 1.875" sealbore.	2.45	5844.85	5847.30
Tubing, (1 joint) 2-3/8" EUE J-55	31.70	5847.30	5879.00
Baker G22 Locator seal assembly Size 81-32, 2-3/8" EU box I.D. - 1.990"	1.00	5879.00	5880.00
Packer, Baker DB 84-32 Top to Centre rubber.	2.00	5880.00	5882.00
Centre rubber to bottom.	2.70	5882.0	5884.70
Mill-out extension, 4-1/2" LT&C pin x pin	4.70	5884.70	5889.40
X over, 4-1/2" LT&C box x 2-3/8" EUE pin	0.50	5889.40	5889.90
Tubing, (1 joint) 2-3/8" EUE J-55	31.66	5889.90	5921.56
Landing nipple, Otis 11x1 2-3/8" EU	1.2	5921.56	5922.76
Pup joint, 2-3/8" EUE	10.18	5922.76	5932.94
X over, 2-3/8" EUE x 3-1/2" EUE	1.65	5932.94	5934.59

Note: A/B = Atlas Bradford DSS-HTC.

CAROL 6/49

AL:cr

Figure 13B
Downhole Installation
(Short String)

0083

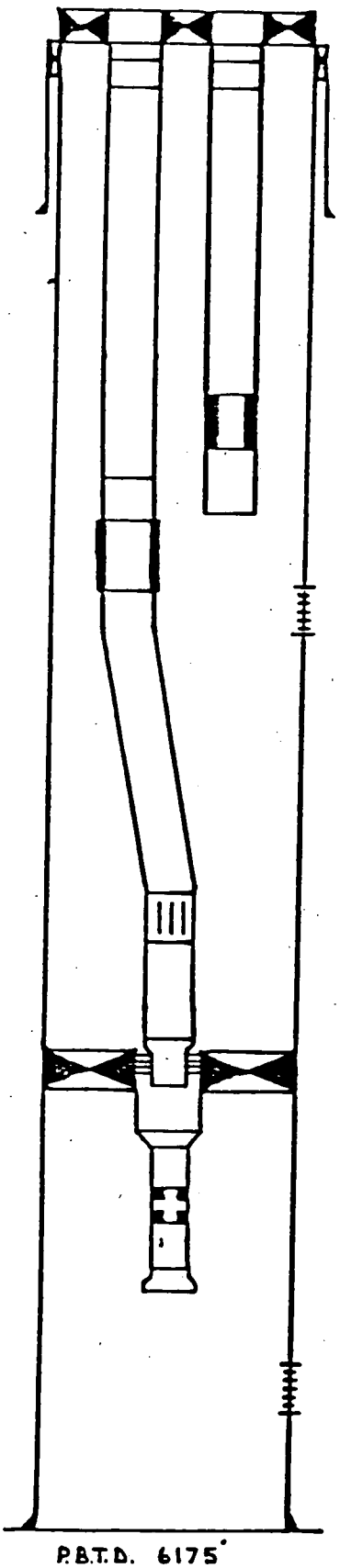
DELHI PETROLEUM PTY. LTD.

DOWNHOLE INSTALLATION

WELL : GIDGEALPA #24

SHORT STRING

DATE : 1/5/85



DESCRIPTION	FOOTAGE (LESS THREADS) LENGTH	FROM	TO
KB to top of tubing spool	16.00	0	16.00
Hanger, DCB 2-7/8" x 2-3/8" A/B DSS			
HTC box down by hydril CS box up	0.67	16.00	16.67
Nipple, 2-3/8" A/B pin x 2-3/8" A/B pin	0.62	16.67	17.29
Tubing, (173 joints) 2-3/8" A/B J-55 4.7#	5120.07	17.29	5137.36
Pump seating nipple, 2-3/8" API	0.65	5137.36	5138.01
Tubing, (1 joint) 2-3/8" A/B J-55 4.7#	31.12	5138.01	5169.13

Note: A/B = Atlas Bradford DSS-HTC.

Perforated Intervals:

Mid Namur 5192'-5198' BKB

Hutton 5995'-6011' BKB

CAROL 6/49

AL:cr

GIDGEALPA NO. 24 - HUTTON
BUILD-UP ANALYSIS
HORNER PLOT AND TYPE CURVE DATA
- EXPERTEST DATA -

TABLE I

tp = 72.0 hours

Δt (hrs)	Pws (psig) TOP	MID	BTM	ΔP (psi) TOP	MID	BTM	Horner Time $\frac{(tp + \Delta t)}{\Delta t}$
0.0000	2454.5	2454.2	2460.5	0.0	0.0	0.0	-
0.0167	2485.8	2490.9	2480.7	31.3	36.7	20.2	4312.4
0.0333	2573.3	2574.5	2602.0	118.8	120.3	141.5	2613.2
0.0500	2585.8	2579.5	2608.2	131.3	125.3	147.7	1441.0
0.0667	2601.4	2586.2	2612.8	146.9	132.0	152.3	1080.5
0.0833	2607.7	2592.8	2616.0	153.2	138.6	155.5	865.3
0.1667	2618.6	2612.9	2622.2	164.1	158.7	161.7	432.9
0.2500	2621.7	2617.9	2625.3	167.2	163.7	164.8	289.0
0.3333	2623.3	2621.3	2628.4	168.8	167.1	167.9	217.0
0.4167	2624.9	2622.9	2630.0	170.4	168.7	169.5	173.8
0.5000	2626.4	2624.6	2630.0	171.9	170.4	169.5	145.0
0.7500	2628.0	2626.3	2631.5	173.5	172.1	171.0	97.0
1.0000	2629.6	2626.3	2633.1	175.1	172.1	172.6	73.0
1.5000	2629.6	2627.9	2634.6	175.1	173.7	174.1	49.0
2.0000	2629.6	2629.6	2634.6	175.1	175.4	174.1	37.0
3.0000	2629.6	2629.6	2634.6	175.1	175.4	174.1	25.0
4.0000	2629.6	2629.6	2633.1	175.1	175.4	172.6	19.0
8.0000	2628.0	2629.6	2633.1	173.5	175.4	172.6	10.0
12.0000	2624.9	2629.6	2633.1	170.4	175.4	172.6	7.0
16.0000	2623.3	2629.6	2631.5	168.8	175.4	171.0	5.5000
20.0000	2623.3	2629.6	2631.5	168.8	175.4	171.0	4.6000
24.0000	2623.3	2629.6	2631.5	168.8	175.4	171.0	4.0000
28.0000	-	2629.6	2631.5	-	175.4	171.0	3.5714

GIDGEALPA NO. 24 - HUTTON

BUILD-UP ANALYSIS

HORNER PLOT AND TYPE CURVE DATA

- EXPERTEST DATA -

TABLE I (CONTD)

tp = 72.0 hours

Δt (hrs)	Pws (psig) TOP	Pws (psig) MID	Pws (psig) BTM	ΔP (psi) TOP	ΔP (psi) MID	ΔP (psi) BTM	Horner Time $\frac{(tp + \Delta t)}{\Delta t}$
32.0000		2629.6	2631.5	-	175.4	171.0	3.2500
36.0000		2631.3	2631.5	-	177.1	171.0	3.0000
40.0000		2631.3	2631.5	-	177.1	171.0	2.8000
44.0000		2631.3	2631.5	-	177.1	171.0	2.6364
48.0000		2631.3	2631.5	-	177.1	171.0	2.5000
52.0000		2633.0	2631.5	-	178.8	171.0	2.3846
56.0000		2633.0	2631.5	-	178.8	171.0	2.2857
60.0000		2633.0	2630.0	-	178.8	169.5	2.2000
64.0000		2633.0	2630.0	-	178.8	169.5	2.1250
66.3700		2633.0	2630.0	-	178.8	169.5	2.0848

GIDGEALPA NO. 24 - HUTTON

BUILD-UP ANALYSIS

HORNER PLOT AND TYPE CURVE DATA

- DELHI READ CHARTS -

TABLE II

Δt (hrs)	Pws (psig) TOP	MID	BTM	Δ P (psi) TOP	MID	BTM	tp = 72.0 hours Horner Time $\frac{(tp + \Delta t)}{\Delta t}$
0.0000	2454.5	2489.3	2460.5	-	-	-	-
0.0167	2576.4	2564.4	2595.7	121.9	75.1	135.2	4312.4
0.0333	2600.6	2594.5	2606.6	146.1	105.2	146.1	2613.2
0.0500	2607.7	2602.9	2611.3	153.2	113.6	150.8	1441.0
0.0667	2611.6	2607.9	2614.4	157.1	118.6	153.9	1080.5
0.0833	2614.7	2616.2	2617.5	160.2	126.9	157.0	865.3
0.1667	2621.7	2620.5	2622.8	167.2	131.2	162.3	432.9
0.2500	2624.9	2622.9	2626.1	170.4	133.6	165.6	289.0
0.3333	2626.4	2624.6	2628.4	171.9	135.3	167.9	217.0
0.4167	2628.0	2625.5	2629.2	173.5	136.2	168.7	173.8
0.5000	2628.8	2626.3	2630.0	174.3	137.0	169.5	145.0
0.7500		2627.1	2631.5		137.8	171.0	97.0
1.0000		2628.8			139.5		73.0
1.5000		2629.6			140.3		49.0
2.0000		2629.6			140.3		37.0
64.0000			2633.9			173.4	2.1250
66.3700		2633.0			143.7		2.0848

TABLE III

GIDGEALPA NO. 24 - LOG ANALYSIS SUMMARY

(LOG ANALYSIS REPORT, MAY 1985)

SUMMARY OF PAY

Formation	Interval	Thickness	Av Vsh	Av Ø	Av Sw
Namur	5083-5085	2'	0.34	15.3	1.00
	5088-5090	2'	0.10	16.8	1.00
	5094-5100	6'	0.09	20.1	0.81
Total Namur		10'	0.14	18.4	0.88
Mid-Namur	5193-5210	17'	0.17	18.0	0.82
Lower Namur	5460-5464	4'	0.13	16.7	1.00
Birkhead	5979-5985	6'	0.31	13.3	0.90
Hutton	5997-6003	6'	0.18	15.1	0.63
	6006-6011	5'	0.17	13.5	0.59
	6014-6030	16'	0.08	17.4	0.30
Total Hutton		27'	0.12	16.2	0.41

SJB:hks
RESREP(1.15)

P.V.T.STUDY REPORT

Client:DELHI PETROLEUM PTY LTD
Field :GIDGEALPA Well : GIDGEALPA #24
Zone :HUTTON Samp. date:23/04/85

Report #:85ADL009 Date: MAY 1985

ADELAIDE LABORATORY

R7

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Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

NOTICE

Curve Presentation

This report contains graphs of physical properties together with curves which are now drawn by computer program. These curves are empirical as the formulae used are not based on any theory, and are obtained using special Flopetrol computer programs. Except for saturation pressure determinations, equations are given on pages following each graph to enable easy and accurate interpolation using a calculator or a computer ; generally extrapolation is not advisable as the Flopetrol software is based only on the experimental range of measurements.
Although in most cases less significant figures can be used for parameters, we advise a validity check against experimental points when using less than the eleven significant figures given.
Clearly, properties can be calculated in this fashion to high precision, but cannot be more accurate than the original experimental measurements.

Parameters are given in E-format, where, for example :
b = -3.76908251347E-02 means b = -0.037690851347.

FLOPETROL JOHNSTON Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

INDEX

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COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

SUMMARY AND MAIN RESULTS

The present report gives the experimental results of the P.V.T. study carried out on bottom hole sample(s) from well GIDGEALPA #24

The initial reservoir conditions are :

- Pi : 2661 psig @ 6045'
- T : 228 F @ 6045'

Bubble point pressure determined on sample which was selected for complete P.V.T. study is :

- Pb : 440 psig at 228 F
- c : 10.75 x 10^{-6} psi^{-1} (2661- 1000 psig)

Main differential vaporization data at reservoir temperature :

		Pi	Pb
oil volume factor (bbl/Std bbl)	:	1.169	1.198
solution gas-oil ratio (Std cu ft/bbl)	:	129	129
reservoir fluid viscosity (centipoises)	:	0.52	0.44
reservoir fluid density (g/cm3)	:	0.704	0.688
Residual oil gravity	:	0.789 47.8	60/60 F API

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SAMPLE(S) VALIDITY

BOTTOM HOLE SAMPLE(S)

1) Sample bottle No 9024/44

   Bubble point pressure determination at 69 F is 356 psig

2) Sample bottle No 12689/81

   Bubble point pressure determination at 67 F is 308 psig

3) Sample bottle No 80291/137

   Bubble point pressure determination at 69 F is 306 psig

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WELL : GIDGEALPA #24

TABLE 1

SAMPLING CONDITIONS

I. RESERVOIR AND WELL CHARACTERISTICS

Producing zone	:	HUTTON
Static pressure	:	2661 psig @ 6045'
Bottom hole temperature	:	228 F @ 6045'
Tubing diameter	:	2-3/8"
Casing size	:	7"
Casing shoe	:	6220'

II. SAMPLING CONDITIONS

A) SURFACE SAMPLE(S)

Date	:	-
Choke	:	-
Flowing bottom hole pressure	:	-
Well head pressure	:	-
Separator pressure	:	-
Well head temperature	:	-
Separator temperature	:	-
Gas rate (Separator)	:	-
Stock tank temperature	:	-
Compressibility factor	:	-
Gas gravity	:	-
Liquid rate (Separator)	:	-
G.L.R.	:	-
Sample(s) received	:	gas - - liq.- -

B) BOTTOM HOLE SAMPLE(S)

Date	:	23/04/85
Choke	:	4/64"
Sample(s) received	:	9024/44 12689/81 80291/137

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WELL : GIDGEALPA #24

TABLE 2

BUBBLE-POINT-PRESSURE-DETERMINATION-AT 69 F

Bottom hole sample (Cylinder 9024/44)

	Pressure (psig)	Pump reading (cm3)
	5000	72.96
	4000	72.09
	3000	71.20
	2000	70.22
	1000	69.21
	500	68.65
Pb=	356	68.47
	355	68.31
	348	67.51
	344	66.43
	320	63.81
	300	60.51

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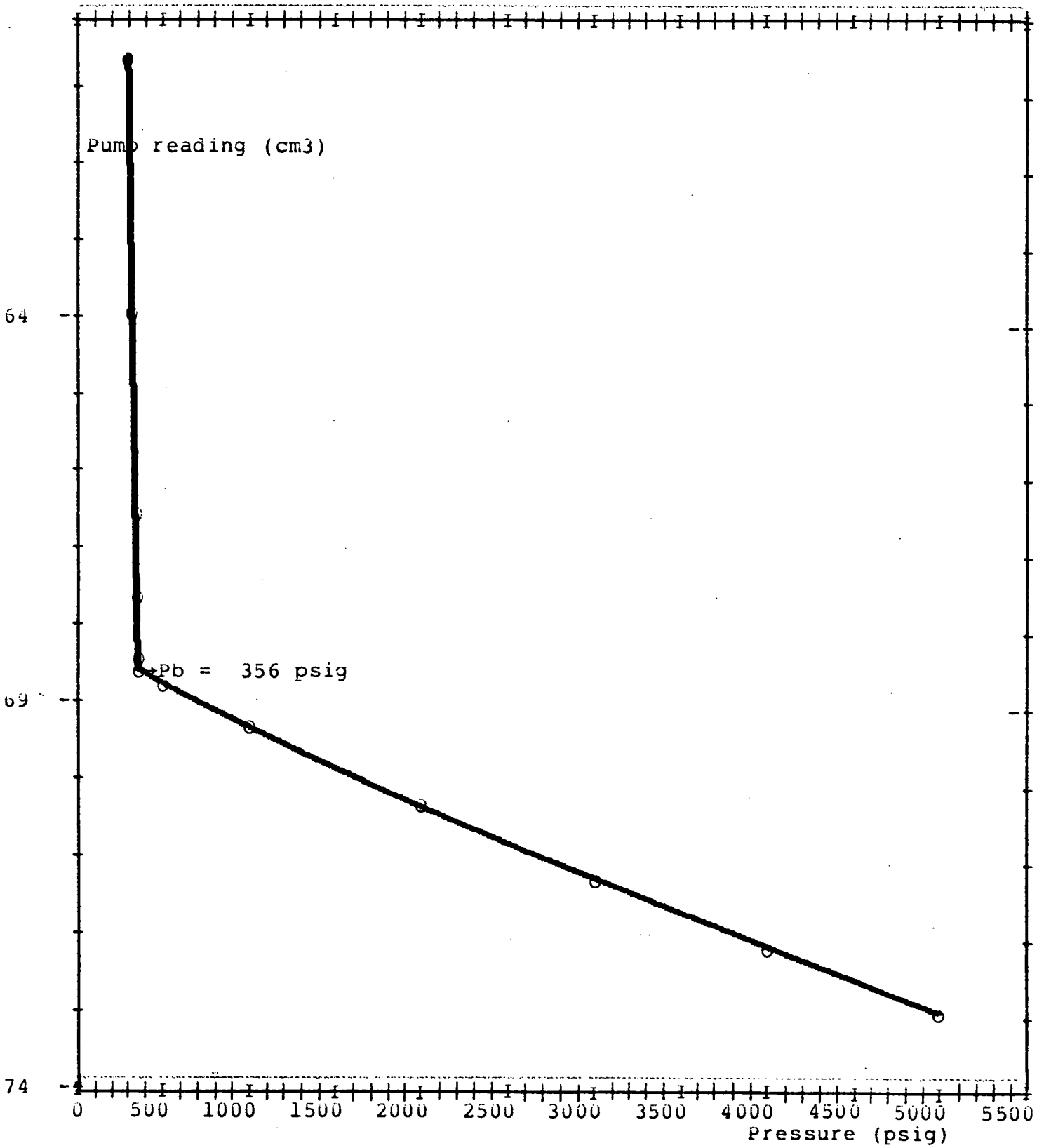
WELL : GIDGEALPA #24

BUBBLE POINT PRESSURE DETERMINATION AT 69 F

Bottom hole sample (cylinder 9024/44)



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WELL : GIDGEALPA #24

TABLE 3

BUBBLE POINT PRESSURE DETERMINATION AT 67 F

Bottom hole sample (Cylinder 12689/81)

Pressure (psig)	Pump reading (cm3)
5000	58.20
4000	57.38
3000	56.50
2000	55.58
1000	54.60
500	54.06
Pb= 308	53.64
307	53.54
300	52.46
290	50.66
280	49.00
267	46.50

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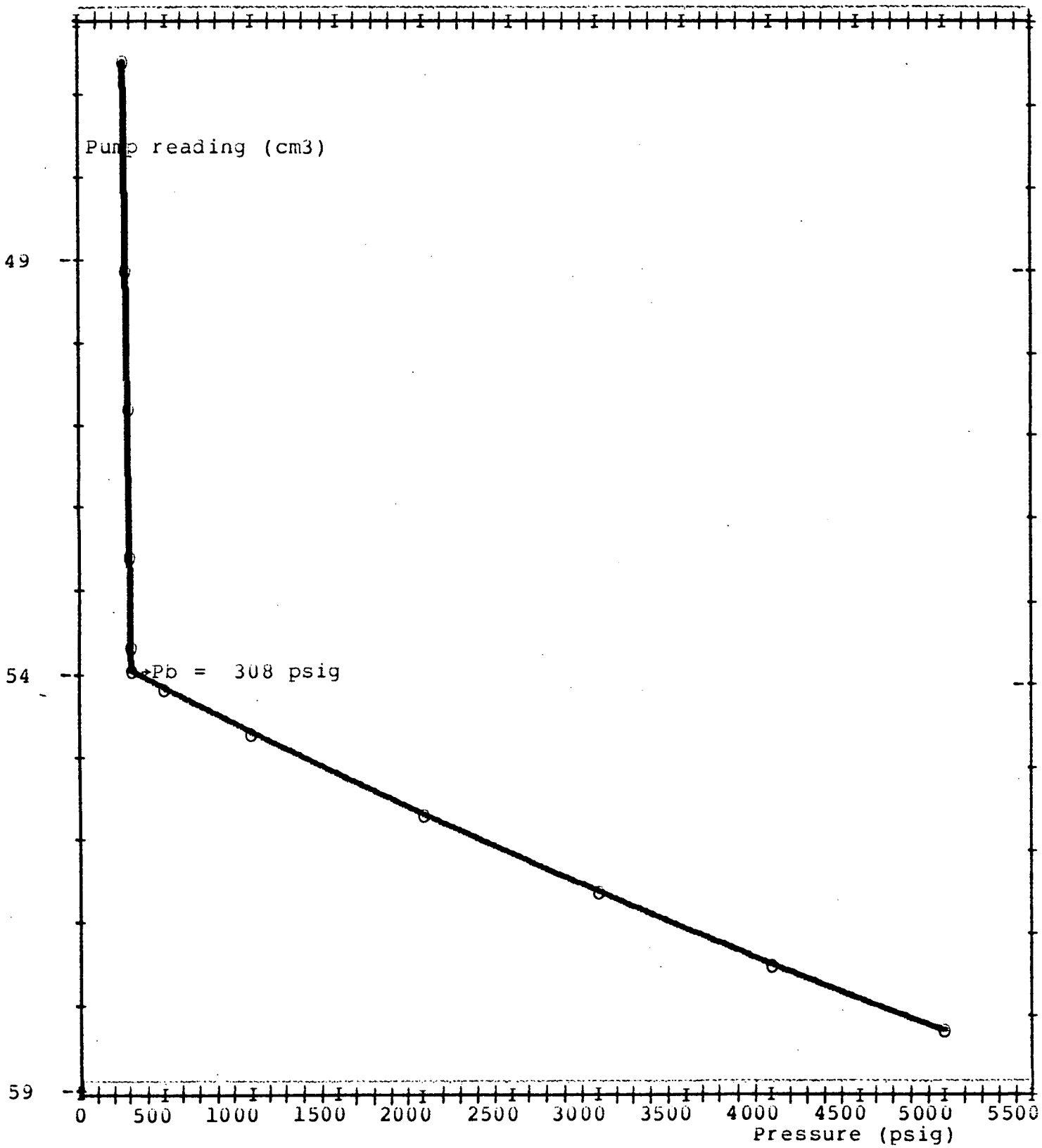
BUBBLE POINT PRESSURE DETERMINATION AT 67 F

Bottom hole sample (cylinder 12689/81)



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WELL : GIDGEALPA #24

TABLE 4

BUBBLE POINT PRESSURE DETERMINATION AT 69 F

Bottom hole sample (Cylinder 80291/137)

Pressure (psig)	Pump reading (cm3)
5000	81.97
4000	81.16
3000	80.26
2000	79.34
1000	78.33
500	77.78
Pb= 306	77.59
304	77.00
299	75.41
294	73.66
290	72.50
286	71.19
279	68.75

This sample has been used for complete PVT study

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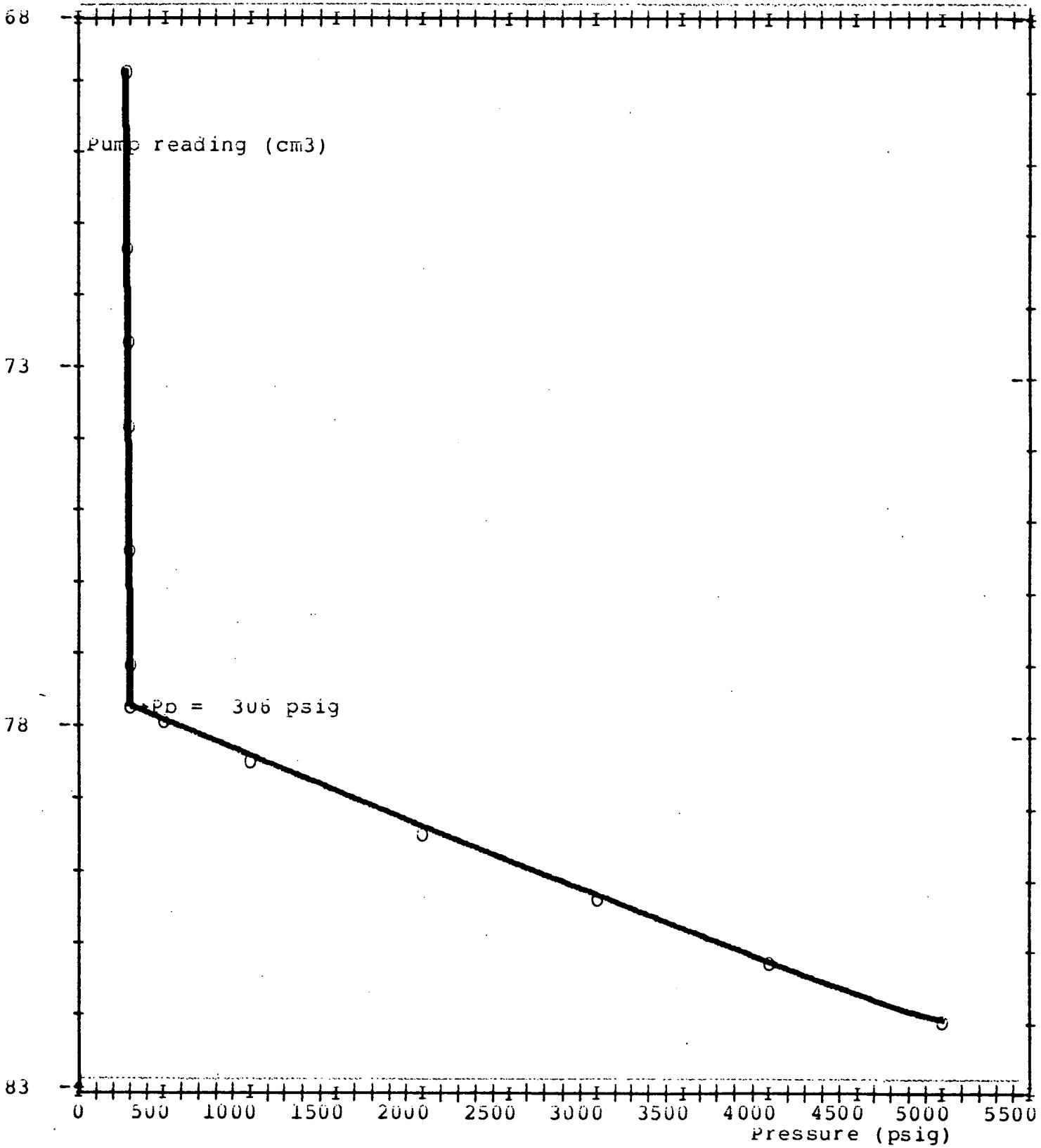
WELL : GIDGEALPA #24

BUBBLE POINT PRESSURE DETERMINATION AT 69 F

Bottom hole sample (cylinder 80291/137)



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WELL: GIDGEALPA #24

MOLECULAR COMPOSITION OF LIBERATED GASES

FROM FLASH TO STOCK TANK CONDITIONS

	Mole Percent		
Bottle No.	9024/44	12689/81	80291/137
COMPONENTS			
Nitrogen	6.64	4.13	4.35
Carbon Dioxide	12.90	13.27	13.13
Hydrocarbons			
Methane	53.89	55.66	55.11
Ethane	8.98	9.22	9.15
Propane	6.86	7.01	7.07
I-Butane	2.63	2.67	2.74
N-Butane	2.77	2.76	2.87
I-Pentane	2.14	2.07	2.22
N-Pentane	1.35	1.29	1.40
Hexanes	1.21	1.08	1.16
Heptanes plus	0.63	0.84	0.80
TOTAL	100.00	100.00	100.00
Molecular Weight	29.259	29.173	29.398
Gravity (Air=1)	1.010	1.007	1.014
Molecular Weight of Heptanes plus	103.3	103.7	102.3

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COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 5

MOLECULAR COMPOSITION OF STOCK TANK OIL

Components	Mole percent
Nitrogen	0.01
Carbon dioxide	0.04
Hydrocarbons:	
Methane	0.04
Ethane	0.10
Propane	0.54
I - Butane	0.62
N - Butane	1.15
I - Pentane	2.34
N - Pentane	2.27
Hexanes	6.80
Heptanes	11.12
Octanes	16.37
Nonanes	9.20
Decanes	7.29
Undecanes	6.70
Dodecanes	4.39
Tridecanes	3.62
Tetradecanes	3.74
Pentadecanes	2.30
Hexadecanes	2.01
Heptadecanes	1.67
Octadecanes	2.61
Nonadecanes	1.71
Eicosanes plus	13.36
TOTAL	100.00

Molecular weight of stock tank liquid : 163
Molecular weight of Eicosanes plus in sto :330
Gravity of Eicosanes plus in sto : 0.816 (60/60 F)

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WELL : GIDGEALPA #24

TABLE 6

MOLECULAR COMPOSITION OF RESERVOIR FLUID

Components	Mole percent
Nitrogen	0.50
Carbon dioxide	1.52
Hydrocarbons:	
Methane	6.29
Ethane	1.12
Propane	1.28
I - Butane	0.86
N - Butane	1.34
I - Pentane	2.33
N - Pentane	2.17
Hexanes	6.16
Heptanes	9.94
Octanes	14.55
Nonanes	8.16
Decanes	6.46
Undecanes	5.94
Dodecanes	3.89
Tridecanes	3.21
Tetradecanes	3.31
Pentadecanes	2.04
Hexadecanes	1.78
Heptadecanes	1.48
Octadecanes	2.31
Nonadecanes	1.52
Eicosanes plus	11.84
TOTAL	100.00

Molecular weight of reservoir fluid : 148.2
Molecular weight of Eicosanes plus in reservoir fluid : 330
Gravity of Eicosanes plus in sto :0.816 (60/60 F)

This composition was calculated from separation at 0 psig and 228 F
Oil P.V.T. Software Version 2.1,00 85ADL009

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COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 7

BUBBLE POINT PRESSURE DETERMINATION AND CONSTANT MASS STUDY AT 228 F

	Pressure (psig)	Relative volume V/VPb	Compressibility factor (psi^{-1})	Y curve Pb/P-1 V/VPb-1
	5000	0.9534		
			10.06 x 10^{-6}	
	4000	0.9629		
			10.16 x 10^{-6}	
	3000	0.9727		
			10.23 x 10^{-6}	
Pi=	2661	0.9761		
			10.75 x 10^{-6}	
	1000	0.9934		
			11.69 x 10^{-6}	
	500	0.9992		
			13.88 x 10^{-6}	
Pb=	440	1.0000		
	437	1.0029		2.38
	436	1.0039		2.38
	425	1.0150		2.36
	410	1.0315		2.32
	389	1.0576		2.28
	352	1.1140		2.19
	295	1.2380		2.06
	214	1.5611		1.88
	188	1.7350		1.82

Thermal expansion factor of reservoir fluid at 5000 psig

between 70 F and 228 F : = 0.522 x 10^{-3} F^{-1}

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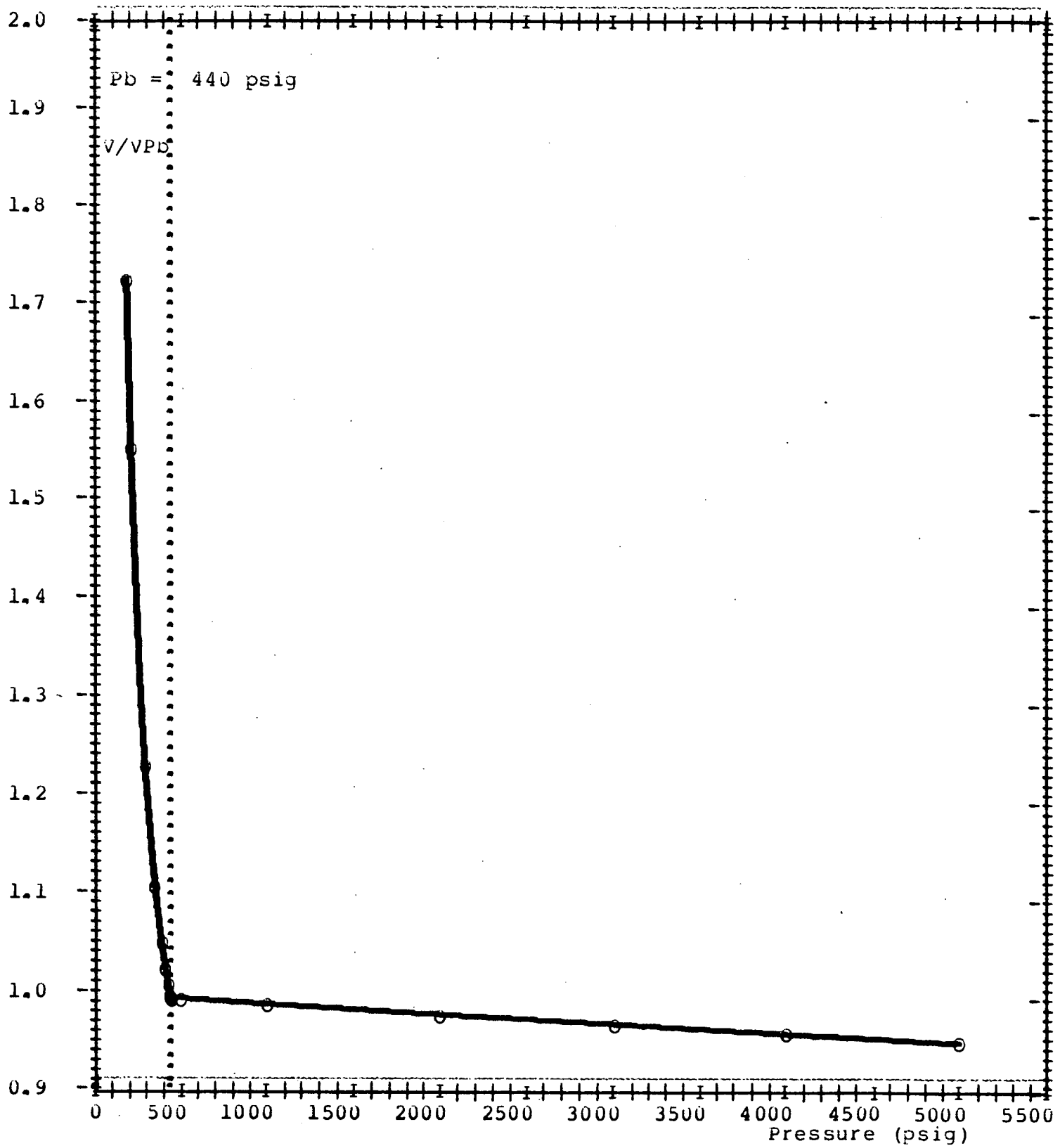
WELL : GIDGEALPA #24

BUBBLE POINT PRESSURE DETERMINATION AND CONSTANT MASS STUDY AT 228 F

Relative volume



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BUBBLE POINT PRESSURE DETERMINATION AND CONSTANT MASS STUDY AT 228 F

Relative Volume

1. For Pb < P <= 5000

$$Vr = 1-10^{(a*\log(P-Pb)+b)}$$

where:

Pb = 440 psig
a = 9.29706398581E-01
b = -4.73300520855E 00

2. For 188 <= P < Pb

$$Vr = 1+(1-x)/(x*(a*x+b))$$

where:

Pb = 440 psig
a = 9.91783783782E-01
b = 1.39993783784E 00

x = P/Pb

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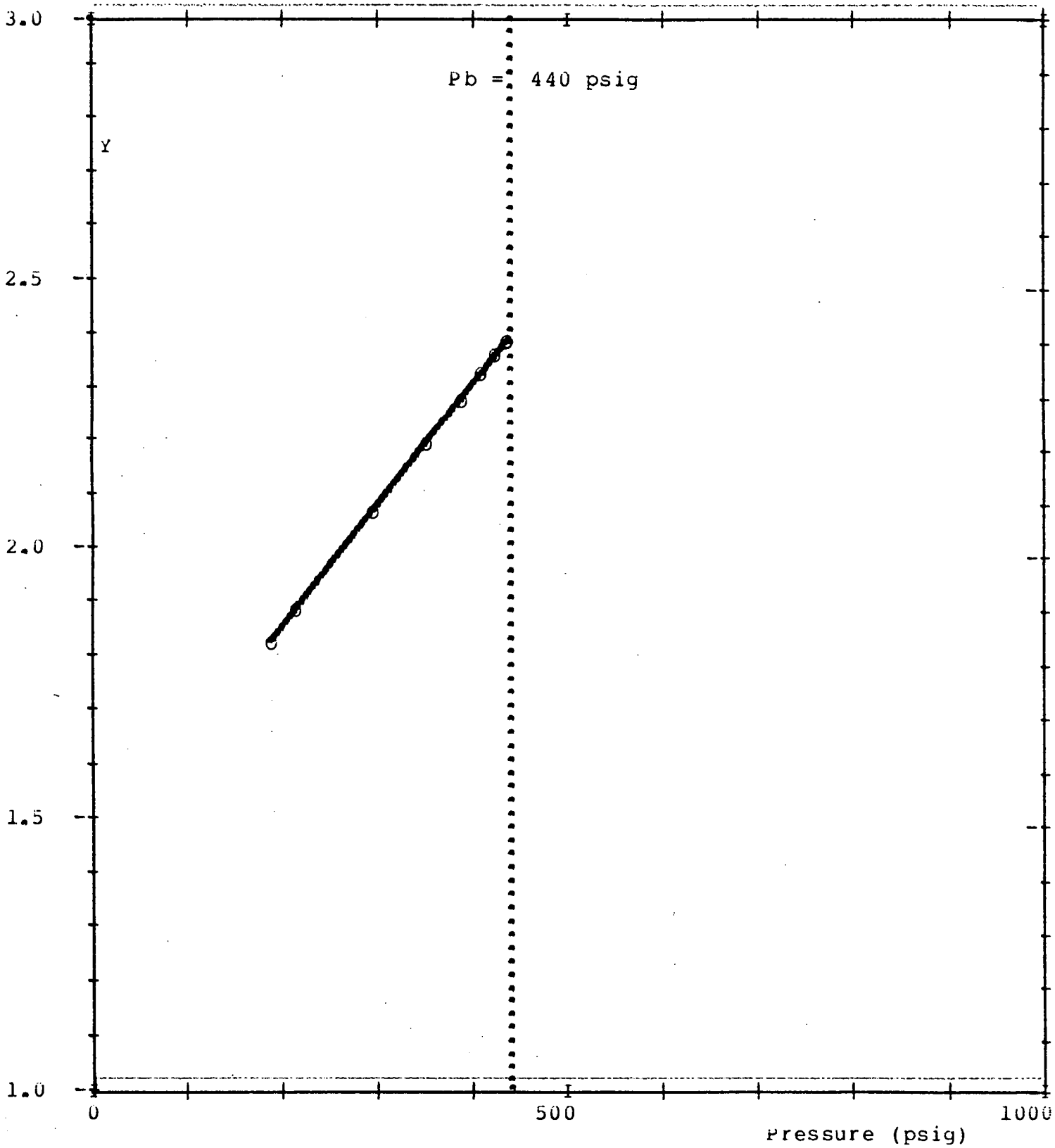
BUBBLE POINT PRESSURE DETERMINATION AND CONSTANT MASS STUDY AT 228 F

Y curve pressure-volume function



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BUBBLE POINT PRESSURE DETERMINATION AND CONSTANT MASS STUDY AT 228 F

Y curve pressure-volume function

For 188 <= P < Pb

Y = a*P+b

where:

Pb	=	440 psig
a	=	2.25405405405E-03
b	=	1.39993783784E 00

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WELL : GIDGEALPA #24

TABLE 8

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Pressure (psig)	Oil volume factor Bo (bbl/Std bbl)	Solution gas-oil ratio Rs (Std cu ft/Std bbl)	Gas volume factor Bg (cu ft/Std cu ft)	Reservoir oil density (g/cm3)
5000	1.144			0.721
4000	1.154			0.714
3000	1.164			0.707
Pi= 2661	1.169			0.704
1000	1.189			0.692
500	1.197			0.688
Pb= 440	1.198	129		0.688
369	1.196	117	4.87×10^{-2}	0.687
290	1.187	103	6.17×10^{-2}	0.690
222	1.181	89	7.99×10^{-2}	0.691
154	1.171	75	11.28×10^{-2}	0.694
89	1.161	59	18.48×10^{-2}	0.698
0	1.092	0	----------	0.723

Residual oil gravity : 0.789 60/60 F
47.8 API

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WELL : GIDGEALPA #24

TABLE 9

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Pressure (psig)	Gas viscosity (centipoises)	Gas gravity (Air=1)	compressibility factor Z
369	0.0138	0.826	0.961
290	0.0133	0.857	0.966
222	0.0128	0.890	0.972
154	0.0121	0.952	0.978
89	0.0111	1.079	0.985
0	0.0082	1.589	1.000

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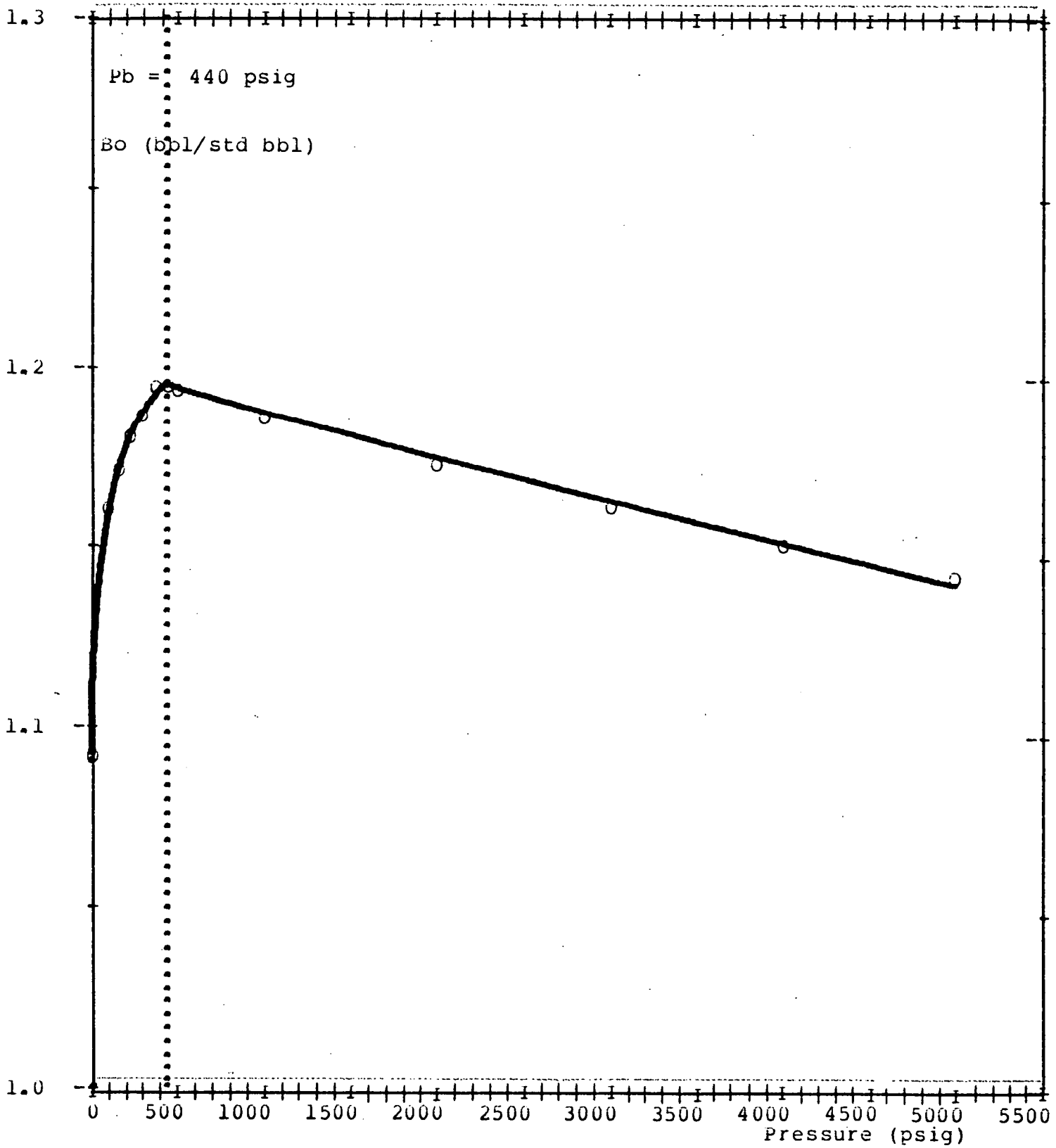
WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Oil volume factor



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WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Oil volume factor

1. For Pb < P <= 5000

$$Bo\ (bbl/Std\ bbl) = a-10^{(b*\log(P-Pb)+c)}$$

where:

Pb	=	440 psig	x = P/Pb
a	=	1.19795866387E 00	
b	=	9.29706398581E-01	
c	=	-4.65456337578E 00	

2. For 0 <= P <= Pb

$$Bo\ (bbl/Std\ bbl) = a+b*x^{i}+c*x^{j}+d*x^{K}$$

where:

Pb	=	440 psig	x	=	P/Pb
a	=	1.09200183431E 00	i	=	0.5
b	=	1.92845831971E-01	j	=	1.0
c	=	-9.27886241521E-02	K	=	5
d	=	5.89962173961E-03			

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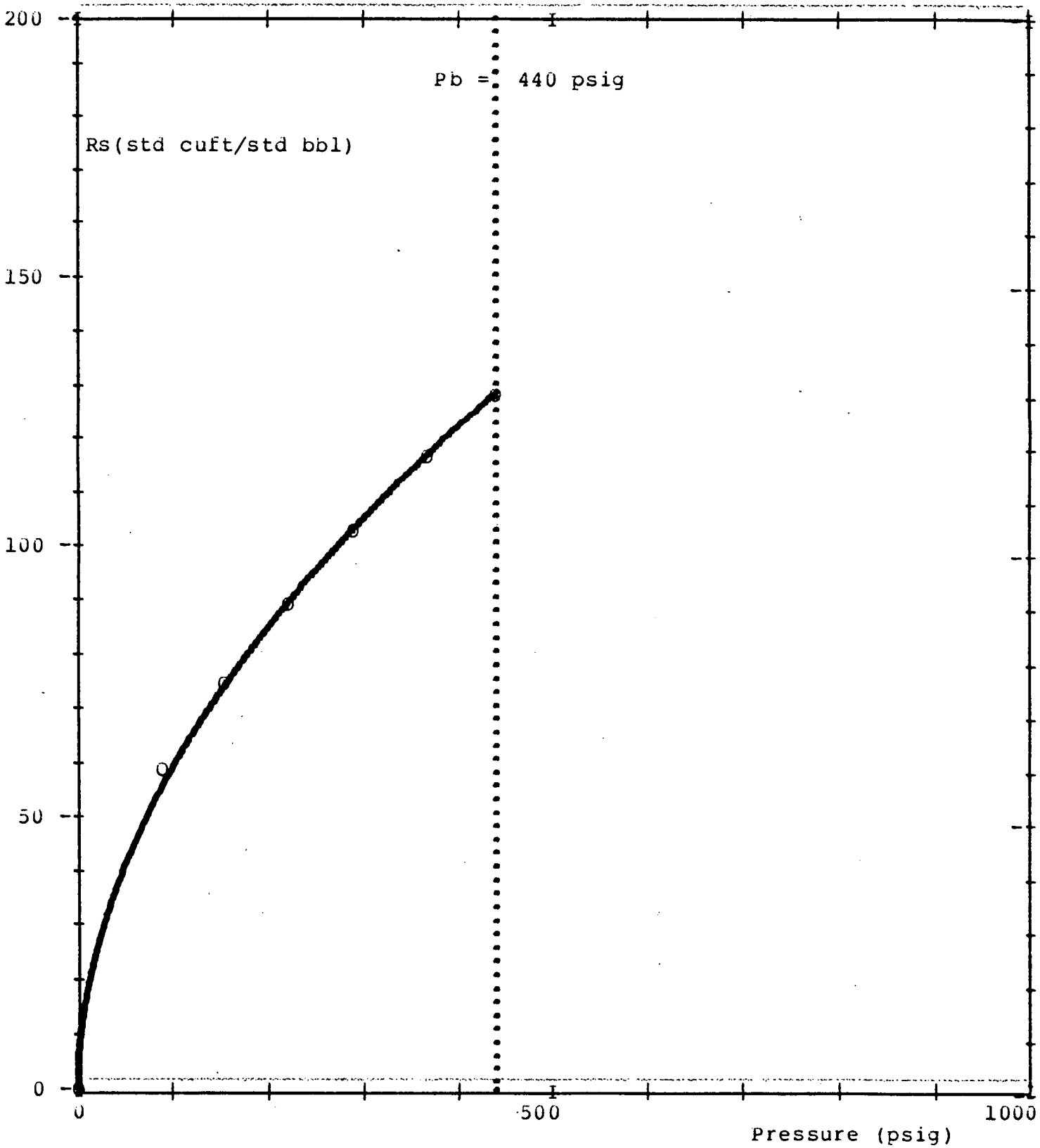
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Solution gas oil ratio



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WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Solution gas oil ratio

For 0 <= P <= Pb

$$Rs \text{ (std cuft/std bbl)} = a*x^i+b*x^j+c*x^k$$

where:

Pb	=	440 psig	x	=	P/Pb
a	=	1.55037436437E 02	i	=	0.6
b	=	-3.23553838928E 01	j	=	1.0
c	=	3.48529033731E 00	k	=	3

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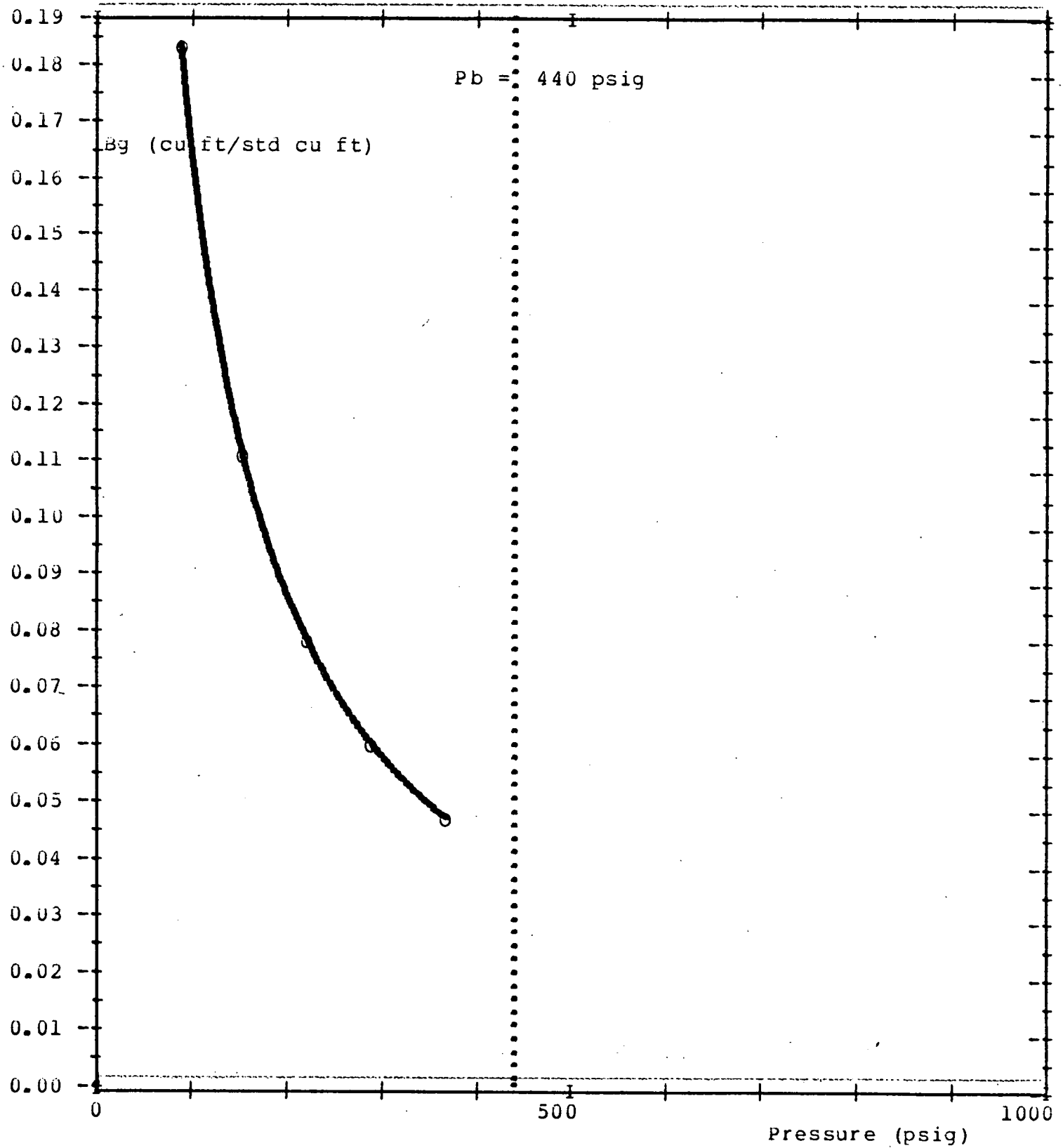
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Gas volume factor



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DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Gas volume factor

For 89 <= P <= 369

$$Bg \text{ (cuft/std cuft)} = (a*x^2+b*x+c)/(d*x+1)$$

where:

Pb	=	440 psig	x = P/Pb
a	=	2.09132668713E-02	
b	=	-7.00631209107E-02	
c	=	1.32804933386E 00	
d	=	3.02280298103E 01	

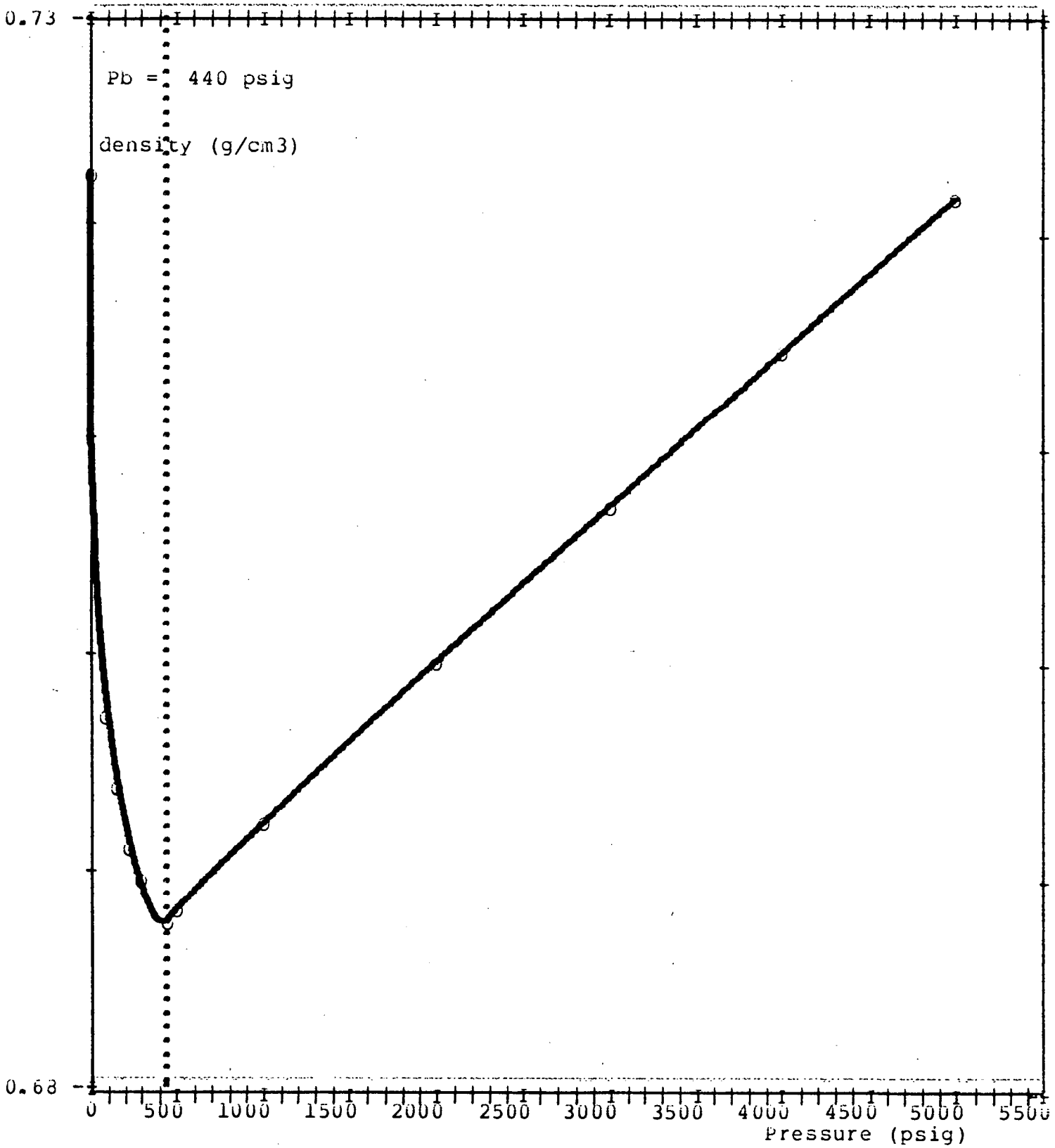
FLOPETROL JOHNSTON Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Reservoir oil density



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Schlumberger

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WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Reservoir oil density

1. For Pb < P <= 5000

$$do\ (g/cm3) = 1/(a-10^{(b*\log(P-Pb)+c)})$$

where:

Pb	=	440 psig
a	=	1.45439223936E 00
b	=	9.29706393581E-01
c	=	-4.57032366006E 00

2. For 0 <= P <= Pb

$$do\ (g/cm3) = a+b*x^{i}+c*x^{j}+d*x^{k}$$

where:

Pb	=	440 psig	x	=	P/Pb
a	=	7.22749360000E-01	i	=	0.6
b	=	-5.23759927814E-02	j	=	1.0
c	=	2.54165934945E-02	k	=	30
d	=	3.19002173578E-04			

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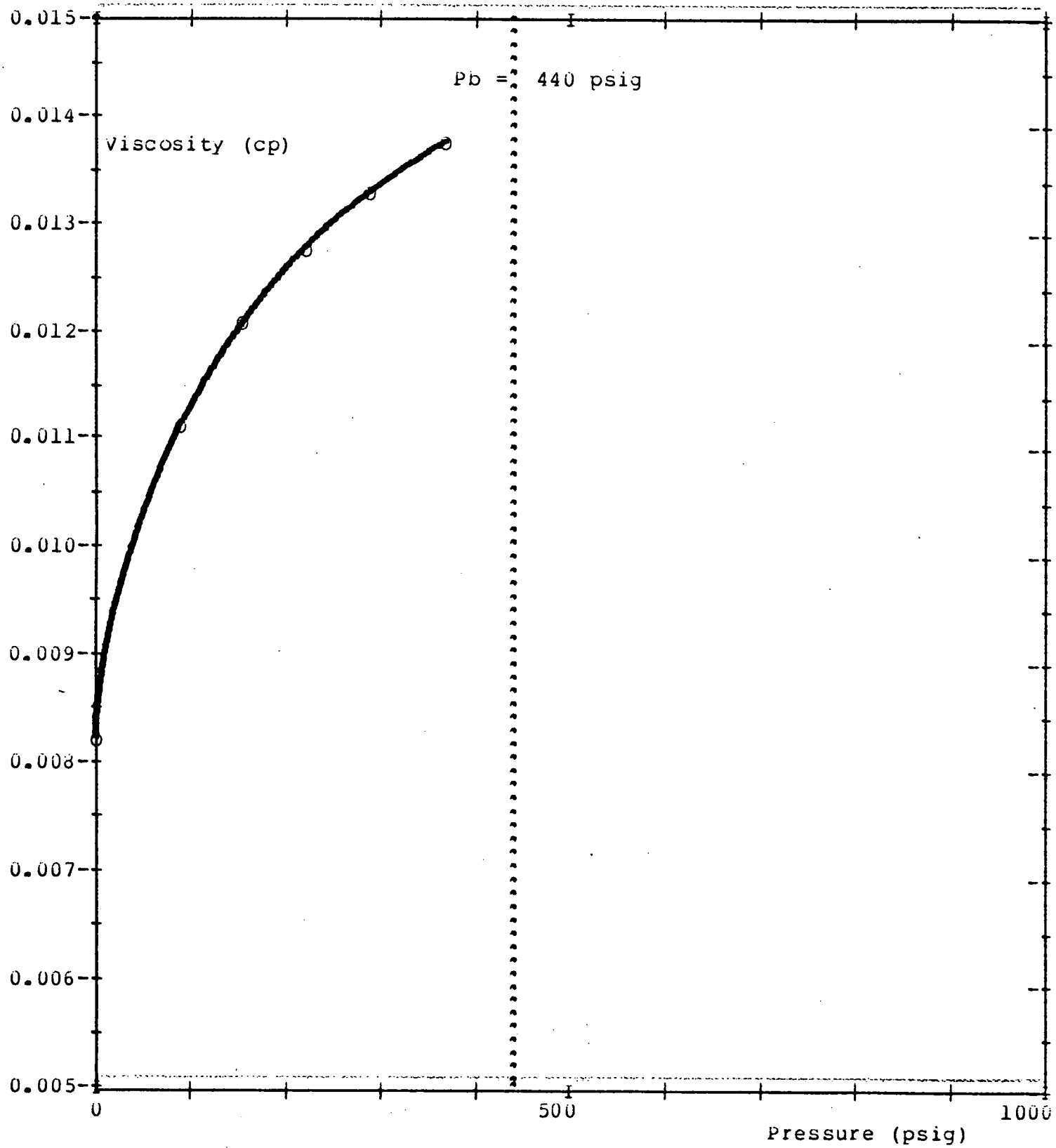
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

liberated gas viscosity



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WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Liberated gas viscosity

For 0 <= P <= 369

$$ng \text{ (centipoises)} = a+b*x^{i}+c*x^{j}+d*x^{k}$$

where:

Pb	=	440 psig	x	=	P/Pb
a	=	8.18861851010E-03	i	=	0.6
b	=	7.840740800010E-03	j	=	2.0
c	=	-2.474516347 48E-03	k	=	5
d	=	6.19428253005E-04			

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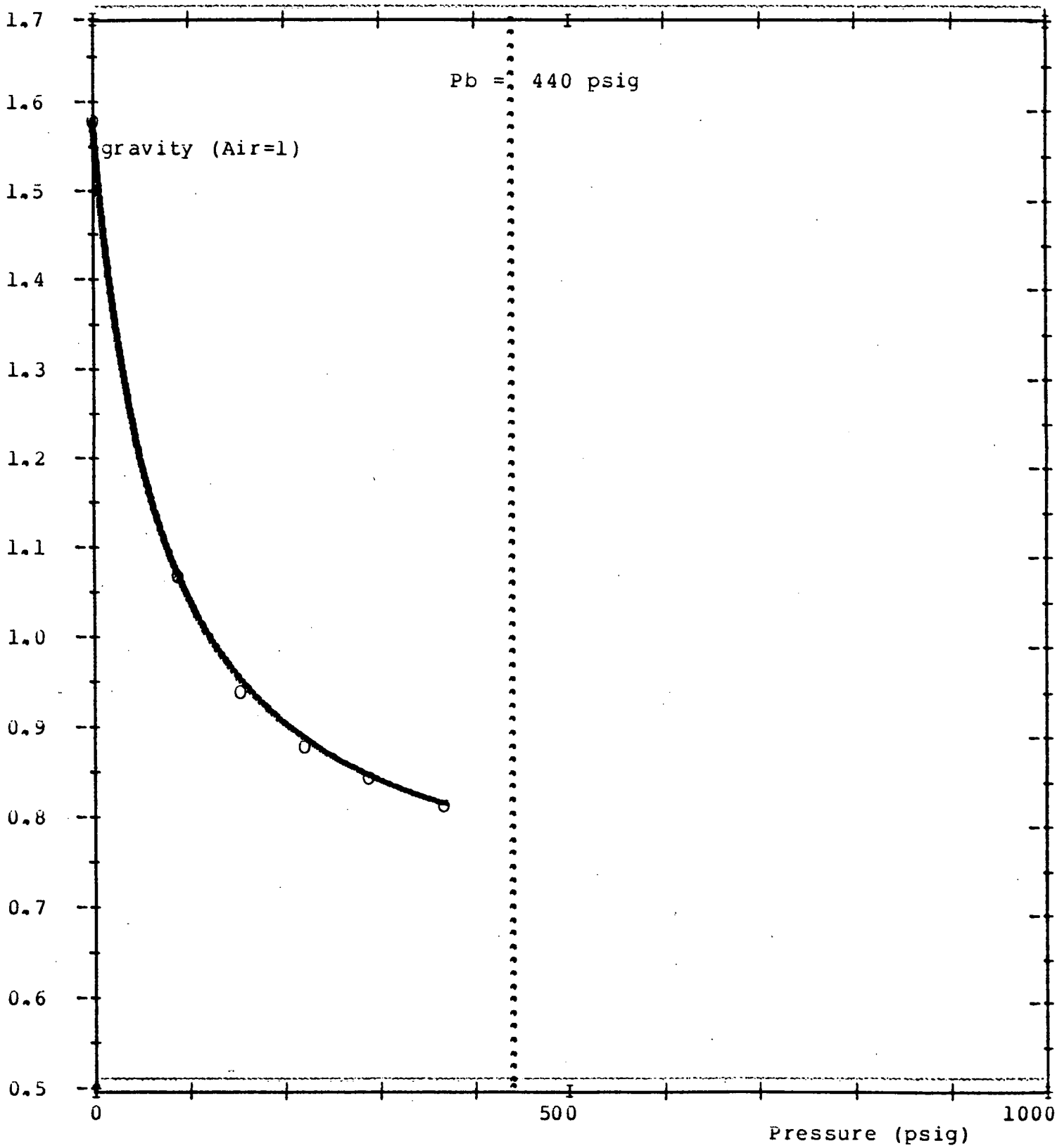
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Liberated gas gravity



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DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Liberated gas gravity

For 0 <= P <= 369

$$dg\ (air=1) = (a*x^2+b*x+c)/(d*x^2+e*x+1)$$

where:

Pb	=	440 psig	x = P/Pb
a	=	1.53477163127E 00	
b	=	4.92368375771E 00	
c	=	1.58862571774E 00	
d	=	2.26869110150E 00	
e	=	6.72203564193E 00	

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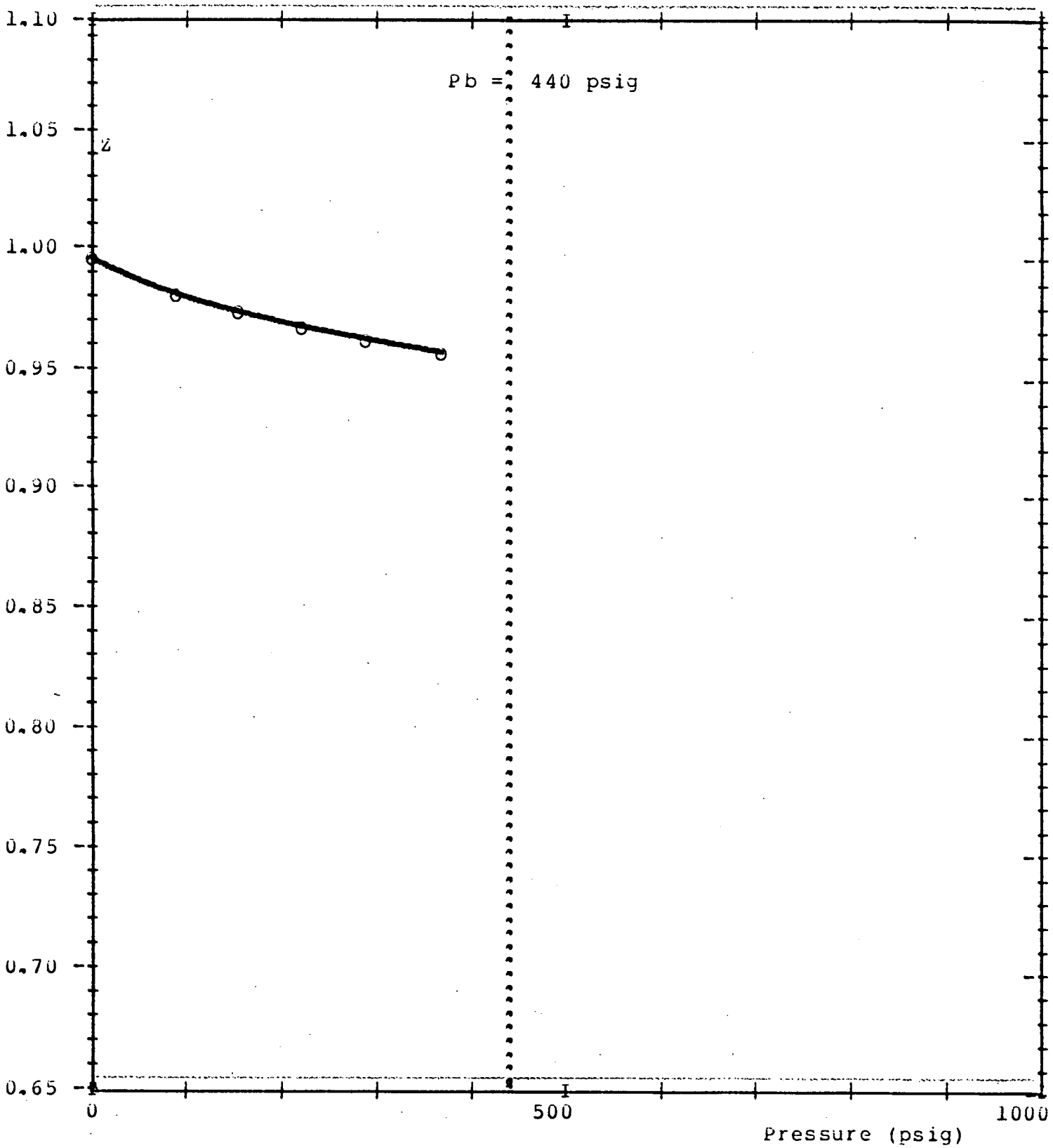
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Compressibility factor Z



FLOPETROL JOHNSTON Schlumberger

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WELL : GIDGEALPA #24

DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID AT 228 F

Compressibility factor Z

For 0 <= P <= 369

$$Z = (a*x^2+b*x+c)/(d*x+1)$$

where:

Pb	=	440 psig	x = P/Pb
a	=	-3.792653023000E-02	
b	=	2.059045106824E 00	
c	=	1.000000000000E 00	
d	=	2.157899899919E 00	

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 10

SEPARATION TEST OF RESERVOIR FLUID

Separator Pres. (psig)	Separator Temp. (F)	Gas-oil ratio (1) (Std cu ft/std bbl) Sep.	Tank	Total	Oil volume factor(2) (bbl/Std bbl)	Sep. liq. density (g/cm3)	Shrinkage factor(3) (Std bbl/bbl)	sto gravity (60/60 F)
50	140	63	-	-	-	0.737	0.934	-
0	65	-	7	70	1.166	-	0.995	0.787

$B_{oi} = 1.166 \times 0.9761 = 1.138$
(table 7)

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 11

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	50	0
Temperature (F)	140	65
Nitrogen	4.00	12.30
Carbon dioxide	12.94	12.42
Hydrocarbons:		
Methane	59.11	35.48
Ethane	8.73	7.02
Propane	6.37	7.67
I - Butane	2.45	3.72
N - Butane	2.52	5.30
I - Pentane	1.79	5.45
N - Pentane	1.02	4.09
Hexanes	0.57	4.06
Heptanes plus	0.50	2.49
TOTAL	100.00	100.00
Molecular weight	27.642	38.242
Gravity (Air=1)	0.954	1.320
Molecular weight of heptanes plus	100.5	101.2

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 12

SEPARATION TEST OF RESERVOIR FLUID

Separator		Gas-oil ratio (1) (Std cu ft/std bbl)			Oil volume factor(2) (bbl/Std bbl)	Sep. liq. density (g/cm3)	Shrinkage factor(3) (Std bbl/bbl)	sto gravity (60/60 F
Pres. (psig)	Temp. (F)	Sep.	Tank	Total				
30	140	72	-	-	-	0.718	0.908	-
0	66	-	4	76	1.171	-	0.996	0.789

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 13

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	30	0
Temperature (F)	140	66
Nitrogen	4.20	10.20
Carbon dioxide	12.78	14.56
Hydrocarbons:		
Metnane	57.18	42.16
Ethane	8.91	7.81
Propane	6.77	6.96
I - Butane	2.67	3.16
N - Butane	2.83	3.94
I - Pentane	2.15	3.76
N - Pentane	1.26	2.77
Hexanes	0.87	2.97
Heptanes plus	0.38	1.71
TOTAL	100.00	100.00
Molecular weignt	28.437	34.597
Gravity (Air=1)	0.981	1.194
Molecular weignt of heptanes plus	102.8	102.5

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 14

SEPARATION TEST OF RESERVOIR FLUID

Separator		Gas-oil ratio (1) (Std cu ft/std bbl)			Oil volume factor(2) (bbl/Std bbl)	Sep. liq. density (g/cm3)	Shrinkage factor(3) (Std bbl/bbl)	sto gravity (60/60
Pres. (psig)	Temp. (F)	Sep.	Tank	Total				
50	110	59	-	-	-	0.733	0.928	-
0	69	-	7	66	1.166	-	0.996	0.787

(1) Gas volume at standard conditions per volume of stock tank oil at 60

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 15

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	50	0
Temperature (F)	110	69
Nitrogen	5.80	1.50
Carbon dioxide	13.50	16.95
Hydrocarbons:		
Methane	59.08	38.04
Ethane	7.66	8.65
Propane	4.93	7.77
I - Butane	1.82	3.53
N - Butane	1.98	5.18
I - Pentane	1.60	5.49
N - Pentane	1.10	4.61
Hexanes	1.76	5.13
Heptanes plus	0.77	3.15
TOTAL	100.00	100.00
Molecular weight	27.974	40.022
Gravity (Air=1)	0.965	1.381
Molecular weight of heptanes plus	101.1	102.9

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 16

SEPARATION TEST OF RESERVOIR FLUID

Separator		Gas-oil ratio (1) (Std cu ft/std bbl)			Oil volume factor(2) (bbl/Std bbl)	Sep. liq. density (g/cm3)	Shrinkage factor(3) (Std bbl/bbl)	sto gravity (60/60 F
Pres. (psig)	Temp. (F)	Sep.	Tank	Total				
30	110	66	-	-	-	0.743	0.942	-
0	68	-	9	75	1.168	-	0.995	0.787

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 17

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	30
Temperature (F)	110
Nitrogen	4.60
Carbon dioxide	13.22
Hydrocarbons:	
Methane	58.14
Etnane	8.64
Propane	6.17
I - Butane	2.36
N - Butane	2.47
I - Pentane	1.90
N - Pentane	1.13
Hexanes	0.91
Heptanes plus	0.46
TOTAL	100.00
Molecular weignt	28.001
Gravity (Air=1)	0.966
Molecular weignt of neptanes plus	102.3

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 18

SEPARATION TEST OF RESERVOIR FLUID

Separator Pres. (psig)	Separator Temp. (F)	Gas-oil ratio (1) (Std cu ft/std bbl) Sep.	Tank	Total	Oil volume factor (2) (bbl/Std bbl)	Sep. liq. density (g/cm3)	Shrinkage factor (3) (Std bbl/bbl)	sto gravity (60/60 F
50	60	57	-	-	-	0.782	0.993	-
0	67	-	8	65	1.161	-	0.997	0.785

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 19

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	50	0
Temperature (F)	60	67
Nitrogen	4.98	3.84
Carbon dioxide	13.53	13.14
Hydrocarbons:		
Methane	62.52	40.81
Ethane	8.25	11.53
Propane	4.91	11.54
I - Butane	1.60	4.87
N - Butane	1.49	5.03
I - Pentane	0.95	3.91
N - Pentane	0.51	2.27
Hexanes	0.59	2.05
Heptanes plus	0.67	1.01
TOTAL	100.00	100.00
Molecular weight	26.069	35.026
Gravity (Air=1)	0.900	1.209
Molecular weignt of heptanes plus	102.3	107.4

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 20

SEPARATION TEST OF RESERVOIR FLUID

Separator		Gas-oil ratio (1) (Std cu ft/std bbl)			Oil volume factor(2)	Sep. liq. density	Shrinkage factor(3)	sto gravity
Pres. (psig)	Temp. (F)	Sep.	Tank	Total	(bbl/Std bbl)	(g/cm3)	(Std bbl/bbl)	(60/60 F
30	60	65	-	-	-	0.782	0.992	-
0	68	-	11	76	1.164	-	0.995	0.785

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 21

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	30	0
Temperature (F)	60	68
Nitrogen	4.94	5.59
Carbon dioxide	13.64	14.26
Hydrocarbons:		
Metnane	62.49	48.86
Ethane	8.39	7.48
Propane	4.96	6.60
I - Butane	1.59	2.99
N - Butane	1.54	3.59
I - Pentane	0.99	3.24
N - Pentane	0.58	2.38
Hexanes	0.39	2.92
Heptanes plus	0.49	2.09
TOTAL	100.00	100.00
Molecular weignt	25.924	33.376
Gravity (Air=1)	0.895	1.152
Molecular weignt of neptanes plus	104.8	102.4

FLOPETROL JOHNSTON Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 22

SEPARATION TEST OF RESERVOIR FLUID

Separator		Gas-oil ratio (1) (Std cu ft/std bbl)			Oil volume factor(2)	Sep. liq. density	Shrinkage factor(3)	sto gravity
Pres. (psig)	Temp. (F)	Sep.	Tank	Total	(bbl/Std bbl)	(g/cm3)	(Std bbl/bbl)	(60/60 F
0	228	-	82	82	1.167	-	1.000	0.785

(1) Gas volume at standard conditions per volume of stock tank oil at 60 F

(2) Volume of reservoir fluid at saturation pressure per volume of stock tank oil at 60 F

(3) Volume of stock tank oil at 60 F per volume of separator liquid at separator conditions

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 23

SEPARATION TEST OF RESERVOIR FLUID

Molecular composition of liberated gases (mole percent)

Pressure (psig)	0
Temperature (F)	228
Nitrogen	4.35
Carbon dioxide	13.13
Hydrocarbons:	
Methane	55.11
Ethane	9.15
Propane	7.07
I - Butane	2.74
N - Butane	2.87
I - Pentane	2.22
N - Pentane	1.40
Hexanes	1.16
Heptanes plus	0.80
TOTAL	100.00
Molecular weignt	29.393
Gravity (Air=1)	1.014
Molecular weight of neptanes plus	102.3

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Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

TABLE 24

VISCOSITY OF RESERVOIR FLUID AT 228 F

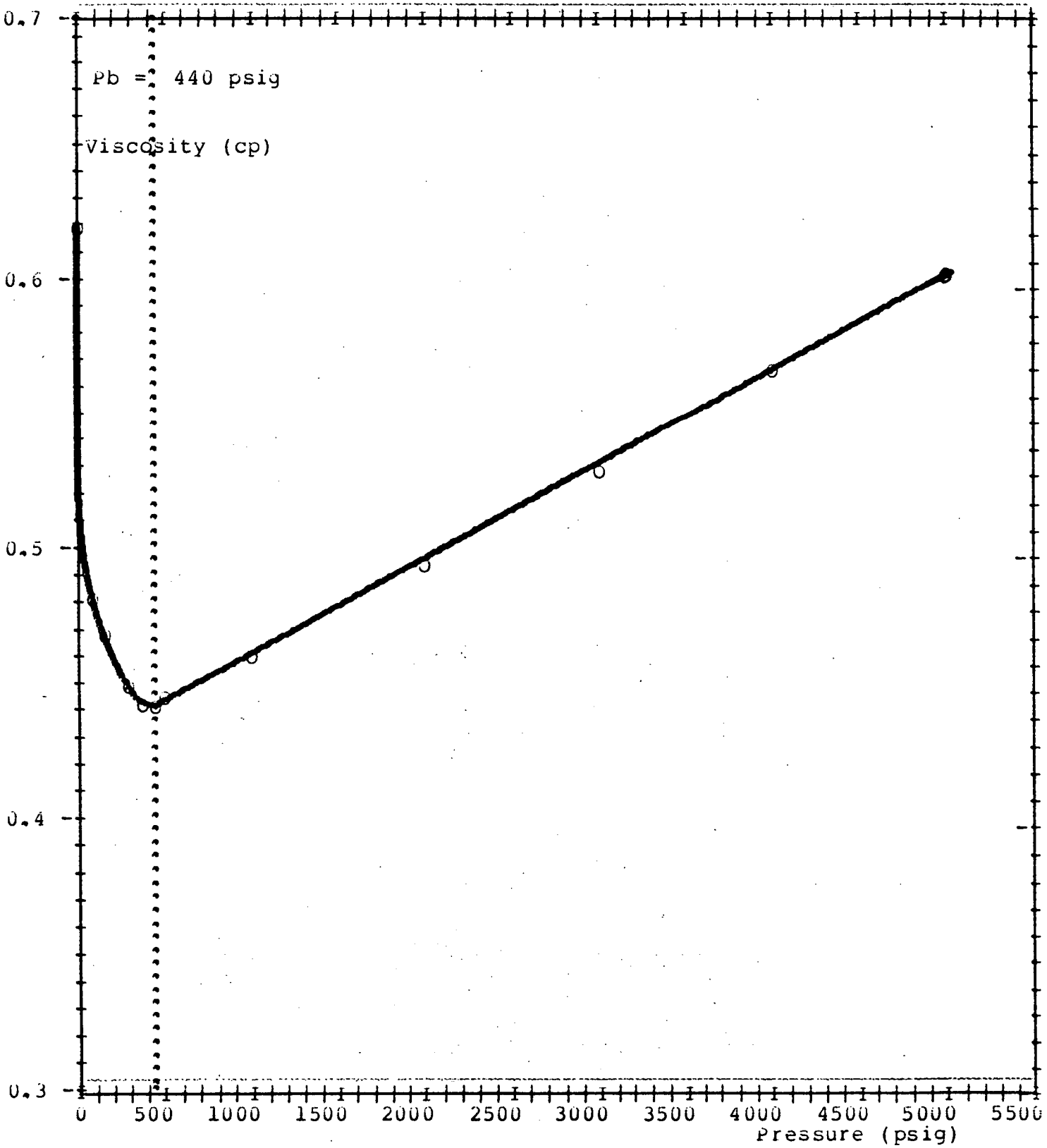
	Pressure (psig)	Viscosity (centipoises)
	5000	0.61
	4000	0.57
	3000	0.53
Pi=	2661	0.52
	1000	0.46
	500	0.45
Pb=	440	0.44
	369	0.45
	290	0.45
	222	0.69
	154	0.47
	89	0.49
	0	0.62

FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

VISCOSITY OF RESERVOIR FLUID AT 228 F



FLOPETROL JOHNSTON
Schlumberger

COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

VISCOSITY OF RESERVOIR FLUID AT 228 F

1. For Pb <= P <= 5000

no (centipoises) = a*P+b

where:

Pb	=	440 psig
a	=	3.50877192982E-05
b	=	4.25561403509E-01

2. For 0 <= P <= Pb

$$no\ (centipoises) = a+b*x^{i}+c*x^{j}+d*x^{k}$$

where:

Pb	=	440 psig	x	=	P/Pb
a	=	6.23000000000E-01	i	=	0.1
b	=	-1.54384764692E-01	j	=	1.0
c	=	-4.02719181137E-02	k	=	3
d	=	1.26566828063E-02			

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COMPANY : DELHI PETROLEUM PTY LTD

WELL : GIDGEALPA #24

NOMENCLATURE

P	:	Pressure
V	:	Volume
T	:	Temperature
Pi	:	Initial static pressure
Pb	:	Bubble point pressure
Pd	:	Dew point pressure
Vr=V/V Pb	:	Relative volume (oil reservoir fluid)
Vr=V/V Pd	:	Relative volume (gas reservoir fluid)
$c=-\frac{1}{V}x\frac{dV}{dP}$	:	Compressibility factor of reservoir fluid
$\alpha=\frac{1}{V}x\frac{dV}{dT}$	:	Thermal expansion of reservoir fluid
$Y=\frac{Pb/P-1}{Vr-1}$	:	Dimensionless compressibility function
Bo	:	Oil formation volume factor
Rs	:	Solution gas oil ratio
Z	:	Gas compressibility factor or gas deviation factor
Bg	:	Gas formation volume factor
do	:	Reservoir oil density
GD	:	Residual oil gravity
G	:	Gas gravity (Air=1)
Sto	:	Stock tank oil
GOR	:	Gas oil ratio
GLR	:	Gas liquid ratio
WOR	:	Water liquid ratio
Shrinkage factor	:	Oil volume at standard conditions / Oil volume at separator conditions
$Z=\frac{PV}{nRT}$	:	n=Total moles of a mixture in tne gas state R=Universal gas constant (per mole)
GPM	:	Gallons per thousand standard cubic feet
Standard conditions	:	For gas volumes =60 F and 14.7 psia
	:	For oil measurements=60 F and atmospheric pressure

Gross neat content is calculated from API research project 44
Molecular weights,densities,critical values are from CRC Handbook of chemistry and physics
Gas viscosity is calculated with equations from Standing (Benavior of oil field hydrocarbon systems)

GIDGEALPA #24

HUTON

EXTENDED TESTING

30.4.85/25.5.85

EXPERTEST PTY LTD

WIRELINE & WELL TESTING SERVICE

- [ ] Wireline Report
- [x] Wellhead Data
- [x] Production Data
- [ ] B.H.P. Flow / Buildup Data
- [ ] Production Rate Calculations
- [ ] Flowing/Static Gradient
- [ ] Bottom Hole Sampling

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 TELEPHONE (08) 354 0488 TELEX AA87183 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 30/4/85 PAGE No 1

OPERATOR C. THOMSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
30/4/85																			
17:00	602	726				SHUT IN PRESSURE													
17:00	602	726				OPEN TO TANK #55 8/64 FIXED BEAM CHOKE													
17:30		602		8/64															
18:00	623	600																	
20:00	617	604	82																
22:00	617	608	82																
1/5/85																			
06:00	616	614	82																
14:00	617	615	93		0														
22:00	192	610	87																
2/5/85																			
06:00	192	620	87																
14:00	195	620	104																
18:00	195	620	93	↓	↓														

0142

E6

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24

(HUTTON)

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 3/5/85 PAGE No 2

OPERATOR C. THOMSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
3/5/85																			
06:00	195	620	91	8/64	0														
18:00	200	620	69																
4/5/85																			
06:00	200	620	91																
18:00	200	630	98																

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CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

DATE 5/5/85 PAGE No 3

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
5/5/85																			
06:00	200	630	91	8/64	0														
18:00	200	630	98	8/64	0														
6/5/85																			
06:00	200	630	95	8/64	0														
18:00	200	630	98	8/64	0														
7/5/85																			
06:00	200	630	93	8/64	0														
18:00	210	630	95	8/64	0														
8/5/85																			
06:00	204	627	93	8/64	0														
18:00	210	630	95	8/64	0														
9/5/85																			
06:00	210	630	93	8/64	0														
18:00	210	630	95	8/64	0														
10/5/85																			
06:00	210	629	93	8/64	0														
18:00	206	633	96	8/64	0														

0144

CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONLA 5033

DATE 11/5/85 PAGE No 4

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
11/5/85																			
06:00	210	630	93	8/64	0														

0145

CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 12/5/85 PAGE No 5

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
12/5/85																			
06:00	210	630	93	8/64	0														
13/5/85																			
06:00	215	630	93	8/64	0														
14/5/85																			
06:00	212	630	95	8/64	0														
15/5/85																			
06:00	220	630	96	8/64	0														
16/5/85																			
06:00	215	630	93	8/64	0														
17/5/85																			
06:00	218	635	93	8/64	0														
18/5/85																			
06:00	218	635	95	8/64	0														

0146

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

HUTTON

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 19.5.85 PAGE No 6

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
19.5.85																			
06:00	219	632	90	8/64	0														
20.5.85																			
06:00	220	632	93	8/64	0														
21.5.85																			
06:00	220	633	89	8/64	0														
22.5.85																			
06:00	220	632	91	8/64	0														
23.5.85																			
06:00	220	632	93	8/64	0														

0147

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

DATE 24.5.85 PAGE No 7

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
24.5.85																			
06:00	220	630	93	8/64	0														
14:30		S.W.I.				TO CHANGE OUT CHOKE													
14:45	440	735																	
15:00		OPEN WELL ON 11/64 VARIABLE CHOKE																	
15:15	250	500		11/64															
16:00	245	505		11/64															
16:30	241	510		11/64															
17:00	240	572		10/64															
17:30	240	580		9/64															
17:45		S.W.I.				TO CHANGE CHOKE													
18:00		OPEN WELL ON 8/64 FIXED																	
19:00	230	620		8/64															
19:30	230	625		8/64															
25.5.85																			
06:00	230	630	91	8/64	0														

0148

CLIENT DELHI PETROLEUM PTY LTD

TANK:— CAPACITY 377

SCALE 1" = 1.695 BBLS/INCH

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
139 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

DATE 30/4/85 PAGE No 1

OPERATOR C. THOMSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
30/4/85				FLOW TO	TANK #55									
17:00		0	0	0	0	0			0	0	0	0		OPENING DIP
18:00		7	7	11.86	284.76	11.86			0	-	-	-		
20:00		19	19	20.34	244.08	32.2								
22:00		31	31	20.34	244.08	52.54								
1/5/85														
06:00		82.5	82.5	87.29	261.87	139.83								
14:00		132.75	132.75	85.17	255.52	225	48.8							
22:00		183	183	85.17	255.52	310.73	49.0							
22:00		CHANGE TO TANK #		56										
22:00		0	0	-	-	-			0	-	-	-		OPENING DIP
2/5/85														
06:00		51	51	87.29	261.87	398.02	49.1							
14:00		102.75	102.75	87.71	263.14	485.73	49.2							
18:00		126.75	126.75	40.68	244.08	526.41	49.4							

0149

CLIENT DELHI PETROLEUM PTY LTD.

TANK:— CAPACITY 377 BBLS

SCALE 1" = 1.695 BBLS

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

DATE 3/5/85 PAGE No 2

OPERATOR C. THOMSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
3/5/85														
06:00		202	202	127.54	255.09	653.94	48.9							
09:30		224.5	224.5	38.13	261.51	692.08								SHIPPED 463 BBLS
		CHANGE TO TANK #55												
		2.5	2.5	0	0				0	-	-	-		OPENING DIP
18:00		55.25	55.25	89.41	252.45	781.49	48.2							
4/5/85														
06:00		131.25	131.25	128.82	257.64	910.31	48.5							
15:15		189.25	189.25	98.31	255.07	1008.62								SHIPPED 446 BBLS
15:15		CHANGE TO TANK #56												
15:15		3	3	0	0				0	-	-	-		OPENING DIP
18:00		23	23	33.9	246.85	1042.52	48.9							

0150

CLIENT... DELHI PETROLEUM .....

TANK:— CAPACITY ..... 377 .....

SCALE .. 1" = 1/695 BBLS .....

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL .... GIDGEALPA # 24 .....

DATE 5/5/85 ..... PAGE No 3 ....

OPERATOR .. P. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
05/5/85														
06:00		96.5	96.5	124.58	249.16	1158.1	48.3		0	-	-	-		
09:15		112.5	112.5	27.12	200.27									SHIPPED 222 BBLS.
09:15		CHANGE	TO TANK	# 55										
09:15		3	3	0	0				0	-	-	-		OPENING DIP
18:00		56.5	56.5	90.68	248.72	1275.9	48.3		0	-	-	-		
06/5/85														
06:00		133.75	133.75	130.93	261.86	1406.83	48.3							SHIPPED 227 BBLS.
09:00		152	152	30.93	247.47	1437.76								
		CHANGE	TO TANK	# 56										
09:00		32	32	0	0				0	-	-	-		OPENING DIP
18:00		89.75	89.75	94.88	261.03	15 .64	48.6		0	-	-	-		
07/5/85														
06:00		165.25	165.25	127.97	255.94	1663.61	49.0		0	-	-	-		SHIPPED 232 BBLS
18:00		231	231	111.44	222.9	1775.05			0	-	-	-		
18:00		CHANGE	TO TANK	# 55										
		18	18	0	0	1775.05			0	-	-	-		OPENING DIP
08/5/85														
06:00		93.25	93.25	127.54	255.1	1902.59	49.9		0	-	-	-		
07:15		101	101	13.13	252.1	1915.72			0	-	-	-		SHIPPED 222.9 BBLS.

0151

CLIENT ... DELHI PETROLEUM .....

TANK:— CAPACITY ... 377 .....

SCALE .... 1" = 1,695 BBLS ....

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

DATE ... 8/5/85 ..... PAGE No .. 4 ....

OPERATOR .... P.. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
08/5/85														
07:15		CHANGE	TO TANK	# 56										
		9	9	0	0	1915.72			0	0	0	0		OPENING DIP
18:00		71	71	105.09	234.62	2020.81			0	-	-	-		
09/5/85														
06:00		146.25	146.25	127.55	255.1	2148.36	51		0	-	-	-		SHIPPED 220 BBLS
06:00		CHANGE	TO TANK	# 55										
		54.5	54.5	0	0	2148.36			0	-	-	-		OPENING DIP
18:00		130.5	130.5	128.82	257.64	2277.18	48.9		0	-	-	-		
10/5/85														
06:00		205.75	205.75	127.55	255.09	2404.73	49.7		0	-	-	-		
06:00		CHANGE	TO TANK	# 56										
		16	16	0	0	2404.73			0	-	-	-		OPENING DIP
18:00		91.5	91.5	127.97	255.94	2532.7			0	-	-	-		SHIPPED 262 BBLS
11/5/85														
06:00		167	167	127.97	255.94	2660.67	49.9		0	-	-	-		
06:00		CHANGE	TO TANK	# 55										SHIPPED 230.5 BBLS.
		51.25	51.25	0	0	2660.67			0	-	-	-		OPENING DIP

0152

CLIENT ..... DELHI PETROLEUM .....

TANK:— CAPACITY ...377.....

SCALE ...1" = 1.695 BBLS.....

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDALA 5033

WELL .....GIDGEALPA # 24.....

DATE ..12/5/85.....PAGE No ...5..

OPERATOR ....P...BOWYER.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS.	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS.	SALINITY PPM	
12/5/85														
06:00		202.5	202.5	256.36	256.36	2917.03	49.4		0	0	0	0		
06:00		CHANGE	TO TANK	# 56										SHIPPED 229 BBLS.
		31	31	-	-	2917.03			-	-	-	-		OPENING DIP
13/5/85														
06:00		183	183	257.64	257.64	3174.67	49.6		-	-	-	-		
06:00		67	67	-	-	3174.67			-	-	-	-		OPENING DIP # 55
14/5/85														SHIPPED 126.7 BBLS.
06:00		218.5	218.5	256.8	256.8	3431.47	50		-	-	-	-		
06:00		CHANGE	TO TANK	# 56										
		108.25	108.25	-	-	3431.47			-	-	-	-		OPENING DIP
09:00		127.5	127.5	32.62	260.96	3464.09			-	-	-	-		
09:00		CHANGE	TO TANK	# 55										SHIPPED 260 BBLS
		218.5	218.5	-	-	3464.09			-	-	-	-		OPENING DIP
12:00		231	231	21.18	169.44	3485.27			-	-	-	-		
12:00		CHANGE	TO TANK	# 56										
		127.5	127.5	-	-	3485.27			-	-	-	-		OPENING DIP
16:00		152	152	41.52	249.12	3526.79			-	-	-	-		
		CHANGE	TO TANK	# 55										

0153

CLIENT ..... DELHI . PETROLEUM .....

TANK:— CAPACITY ....377. BBLS.....
SCALE .... 1" = 1.695 BBLS....

(HUTTON)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

WELL ..GIDGP.A.L.P.A. # 2A..
DATE ....14/5/85..PAGE No 6.....
OPERATOR ...P.. BOWYER.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS.	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
14/5/85														
16:00		77.5	77.5	0	0	3526.79			0	0	0	0		OPENING DIP
15/5/85														
06:00		166	166	150	257.14	3676.79	49.3		-	-	-	-		
07:00		169.25	169.25	5.5	132				-	-	-	-		
07:00		CHANGE	TO TANK	# 56										SHIPPED 226.7 BBLS.
		16	16	-	-	3676.79			-	-	-	-		OPENING DIP
16/5/85														
06:00		161.25	161.25	246.2	256.9	3928.49	49.9		-	-	-	-		SHIPPED 464 BBLS.
		CHANGE	TO TANK	# 55										
		35.5	35.5	-	-	3928.49			-	-	-	-		OPENING DIP
17/5/85														
06:00		187.5	187.5	257.64	257.64	4186.13	49.7		-	-	-	-		SHIPPED 465 BBLS.
07:30		197.5	197.5	16.95	271.2	4203.08			-	-	-	-		
07:30		CHANGE	TO TANK	# 56										
		23.75	23.75	-	-	4203.08			-	-	-	-		OPENING DIP
18/5/85														
06:00		165.5	165.5	240.26	256.27	4443.34	49.4		-	-	-	-		SHIPPED 232 BBLS
06:00		CHANGE	TO TANK	# 55										
		60.5	60.5	-	-	4443.34			-	-	-	-		OPENING DIP

0154

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 377 BBLS

SCALE 1" = 1,695 BBLS

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 394 COMMANDILLA 5033

DATE 19.5.85 PAGE No 7

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
19.5.85														
06:00		211.5	211.5	255.94	255.94	4699.28	47.7		-	-	-	-		SHIPPED 229 BBLS
		CHANGE TO	TANK #56											
		28.5	28.5	-	-	"								OPENING DIP
20.5.85														
06:00		180.5	180.5	257.64	257.64	4956.92	48.3							
		CHANGE TO	TANK #55											SHIPPED 455 BBLS
		76.25	76.25	-	-	"								OPENING DIP
16:30		141.75	141.75	111.02	253.75	5067.94								
		CHANGE TO	TANK #56											
		3	3	-	-	"								
21.5.85														
06:00		88.5	88.5	144.92	257.6	5212.86	48.3							
		CHANGE TO	TANK #55											
		50.5	50.5	-	-	"								OPENING DIP
22.5.85														
06:00		203.25	203.25	258.91	258.91	5471.77	48.3							
		CHANGE TO	TANK #56											SHIPPED 224 BBLS
		88.5	88.5											OPENING DIP

0155

CLIENT. PEKU PETROLEUM

TANK:— CAPACITY ... 377 BBLS

SCALE 1" = 1.695

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL GUDRUN #24

DATE 23.5.85 PAGE No 6

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
23.5.85														
03:45		224.5	224.5	230.52	254.36									
		CHANGE TO TANK #55												SHIPPED 422 BBLS
		70.75	70.75	-	-									OPENING DIP
06:00		85.5	85.5	25	266.67	5727.29	49.5							
11:30		121	121	60.17	262.57									
		CHANGE TO TANK #56												
		35	35	-	-									OPENING DIP
24.5.85														
06:00		152	152	198.31	257.27	5985.77	49							
14:30		205.5	205.5	90.68	256.04									
		CHANGE TO TANK #55												
14:30		38.25	38.25		SWI TO CHANGE CHOKE									OPENING DIP
15:00		OPEN WELL ON 11/64		VARIABLE										
15:15		45	45	11.44	1098.24									
15:30		47	47	3.39	325.44									
16:00		53.5	53.5	11.01	528.48				"					
16:30		58.75	58.75	8.89	427.36					"				
17:00		64.25	64.25	9.32	447.3		CHANGE TO	10/64						
17:30		70	70	9.74	467.82		" "	9/64						

0156

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 377 BBLS

SCALE 1" = 1,695

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL GIDGEALPA #24

DATE 23.5.85 PAGE No 6

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
23.5.85														
03:45		224.5	224.5	230.52	254.36									
		CHANGE TO	TANK #55											SHIPPED 422 BBLS
		70.75	70.75	-	-									OPENING DIP
06:00		85.5	85.5	25	266.67	5727.29	49.5							
11:30		121	121	60.17	262.57									
		CHANGE TO	TANK #56											
		35	35	-	-									OPENING DIP
24.5.85														
06:00		152	152	198.31	257.27	5985.77	49							
14:30		205.5	205.5	90.68	256.04									
		CHANGE TO	TANK #55											
14:30		38.25	38.25		SWI TO CHANGE CHOKE									OPENING DIP
15:00		OPEN WELL	ON 11/64	VARIABLE										
15:15		45	45	11.44	1098.24									
15:30		47	47	3.39	325.44									
16:00		53.5	53.5	11.01	528.48									
16:30		58.75	58.75	8.89	427.36									
17:00		64.25	64.25	9.32	447.3		CHANGE TO	10/64						
17:30		70	70	9.74	467.82		" "	9/64						

0157

CLIENT... DELHI PETROLEUM .....

TANK:— CAPACITY .. 377 BBLS .....

SCALE . 1" = 1,695 BBLS .....

HUTTON

WELL . GIDGEALPA #24 .....

DATE . 24.5.85 ..... PAGE No 9 .....

OPERATOR . C. THOMPSON .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
24.5.85														
17:45		70.5	70.5	0.84	81.36									
17:45		S.W.I.	TO CHANGE	CHOKE TO	8/64 FIXED									
18:00		OPEN WELL												
18:30		72.5	72.5	3.39	162.72									
19:00		76	76	5.93	284.76									
23:00		79	79	5.08	244.08									
		102	102	40.68	278.94									
25.5.85														
06:00		145.5	145.5	73.73	252.79	6259.89	49.8							SHIPPED 229 BBLS
16:00		208.75	208.75	107.20	257.30									
		CHANGE TO	TANK #56											
		70.25	70.25	-	-									OPENING DIP

0158

GIDGEALPA #24

HUTTON

EXTENDED TESTING

26.5.85/8.6.85

EXPERTEST PTY LTD

WIRELINE & WELL TESTING SERVICE

- [ ] Wireline Report
- [x] Wellhead Data
- [x] Production Data
- [ ] B.H.P. Flow / Buildup Data
- [ ] Production Rate Calculations
- [ ] Flowing/Static Gradient
- [ ] Bottom Hole Sampling

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

HUTTON

TELEPHONE (08) 354 0488 TELEX AA87163
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 384 COMMONDILLA 5033

DATE 26.5.85 PAGE No 8

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
26.5.85																			
06:00	230	630	95	8/64	0														
27.5.85																			
06:00	230	630	98	8/64	0														
28.5.85																			
06:00	230	630	98	8/64	0														
29.5.85																			
06:00	230	630	102	8/64	0														
15:45		S.W.I.				TO CHANGE CHOKE 8/64 FIXED TO 9/64 VARIABLE													
		740		S.I.D.															
16:00		OPEN WELL		9/64															
17:00	230	650		9/64															
18:00	230	620		9/64															

0161

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONWEALTH 5032

DATE 30.5.85 PAGE No 9

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
06:00	230	650	96	9/64	0														
11:00	230	630		10/64		CHANGE TO 10/64		VARIABLE											
12:00	230	620		10/64															
31.5.85																			
06:00	230	650	93	10/64	0														
11:00	230	580		10/64	0														ROCK CHOKE
13:00	230	435		10/64	0														
18:00		S.W.I.																	
1.6.85																			
06:00		WELL SHUT IN																	

0162

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

HUITON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

TELEPHONE (08) 354 0488 TELEX AA87183

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONILLA 5033

DATE 4.6.85 PAGE No 10

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
4.6.85																			
20:30	620	820		10/64		OPEN WELL (VARIABLE CHOKE)													
5.6.85																			
07:00	230	705	84	10/64	0														
6.6.85																			
07:00	228	668	86	10/64	TR														
7.6.85																			
07:00	227	750	82	10/64	0														
07:00	S.W.I.		TO CHANGE TO 8/64 FIXED CHOKE																
07:30		OPEN WELL (OPENING TUBING PSI 820)																	
8.6.85																			
07:00	215	711	91	8/64	0														

0163

CLIENT. DELHI PETROLEUM

TANK:— CAPACITY ... 377 BBLS

SCALE .1" = 1.695 BBLS

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL GIDGEALPA #24

DATE 26.5.85 PAGE No 10

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
26.5.85														
06:00		159.5	159.5	151.27	259.33	6518.36	49.6							
07:45		171	171	19.49	267.32									SHIPPED 631 BBLS
07:45		CHANGE TO TANK #55												
07:45		3.5	3.5	-	-									OPENING DIP
27.5.85														
06:00		143.5	143.5	237.3	268.00	6775.15	48.2							
14:45		199	199	94.07	258.02									SHIPPED 230 BBLS
		CHANGE TO TANK #56												
		2.75	2.75	-	-									OPENING DIP
28.5.85														
06:00		100.25	100.25	165.26	260.08	7034.48	48.1							
18:00		176.5	176.5	129.24	258.48									
		CHANGE TO TANK #55												
		63.5	63.5	-	-									OPENING DIP
29.5.85														
06:00		139.5	139.5	128.82	257.64	7292.54	48.3							
15:45		200	200	102.54		S.W.I.	TO CHANGE CHOKE 8/64 FIXED TO 9/64 VARIABLE							
16:00		OPEN WELL												SHIPPED 212 BBLS
18:00		209.5	209.5	118.65										

0164

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 377 BBLS

SCALE 1" = 1.695 BBLS

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

TELEPHONE (08) 354 0488 TELEX AA87183

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDELLA 5033

WELL GIDGEALPA #24

DATE 29.5.85 PAGE No 11

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
29.5.85														
18:00		CHANGE TO	TANK #56											
		51.25	51.25											OPENING DIP
30.5.85														
06:00		114.75	114.75	107.63	215.26	7518.82	48.2							
11:00		137	137	37.71	181.02									CHANGE TO 10/64 VARIABLE
19:00		188.5	188.5	87.29	261.87									
		CHANGE TO	TANK #55											SHIPPED 225 BBLS
		76.5	76.5	-	-									OPENING DIP
31.5.85														
06:00		135.5	135.5	100.0	218.19	7743.82	48.2							
11:00		158	158	38.13	183.06									ROCK CHOKE
13:00		172.5	172.5	24.57	294.93									
18:00		190.5	190.5	47.46	227.80	7853.98								
18:00		S.W.I.												DUE TO ROADS & WEATHER
1.6.85														
06:00		WELL SHUT	IN											

0165

CLIENT.. DELHI PETROLEUM.....

TANK:— CAPACITY . 377 BBLS.....

SCALE . 1" = 1,695 BBLS.....

HUTTON

TELEPHONE (08) 354 0488 TELEX AA87183
EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
136 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDELLA 5033

WELL GIDGEALPA #24.....

DATE 4.6.85 .....PAGE No 12.....

OPERATOR .. P. BOWYER.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
4.6.85														
20:30		OPEN WELL TO TANKS												SHIPPED 464 BBLS
20:30		50	50	-	-	7854.34			0	-	-	-		
5.6.85														
07:00		108	108	98.31	224.7	7952.65	48.9		-	-	-	-		SHIPPED 233 BBLS
09:00		118.5	118.5	17.8	213.57				-	-	-	-		
		CHANGE TO TANK #55												
		20.5	20.5	-	-				-	-	-	-		OPENING DIP
6.5.85														
07:00		139	139	200.85		8171.3	48.7		-	-	-	-		
		CHANGE TO TANK #56												SHIPPED 229 BBLS
		26	26	-	-				-	-	-	-		OPENING DIP
7.6.85														
07:00		117.75	117.75	155.51	155.51	8326.81	49.1		-	-	-	-		S.W.I.
07:30		OPEN WELL ON 8/64 FIXED CHOKE												
19:00		191.5	191.5	125					-	-	-	-		
		CHANGE TO TANK #55												
		3.5	3.5	-	-				-	-	-	-		OPENING DIP

0166

CLIENT .. DELHI PETROLEUM .....

TANK:— CAPACITY . 377 BBLS .....
SCALE . 1" = 1.695 BBLS .....

HUTTON

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

WELL GIDGEALPA #24 .....
DATE 8.6.85 ..... PAGE No .13...
OPERATOR .. P. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
8.6.85														
07:00		82	82	133.05	266.1	8584.86	49.2		-	-	-	-		SHIPPED 232 BBLS
19:00		156.5	156.5	126.27										
19:00		CHANGE TO TANK #56												
		54.5	54.5	-	-	8584.86								OPENING DIP

0167

ENVELOPE 5878

TENEMENT: PPL 6; Eromanga Basin

TENEMENT HOLDER: Delhi Petroleum Pty Ltd (operator), Santos Ltd, South Australian Oil and Gas Corporation Pty Ltd and Vamgas Ltd

CONTENTS OF VOLUME ONE

CONTENTS OF VOLUME TWO

END OF CONTENTS

GIDGEALPA NO. 24
MID NAMUR
RESERVOIR ENGINEERING REPORT

PRODUCTION TEST 13/4/85 TO 30/4/85

PREPARED BY: S. J. BORCHERS

SEPTEMBER 1985

SUMMARY

Gidgealpa No. 24 was drilled as an oil development well and gas appraisal well. It was designed to evaluate and develop the Namur, Mid-Namur and Hutton oil reservoirs and was deepened in order to evaluate the northern extent of the Basal Hutton gas accumulation which flowed 7.05 MMSCFD at Gidgealpa No. 21.

The well was completed as a dual oil producer from the Mid-Namur and Hutton formations. The Mid-Namur formation was production tested during the period 13 - 30 April 1985. This report is an evaluation of the production test from which the following conclusions and recommendations are drawn:

CONCLUSIONS AND RECOMMENDATIONS

1. A flow capacity of 980 md-ft was calculated for the Mid-Namur reservoir using conventional Horner analysis.

2. Permeability is estimated at 200 md with an apparent skin of +14.3, based on 4.9' of pay accessed.

3. A P.I. of 0.31 bbl/day/psi drawdown was calculated based on actual flow data, which compares well with a P.I. of 0.34 from the theoretical approximation based on the buildup kh, and 0.30 based on core data.

4. The initial reservoir pressure of Gidgealpa No. 24 Mid-Namur is taken as 2312 psig at the midpoint of perforations, 5195' KB.

5. The present offtake target rate of 125 BFPD should be maintained. This rate will give a quite high drawdown of approximately 400 psi, largely due to skin. From the extended production test data, streaks with relatively poor vertical permeability (identified from core data) appear to be having a strong influence in suppressing water coning.

6. Although the well appears to have some damage, stimulation is not considered necessary in view of the good production history to date, and for further reasons outlined in the discussion.

TABLE OF CONTENTS

WELL INFORMATION

NAME:	GIDGEALPA NO. 24
ZONE(S):	MID NAMUR, HUTTON
LOCATION:	LATITUDE 28° 01' 07.6" LONGITUDE 139° 59' 35.1"
ELEVATIONS:	KELLY BUSHING 114' ASL GROUND LEVEL 98' ASL PBTD 6175' KB (CBL/VDL OF 3/4/85) TOTAL DEPTH 6778' KB (DRLR)
COMPLETION:	DUAL STRING, DUAL OIL PRODUCER
PERFORATED INTERVALS:	5192' - 5198' KB MID NAMUR 5995' - 6011' KB HUTTON
MID-POINT OF PERFORATIONS:	5195' KB (MID NAMUR) 6003' KB (HUTTON)
PRODUCTION CASING:	7", MIXED 23 AND 26 LB/FT J-55 TO 6220'
TUBING:	SHORT STRING : 2-3/8" ATLAS BRADFORD 4.7 LB/FT J-55 WITH TAIL AT 5168'. LONG STRING : 2-3/8" ATLAS BRADFORD 4.7 LB/FT J-55 STABBED INTO PACKER AT 5880' WITH 2-3/8" EUE 4.7 LB/FT J-55 TAILPIPE TO 5930'

CHRONOLOGICAL WELL HISTORY

15/2/85	Well spudded.
18/2/85	Cut core No. 1 : Top Namur 5080' - 5110' KB (97% recovery).
19/2/85	Cut core No. 2 : Mid Namur 5178' - 5238' KB (51% recovery).
24/2/85	DST No. 1 Hutton 6502' - 6519' KB (DRLR), 6507' - 6524' KB (LGR). Gas to surface at RTSTM. Water to surface at 50 BPD. Recovered 820' muddy water and 5650' gas cut water.
25/2/85	DST No. 2 Basal Namur 5448' - 5458' KB (DRLR), 5454' - 5464' KB (LGR). G.T.S. at RTSTM. Oil to surface in 41 minutes at 480 BOPD. Oil cut water to surface in 139 minutes at 320 BWPD. Recovered 4200' water and gas cut oil and 1150' water.
27/2/85	Rig released.
30/3/85	Rig up service rig.
5/4/85	Perforate Hutton 5995' - 6011' KB and Mid Namur 5192' - 5198' KB, with 4" casing guns at 4 s.p.f. (120° phasing).
8-9/4/85	Rig to and swab Hutton. Pull 8 swabs and flow Hutton to frac tank through 16/64" choke for 16 hours. Final rate 450 BOPD with a flowing THP of 475 psig.
9/4/85	Displace short string and annulus to crude oil. Flow Mid Namur to clean up on a 16/64" choke over 4 hours. Final rate 96 BOPD with 0 psig FTHP. Rig released.
10/4/85	Run static gradient survey (Hutton).

11-13/4/85	Flow Hutton to cleanup. Produced 504 BBLS oil. Final rate 265 BOPD with 617 psig FTHP on a 10/64" fixed bean choke.
13/4/85	Run static gradient survey (Mid Namur).
13-16/4/85	Flow Mid Namur to cleanup. Produced 291 BBLS oil. Final rate 117 BOPD on an 8/64" fixed choke with a flowing THP of 112 psig.
16/4/85	Start Hutton production test.
19/4/85	SWI to record the buildup.
22/4/85	End buildup. Flow Hutton to condition for bottom hole sampling.
23/4/85	Run flowing gradient survey (Hutton). Begin bottomhole sampling.
24/4/85	Run flowing gradient survey (Hutton). Complete bottomhole sampling. End Hutton production test.
25/4/85	Begin Mid Namur production test.
27/4/85	S.W.I. to record the buildup.
30/4/85	End of test. Run static gradient survey (Mid Namur). Hutton placed on extended test.
1/5/85	Mid Namur placed on extended test.

GIDGEALPA NO. 24 - MID NAMUR
PRESSURE HISTORY

1. Static Gradient 13/4/85

   Top Gauge : 2272.4 psig at 5154' KB.
   Bottom Gauge : 2272.4 psig at 5160' KB

   Average of top and bottom gauges corrected to mid-point of perforations (using 0.43 psi/ft gradient) : 2288.5 psig at 5195' KB.

2. Buildup Analysis 27-30/4/85

   Average buildup pressure (three Amerada gauges) : 2298.9psig at 5160' KB.
   or corrected to midpoint of perforations using a 0.43 psi/ft gradient : 2313.9 psig at 5195' KB.

3. Static Gradient 30/4/85

   Top Gauge: 2294.0 psig at 5154' K.B.
   Bottom Gauge: 2291.1 psig at 5160' K.B.

   Average of top and bottom gauges corrected to mid-point of perforations (using 0.43 psi/ft gradient): 2308.9 psig at 5195' KB.

GIDGEALPA MID-NAMUR RESERVOIR

PRESSURE HISTORY (AT COMMON DATUM)

DATUM TAKEN AT: -5100' S.S.

ELEVATIONS:			
	GIDGEALPA NO. 17	K.B.: 114' ASL	M.P.P.: N/A
	GIDGEALPA NO. 20	K.B.: 107' ASL	M.P.P.: 5197' KB, 5090' S.S.
	GIDGEALPA NO. 21	K.B.: 118' ASL	M.P.P.: 5203' KB, 5085' S.S.
	GIDGEALPA NO. 24	K.B.: 114' ASL	M.P.P.: 5195' KB, 5081' S.S.

DATE	WELL	TEST TYPE	PRESSURE FROM:	MEASURED/EXTRAPOLATED PRESSURE AT MEASURED DEPTH	CORRECTION TO DATUM DEPTH (FT.)	ASSUMED GRADIENT(S) (PSI/FT.)	PRESSURE AT DATUM (PSIG)
18/8/84	Gidgealpa #17	DST #2A (5174'-5196' KB)	Mid Gauge	P*=2308 psia at 5157' KB	+57'	0.43	2347*
18/8/84	Gidgealpa #17	DST 2A (5174'-5196' KB)	Bottom Gauge	P*=2288 psia at 5190' KB	+24'	0.43	2313
20/10/84	Gidgealpa #20	DST #5 (5184'-5204'KB)	Mid Gauge	P*=2285 psia at 5081' KB	+126'	0.32	2311
20/10/84	Gidgealpa #20	DST #5 (5184'-5204'KB)	Bottom Gauge	P*=2339 psia at 5209'KB	-2'	0.32	2324
25/12/84	Gidgealpa #20	Static Gradient	Average of two Amerada Gauges	2295.1 psig at 5140'KB	+67'	0.32	2316.6
28-31/12/84	Gidgealpa #20	Buildup	Average of three Amerada Gauges	2292.0 psig at 5110' KB	+97'	0.32	2323.0
1/1/85	Gidgealpa #21	Static Gradient	Average of two Amerada Gauges	2328.9 psig at 5212' KB	+6'	0.32	2330.8
3-5/1/85	Gidgealpa #21	Buildup	Average of three Amerada Gauges	2280.0 psig at 5110' KB	+108'	0.43, 0.32	2324.8

* Information considered to be spurious

GIDGEALPA MID-NAMUR RESERVOIR

PRESSURE HISTORY (AT COMMON DATUM)

CONTD

DATE	WELL	TEST TYPE	PRESSURE FROM:	MEASURED/EXTRAPOLATED PRESSURE AT MEASURED DEPTH	CORRECTION TO DATUM DEPTH (FT.)	ASSUMED GRADIENT(S) (PSI/FT.)	PRESSURE AT DATUM (PSIG)
13/4/85	Gidgealpa #24	Static Gradient	Average of two Amerada Gauges	2273.4 psig at 5160'KB	+54'	0.43, 0.32	2294.5*
27-30/4/85	Gidgealpa #24	Buildup	Average of three Amerada Gauges	2298.9 psig at 5160' KB	+54'	0.43, 0.32	2320.0
30/4/85	Gidgealpa #24	Static Gradient	Average of two Amerada Gauges	2293.8 psig at 5160' KB	+54'	0.43, 0.32	2315.0

* Information considered to be spurious

SB:hks
Tables(4.39)

9L78

GIDGEALPA NO. 24 - MID NAMUR

SUMMARY OF RESULTS

RESERVOIR ANALYSIS

Buildup Formation Flow Capacity	980md-ft
Buildup Effective Permeability	200 md
Buildup Apparent Skin Factor	14.3
Pressure Loss due to Skin	244 psi
Flow Efficiency	13%
Productivity Index	0.31 BBL/Day/psi
Total Flow Time	48.0 hours
Total Effective Flow Time	47.5 hours
Total Shut-in Time	69.3 hours
Post Test Average Reservoir Pressure	2296.9 psig at 5160 ' KB
Total Oil Produced during Test	259 BBLS

DISCUSSION

Gidgealpa No. 24 is a dual string, dual zone completion. The Mid-Namur produces via the short string as indicated in the downhole diagram (figure 9). For the duration of the Mid-Namur production test bottomhole pressures were recorded at 5160' KB using tandem Amerada gauges for the flow period and three Ameradas for the buildup.

Stable flowing conditions were achieved during the test, as evidenced by the production plot (figure 1) and reasonably constant bottomhole flowing pressure. However, from the data on all three recorders the bottomhole pressure decreases by approximately 10 psi shortly after shut in and then proceeds to buildup. As a result the type plots (figures 2, 3 and 4) display slopes greater than unity during the wellbore storage affected time. A check of the Amerada charts at Delhi indicated the shut in time may have been chosen incorrectly. It was considered there was no value in attempting to establish the correct shut in time and re-reading the charts as estimates of wellbore storage time can still be made from the log-log plots. Also as the shut in time would only move by a couple of minutes, the Horner slope would not alter significantly. Consequently no explanations beside the one inferred above will be offered for the pressure drop after shut in since it has no substantial effect on the results of the analysis. From the type plots storage effects are estimated to end within approximately four hours.

The Horner plots for the top, mid and bottom gauges are presented in figures 5, 6 and 7 respectively. Values of 'm' are in excellent agreement and an average slope value of 19.6 psi/cycle was used for analyis giving a formation flow capacity of 980 md-ft.
Average permeability for the interval is 58 md based on 17' of pay from log analysis. Whole core analysis (presented as attachment #2) available over the same interval indicates the average horizontal permeability to be much higher than indicated from the buildup, typically in the 300+ md range.

This discrepancy appears to be due to the difficulty in establishing the height of actual contributing pay. Correlating the core data to log depths and perforation interval, (core depths are approximately 9' higher than loggers depth), the bottom perforation lies in the interval spanned by core sample no. 43 or 44 (refer to attachment). Core sample No. 46 which lies below the perforations has a vertical permeability of 3.5md which is poor compared to the vertical permeability of the samples immediately above and below. It is believed this acts as a relative barrier, making the effective pay accessed by the test approximately 4.9' (core depth 5186.45' to 5191.35'). Based on 4.9' of pay, the buildup permeability is 200md which is in good agreement with the core data over the same interval (geometric average permeability 175md, see calculations). Furthermore a good approximation to the actual P.I. is obtained using the core data in the theoretical P.I. equation, assuming the same skin as from the buildup. This is considered good supporting evidence because: (1) changing the value of h by a factor of 3 or 5 does not significantly affect the skin value, implying it is a reasonable value to use in the core theoretical P.I. equation, and (2) assuming then the 's' value used is reasonable, a theoretical P.I. based on the core permeabilities over a h of 17' would probably be five or six times the measured P.I.

As the "barrier" has finite permeability (and perhaps only limited areal extent), the entire pay which is mapped on logs will be drained. Consequently no further perforations are recommended, also for the following reasons: (1) although further perforations may improve the productivity index of the well, it also provides an easier pathway for a potential water cone. The increase in productivity of the well may not be enough to enable the well to lift a consistent watercut under natural flow. (2) Due to the nature of the completion (dual tubing strings), additional perforation with through tubing guns would be impractical.

Extrapolated reservoir pressure was determined using the average of all three gauges, being 2313.9 psig corrected to the mid-point of perforations, 5195'KB. This compares with an initial static gradient pressure of 2288.5 psig and a post-buildup static gradient pressure of 2308.9 psig corrected to the same depth. The initial static gradient pressure data is considered spurious in light of other datum pressure information and is possibly attributable to wireline depth error as both gauges used tracked remarkably well.

GIDGEALPA NO. 24 MID-NAMUR
CALCULATIONS FOR PRESSURE BUILDUP ANALYSIS

DATA:

t_p	= 48.0 hrs	- Measured
ϕ	= 18.0% (for 17' pay)	- Log analysis
	18.0% (for 4.9' pay accessed)	- Assumed
h	= 17' pay, 4.9' of which is accessed	- Log and Core analysis
μ	= 0.84 cp	- PVT Study (Gidgealpa #20 Namur)
B_o	= 1.082	- PVT Study (Gidgealpa #20 Namur)
C_o	= 7.77×10^{-6}/psi	- PVT Study (Gidgealpa #20 Namur)
C_w	= 3.23×10^{-6}/psi	- Calculated, HP Petroleum Fluid Pac
C_R	= 3.81×10^{-6}/psi (for ϕ=18.0%)	- Calculated, HP Petroleum Fluid Pac
S_w	= 0.82 (for 17' pay)	- Log analysis
	= 0.50 (for 4.9' pay accessed)	- Assumed
C_t	= 9.3×10^{-6}/psi	- Calculated
T	= 220°F	- Field data
r_w^2	= 0.1253 ft^2	- Calculated
q	= 130 BOPD	- Measured
P_{wf}	= 1880.8 psig	- Measured (and averaged)

Averaged values for the three Horner plots are:

m = 19.6 psi/cycle

P_{1hr} = 2275.2 psig

1. Formation Flow Capacity (kh):

$$kh = \frac{162.6\ q\ B\ \mu}{m} = 980 \text{ md-ft}$$

2. Permeability (k):

$$k = \frac{kh}{h} = 200 \text{ md} \quad \text{(for 4.9' pay accessed during test - see discussion)}$$

3. Apparent Skin Factor (s):

$$s = 1.1513 \left[\frac{P_{1hr} - P_{wf\,(\Delta t=0)}}{m} - \log \left(\frac{k}{\phi \mu C_t r_w^2} \right) + 3.2275 \right] = +14.3$$

4. Productivity Index:

$$\text{Actual P.I.} = \frac{q(av)}{\bar{P} - P_{wf}} = 0.31 \text{ bbl/day/psi}$$

Theoretical P.I. (Darcy equation, radial flow):

$$\text{Theoretical P.I.} = \frac{7.08 \times 10^{-3}\, kh}{\mu B \ln (re/r_w')} = 0.34 \text{ bbl/day/psi}$$

where $r_w' = r_w e^{-s}$
and $r_e = 1053'$ based on assumed 80 acre drainage area

$$\text{Ideal P.I.} = \frac{\bar{P} - P_{wf}}{\bar{P} - P_{wf} - \Delta P_s} \times \text{Actual P.I.} = 2.40 \text{ bbl/day/psi}$$

where $\Delta P_s = 0.87\ ms = 244$ psi

5. Flow Efficiency:

$$\text{Flow Efficiency} = \frac{\text{PI Actual}}{\text{PI Ideal}} = 13\%$$

CALCULATIONS BASED ON CORE DATA

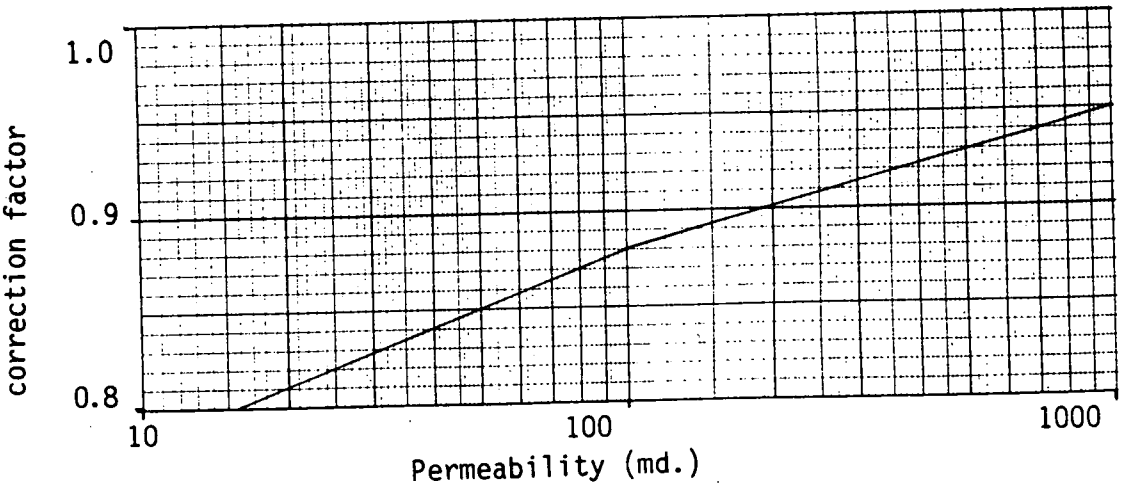
1) PERMEABILITY: Geometric average

Sample No.	k_{max}	$k_{max(corr)}$ *(2)	k_{90}	$k_{90(corr)}$ *(2)	Sample Height	Weighted Height
40	15	12	3.1	2.3	0.3'	0.00'
41	133	118	133	118	0.3'	0.60'
42	254	231	238	217	0.4'	0.95'
43	220	198	203	183	0.7'	1.40'
44	212	191	196	176	0.5'	0.95'
45	216	194	202	182	0.3'	0.55'
46	122	109	122	109	0.7'	0.45'
						4.9'

NOTES:

(1) Accessed interval taken as: 5186.45' - 5191.35'KB (core depth) = 4.9' total.

(2) $k_{(corr)}$ values are equivalent specific liquid permeabilities (after correction for gas slippage (Klinkenberg) effect)



GAS KLINKENBERG (SLIPPAGE) CORRECTION

Geometric average permeability, $k_g = (k_1^{h1} k_2^{h2} \ldots\ldots k_n^{hn})^{\frac{1}{\Sigma h_i}}$

k_{gmax} = 180md

k_{g90} = 170md

$k_{gav.} = (k_{gmax}\ k_{g90})^{1/2}$ = 175md

The value of k_{gav} is a specific permeability. While no water-oil relative permeability data is presently available, it is assumed the interval is at a water saturation where the relative permeability to oil is 100%, making the specific permeability a good reflection of the effective permeability. This assumption is supported by clean oil production observed during the production test and for the first four months on extended production test.

2) Theoretical P.I. (Darcy equation, radial flow)

$$\text{Theoretical P.I.} = \frac{7.08 \times 10^{-3} kh}{\mu B \ln (re/r'w)} = 0.30$$

where $r_w' = r_w e^{-s}$

and r_e = 1053' based on assumed 80 acre drainage area

(Buildup skin factor, s used for calculation).

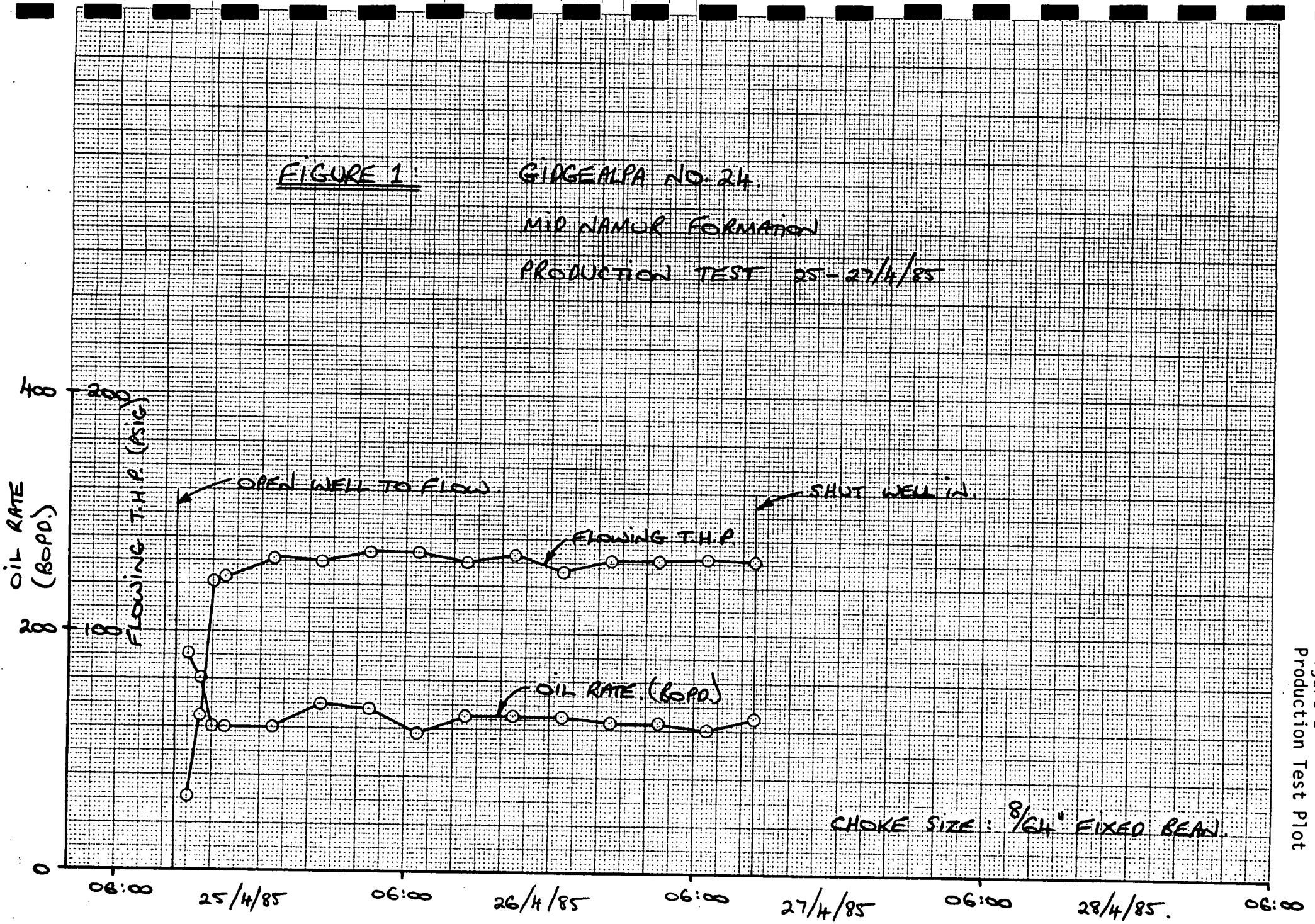


Figure 1
Production Test Plot

0184

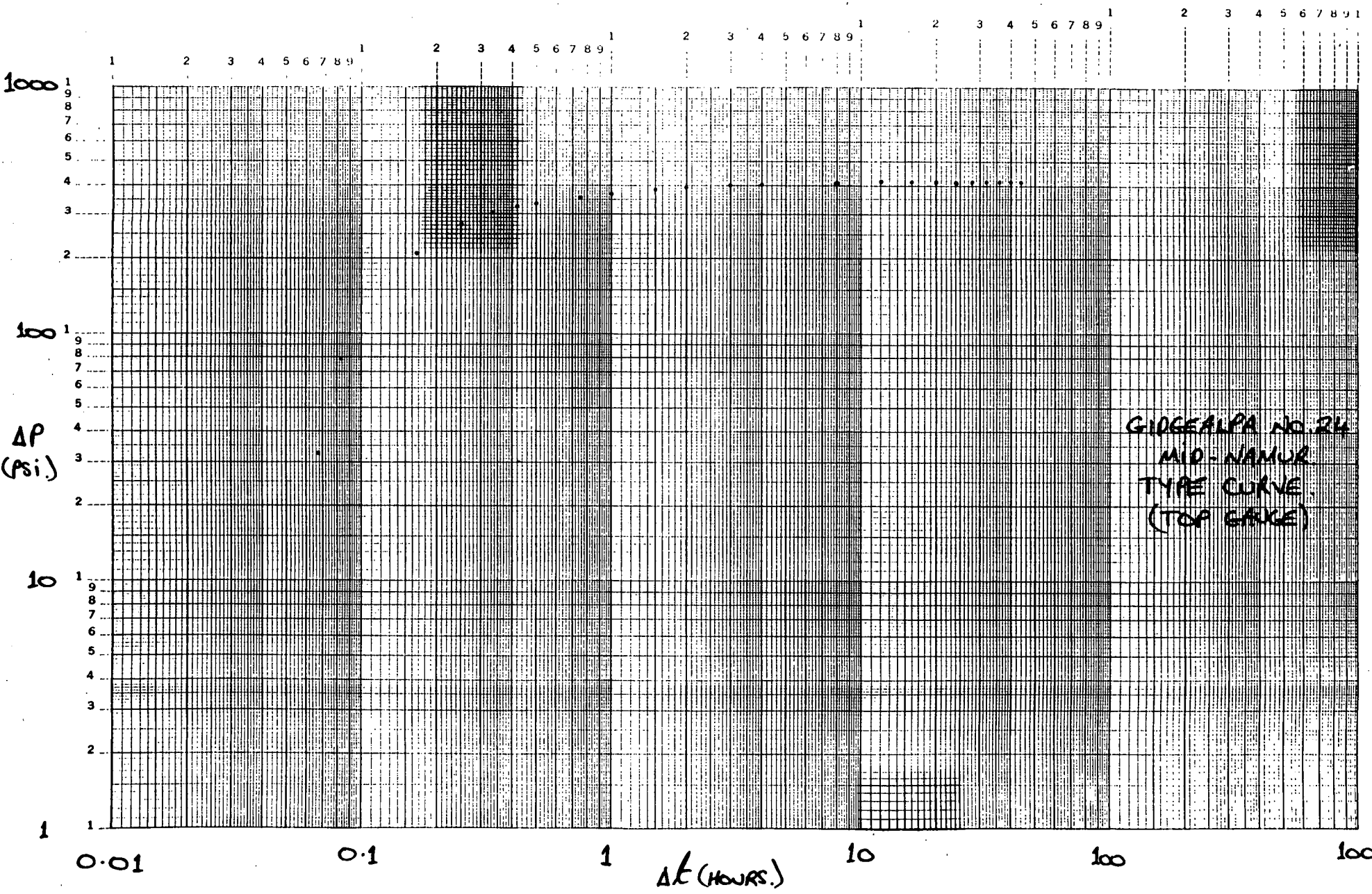


Figure 2
Type Plot
(Top Gauge)

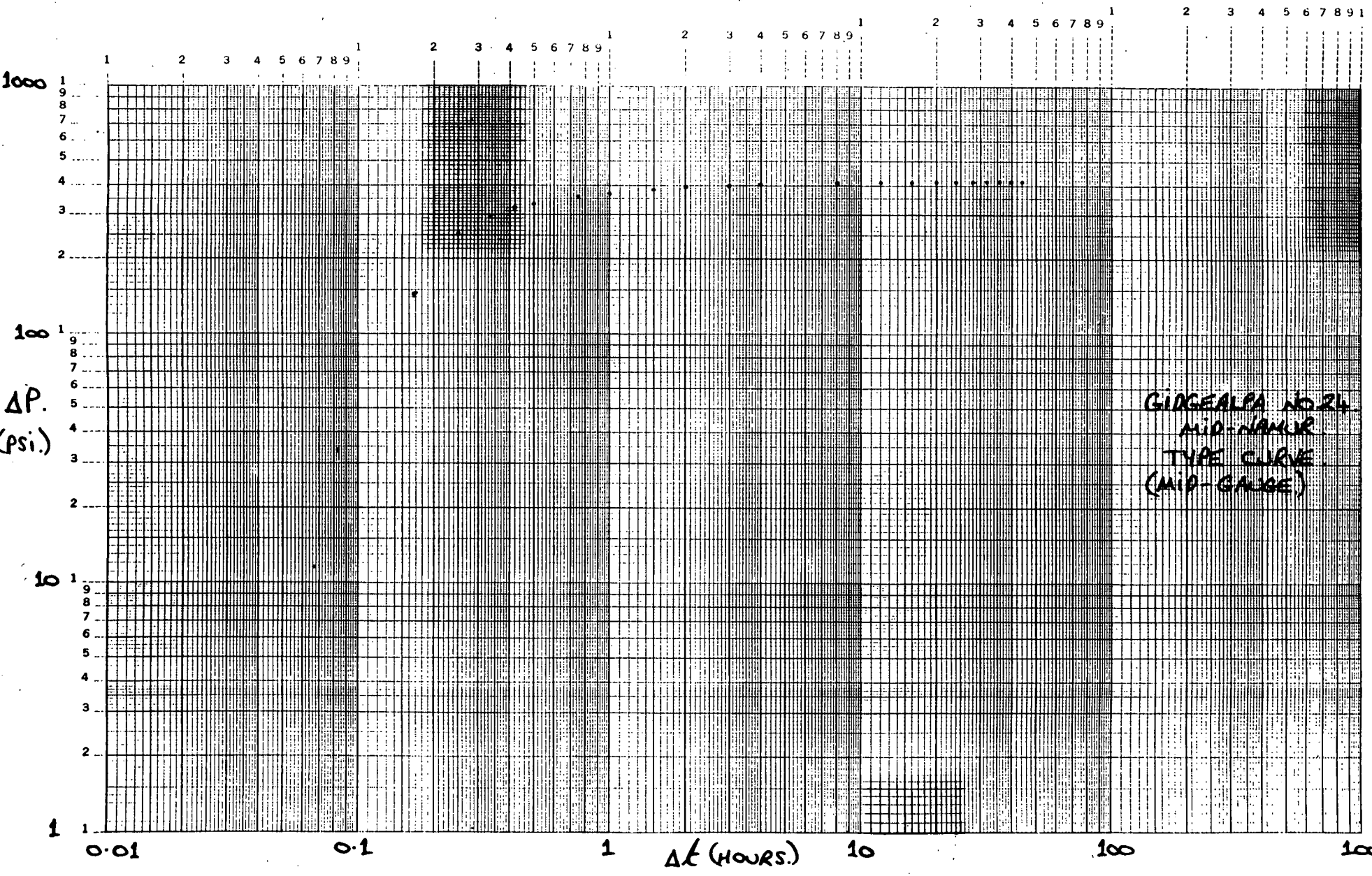
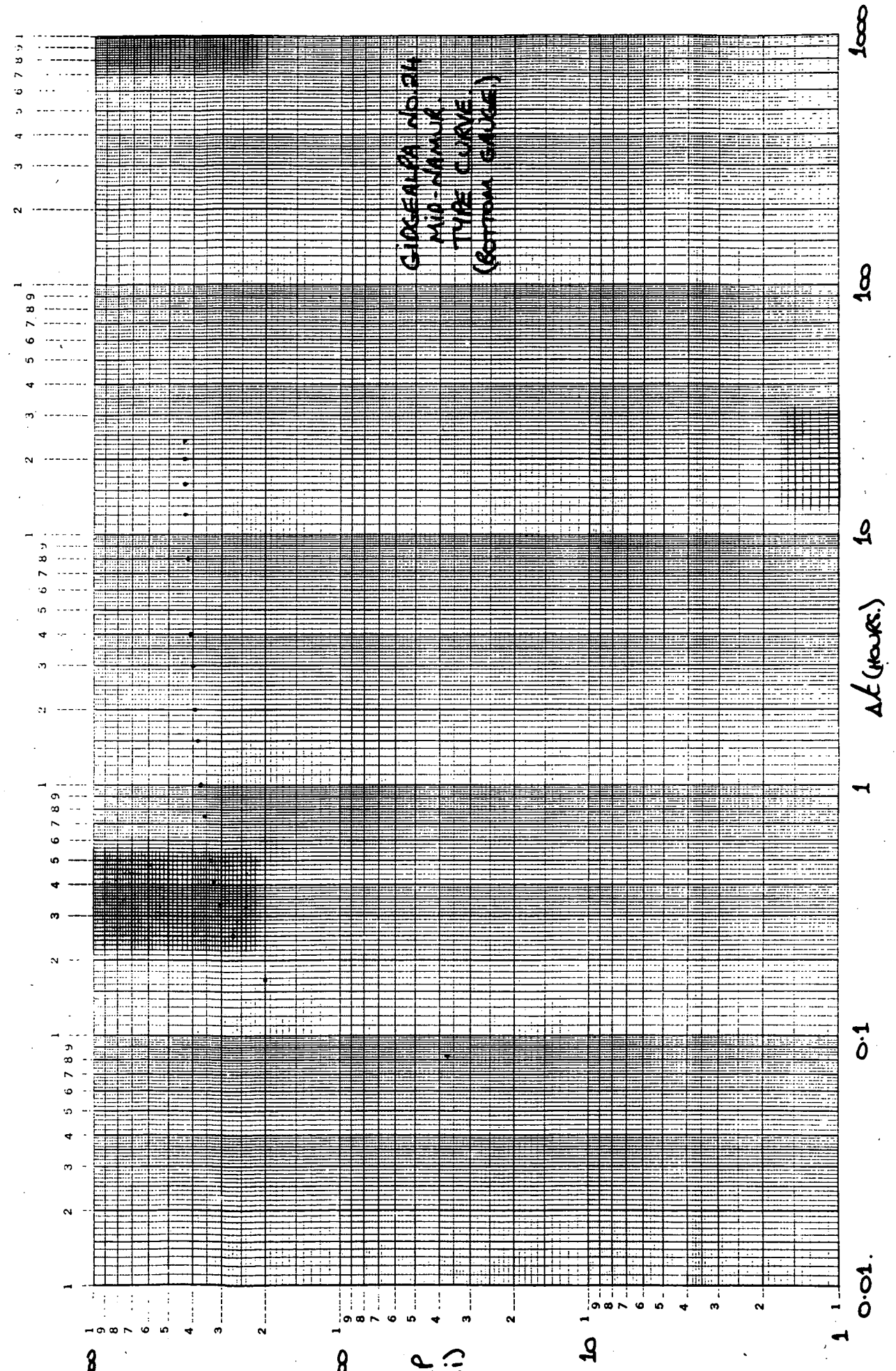


Figure 3
Type Plot
(Mid Gauge)

Figure 4
Type Plot
(Bottom Gauge)



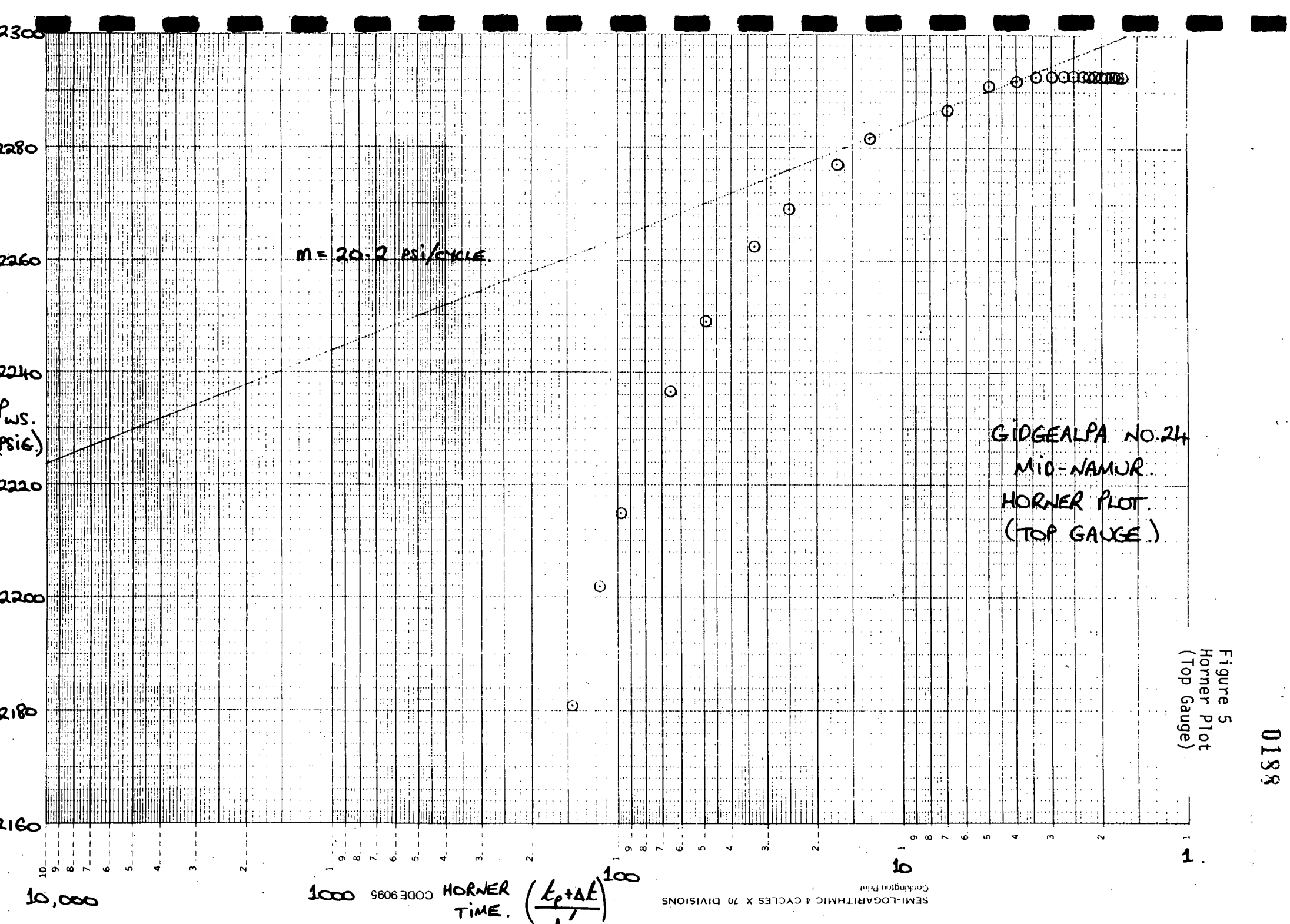


Figure 5
Horner Plot
(Top Gauge)

0198

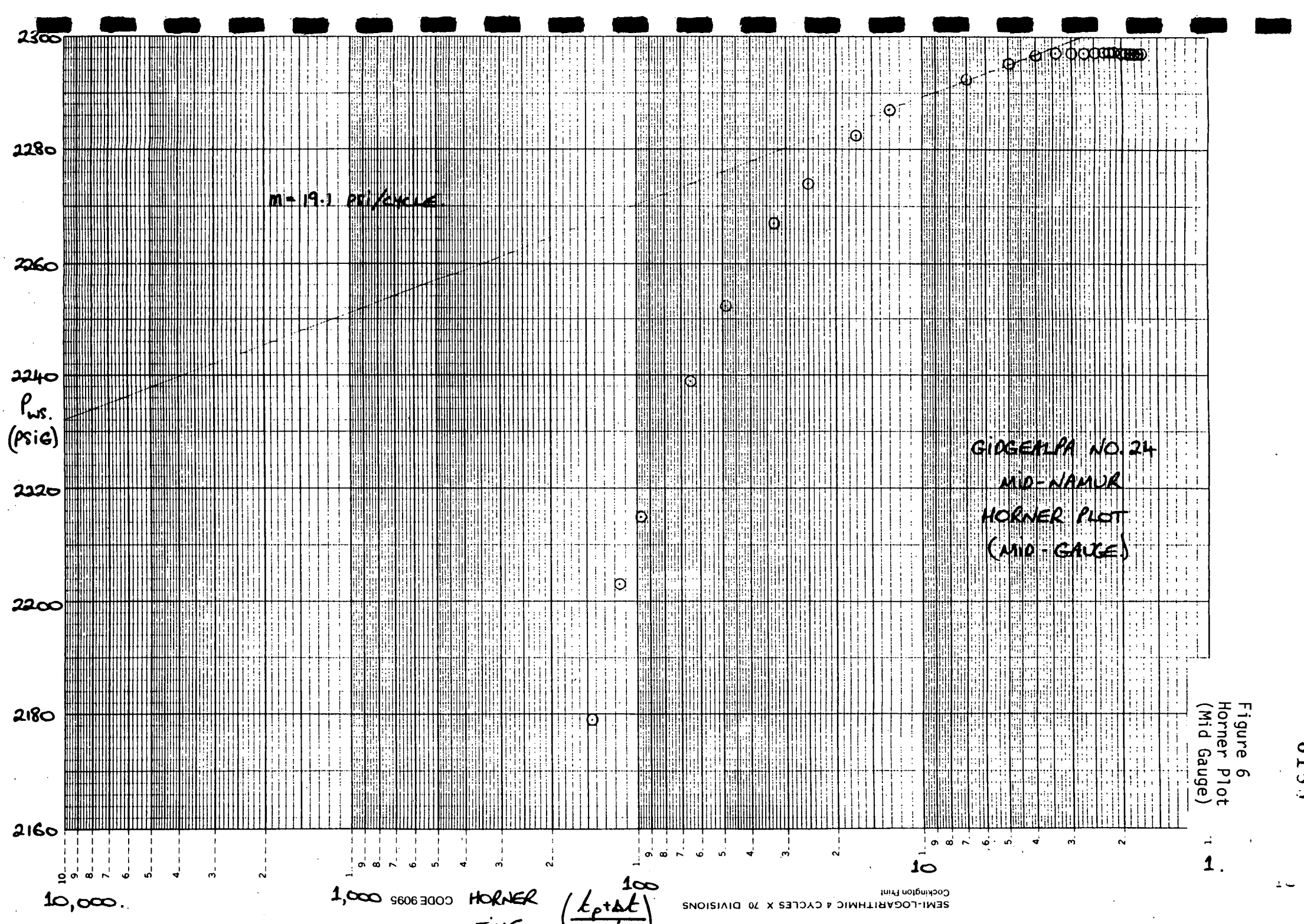
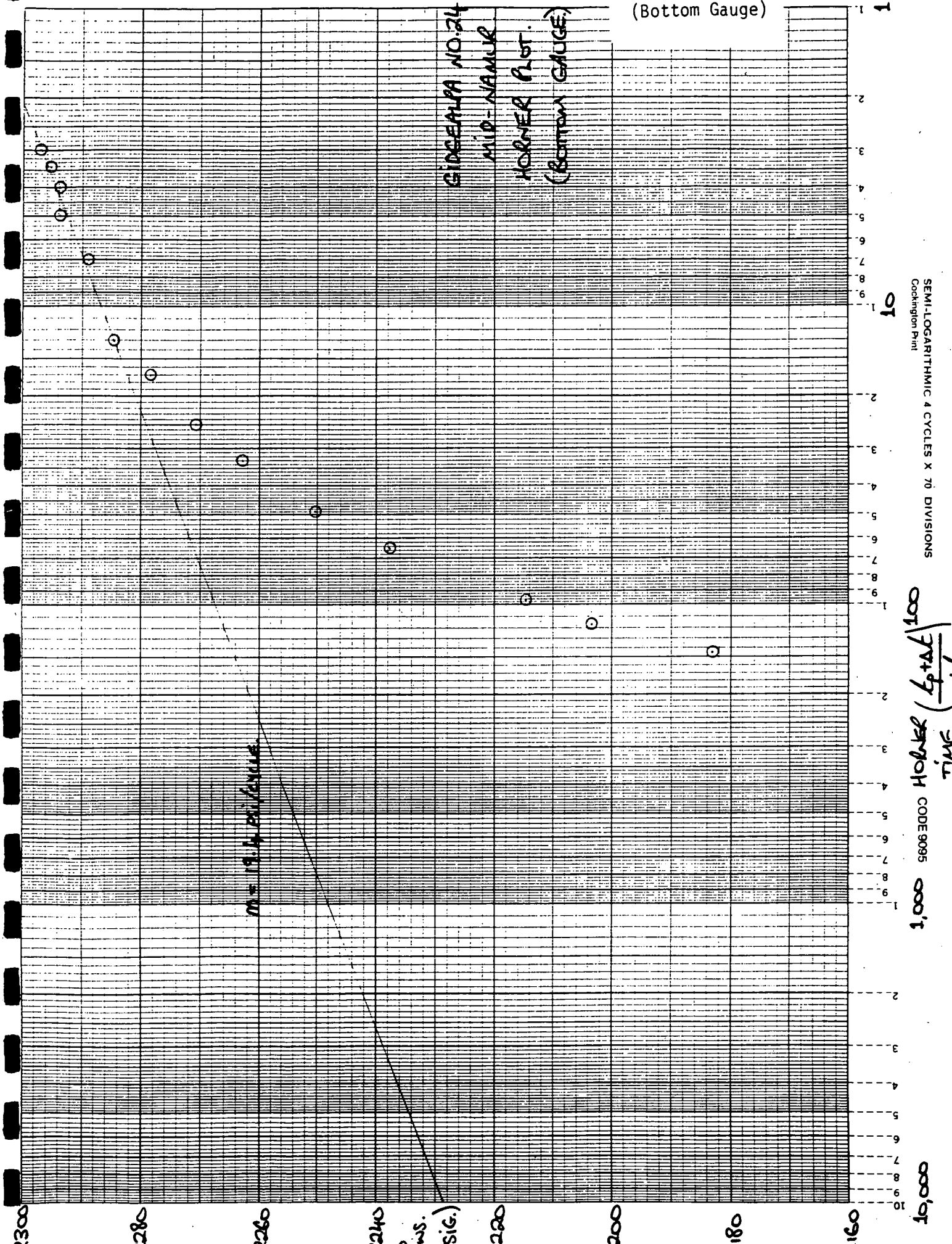


Figure 6
Horner Plot
(Mid Gauge)

0189

Figure 7
Horner Plot
(Bottom Gauge)



GIDGEALPA # 24

Figure 8
DLL-MSFL Log

0191

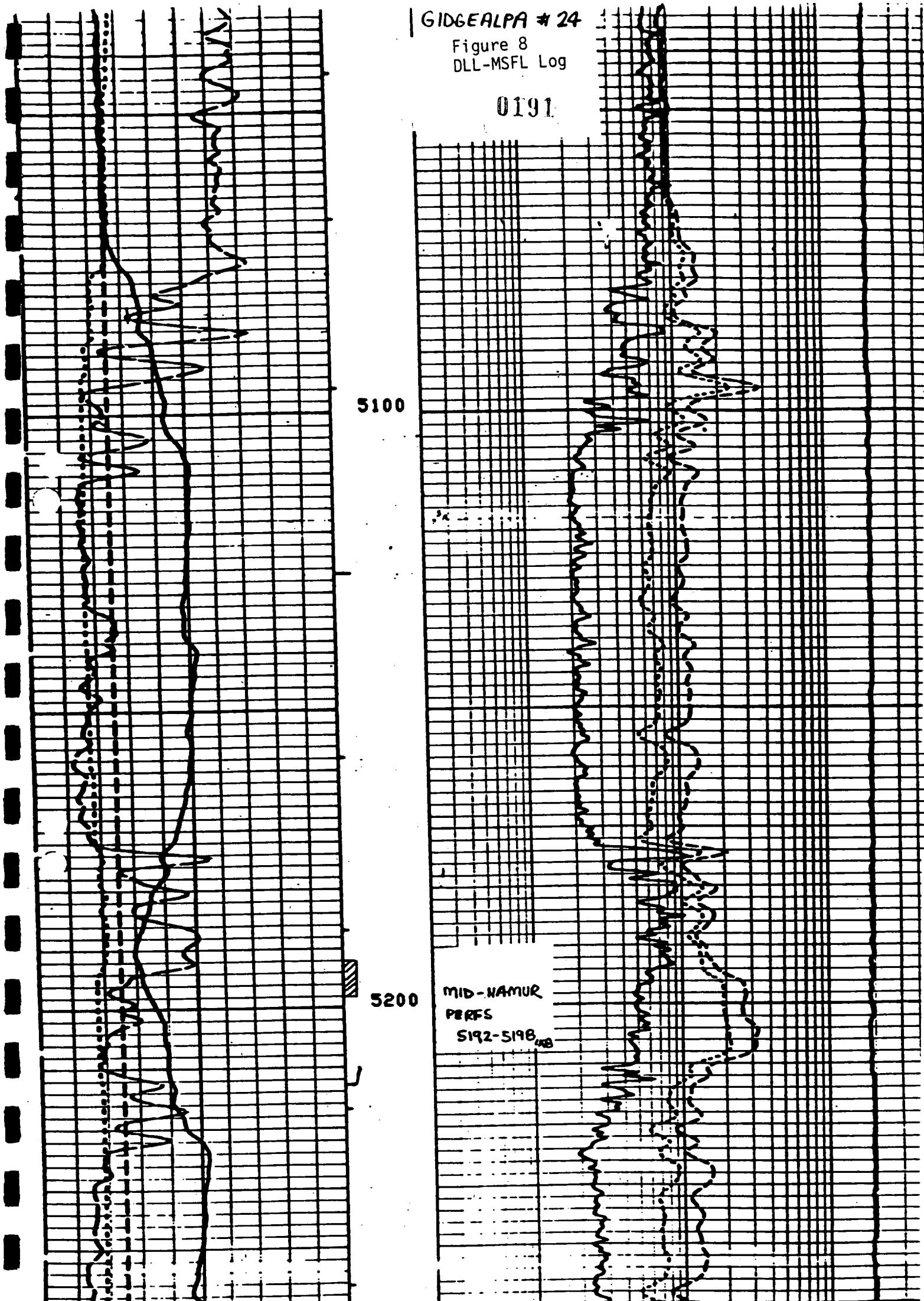


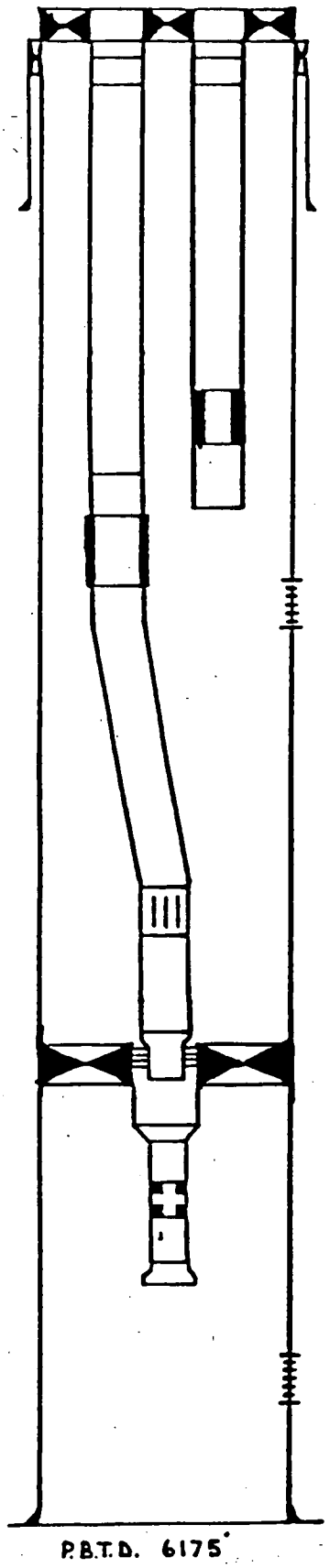
Figure 9A
Downhole Diagram
(Long String)

DELHI PETROLEUM PTY. LTD.

DOWNHOLE INSTALLATION

WELL : GIDGEALPA #24 LONG STRING

DATE : 1/5/85



DESCRIPTION	FOOTAGE (LESS THREADS) LENGTH	FROM	TO
KB to top of tubing spool	16.00	0	16.00
Hanger, DCB 2-7/8" x 2-3/8" A/B DSS			
HTC box down by hydril CS box up.	0.67	16.00	16.67
X over, 2-7/8" A/B pin x 2-3/8" A/B pin.	1.03	16.67	17.70
Tubing, (171 joints) 2-3/8" A/B J-55 4.7#	5173.23	17.70	5190.93
X over, 2-3/8" A/B box x 2-3/8" EUE pin.	0.85	5190.93	5191.78
Blast Joint, 20' x 2-3/8" EUE	20.00	5191.78	5211.78
Tubing, (20 joints) 2-3/8" EUE J-55 4.7#	633.07	5211.78	5844.85
Otis Sliding sleeve, 2-3/8" EUE XO 1.875" sealbore.	2.45	5844.85	5847.30
Tubing, (1 joint) 2-3/8" EUE J-55	31.70	5847.30	5879.00
Baker G22 Locator seal assembly Size 81-32, 2-3/8" EU box I.D. - 1.990"	1.00	5879.00	5880.00
Packer, Baker DB 84-32 Top to Centre rubber.	2.00	5880.00	5882.00
Centre rubber to bottom.	2.70	5882.0	5884.70
Mill-out extension, 4-1/2" LT&C pin x pin	4.70	5884.70	5889.40
X over, 4-1/2" LT&C box x 2-3/8" EUE pin	0.50	5889.40	5889.90
Tubing, (1 joint) 2-3/8" EUE J-55	31.66	5889.90	5921.56
Landing nipple, Otis 11x1 2-3/8" EU	1.2	5921.56	5922.76
Pup joint, 2-3/8" EUE	10.18	5922.76	5932.94
X over, 2-3/8" EUE x 3-1/2" EUE	1.65	5932.94	5934.59

Note: A/B = Atlas Bradford DSS-HTC.

CAROL 6/49

AL:cr

DELHI PETROLEUM PTY. LTD.

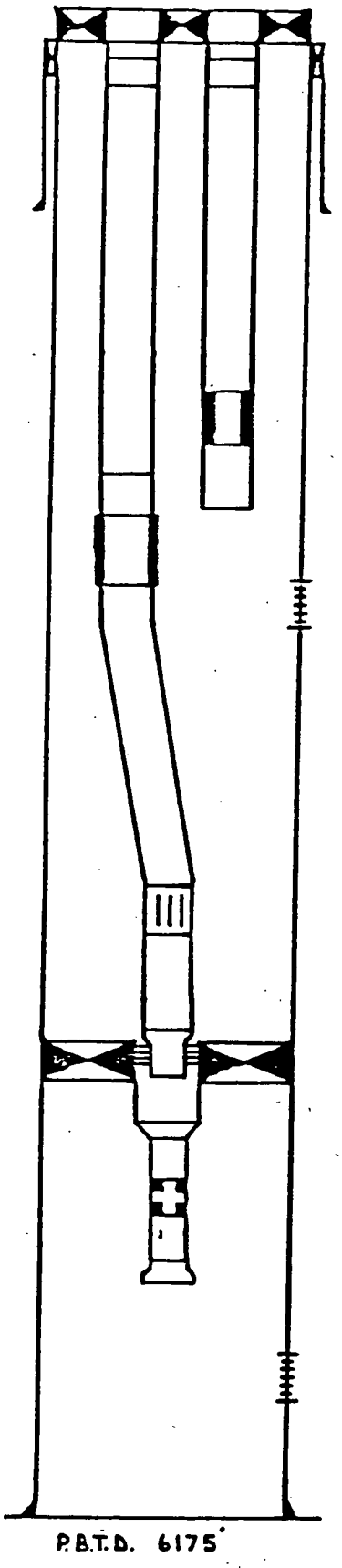
DOWNHOLE INSTALLATION

Figure 9B
Downhole Diagram
(Short String)

WELL : GIDGEALPA #24

SHORT STRING

DATE : 1/5/85



DESCRIPTION	FOOTAGE (LESS THREADS) LENGTH	FROM	TO
KB to top of tubing spool	16.00	0	16.00
Hanger, DCB 2-7/8" x 2-3/8" A/B DSS			
HTC box down by hydril CS box up	0.67	16.00	16.67
Nipple, 2-3/8" A/B pin x 2-3/8" A/B pin	0.62	16.67	17.29
Tubing, (173 joints) 2-3/8" A/B J-55 4.7#	5120.07	17.29	5137.36
Pump seating nipple, 2-3/8" API	0.65	5137.36	5138.01
Tubing, (1 joint) 2-3/8" A/B J-55 4.7#	31.12	5138.01	5169.13

Note: A/B = Atlas Bradford DSS-HTC.

Perforated Intervals:

Mid Namur 5192'-5198' BKB

Hutton 5995'-6011' BKB

CAROL 6/49

AL:cr

GIDGEALPA NO. 24 - MID-NAMUR
BUILD-UP ANALYSIS
HORNER PLOT AND TYPE CURVE DATA

TABLE 1

tp = 48.0 hours

Δt (hrs)	Pws (psig) TOP	MID	BTM	ΔP (psi) TOP	MID	BTM	Horner Time $\frac{(tp + \Delta t)}{\Delta t}$
0.0000	1876.5	1881.4	1878.5	-	-	-	-
0.0167	1864.8	1871.5	1869.2	-11.7	-9.9	-9.3	2875.3
0.0333	1865.6	1872.3	1867.6	-10.9	-9.1	-10.9	1442.4
0.0500	1868.7	1876.4	1869.2	-7.8	-5.0	-9.3	961.0
0.0667	1909.1	1893.0	1873.9	32.6	11.6	-4.6	720.6
0.0833	1955.6	1915.4	1915.8	79.1	34.0	37.3	577.2
0.1667	2087.6	2024.3	2079.1	211.1	142.9	200.6	288.9
0.2500	2152.8	2134.3	2149.1	276.3	252.9	270.6	193.0
0.3333	2180.8	2179.0	2183.4	304.3	297.6	304.9	145.0
0.4167	2201.8	2203.2	2203.6	325.3	321.8	325.1	116.2
0.5000	2215.0	2214.8	2214.5	338.5	333.4	336.0	97.0
0.7500	2236.7	2239.0	2237.8	360.2	357.6	359.3	65.0
1.0000	2249.1	2252.3	2250.3	372.6	370.9	371.8	49.0
1.5000	2262.4	2267.3	2262.8	385.9	385.9	384.3	33.0
2.0000	2269.3	2274.0	2270.6	392.8	392.6	392.1	25.0
3.0000	2277.1	2282.4	2278.3	400.6	401.0	399.8	17.0
4.0000	2281.8	2287.4	2284.6	405.3	406.0	406.1	13.0
8.0000	2286.4	2292.4	2289.2	409.9	411.0	410.7	7.0
12.0000	2291.1	2295.7	2293.9	414.6	414.3	415.4	5.000
16.0000	2291.9	2296.5	2293.9	415.4	415.1	415.4	4.000
20.0000	2292.6	2297.4	2295.5	416.1	416.0	417.0	3.4000
24.0000	2292.6	2297.4	2297.4	416.1	416.0	418.9	3.000
28.0000	2292.6	2297.4	-	416.1	416.0	-	2.7143

GIDGEALPA NO. 24 - HUTTON

BUILD-UP ANALYSIS

HORNER PLOT AND TYPE CURVE DATA

TABLE 1 (CONTD)

tp = 48.0 hours

Δt (hrs)	Pws (psig) TOP	MID	BTM	ΔP (psi) TOP	MID	BTM	Horner Time $\frac{(tp + \Delta t)}{\Delta t}$
32.0000	2292.6	2297.4	-	416.1	416.0	-	2.5000
36.0000	2292.6	2297.4	-	416.1	416.0	-	2.3333
40.0000	2292.6	2297.4	-	416.1	416.0	-	2.2000
44.0000	2292.6	2297.4	-	416.1	416.0	-	2.0909
48.0000	2292.6	2297.4	-	416.1	416.0	-	2.0000
52.0000	2292.6	2297.4	-	416.1	416.0	-	1.9231
56.0000	2292.6	2297.4	-	416.1	416.0	-	1.8571
60.0000	2292.6	2297.4	-	416.1	416.0	-	1.8000
64.0000	2292.6	2297.4	-	416.1	416.0	-	1.7500
68.0000	2292.6	2297.4	-	416.1	416.0	-	1.7059
69.3300	2292.6	2297.4	-	416.1	416.0	-	1.6923

TABLE 2

GIDGEALPA NO. 24 - LOG ANALYSIS SUMMARY

(LOG ANALYSIS REPORT, MAY 1985)

SUMMARY OF PAY

Formation	Interval	Thickness	Av Vsh	Av Ø	Av Sw
Namur	5083-5085	2'	0.34	15.3	1.00
	5088-5090	2'	0.10	16.8	1.00
	5094-5100	6'	0.09	20.1	0.81
Total Namur		10'	0.14	18.4	0.88
Mid-Namur	5193-5210	17'	0.17	18.0	0.82
Lower Namur	5460-5464	4'	0.13	16.7	1.00
Birkhead	5979-5985	6'	0.31	13.3	0.90
Hutton	5997-6003	6'	0.18	15.1	0.63
	6006-6011	5'	0.17	13.5	0.59
	6014-6030	16'	0.08	17.4	0.30
Total Hutton		27'	0.12	16.2	0.41

SJB:hks

RESREP(1.18)

GIDGEALPA #24

MID NAMUR

FLOW & BUILD UP

13.4.85/30.4.85

x	**Wireline Report**
x	**Wellhead Data**
x	**Production Data**
x	**B.H.P. Flow / Buildup Data**
	Production Rate Calculations
S.G.	**Flowing/Static Gradient**
	Bottom Hole Sampling

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COWANDILLA 5033

0199

WIRELINE REPORT

CLIENT DELHI PETROLEUM WELL GIDGEALPA #24 MID-NAMUR

DATE 13/3/85

PROGRAMME DUMMY RUN (SHORT STRING)

PURPOSE OF WORK CHECK TUBING & PUMP SEAT NIPPLE CLEAR

REPORT OF WORK PERFORMED

RIH TO 5160'. KB. TUBING & SEAT CLEAR

Operator's Signature

WORKED PERFORMED BY B TICKLE OF EXPERTEST

WELL DATA:

Tubing Size 2 3/8" FWHP SIWHP 500 PSI

Subsurface S.V./Landing Nipple @ S.S.D. @

'X' Nipple @ 'N'/'XN' Nipple @ Other @

Min. I.D. 1.78 PUMP SEAT @ 5137 Packer @

Perforated Interval:

E1

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24 (MID NAMUR) (CLEAN UP)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 13/4/85 PAGE No 1

OPERATOR B. TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TUBING PSI	TEMP °F.	B.S.W. %	CHOKE SIZE	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
		UPPER	LOWER				CLEAN-UP												UPPER -
14:00	0	493	730				OPEN WELL TO TANK ON 8/64 CHOKE												MID NAMUR
16:00	0	77	731	97		8/64													
18:00	↓	76	731	93	0	↓											98.10		LOWER HUTTON
20:00		75	731	84															
22:00	↓	78	↓	84	5												93.07		
14/4/85																			
02:00	1	85	↓	84	2												95.59		
06:00	1	91	733	73	2												108.17		
10:00	↓	96	731	82	0												103.14		
14:00		100	↓	84	0												110.68		
17:00	↓	102		84	2	↓	REDUCE CHOKE TO 6/64										106.52		
18:00	0	194	↓	79	0	6/64	S.W.I. (TO CHANGE SWAB VALVE)										50.31		
18:30	↓	440	733	79			OPEN WELL TO TANK ON 6/64 CHOKE												
20:00	↓	200	733	75	0	6/64													
22:00	1	193	733	75	↓	↓	INCREASE CHOKE TO 8/64										88.96		
15/4/85																			
02:00	0	105	734	77	↓	8/64											110.68		
06:00	0	106	734	75	8	8/64											128.17		

0209

E6

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24 (MID NAMUR) (CLEAN-UP)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
128 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COMMONDILLA 5033

DATE 15/4/85 PAGE No 2

OPERATOR B. TICKLE

DATE / TIME	WELLHEAD					H.P. SEPARATOR N/A H.P. METER RUN I.D. =					L.P. SEPARATOR N/A L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING M-NAMUR PSI	TUBING HUTTON PSI	TEMP °F	BS&W %	CHOKE SIZE	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
08:00	0	106	734	75		8/64		S.I.W.									80.52		
08:10		358																	
08:15		403																	
08:45		471	731																
09:00		484	732																
09:30		495	732																
10:00		501	731				OPEN WELL TO TANK ON 8/64 CHOKE												
12:00		114	732	81		8/64													
14:00		112	733		1												122.00		
16:00		114	733																
18:00		113	734	82	1												120.74		
20:00		116	736	79															
22:00		113	736	79	0												120.74		
16/4/85																			
02:00		111	734	73	1												108.12		
06:00		110	733		0												124.47		
10:00		114						S.I.W.									111.94		
10:05		303																	
10:10		396																	
10:30		461					END CLEAN-UP.												

0201

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
128 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 25.4.85 PAGE No 1

OPERATOR L. KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING MID NAM PSI	TBG HUTTON °F	TEMP °F	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
25.4.85																			
09:58	611	525	732			TANDEM 3000 PSI AMERADAS @ 5160'KB													
11:00	611	527	730			OPEN WELL TO FLOW MID NAMUR ON 14/64 CHOKE													
12:00	120	32	729	84		ADJUST TO 10/64 CHOKE											181.20		
13:00	153	65	726	86		SWITCH TO 8/64 POSITIVE CHOKE											161.04		
14:00	207	121	726	86													120.72		
15:00	207	123	726	86	TRACE												120.72		
19:00	204	131	727	81	TRACE												120.72		
23:00	196	130	729	84	0												140.88		
26.4.85 03:00	196	134	729	81	0												135.84		
07:00	195	134	729	82	TRACE												115.68		
11:00	194	130	732	86	TRACE												130.80		
15:00	198	133	732	86	TRACE												130.80		
19:00	194	126	732	84	TRACE												130.80		
23:00	195	131	731	84	TRACE												125.76		
27.4.85																			
03:00	198	131	731	81	TRACE												125.76		
07:00	197	132	730	81	TRACE												120.72		

E6

0202

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COMMANDILLA 5033

DATE 27.4.85 PAGE No 2

OPERATOR L. KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING MID NAM PSI	TUBING HUTTON	TEMP °F	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
27.4.85																			
07:05	197	132	730			START TO PULL AMERADAS OUT OF HOLE													
09:52	194	132	732			THREE X 3000 PSI AMERADAS @ 5160' KB													
11:00	187	131	734	86	TRACE	SHUT IN WELL FOR BUILD UP											130.80		
11:05	387	324	735																
11:10	463	402	735																
11:15	498	438	734																
11:20	521	462	734																
11:25	535	475	735																
11:30	545	485	735																
11:35	551	492	734																
11:40	557	498	734																
11:45	561	502	733																
11:50	565	505	734																
11:55	568	508	733																
12:00	571	513	733																
12:15	577	518	733																
12:30	582	523	733																

E6

U203

CLIENT DELHI PETROLEUM PTY LTD

WELL GIDGEALPA #24 MID NAMUR

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

DATE 27.4.85 PAGE No 3

OPERATOR L. KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING MID NAM PSI	TUBING HUTTON PSI	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
27.4.85																			
12:45	585	526	733	S.I.															
13:00	588	523	733																
13:15	590	531	733																
13:30	593	534	733																
13:45	594	535	733																
14:00	596	536	733																
14:15	597	537	733																
14:30	598	538	732																
14:45	599	539	732																
15:00	600	540	731																
16:00	601	542	730																
17:00	603	544	731																
18:00	603	544	730																
19:00	604	545	730																
20:00	605	546	730																
21:00	606	547	732																
22:00	607	547	732																
23:00	608	578	732																

E6

0204

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24 MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
128 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 CONNAMDILLA 5033

DATE 28.4.85 PAGE No 4

OPERATOR L. KNOX

DATE / TIME	WELLHEAD					H.P. SEPARATOR H.P. METER RUN I.D. =					L.P. SEPARATOR L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
28.4.85																			
03:00	608	548	732	S.I.															
07:00	609	549	732																
11:00	608	548	732																
15:00	608	548	731																
19:00	609	549	731																
23:00	609	549	732																
29.4.85																			
03:00	609	550	732																
07:00	609	549	730																
11:00	608	548	731																
15:00	608	548	731																
19:00	609	549	730																
23:00	610	550	730																
30.4.85																			
03:00	610	550	731																
07:00	610	549	731																
07:30	610	549	730	↓		START TO PULL AMERADAS OUT OF HOLE													

0205

E6

CLIENT DELHI PETROLEUM PTY LTD.

TANK:— CAPACITY 356 BBLS

SCALE 1.677 BBLS/INCH

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 304 COMMONDILLA 5033

WELL GIDGEALPA #24 (MID-NAMUR)

DATE 13/4/85 PAGE No 1

OPERATOR B. TICKLE

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG N/A	TANK DIP INS.	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG N/A	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS.	SALINITY PPM	
					CLEAN UP									
14:00	0		4.5		OPEN WELL ON 8/64 CHOKE				0					
18:00	4		14.25	16.35	98.10	16.35	45.7			-	-	0		
22:00	8		23.5	15.51	93.07	31.86	45.5							
14/4/85														
02:00	12		33.0	15.93	95.59	47.79	45.8							
06:00	16		43.75	18.03	108.17	65.82	46.2							
10:00	20		54.0	17.19	103.14	83.01	45.9							
14:00	24		64.0	16.77	100.62	99.78	46.2		1	1.68	10.06	1.68		
17:00	27		71.75	13.00	104.0	112.78	46.0		1.25	.42	2.52	2.1		
					REDUCE CHOKE TO 6/64									
18:00	28		73.0	2.10	50.31	114.88	45.8		1.25	-	-	"		
					SHUT IN WELL TO MOVE SWAB VALVE TO LONG STRING									
18:30			73.0		OPEN WELL ON 6/64				1.25					
22:00	31.5		80.625	12.79	87.70	127.67	45.5		1.375	.21	1.26	2.31		
15/4/85														
02:00	35.5		91.5	18.24	109.42	145.91	46.1		1.5	.21	1.26	2.52		
06:00	39.5		104.0	20.96	125.65	166.87	45.7		1.75	.42	2.52	2.94		
08:00	41.5		108.0	6.71	80.52	173.58	45.8		1.75	-	-	2.94		

0206

CLIENT. DELHI. PETROLEUM .PTY. LTD.....

TANK:— CAPACITY ....377 BBLS.....

SCALE ...1.677 BBLS/IN.....

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 TELEPHONE (08) 354 0488 TELEX AA87183
POSTAL ADDRESS PO BOX 364 COMMONDILLA 5033

WELL GIDGEALPA #24 (MID NAMUR)

DATE ..15/4/85..... PAGE No ...2...

OPERATOR .B. TICKLE.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG N/A	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG N/A	TANK DIP INS	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
10:00		TARE	108.0		OPEN WELL ON 8/64			TARE	1.75					
14:00	45.5		120.0	20.12	120.74	193.70	45.6		1.875	.21	1.26	3.15		
18:00	49.5		132.0	20.12	120.74	213.82	45.6		"	-	-	"		
22:00	53.5		143.875	19.91	119.49	233.73	45.9		2.0	.21	1.26	3.36		
16/4/85														
02:00	57.5		154.63	18.02	108.12	251.75	46.1			-	-			
06:00	61.5		167.0	20.74	124.47	272.49	45.9							
10:00	65.5		178.125	18.66	111.94	291.15	46.1							
					SHUT IN WELL									
						(END CLEAN-UP)								

0207

CLIENT DELHI PETROLEUM PTY LTD

TANK:— CAPACITY 356 BBLS

SCALE 1" = 1,677 BBLS

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

TELEPHONE (08) 354 0488 TELEX AA87183
128 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

WELL GIDGEALPA #24 MID NAMUR

DATE 25.4.85 PAGE No 1

OPERATOR L. KNOX

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
25.4.85			25.0			0			0			0		
12:00	1.0		29.5	7.55	181.20	7.55			0	0	0			
13:00	2.0		33.0	6.71	161.04	14.26								
14:00	3.0		36.0	5.03	120.72	19.29								
15:00	4.0		39.0	5.03	120.72	24.32	45.1							
19:00	8.0		51.0	20.12	120.72	44.44	45.2							
23:00	12.0		65.0	23.48	140.88	67.92	44.9							
26.4.85														
03:00	16.0		78.5	22.64	135.84	90.56	45.0							
07:00	20.0		90.0	19.28	115.68	109.84	45.1							
11:00	24.0		103.0	21.80	130.80	131.64	44.9							
15:00	28.0		116.0	21.80	130.80	153.44	45.0							
19:00	32.0		129.0	21.80	130.80	175.24	45.1							
23:00	36.0		141.5	20.96	125.96	196.20	44.9							
27.4.85														
03:00	40.0		154.0	20.96	125.76	217.16	44.7							
07:00	44.0		166.0	20.12	120.72	237.28	45.2							
*11:00	48.0		179.0	21.80	130.80	259.08	45.1							
*SHUT IN WELL FOR BUILDUP														

02208

0209

TELEPHONE (08) 354 0488 TELEX AA87183

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

CLIENT DELHI PETROLEUM PTY LTD WELL GIDGEALPA #24 MID NAMUR

OPERATOR L. KNOX DATE 27/4/85

SURVEY FLOW/BUILD UP SURVEY

TOP BOMB 56429 x 3000 REC. No. 14628 x 15 TLS CLOCK DATA 25362 x 48 HR

MID BOMB REC. No. CLOCK DATA

BTM BOMB 24708 x 3300 REC. No. 12993 x 15 TLS CLOCK DATA 25002 x 48 HR

ENG. STYLUS 25/4/85 @ 0852 HRS. DISENGAGE STYLUS 27/4/85 @ 0815 HRS

DWT IN 523 PSI DWTOUT 133 PSI MBHT 212°F

Date	Time	Cum. Time	Depth ' KB,	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
25/4/85										30 MINUTE
	09:05		LUB.	PRESSURE UP LUB.						LUB. STOP
	09:10			.312	482.3			.308	498.8	493 PSI
	09:15			.312	482.3			.312	505.3	509
	09:20			.312	482.3			.314	508.5	517
	09:25			.313	483.9			.315	510.2	521
	09:30			.313	483.9			.316	511.8	522
	09:35			.313	483.9			.317	513.4	523 R.I.H.
	09:58		5160							ON BTM
	11:00	0		1.480	2294.2			1.400	2299.0	OPEN WELL 14/64
	11:05			1.169	1811.3			1.112	1820.0	
	11:10			1.169	1811.3			1.110	1816.7	
	11:15			1.169	1811.3			1.110	1816.7	
	11:20			1.168	1809.7			1.110	1816.7	
	11:25			1.168	1809.7			1.109	1815.1	
	11:30			1.168	1809.7			1.109	1815.1	
	11:45			1.167	1808.2			1.108	1813.4	
	12:00	1.0		1.166	1806.6			1.1075	1812.6	ADJUST CHOKE 10/64
	12:15			1.188	1840.8			1.128	1846.6	
	12:30			1.189	1842.3			1.129	1848.2	
	12:45			1.188	1840.8			1.128	1846.6	
	13:00	2.0		1.188	1840.8			1.128	18466.66	ADJUST CHOKE 8/64
	13:30			1.223	1895.1			1.161	1901.3	
	14:00	3.0		1.223	1895.1			1.161	1901.3	
	14:30			1.2225	1894.8			1.1605	1900.3	
	15:00	4.0		1.222	1893.5			1.160	1899.7	
	19:00	8.0		1.212	1878.0			1.151	1884.7	
	23:00	12.0		1.212	1878.0			1.1505	1883.9	

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

0210

CLIENT DELHI PETROLEUM PTY LTD. WELL GIDGEALPA #24 MID NAMUR

OPERATOR L. KNOX DATE 27/4/85

SURVEY FLOW & BUILD UP

TOP BOMB 56429 x 3000 REC. No. 14628 x 15 TLS CLOCK DATA 25362x 48 HR

MID BOMB REC. No. CLOCK DATA

BTM BOMB 24708 x 3300 REC. No. 12993 x 15 TLS CLOCK DATA 25002 x 48 HR

ENG. STYLUS 25/4/85 @ 0852 HRS. DISENGAGE STYLUS 27/4/85 @ 0815 HRS.

DWT IN 523 PSI DWTOUT 133 PSI MBHT 212°F

Date	Time	Cum. Time	Depth 'KB	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
26/4/85										
	03:00	16.0	5160	1.2110	1876.5			1.1495	1882.3	
	07:00	20.0		1.2115	1877.3			1.1500	1883.1	
	11:00	24.0		1.2120	1878.0			1.1500	1883.1	
	15:00	28.0		1.2125	1878.8			1.1510	1884.7	
	19:00	32.0		1.2130	1879.6			1.1510	1884.7	
	23:00	36.0		1.2140	1881.1			1.1515	1885.3	
27/4/85	03:00	40.0		1.2145	1881.9			1.1520	1886.4	
	07:00	44.0		1.2155	1883.5			1.1530	1888.1	
	07:05		↓							P.O.O.H.
	07:25		LUB							@ SURFACE
	07:30			.083	128.0			.082	130.3	132 PSI
	07:35			.083	128.0			.081	128.6	133
	07:40			.083	128.0			.081	128.6	133 30 MIN
	07:45			.077	118.7			.075	118.9	132 LUB STOP
	07:50			.081	124.9			.079	125.4	130
	07:55		↓	.082	126.5			.080	127.0	133 BLEED LUB

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

0211

CLIENT DELHI PETROLEUM PTY LTD. WELL GIDGEALPA (MID-NAMUR) #24

OPERATOR LANCE KNOX DATE 30/4/85

SURVEY FLOW - BUILD UP

TOP BOMB 56429 x 3000 REC. No. 14628 x 15 TLS CLOCK DATA E 15245 x 72 HR

MID BOMB 24708 x 3300 REC. No. 12993 x 15 TLS CLOCK DATA E 19381 x 72 HR

BTM BOMB 28515 x 3000 REC. No. 13027 x 15 TLS CLOCK DATA 26819 x 24 HR

ENG. STYLUS 27/4/85 @ 0838 HRS. DISENGAGE STYLUS 30/4/85 @ 0850 HRS

DWT IN 134 PSI DWTOUT 546 PSI MBHT 212°F

Date	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
27/4/85										
	08:55			PRESSURE LUBRICATOR						VAETRIX
	09:00		LUB	0.080	123.4	0.079	125.4	.074	111.1	129 PSI
	09:05			0.080	123.4	0.080	127.0	.075	112.7	132
	09:10			0.081	124.9	0.080	127.0	.076	114.2	134
	09:15			0.081	124.9	0.080	127.0	.076	114.2	134
	09:20			0.081	124.9	0.080	127.0	.076	114.2	133
	09:25			0.081	124.9	0.080	127.0	.076	114.2	R.I.H. 134
	09:52		5160							ON BOTTOM
	11:00	0		1.211	1876.5	1.149	1881.4	1.214	1878.5	S.W.I.
	11:01	1		1.2035	1864.8	1.143	1871.5	1.208	1869.2	
	11:02	2		1.204	1865.6	1.1435	1872.3	1.207	1867.6	
	11:03	3		1.206	1868.7	1.146	1876.4	1.208	1869.2	
	11:04	4		1.232	1909.1	1.156	1893.0	1.211	1873.9	
	11:05	5		1.262	1955.6	1.1695	1915.4	1.238	1915.8	
	11:10	10		1.347	2087.6	1.235	2024.3	1.343	2079.1	
	11:15	15		1.389	2152.8	1.301	2134.3	1.388	2149.1	
	11:20	20		1.407	2180.8	1.328	2179.0	1.410	2183.4	
	11:25	25		1.4205	2201.8	1.3415	2203.2	1.423	2203.6	
	11:30	30		1.429	2215.0	1.3495	2214.8	1.430	2214.5	
	11:45	45		1.443	2236.7	1.364	2239.0	1.445	2237.8	
	12:00	60		1.451	2249.1	1.372	2252.3	1.453	2250.3	
	12:30	90		1.4595	2262.4	1.381	2267.3	1.461	2262.8	
	13:00	2 HRS		1.464	2269.3	1.385	2274.0	1.466	2270.6	
	14:00	3		1.469	2277.1	1.390	2282.4	1.471	2278.3	
	15:00	4		1.472	2281.8	1.393	2287.4	1.475	2284.6	
	19:00	8		1.475	2286.4	1.396	2292.4	1.478	2289.2	
	23:00	12		1.478	2291.1	1.398	2295.7	1.481	2293.9	
28/4/85	03:00	16		1.4785	2291.9	1.3985	2296.5	1.481	2293.9	
	07:00	20		1.479	2292.6	1.399	2297.4	1.482	2295.5	

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 WEST BEACH ROAD MARLESTON SA 5033 POSTAL ADDRESS: PO BOX 354 COWANDILLA 5033

0212

CLIENT DELHI PETROLEUM PTY LTD. WELL GIDGEALPA #24 (MID-NAMUR)

OPERATOR L. KNOX DATE 30/4/85

SURVEY FLOW - BUILD UP

TOP BOMB 56429 x 3000 REC. No. 14628 x 15 TLS CLOCK DATA E 15245 x 72 HR

MID BOMB 24708 x 3300 REC. No. 12993 x 15 TLS CLOCK DATA E 19381 x 72 HR

BTM BOMB 28515 x 3000 REC. No. 13027 x 15 TLS CLOCK DATA 26819 x 24 HR

ENG. STYLUS 27/4/85 @ 0838 HRS DISENGAGE STYLUS 30/4/85 @ 0850 HRS

DWT IN 134 PSI DWTOUT 546 PSI MBHT 212°F

Date	Time	Cum. Time	Depth	Top Def.	Top PSI	Mid Def.	Mid PSI	Bot Def.	Bot PSI	Remarks
28/4/85										
	11:00	24	5160	1.479	2292.6	1.399	2297.4			
	15:00	28						(24 HR. CLOCK FINISHED)		
	19:00	32								
	23:00	36								
29/4/85	03:00	40								
	07:00	44								
	11:00	48								
	15:00	52								
	19:00	56								
	23:00	60								
30/4/85	03:00	64								
	07:00	68								
	08:20	69h20m		1.479	2292.6	1.399	2297.4			P.O.H.
				0.348	538.1	0.333	539.5			LUB OUT.

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

STATIC GRADIENT SURVEY

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24 (MID NAMUR) OPERATOR B. TICKLE DATE 13/4/85

BOMB No. 1 DATA TOP

ELEMENT No. 56429 ELEMENT RANGE 3000
RECORDER No 14628 x 15 TLS CLOCK DATA 25509 x 3HR
ENGAGE STYLUS 10:37 DISENGAGE 13:17
PRESSURE LUBRICATOR 10:46

BOMB No 2 DATA BOTTOM

ELEMENT No. 24708 ELEMENT RANGE 3300
RECORDER No 12993 x 15 TLS CLOCK DATA 25512 x 3 HR
ENGAGE STYLUS 10:37 DISENGAGE 13:17
BLEED LUBRICATOR 13:05

DWT IN 499 PSI
DWT OUT 502 PSI

DATE	TIME	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	REMARKS
13/4/85	10:46	LUB	.294	454.5		LUB	.281	454.7		PRESSURE LUB
	10:51		.304	469.5			.287	464.5		
	10:56		.312	482.3			.297	480.8		
	11:05	↓	.321	496.3		↓	.306	495.5		R.I.H.
	11:10	1000	.538	832.5	.336	1000	.512	832.0	.337	
	11:19	2000	.754	1167.4	.335	2000	.716	1166.4	.334	
	11:28	3000	.969	1500.9	.334	3000	.919	1500.7	.334	
	11:36	4000	1.181	1829.9	.329	4000	1.118	1830.0	.329	
	11:43	4500	1.286	1992.9	.326	4500	1.216	1992.7	.325	
	11:51	5000	1.423	2205.7	.426	5000	1.344	2205.7	.426	
	11:57	5100	1.450	2247.6	.419	5100	1.369	2247.3	.416	
	12:03	5160	1.466	2272.4	.413	5160	1.384	2272.4	.418	
	12:40	LUB	.323	499.4		LUB	.308	498.8		
	12:45		.324	500.9			.309	500.4		
	12:50		.325	502.5			.310	502.0		
	12:55		.326	504.0			.311	503.6		
	13:05	↓	.327	505.6		↓	.312	505.3		M.B.H.T. 216°F

GENERAL REMARKS: ELEMENTS CALIBRATED 17/3/85 @ 230°F.

0213

E4

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

CLIENT DELHI PETROLEUM

STATIC GRADIENT SURVEY

WELL GIDGEALPA #24 MID NAMUR OPERATOR L. KNOX DATE 30.4.85

BOMB No. 1 DATA		BOMB No 2 DATA		DWT IN
ELEMENT No. 24708	ELEMENT RANGE 3300	ELEMENT No. 56429	ELEMENT RANGE 3000	539 PSI
RECORDER No 14628 x 15 TLS	CLOCK DATA 25512 x 3 HR	RECORDER No 12993 x 15 TLS	CLOCK DATA 25509 x 3 HR	DWT OUT
ENGAGE STYLUS 09:05 HRS	DISENGAGE 11:45 HRS	ENGAGE STYLUS 09:05 HRS	DISENGAGE 11:45 HRS	546 PSI
PRESSURE LUBRICATOR 09:15 HRS		BLEED LUBRICATOR 11:35 HRS		

DATE	TIME	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	DEPTH'	DEFLEC-TION	PRESSURE TEMP.	GRADIENT psi/ft	REMARKS
30.4.85	09:15	LUB	0.326	528.1	-	LUB	0.340	525.7	-	09:20 HRS - 533 PSI
	09:37	1000	0.538	874.6	0.3464	1000	0.566	875.9	0.3502	09:25 HRS - 537 PSI
	09:47	2000	0.746	1215.7	0.3412	2000	0.786	1217.0	0.3411	09:30 HRS - 539 PSI
	09:59	3000	0.951	1553.6	0.3378	3000	1.003	1553.7	0.3366	
	10:10	4000	1.152	1886.4	0.3328	4000	1.217	1885.8	0.3321	
	10:18	4500	1.251	2050.9	0.3290	4500	1.323	2050.3	0.3291	11:25 HRS - 542 PSI
	10:26	5000	1.356	2225.7	0.3496	5000	1.435	2224.3	0.3479	11:30 HRS - 544 PSI
	10:32	5100	1.382	2269.0	0.4333	5100	1.462	2266.2	0.4194	11:35 HRS - 546 PSI
	10:43	5160	1.397	2294.0	0.4168	5160	1.478	2291.1	0.4143	
	11:20	LUB	0.331	536.3	-	LUB	0.347	536.5	-	

GENERAL REMARKS:

0214

0215

GIDGEALPA #24

MID NAMUR

EXTENDED TESTING

1.5.85/8.6.85

- [ ] Wireline Report
- [x] Wellhead Data
- [x] Production Data
- [ ] B.H.P. Flow / Buildup Data
- [ ] Production Rate Calculations
- [ ] Flowing/Static Gradient
- [ ] Bottom Hole Sampling

CLIENT DELHI PETROLEUM PTY LTD.

WELL GIDGEALPA #24

MID-NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 364 COMMONDILLA 5033

DATE 1/5/85 PAGE No 1.

OPERATOR C. THOMSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
1/5/85																			
16:15	620	550		8/64			SHUT IN PRESSURE												
16:15	480	450					OPEN	TO FLOW	TO TANK	#13	8/64	FIXED BEAM CHOKE							
16:45	220	145																	
17:15	205	130	86																
18:15	200	125	↓																
20:15	200	120	84		TRACE SAND														
22:15	192	120	84																
2/5/85																			
06:15	192	120	82																
14:15	192	120	93																
18:15	195	120	89																
3/5/85																			
06:15	195	129	89																
18:15	200	129	89																
4/5/85																			
06:15	200	125	89																
18:15	200	130	95	↓	↓														

02217

EB

CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(MID-NAMUR)

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WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDOLLA 5033

DATE 5/5/85 PAGE No 2

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
5/5/85																			
06:15	200	130	91	8/64	TRACE SAND														
18:15	200	130	95	"	"														
6/5/85																			
06:15	200	130	91	8/64	"														
18:15	200	125	93	"	"														
7/5/85																			
06:15	200	125	89	8/64	"														
18:15	210	128	91	"	"														
8/5/85																			
06:15	204	126	86	8/64	0														
18:15	210	130	95	8/64	"														
9/5/85																			
06:15	210	135	89	8/64	"														
18:00	210	130	89	8/64	"														

0218

CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(MID-NAMUR)

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WIRELINE & WELL TESTING SERVICE
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138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDILLA 5033

DATE 10/5/85 PAGE No 3

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
10/5/85																			
06:00	210	128	89	8/64	0														
18:00	206	129	89	8/64	0														
11/5/85																			
06:00	210	130	86	8/64	0														

0219

CLIENT DELHI PETROLEUM

WELL GIDGEALPA # 24

(MID-NAMUR)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

DATE 12/5/85 PAGE No 4

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
12/5/85																			
06:00	210	135	82	8/64	0														
13/5/85																			
06:00	215	130	80	8/64	0		S.W.I.	TO	CHANGE	OUT	FRAC.	TANK							
08:15	609	525		8/64			OPEN	WELL	TO	TANK									
14/5/85																			
06:00	210	135	86	8/64	0														
15/5/85																			
06:00	220	130	96	8/64	0														
16/5/85																			
06:00	215	122	86	8/64	0														
17/5/85																			
06:00	218	125	84	8/64	0														
18/5/85																			
06:00	218	125	90	8/64	0														

0220

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

MID NAMUR

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EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 19.5.85 PAGE No 5.

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
19.5.85																			
06:00	219	128	84	8/64	0														
20.4.85																			
06:00	220	128	86	8/64	0														
21.5.85																			
06:00	220	124	82	8/64	0														
22.5.85																			
06:00	220	126	84	8/64	0														
23.5.85																			
06:00	220	130	86	8/64	0														
24.5.85																			
06:00	220	130	86	8/64	0														
25.5.85																			
06:00	230	130	82	8/64	0														

0221

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

MID NAMUR

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WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMANDALA 5033

DATE 26.5.85 PAGE No 6.

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR (H.P. METER RUN I.D. =)					L.P. SEPARATOR (L.P. METER RUN I.D. =)					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
26.5.85																			
06:00	230	130	86	8/64	0														
27.5.85																			
06:00	230	125	87	8/64	0														
28.5.85																			
06:00	230	130	89	8/64	0														
29.5.85																			
06:00	230	130	89	8/64	0														
30.5.85																			
06:00	230	130	87	8/64	0														

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

MID NAMUR

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138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 364 COMANDILLA 5033

DATE 31.5.85 PAGE No 7

OPERATOR C. THOMPSON

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	Pf PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	Pf PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
31.5.85																			
06:00	230	130		8/64	0														
18:00				S.W.I.		DUE TO NOT BEING ABLE TO SHIP CRUDE													
1.6.85																			
06:00			WELL SHUT IN																

CLIENT DELHI PETROLEUM

WELL GIDGEALPA #24

MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 TELEPHONE (08) 354 0488 TELEX AA87183 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

DATE 4.6.85 PAGE No 8

OPERATOR P. BOWYER

DATE / TIME	WELLHEAD					H.P. SEPARATOR — H.P. METER RUN I.D. =					L.P. SEPARATOR — L.P. METER RUN I.D. =					TOTAL GAS RATE MMSCF/D	TOTAL LIQUID RATE BBLS/D	G.O.R. SCF/BBL	REMARKS
	CASING PSI	TUBING PSI	TEMP °F	CHOKE SIZE INS	B.S.W. %	PI PSI	HW INS. H_2O	TEMP °F	ORIFICE SIZE INS	FLOW RATE MMSCF/D	PI PSI	HW INS. H_2O	TEMP F	ORIFICE SIZE INS	FLOW RATE MMSCF/D				
4.6.85																			
20:30	620	530		8/64		OPEN WELL													
5.6.85																			
07:00	230	130		8/64	0														
6.6.85																			
07:00	228	133	77	8/64	0														
7.6.86																			
07:00	227	130	79	8/64	0														
8.6.85																			
07:00	215	130	84	8/64	0														

0224

CLIENT DELHI PETROLEUM PTY LTD.

TANK:— CAPACITY 356

SCALE 1" = 1.677 BBLS

MID-NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONWILLA 5033

WELL GIDGEALPA #24

DATE 1/5/85 PAGE No 1

OPERATOR C. THOMSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG	TANK DIP	TANK PROD.	FLOWRATE	CUM. PROD.	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP	TANK PROD.	FLOWRATE	CUM. PROD.	SALINITY PPM	
		TOTAL DIP	INS	BBLS	BBLS/DAY	BBLS			INS	BBLS	BBLS/DAY	BBLS		
1/5/85				FLOW TO TANK #13										
16:15		42.75	41.75	0	0	70.01			1	0	0			OPENING DIP
17:15		46	45	5.45	130.80	5.45	45.7							
18:15		49.25	48.25	5.45	130.80	5.45	45.5							
20:15		54	53	7.96	95.58	18.86	45.5							
22:15		60.75	59.75	11.31	135.72	30.17	45.6							
2/5/85														
06:15		88.5	87.5	46.53	139.59	76.7	45.4							
14:15		116	115	46.11	138.35	122.81	45.0							
16:15		123	122	11.73	140.86	134.54							START	SHIPPED 201 BBLS
16:35		2.75	1.75	1.95	140.86	136.49							FINISH PUMPING	
18:15		8	7	8.80	140.79	145.29	45.5							
3/5/85														
06:15		49.5	48.5	69.59	139.19	214.88	45.3							
18:15		90.75	89.75	69.17	138.35	284.05	45.6							
4/5/85														
06:15		131.75	130.75	68.75	137.51	352.8	45.3							
13:30		157.75	156.75	43.60	144.33	396.4								START PUMPING
14:00		22.5	21.5	2.04	147.57	398.44								FINISH PUMPING
18:15		39	38	27.67	147.57	426.11	46.3							SHIPPED 226 BBLS

0225

CLIENT .. DELHI PETROLEUM .....

TANK:— CAPACITY ..... 356 .....
SCALE .. 1" + 1.677 BBLS/IN. ..

(MID-NAMUR)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL ... GIDGEALPA # 24 .....
DATE .... 5/5/85 .... PAGE No .2 ....
OPERATOR .. P. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS.	FLOWRATE BBLS/D	CUM. PROD. BBLS.	SALINITY PPM	
05/5/85														
06:15		77.75	76.75	64.98	129.96	491.09	45.1		1	0	0			
18:15		118.75	117.75	68.75	137.51	559.84	45.6		1	0	0			
06/5/85														
06:15		159.5	158.5	68.33	136.67	628.17	45.2		1	0	0			SHIPPED 223 BBLS.
08:30		167.5	166.5	13.41	143.04	641.58			1	0	0			START PUMPING
09:00		35.5	34.5	2.84	136.32				1	0	0			FINISH PUMPING
18:15		63	62	46.11	119.65	690.53	45.3		1	0	0			
07/5/85														
06:15		104.5	103.5	69.59	139.19	760.12	46.4		1	0	0			
18:15		145.25	144.25	68.33	136.67	828.45	47		1	0	0			
08/5/85														
06:15		188.5	187.5	72.53	145.06	900.98	47		1	0	0			START PUMPING
06:45		53.75	52.75	3.02	-	904.0			1	0	0			FINISH SHIPPING
18:15		90.5	89.5	61.62	128.59	965.62	45.2		1	0	0			SHIPPED 229 BBLS.
09/5/85														
06:15		133.5	132.5	72.11	144.22	1037.73	45.9		1	0	0			
09:00		142.75	141.75	15.51	135.35				1	0	0			START PUMPING
09:30		8	7	6.0	0	1037.73			1	0	0			FINISH SHIPPING
														SHIPPED 226 BBLS.

12.2.85

CLIENT .... DELHI PETROLEUM .....

TANK:— CAPACITY ... 356 .....
SCALE .. 1" = 1.677 BBLS. .....

(MID-NAMUR)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE

WELL .... GIDGEALPA # 24 .....
DATE .. 9/5/85 ..... PAGE No .. 3 ...
OPERATOR ... P. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS.	FLOWRATE BBLS/D.	CUM. PROD. BBLS.	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS.	FLOWRATE BBLS/D.	CUM. PROD. BBLS.	SALINITY PPM	
09/5/85														
18:00		37	36	48.63	137.31	1101.87	46.7		1	0	0	0		
10/5/85														
06:00		77.5	76.5	67.91	135.83	1175.78	46.8		1	-	-	-		
18:00		118.75	117.75	69.17	138.34	1244.95			1	-	-	-		
11/5/85														
06:00		159.25	158.25	67.91	135.82	1312.86	47.7		1	-	-	-		
13:00		183	182	39.82	136.52	1352.68			1	-	-	-		START PUMPING
13:30		47	46	5.66	-	1358.34			1	-	-	-		SHIPPED 233 BBLS.

0227

CLIENT ... DELHI PETROLEUM .....

TANK:— CAPACITY ... 356 BBLS .....
SCALE .. 1" = 1.677 BBLS .....

(MID-NAMUR)

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONDILLA 5033

WELL ... GIDGEALPA # 24 .....
DATE 12/5/85 PAGE No 4
OPERATOR ... P. BOWYER .....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS.	SALINITY PPM	
12/5/85														
06:00		103.25	102.25	94.33	137.20	1452.67	45.8		1	0	0	0		
13/5/85														
06:00		184.75	183.75	136.67	136.67	1589.34			1	-	-	-		
06:00		S.W.I.	TO CHANGE OUT		FRAC. TANK (REPLACE WITH			LARGE ONE SCALE	1" = 1.695 BBLS)					
08:15		OPEN WELL												SHIPPED 301 BBLS
		0	0	0	0	1589.34			0	0	0	0		OPENING DIP
14/5/85														
06:00		74.75	74.75	126.7	139.8	1716.04	47.2		-	-	-	-		
15/5/85														
06:00		156.5	156.5	138.56	138.56	1854.6	46		-	-	-	-		
10:30		171.5	171.5	25.42	135.57	1880.02			-	-	-	-		START PUMPING
11:00		37.25	37.25	2.8	-	1882.82			-	-	-	-		FINISH PUMPING
16/5/85														
06:00		101.5	101.5	108.9	137.55	1991.72	46.8		-	-	-	-		
17/5/85														
06:00		182	182	136.44	136.44	2128.16	47.7		-	-	-	-		
18:30		224.25	224.25	71.61	137.5	2199.77			-	-	-	-		START PUMPING
19:00		91.25	91.25	2.8	-	2202.57			-	-	-	-		FINISH PUMPING
														SHIPPED 228 BBLS.

0228

CLIENT .. DELHI PETROLEUM .....

TANK:— CAPACITY ... 377 .BBLS .....
SCALE .....1" = 1.695 .BBLS ...

MID-NAMUR

WELL .....GIDGEALPA # 24.....
DATE ...18/5/85.....PAGE No ..5...
OPERATOR ... P.. BOWYER.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/D	CUM. PROD. BBLS	SALINITY PPM	
18/5/85														
06:00		129	129	63.98	139.6	2266.55	47.5		-	-	-	-		
11:00		146	146	28.81	138.28	2295.36			-	-	-	-		START PUMPING
11:30		12.75	12.75	2.8	-	2298.16			-	-	-	-		FINISH PUMPING
														SHIPPED 228 BBLS.

0229

CLIENT . DELHI PETROLEUM

TANK:— CAPACITY . 377 BBLS

SCALE . 1" = 1.695 BBLS

MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 384 COMMANDILLA 5033

WELL . GIDGEALPA #24

DATE . 19.5.85 PAGE No 6

OPERATOR . C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
19.5.85														
06:00		75.5	75.5	106.36	137.98	2404.52	47.2		-	-	-	-		
20.5.85														
06:00		156	156	136.44	136.44	2540.96	46.5							
14:00		182	182	44.07	132.21	2585.03								START PUMPING
14:30		47.5	47.5	2.7	-	2587.73								FINISH PUMPING
21.5.85														SHIPPED 230 BBLS
06:00		100.5	100.5	89.83	139.09	2677.56	46.4							
22.5.85														
06:00		181	181	136.44	136.44	2814	46.5							SHIPPED 224 BBLS
10:00		194.25	194.25	22.45	134.75									START PUMPING
10:30		62	62	2.8	-									FINISH PUMPING
23.5.85														
06:00		129	129	113.56	139.76	2952.81	46.5							SHIPPED 226 BBLS
17:00		166	166	62.71	136.83									START PUMPING
17:30		32.5	32.5	2.8	-									FINISH PUMPING

0230

CLIENT DELHI PETROLEUM

TANK:— CAPACITY 377 BBLS

SCALE 1" = 1,695 BBLS

MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONWLA 5033

WELL GIDGEALPA #24

DATE 24.5.85 PAGE No 7

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
06:00		74	74	70.34	135.05	3088.66	46.6							
14:30		S.W.I.	TO CHANGE CHOKE											
14:45		OPEN WELL												
14:30		102.75	102.75	48.73	137.59									OPENING DIP
15:30														
25.5.85														SHIPPED 228 BBLS
06:00		153	153	85.17	134.04	3222.56	46.6							23½ PROD
15:45		185.25	185.25	54.66	134.54									START PUMPING
16:15		50.25	50.25	2.7	-									FINISH PUMPING

0231

CLIENT. DELHI PETROLEUM

TANK:— CAPACITY . . . 377 BBLS

SCALE 1" = 1.695 BBLS

MID NAMUR

EXPERTEST PTY LTD
WIRELINE & WELL TESTING SERVICE
TELEPHONE (08) 354 0488 TELEX AA87183
138 RICHMOND ROAD MARLESTON SA 5033 POSTAL ADDRESS PO BOX 354 COMMONWEALTH 5033

WELL GIDGEALPA #24

DATE 26.5.85 PAGE No 8

OPERATOR C. THOMPSON

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
26.5.85														
06:00		97.5	97.5	80.08	139.77	3360	46.3							
27.5.85														
06:00		178.75	178.75	137.71	137.71	3497.71	46.7							SHIPPED 227 BBLS
15:30		211	211	54.66	138.08									START PUMPING
16:00		77	77	2.8	-									FINISH PUMPING
28.5.85														
06:00		125	125	81.36	139.47	3636.53								
29.5.85														
06:00		207	207	138.99	138.99	3775.52	46.5							SHIPPED 224BBLS
08:45		215.25	215.25	139.8	122.00									START PUMPING
09:15		83	83	2.89	-									FINISH PUMPING
30.5.85														
06:00		154	154	120.34	139.18	3912.54	46.7							
08:45		163	163	15.25	133.13									SHIPPED 224 BBLS
09:15		32.25	32.25	2.7										
31.5.85														
06:00		103.75	103.75	121.19	140.17	4051.68	45.6							
18:00		143.45	143.45	67.29	134.58	4118.97								
18:00		S.W.I.		DUE TO NOT BEING ABLE TO SHIP CRUDE										

0232

CLIENT... DELHI PETROLEUM.....

TANK:— CAPACITY ..377 BBLS.....
SCALE 1" = 1,695 BBLS.....

MID NAMUR

WELL ..GIDGEALPA #24.....
DATE 4.6.85.....PAGE No ..9....
OPERATOR P. BOWYER.....

DATE / TIME	ELAPSED TIME HOURS	OIL/CONDENSATE PRODUCTION						WATER PRODUCTION						REMARKS
		METER READG TOTAL DIP	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	OIL CONDENSATE GRAVITY °AP160F°	METER READG	TANK DIP INCHES	TANK PROD. BBLS	FLOWRATE BBLS/DAY	CUM. PROD. BBLS	SALINITY PPM	
4.6.85														
20:30		8	8	-	-	4119.05			-	-	-	-		SHIPPED 229 BBLS
5.6.85														
07:00		45	45	62.71	143.33	4181.76	46.9		-	-	-	-		
6.6.85														
07:00		126.5	126.5	138.14	138.14	4319.9	46.5		-	-	-	-		
08:30		131.5	131.5	8.47					-	-	-	-		START PUMPING
09:00		5	5	2.8					-	-	-	-		FINISH PUMPING
7.6.85														SHIPPED 217 BBLS
07:00		80.25	80.25	127.5	139.1	4458.67	46.6		-	-	-	-		
8.6.85														
07:00		163	163	140.26	140.26	4598.93	46.6		-	-	-	-		
11:15		177	177	23.73					-	-	-	-		START PUMPING
11:45		41.5	41.5	3.0					-	-	-	-		FINISH PUMPING
														SHIPPED 232.6 BBLS

0233

Core Lab

DELHI PETROLEUM PTY LTD

GIDGEALPA #24

SPECIAL CORE ANALYSIS

Core Lab

Core Laboratories Australia Pty. Ltd.
447-449 Belmont Avenue.
Kewdale.
Western Australia 6105
(09) 353 3944

16th February 1987

Delhi Petroleum Pty Limited
101 Grenfell Street
Adelaide S.A. 5000

Attention: Mr P. McMahon

Subject : Special Core Analysis
Well : Gidgealpa #24
File : 318-86020

Dear Sir,

By way of purchase order # DM-D-002098 Mr. McMahon of Delhi Petroleum Pty Limited requested that Core Laboratories Australia Pty Limited perform certain special core analysis tests on samples from the subject well.

Preliminary data was despatched via telex as tests were completed (our ref: telex no's: PE612/417, PE661/446) and this report now finalizes all data.

We wish to thank Delhi Petroleum Pty Limited for the opportunity to have been of service with this study. If you have any questions please do not hesitate to contact us.

Yours sincerely,
CORE LABORATORIES AUSTRALIA PTY LTD

Peter Lane
Laboratory Supervisor

PL:jc:

TABLE OF CONTENTS

INTRODUCTION

The following tests were requested for this study:

1) Formation Resistivity Factor at Effective Overburden Pressure.
2) Formation Resistivity Index.
3) Air-Brine Capillary Pressure : Centrifuge Method.
4) Basic Waterflood.
5) Water-Oil Relative Permeability : Steady-State Method.

Two formation waters were simulated for this study based on detailed analyses of produced waters from the Namur Sandstone Member. Details of these brines are tabulated on pages 6 and 7. The concentration of the two brines were:

Namur Formation	:	2789 mg/l
Mid Namur Formation	:	3059 mg/l

Mr. Wilson of Delhi Petroleum Pty Limited requested that an oil water viscosity ratio of 0.84 : 0.274 be used for the basic waterflood tests.

The electrical data reported correlates well with data previously reported for the Namur and Mid Namur formation. Sensitivity of formation factor to overburden pressure was not appreciable but this is to be expected when well cemented sandstones are studied.

Capillary pressure data correlate fairly well with permeability.

Basic waterflood data show consistent recoveries but residual oil saturations are higher in the Namur than the Mid-Namur. Some mobile fines problems were indicated and probably were the cause of the lower permeabilities recorded during the repeated flood.

DISCUSSION OF LABORATORY RESULTS AND PROCEDURES

SAMPLE PREPARATION

Five preserved core samples were received at our Perth laboratory for analysis. Adjacent one-inch and one-and-one-half-inch diameter samples were drilled from the core pieces using tap water as the bit lubricant. These samples were extracted in hot toluene and methanol to remove residual oil and salts then dried at 105°C. Permeability to air and porosity were then determined on the clean and dry samples. These data are presented on page 5 together with brief lithological descriptions.

FORMATION RESISTIVITY FACTOR AT EFFECTIVE OVERBURDEN PRESSURE
(Pages 8 through 15)

The one-inch diameter samples were used for this test. They were evacuated and then pressure saturated with their respective brines. Resistivities of the fully saturated samples and of their saturant brines were determined at room conditions on consecutive days until ionic equilibrium was reached. Each sample was then loaded into a hydrostatic core holder and effective overburden pressures of 400 and 2300 psig applied. Resistivities were again determined. Porosity reduction at each pressure was determined by measuring the incremental brine displacement from the samples.

Formation factor data were calculated from these data and are tabulated on pages 8 and 21. The graphical data for the Namur formation on pages 9 through 11 resulted in average values of the cementation exponent "m", of 1.63 at room condition, 1.66 at 400 psig and 1.70 at 2300 psig. Data for the Mid Namur formation are graphed on pages 13 through 15 and resulted in average values of "m" equal to 1.62 at room conditions 1.66, at 400 psig and 1.66 at 2300 psig. The intercept, "a", was equal to one in both formations.

Formation factors for both formations were similar and both formations showed only slight sensitivity of formation factor to effective overburden pressure. Formation factors determined in this study were consistent with previously reported data for the Namur formation.

FORMATION RESISTIVITY INDEX
(Pages 16 through 24)

Following formation factor at effective overburden pressure determinations the samples were incrementally desaturated in a porous-plate capillary cell using humidified air as the displacing medium. Electrical resistivities of the partially desaturated samples were determined at several saturations. Saturations were determined gravimetrically. Resistivity index values were calculated from these data and results are tabulated on pages 16 and 21. The composite plots on pages 20 and 24 result in average values of the saturation exponent, "n", of 1.53 in the Namur formation and 1.61 in the Mid-Namur formation.

Once again, these are fairly typical values of "n" for the Namur formation.

AIR-BRINE CAPILLARY PRESSURE : CENTRIFUGE METHOD
(Pages 25 through 30)

After the electrical tests were completed the samples were trimmed to approximately one-inch in length to render them suitable for testing in the centrifuge. The samples were then cleaned in methanol to remove residual salts and dried at 105°C. Permeability to air and porosity were re-determined before the samples were evacuated and pressure saturated with their respective simulated formation brines. Some differences in permeability were noticed and are probably due to the heterogeneous nature of the samples.

Each sample was placed into a centrifuge cup and then spun at increasing incremental speeds in the centrifuge to an equivalent capillary pressure of 60 psig. Observations of brine displacement at each pressure increment were used to calculate brine saturations within the core samples.

Data from these tests are tabulated on page 25 and presented graphically on pages 26 through 30.

BASIC WATERFLOOD
(Page 31)

The five one-and-one-half-inch diameter samples were used in this test. Following permeability to air and porosity determinations the samples were evacuated and then pressure saturated with their respective simulated formation brines.

They were then placed in a porous-plate capillary pressure cell and desaturated using humidified air at 150 psig.

Following removal from the cell the samples were evacuated under and flushed with a mineral oil having a viscosity matched to the simulated formation brine so as to have an oil-water viscosity ratio of 0.84 : 0.274.

Back pressure was used during the flushing to ensure the removal of any gas or mobile water remaining in the samples. Effective permeabilities to oil at immobile water saturation were then determined.

The samples were then injected with simulated brine at a constant pressure and effluent oil and water volumes monitored. The tests were terminated at water cuts in excess of 99.95 percent. At this stage effective permeabilities to water at residual oil saturation were determined in both the forward and reverse directions of flow.

Following these floods, the ends were trimmed from sample 5 from the Mid-Namur formation. This sample was then re-cleaned and dried prior to re-determining permeability to air and porosity. The same procedure employed above was used to prepare the sample before repeating the waterflood.

The results of all of the waterfloods are tabulated on page 31.

Recoveries from the Namur formation (core #1) are lower than for the Mid-Namur formation samples (core #2). Conversely residual oil saturations are higher in the Namur formation. This is possibly due to the Namur formation samples being much more heterogeneous than the Mid-Namur samples.

The repeat flood on sample 5 from the Mid-Namur formation resulted in similar recoveries to the first flood, however, the permeabilities (to air, oil and water) were all lower in the repeat flood. This may have been caused by the creation of mobile fines during the first flood (a common phenomenon in Australian reservoirs due to the presence of kaolinite in the formations) which were not removed during cleaning or by the trimming of the core sample. Mobile fines movement was seen during the flood on core #5 from the Namur formation as evidenced by the higher reverse permeability to water.

WATER-OIL RELATIVE PERMEABILITY : STEADY-STATE METHOD
(Pages 32 through 35)

The sample chosen for this test had previously undergone a basic waterflood. Re-cleaning of the sample in hot solvents was undertaken before the sample was dried at 105°C and then permeability to air and porosity re-determined. The sample was then evacuated and pressure saturated with a standard laboratory brine before it was loaded into a porous-plate capillary pressure cell. Humidified air at a pressure of 150 psig was used to desaturate the sample to immobile water saturation.

The sample was evacuated under and then flushed with a mineral oil of approximately 1.5 centipoise viscosity. Back pressure was used during the flushing to ensure that any gas or mobile water remaining in the sample was removed. Effective permeability to oil at immobile water saturation was determined to serve as the "base" permeability for relative permeability calculations.

Steady-state water-oil relative permeability determination was then undertaken. Initially, 1.5 centipoise oil at room conditions was flowed through the sample. Brine was then introduced and the two fluids flowed simultaneously through the sample, with the flow rate of brine being incrementally increased relative to the flow rate of oil until only brine was flowing.

At each increment, the flow rate of fluids was constant. As the differential pressure stabilized indicating fluid saturations were in equilibrium (steady-state), relative permeabilities were calculated. Incremental increases in water saturation were determined gravimetrically.

Results are tabulated on page 33 and represented graphically on pages 34 through 35.

The residual oil saturation after the steady-state tests was slightly lower than for the basic flood on the same sample. This often occurs with heterogeneous samples due to channeling of the water through higher permeability beds in the sample during unsteady-state waterfloods.

IDENTIFICATION AND DESCRIPTION OF SAMPLES

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Lithological Description
Core #1 : Namur Formation				
1	5082.0 - 82.3	660	16.9	SST: v lt gry, suc, f-med, n crs-v crs, sbang-sbrndd, wl srt.
1A	5082.0 - 82.3	440	15.7	SST: v lt gry, suc, f-med, n crs-v crs, wl cmt, sbang-sbrndd, wl srt, n carb spk.
4	5089.2 - 90.2	940	17.3	SST: v lt gry, suc, f-v crs, wl cmt, sbang-sbrndd, mod srt.
4A	5089.2 - 90.2	1030	17.8	SST: v lt gry, suc, f-v crs, wl cmt, sbang-sbrndd, mod srt, n glauc.
5	5090.8 - 91.7	1130	24.1	SST: v lt gry, suc, f-v crs, wl cmt, sbang-sbrndd, mod srt, n wthd fspr.
5A	5090.8 - 91.7	1860	23.3	SST: v lt gry, suc, f-v crs. wl cmt, sbang-sbrndd, mod srt, n glauc.
Core #2 : Mid-Namur Formation				
3	5190.5 - 90.8	260	21.9	SST: v lt gry, suc, f-vf, dom f, wl cmt, sbang-sbrndd, v wl srt, fr sericite and carb spk.
3A	5190.5 - 90.8	180	21.8	SST: v lt gry, suc, f-vf, dom f, wl cmt, sbang-sbrndd, v wl srt, tr sericite and carb spk.
5	5197.2 - 97.7	1960	18.9	SST: v lt gry, f-crs, dom med, wl cmt,sbang-sbrndd, wl srt, tr carb spk.
5A	5197.2 97.7	1450	19.5	SST: v lt gry, f-crs, dom med, wl cmt,sbang-sbrndd, wl srt, mnr carb mat along ang lam.

SIMULATED BRINE COMPOSITION

Company : Delhi Petroleum Pty Ltd
Well : Gidgealpa #24
Formation : Namur

Constituents	Concentration, mg/l
Sodium Chloride (NaCl)	297
Calcium Chloride ($CaCl_2$)	1.5
Magnesium Chloride ($MgCl_2.6H_2O$)	7.5
Sodium Bicarbonate ($NaHCO_3$)	2451
Sodium Sulphate ($Na_2SO_4.10H_2O$)	17

The brine composition was prepared from the following analysis:

Constituents	Concentration, mg/l	Constituents	Concentration, mg/l
Sodium	790	Chloride	184
Calcium	5.4	Bicarbonate	1780
Magnesium	0.9	Sulphate	5
Potassium	24		

SIMULATED BRINE COMPOSITION

Company : Delhi Petroleum Pty Ltd
Well : Gidgealpa #24
Formation : Mid Namur

Constituents	Concentration, mg/l
Sodium Chloride (NaCl)	50
Calcium Chloride ($CaCl_2$)	9.7
Magnesium Chloride ($MgCl_2.6H_2O$)	5.9
Sodium Bicarbonate ($NaHCO_3$)	2795
Sodium Sulphate ($Na_2SO_4.10H_2O$)	37

The brine composition was prepared from the following analysis:

Constituents	Concentration, mg/l	Constituents	Concentration, mg/l
Sodium	820	Chloride	169
Calcium	3.5	Bicarbonate	2030
Magnesium	0.7	Sulphate	11
Potassium	25		

FORMATION RESISTIVITY FACTOR AS A FUNCTION OF OVERBURDEN PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Saturant: 2789 mg/l
Rw : 3.087 ohm-m @ 77°F

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Effective Overburden Pressure, psig: Room Conditions	400	2300
			Formation Resistivity Factor		
Core #1 : Namur Formation					
1A	5082.0 - 82.3	440	21.0	22.3	23.6
4A	5089.2 - 90.2	1030	16.0	18.1	19.8
5A	5090.8 - 91.7	1860	10.8	11.5	12.2

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent		
Core #1 : Namur Formation					
1A	5082.0 - 82.3	440	15.7	15.4	14.9
4A	5089.2 - 90.2	1030	17.8	17.5	16.9
5A	5090.8 - 91.7	1860	23.3	23.0	22.2

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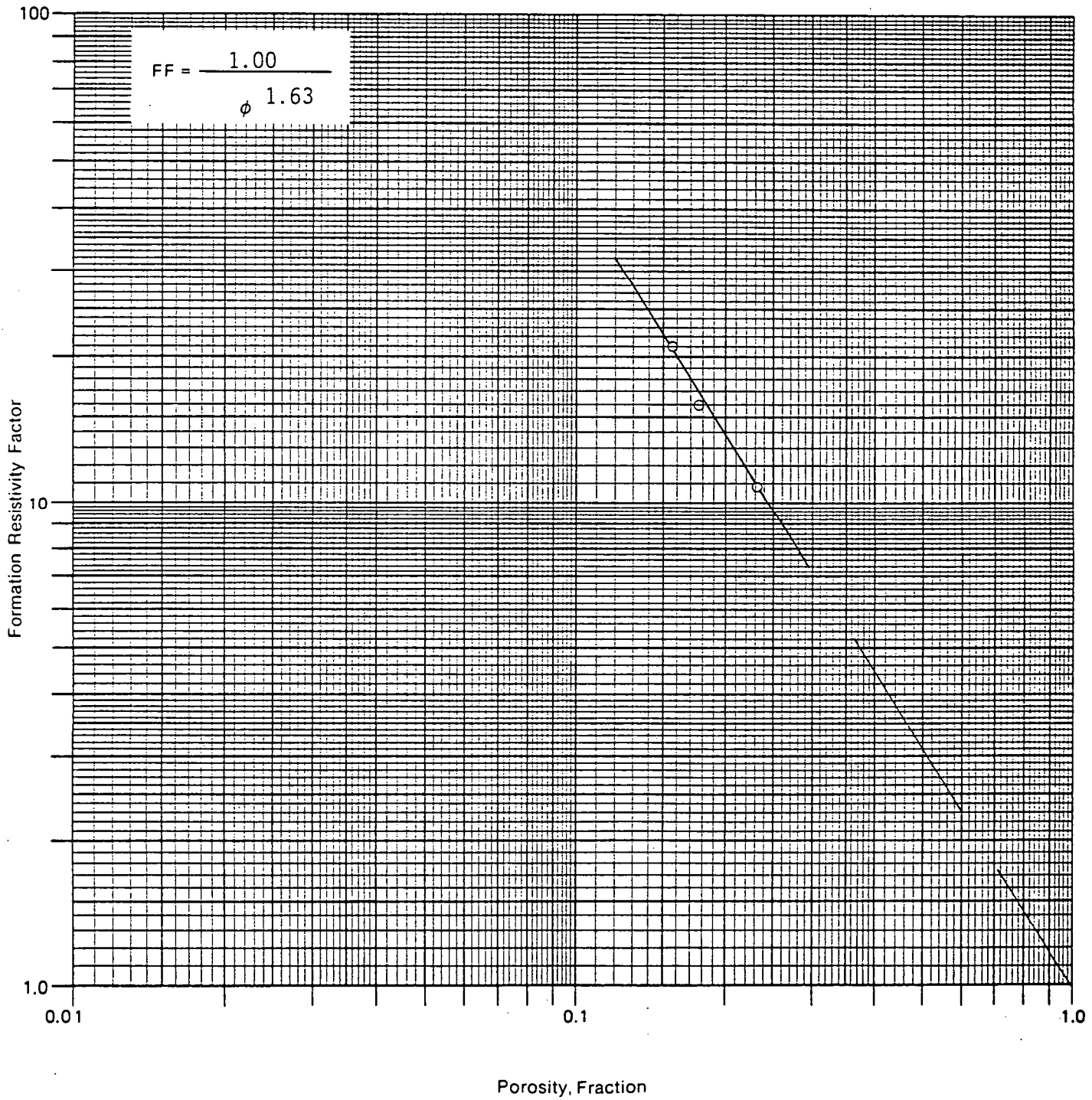
Petroleum Reservoir Engineering

FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Room Conditions

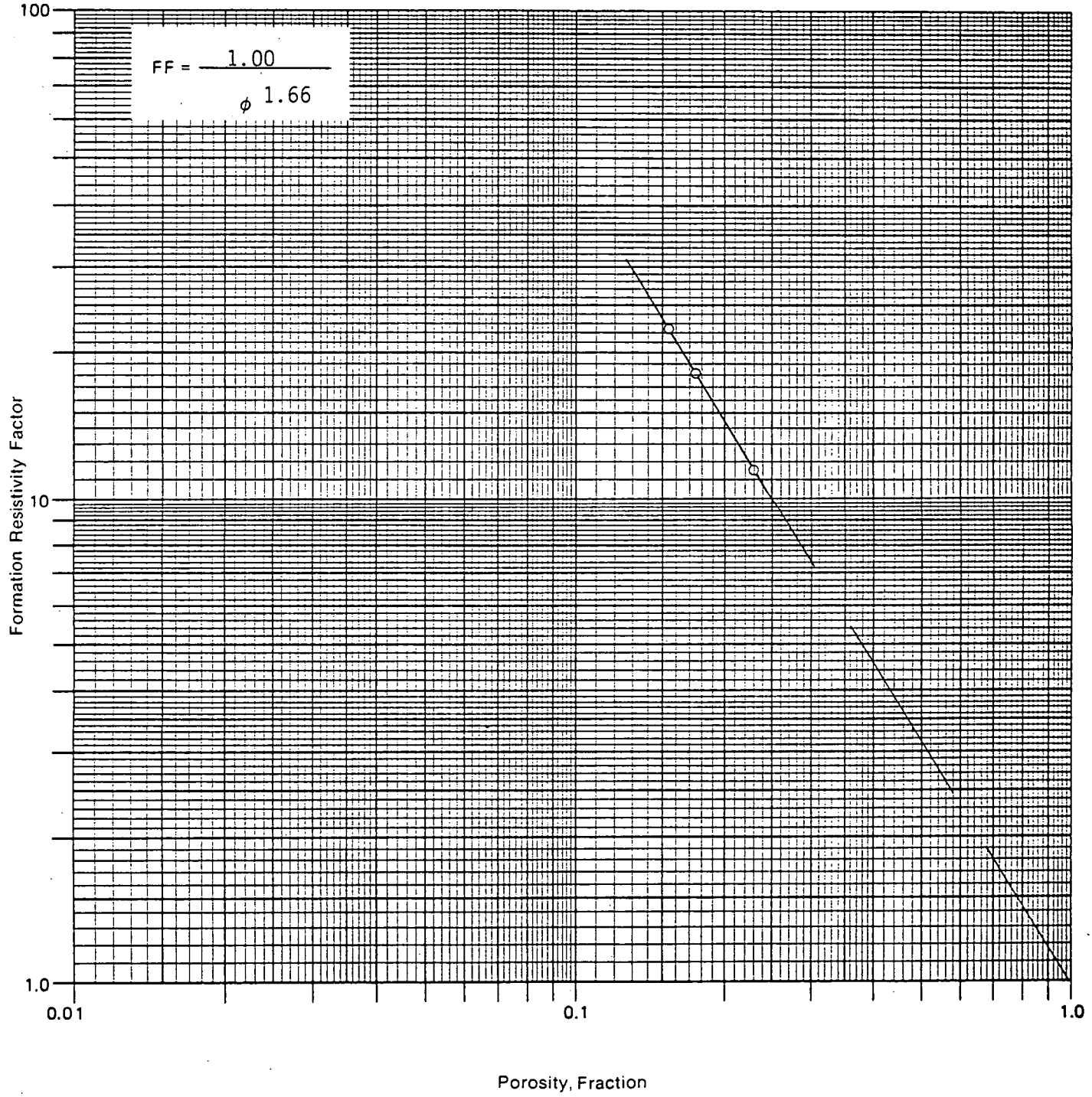


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Effective Overburden Pressure: 400 psig

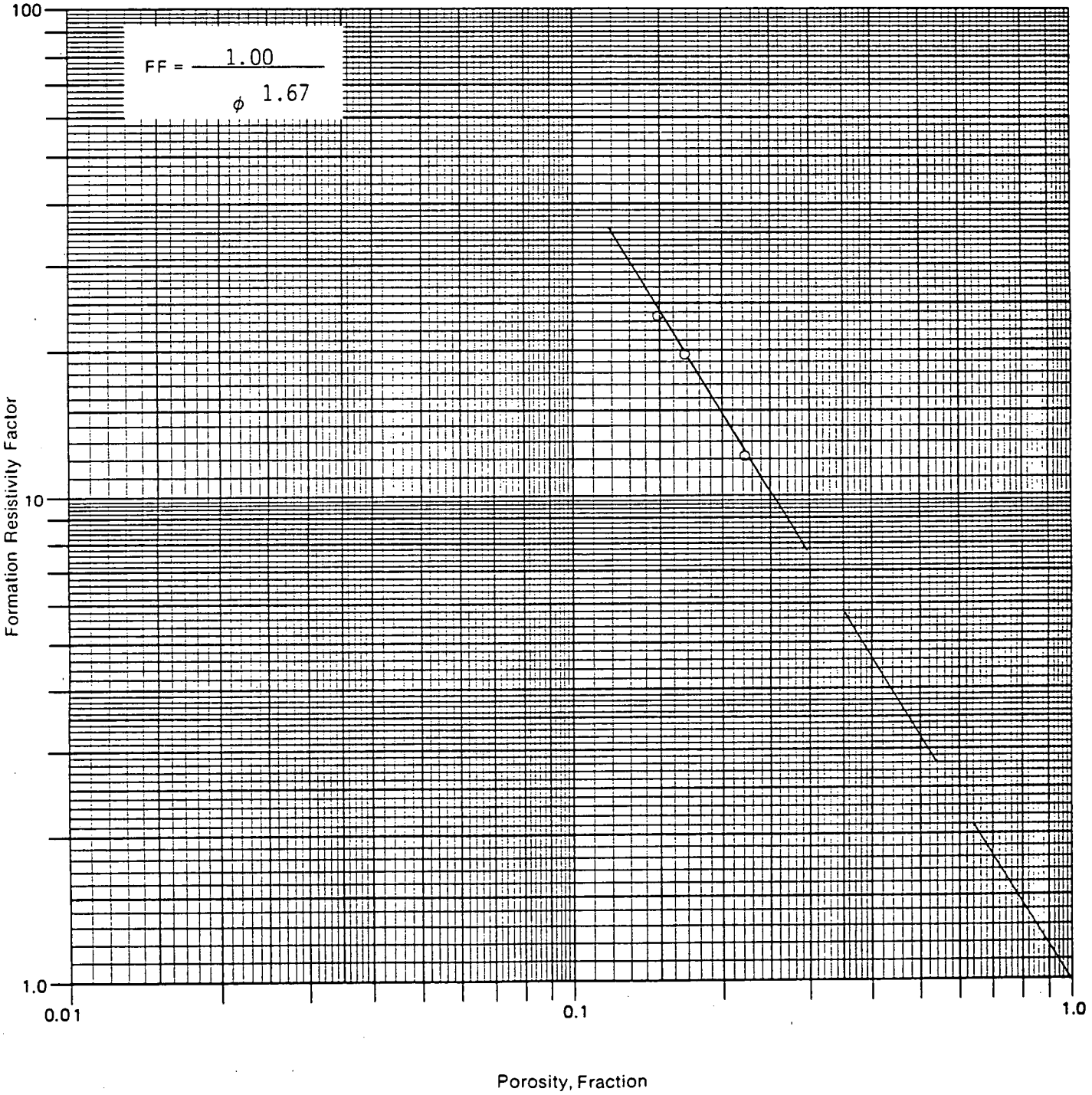


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Effective Overburden Pressure: 2300 psig



FORMATION RESISTIVITY FACTOR AS A FUNCTION OF OVERBURDEN PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Saturant: 3059 mg/l
Rw : 3.449 ohm-m @ 77°F

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Effective Overburden Pressure, psig: Room Conditions	400	2300
			Formation Resistivity Factor		
Core #2 : Mid-Namur Formation					
3A	5190.5 - 90.8	180	11.5	11.8	12.3
5A	5197.2 - 97.7	1450	14.3	16.5	17.2

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent: Room Conditions	400	2300
Core #2 : Mid-Namur Formation					
3A	5190.5 - 90.8	180	21.8	21.6	21.2
5A	5197.2 - 97.7	1450	19.5	19.3	18.8

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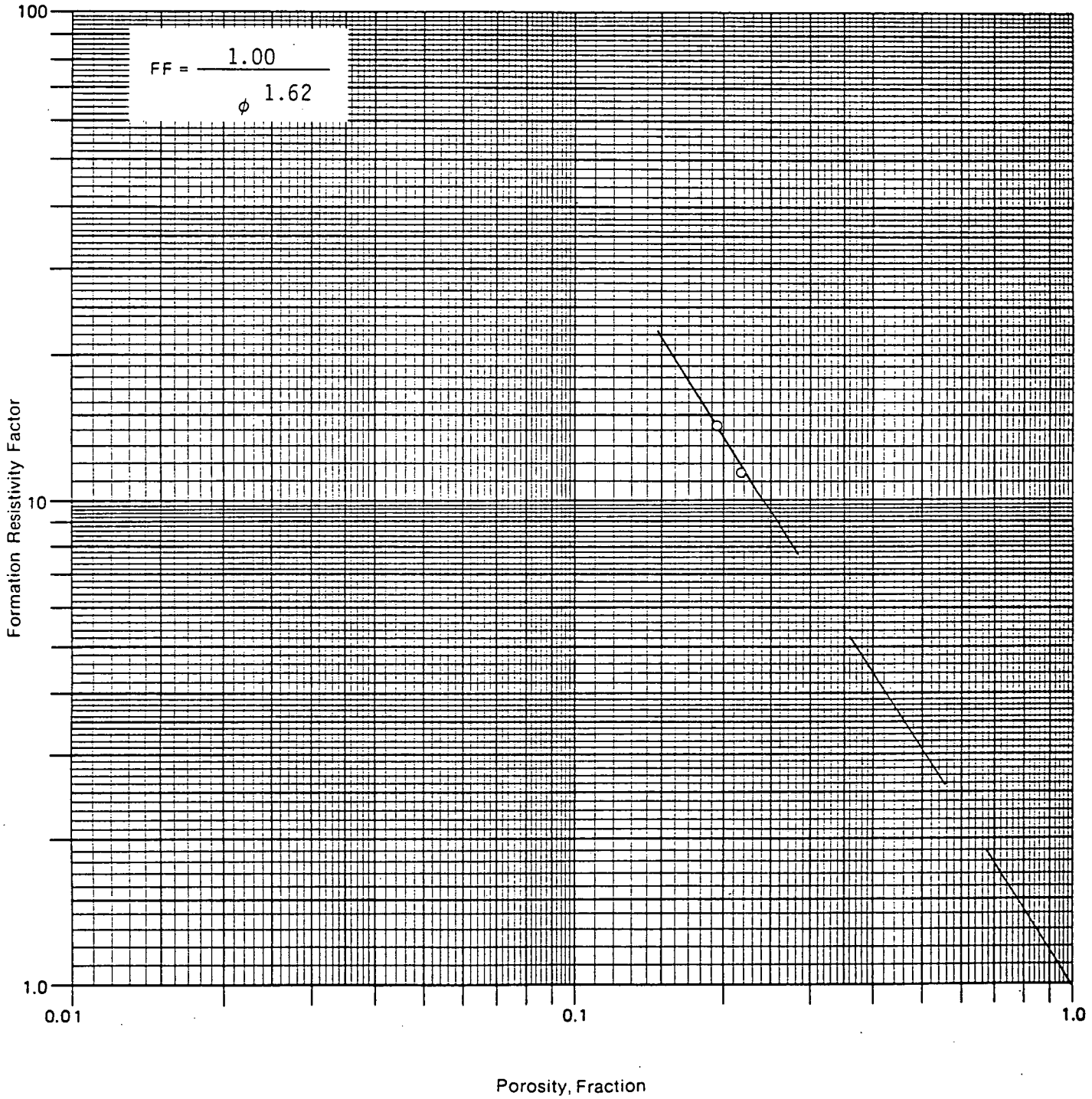
FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Room Conditions

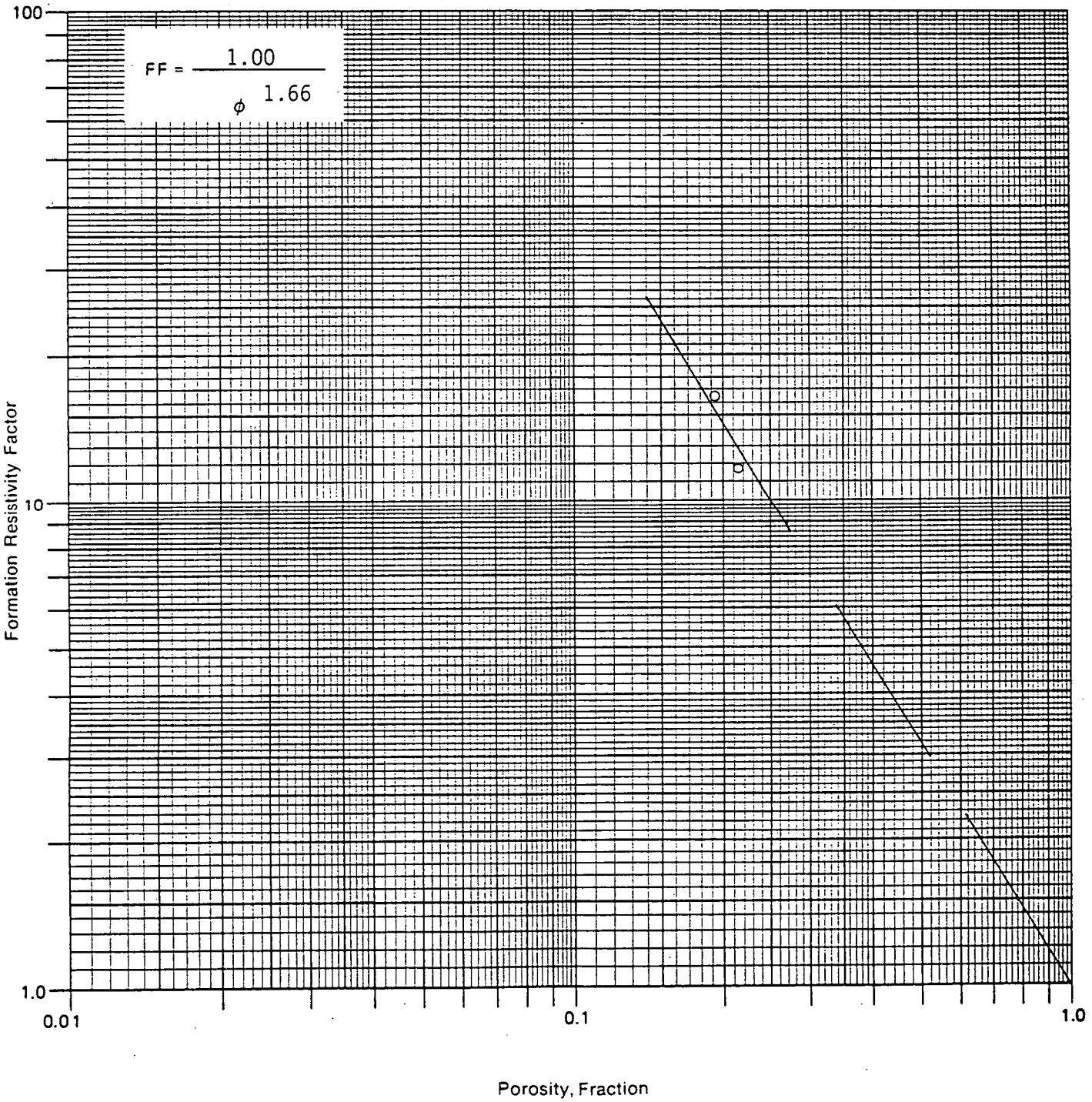


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Effective Overburden Pressure: 400 psig

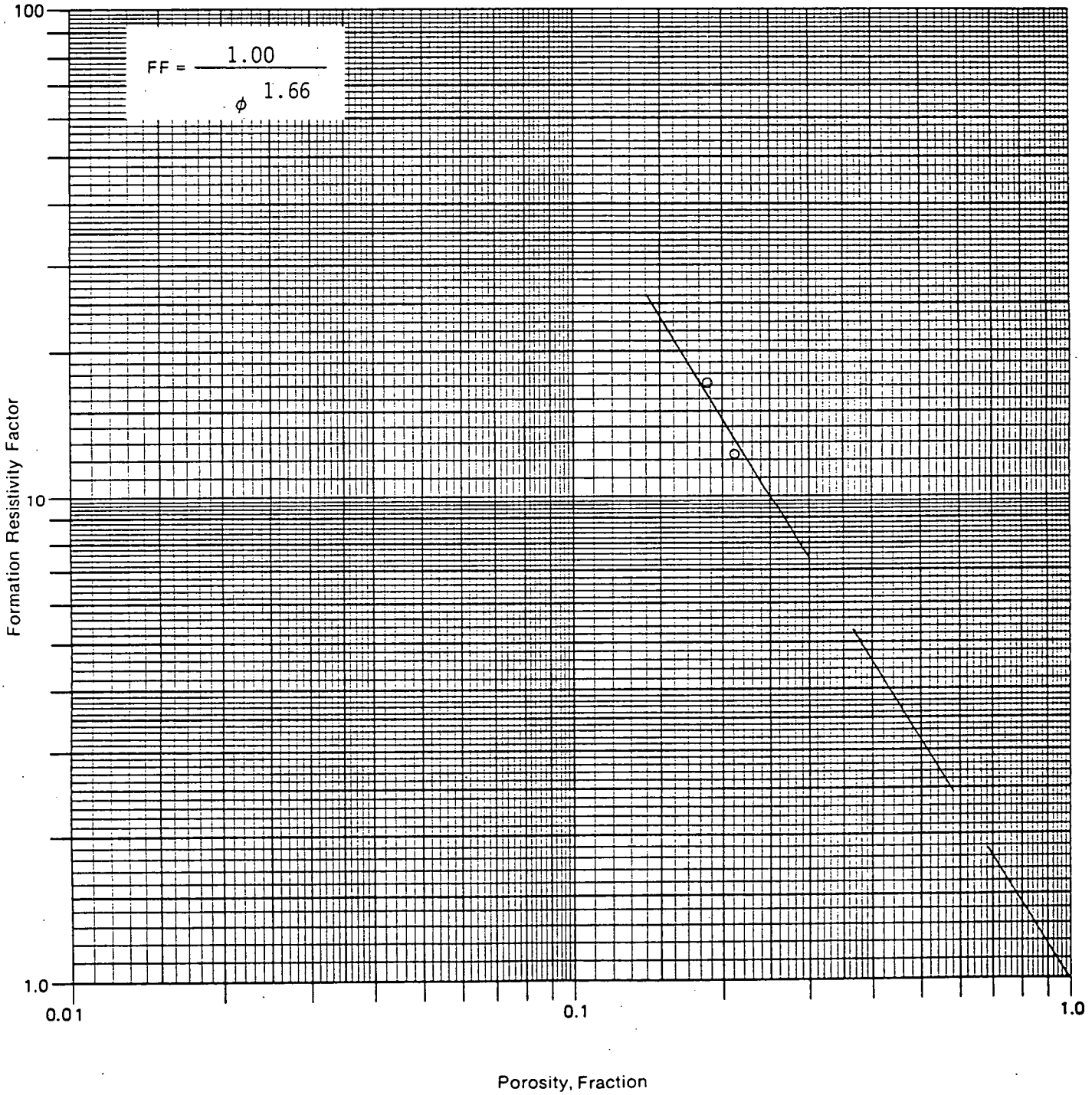


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY FACTOR

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Effective Overburden Pressure: 2300 psig



FORMATION RESISTIVITY FACTOR AND RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Saturant: 2789 mg/l
Rw : 3.087 ohm-m @ 77°F

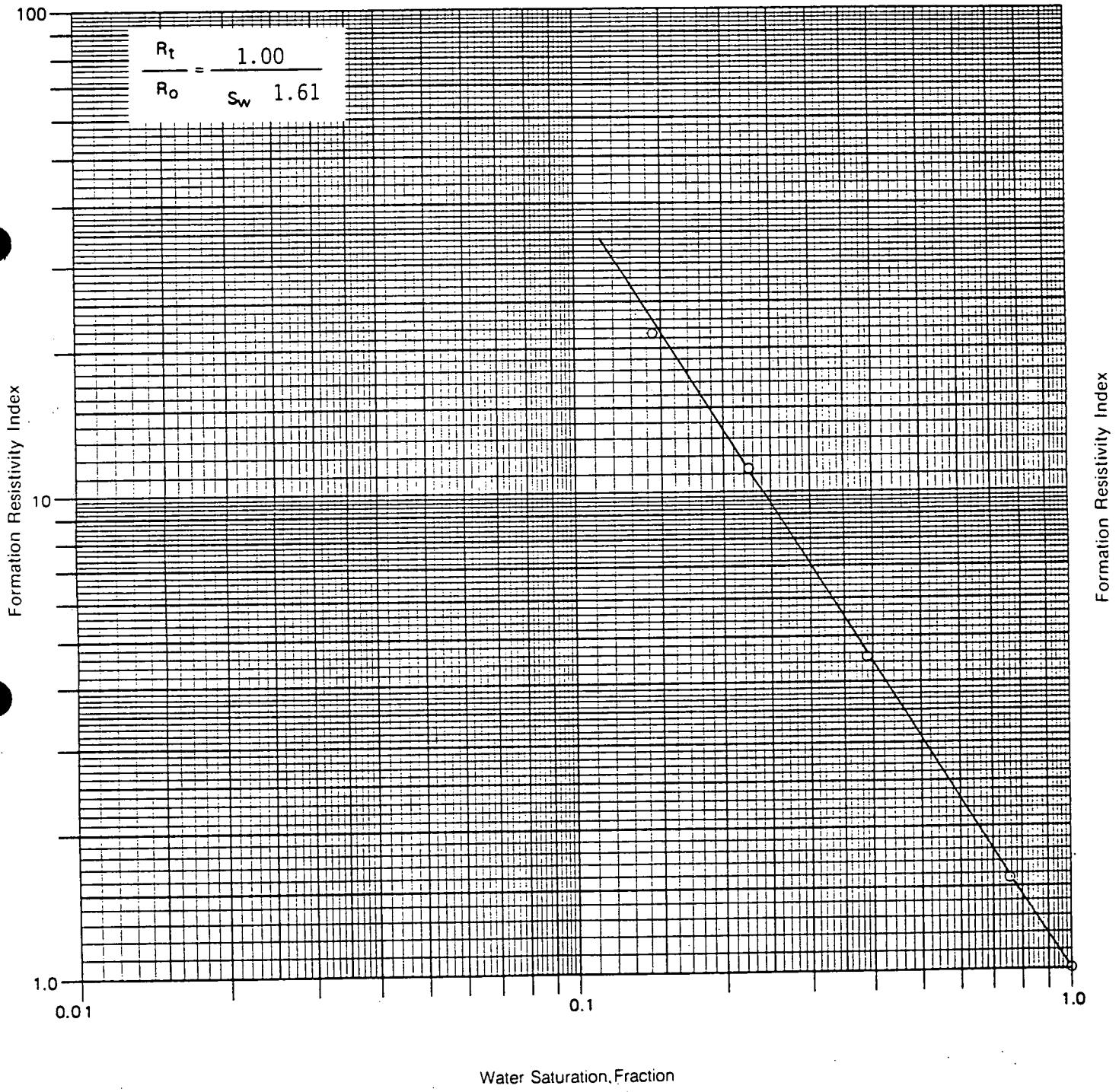
Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Formation Resistivity Factor	Brine Saturation, percent pore space	Resistivity Index
Core #1 : Namur Formation						
1A	5082.0-82.3	440	15.7	21.0	100	1.00
					75.7	1.56
					39.1	4.54
					22.6	11.3
					14.4	21.5
4A	5089.2-90.2	1030	19.4	16.0	100	1.00
					46.0	3.36
					21.4	11.1
					17.9	15.1
					11.2	30.5
5A	5090.8-91.7	1860	23.3	10.8	100	1.00
					35.8	4.30
					25.5	6.40
					20.7	9.68
					14.1	16.6

CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 1A
Permeability to Air : 440 md
Porosity : 15.7 percent

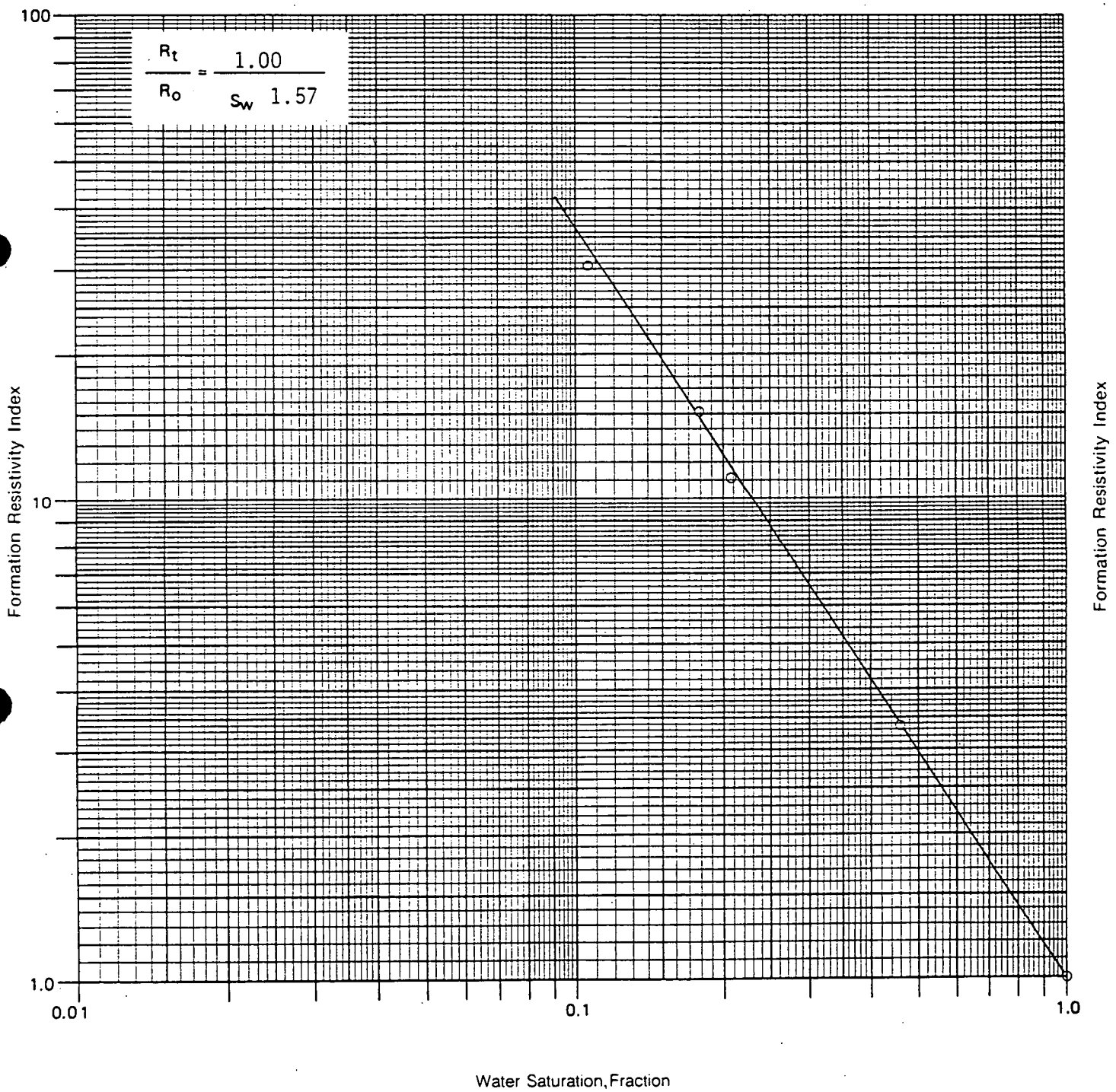


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 4A
Permeability to Air : 1030 md
Porosity : 19.4 percent

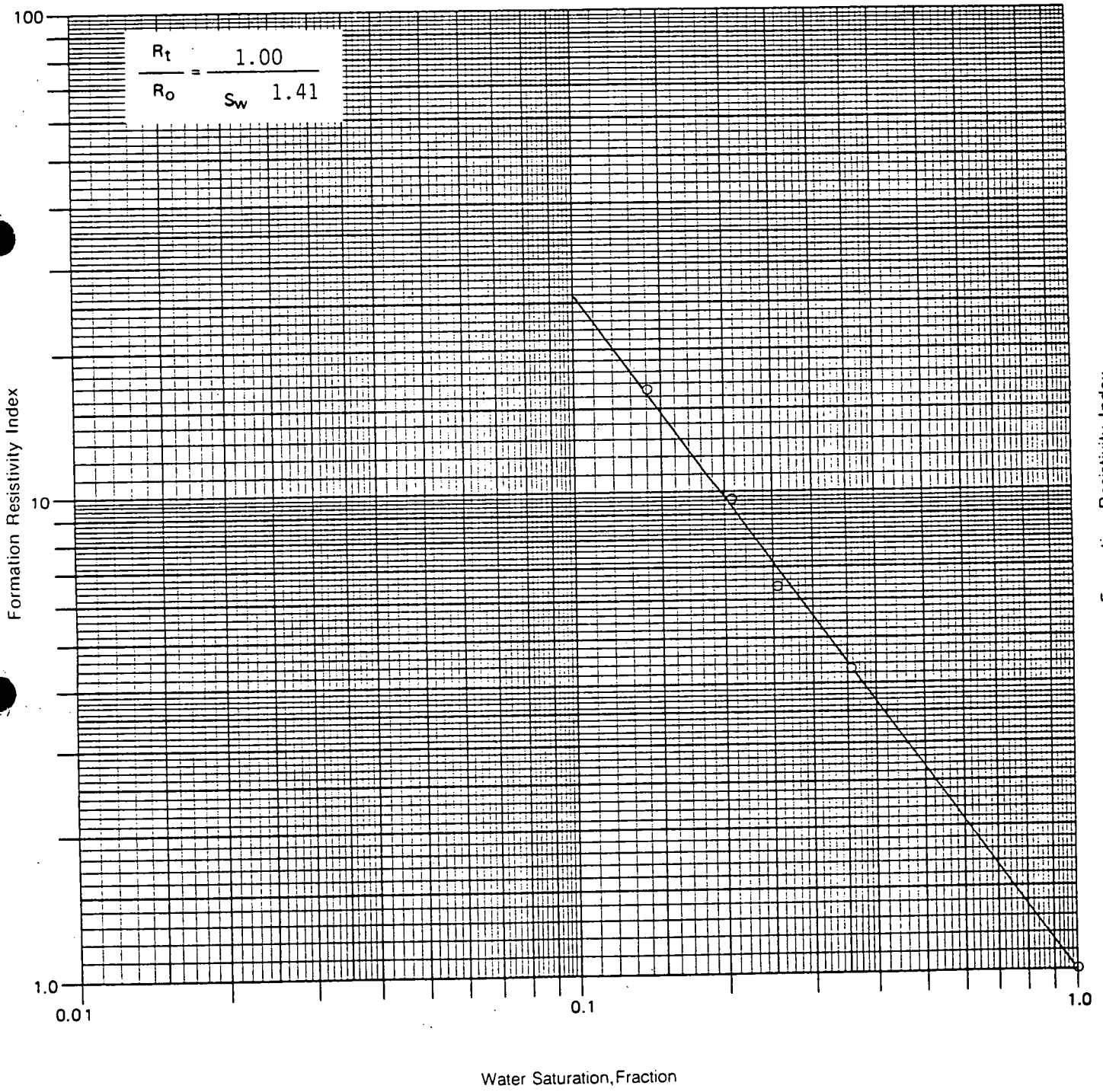


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 5A
Permeability to Air : 1860 md
Porosity : 23.3 percent

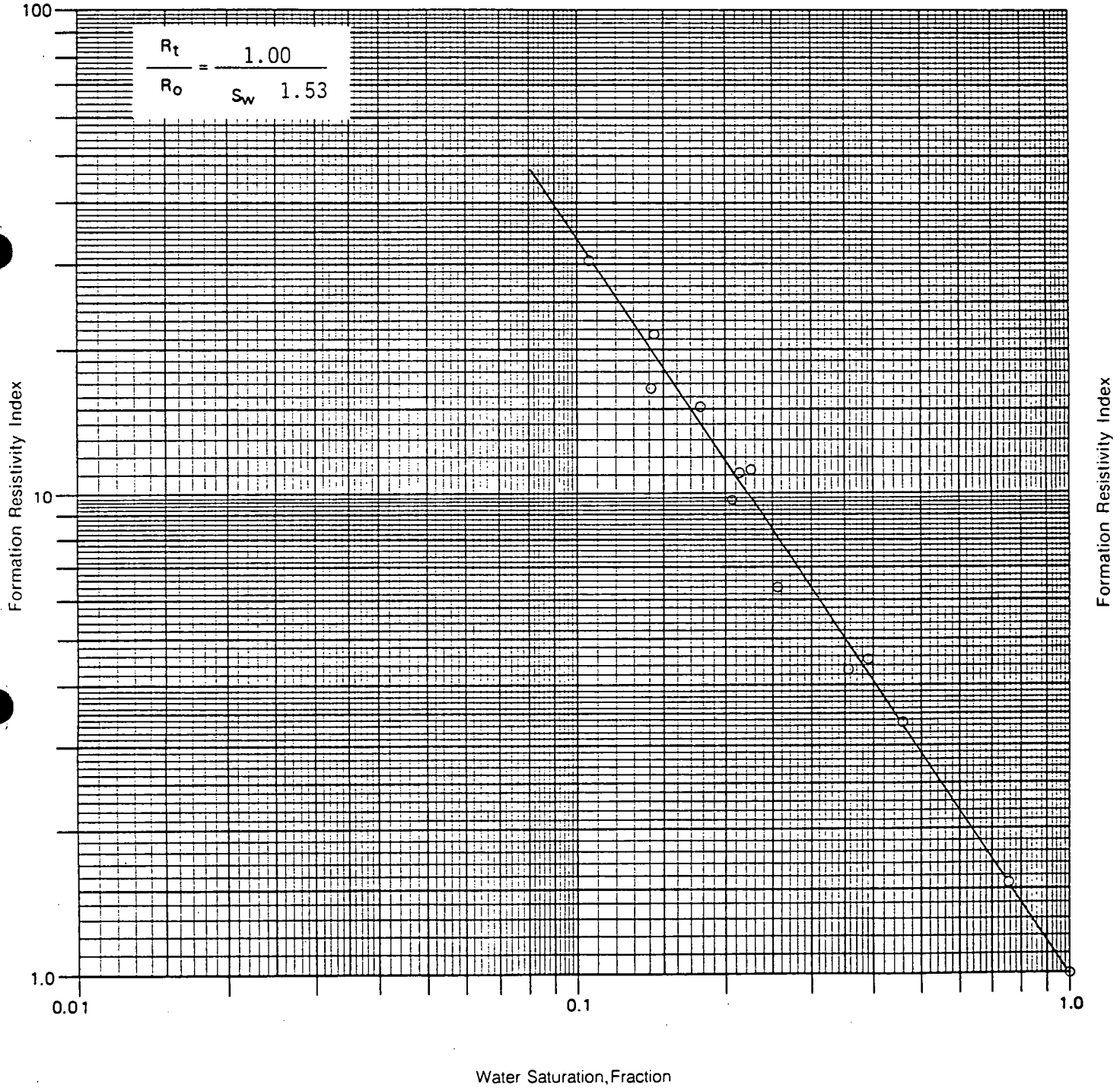


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Composite



FORMATION RESISTIVITY FACTOR AND RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Saturant: 3059 mg/l
Rw : 3.449 ohm-m @ 77°F

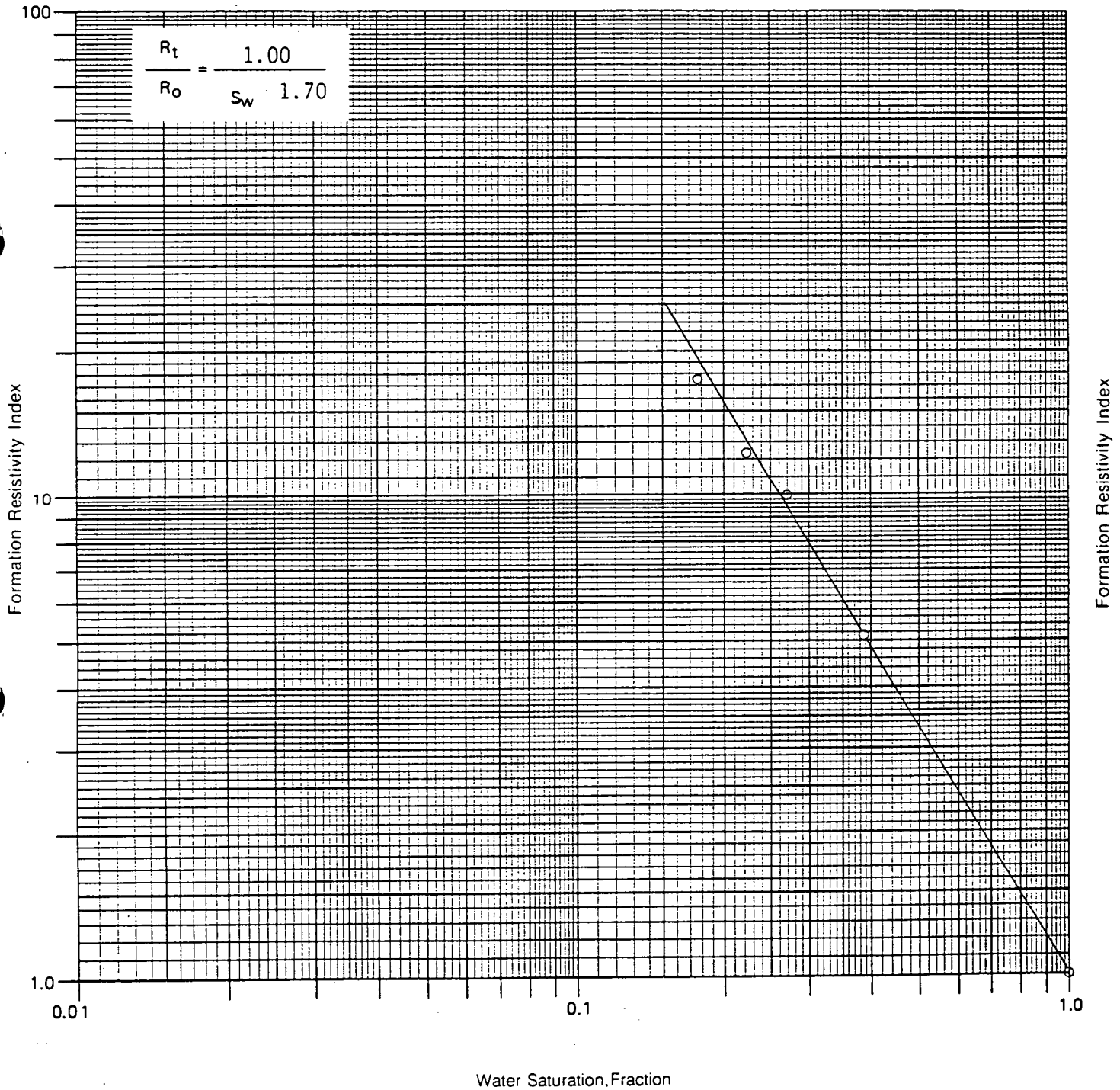
Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Formation Resistivity Factor	Brine Saturation, percent pore space	Resistivity I
Core #2 : Mid- Namur Formation						
3A	5190.5-90.8	180	21.8	11.5	100	1.00
					38.7	5.12
					27.0	10.0
					22.3	12.4
					17.7	17.6
5A	5197.2-97.7	1450	19.5	14.3	100	1.00
					48.9	2.92
					24.2	9.00
					14.1	19.6
					9.3	36.1

CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 3A
Permeability to Air : 180 md
Porosity : 21.8 percent

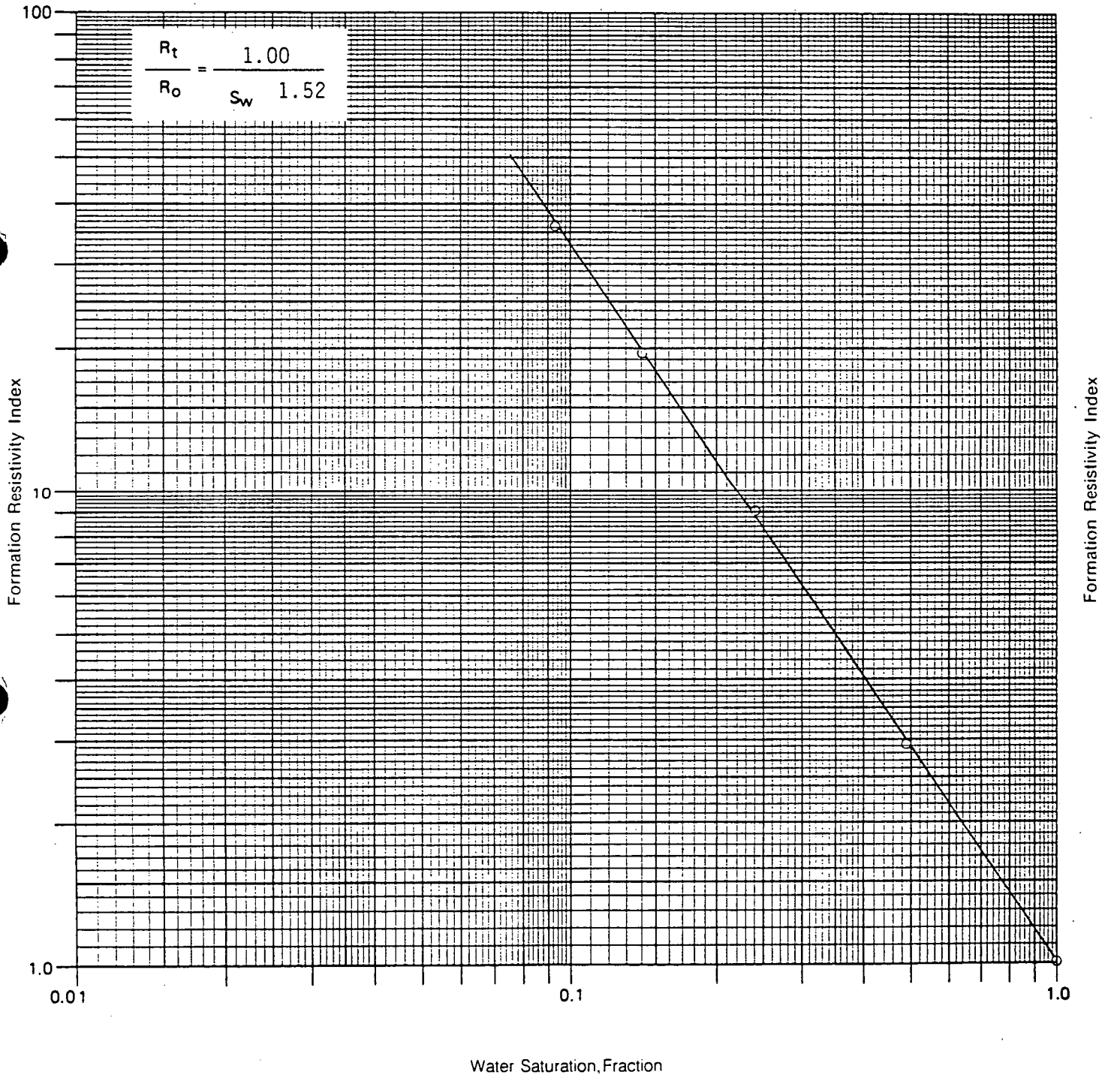


CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

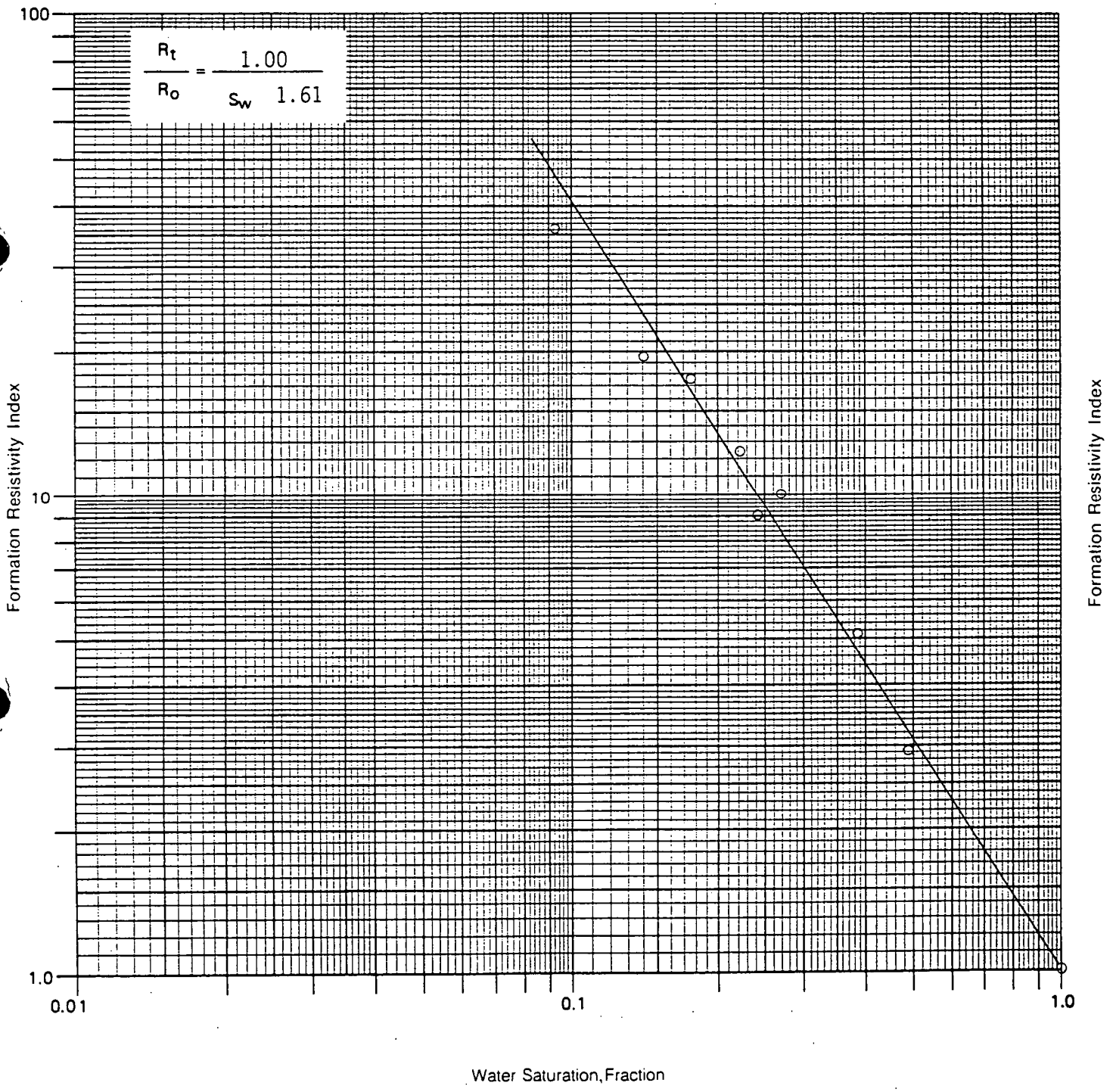
Sample Identification: 5A
Permeability to Air : 1450 md
Porosity : 19.5 percent



CORE LABORATORIES
Petroleum Reservoir Engineering

FORMATION RESISTIVITY INDEX

Company: Delhi Petroleum Pty Ltd Composite
Well : Gidgealpa #24



SUMMARY OF CAPILLARY PRESSURE TEST RESULTS

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Fluid System: Air-Water (Drainage)
Test Method : Low-Speed Centrifuge

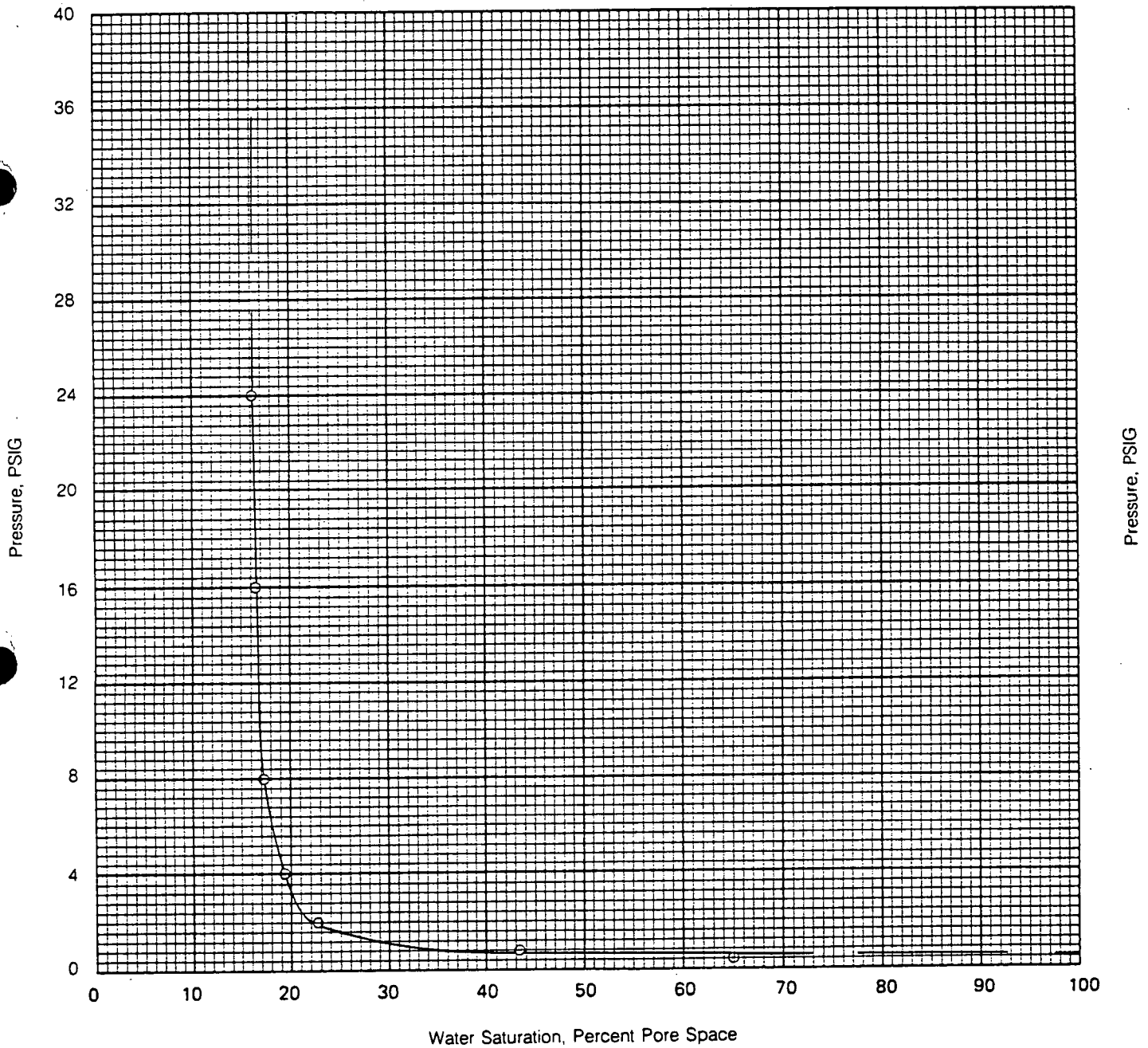
Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Brine Saturation, percent pore space						
Pressure, psig:				1	2	5	10	20	40	60
Core #1 : Namur Formation										
1A	5082.0 - 82.3	432	15.5	65.0	43.4	22.8	19.3	17.3	16.5	16.1
4A	5089.2 - 90.2	1110	18.0	45.7	32.1	24.0	19.0	16.5	16.1	16.1
5A	5090.8 - 91.7	2490	22.7	42.4	25.6	20.0	17.2	15.9	15.9	15.9
Core #2 : Mid-Namur Formation										
3A	5190.5 - 90.8	154	21.4	100	70.4	37.4	30.0	24.3	20.4	20.4
5A	5197.2 - 97.7	1300	18.8	25.6	16.0	14.0	11.5	10.1	8.5	8.3

CORE LABORATORIES
Petroleum Reservoir Engineering

CAPILLARY PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 1A
Permeability to Air : 432 md
Porosity : 15.5 percent
Fluid System : Air-Water (Drainage)
Test Method : High-Speed Centrifuge

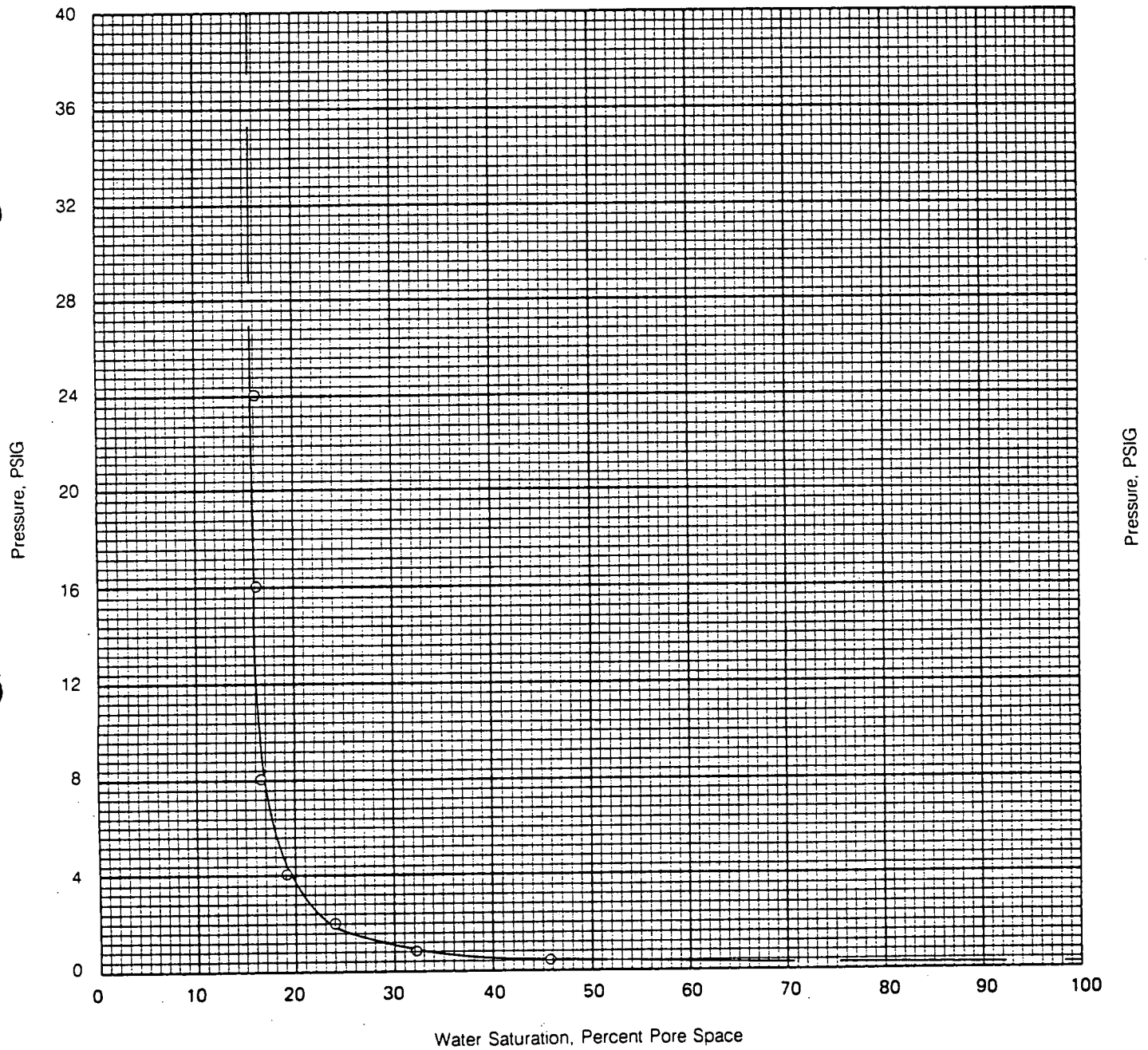


CORE LABORATORIES
Petroleum Reservoir Engineering

CAPILLARY PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 4A
Permeability to Air : 1110 md
Porosity : 18.0 percent
Fluid System : Air-Water (Drainage)
Test Method : High-Speed Centrifuge

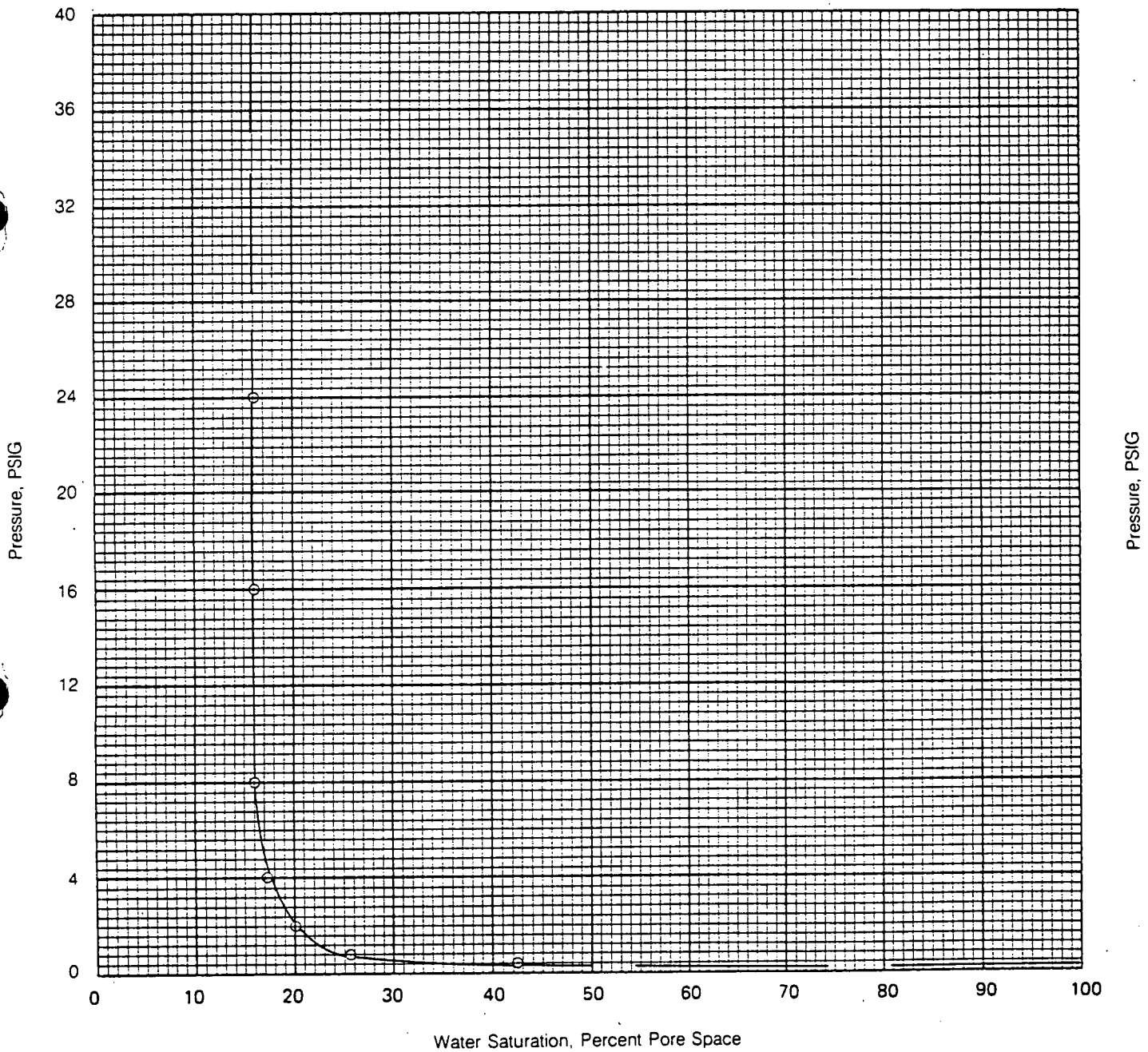


CORE LABORATORIES
Petroleum Reservoir Engineering

CAPILLARY PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 5A
Permeability to Air : 2490 md
Porosity : 22.7 percent
Fluid System : Air-Water (Drainage)
Test Method : High-Speed Centrifuge

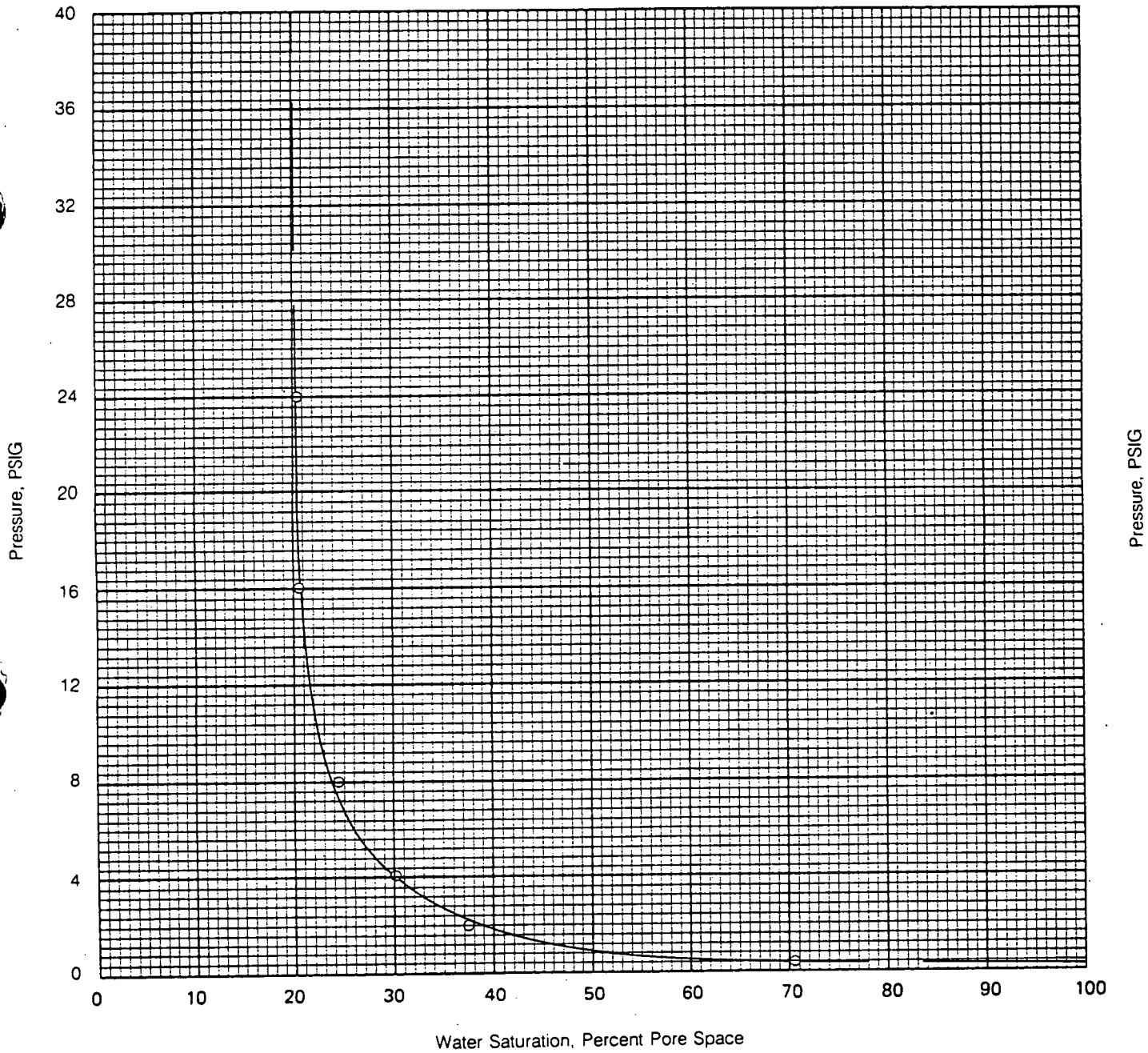


CORE LABORATORIES
Petroleum Reservoir Engineering

CAPILLARY PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 3A
Permeability to Air : 154 md
Porosity : 21.4 percent
Fluid System : Air-Water (Drainage)
Test Method : High-Speed Centrifuge

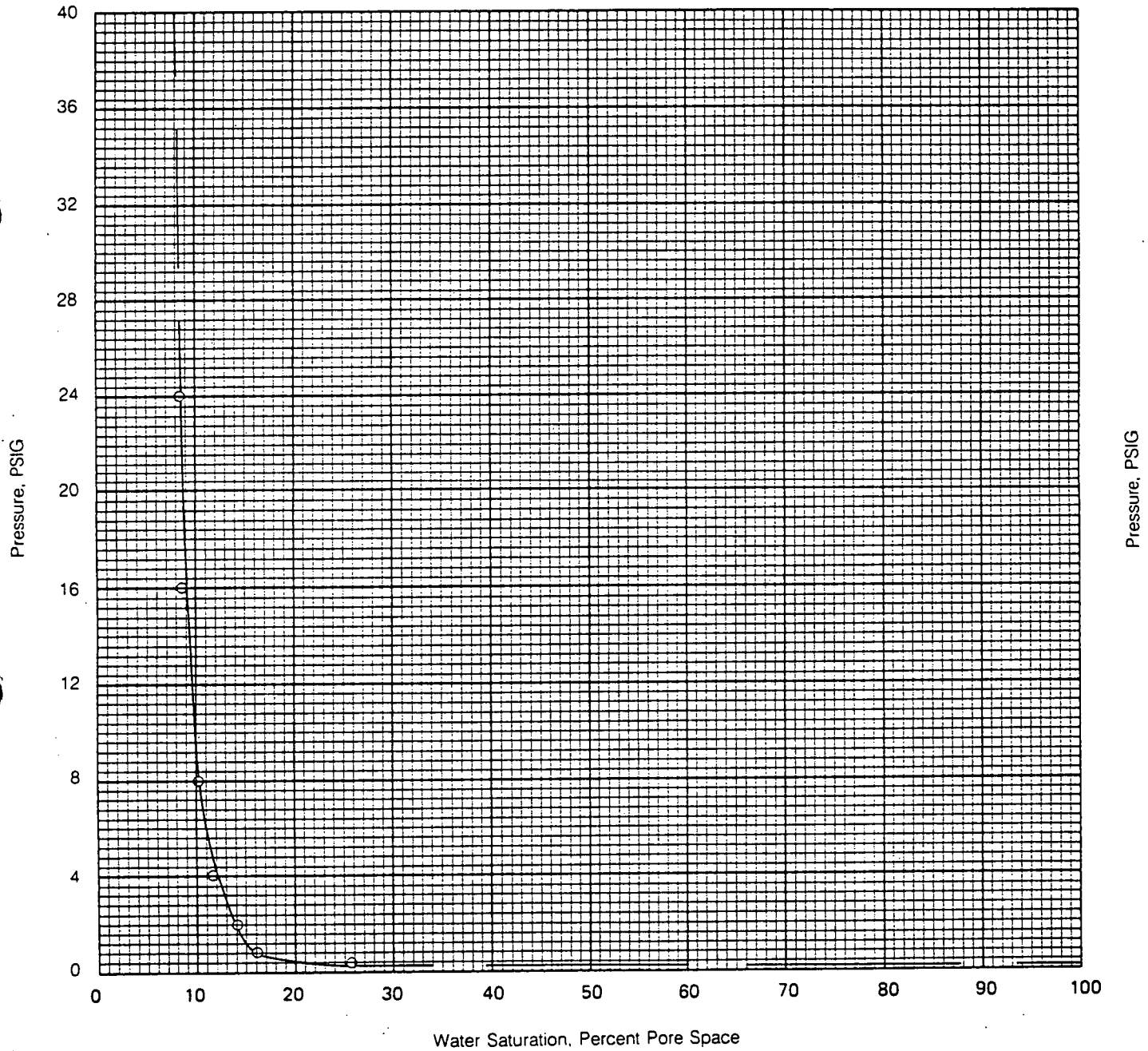


CORE LABORATORIES
Petroleum Reservoir Engineering

CAPILLARY PRESSURE

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 5A
Permeability to Air : 1300 md
Porosity : 18.8 percent
Fluid System : Air-Water (Drainage)
Test Method : High-Speed Centrifuge



SUMMARY OF BASIC FLOOD TEST RESULTS

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Initial Conditions: Water Saturation, percent pore space	Initial Conditions: Effective Permeability to Oil, millidarcys	Terminal Conditions: Oil Saturation, percent pore space	Terminal Conditions: Effective Permeability to Water, millidarcys	Oil Recovered: percent pore space	Oil Recovered: percent oil in place
Core #1 : Namur Formation									
1	5082.0 - 82.3	660	16.9	10.2	595	32.0	120	57.8	64.4
4	5089.2 - 90.2	940	17.3	10.3	795	34.6	89	55.1	61.4
5	5090.8 - 91.7	1130	24.1	14.6	870	34.3	120 (146)	51.1	59.8
Core #2 : Mid-Namur Formation									
3	5190.5 - 90.8	260	21.9	13.7	220	27.7	35	58.6	67.9
5	5197.2 - 97.7	1960	18.9	6.4	1790	28.5	430	65.1	69.6
5*	5197.2 - 97.7	1780	19.0	5.5	1410	30.1	101	64.4	68.1

* Waterflood re-run after the ends were trimmed from the plug.

( ) Permeability determined in reverse direction of flow.

SUMMARY OF STEADY-STATE WATER-OIL RELATIVE PERMEABILITY TEST RESULTS
(Water Saturation Increasing)

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample I.D.	Depth, feet	Permeability to Air, millidarcys	Porosity, percent	Initial Conditions: Water Saturation, percent pore space	Initial Conditions: Effective Permeability to Oil, millidarcys	Terminal Conditions: Oil Saturation, percent pore space	Terminal Conditions: Effective Permeability to Water, millidarcys	Oil Recovered: percent pore space	Oil Recovered: percent oil in place
4	5089.2 - 90.2	915	16.9	10.5	790	31.1	35	58.4	65.3

STEADY-STATE WATER-OIL RELATIVE PERMEABILITY

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification	: 4	
Sample Depth	: 5089.2-90.2	feet
Permeability to Air	: 915	md
Porosity	: 16.9	percent
Initial Water Saturation	: 10.5	percent
Effective Permeability to Oil at Swi	: 790	md

Water Saturation, percent pore space	Water-Oil Relative Permeability Ratio	Relative Permeability to Water*, fraction	Relative Permeability to Oil*, fraction
10.5	0.000	0.000	1.000
47.0	0.061	0.0054	0.088
49.4	0.118	0.0072	0.061
56.5	0.607	0.017	0.028
60.6	3.17	0.020	0.0063
60.8	6.57	0.023	0.0035
68.9	-	0.044	-

Relative to the effective permeability to oil at initial water saturation

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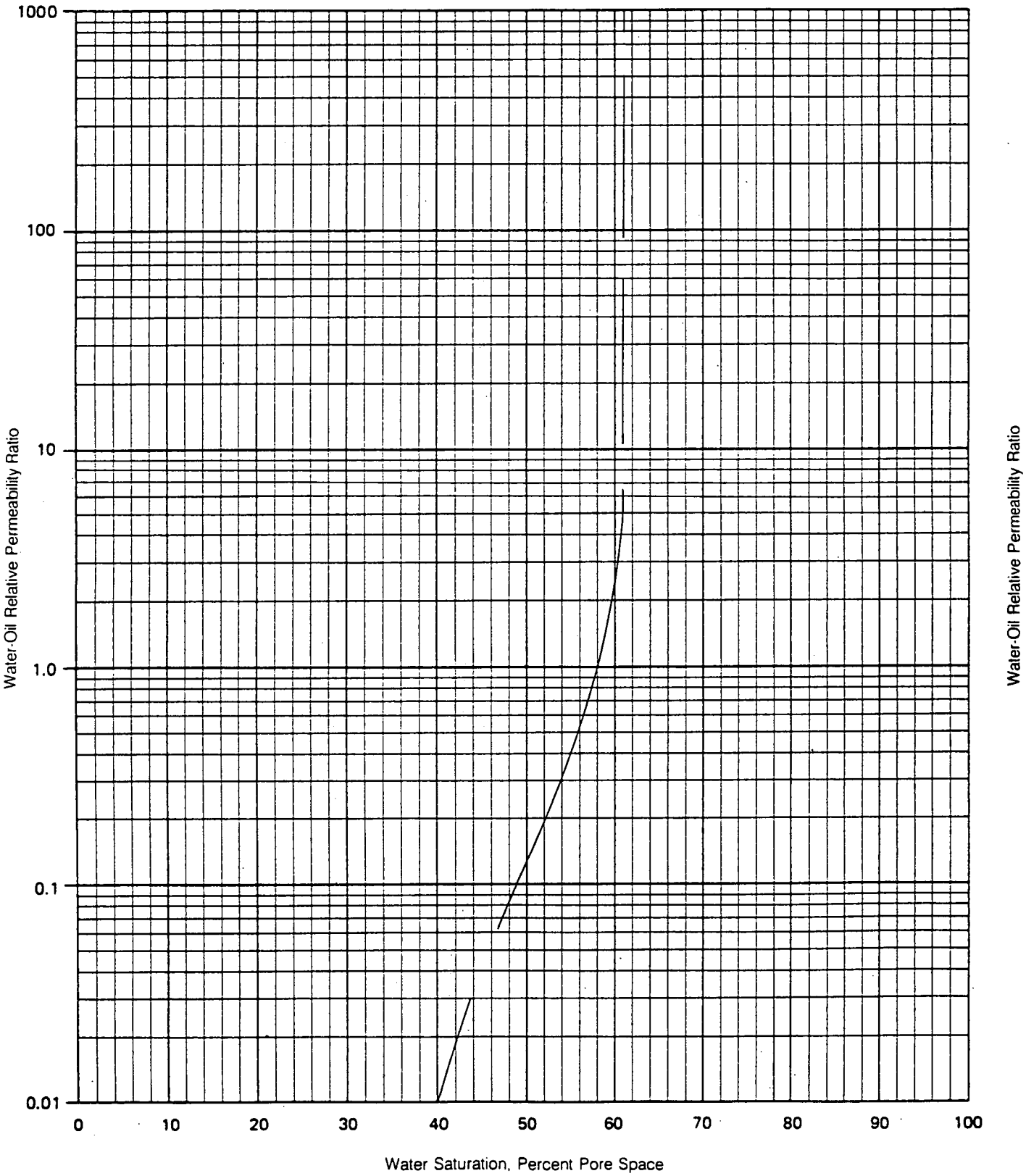
WATER-OIL RELATIVE PERMEABILITY RATIO

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification: 4
Permeability to Air : 915 md
Porosity : 16.9 percent



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WATER-OIL RELATIVE PERMEABILITY

Company: Delhi Petroleum Pty Ltd
Well : Gidgealpa #24

Sample Identification	: 4	
Permeability to Air	: 915	md
Porosity	: 16.9	percent
Effective Permeability to Oil at Swi	: 790	md