

CAMERON HILLS

I-10

9211-E9-1-3



Nova Scotia	☐	West Coast	☐	Exploratory	☒
Newfoundland	☐	Northern	☒	Development	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	Delineation	☐
				Service	☐

AUTHORITY TO DRILL A WELL

APPLICATION

This application is submitted with Section 82 of the Canada Oil and Gas Drilling Regulations. When approved under Section 83 of the Regulations, it is the requisite authority for the commencement of drilling operations.

Well Name in Full: Exco et al. Cameron Hills I-10
Operator: Exco Energy Ltd. Drilling Program No.: N/A
Contractor: Arnco Industries Ltd. ~~Right~~ or Lease No.: E.A. #213
Drilling Rig ~~XXXX~~: Arnco Rig #1 Estimated Well Cost: Less than one (1) million dollars
Location-Unit: I Section: 10 Grid Area: 60-10-117-30
Coordinates: Lat.: 60° 09' 39.27" N Long.: 117° 30' 03.54" W
Area: Cameron Hills N.W.T. Field/Pool: N/A
Elevation-~~XXXX~~ KB 815.95 m (ASL) ~~XXXX~~ Ground 811.95 m ASL ~~XXXX~~
Approx. Spud Date: February 8, 1985 Estimated Days on Location: 21
Anticipated Total Depth: 1537 m (estimate) Target Horizon(s) Keg River
UWI: 300I106010117300 Slave Point
Bistcho Gas

EVALUATION PROGRAM

Ten-metre sample intervals N/A
Five-metre sample intervals From under surface casing (385 m) to T.D.
Canned sample intervals At 10 m intervals from under surface casing to T.D.
Conventional cores at Not anticipated
Logs and Tests As specified in drilling program 1) DILL T.D. to surface casing
2) CNL-FDC T.D. to surface casing

CASING AND CEMENTING PROGRAM

O.D.	Weight:	Grade:	Setting Depth Below Seafloor:	Cementing Program (Volumes):
339 mm	81.1 kg/m	K-55	Approx 55 m	Class "G" + 3% CaCl ₂ 100% excess
244 mm	53.37 kg/m	K-55	385 m	Class "G" + 2% CaCl ₂ 50% excess
139 mm	20.83 kg/m	K-55	1537 m	T.D. to surface casing 30% excess
				Class "G" + 0.75% CFR-2

B.O.P. Equipment: one (1) - 203 mm (8") 21 000 kPa Schaffer Spherical
one (1) - 203 mm (8") 21 000 kPa Schaffer LWP - Single gate pipe ram
one (1) - 203 mm (8") 21 000 kPa Schaffer LWP - Single gate blind ram
Other Information: Complete with Payne 4 station closing unit (220 L), and 300 L reservoir tank

Refer to accompanying drilling program
Signed: [Signature] Title: Vice-President
Date: January 4, 1985 Company: Exco Energy Ltd.

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Signed: [Signature]
Engineering Branch
Date: 12 Feb 85
9211-E9-1-3
File:



Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	☒
Gulf of St. Lawrence	☐	Hudson Bay	☐	Completed	☐
				Abandoned	☐

WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Exco et al Cameron Hills I-10 Area: Cameron Hills, N.W.T.
Grid Area: 60-10-117-30 Field/Pool: N/A
Exploration Agreement: #213 Final Coordinates: Lat: 60°02' 39.27"N Long: 117°30' 03.54"W
Rig: Arnco Rig #1 Elevations: KB: 815.95 m (approx.) SPGL: 811.95 m (ASL)
Spud Date: 1985-02-19 0815 hrs Rig Released: 1985-04-02 2000 hrs Total Depth: 1613 m - well plugged back to the 800 m depth-proposed kick off point.

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
339.7mm	81.17 kg/m	K-55	59.75 m	11.6 t "G" + 2% CaCl ₂
244.5mm	53.57 kg/m	K-55	387.00 m	29.6 t "G" + 2% CaCl ₂

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Gary Laviolette from (person) John Hamilton of the Canada Oil and Gas Lands Administration by means of verbal confirmation on April 1st, 1985. Confirmed abandonment program by telecopier the same day.

Type of Plug:	Interval:	Felt:	Cement and Additives:
Cement	1381 m - 1340 m	Located on top fish	1.9 t "G"
Cement	950 m - 800 m	at 810 m	10.5 t "G" + 2% CaCl ₂ + .35% CFR2 + .1% HR4
Cement	417 m - 357 m	at 325 m	4.0 t "G" + 2% CaCl ₂
Cement	0 - 25 m	visual	2.0 t "G" + 2% CaCl ₂

Lost Circulation/Overpressure Zones none noted

Equipment/Seals/Description A fish was left in the hole at the 1381 m depth.

Plugs were run from 1381 m - 1340 m and from

Cores: Type: none 950 m - 800 m. When the well is re-entered, the proposed plan is to drill out the surface

plug and then to whipstock the well at the 800 m depth.

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: Gary Laviolette P. Eng. Title: Special Projects Engineer
Name: Gary Laviolette Date: April 30, 1985
Submitted by: WINTERHAWK PETROLEUM CONSULTING SERVICES LTD.
as agent of Exco Energy Ltd. Acknowledged by: F. Narcanow Engineering Branch

Date: 1985-05-09
File:

TEMPORARY. ABANDONMENT REPORTWell EXCO ET AL CAMERON HILLS Location I-10 DATE APRIL 2-85

A. WELL DATA

KB Elevation _____ KB to CF _____ FTD _____

Hole Size	Hole Depth	Casing Size	Casing Depth	Cement Top(s)	Perfs

B. ABANDONMENT DATA

Fluid in Hole GEL/MUD 1175W 85 Vis Abandonment Company ARNCO RIG #1
Cementing Company HALLIBURTON Gov't Official _____

Plug	Interval	Formation	Cem Vol	Cem Type	Cem Wt.	Plug Down	Felt Plug Time	Felt Plug Depth
I	1381-1340	1.9 TONNE	1.44 cu/m	OILWELL G	1895	2000 HR	APRIL 1-85	
II	950-800M	10.5 TONNE	7.98 cu/m	OILWELL G	1895	2130	0400	APRIL 2-85 810 M.
III	417-357	4.0 TONNE	3.04 cu/m	OILWELL G	1895	0530		
IV	0-25	2.0 TONNE	1.52 cu/m	OILWELL G	1895			

Method of Feeding Plugs DRILL PIPE
Surface Casing Cut NO Surface Plug 0-25 M Plate Welded YES

C. SALVAGE DATA

Casing Salvaged _____

_____D. REMARKS _____

ENGINEER

J. Maloney

HALLIBURTON

CEMENTING AND/OR SPECIAL TOOLS SERVICE REPORT

 ATTACH TO
INVOICE No. **59 209**

 HALLIBURTON DISTRICT
Grande Prairie

 JOB
DATE **1985 02 20**
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arnco Industries Limited				FIELD OR AREA Cameron Hills				WELL No. AND LEASE Arnco et al Cameron Hills			
CALLED OUT 16:00 DATE TIME	ON LOCATION 24:00 DATE TIME	JOB STARTED 06:25 DATE TIME	JOB COMPLETED 07:00 DATE TIME	PROVINCE N.W.T.	LSD L-80	SEC	TWP	RANGE	MERIDIAN W		

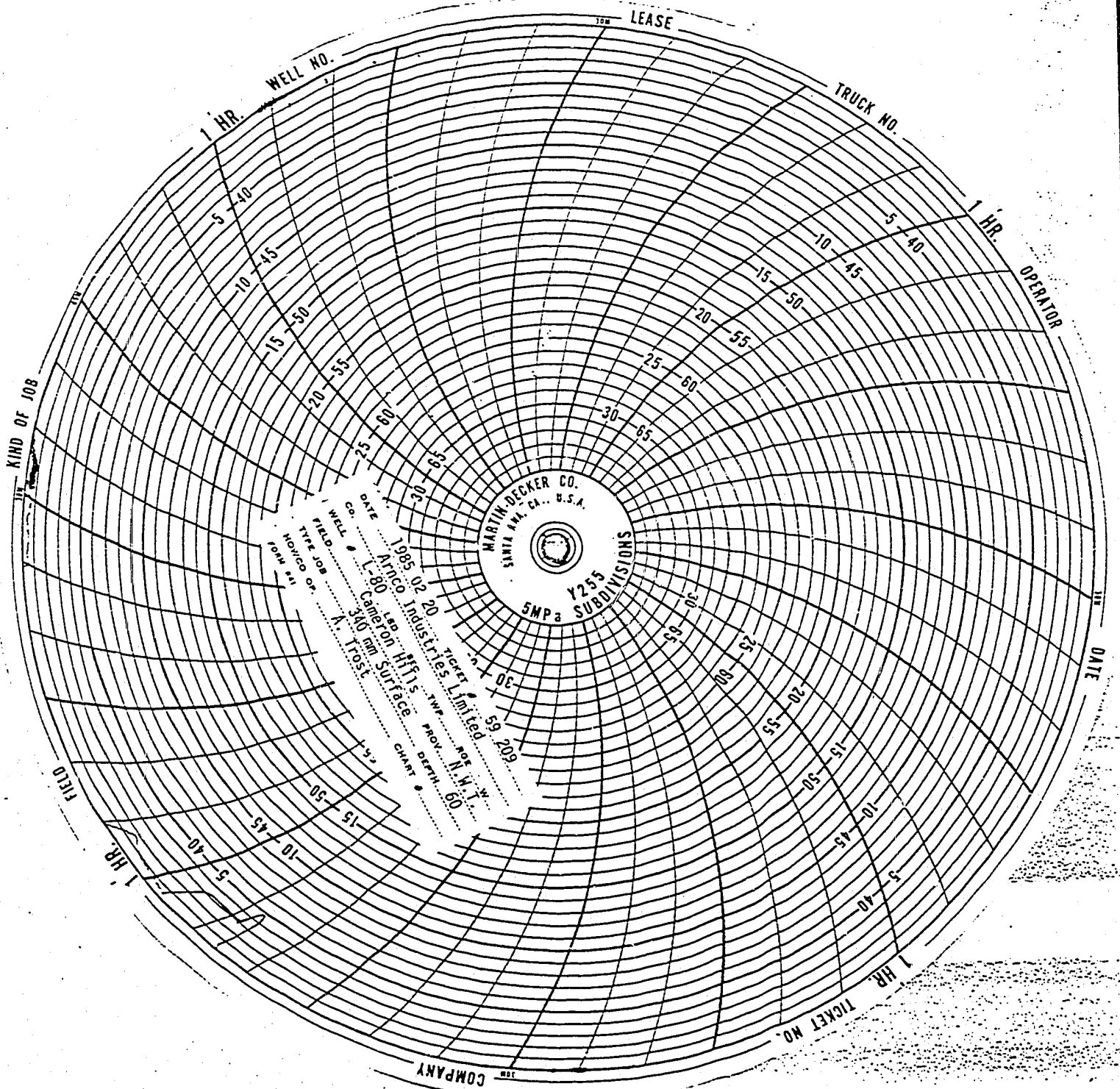
TYPE OF JOB	WELL OR HOLE DATA										PRODUCTS	
☒ SURFACE											EQUIPMENT	QUAN
☒ INTERMEDIATE											BASKETS	
☐ PRODUCTION											CENTRALIZERS	2
☐ LINER											CLAMPS	
☐ SQUEEZE											FLOAT COLLAR	1
☐ PLUG											FLOAT SHOE	1
☐ PUMP											GUIDE SHOE	
☐ PRESSURE TEST											INSERT FLOAT	
☐ OTHER											SCRATCHERS	
											OTHER	

EQUIPMENT			
PACKER TYPE _____ SIZE _____ mm DEPTH _____ m TAIL _____ m SET _____ PIPE _____		TOP PLUG TYPE Wooden BOTTOM PLUG TYPE _____	CEMENT HEAD CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☒ OTHER _____

CEMENT DATA							
TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m ³	m ³ /tonne
11.6	6	Inland	Bulk	Oilwell	2% CaCl₂	1895	0.76

HALLIBURTON OPERATOR A. Trost	CUSTOMER REP. _____
--------------------------------------	---------------------

TREATING LOG								
CHART POSITION	TIME	RATE m ³ /min	VOLUME PUMPED IN m ³			PRESSURE MPa		REMARKS
			STAGE	TOTAL	IN FORMATION	TUBING	CASING	
1	06:25	1.0		1.6			0.5	Pump H₂O wash.
2	06:27							Stop.
3	06:29	0.8					0.5	Start mixing cement.
4	06:40			8.0				Stop. Drop plug.
5	06:52	0.5					0.5	Start displacement.
6	07:00			3.86				Stop. Bump plug 3 MPa over.
7	07:02							Bleed off pressure. Floats
								holding. 2.0 m³ returns cement.



HALLIBURTON

FRACTURING AND CHEMICAL SERVICES SERVICE REPORT

ATTACH TO
INVOICE No. 50 125

HALLIBURTON DISTRICT
Grande Prairie

JOB DATE 1985 03 24
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arnco Industries Ltd.			FIELD OR AREA Cameron Hills			WELL No. AND LEASE Exco et al Cameron I-10			
CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED	PROVINCE	LSD.	SEC.	TWP	RANGE	MERIDIAN
DATE TIME	DATE TIME	DATE TIME	DATE TIME	N.W.T.					W

WELL OR HOLE DATA

FORMATION	DATE CASING SET
TUBING OD mm kg/m	DEPTH m
CASING OD mm kg/m	DEPTH m
LINER OD mm kg/m	FROM m TO m
PACKER TYPE	SET AT
TREAT THRU: TBG ☐	ANNULUS ☐
CGS ☐	TBG AND ANNULUS ☐

MAX. ALLOWABLE PRESSURE: TBG MPa	CSG MPa
CAPACITY: TBG	ANNULUS
PERFORATIONS: FROM m TO m	cm SHOT
FROM m TO m	cm SHOT
FROM m TO m	cm SHOT
FROM m TO m	cm SHOT
FROM m TO m	cm SHOT
FROM m TO m	cm SHOT
OPEN HOLE: SIZE mm	FROM m TO m

MATERIALS USED

FLUID TYPE (1)	FLUID TYPE (2)
ADDITIVES: TYPE	ADDITIVES: TYPE
kg/m ³	kg/m ³
L/m ³	L/m ³
TYPE	MESH
TONNE	
PROP AGENT (1)	
(2)	
(3)	
PROP. CONC. kg/m ³ (1) MAX	MIN AVE
(2) MAX	MIN AVE
(3) MAX	MIN AVE
DIVERTING AGENT: TYPE	AMOUNT

TREATMENT SUMMARY

kW AVAILABLE	USED
INJECTION RATES m ³ /min	
TREAT	DISPLACE AVERAGE
PRESSURES MPa	
BREAKDOWN FROM	TO
MAX. TREAT	MIN TREAT DISP
INSTANTANEOUS SHUTIN	15 MIN
FLUID VOLUMES m ³	
TOTAL ON LEASE BEFORE JOB	
FILL HOLE:	
BREAKDOWN AND PAD	
TREATING FLUID (1)	
TREATING FLUID (2)	
FLUSH FLUID	
TOTAL FLUID INJECTED	
TOTAL ON LEASE AFTER JOB	

HALLIBURTON OPERATOR P. Kinley CUSTOMER REP.

SUMMARY OF
PLANNED TREATMENT Dyna-Drill through drill collars 101.6 mm.

HALLIBURTON

CEMENTING AND/OR SPECIAL TOOLS SERVICE REPORT

ATTACH TO
INVOICE No.

59 219

HALLIBURTON DISTRICT
Grande Prairie

JOB DATE 1985 02 23
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arnco Industries Ltd.				FIELD OR AREA Cameron Hills				WELL No. AND LEASE							
CALLED OUT 12:00 DATE TIME		ON LOCATION 16:00 DATE TIME		JOB STARTED 01:10 DATE TIME		JOB COMPLETED 02:15 DATE TIME		PROVINCE N.W.T.		LSD I-10 (formerly L-80)		SEC	TWP	RANGE	MERIDIAN W

TYPE OF JOB ✓		WELL OR HOLE DATA								PRODUCTS	
										EQUIPMENT	QUAN
SURFACE	✓									BASKETS	
INTERMEDIATE										CENTRALIZERS	
PRODUCTION										CLAMPS	
LINER										FLOAT COLLAR	
SQUEEZE										FLOAT SHOE	
PLUG										GUIDE SHOE	
PUMP										INSERT FLOAT	
PRESSURE TEST										SCRATCHERS	
OTHER										OTHER	

EQUIPMENT

PACKER		TOP PLUG TYPE		CEMENT HEAD
TYPE	SIZE	5W Rubber		CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☒
DEPTH	TAIL	5W Rubber		OTHER
SET	PIPE	BOTTOM PLUG TYPE		

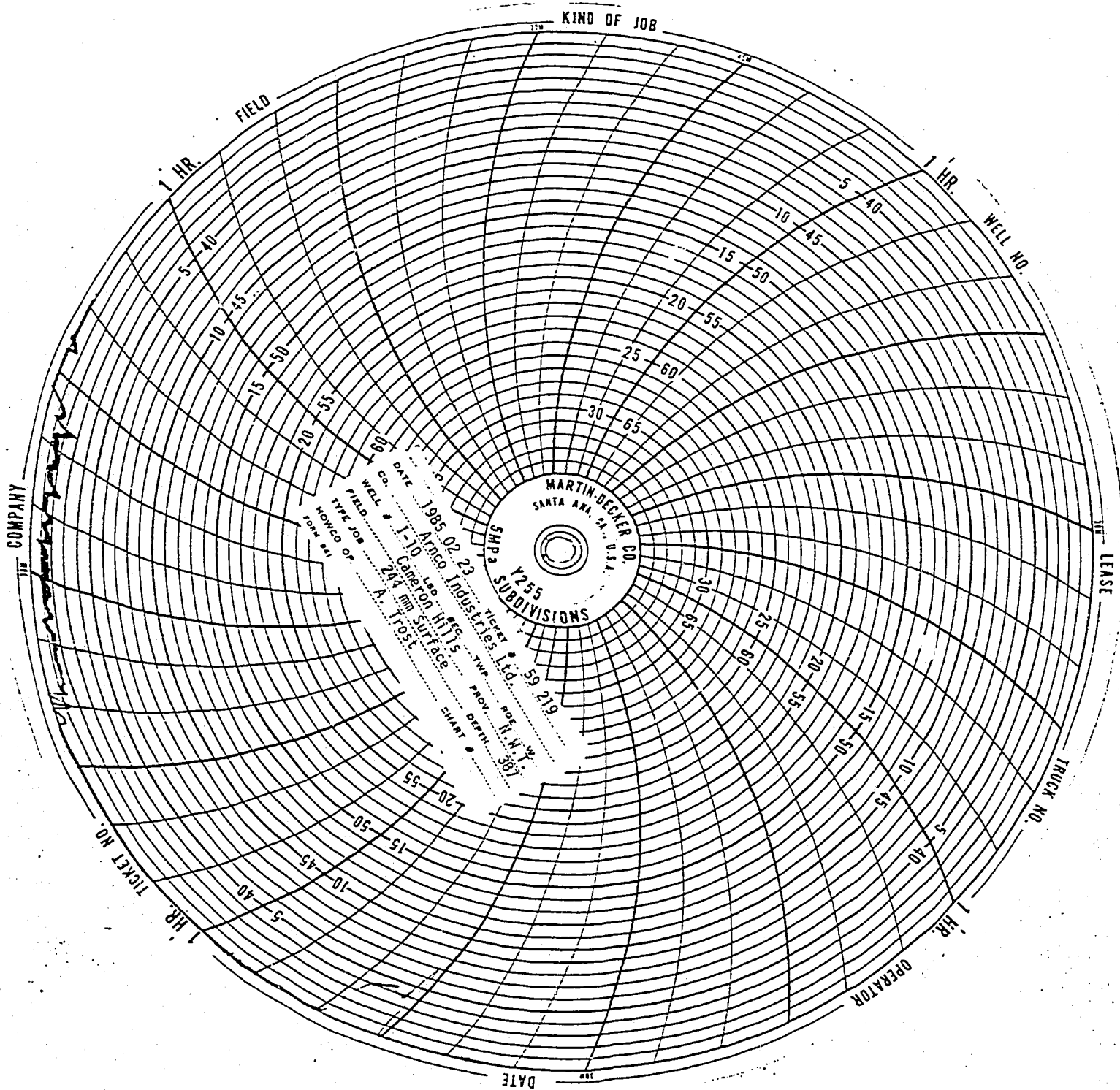
CEMENT DATA

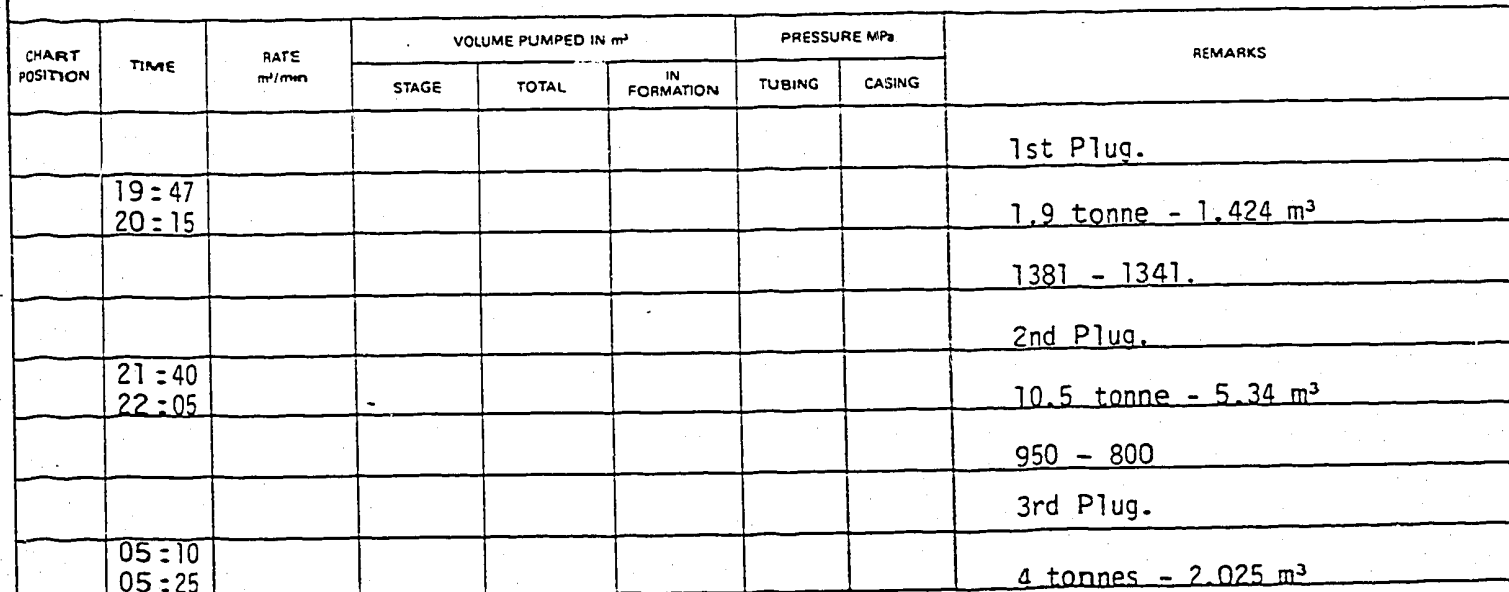
TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m ³	m ³ /tonne
29.6	G	Inland	Bulk	Oilwell		1895	0.76

HALLIBURTON OPERATOR A. Trost CUSTOMER REP.

TREATING LOG

[illegible]





CEMENTING AND/OR SPECIAL TOOLS SERVICE REPORT

ATTACH TO
INVOICE No. 62 626

HALLIBURTON DISTRICT

Grande Prairie

JOB DATE 1985 04 02
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arcco Industries Ltd.		FIELD OR AREA Cameron Hills			WELL NO. AND LEASE Exco et al Cameron Hills				
CALLS OUT 85-03-23 17:00	ON LOCATION 85-03-23 04:00	JOB STARTED Stand By	JOB COMPLETED 85-04-02 24:00	PROVINCE N.W.T.	LSD I-16	SEC	TWP	RANGE	MERIDIAN W

TYPE OF JOB ✓		WELL OR HOLE DATA								PRODUCTS			
SURFACE		HOLE DATA:		HOLE SIZE	276 mm	TOTAL DEPTH	1622 m	TYPE MUD	Gel Chem	VISC.	DENSITY	EQUIPMENT	QUAN
INTERMEDIATE		CASING, TUBING OR LINER DATA		NEW C		SIZE	mm	kg/m		GRADE	DEPTH	BASKETS	
PRODUCTION		USED X				SIZE	101 mm	kg/m	20.83	GRADE	DEPTH	CENTRALIZERS	
LINER		PERFORATIONS: FROM			m	TO	m	FROM	m	TO	m	CLAMPS	
SQUEEZE		FROM			m	TO	m	FROM	m	TO	m	FLOAT COLLAR	
PLUG	✓	FROM			m	TO	m	FROM	m	TO	m	FLOAT SHOE	
PUMP		WASH FLUID TYPE:		H ₂ O	VOL.	15.0 m ³	DISPLACING FLUID TYPE:		H ₂ O	VOL.	1.5 m ³	GUIDE SHOE	
PRESSURE TEST		TEMP MIXING DATA		20 °C	SLURRY	°C	DISPLACING FLUID		20 °C	RETURNS	Full °C	INSERT FLOAT	
OTHER												SCRATCHERS	
												OTHER	

EQUIPMENT			
PACKER			CEMENT HEAD
TYPE _____	SIZE _____ mm	TOP PLUG TYPE _____	CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☒
DEPTH SET _____	TAIL PIPE _____ m	BOTTOM PLUG TYPE _____	OTHER _____

CEMENT DATA							
TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m ³	m ³ /tonne
12.6	G	Inland	Bulk	Class "G"	0.1% HR-4 0.35 CFR-2	1895	0.76
6.5	G	Inland	Bulk	Class "G"	2% Cal Chlor	1895	0.76

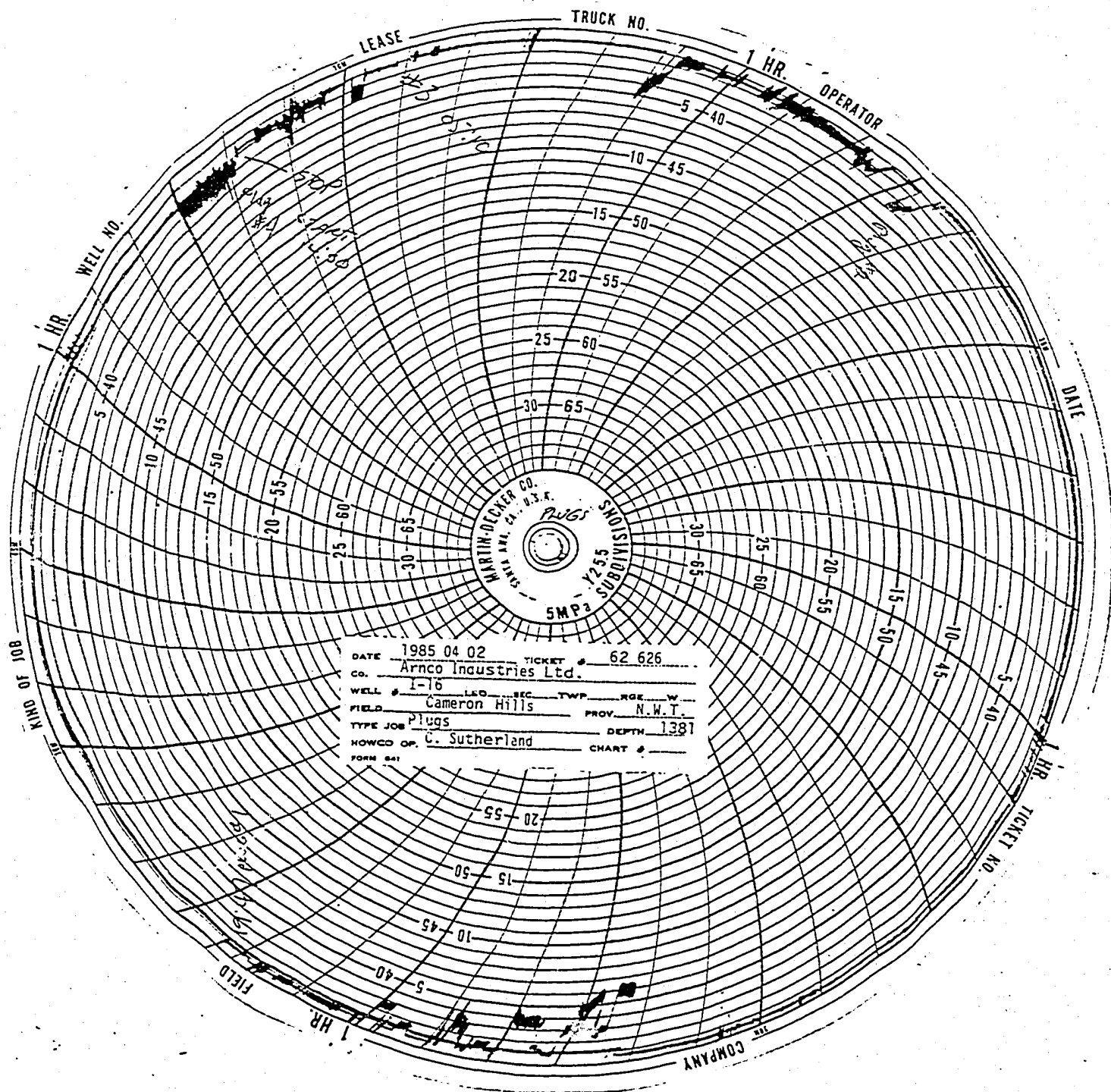
HALLIBURTON OPERATOR C. Sutherland CUSTOMER REP. _____

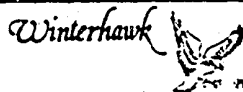
[illegible]

Arnco Industries Ltd.
 Exco et al Cameron Hills I-16
 Ticket No.: 62 626

PLUG BACK JOB DATA

PLUG NO.	TOP	DEPTH BOTTOM	TONNE	DISPLACEMENT (m ³)	TIME (min)
1	1341	1381	1.9	7.23	35
2	800	950	10.5	5.2	25
3	357.25	417.25	4	2.52	13
4	25	0	2	0	4





PAGE _____

CASING SUMMARY

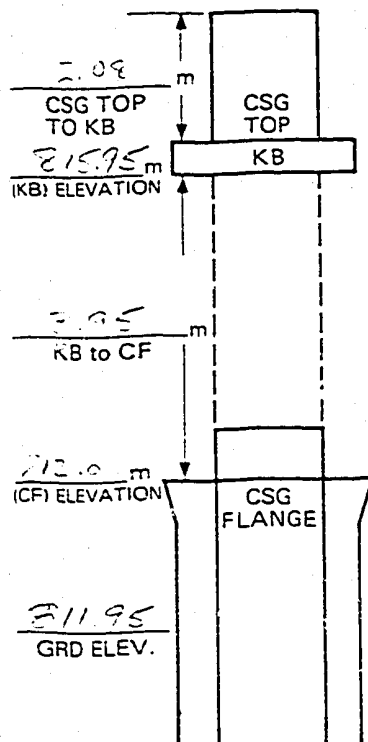
WELL Esso d. 1/4" American LOCATION I-10 (L-80) DATE ES/02/23SURF/INT/PROD/LINER SIZE 2405 KB _____ KB to CF _____

New/Used _____

Inspected By: _____

Drifted To: _____

API diam. _____



NO.	DESCRIPTION	MEASURED LENGTH	KB DEPTH
1	2405 KAYAK SHOE	55	867.25
1	IT 2405mm K-SS. 25.22m		
	11.19		
1	2405 1-PR-1 - 2.00	49	875.02
33	2405 K-SS 25.57m		
	388.55		
	Scratchers		
2	Centralizers 1 1/2" 2.10m		
Total String		389.33	Cut-off Jt. Length
minus KB to Csg Top (STICK UP)		2.08	
Landed Depth KB		387.25	
Hole Depth KB		387.40	
Distance Csg Landed Off Bottom		.15	6.58

Cementing Company HALLIBURTONWash - Type: H₂O Volume 1.6 m³Cement Type - Lead Slurry 29 TONNES PLAC 1" Volume: 225 m³Additives 20% 1" Volume: _____

Cement Type - Tail Slurry _____ Volume: _____

Additives _____ Volume: _____

Cement Type - Above Stage Collar _____ Volume: _____

Additives _____ Volume: _____

Displacement Rate: Max. .75 Avg. .75 (m³/min)Calculated Cement Top(s) SURFACE KB _____ KBReturns: Mud Full m³ Cement 9.0 m³String Wt. in a mud wt. of: 230 kg/m³ = 12000 daN

Wt. set on Slips: _____ daN

Remarks: Bump plug in 2500 KPa over displacement
press BLEED OFF float hole OK.Plug down 1215 ES/02/24 W.O.R. 12hrsEngineer: LEERY

PIPE TALLY SHEET

PAGE 1 OF 1

WELL Exco of Cameron Hills LOCATION I-10

SIZE 244.5 WT. 53.55 GRADE K-55 COUPLING ST+C THRD End.

DATE _____

JOINT	LENGTH	JOINT	LENGTH	JOINT	LENGTH	JOINT	LENGTH	JOINT	LENGTH
1	11 19	11	11 95	21	12 16	31	11 45	41	
2	11 25	12	11 83	22	11 53	32	10 45	42	
3	11 02	13	11 62	23	11 92	33	11 10	43	
4	11 55	14	11 44	24	11 40	34	11 61	44	
5	11 94	15	11 12	25	10 95	35	12 12	45	
6	11 70	16	11 19	26	11 07	36		46	
7	11 12	17	11 09	27	10 55	37		47	
8	11 28	18	11 23	28	11 66	38		48	
9	12 14	19	11 12	29	11 10	39		49	
10	11 63	20	10 64	30	11 42	40		50	
A	115 12	B	113 43	C	114 46	D	56 73	E	
51		61		71		81		91	
52		62		72		82		92	
53		63		73		83		93	
54		64		74		84		94	
55		65		75		85		95	
56		66		76		86		96	
57		67		77		87		97	
58		68		78		88		98	
59		69		79		89		99	
60		70		80		90		100	
F		G		H		I		J	

	JOINTS	LENGTH
A	115	12
B	113	43
C	114	46
D	56	73
E		
F		
G		
H		
I		
J		
TOTAL		

	SUB TOTAL
A	228 55
B	343 01
C	399 74
D	
E	
F	
G	
H	
I	
J	
TOTAL	

Shoe 49

Float .55

Collar _____

Other _____

PAGE TOTAL _____

BROUGHT FWD _____

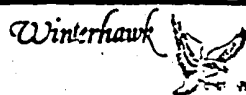
GRAND TOTAL _____

JOINTS ON LOCATION 35

Remarks: jt #31 rigged below collar

ENGINEER _____

NOTE: Use a new page for each casing type. Number joints in order of running. Indicate joints not run by * and do not include in total length.



CASING SUMMARY

WELL Exco et al Cameron Hills LOCATION L-80 DATE 85.02.20
SURF/INT/PROD/LINER SIZE 339.7 mm, 81.1 kg/m KB 4.0 m KB to CF 2.95
New/Used Inspected By: D. Campbell Drifted To: _____ API diam. _____

NO.	DESCRIPTION	MEASURED LENGTH	KB DEPTH
1	340mm Baker Float Shoe	.63m	59.75m
1	Joint 339.7 mm, 81.1 kg/m, K55, ST: C new casing	11.82m	
1	340mm Baker Float Collar	.71m	46.59m
4	Joints 339.7 mm, 81.1 kg/m, K55, ST: C new casing	47.90m	
	Scratchers		
3	Centralizers (Centre Jt. #1, Top Jts #2 & #4)		
Total String		61.06m	Cut-off Jt. Length
minus KB to Csg Top (STICK UP)		1.31m	
Landed Depth KB		59.75m	
Hole Depth KB		60.0m	
Distance Csg Landed Off Bottom		.25m	5.18m

1.31 m
CSG TOP TO KB
815.45 m
(KB) ELEVATION

2.95 m
KB to CF

813.0 m
(CF) ELEVATION

811.95
GRD ELEV.

CSG TOP KB

CSG FLANGE

Cementing Company HALLIBURTONWash - Type: H₂O Volume 1.6 m³Cement Type - Lead Slurry 11.6 tonnes class "G" Volume: 8.8 m³Additives CaCl₂ Volume: 290

Cement Type - Tail Slurry _____ Volume: _____

Additives _____ Volume: _____

Cement Type - Above Stage Collar _____ Volume: _____

Additives _____ Volume: _____

Displacement Rate: Max. .5 m³/min. Avg. .5 (m³/min)Calculated Cement Top(s) Surface KB _____ KBReturns: Mud Full m³ Cement 2.0 m³String Wt. in a mud wt. of: _____ kg/m³ = _____ daN

Wt. set on Slips: _____ daN

Remarks: Bumped plug 3500 kpa over displacement pressure, bled off pressure, floats held OK.
W.O.C. 8 hrs.Engineer: D. Campbell

		Well Status			
Nova Scotia	☐	West Coast	☐	Suspended	☒
Newfoundland	☐	Northern	☒	Completed	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	Abandoned	☐

APPLICATION TO ALTER CONDITION OF A WELL

This application form is to be submitted in triplicate to the District Conservation Engineer at least 45 days before commencement of operations.

Well Name: Exco et al Cameron Hills I-10 Area: Cameron Hills, N.W.T.

Coordinates: Lat: 60° 09' 39.27" N Long: 117° 30' 03.54" W

Operator: Paramount Resources Ltd. Contractor: Cactus Drilling

Drilling Rig or Unit: #21 Depth: 1613.0 m KB (Presently)

Date ATDW Issued: 85.02.12 Date of Last Operation: 85.04.02

UWI: 3001106010117300

TYPE OF OPERATION

Re-enter subject well and directionally drill to the Pre Cambrian (TVD 1590 m) (MD 1636 m) formation within the target area L-80 for the exploration of petroleum reserves.

SUMMARY OF PROPOSED OPERATIONS

Re-enter subject well... Drill out abandonment plugs... Sidetrack abandoned tools in hole (top of fish @ 1381 m) and directionally drill to the Pre Cambrian (TVD 1590 m) formation within the target area L-80. Formations will be evaluated conventionally. Should economical reserves of petroleum be found the well would be cased and cemented. If the well should prove to be uneconomical it would be abandoned. All operations and procedures would be carried out within the guide lines of the Canada Oil and Gas Drilling Regulations. A detailed Drilling Program will follow this application.

Signed:  Dennis P. Besler

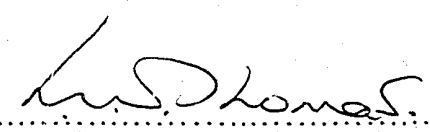
Title: President

Date: 85.01.14

Company: Ridgestarr Petroleum Management Ltd.

APPROVAL

An approved copy of this notice should be posted at each wellsite.

Signed:  Conservation Engineer

Date: 29 Jan 86

ATDW No: 1224 File: 9211-E9-1-3RE



Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	☒
Gulf of St. Lawrence	☐	Hudson Bay	☐	Completed	☐
				Abandoned	☐

APPLICATION TO ALTER CONDITION OF A WELL

This application form is to be submitted in triplicate to the District Conservation Engineer at least 45 days before commencement of operations.

Well Name: Paramount et al. Cameron Hills I-10 Area: Cameron Hills

Coordinates: Lat: 60° 09' 39.27" N Long: 117° 30' 03.54" W

Operator: Paramount Resources Ltd. Contractor: Poncho Well Servicing

Drilling Rig or Unit: 103 Depth: 1563 MKB. ETD

Date ATDW Issued: 85-02-12 Date of Last Operation 86 03 07

UWI: 3001106010117300

TYPE OF OPERATION

... Completion and stimulation

SUMMARY OF PROPOSED OPERATIONS

... Complete the Keg River formation, perforate at 1524.5 - 1527.0, if not

... successful perforate at 1508.0 - 1515.0. Pending results, this zone may

... require fracing or could be abandoned/suspended

... Refer to attached Completion Program for details

Signed: Dennis P. Besler Title: President

Date: 1986-03-13 Company: Ridgestarr Petroleum Management Ltd.

APPROVAL

An approved copy of this notice should be posted at each wellsite.

Signed: [Signature] Conservation Engineer

Date: 14 Mar 86

ATDW No: 1224 File: 9211-E9-1-3RE

Canada Oil and Gas Administration du pétrole
Lands Administration et du gaz des terres du Canada

Nova Scotia ☐ West Coast ☐
Newfoundland ☐ Northern ☒
Gulf of St. Lawrence ☐ Hudson Bay ☐ Well Status
Suspended ☐
Completed ☒
Abandoned ☐

K110

WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 154 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Paramount et al Cameron Hills I-10 Area: Cameron Hills, N.W.T.
Grid Area: 60-10-117-30 Field/Pool: Wildcat
Permit or Lease No.: 1224 Final Coordinates: Lat. 60°09'39.27"N Long. 117°30'03.54" W
Drilling Unit: Cactus Rig-21 Elevations-RT/KB: 816.25 SFGL: 811.95
Spud Date: 85-02-10 Rig Released: 86-03-07 Total Depth: 1561.11
suspended: 85-04-02 re-entry: 86-02-01
CASING AND CEMENTING

O.D.	Weight	Grade	Depth Set	Cement and Additives
339 mm	81.1 kg/m	K-55	49.75m	11.6 T. Class G. 2% CaCl ₂
244 mm	53.37 kg/m	K-55	387 m	29.6 T. Class G. 2% CaCl ₂
139.7mm	20.83 kg/m	J-55	1561.11	95 T. Class G. 0:1:0, .2% R5 + .75% T-10

PLUGGING PROGRAM

Approval of the following program was obtained by (person) _____ from _____
(person) _____ of the Canada Oil and Gas Lands Administration by means of _____
on _____ 19 _____

Type of Plug:	Interval	Felt	Cement and Additives
None			

Lost Circulation/Overpressure Zones: _____

Equipment left on Seafloor (Describe): _____

Provision for Re-entry (Describe and attach sketch): _____

Cores: Type _____

Intervals _____

Other Downhole Completion/Suspension Equipment From 1523.5 to wellhead: cement retainer, 1-m cement, Uni-V packer, set 1439 m, 5.49-m pup-jt. pump seating nipple, tubing to surface.

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: _____ S. Eng.

Title: President

Name: Dennis P. Besler

Date: 1986.04.23

Ridgestarr Petroleum Management Ltd.

Acknowledged by: Kem Singh

Engineering Branch

Date: Oct. 27/86

File: 9211-E9-1-3RE

Department of Energy,
Mines and Resources

Ministère de l'Énergie,
des Mines et des Ressources

Department of Indian Affairs
and Northern Development

Ministère des Affaires indiennes
et du Nord canadien

Canada



OTTAWA COPY

WELL HISTORY REPORT

PARAMOUNT ET AL CAMERON HILLS I-10

9211-E9-1-3 RE

RIDGESTARR PETROLEUM MANAGEMENT LTD.

Petroleum Consultants

1608.840-7th Ave. S.W. Calgary Alberta T2P 3G2

Telephone 234-7712

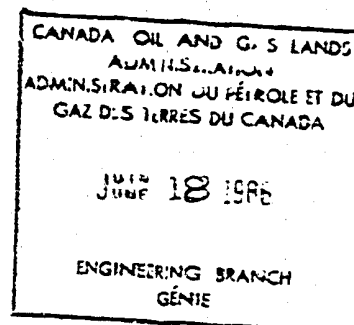


TABLE OF CONTENTS

SECTION ONE	INTRODUCTION GENERAL DATA
SECTION TWO	SUMMARY OF DRILLING OPERATIONS
SECTION THREE	GEOLOGY WELL EVALUATION
SECTION FOUR	APPENDICES TO WELL HISTORY REPORT
SECTION FIVE	APPENDIX "A" DRILLING RIG INVENTORY APPENDIX "B" LOCALITY MAPS APPENDIX "C" SUB-SURFACE DIRECTIONAL SURVEY REPORT
SECTION SIX	APPENDIX "D" COMPOSITE WELL REPORT
SECTION SEVEN	APPENDIX "E" LITHOLOGY
SECTION EIGHT	APPENDIX "F" FLUID ANALYSIS APPENDIX "G" FORMATION STIMULATION
SECTION NINE	APPENDIX "H" PRESSURE TESTS
SECTION TEN	APPENDIX "I" SWAB REPORT
SEPARATE ATTACHMENT	APPENDIX "J" LOGS



INTRODUCTION

FINAL WELL REPORT I-10

INTRODUCTION

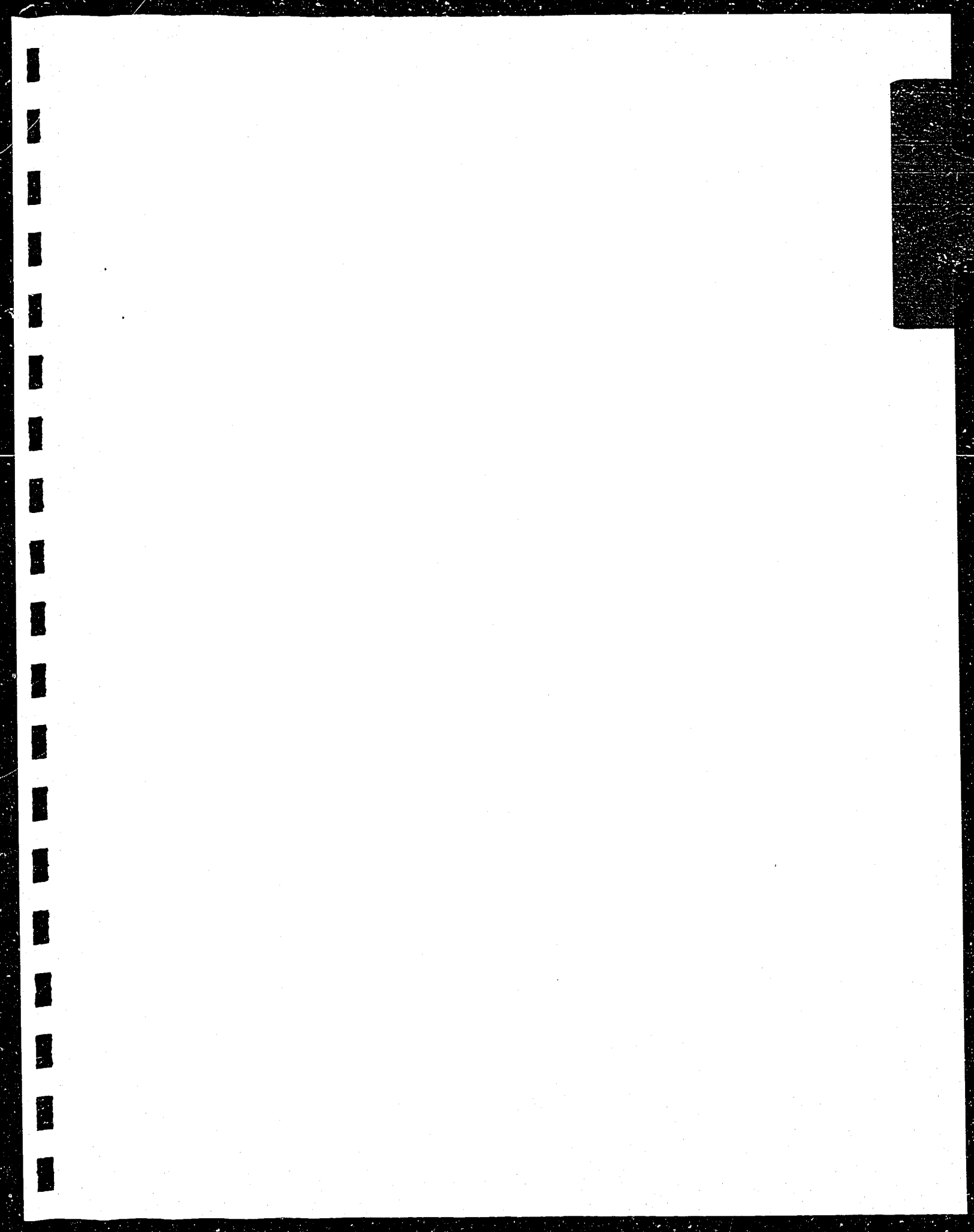
a) SUMMARY

- i) Location: Cameron Hills, N.W.T.
Lat. 60 degrees 09' 39.27" N
Long. 117 degrees 30' 03.54" W
- ii) Operation: Drill a wildcat well for the
purpose of producing hydrocarbons
- iii) Operator: Paramount Resources Limited
4100 First Canadian Centre
350 7th Avenue S.W.
Calgary, Alberta
T2P 3W5
- iv) Contractor: Cactus Drilling Ltd.
P.O. Box 1508
Calgary, Alberta
T2P 2L6
- v) Drilling
Unit: Refer to Appendix "A"
- vi) Locality
Map: Refer to Appendix "B"

GENERAL DATA

GENERAL DATA

- i) Well Name and Number: Paramount et al Cameron Hills I-10
- ii) Surveying System: Conventional Traverse
- iii) Unique Well Identifier: 3001106010117300
- iv) Support Craft Aircraft owned by Skocdopole Brothers Aviation Ltd. -
used for crew change and
and transport of
miscellaneous supplies



SUMMARY OF DRILLING OPERATIONS

SUMMARY OF DRILLING OPERATIONS

i) Elevations: RT/KB 816.25 m
GL 811.95 m

ii) Total Depth: Drilled 1561.11 m
Logged: 1559.3 m

iii) Spud Date: 85/02/10 0815 hours
Well suspended 85/04/02 2000 hours
Well re-entered 86/02/01
Rig Released 86/03/07 0800 hours

iv) Well Status: Suspended
(see attached Well Termination
Record)

Canada Oil and Gas Administration du pétrole
Lands Administration et du gaz des terres du Canada

Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	
Gulf of St. Lawrence	☐	Hudson Bay	☐	Completed	
				Abandoned	

WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 164 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Paramount et al Cameron Hills I-10 Area: Cameron Hills, N.W.T.
Grid Area: N/A Field/Pool: Wildcat
Permit or Lease No.: 1224 Final Coordinates: Lat. 60°09'39.27"N Long: 117°30'03.54" W
Drilling Unit: Cactus Rig 21 Elevations-RT/KB: 816.25 SFGL: 811.95
Spud Date: 86-02-01 Rig Released: 86-03-07 Total Depth: 1561.11

CASING AND CEMENTING

O.D.	Weight:	Grade:	Depth Set:	Cement and Additives:
339 mm	81.1 kg/m	K-55	49.75m	11-6 T. Class G. 2% CaCl ₂
244 mm	53.37 kg/m	K-55	387 m	29-6 T. Class G. 2% CaCl ₂
139.7mm	20.83 kg/m	J-55	1561.11	95 T. Class G. 0:1:0, 2% R5 + 75% T-10

PLUGGING PROGRAM

Approval of the following program was obtained by (person) _____ from
(person) _____ of the Canada Oil and Gas Lands Administration by means of
_____ on _____ 19__

Type of Plug:	Interval:	Felt:	Cement and Additives:
None			

Lost Circulation/Overpressure Zones: _____
Equipment left on Section (Describe): _____
Provision for Re-entry (Describe and attach sketch): _____
Cores: Type: _____ Intervals: _____

Other Downhole Completion/Suspension Equipment: From 1523.5 to wellhead: cement retainer,
1 m cement, Uni-V packer, set 1439 m, 5.49 m pup. jt. pump seating nipple,
tubing to surface.

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: _____ Title: President
Name: Dennis P. Besler Date: 1986-04-23
Ridgestarr Petroleum Management Ltd.

Acknowledged by: _____
Engineering Branch

Date: _____
File: _____

Department of Energy
Mines and Resources
Ministère de l'Énergie,
des Mines et des Ressources
Department of Indian Affairs
and Northern Development
Ministère des Affaires indiennes
et du Nord canadien

Canada

v) Hole Size and
Depth:

Hole Size
444 mm
311 mm
216 mm

Depth
49.75 m
387.00 m
1561.11 m

vi) Casing and Cement Record:

Casing

	<u>Size</u> (mm)	<u>Weight</u> (kg/m)	<u>Grade</u>	<u>Make</u>	<u>Joints</u>	<u>Thread</u>	<u>Depth</u> (m)	<u>Date</u> <u>Set</u>
a)	339.7	81.1	K-55	ST&C	5	N/A	49.75	85/02/20
b)	244.5	53.57	K-55	ST&C	34	N/A	387.00	85/02/23
c)	139.7	20.83	J-55	ST&C	122	8rd	1561.11	86/03/07

Cement

- a) 11.6 tonnes, Class "G" + 2% CaCl₂.
- b) 29.6 tonnes, Class "G" + 2% CaCl₂, 8 cu. m cement returns
- c) 95 tonnes, Class "G" 0:1:0, .2% R5 + .75% T-10, lost circulation 4.8 cu. m from plug down, no cement returns

vii) Sidetracked Hole:

Hole was directionally drilled for the reason of intersecting the anticipated geological structure. Kick-off point was at 837 m, using 1-1/4 degree kick sub

viii) Drilling Fluid:

Bentonite/Chemical, viscosity was maintained @ 55-65 S/L through to T.D., pH @ 9.5 - 10 and solids content held to a minimum.

ix) Fishing Operations:

Obstruction was encountered @ 400 m upon re-entry of the well, possibly left there from the previous drilling operation. This obstruction was felt several times during drilling, but fishing procedures were unsuccessful in recovery of any foreign matter. Production casing was cemented without incident

x) Well Kicks: None

xi) Formation Leak Off Test: Not done upon re-entry

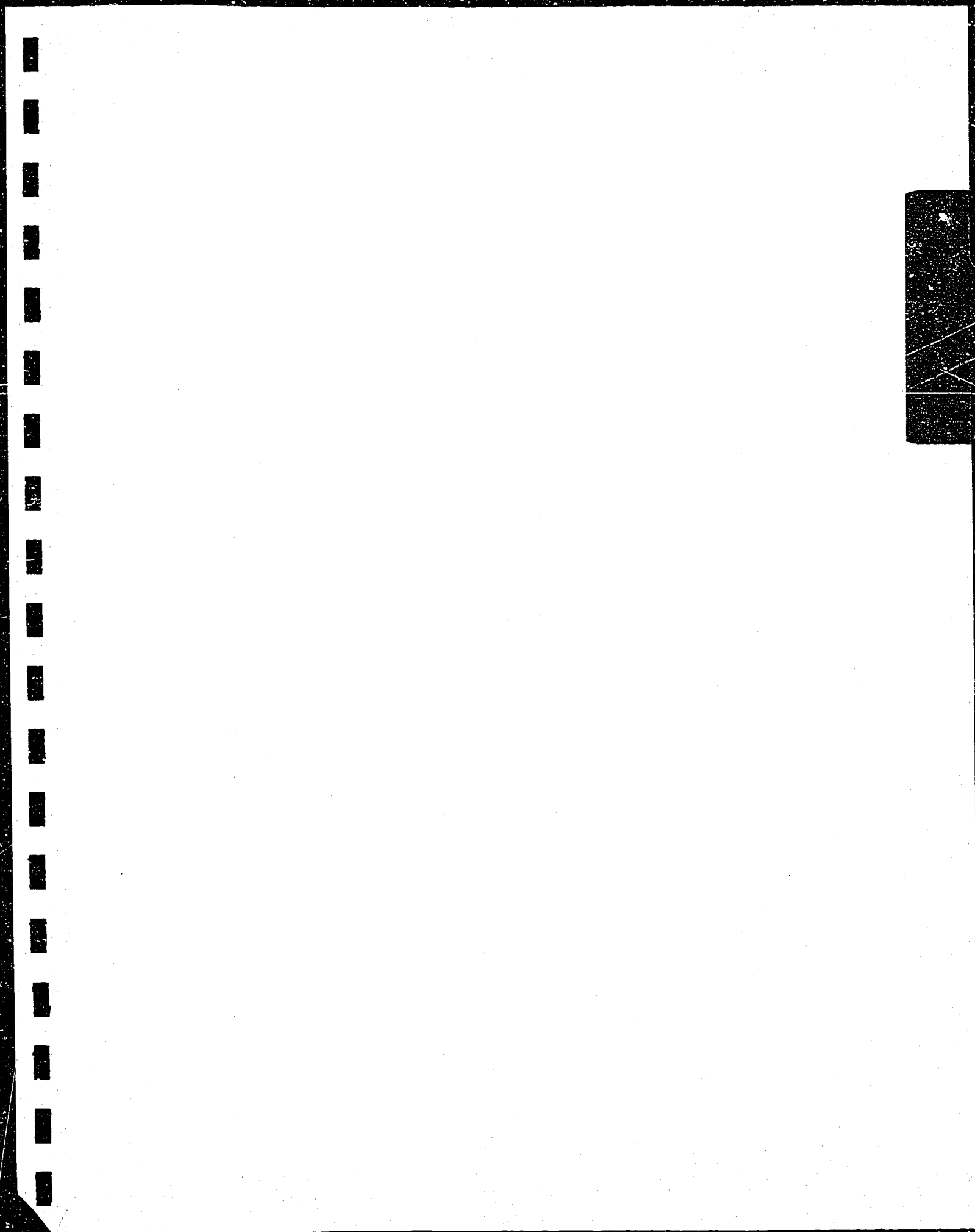
xii) Time Distribution

<u>Date</u> 1986	<u>Drilling</u> (hours)	<u>Tripping</u> (hours)	<u>Rig</u> <u>Ser.</u> (hours)	<u>Reaming</u> (hours)	<u>Circulate</u> (hours)	<u>Survey</u> (hours)	<u>Miscellaneous</u> (hours)
02/01	17.00		.75				Pressure test 6.25
02/02		3.25	.75	20.00			
02/03		2.75	.75	10.25	10.25		
02/04		4.50			19.50		
02/05	10.50	3.00	.75		3.25	4.75	Handle directional tools 1.75
02/06		5.00		1.25			Repair 15.25 Handle directional tools 1.50 C.O.G.L.A. In- pection 1.00
02/07		11.00			1.50		Handle directional tools 3.25 Mill on iron 8.25
02/08	15.75		.75	1.25		3.50	Handle directional tool 1.00 Repair 1.75
02/09	9.25	6.50	.75			1.50	Handle directional tool 6.00
02/10	3.75	10.25	.75	7.75		1.50	
02/11	16.00	4.25	.75	.25		2.75	
02/12	17.25	3.75	.75			2.25	
02/13	13.25	7.25	.75		1.00	1.75	
02/14	10.00	8.75		3.50		1.75	
02/15	7.25	10.00	.75			1.50	Thaw mud line 4.50
02/16	10.50	10.75	.75	.50		.75	Slip and cut .75

Date 1986	Drilling (hours)	Tripping (hours)	Rig Serv. (hours)	Reaming (hours)	Circulate (hours)	Survey (hours)	Miscellaneous (hours)
02/17	21.50		.75		.25	1.50	
02/18	13.75	7.50	.75	1.00		1.00	
02/19	4.25	11.50	.75		6.25	.50	Repair .75
02/20		14.75	.75				DST #1 8.50
02/21		20.25	.75				Run mill 3.00
02/22		4.25	.75	3.00			Stuck 15.00 Slip and cut 1.00
02/23					8.00		Spot acid 4.00 Jarring 12.00
02/24		2.25	.75		6.25		Fishing 14.75
02/25		17.25	.75				Slip and cut 1.00 Fishing 5.00
02/26		14.75	.75	5.75	1.75		Slip and cut 1.00
02/27		14.00	.75				Repair 5.75 Mill 3.50
02/28		5.25	.75	9.50			Repair 8.50
03/01			.75	18.25			Repair 5.00
03/02	2.00	11.75	.75				Mill 7.50 Repair 2.00
03/03	12.75	3.00	.75	1.00	3.75		Repair 2.75
03/04		4.00	.75			.50	Logging 18.75
03/05		10.00	.75		1.75		DST #2 7.75 Repair 3.75
03/06		16.75	.75		3.00		DST 3.50
03/07		10.00	.75		3.00		Cement 3.00 Run Casing 7.25

Rig Released 86/03/07 0800 hours

- xiii) Deviation Survey: Refer to Appendix "C"
Subsurface Directional
Survey Report
- xiv) Composite Well Record: Refer to Appendix "D"
Bit Record
Drilling Curve
Mud Log



GEOLOGY

GEOLOGY

i) Drill Cuttings

Sampling began @ 830 m, which was the kick off point. 1 litre of unwashed samples were put in plastic containers and were taken every 10 m. Washed samples were put in sample bags and were taken every 5 m; out of the bagged samples 2 glass vial samples and 1 plastic vial sample were obtained. All of the above, except for the plastic vial sample was shipped to ISPG in Calgary.

ii) Cores - no cores were obtained.

iii) Lithology - Refer to Appendix "E"

iv) Stratigraphic Column - Refer to Appendix "D"

WELL EVALUATION

WELL EVALUATION

i) Down Hole Logs:

<u>Date</u> 1986	<u>Run Number</u>	<u>Type</u>	<u>Interval</u> (m)	<u>Service</u> <u>Company</u>
03/03	One	CDL/CNL	1559.3-386.5	Computalog
03/03	One	DIL	1559.3-386.5	Computalog
03/25	One	Differential Temperature	1375-1543	Computalog
03/27	One	High Sensitivity Flow Meter	1518-1495	Computalog
03/27	One	Radioactive Tracer	1517-1475	Computalog
03/27	One	Hydrolog	1517-1500	Computalog

(also refer to Appendix "J")

ii) Other Logs: Dipmeter was not run

iii) Velocity Survey: Refer to Appendix "J"

iv) Formation Stimulation

<u>Date</u> 1986	<u>Interval</u> (m)	<u>Method</u>	<u>Contractor</u>	<u>Stimulants</u>	<u>Results</u>
03/17	1524.5-1527	perforate	Computalog		All shots fired
03/18	1524.5-1527	acid squeeze	Nowasco	28% HCL	No back pressure
03/22	1508-1915	spot acid	Nowasco	15% HCL	
03/23	1508-1515	perforate	Computalog		Misfire
03/24	1508-1515	perforate	Computalog		All shots fired
03/26	1508-1515	acid squeeze	Nowasco	28% HCL	No back pressure
03/28	1508-1523.5	cement squeeze	Nowasco		
03/30	1508-1515	perforate	Computalog		All shots fired
03/30	1508-1515	radial stress frac	Computalog		Refer to following explanation
03/31	1508-1515	acid squeeze	Nowasco		High back pressure

(refer to Appendix "G")

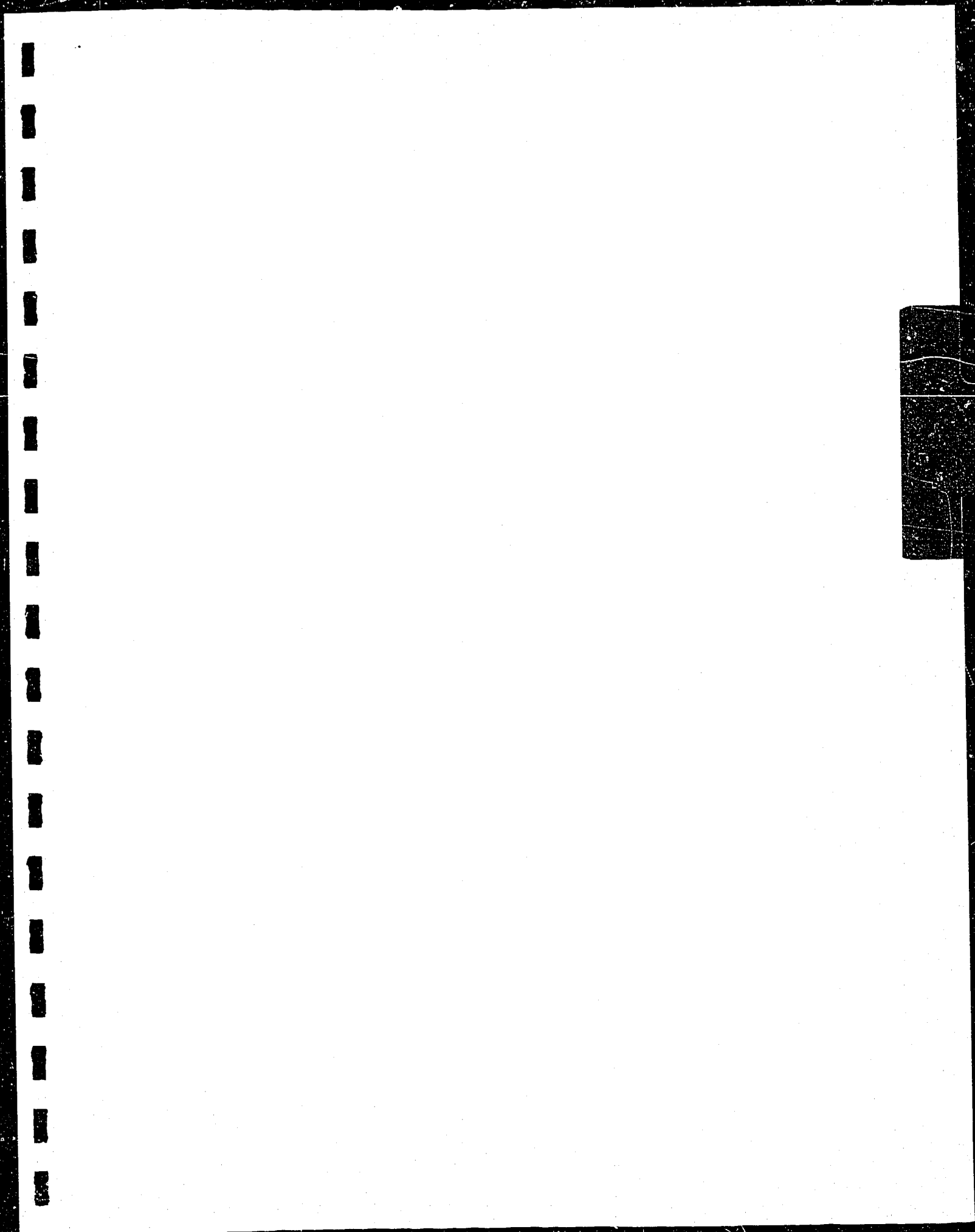
Radial Frac

Computalog performed a radial stress frac using a 2 inch tool at the following intervals:

1515 - 1512 m
1513 - 1510 m
1511 - 1508 m

The radial frac did not break down the formation and did not appear to produce beneficial stimulation results. This conclusion is deduced from the fact that the following acid squeeze entry pressure was high.

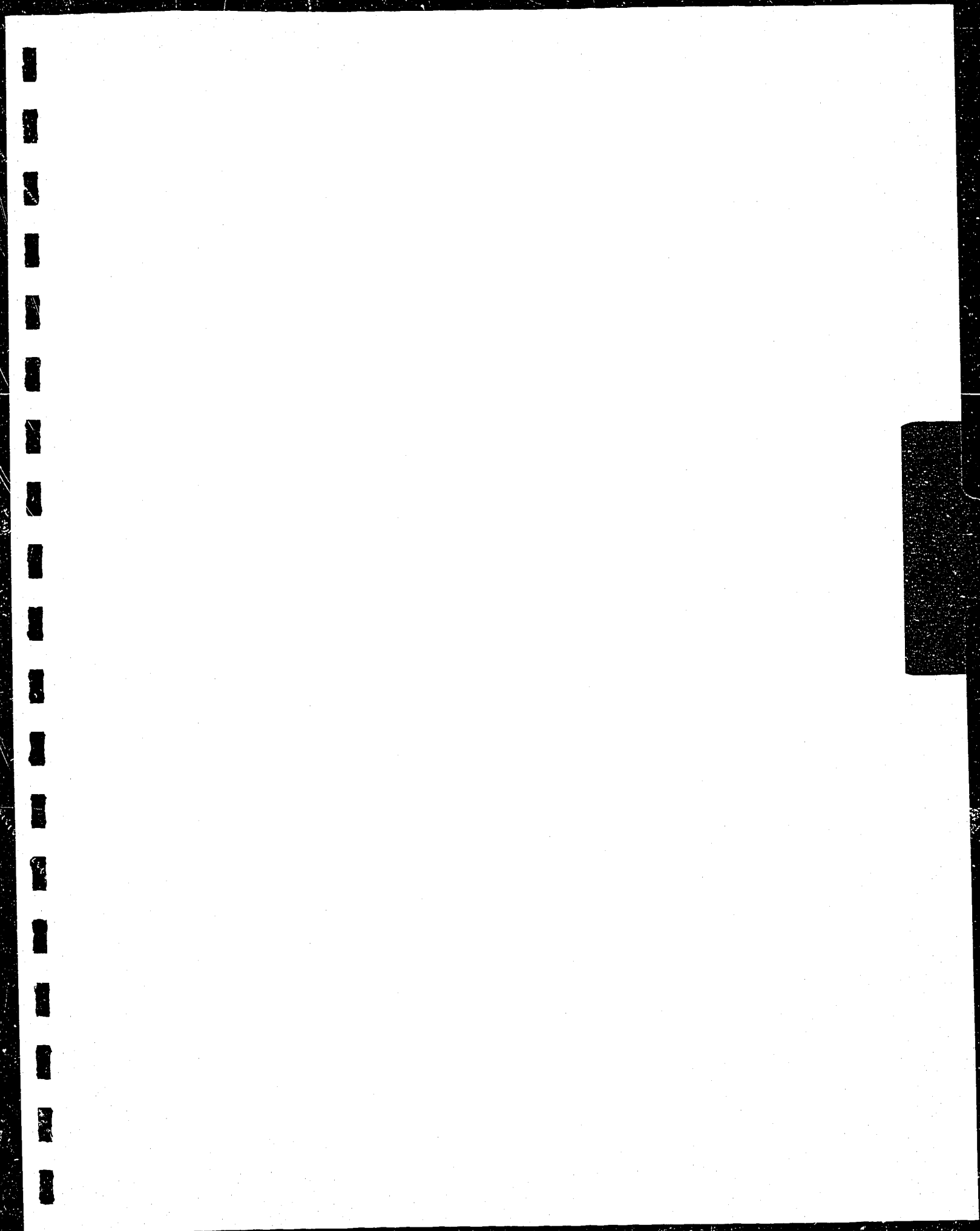
(refer to Appendix "G")



APPENDICES TO WELL HISTORY REPORT

APPENDICES TO WELL HISTORY REPORT

- i) Fluid Analysis - Refer to Appendix "F"
- ii) Reservoir Engineering Data - not available



APPENDIX "A"

DRILLING RIG INVENTORY

CACTUS DRILLING RIG 21

DETAILED INVENTORY

MAST:

Lee C. Moore 38.7m, s/n T3392, rated cap. 126,000 daN; c/w crown w/5 x 36" and 1 x 56" sheaves grooved for 1½ line, racking platform, ladders, crown safety platform, stand pipe, tong counter weights, stand-pipe, and catline sheaves.

SUBSTRUCTURE:

Main sub 3.58m H x 14.6m L, Pony sub .61m H x 14.6m L. Sub is sheeted in w/steel, includes stairs, handrails and ramp.

DRAWWORKS:

Continental Emsco GC500, s/n 185, c/w Emsco Model TB breakout and Emsco GB spinning catheads. 40R Hydro-matic brake, s/n A12808, mounted on drawworks in Gear Matic model 5 survey winch, s/n 5-1246, c/w line Gear Matic tugger winch model 14-11-10-11, s/n 14-1241. Control Drilling automatic driller.

COMPOUND:

Continental Emsco model GB 83M, s/n 33, 2 - engine drives c/w piping, air lines, and controls.

ENGINES:

2 - Caterpillar D 379B, s/n 68B1804 and 68B1285, c/w starters and Barber shut-offs. Total power of 835 kw.

AIR COMPRESSORS:

1 - Gardiner Denver ADRA 1002, s/n 870, 1 - Gardiner Denver ADS 1007, s/n 17024.

HOOK BLOCK:

National model 542E200, s/n 1427.

ROTARY TABLE:

Oilwell 20.5, c/w split master bushing and sprocket, s/n CDRT21.

SWIVEL:

Emsco model LB200, s/n 79.

MUD PUMPS:

1 - Emsco D-700, s/n 1, c/w hydril K20-3000 pulsation dampner, shear relief valve, gauge, suction, mud line, valves, guards, and V belts. Completely rigged up in steel house 3.0m W x 8.23m L.

1 - Emsco D-500, s/n 446, c/w hydril K20-3000 pulsation dampner, shear relief valve, gauge, suction, mud line and valves, guards and V belts. All Completely rigged up in steel building 3.0m W x 8.23m L.



B.O.P.'s:

1 - Hydril GK 12-900 Spherical. 2 - Shaffer Type E single gate, 12" - 3000 psi c/w 4½ and blind rams. 1 - Drilling spool, 12 - 900 x 12 - 900, c/w 2 - 3" 900 flanged outlets.

ACCUMULATOR:

Payne w/5 - station remote, 8 bottles (545 litres), 2 - nitrogen bottles charged w/ P30 Williams pump powered by 7.5 hp, 3450 r.p.m. 3 sh. electric motor.

BLEED-OFF MANIFOLD:

3" 5000 psi National Bell valve w/1 - Flo-Lite remote choke 3", and 1 - Willis M3 3" manual choke. 36" Poor Boy degasser, 3" inlet and 6" outlets.

FLARE LINE:

45.7m of 76mm complete with flanges.

LIGHT PLANTS:

1 - Caterpillar D3306, s/n 66D40372, 230 hp and 1855 r.p.m. 1 - 155 Caterpillar 155 kw, 1200 r.p.m. 230 volt, 3 ph.

1 - 671 GM, 1800 r.p.m. w/125 kw generator, 230 volts 3 ph.

BOILERS:

1 - A 6569, 48 hp Frost Locomotive style. 1 - A 176171 100 hp Mapanee.

MUD TANKS:

Shaker tank 13.4m L x 3.0m W x 1.8m H c/w 1 - Swaco super screen shale shaker, ditches, guns, equalizers, clean out gates, stairs, and hand rails. Fisher pump model FP9-v2.5 x 5.5.

SUCTION TANK:

15.5m L x 3.0m W x 1.8m H includes mud mixing house, 2.7m L x 3.0m W x 2.4m H, on one end c/w Galigher D4VRG200 pump and 60 hp electric motor, mud hopper and valves w/piping for low pressure mixing systems.

TANKS AND BUILDINGS:

1 - Dog house 7.9m L x 3.0m W x 3.0m H lined and insulated, 1 - Chromalox electric heater, knowledge box, tool board, bench, cupboard and air conditioner.

1 - Combination Building. Light plant, accumulator, change house, 13.4m L x 3.0m W x 3.0m H c/w lockers, storage bins, water, fuel and hydraulic lines, rig master electrical panel.

1 - Tool House, 7.62m L x 3.0m W x 3.0m H, c/w dog house supports, oil storage tanks, bins, cupboards and work bench.

WATER AND FUEL TANK:

10.36m L x 3.0m OD c/w water and fuel lines, ladders, manhole and decking. One only Monarch water pump model NE 2½ M9S type A c/w 20 hp Baldor electric motor. 2 - Monarch model 4 MT Type A fuel pumps 2 hp electric motor.

.....3



MISCELLANEOUS:

1 - Kelly hose 3" x 55' c/w 4" connections. 2 - shock hoses 3" x 12' c/w 4" connections. Kelly is 4½ x 40' square. 1 - Baash Ross 2RCS4 kelly drive bushing. Web Wilson AAX tongs c/w jaws 3½ - 10 3/4. Baash Ross Type DU 4½" slips, Baash Ross type C 5½ - 7" slips. 1 - Baash Ross safety clamp. 1 - GJ MGG 4½" 18° elevator. 1 - BJ AA 7" elevator. Elevator links Web Wilson 2 3/4 x 96". Drilling line is 1½ x 1500'. 23 pieces of matting.

TOOLPUSHER
WELLSITE UNIT:

All Fab Industries 3.0m W x 10.97m L, s/n 801032S658WS c/w air conditioning and fully equipped.

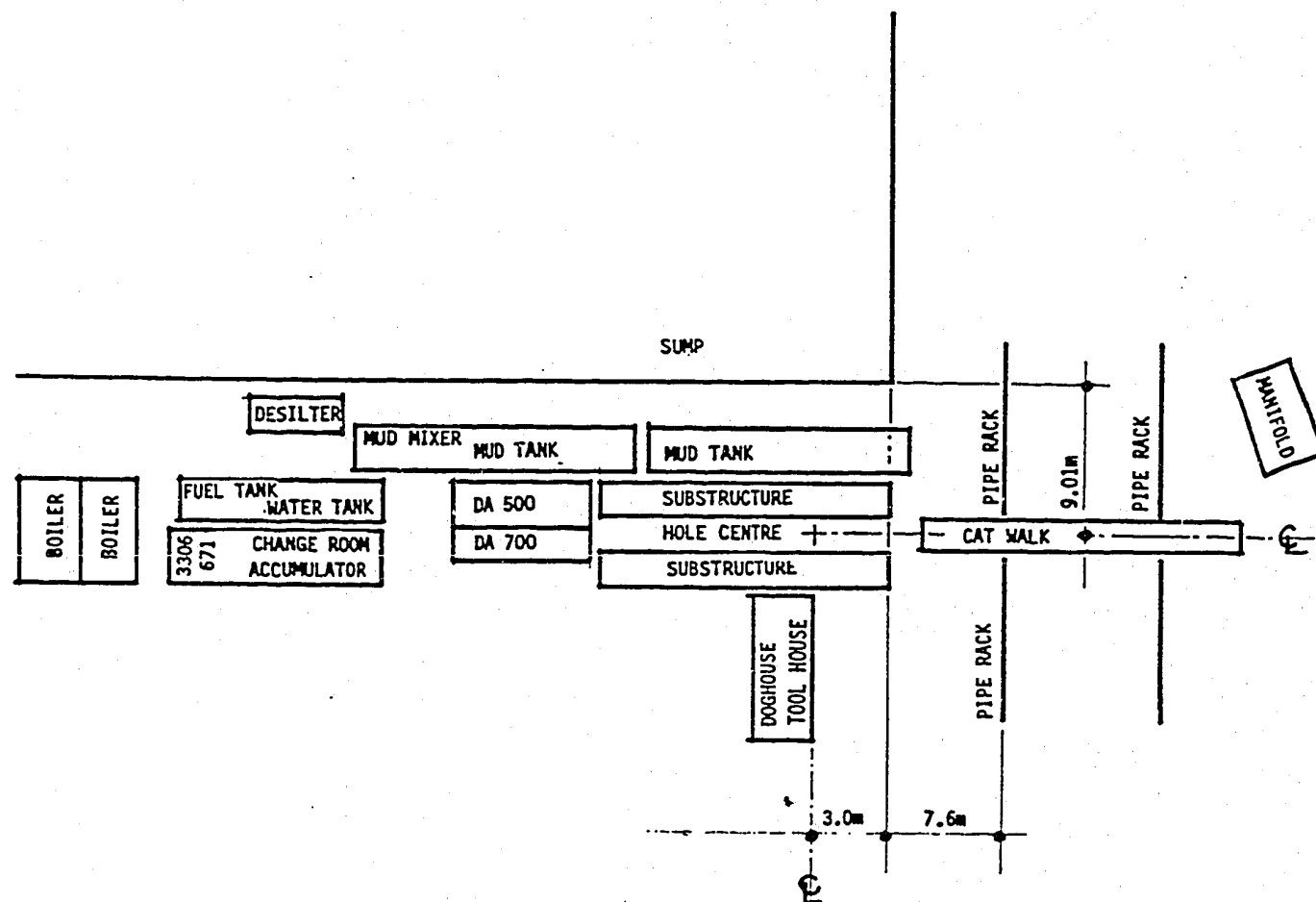
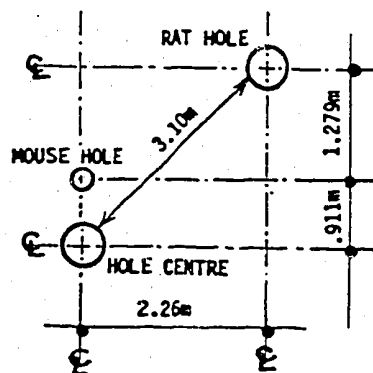
DRILL COLLARS:

6 - 6 3/4 x 5" H90, 12 - 6½ x 4½ H90 collars.

DRILL PIPE

1700m of 4½ XH Grade 'E' premium pipe.





CACTUS DRILLING
#500, 622 - 5th Ave. S.W.,
Calgary, Alberta. T2P 0M6

CACTUS RIG NO. 21
MOUSE HOLE/RAT HOLE DIAGRAM
LEASE LAYOUT

January 14, 1986
Not to Scale.

CACTUS RIG NO. 21

CREW STATUS TRAINING

DATE: WINTER 1986

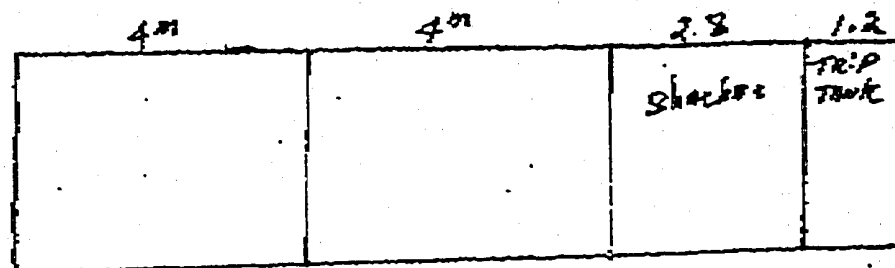
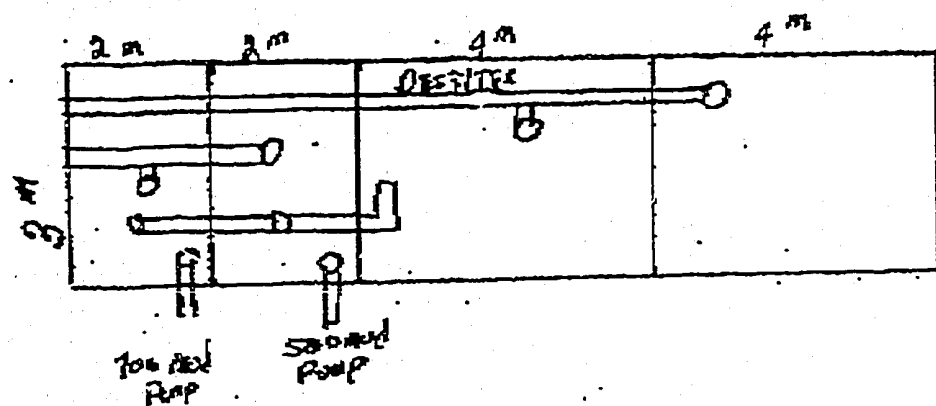
CLASSIFICATION	NAME	FIRST AID	H ₂ S	BOP	WELL CONTROL	BOILERS	DEFENSIVE DRIVING	OTHER COURSES	TIME WITH CACTUS	TIME IN POSITION
RIG MANAGERS	BRIAN EVANYSHYN	JUN. 84	MAY. 85	APR. 84	SEP. 85	MAR. 82	AUG. 80	BOILER COMPOUND FIRE EXTINGUISHER	DEC. 70	RELIEF PUSH 5 - YEARS
	(DRILLER/RELIEF TOOL PUSHER) TERRY GRAHAM	APR. 84	APR. 84	MAY. 84	AUG. 85	NOV. 80	APR. 84	CPR APRIL 1984	JAN. 80	JAN. 80
DRILLERS	GERALD HUSEBY	APR. 84	APR. 84	JUL. 85		NOV. 81	APR. 84		AUG. 78	OCT. 85
	BOB LOTOSKI	DEC. 85	DEC. 85	SEP. 84		FEB. 80	JUN. 75	ROSS HILL SCR/ GYRO @ MAG SURVEYING/ STEERING TOOL PRINCIPALS OF SUPERVISION	JAN. 86	5 YEARS DRILLING EXPERIENCE. JAN. 86
	(RELIEF DRILLER AND DERRICKMAN) ROBIN LUFT*		JAN. 86	DEC. 84					JAN. 86	4-YEARS DRILLING EXPERIENCE.
ASSISTANT DRILLERS OR DERRICKMEN										
	* NOTE: ROBIN LUFT IS ENROLLED IN A FIRST AID COURSE IN FEBRUARY 1986.									

MOBILE TELEPHONE NO's

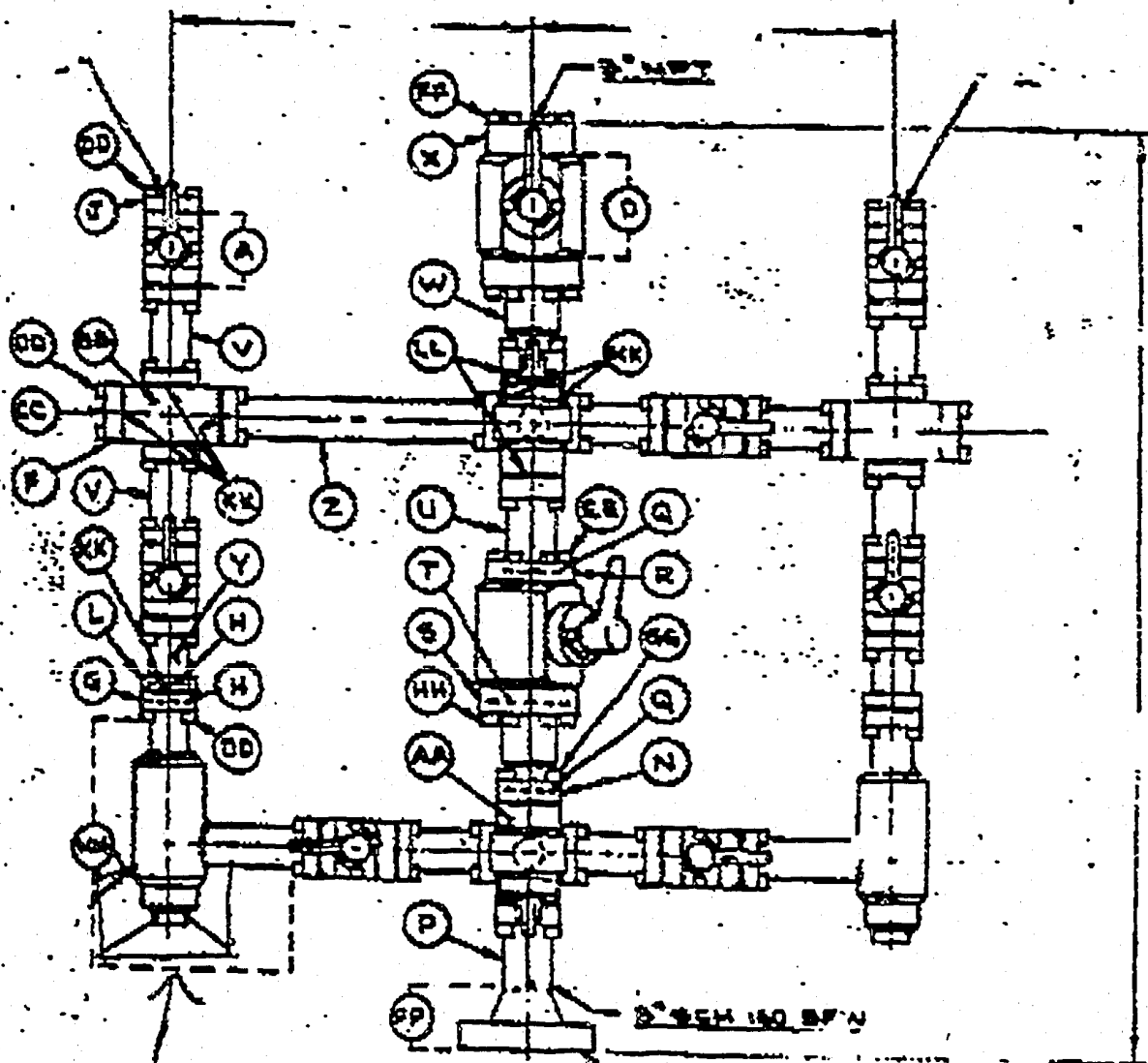
TRUCK - XJ6-0929

BASE - XJ7-6542

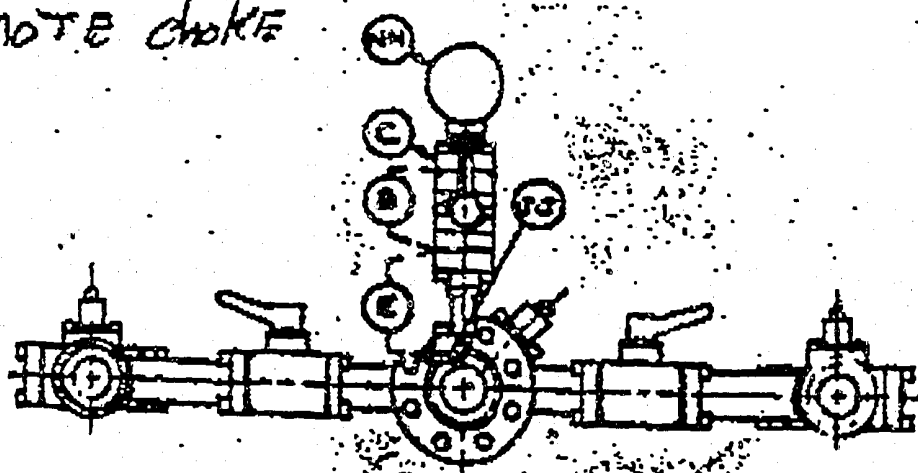
Cactus R-4 21
 mud tank volume 109 m



Height 1.52 m



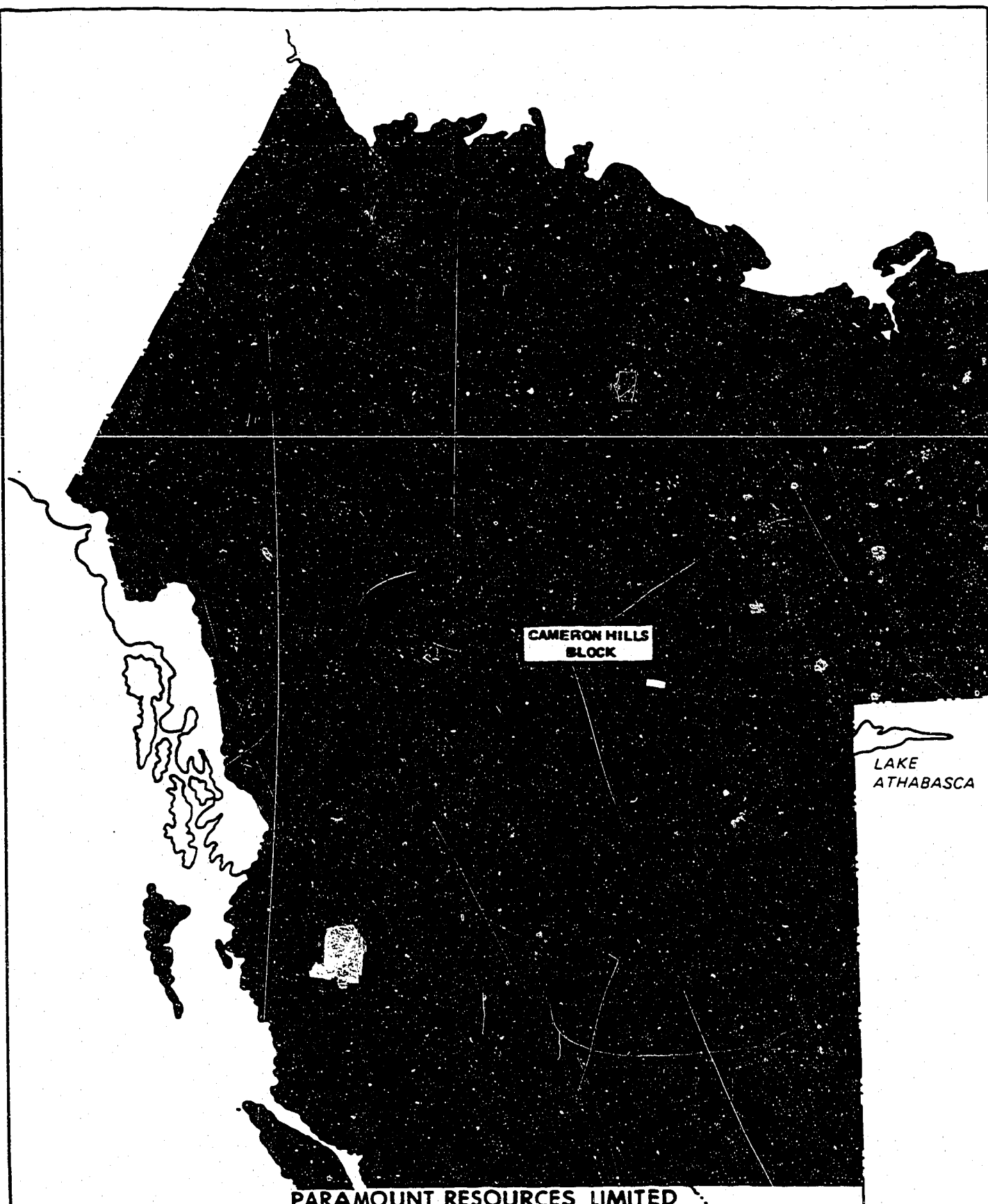
TR: flow
Remote choke



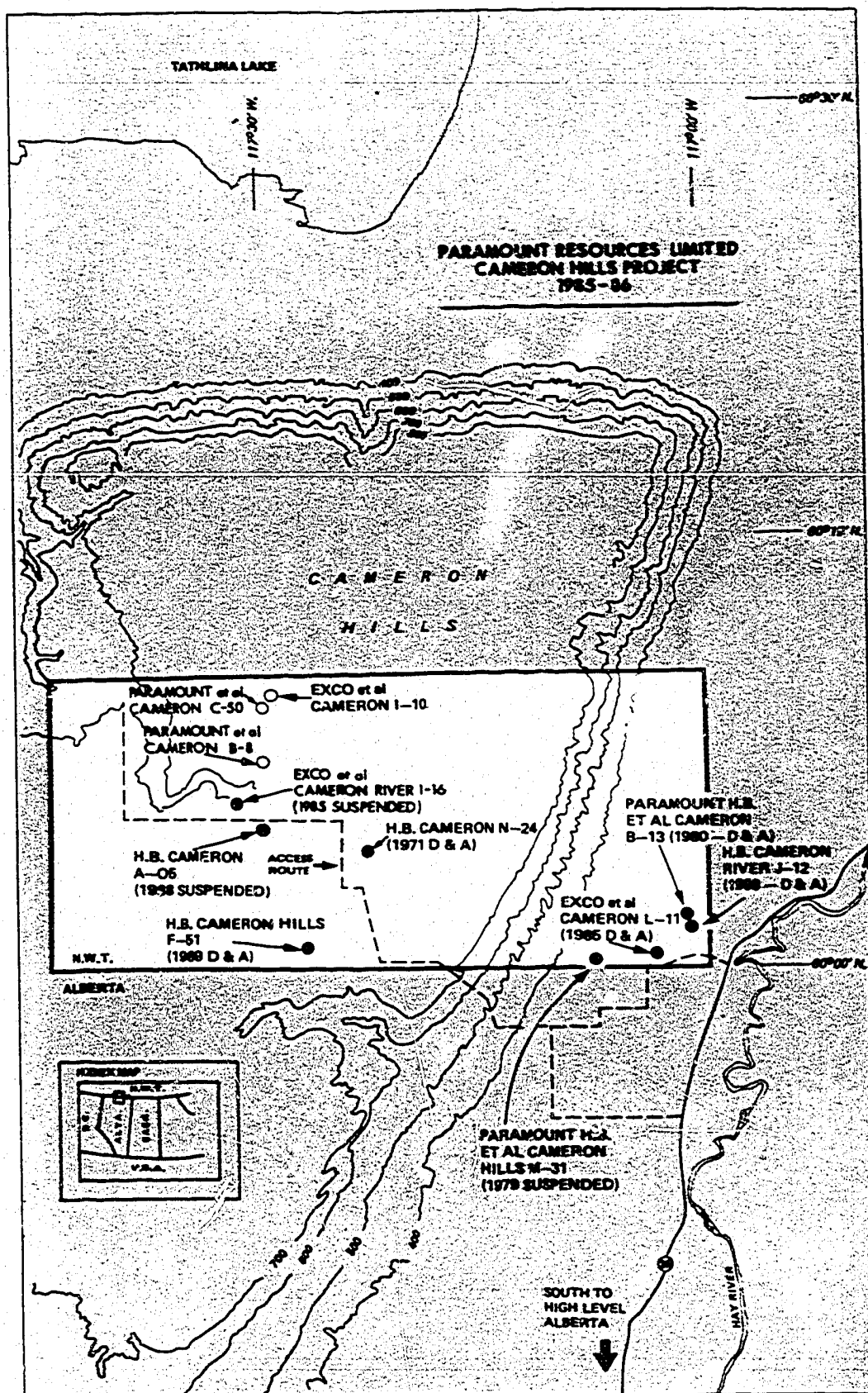
CACTUS 21
3 X 3 NATURAL MANIFOLD 34000 KPA

APPENDIX "B"

LOCALITY MAPS



PARAMOUNT RESOURCES LIMITED
SHOWING 1985-1986 CAMERON HILLS PROJECT



APPENDIX "C"

SUB-SURFACE DIRECTIONAL SURVEY REPORT

SUB-SURFACE DIRECTIONAL SURVEY REPORT

PARAMOUNT et al CAMERON HILLS I-10

1986 March 12th.

WHIPSTOCK
SYSTEMS LIMITED

WHIPSTOCK

1986 March 12

WELL NAME: PARAMOUNT et al CAMERON HILLS I-10

SURVEY PARAMETERS:

***** MINIMUM CURVATURE METHOD *****

MAGNETIC DECLINATION	 E(+)/W(-) (deg)	 =	28.00
TIE-IN CO-ORDINATE	 N(+)/S(-) (m)	 =	.00
TIE-IN CO-ORDINATE	 E(+)/W(-) (m)	 =	.00
TIE-IN DEPTH	 TVD (m)	 =	387.00
SURFACE CO-ORDINATE	 N(+)/S(-) (m)	 =	.00
SURFACE CO-ORDINATE	 E(+)/W(-) (m)	 =	.00
LAST SURVEY CO-ORDINATE	.. N(+)/S(-) (m)	 =	-96.36
LAST SURVEY CO-ORDINATE	.. E(+)/W(-) (m)	 =	214.90

TABLE OF SURVEY RESULTS:

MEAS'D DEPTH	DEV. ANGLE (DEG)	TRUE DIREC- TION	TRUE VERTICAL DEPTH	CO-ORDINATES LATITUDE	DEPARTURE	VERTICAL SECTION	DOG LEG (°/30m)
387.00	.00	N00E	387.00	.00	.00	.00	.00
525.00	.75	N77E	525.00	.20 N	.88 E	.72	.16
* 590.00	.75	N62.8E	589.99	.49 N	1.67 E	1.32	.09
* 628.00	.75	N54.5E	627.99	.75 N	2.10 E	1.61	.08
667.00	.75	N46E	666.98	1.08 N	2.49 E	1.83	.08
815.00	1.00	N52E	814.97	2.54 N	4.20 E	2.79	.05
834.00	3.00	N80E	833.95	2.73 N	4.82 E	3.28	3.42
853.00	4.75	S89E	852.91	2.81 N	6.10 E	4.42	2.99
866.00	6.00	S76E	865.85	2.63 N	7.30 E	5.58	4.01
* 868.00	6.22	S75.6E	867.84	2.58 N	7.50 E	5.79	3.36
884.00	8.00	S72E	883.72	2.02 N	9.40 E	7.75	3.44
903.00	10.00	S67E	902.48	.97 N	12.18 E	10.72	3.39
922.00	12.25	S67E	921.13	.47 S	15.55 E	14.38	3.55
941.00	14.00	S65E	939.63	2.22 S	19.49 E	18.69	2.85
971.00	15.50	S65E	968.64	5.45 S	26.41 E	26.33	1.50
999.00	15.50	S60E	995.62	8.90 S	33.04 E	33.80	1.43
* 1019.00	16.39	S60.0E	1014.85	11.65 S	37.80 E	39.26	1.34
1027.00	16.75	S60E	1022.52	12.79 S	39.78 E	41.53	1.35
1055.00	17.50	S55E	1049.28	17.22 S	46.72 E	49.68	1.77
1083.00	19.00	S51E	1075.87	22.51 S	53.71 E	58.22	2.09
1116.00	20.00	S55E	1106.98	29.13 S	62.51 E	68.96	1.52
1155.00	18.25	S60E	1143.83	36.01 S	73.26 E	81.58	1.84
1201.00	20.75	S69E	1187.20	42.33 S	87.12 E	96.89	2.54

WHIPSTOCK

WELL NAME: PARAMOUNT et al CAMERON HILLS I-10

MEAS'D DEPTH	DEV. ANGLE (DEG)	TRUE DIREC- TION	TRUE VERTICAL DEPTH	CO-ORDINATES		VERTICAL SECTION	DOG LEG (°/30m)
1229.00	21.00	S68E	1213.36	46.19 S	96.40 E	106.86	.47
1258.00	21.50	S66E	1240.39	50.30 S	106.07 E	117.36	.91
1286.00	22.25	S69E	1266.37	54.28 S	115.71 E	127.79	1.44
1314.00	23.25	S72E	1292.19	57.89 S	125.91 E	138.58	1.64
*1327.80	23.63	S70.5E	1304.86	59.65 S	131.11 E	144.04	1.54
1341.00	24.00	S69E	1316.93	61.50 S	136.11 E	149.36	1.61
*1363.00	24.00	S68.2E	1337.03	64.76 S	144.44 E	158.30	.44
1369.00	24.00	S68E	1342.51	65.67 S	146.71 E	160.74	.42
*1387.00	23.68	S67.4E	1358.98	68.44 S	153.44 E	168.01	.67
1397.00	23.50	S67E	1368.14	69.99 S	157.13 E	172.01	.72
1438.00	23.50	S65E	1405.74	76.63 S	172.06 E	188.35	.58
*1445.00	23.25	S65.3E	1412.17	77.80 S	174.58 E	191.13	1.18
*1450.00	23.07	S65.4E	1416.76	78.62 S	176.37 E	193.10	1.11
1466.00	22.50	S66E	1431.51	81.17 S	182.01 E	199.29	1.15
*1479.00	22.33	S65.7E	1443.53	83.20 S	186.54 E	204.25	.47
1504.00	22.00	S65E	1466.68	87.13 S	195.11 E	213.68	.51
*1534.50	21.71	S65.0E	1494.99	91.93 S	205.40 E	225.03	.29
1556.00	21.50	S65E	1514.98	95.28 S	212.57 E	232.95	.29
1563.00	21.50	S65E	1521.49	96.36 S	214.90 E	235.52	.00

=====

TOTAL CALCULATED HORIZONTAL DISPLACEMENT IS : 235.52 m.
ON A BEARING OF: S 65.8483° E, FROM THE SURFACE LOCATION.

VERTICAL SECTION WAS CALCULATED USING THE LAST SURVEY COORDINATES:
N(+)/S(-) = -96.36 AND E(+)/W(-) = 214.90

* INTERPOLATED DEPTH

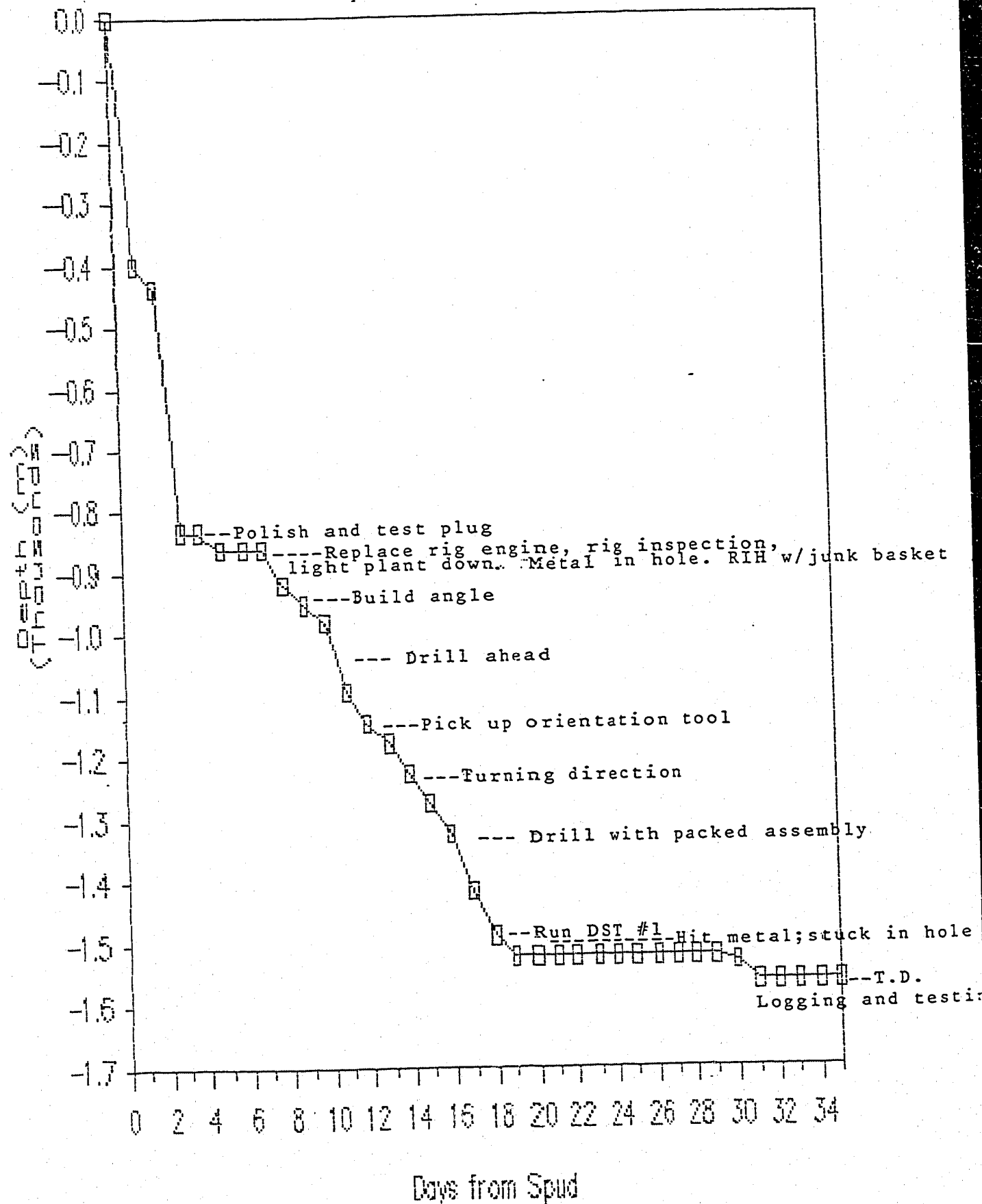
APPENDIX "D"

COMPOSITE WELL REPORT

FIGURE 2

DRILLING CURVE FOR I-10 WELL

Days from Spud vs. Depth



Page 100

Province		Field		LSD	Section	Township	Range	Operator		Operators Representative																		
N.W.T.		Cameron Hills		I	10		W	Paramount Resources		J. Dortch																		
Location		Contractor		Rig No.		Drawworks		Tool Pusher		Elevation:																		
Paramount Cameron Hills		Cactus		21		500 Emsco		Brian Evanyshyn		811.95																		
DRILL COLLARS		No.	O.D.	I.D.	Year / Month / Day		Time 00:00 to 24:00		Type		Liner																	
1.		6	171	73					1. Emsco 700		127																	
2.		14	159	73					2. Emsco 700		127																	
TOOL JOINTS		Make	Size	Type	O.D.	Spudded		Set Surface		Under Surface																		
1.		H.T.W.	4 1/2	E.H.	114					86 / 01 / 31 1000 hrs.																		
2.																												
Field Salesman		Stockpoint		Stkpt. Code		Lic. Formation:		Lic. Depth:		Lic. Number:																		
Lost Circulation Depths		Key Seat Depths		Other Remarks - Reaming, Re-Drilling, Etc.		MUD TYPE		SPECIAL ADDITIVES		Daywork: From:																		
Nil				Side tracked at 837. Re-entry hole. Fish in hole from previous year operation		TO 1522 M. 1522		Gel chem		To:																		
						TO M.				Meterage: From:																		
						TO M.				To:																		
				Deviation 1563 - S - 65 - E 21 1/2°																								
		No.	Size	Make	Type	Jets	Serial	Depth Out	Metre Drilled	Hours	Accum. Hours	Metres Per Hour	DULL COND.				No. of DC	Force WL on Bit	R.P.M.	Ver. Dev.	Pump Pres.	SPM		Mud		Remarks Formation Etc.		
													T	B	G	OTHER						1	2	Density	Vis	WL		
		1	216	Reed	S13G	9.5	JH7528	827	Clean out	47.25	47.25	17.5	4	2	1	X	X	12	2.5	50	7/8	5	60		1100	63		
		2	216	HTW	J-2	14	10240	863		10.50	57.25	3.4	8	3	1	X	X	14	2.5	Dyna Drill	4 3/4	6	60		1100	60		
		3	216	HTW	J-3	11.1	99434	863	0	Iron	AT4	02	3	2	1	X	X	14	2.0	Dyna Drill	4 3/4	6	60		1100	59		
		4	216	Smith	F-2	15	XE7704	953	90		82.25	3.6	4	4	1	X	X	20	9	Dyna	14	6	60		1100	67		
		RR #3	216	HTW	J-3	9.5	99434	1093	140	19 1/4	101.50	7.2	3	3	1	X	X	20	16	Dyna	16	6	60		1130	62		
		RR #4	216	Smith	F-2	15	XE7704	1150	57	19 1/4	120.75	2.9	3	4	1	X	X	20	10	Dyna	18 1/4	75	58		1100	58		
		5	216	Reed	HP51	15	MO1184	1188	38	14 3/4	135.50	6.3	2	2	1	X	X	20	10	Dyna	20 3/4	75	58		1100	68		
		6	216	Smith	SDGH	15	EW0929	1273	105	13 3/4	149.25	14.0	3	2	1	X	X	20	14	80	21 1/2	75	58		1120	67		
		RR #5	216	Reed	HP51	13	MO1184	1325	52	10 1/2	159.75	4.9	3	2	1	X	X	20	14	80	23 1/4	7	60		1110	65		
		RR #6	216	Smith	SDGH	13	EW0929	1418	93	22.50	182.25	5.5	3	3	1	X	X	20	14	80	22 1/2	7	60		1120	62		
		RR #5	216	Reed	HP51	13	MO1184	1522	104																			

APPENDIX "E"

LITHOLOGY

GEOLOGICAL REPORT
PARAMOUNT ET AL CAMERON HILLS I-10
I-10, GRID 60°10'N, 117°30'W

PREPARED FOR
PARAMOUNT RESOURCES LTD.
MARCH 10, 1986

H. Steghaus
H. Steghaus, PH.D., P. Geol.

TABLE OF CONTENTS

	<u>Page No.</u>
PERTINENT DATA	1.
GEOLOGICAL MARKERS :	2.
SAMPLE DESCRIPTION	3.
D.S.T. SUMMARY	9.
GEOLOGICAL REMARKS	10.

PERTINENT DATA

WELL NAME: PARAMOUNT ET AL CAMERON HILLS I-10

LOCATION: I-10, GRID 60°10'N, 117°30'W

COORDINATES: Surface: 60°09'39.27"N, 117°30'03.54"W

ELEVATIONS: Ground: 811.95 m K.B.: 816.25 m

TOTAL DEPTH: Driller: 1563 m Logger: 1560 m

WELL TYPE: Exploratory

STATUS: Cased Well

OPERATOR: PARAMOUNT RESOURCES LTD.

CONTRACTOR: CACTUS DRILLING, RIG # 21

SPUD DATE: January 31, 1986 10⁰⁰h

RIG RELEASED: March 7, 1986 08⁰⁰h

DITCH SAMPLES: Company: 865 - 1563 m Government: 865 - 1563 m

CORED INTERVALS: None

D.S.T.: 3

LOG RECORD: COMPUTALOG, DIL 386.5 - 1559.3 m
CDCNL 386.5 - 1559.3 m

CASING RECORD: 244 mm Surface: 387 m
139.7 mm Surface: 1561.1 m

GEOLOGICAL MARKERS

MARKERS	PROGNOSIS m	SAMPLE m	LOG m	SUBSEA m	ISOPA m
Wabamun	(598)	-	590.0	+226.25	38.
Winterburn	-	-	628.0	+188.25	240.
Twin Falls	-	-	868.0	- 51.75	151.
Hay River	(1012)	-	1019.0 (1016.9)	-200.65	288.
Beaverhill Lake	(1312)	1335 (1311.5)	1327.8 (1304.9)	-488.65	32.
Muskwa	-	1365 (1338.9)	1363.0 (1337.0)	-520.75	22.
Slave Point	(1365)	1395 (1366.3)	1390.5 (1359.0)	-542.75	53.
Fort Vermilion	-	1435 (1403.0)	1425.0	-	
Watt Mountain	(1431)	1450 (1416.8)	1445.0 (1412.2)	-595.95	4.
Bistcho/Sulphur Point	(1452)	1460 (1426.0)	1450.0 (1416.8)	-600.55	26.
Muskeg Equivalent (no anhydrite)	(1491)	1485 (1449.1)	1478.3 (1443.5)	-627.25	23.
Keg River	(1525)	1505 (1467.6)	1504.0 (1466.7)	-650.45	28.
Pre-Devonian	(1558)	1540 (1500.1)	1533.75 (1495.0)	-678.75	
Pre-Cambrian	(1572)	1560 (1518.7)	-		

* Vertical depths in brackets

SAMPLE DESCRIPTION

PARAMOUNT ET AL CAMERON HILLS I-10
I-10, Grid 60°10'N, 117°30'W

- 1320 - 1325 m Shale, light gray to gray, slightly greenish,
calcareous, micromicaceous, part silty
- 1325 - 1330 m Shale, gray to dark gray, part more or less
calcareous, part micropyrritic;
stringers of siltstone, buff, calcareous
- BEAVERHILL LAKE 1335 m
- 1330 - 1335 m Shale, black to dark gray and dark brown, part
micromicaceous, slightly calcareous, part
micropyrritic
- 1335 - 1340 m Shale, black brown, part fissile, calcareous;
shale, gray, slightly calcareous, micropyrritic,
part micromicaceous;
stringers of limestone, buff, argillaceous
- 1340 - 1345 m Shale, black to dark gray, micropyrritic,
slightly calcareous to calcareous, part silty,
part micromicaceous;
stringers of siltstone, gray, calcareous
- 1345 - 1350 m Shale, black to brown and dark gray, slightly
calcareous to calcareous, part micromicaceous,
part micropyrritic, some pieces silty;
stringers of limestone, buff, few ostracods
- 1350 - 1355 m Shale, gray to black, few pieces brown, slightly
calcareous to calcareous, part micropyrritic,
part micromicaceous, few brachiopod spines;
stringers of limestone as above
- 1355 - 1360 m Shale, gray, slightly calcareous to calcareous,
micropyrritic, few pieces micromicaceous;
stringers of limestone, light gray, slightly silty

PARAMOUNT ET AL CAMERON HILLS I-10
I-10, Grid 60°10' N, 117°30' W

MUSKWA 1365 m

1360 - 1365 m Shale as above, dark gray to gray;
little shale, black, part white speckled, highly
calcareous;
stringers of limestone, gray to buff, mottled,
fossiliferous

1365 - 1370 m Shale, black, part white mottled (fossil debris),
non to highly calcareous, pyritic;
stringers of limestone as above

1370 - 1375 m Shale, dark gray to gray, slightly calcareous,
micropyrritic, few pieces silty;
limestone, gray and argillaceous to buff,
microcrystalline, some brachiopods

1375 - 1380 m Shale, greenish gray, calcareous, micropyrritic
and pyritic;
some limestone as above

1380 - 1390 m Shale, dark gray to gray, some pieces brownish,
micropyrritic, calcareous, part micromicaceous;
limestone, light gray to buff and tan, part
argillaceous, micro to cryptocrystalline, some
brachiopods

SLAVE POINT 1395 m

1390 - 1395 m Shale, green gray, micropyrritic, calcareous,
few pieces silty;
limestone, light gray to brown and buff,
argillaceous, crypto to microcrystalline, slightly
pyritic

1395 - 1400 m Limestone, brown to buff, crypto to micro-
crystalline, slightly micropyrritic, few brachiopod
fragments

1400 - 1405 m Limestone, brown to cream, mottled, part
fragmental, few pieces pelletoidal, crypto to
microcrystalline, part micropyrritic, trace
poor pin-point porosity, some condensate or
light oil staining

PARAMOUNT ET AL CAMERON HILLS I-100
I-10, Grid 60°10'N, 117°30'W

- 1405 - 1410 m Limestone, cream to light brown, crypto to microcrystalline, few pieces pelletoidal with poor to fair porosity, some faint oil or condensate staining, few brachiopods
- 1410 - 1415 m Limestone, cream to brown, crypto to microcrystalline, part fragmental, some coral debris, some poor to fair vuggy porosity, fair selective condensate or light oil stain
- 1415 - 1420 m Limestone as above, some very poor vuggy and intercrystalline porosity and some selective stain
- 1420 - 1430 m Limestone, cream to brown, part fragmental; some stylolites, crypto to microcrystalline, little patchy condensate stain, trace pinpoint porosity
- FORT VERMILION 1435 m
- 1430 - 1435 m Limestone as above, no porosity, no stain; anhydrite, white, micro to cryptocrystalline
- 1435 - 1445 m Limestone, brown to buff, part fragmental, micro to cryptocrystalline, small gastropod; little anhydrite, white to buff, microcrystalline
- WATT MOUNTAIN 1450 m
- 1445 - 1455 m Limestone and anhydrite as above; stringers or limbs of shale, green, part waxy, calcareous
- BISTCHO / SULPHUR POINT 1460 m
- 1455 - 1470 Calcareous shale grading to argillaceous limestone, black, microcrystalline, few fish remains, trace pyrobitumen, few gypsum nodular; stringers of anhydrite, buff, microcrystalline, little limestone, buff to tan, anhydritic, micro to cryptocrystalline

PARAMOUNT ET AL CAMERON HILLS I-100
I-100, Grid 60°10'N, 117°30'W

- 1470 - 1475 m Limestone, brown to cream, microcrystalline;
shale, green waxy, finely pyritic, calcareous
- 1475 - 1480 m Limestone as above;
little shale green gray, waxy, finely pyritic,
calcareous
- MUSKEG 1485 m
- 1480 - 1485 m As above, limestone part fragmental;
dolomite, brown to buff, micro to finely crystalline,
trace very poor intercrystalline porosity, some
faint oil or condensate stain, some yellow
fluorescence; trace interstitial bitumen;
stringers of shale, black, micropyrític
- 1485 - 1490 m Dolomite, brown to buff, finely to microcrystalline,
some poor intercrystalline porosity, faint
stain, fair yellow fluorescence
- 1490 - 1495 m Dolomite, buff to brown, micro to finely crystalline,
little poor vuggy and intercrystalline porosity,
faint staining common, some yellow fluorescence
- 1495 - 1500 m Dolomite, brown to tan, finely to microcry-
stalline, some vuggy and pin-point porosity,
extensive faint stain and yellow fluorescence
- KEG RIVER 1505 m
- 1500 - 1510 m Dolomite, tan to brown, micro to finely crystalline,
some coral fragments with fair porosity, little
poor intercrystalline porosity, faint oil or
condensate stain, yellow fluorescence
- 1510 - 1515 m Dolomite, brown to cream, micro to finely
crystalline, poor to very poor intercrystalline and
pin-point porosity, extensive faint oil or condensate
stain, yellow fluorescence

PARAMOUNT ET AL CAMERON HILLS I-100
I-100, Grid 60°10' N, 117°30' W

- 1515 - 1520 m Dolomite, brown to cream, micro to very finely crystalline, very poor intercrystalline and trace vuggy porosity, some faint oil or condensate stain and yellow fluorescence; trace anhydrite, white to tan, microcrystalline
- 1520 - 1525 m Mainly cavings;
little dolomite as above
- 1525 - 1530 m Dolomite, brown to tan, finely to very finely crystalline, fair to good intercrystalline porosity, faint staining, dull light brown fluorescence
- 1530 - 1535 m Dolomite as above, part buff and tight

PRE-DEVONIAN 1540 m
- 1535 - 1540 m Dolomite as above;
quartzite, milky to clear
- 1540 - 1555m Quartzite, clear to milky, part pyritic

PRE-CAMBRIAN 1560 m
- 1555 - 1563 m Granite, pink, weathered

PARAMOUNT ET AL CAMERON HILLS I-100
I-100, Grid 60°10'N, 117°30'W

This sample was retrieved in a hollier basket
after milling on bottom of hole

1522.0 - 1522.7 m 0.7 m Dolomite, brown, micro to very finely
crystalline, bottom part tan mottled and probably
pene - contemporaneous conglomerate, lasts about
1 cm, matrix darker, some closed gypsum filled
fractures up to 2 mm wide, intermittent very
poor intercrystalline porosity, light oil stained,
spotty oil bleeding, yellow fluorescence,
white to bright yellow streaming cut.

This sample was cut when milling on bottom
with hollier basket

D.S.T. SUMMARY

Test #1

1480 - 1522 m; Muskeg/Keg River

10/60/120/240

PF: WAB - SAB in 5 min; NGTS

VO: SAB: GTS in 5 min., flowing at
2413 m³/d in 120 min.Recovery: 60 m drilling mud, H₂S cut

IHP:	15817 kPa	FHP:	15817 kPa
PFP:	652 kPa		
IFP:	279 kPa	FFP:	1025 kPa
ISIP:	9646 kPa	FSIP:	9461 kPa

Test #2

1451 - 1469 m; Sulphur Point

16/60/60/120

PF: VWAB, dead after 5 min.

VO: VWAB, dead after 8 min.

Recovery: See D.S.T. No. 3

IHP:	16119 kPa	FHP:	15646 kPa
PFP:	568 kPa		
IFP:	568 kPa	FFP:	568 kPa
ISIP:	663 kPa	FSIP:	568 kPa

Test #3

1392 - 1410 m; Slave Point

10/82/60/120

PF: WAB - SAB in 4 min. NGTS

VO: FAB - SAB in 1 min., slightly decreasing
NGTSRecovery: 133 m of inhibitor cut mud from D.S.T.
No. 2 and 3

IHP:	16024 kPa	FHP:	14983 kPa
PFP:	758 kPa		
IFP:	758 kPa	FFP:	1136 kPa
ISIP:	8963 kPa	FSIP:	8293 kPa

GEOLOGICAL REMARKS

Paramount et al Cameron hills I-10 is a re-entry of EXCO et al Cameron hills I-10. Both wells targeted in unit L-80 immediately to the east of I-10.

Paramount I-10 was drilled to a measured depth of 1563m (true vertical 1521.49m) on a bearing of S 65.8467°E with a horizontal displacement of 235.52m.

The bottom of EXCO I-10 is located on 340° from Paramount I-10. The horizontal distance is 174m.

Since EXCO I-10 could not be logged, sample tops have been used to compare the two holes. All depths quoted below are true vertical.

PRECAMBRIAN

EXCO I-10 encountered gray granite at a vertical depth of 1578.8m. Paramount I-10 encountered pink granite at 1518.7m.

PREDEVONIAN

In EXCO I-10, the Predevonian is represented by a schist in Paramount I-10 by a quartzite. A thin layer of sandstone on top of the schist is probably the product of weathered quartzite. Prior to drilling Paramount I-10 this sandstone was thought to be granite wash, the different colours of the Precambrian granite combined with the fairer change (schist - quartzite) suggest tectonic activities prior to and during the deposition of the now metamorphic rocks, the uniform thickness of the metamorphic rocks suggests the Predevonian erosional surface being a pene-plain. This assumption is enhanced by the uniform thickness of the transgressive Keg River dolomite.

KEG RIVER

At EXCO I-10 the Keg River is a micro to medium crystalline dolomite with very poor to fair porosities and occasionally little interstitial bitumen. In Paramount I-10 the dolomite is micro to finely crystalline with fair to good porosity at the bottom of the section. The rocks are partly oil stained and displayed a dull light brown fluorescence.

MUSKEG

The Muskeg at EXCO I-10 is 62.7m thick. At Paramount I-10 it is only 18.6m thick. The rocks are finely to cryptocrystalline dolomites with scattered porosity and oil staining. Anhydrite increases with increase of thickness of section. The increase in thickness was probably caused by down-faulting.

TECTONICS

1. Precambrian pene-plain with fault between, EXCO I-10 and Paramount I-10. Fault perhaps still slightly active during deposition of Predevonian sediments.
2. Reactivation of fault during Muskeg. EXCO I-10 down-faulted by about 60m.
3. Compensation by increasing deposition mainly within Muskeg.
4. Pene-plain re-established at the end of Slave Point deposition.

APPENDIX "F"

FLUID ANALYSIS

CHEMEX**Labs Alberta (1984) Ltd.****GAS
ANALYSIS**

CONTAINER IDENTITY

TOOL #1547

LABORATORY NUMBER

85-6639-1

LICENCE NO

OPERATOR NAME AND ADDRESS

PARAMOUNT RESOURCES LTD.

CPA NUMBER

WELL NAME

CAMERON HILLS PARAMOUNT I-10

KB

ELEVATIONS
METERS

816.79

811.95

FIELD OR AREA

CAMERON HILLS

POOL OR ZONE

*

NAME OF SAMPLER

COMPANY

QUINN TESTERS

TEST RECOVERY

TEST TYPE

NO

DST

1

MULTIPLE RECOVERY

TEST INTERVAL

FROM

1480.0

m

TO

1522.0

m

PERFORATIONS

FROM

TO

m

60 M MUD

SAMPLING POINT

DOWNHOLE SAMPLER # 1547

AMT & TYPE OF CUSHION

MUD RESISTIVITY

225

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m/d

OIL

m/d

GAS

m/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

750

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

Y M D H-M

86-02-19

Y M D

86-02-24

Y M D

86-02-26

R.D.

PROPERTIES**RELATIVE DENSITY**

MOISTURE FREE AS SAMPLED

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.659

MEASURED

CALCULATED

0.599

CALCULATED PSEUDO CRITICAL PROPERTIES

AS SAMPLED

ACID GAS FREE

PPC

PTC

PPC

PTC

4784.2

203.5

4600.9

196.4

CALCULATED GROSS HEATING VALUE (mj/m³)

@ 101.35 KPa @ 15 °C

@ 14.65 PSIA @ 60 °F DRY

A.P.M.C. (AGA #5)

MOISTURE AND ACID GAS FREE

ACID GAS FREE

ACID GAS INCL

36.64

39.25

39.05

36.49

REMARKS

* BISTCHO SULPHUR POINT

TOOL HAD AN OPENING PRESSURE OF 1000 KPA.

TOOL CONTAINED 25180 ML GAS, 350 ML MUD.

H2S = 200 PPM

COMP	MOL FRACTION AIR FREE AS REC'D	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME ml m ³ AIR FREE AS REC'D
H ₂	0.0004	0.0004	
He	0.0003	0.0003	
N ₂	0.0178	0.0171	
CO ₂	0.0655	0.0000	
H ₂ S	0.0002	0.0000	
C ₁	0.8777	0.9394	
C ₂	0.0175	0.0187	
C ₃	0.0104	0.0111	38.04
iC ₄	0.0021	0.0022	9.13
nC ₄	0.0039	0.0042	16.34
iC ₅	0.0012	0.0013	5.84
nC ₅	0.0012	0.0013	5.78
C ₆	0.0008	0.0009	4.30
C ₇₊	0.0005	0.0005	3.00
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	82.43

CHEMEX Labs Alberta (1984) Ltd.

WATER
ANALYSIS

CONTAINER IDENTITY TOOL # 1547		LABORATORY NUMBER 85-6639-2	
LICENCE NO.		OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.	
CPA NUMBER	WELL NAME CAMERON HILLS PARAMOUNT I-10	KB 816.79	GRD 811.95
FIELD OR AREA CAMERON HILLS	POOL OR ZONE *	NAME OF SAMPLER	COMPANY QUINN TESTERS
TEST RECOVERY 60 M MUD			
TEST TYPE DST	NO 1	SAMPLING POINT DOWNHOLE SAMPLER # 1547	
MULTIPLE RECOVERY		AMT & TYPE OF CUSHION	MUD RESISTIVITY @ 25°C
TEST INTERVAL FROM 1480.0 m		TYPE OF PRODUCTION	
TO 1522.0 m		PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐	
PERFORATIONS FROM		PRODUCTION RATES	
TO		WATER m ³ /d OIL m ³ /d GAS 10 ³ m ³ /d	
DATE SAMPLED Y M D H M 86-02-19		DATE RECEIVED Y M D 86-02-24	
DATE REPORTED Y M D 86-02-26		ANALYST Y.B., A.A.	

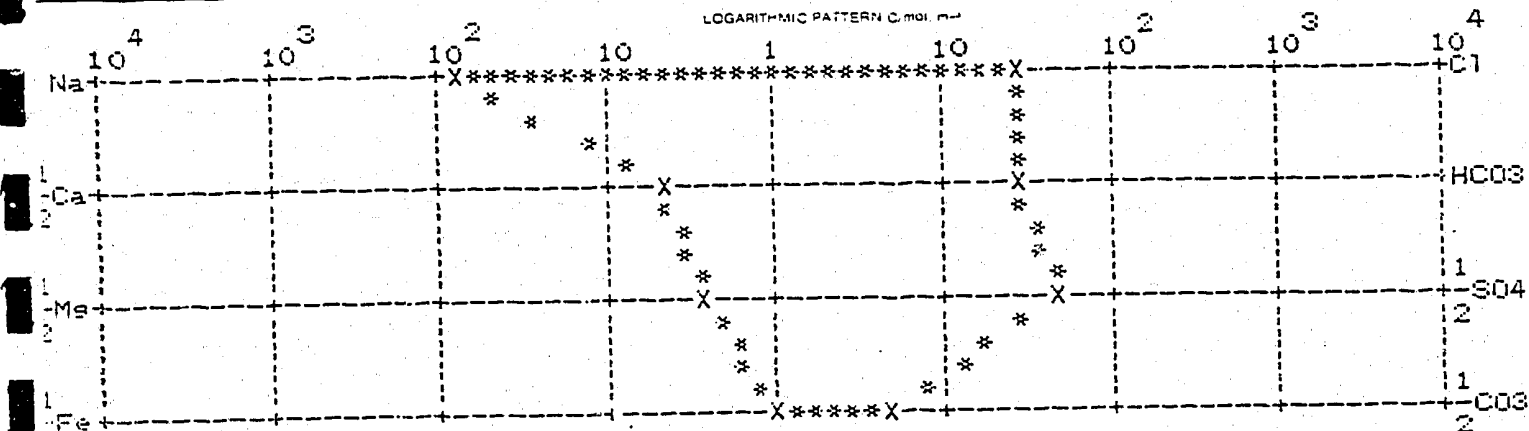
ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Na	2270		93.7
K	23.3		<1
Ca	110		2.8
Mg	35		1.5
Ba			
Sr			
Fe	0.32		<1

ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Cl	1070		30.1
Br			
I			
HCO ₃	1880		30.8
SO ₄	2630		27.4
CO ₃	160		2.7
OH	0		
H ₂ S	ABSENT		

TOTAL SOLIDS C.g. m. ⁻³	
BY EVAPORATION @ 110°C 6760	BY EVAPORATION @ 180°C 7223
AT IGNITION 6760	CALCULATED 7223

PROPERTIES	
RELATIVE DENSITY 1.005 @ 25 °C	REFRACTIVE INDEX 1.336 @ 25 °C
OBSERVED PH 8.6 @ 25 °C	RESISTIVITY Ωm 1.350 @ 25 °C

LOGARITHMIC PATTERN C.mol. m.⁻³



TOOL HAD AN OPENING PRESSURE OF 1000KPA.
TOOL CONTAINED 25188 ML GAS, 350 ML MUD.
*BISTCHO SULPHUR POINT

REMARKS



CHEMICAL & GEOLOGICAL LABORATORIES LTD.



CONTAINER IDENTITY		LABORATORY NUMBER	
		G86-1069	
LICENCE NUMBER		OPERATOR NAME	
		PARAMOUNT RESOURCES LTD.	
LOCATION		WELL NAME	
L-80 (NWT)		PARAMOUNT CAMERON HILLS L-80	
FIELD OR AREA		POOL OR ZONE	
CAMERON HILLS		SLAVE POINT-SLAVE POINT	
TEST TYPE		TEST RECOVERY	
DST		133 M	
NO.			
283			
Y N			
MULTIPLE RECOVERY			
X			
SAMPLING POINT		AMT. & TYPE OF CUSHION	
SEE BELOW			
TYPE OF PRODUCTION		MUD RESISTIVITY	
PUMPING		@ 25°C	
FLOWING			
GAS LIFT			
SWAB			
PRODUCTION RATES			
WATER m ³ /d		OIL m ³ /d	
GAS 10 ³ m ³ /d			
SEPARATOR		TREATER	
RESERVOIR		SOURCE	
GAUGE PRESSURE kPa			
SEPARATOR		TREATER	
RESERVOIR		SOURCE	
TEMPERATURE °C			
DATE SAMPLED (Y-M-D)		DATE RECEIVED (Y-M-D)	
86/03/05		86/03/24	
DATE REPORTED (Y-M-D)		ANALYST	
86/03/27		K.M.	
OTHER INFORMATION			

G86-1069-1: Sampled from Top
RESISTIVITY: 1.36 Ohm metres @ 25°C
Watery mud.

G86-1069-2: Sampled from Middle
RESISTIVITY: 0.400 Ohm metres @ 25°C
Watery mud.

CHEMEX**Labs Alberta (1984) Ltd.**OIL
ANALYSIS

CONTAINER IDENTITY

PLASTIC

LABORATORY NUMBER

85-6879-1

LICENCE NO.

OPERATOR NAME AND ADDRESS

PARAMOUNT RESOURCES LTD.

CPA NUMBER

WELL NAME

PARAMOUNT ET AL CAMERON HILLS I-10

KB

ELEVATIONS
METERS

G

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

CAMERON HILLS

TEST RECOVERY

TEST TYPE

NO.

MULTIPLE RECOVERY

TEST INTERVAL
FROM

TO

PERFORATIONS
FROM

TO

SAMPLING POINT

WELLHEAD

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@ 25 °C

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER m³/dOIL m³/dGAS m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE RECEIVED

DATE RECEIVED

Y M D H:M

Y M D

Y M D

Y M D

86-03-25

86-03-27

D.D.

SAMPLE PROPERTIES

COLOR OF CLEAN OIL

BLACK

VOLUME FRACTION

WATER

0.580

BS

TRACE

TOTAL BS & W

0.580

DENSITY OF CLEAN OIL

RELATIVE

0.862

API

32.7

ABSOLUTE

862.

TOTAL SULPHUR
MASS FRACTION

0.0070

RVP

POUR POINT °C
ASTM

12

VISCOSITY

TEMP
°CDYNAMIC
mPa.sKINEMATIC
mm²s⁻¹

30

6.66

7.82

40

5.46

6.45

50

4.51

5.37

MARKS

DISTILLATION

VOLUME
FRACTION
DISTILLEDTEMP.
°C

0.05 103

0.10 127

0.15 153

0.20 173

0.25 196

0.30 218

0.35 238

0.40 261

0.45 283

0.50 304

0.55 321

0.60 337

0.65 344

0.70 361

0.75 369

FBP

CRACKED 371

METHOD BAROM PRESS
kPa

ASTM D-86

93.5

ROOM TEMP °C

23

INITIAL BOIL PT °C

66

DISTILLATION SUMMARY
VOLUME FRACTION

204 °C NAPHTHA

0.27

274 °C KEROSENE

0.16

343 °C LIGHT GAS/OIL

0.20

RECOVERED

0.80

RESIDUE

0.20

DISTILLATION LOSS

0.00

RELATIVE DENSITY

DISTILLATE

0.821

RESIDUE

BASE TYPE

CHARACTERIZATION
FACTOR

TIGHT HOLE

WATER ANALYSIS

TIGHT HOLE
WATER = 58% BS = TRACE
API ON CLEAN OIL = 35.5

APPENDIX "G"

FORMATION STIMULATION

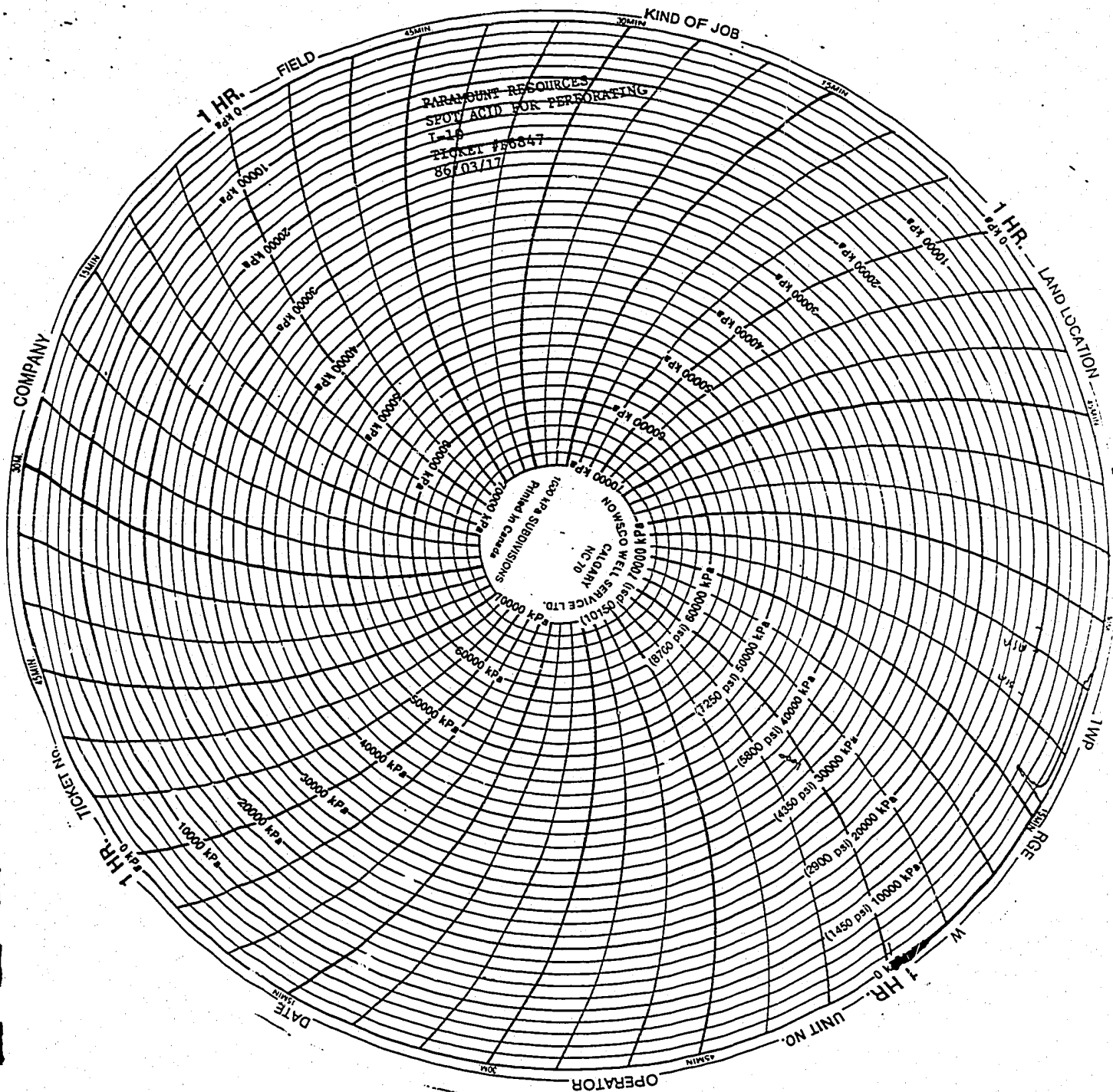
WELL SERVICE LTD.

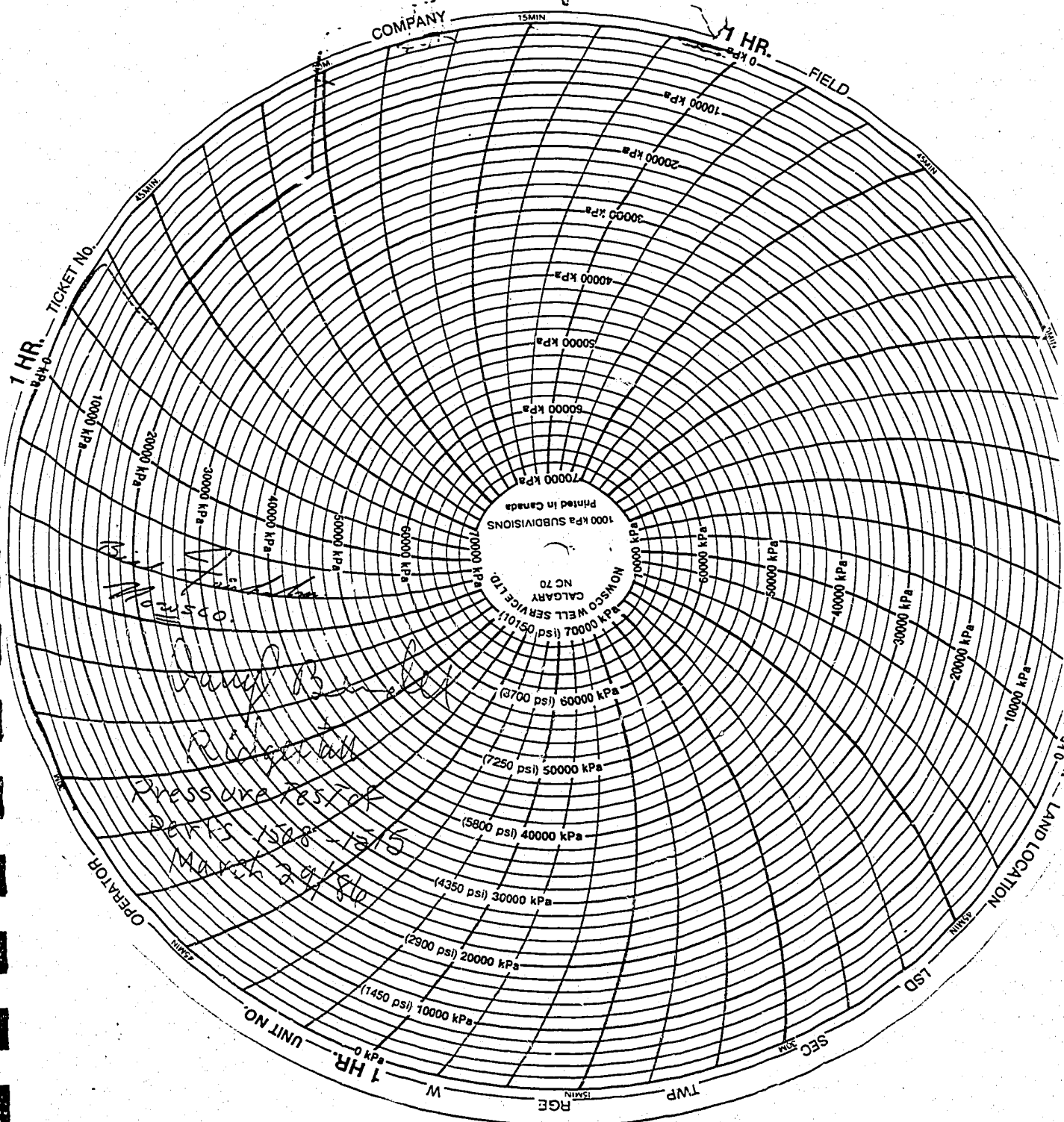
TREATMENT REPORT
ACIDIZING

TYPE OF TREATMENT						DATE <u>March 17, 1986</u>									
Spot acid for perforating						OUR SERVICE ORDER # <u>F6847</u>									
OWNER				WELL NAME AND AND NUMBER				LOCATION							
Paramount Resources				Paramount et al Cameron				LSDI-18EC TWP RGE W							
PROVINCE		MAILING ADDRESS													
N.W.T.															
FORMATION						TUBING:		SIZE		LINEAR DENSITY		DEPTH		PACKER DEPTH	
Keg River								73.0 mm		kg/m		1524 m			
CASING:		SIZE		LINEAR DENSITY		DEPTH		CASING []		VOLUME		TUBING []		ALLOWABLE PRESSURE	
139.7 mm		kg/m		m		m'		m'		m'		CSG. kPa		TBC kPa	
O.H.		PERF.		SANDJET		CHECK ZONE TREATED		TREATING MATERIALS							
O.H. SIZE		SHOTS/m		FROM				TO		TYPE				AMOUNT	
mm				m		m		15% HCL				1.0m ³			
mm				m		m									

**PREVIOUS TREATMENT
RECORD (SHOW DATES)**

[illegible]





TREATMENT REPORT
ACIDIZING

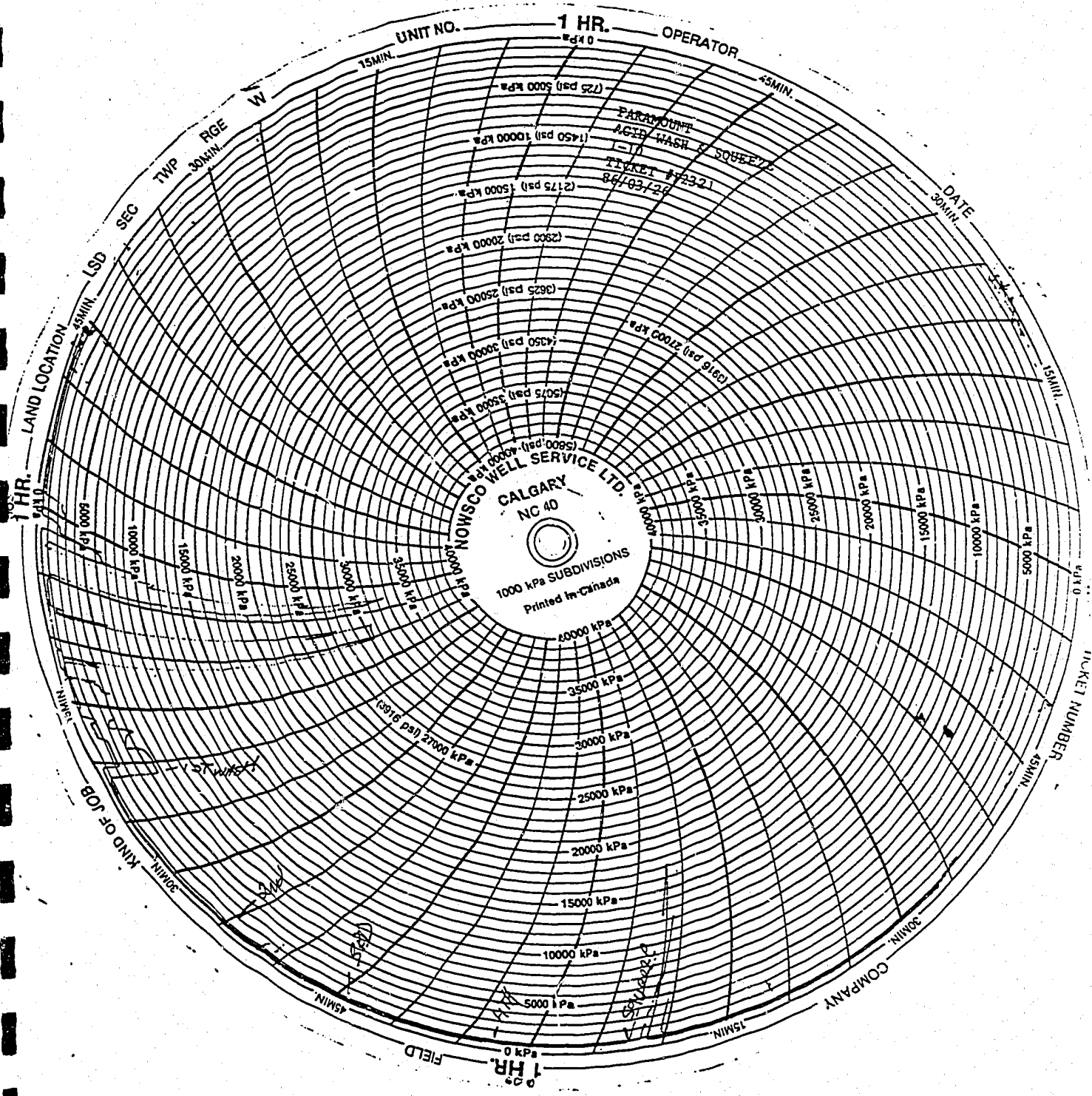
PREVIOUS TREATMENT
RECORD (SHOW DATES)

[illegible]

TREATMENT REPORT
ACIDIZING

PREVIOUS TREATMENT
RECORD (SHOW DATES)

N-007



UNIT NO.

1 HR.

OPERATOR

DATE

TICKET NUMBER

CALGARY
NC 40

1000 kPa SUBDIVISIONS
Printed in Canada

NOWSCO WELL SERVICE LTD.

LAND LOCATION

KIND OF JOB

COMPANY

1 HR.

FIELD

CUSTOMER Paramount Resources		LOCATION I-10	SERVICE ORDER G6633	DATE March 28, 1986
MAILING ADDRESS			WELL NAME Paramount et al Cameron Hills	
TYPE OF JOB	Surface ☐ Intermediate ☐ Production ☐ Liner ☐ Abandonment ☐	CONTRACTOR		PROVINCE
	Multistage ☐ Plug Back ☐ Squeeze ☒ Pumping ☐ Other ☐			

WELL DATA

Hole Size	mm	Total Depth	m	Mud Type	Viscosity	mPa's	Density	kg/m ³
CASING OR LINER	Size 139.7	mm	Lin. Density 23.07	kg/m	Grade J-55	Depth	m	TYPE OF PLUGS
	Size	mm	Lin. Density	kg/m	Grade	Depth	m	Top mm W R
						TOTAL	m	Btm mm W R
DRILL PIPE OR TUBING	Size 73.0	mm	Lin. Density 9.67	kg/m	Grade J-55	Depth 1523.0	m	TYPE OF HEAD
	Size	mm	Lin. Density	kg/m	Grade	Depth	m	PL ☒ Swage ☐ Oth.
PERFORATIONS:	From 1524.5	m To 1527	m	PUMP OUT LINES:	Yes ☐ No ☐	RETURNS:	CEMENT ☐ MUD ☐ OTHER	
	From 1508	m To 1515	m	FLOAT HOLDING:	Yes ☐ No ☐	FULL ☐ PARTIAL ☐ NIL AMT. ☐	m ³	
	From	m To	m	TYPE OF PACKER or SPECIAL TOOL: Site cement retainer DEPTH 1523.5 m				

TEMPERATURE °C	MIXING WATER °C	DRY CEMENT °C	SLURRY °C
----------------	-----------------	---------------	-----------

TIME ARRIVED AT LOCATION 06:30/28	TIME LEFT LOCATION 22:00/29
--	------------------------------------

CEMENT DATA				Density kg/m ³		Yield, m ³ /t	Total Yield, m ³		
Amount, t	Cement Blend	Additives		Slurry	D.H. Foamed		Slurry	D.H. Foamed	
Scum	4.0	0.1.0	1% NFL-1, .2% R-5	1901		.757	3		
FWZ	1.4	0.1.0	1% NFL-1, .3% R-5	1977		.699	1		
Tail In									
Fill									
Tail In									

CASING OR LINER DATA

PLUG BACK DATA

REMARKS	TIME		RATE m ³ /min.	PRESSURE, kPa		Volume Pumped m ³	Plug #	Top m	Btm. m	CEMENT t	Displacement m ³	T F
	Start	Finish		Max.	Min.							
Squeeze #1												
lines with water	19:32	19:34										
Pressure test	19:34	19:37		20000								
St. feed rate	19:44	19:54	.60			6.0						
atch mix cement	19:55	20:06										
isplace cement	20:08	20:16	.20			1.6						
Squeeze #1	20:16	20:34	.14			2.9						
Squeeze #2	20:34	20:35	.08			.08						
on vacuum	20:30											
atch mix cement	22:35	22:45										
ump cement	22:46	22:50										
isplace with water	22:50	23:02				3.5						
Squeeze #1	23:03	23:15	.05			.63						
Squeeze #2	23:28	23:29		3800	1000							
Squeeze #3	23:36	23:37		4000	1900							
Squeeze #4	23:38	23:39		11500	11500							
ull out												
Attempt to pump down tubing	00:17			22000								

PREFLUSH TYPE (m³)

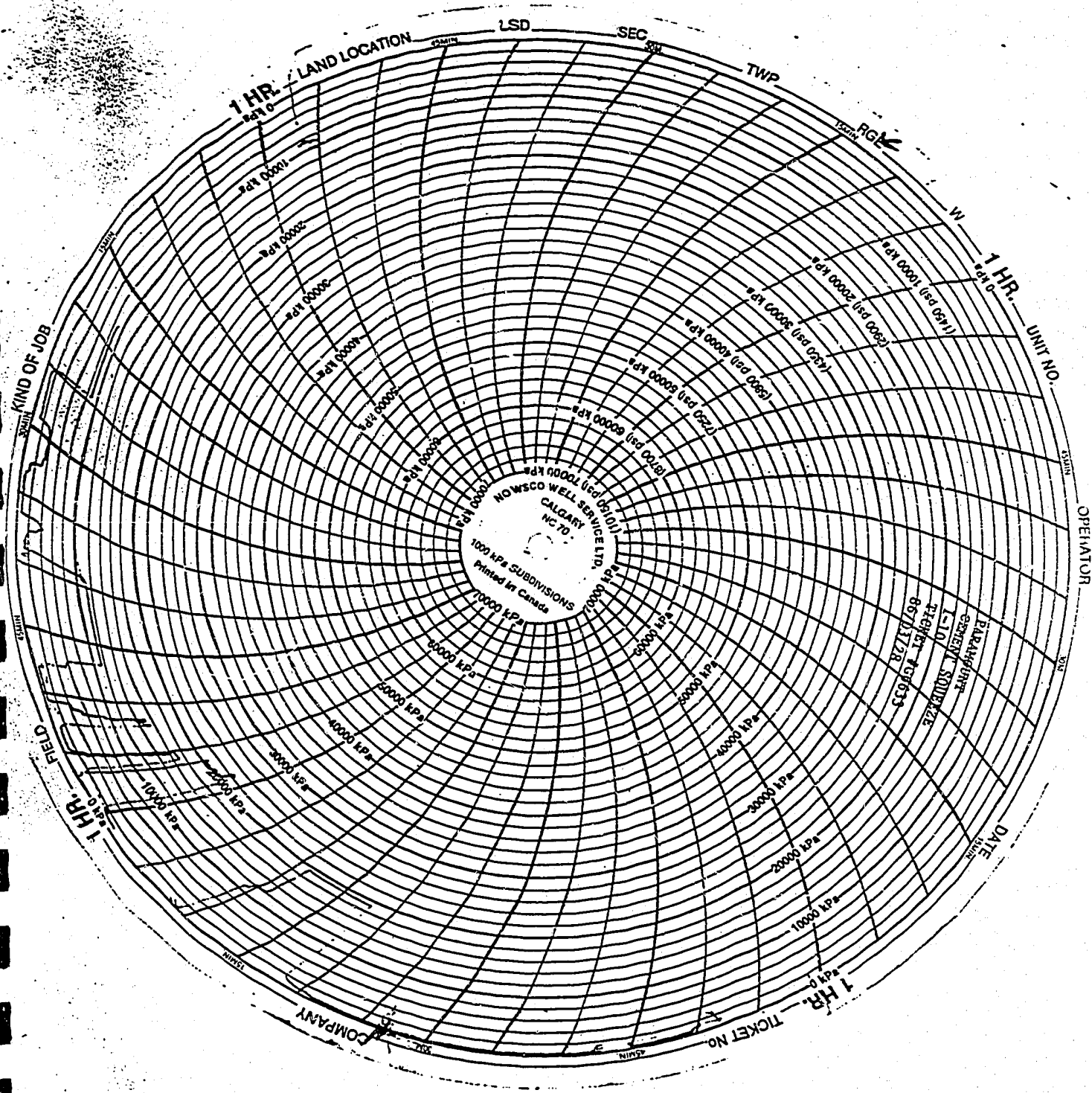
1. _____ 3. _____
2. _____ 4. _____

STAGE N₁ RATIOS (m³/m³)

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

SQUEEZE DATA (m³)

TOTAL SLURRY IN FORMATION _____
TOTAL SLURRY IN CASING _____
TOTAL BACKWASHED _____
TOTAL SLURRY _____



1 HR.

LAND LOCATION

LSD

SEC

TWP

RGM

WI

1 HR.

UNIT NO.

OPERATOR

DATE

TICKET NO.

COMPANY

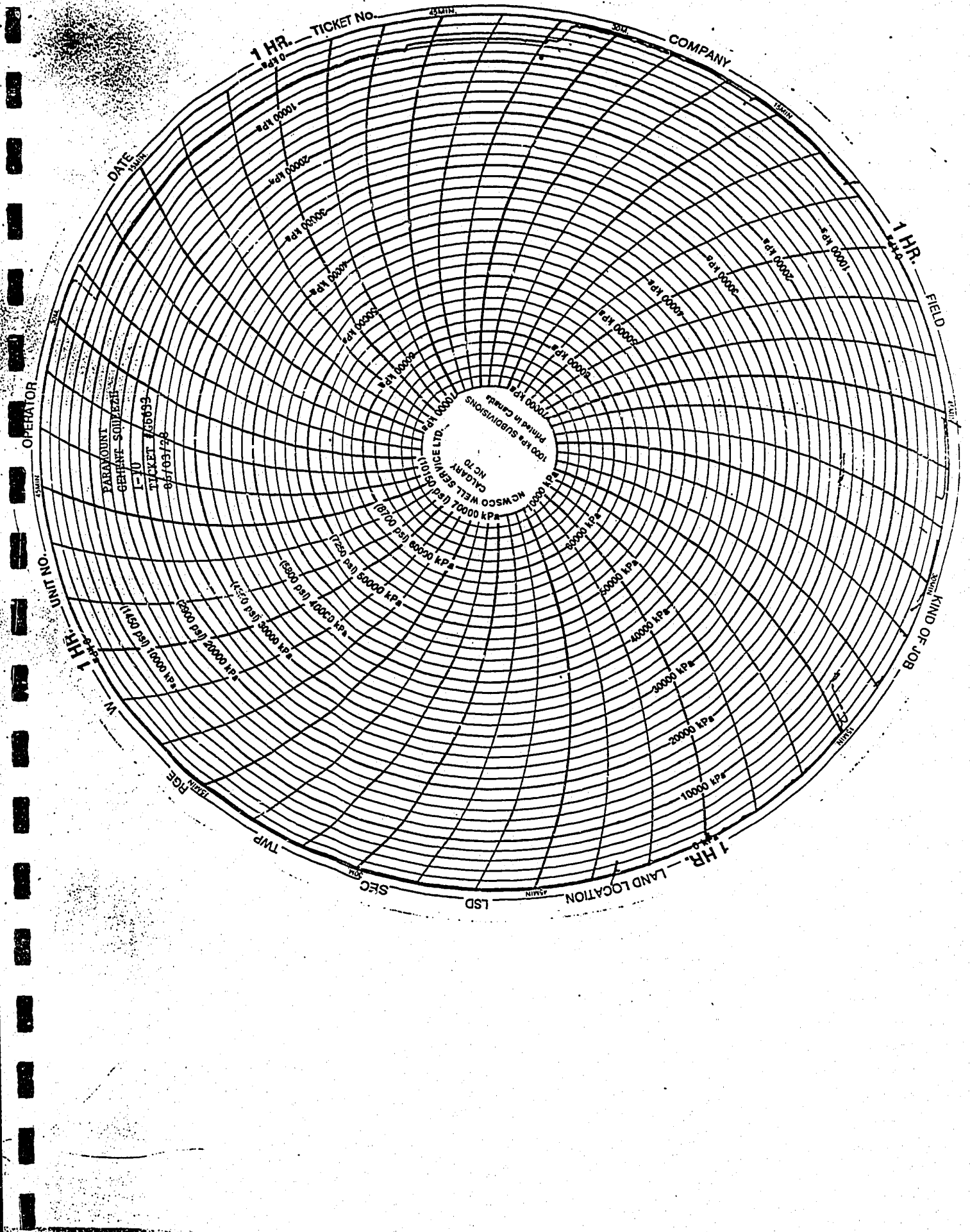
HOWSCO WELL SERVICE LTD.
CALGARY
CANADA
1000 kPa SUBDIVISIONS
Printed in Canada

PARAMOUNT
1-10
CEMENT SQUEEZE
857/1728

KIND OF JOB

FIELD

1 HR.



1 HR. — TICKET No.

COMPANY

DATE

1 HR. — FIELD

OPERATOR

PARAKOUNT
GENERAL SERVICE
L-10
TICKET 135699
85705148

1000 psi SUBDIVISIONS
Printed in Canada
CALGARY WELL SERVICE LTD.
CMWSCO WELL SERVICE LTD.
CMWSCO

KIND OF JOB

1 HR. — LAND LOCATION

SEC

TWP

RGE

UNIT NO.

1 HR.

NOWSCO

WELL SERVICE LTD.

TREATMENT REPORT
ACIDIZING

TYPE OF TREATMENT

Acid Wash & Squeeze

DATE March 31, 1986

OWNER

WELL NAME AND AND NUMBER

OUR SERVICE ORDER # F2336

Paramount

Paramount et al Cameron Hills

LOCATION

LSD I-150 TWP RGE W

PROVINCE

MAILING ADDRESS

N.W.T.

FORMATION

Keg River

TUBING SIZE LINEAR DENSITY DEPTH PACKER DEPTH
73.0 mm 9.67 kg/m 1515 m

CASING SIZE LINEAR DENSITY DEPTH CASING VOLUME TUBING ALLOWABLE PRESSURE
139.7 mm 20.83 kg/m 12.46 m' 17.03 m' 4.57 m' CSG kPa TBG

O.H.		PERF.		SANDJET		CHECK ZONE TREATED	TREATING MATERIALS	
O.H. SIZE	SHOTS/m	FROM	TO	TYPE			AMOUNT	
mm	13	1508m	1515 m		15% HCL			4.0m ³
mm		m	m					

PREVIOUS TREATMENT RECORD (SHOW DATES)

TIME	PRESSURE kPa		m ³ ☐ or L ☐ OF FLUID		ARRIVED AT LOCATION	LEFT LOCATION
	CASING	TUBING	OUT OF TANKS	PER READING	IN FORMATION	PER MINUTE
03:19				3.2		Fill hole with KCL
03:25			3.2			5.3 Stop
03:26						Pressure test
03:30	21000					Stop
03:33		6500		4.0		Pump acid, 15% HCL
03:41		3900	7.2			.50 Stop
03:41		4100		.72		Displace with KCL
03:43		3600	7.92			.36 Stop
03:47		1100		.12		Wash #1
03:48		900	8.04			.12 Stop
03:53		2800		.12		Wash #2
03:54		2700	8.16			.12 Stop
03:57		3100		.12		Wash #3
03:58		3000	8.28			.12 Stop
04:03		3700				Wash #4
04:04		3600	8.4			.12 Stop
04:08		6100		.12		Wash #5
04:09		6000	8.52			.12 Stop
04:15		6000		.12		Wash #6
04:16		5100	8.64			.12 Stop
04:21		48000		.12		Wash #7
04:22		7900	8.76			.12 Stop
04:27		8200		.12		Wash #3
04:28		8100	8.88			.12 Stop

WELL SERVICE LTD.

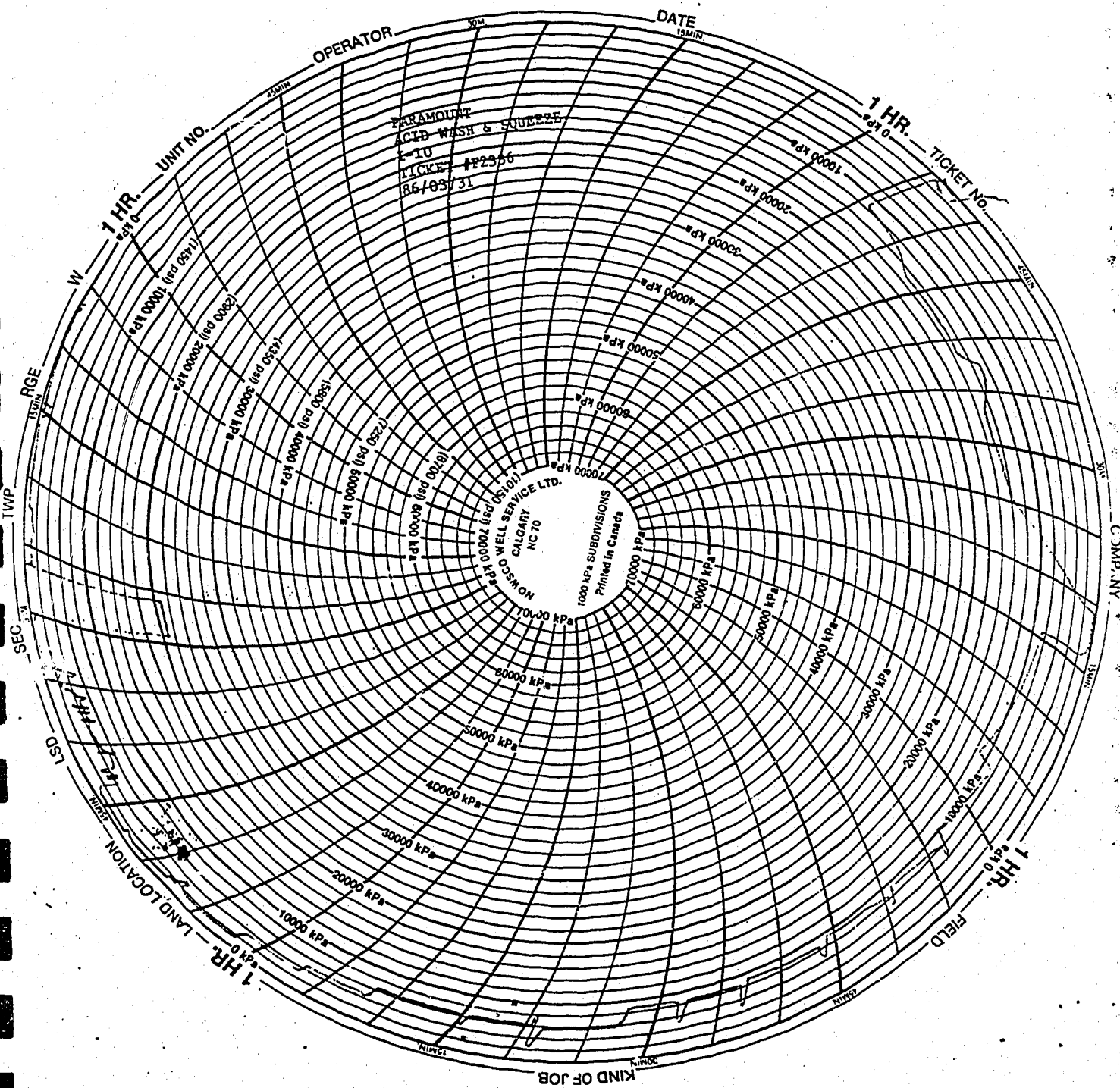
TREATMENT REPORT
ACIDIZING

Page #2

TYPE OF TREATMENT Acid Wash & Squeeze				DATE March 31, 1986			
OWNER Paramount				OUR SERVICE ORDER # F2336			
WELL NAME AND AND NUMBER				LOCATION			
PROVINCE		MAILING ADDRESS					
FORMATION				TUBING: SIZE LINEAR DENSITY DEPTH PACKER DEPTH			
CASING		SIZE		LINEAR DENSITY		DEPTH	
mm		kg/m		m		m	
CASING		VOLUME		TUBING		ALLOWABLE PRESSURE	
mm		m'		m'		CSG. kPa TBG kPa	
O.H.		PERF.		SANDJET		CHECK ZONE TREATED	
O.H. SIZE		SHOTS/m		FROM TO		TREATING MATERIALS	
mm		m		m		TYPE	
mm		m		m		AMOUNT	

PREVIOUS TREATMENT
RECORD (SHOW DATES)

[illegible]



PARAMOUNT
ACID WASH & SQUEEZE
110
TICKET #22356
86/03/31

NOVA SUBDIVISIONS
Printed in Canada
CALGARY
NC 70
WELL SERVICE LTD.
1000 kPa

1 HR.
LAND LOCATION

1 HR.
FIELD

KIND OF JOB

COMPANY

APPENDIX "H"

PRESSURE TESTS

QUINN TESTERS OF CANADA LTD.

TEST DATA

PHONE 290-1704

CALGARY, ALBERTA

CUSTOMER PARAMOUNT RESOURCES DATE 86-02-19 TEST NO. ONE
 LOCATION CAMERON HILLS PARAMOUNT I-10 FORMATION BISTCHO
SULPHUR POINT
 TEST INTERVAL 1480 TO 1522 T.D. 1522 TEST TYPE DBH
 CUSTOMER REP. MR. JOHN DORTCH TESTER TED MONCRIEFF

TEMP Rec./No. <u>14146</u>	INS Rec./No. <u>19578</u>	OUT Rec./No. <u>15371</u>	OUT Rec./No. <u>19160</u>	Rec./No. _____
<u>24</u> Hr. <u>2</u> - <u>146</u> °C	<u>24</u> Hr. <u>35853</u>	<u>24</u> Hr. <u>36887</u>	<u>24</u> Hr. <u>46189</u>	Hr. _____
<u>1466.774</u> Metres	<u>1474.528</u> Metres	<u>1488.037</u> Metres	<u>1489.561</u> Metres	Metres _____

PERCENTAGE OF POROSITY _____ METRES OF NET PAY _____ No. of Reports Required 5

D.P. Size, mm 114 Wght. kg/m 24.7 D.C.I.D. mm 61 D.C. Above Tool, m 129.97
 Main Hole, mm 216 Rat Hole, mm _____ Rat Hole Depth, m 8.5
 Mud Wght. kg/m³ 1110 Viscosity, s/L 74 Water Loss cm³ 171 & 127
 Bottom Choke, mm 12.7 Rubber Size, mm 200 Anchor Size, mm _____
 Amount and Type of Cushion 100 LITRES INHIBITOR MIXTURE

Field Readings
 Recorder No. 15371 F F 1025 kPa
 1 H 15817 kPa 2nd S I 9461 kPa
 1 P F 652 kPa 1 F _____ kPa
 F P F 652 kPa F F _____ kPa
 1st S I 9646 kPa 3rd S I _____ kPa
 1 F 279 kPa F H 15817 kPa

Preflow 10 Mins. 1st Shut-In 60 Mins.
 1st Flow 120 Mins. 2nd Shut-In 240 Mins.
 2nd Flow _____ Mins. 3rd Shut-In _____ Mins.
 Bottom Hole Temperature °C 52
 K.B. 816.79 Gr. 811.95
 Started in @ 1515 Out of Hole @ 0745

GAS RECOVERY: Measured with ORIFICE WELL TESTER & CRITICAL FLOW PROVER
 Gas Samples: # 6 @ (°C) _____ To CHEMEX LABS, HIGH LEVEL

Mins	kPa	Temp	Orifice	m ³ /day	Mins	kPa	Temp	Orifice	m ³ /day
10	15	-22	6.35	373	70	255	-21	6.35	1981
15	65	-22	6.35	836	75	265	-21	6.35	2039
20	85	-22	6.35	973	80	280	-21	6.35	2125
25	105	-22	6.35	1118	85	290	-21	6.35	2183
30	125	-22	6.35	1243	90	295	-20	6.35	2211
35	145	-21	6.35	1377	95	300	-20	6.35	2240
40	160	-21	6.35	1466	100	310	-20	6.35	2298
45	170	-21	6.35	1493	105	315	-20	6.35	2326
50	180	-21	6.35	1550	110	325	-20	6.35	2384
55	190	-21	6.35	1608	115	325	-20	6.35	2384
60	220	-21	6.35	1780	120	330	-20	6.35	2413
65	235	-21	6.35	1866					

P.O. Sub .305
 D.P. .305
 Blank _____
 Temp. Rec. 1.829
 Shut-In 1.630
 Sampler 1.000
 Sampler 1.665
 Hydraulic 1.630
 Jars 1.524
 Recorder _____
 Recorder _____
 Temp Rec. _____
 By-Pass _____
 Safety JI. .610
 Packer 2.000
 Packer 1.445 1479.802
 Packer .305
 Perfs 7.625
 By-Pass _____
 Recorder 1.524
 Recorder 1.524
 X Over _____
 D.P./D.C. _____
 X Over _____
 Packer _____
 Packer _____
 Packer _____
 Perfs _____
 Recorder _____
 Perfs _____
 X Over .305
 D.P./D.C. 30.000
 X Over .305
 Perfs _____
 Bullnose .610 1522.000
 Total Interval 42.198 m.
 Total Tail Pipe 42.198 m.
 Tool Makeup Time 1.500 Hr.

TOTAL FLUID RECOVERY: 60 Metres Sampler 1547 : # _____ TOTAL MUD LOSS _____ M
 Sampled @ 30 m : 1 m : _____ Above Tool
60 Metres of MUD
 _____ Metres of _____
 _____ Metres of _____
 _____ Metres of _____ SALINITY _____ PPM

REMARKS: Misrun _____ : Ok X : Tool Opened @ 1944 Hrs.

PREFLOW: WEAK TO STRONG AIR BLOW IN 5 MINUTES. NO GAS TO
SURFACE.
VALVE OPEN: STRONG AIR BLOW. GAS TO SURFACE IN 5 MINUTES. SAMPLE TAKEN FLOWING AT ABOVE
RATES.

QUINN TESTERS LTD.

WELL NAME - CAMERON HILLS PARAMOUNT
 WELL LOCATION - I-10
 FORMATION TESTED - BISTCHO SULPHUR POIN
 TYPE OF TEST - DUAL BOTTOM HOLE

DST NO. - 1
 REC NO. - 15371
 INTERVAL - 1480.0
 TO - 1522.0

CALCULATION RESULTS BASED ON GAS RECOVERY AND SECOND SHUT-IN EXTRAPOLATION.

CALCULATION RESULTS (METRIC UNITS)

FIRST SHUT-IN EXTRAPOLATION

EXTRAPOLATED RESERVOIR PRESSURE.....	9788.7 kPa-ABS.
EXTRAPOLATED RESERVOIR PRESSURE.....	9689.4 kPa-GAUGE
SLOPE OF EXTRAPOLATED LINE.....	23876130.0 kPa ² /CYCLE
DEVIATION OF EXTRAPOLATED LINE.....	155563.4 kPa ²
NUMBER OF POINTS ENTERED.....	17
NUMBER OF POINTS USED IN EXTRAPOLATION.....	9

SECOND SHUT-IN EXTRAPOLATION

EXTRAPOLATED RESERVOIR PRESSURE.....	9594.0 kPa-ABS.
EXTRAPOLATED RESERVOIR PRESSURE.....	9494.7 kPa-GAUGE
SLOPE OF EXTRAPOLATED LINE.....	7135067.0 kPa ² /CYCLE
DEVIATION OF EXTRAPOLATED LINE.....	15399.6 kPa ²
NUMBER OF POINTS ENTERED.....	40
NUMBER OF PCINTS USED IN EXTRAPOLATION.....	7
PRESSURE DIFFERENCE (SI#2 - SI#1).....	-194.7 kPa-ABS.

JULIAN TESTERS LTD.

CAMERON HILLS PARAMOUNT

I-10

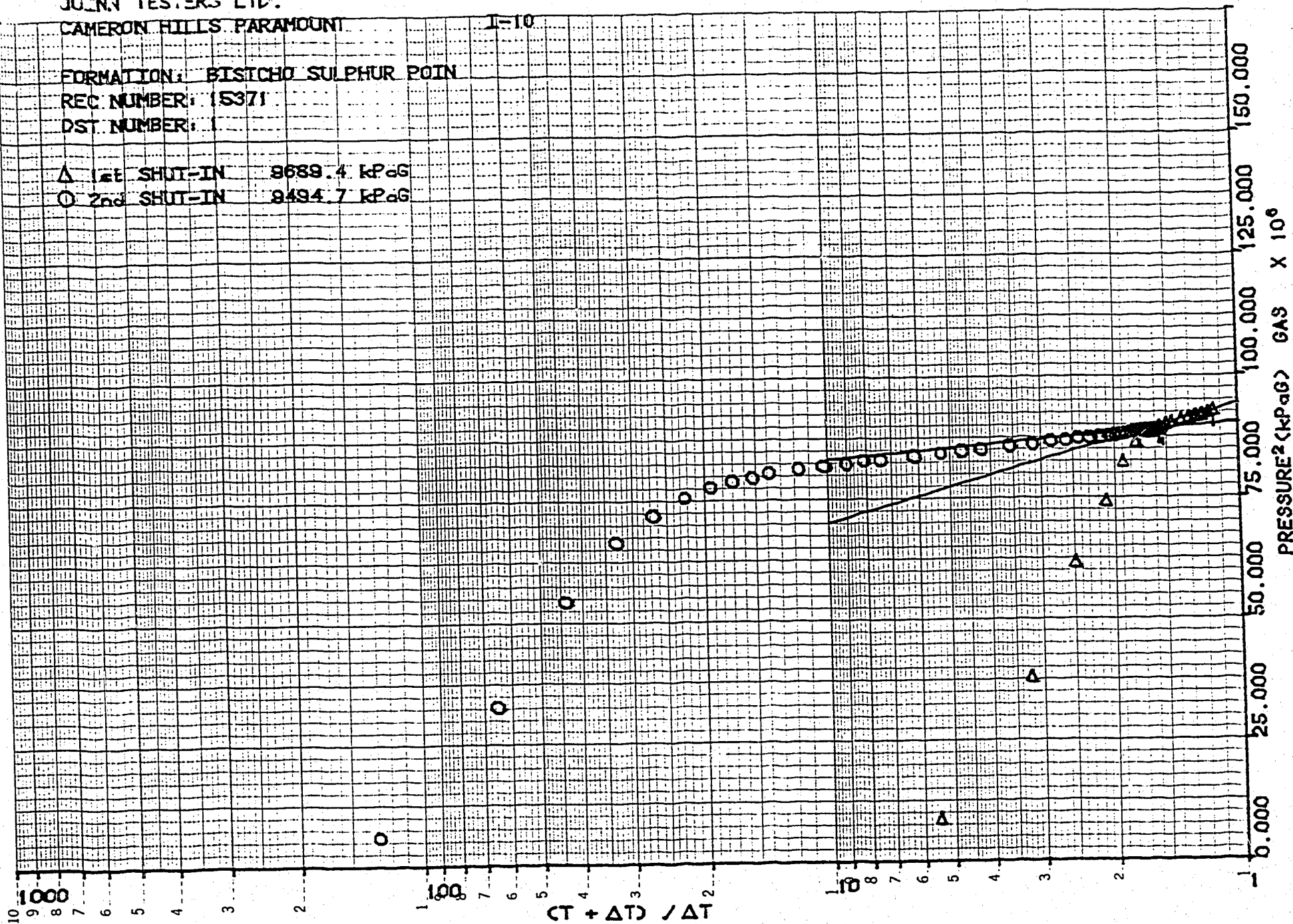
FORMATION: BISTCHO SULPHUR POIN

REC NUMBER: 15371

DST NUMBER: 1

△ 1st SHUT-IN 8689.4 kPaG

○ 2nd SHUT-IN 8494.7 kPaG



46 5490

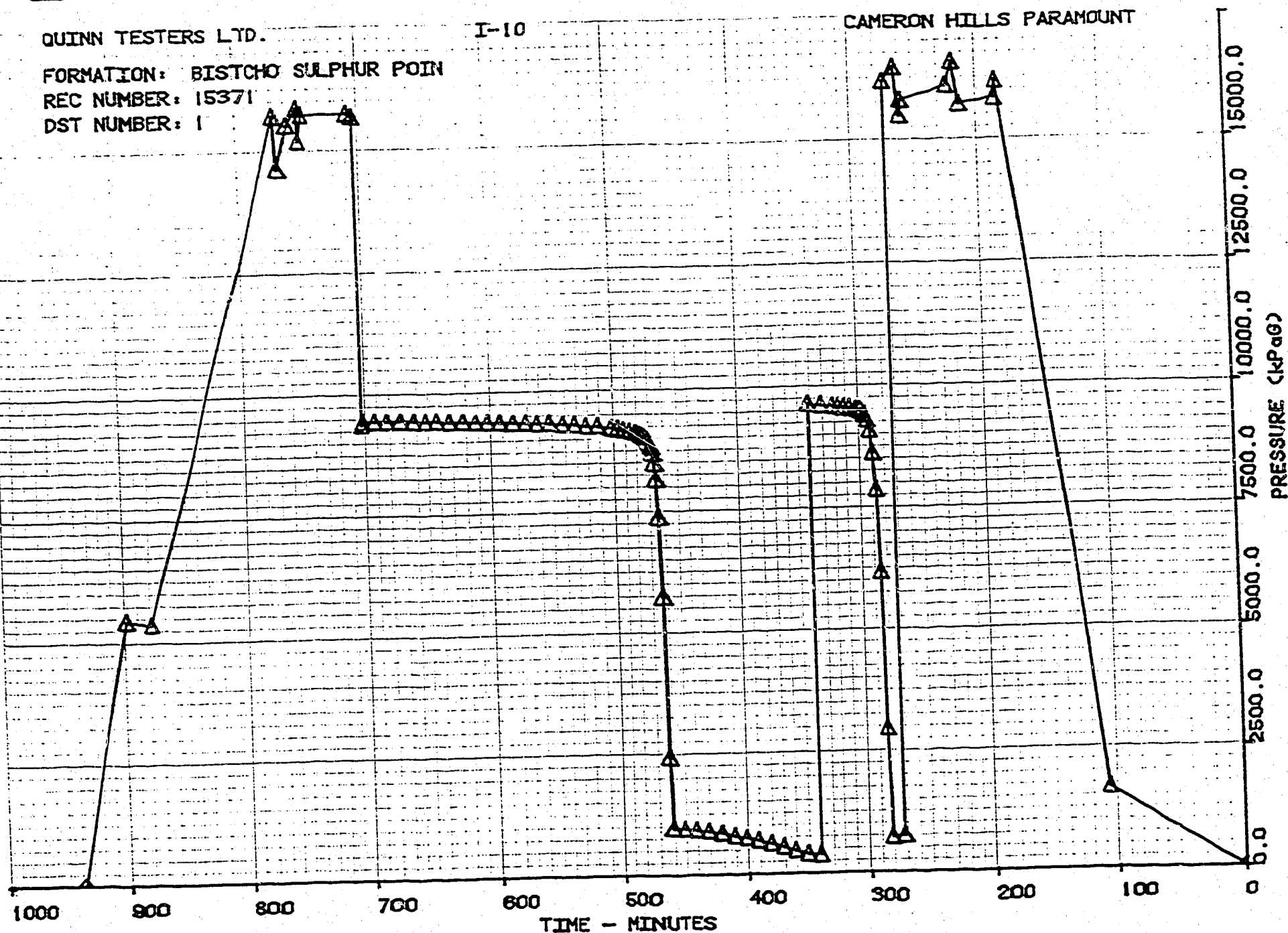
K&M SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS KEUFFEL & ESSER CO. MADE IN U.S.A.

QUINN TESTERS LTD.

I-10

CAMERON HILLS PARAMOUNT

FORMATION: BISTCHO SULPHUR POIN
REC NUMBER: 15371
DST NUMBER: 1



46 0700

K&N
10 X 10 TO THE INCH • 2 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

QUINN TESTERS LTD.

WELL NAME - CAMERON HILLS PARAMOUNT
 WELL LOCATION - I-10
 FORMATION TESTED - BISTCHO SULPHUR POIN
 TYPE OF TEST - DUAL BOTTOM HOLE

DST NO. - 1
 REC NO. - 15371
 INTERVAL - 1480.0
 TO - 1522.0

PRESSURE LISTING

COMMENTS	TIME MIN.	PRESSURE PSIG	PRESSURE kPaG	T+DELTA T/ DELTA T
RUNNING IN HOLE	0.0	0.0	0.0	
	107.0	240.5	1658.5	
	184.0	2343.5	16157.6	
	185.0	2292.7	15807.7	
	213.0	2276.7	15697.2	
	218.0	2400.9	16553.6	
	223.0	2330.1	16055.5	
INITIAL HYDROSTATIC PRESSURE	259.0	2288.7	15780.1	
	260.0	2243.3	15467.0	
	264.0	2386.2	16452.3	
	273.0	2344.8	16166.8	
FIRST FLOW - INITIAL PRESSURE	0.0	106.8	736.1	
FINAL FLOW PRESSURE	9.0	104.1	717.4	
FIRST SHUT-IN PERIOD	0.0	104.1	717.4	
	2.0	427.0	2944.2	5.50
	4.0	893.6	6161.1	3.25
	6.0	1136.9	7838.9	2.50
	8.0	1247.9	8604.0	2.13
	10.0	1314.8	9065.0	1.90
	12.0	1345.5	9277.0	1.75
	14.0	1361.6	9387.6	1.64
	16.0	1369.6	9442.9	1.56
	18.0	1374.9	9479.8	1.50
	20.0	1377.6	9498.3	1.45
	25.0	1381.6	9525.9	1.36
	30.0	1384.3	9544.3	1.30
	35.0	1387.0	9562.8	1.26
	40.0	1388.3	9572.0	1.22
	50.0	1392.3	9599.7	1.18
FIRST SHUT-IN PRESSURE	60.0	1396.3	9627.3	1.15
SECOND FLOW - INITIAL PRESSURE	0.0	54.1	372.7	
	10.0	56.8	391.3	
	20.0	67.6	465.9	
	30.0	78.4	540.4	
	40.0	89.2	614.9	
	50.0	98.6	680.2	
	60.0	106.8	736.1	
	70.0	113.5	782.6	

QUINN TESTERS LTD.

WELL NAME - CAMERON HILLS PARAMOUNT
 WELL LOCATION - I-10
 FORMATION TESTED - BISTCHO SULPHUR POIN
 TYPE OF TEST - DUAL BOTTOM HOLE

DST NO. - 1
 REC NO. - 15371
 INTERVAL - 1480.0
 TO - 1522.0

PRESSURE LISTING

COMMENTS	TIME MIN.	PRESSURE PSIG	PRESSURE kPaG	T+DELTA T/ DELTA T
	80.0	121.6	838.6	
	90.0	128.4	885.1	
	100.0	132.4	913.1	
	110.0	136.5	941.0	
FINAL FLOW PRESSURE	120.0	137.8	950.4	
SECOND SHUT-IN PERIOD	0.0	137.8	950.4	
	1.0	351.4	2422.5	130.00
	2.0	829.4	5713.6	65.50
	3.0	1067.4	7359.5	44.00
	4.0	1181.1	8143.1	33.25
	5.0	1229.2	8475.0	26.30
	6.0	1259.9	8687.0	22.50
	7.0	1277.3	8806.9	19.43
	8.0	1286.7	8871.4	17.13
	9.0	1293.4	8917.5	15.33
	10.0	1300.1	8963.6	13.90
	12.0	1306.7	9009.7	11.75
	14.0	1310.8	9037.3	10.21
	16.0	1314.8	9065.0	9.06
	18.0	1318.8	9092.6	8.17
	20.0	1320.1	9101.8	7.45
	25.0	1325.5	9133.7	6.16
	30.0	1329.5	9166.4	5.30
	35.0	1333.5	9194.0	4.69
	40.0	1336.2	9212.5	4.22
	50.0	1341.5	9249.3	3.58
	60.0	1344.2	9267.8	3.15
	70.0	1348.2	9295.4	2.84
	80.0	1349.5	9304.7	2.61
	90.0	1352.2	9323.1	2.43
	100.0	1353.5	9332.3	2.29
	110.0	1354.9	9341.5	2.17
	120.0	1356.2	9350.8	2.07
	130.0	1357.5	9360.0	1.99
	140.0	1358.9	9369.2	1.92
	150.0	1360.2	9378.4	1.86
	160.0	1361.6	9387.6	1.81
	170.0	1362.9	9396.8	1.76
	180.0	1364.2	9406.1	1.72
	190.0	1364.9	9410.7	1.68
	200.0	1365.6	9415.3	1.64
	210.0	1365.9	9417.6	1.61
	220.0	1366.2	9419.9	1.59
	230.0	1366.6	9422.2	1.56
SECOND SHUT-IN PRESSURE	240.0	1366.9	9424.5	1.54

QUINN TESTERS LTD.

WELL NAME - CAMERON HILLS PARAMOUNT
 WELL LOCATION - 1-10
 FORMATION TESTED - BISTCHO SULPHUR POIN
 TYPE OF TEST - DUAL BOTTOM HOLE

DST NO. - 1
 REC NO. - 15371
 INTERVAL - 1480.0
 TO - 1522.0

PRESSURE LISTING

COMMENTS	TIME MIN.	PRESSURE PSIG	PRESSURE kPaC	T+DELTA T/ DELTA T
PULLED LOOSE	0.0	1366.9	9424.5	
	1.0	1357.5	9360.0	
	2.0	2270.0	15651.1	
	6.0	2279.4	15715.6	
FINAL HYDROSTATIC PRESSURE	44.0	2278.0	15706.4	
	47.0	2200.6	15172.3	
	48.0	2296.7	15335.3	
	56.0	2247.3	15494.6	
	64.0	2119.1	14610.6	
	66.0	2274.0	15678.3	
	176.0	775.7	5348.1	
	196.0	786.5	5422.6	
OUT OF HOLE	236.0	0.0	0.0	

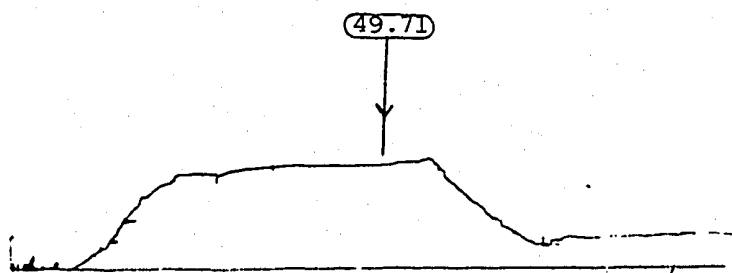
QUINN TESTERS OF CANADA LTD.

TEST CHARTS

CALGARY, ALBERTA

PHONE 290-1704

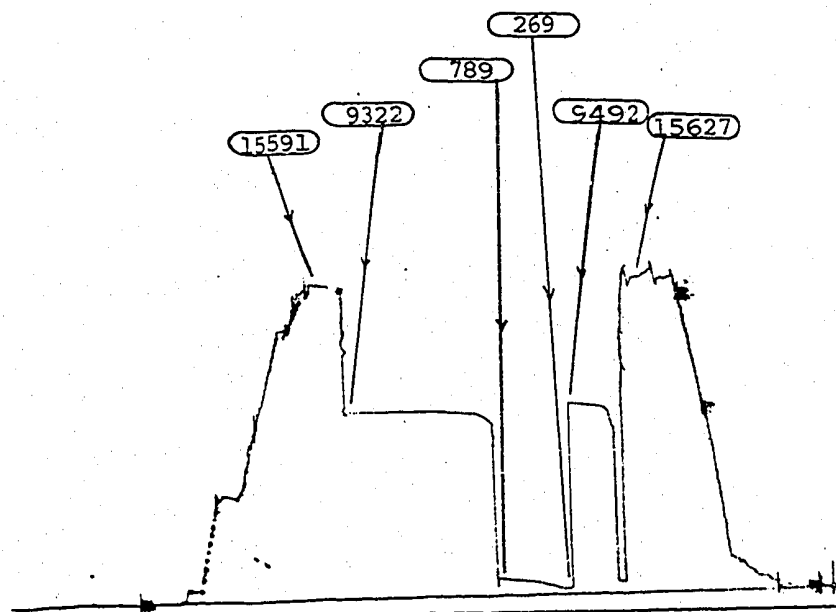
TEMPERATURE RECORDER # 14146



INITIAL HYDR. _____
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. _____

CAMERON HILLS PARAMOUNT I-10 DST #1

INSIDE RECORDER # 19578



INITIAL HYDR. 15 627
 IN. PREFLOW 565
 F. PREFLOW 520
 1st SHUT-IN 9 492
 1st IN. FLOW 269
 1st F. FLOW 789
 2nd SHUT-IN 9 322
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 15 591

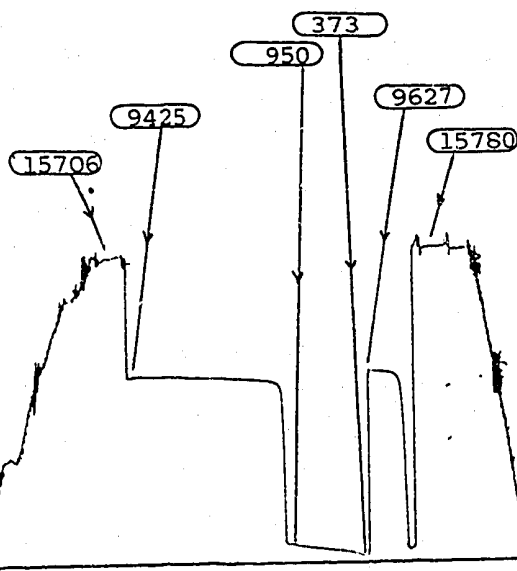
QUINN TESTERS OF CANADA LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

OUTSIDE RECORDER # 15371



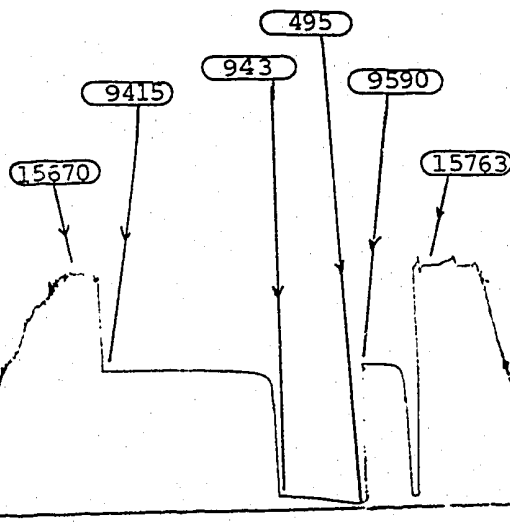
INITIAL HYDR.	15 780
IN. PREFLOW	736
F. PREFLOW	717
1st SHUT-IN	9 627
1st IN. FLOW	373
1st F. FLOW	950
2nd SHUT-IN	9 425
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	15 706

CAMERON HILLS PARAMOUNT

I-10

DST #1

OUTSIDE RECORDER # 19160



INITIAL HYDR.	15 763
IN. PREFLOW	837
F. PREFLOW	778
1st SHUT-IN	9 590
1st IN. FLOW	495
1st F. FLOW	943
2nd SHUT-IN	9 415
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	15 670

REF#: C-76-919-72994-66

TEST DATE: 86/03/05

PARA ET AL CAMERON HILLS I-10
400/ 60.093 / 117.300 /00
DST#02
1451.00m to 1469.00m
SULPHUR POINT

DEPTH: 1453.00m

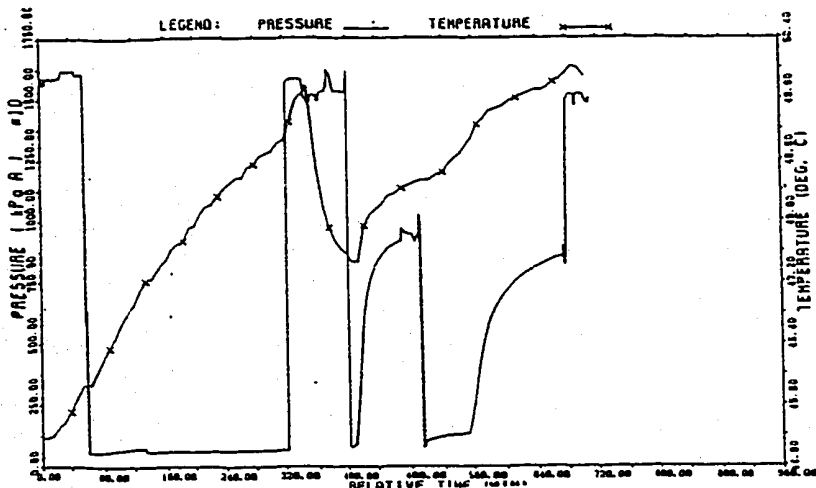
RECORDER # 002002

PRESSURE
kPa (a)

- 1) Initial Hydro : 15867.
- 2) 1st Flow Start: 543.
- 3) 1st Flow End : 560.
- 4) END 1st Shutin: 723.
- 5) 2nd Flow Start: 723.
- 6) 2nd Flow End : 595.
- 7) END 2nd Shutin: 646.
- 14) Final Hydro. : 15867.

TEST TIMES (MIN)

1stFLOW : 16.0
SHUTIN: 60.0
2ndFLOW : 60.0
SHUTIN: 120.0



RECOVERY DATA

TOTAL FLUID RECOVERY FOR DST #2 & #3 CONSISTED OF 133.00 M OF GASIFIED INHIBITOR CUT MUD. NO GAS TO SURFACE.

REMARKS AND TEST SUMMARY

This is the first of two tests run on the same trip in the hole. Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest VIRTUALLY NO PERMEABILITY within the interval tested. The flow pressures indicate that the majority of the fluid recovered was produced on DST #3. Prior to starting the test, 130 liters of inhibitor was added to the drill pipe.

TABLE OF CONTENTS

PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Blow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

LYNES UNITED SERVICES LTD
DST#02 REPORT

p.1

Well name : PARA ET AL CAMERON HILLS I-10
Location : 400/ 60.093 / 117.300 /00
Interval : 1451.00m to 1469.00m
Test Date : 86/03/05
Test Type : INFLATE STRADDLE
Formation : SULPHUR POINT

K.B.Elevation : 816.25m
Grd.Elevation : 811.95m
TD @ test Date: 1563.00m
Ticket Number : 72994
Unit Number : M-5

Started in hole at : 1900 hrs
Tool opened at : 0104 hrs
Reverse circulated?: NO
Contractor & Rig No: CACTUS #21
Lynes#1 : 1 of 2 on the same trip.

Operator: PARAMOUNT RESOURCES LTD.
4100
350 - 7TH AVE. S.W.
CALGARY ALBERTA
T2P3W5

Company Rep : DORTCH J
Testers : SOUKEROFF M

9 REPORTS(S) TO: MR. KEN HARRIS
Company:

BLOW DESCRIPTION

Preflow: Very weak air blow decreasing to nil in 5 minutes. No gas to surface.

Final flow: Very weak air blow decreasing to nil in 8 minutes. No gas to surface.

TOTAL LIQUID RECOVERY : 133.00m

For DST# 2 through DST# 3
3 Fluid Samples
Sent to: CHEMEX
HIGH LEVEL.

133.00m GASIFIED INHIBITOR CUT MUD.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.33
CROSS OVER SUB	.30
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
HYDRAULIC JARS	2.22
INSIDE RECORDER	1.38
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACKER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.02
CROSS OVER SUB	.30
DRILL COLLARS	9.63
CROSS OVER SUB	.30
SPACING	4.13
PACKER STICK UP	.50
BTM.INFLATE PACKER	1.90
BELLY SPPING	2.60

1) NUMBER :	002002	ELECTRONIC GAUGE
TYPE :	DMRB	PRESSURES AND
LOCATION:	OUTSIDE	TEMPERATURE.
RANGE:	34500.00kPa(a)	
DEPTH :	1453.00m	
2) NUMBER :	009490	ABOVE INTERVAL.
TYPE :	K-3	
LOCATION:	INSIDE	
RANGE:	21000.00kPa	
DEPTH :	1444.00m	
3) NUMBER :	020425	
TYPE :	K-3	
LOCATION:	OUTSIDE	
RANGE:	19700.00kPa	
DEPTH :	1453.00m	
4) NUMBER :	021353	
TYPE :	K-3	
LOCATION:	OUTSIDE	
RANGE:	23000.00kPa	
DEPTH :	1453.00m	

***** TOOL TOTAL 35.13

DRILL COLLARS

ID= 58.0mm: 104.44
ID= :

DRILL PIPE

OD=114.3mm: 1345.44
OD= :

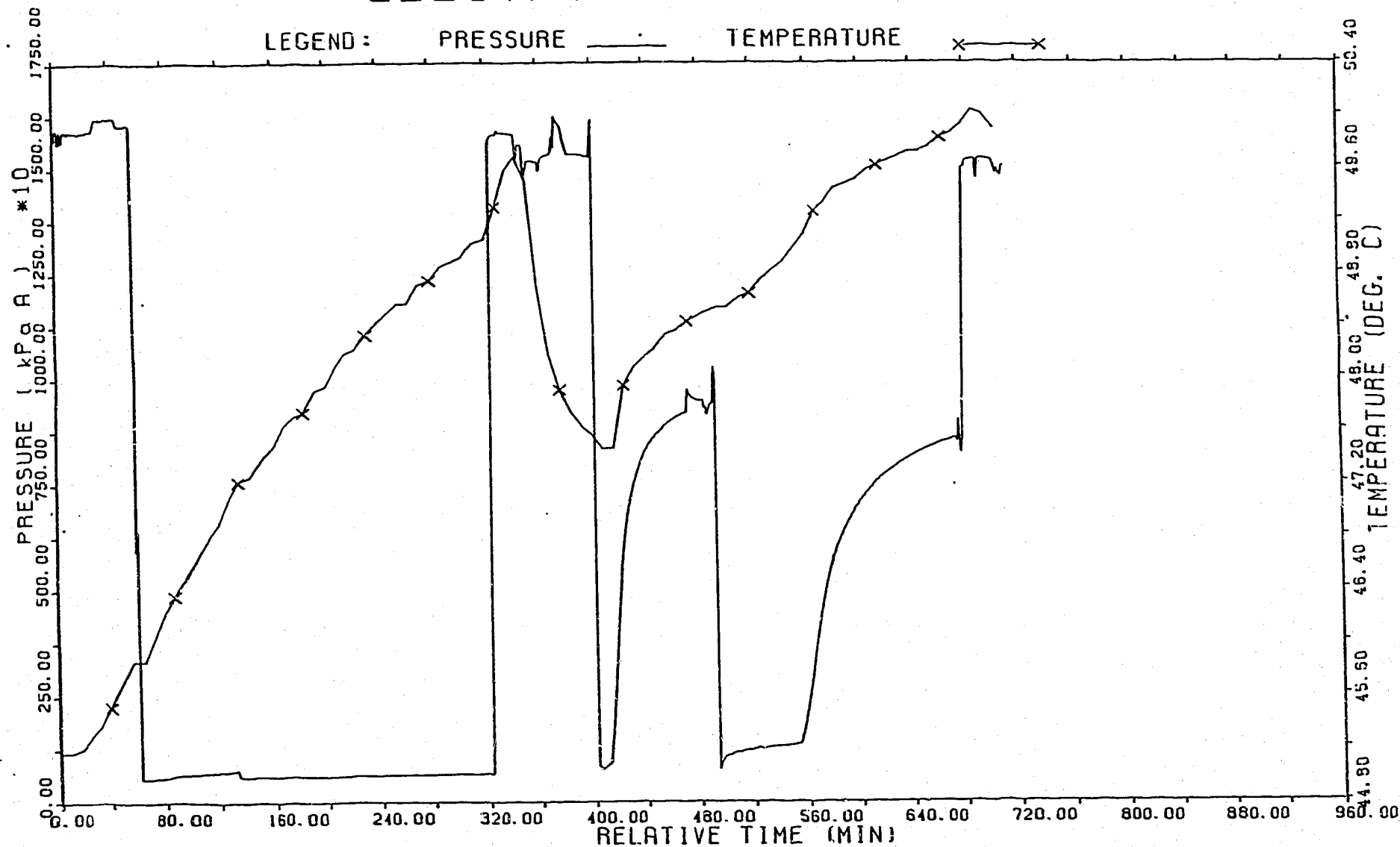
COLLAR-PIPE TOTAL 1449.88

STICK UP ABOVE TABLE : 11.51
TOOL ABOVE INTERVAL : 12.63
TOTAL INTERVAL : 18.00
BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth:	220.00mm	Water Loss :	9.0cc/s
Hole Condition at Test Time :	FAIR	Filter Cake:	1.6 mm
Hole Conditioned Prior to Test? :	YES		
Mud Weight :	1120.0 kg/m3	Main Hole Size:	216.00mm
Mud Type :	GEL CHEMICAL		
Viscosity :	88.0s/l	Temperature @1453.00m	= 49.0C

PARA ET AL CAMERON HILLS I-10
60.093 / 117.300 DST #2 & #3
ELECTRONIC GAUGE #2002



DST#02
 PARA ET AL CAMERON HILLS I-10
 1451.00m to 1469.00m

PRESSURE RECORDER NUMBER : 002002

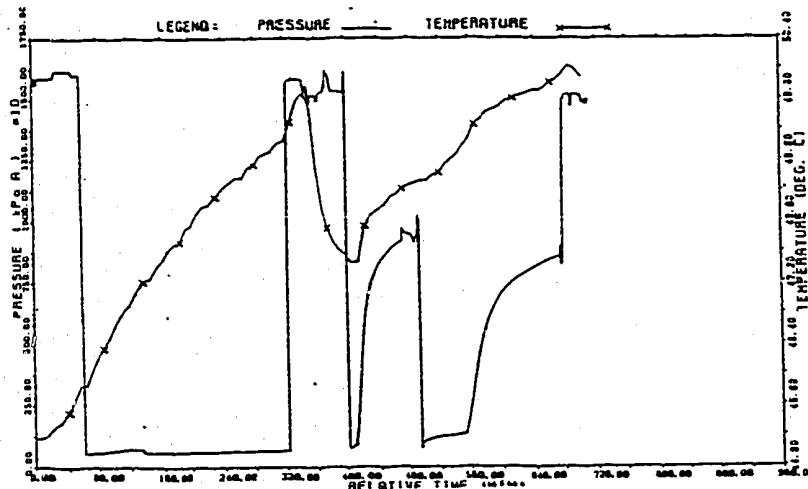
DEPTH : 1453.00m
 TYPE : DMRB

LOCATION : OUTSIDE
 CAPACITY : 34500.00kPa(a)

PRESSURE
 kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 49.0 C

- 1) Initial Hydro : 15867.
- 2) 1st Flow Start: 543.
- 3) 1st Flow End : 560.
- 4) END 1st Shutin: 723.
- 5) 2nd Flow Start: 629.
- 6) 2nd Flow End : 595.
- 7) END 2nd Shutin: 646.
- 14) Final Hydro. : 15867.



ELECTRONIC GAUGE
 PRESSURES AND
 TEMPERATURE.

TEST TIMES (MIN)

- 1st FLOW : 16.0
 SHUTIN: 60.0
 2nd FLOW : 60.0
 SHUTIN: 120.0

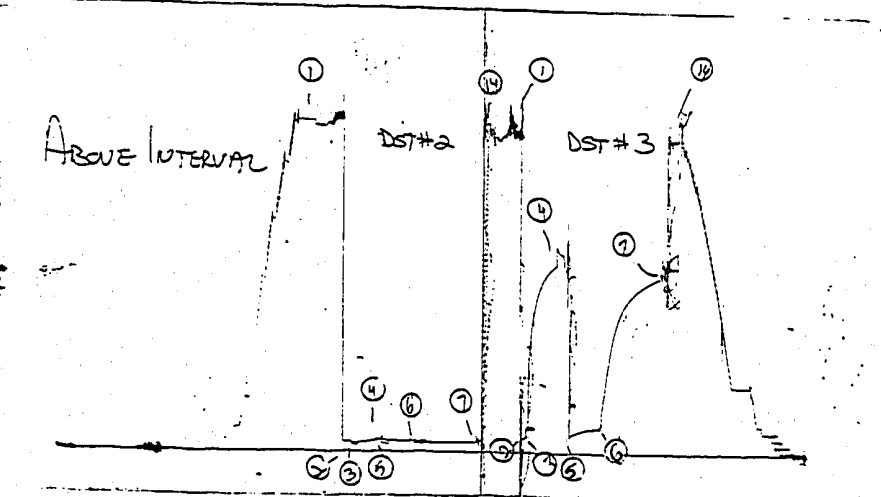
PRESSURE RECORDER NUMBER : 009490

DEPTH : 1444.00m
 TYPE : K-3

LOCATION : INSIDE
 CAPACITY : 21000.00 kPa

PRESSURE
 kPa

- 1) Initial Hydro : 15671.
- 2) 1st Flow Start: 535.
- 3) 1st Flow End : 430.
- 4) END 1st Shutin: 597.
- 5) 2nd Flow Start: 561.
- 6) 2nd Flow End : 482.
- 7) END 2nd Shutin: 509.
- 14) Final Hydro. : 15547.



ABOVE INTERVAL.

DST#02
 PARA ET AL CAMERON HILLS I-10
 1451.00m to 1469.00m

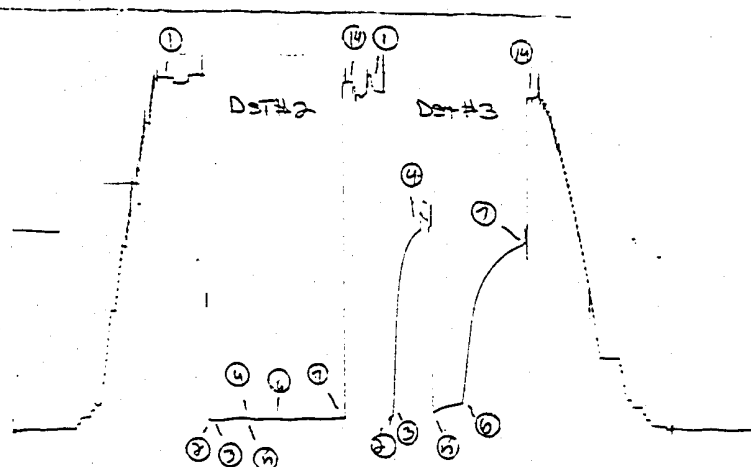
PRESSURE RECORDER NUMBER : 020425

DEPTH : 1453.00m
 TYPE : K-3

LOCATION : OUTSIDE
 CAPACITY : 19700.00 kPa

PRESSURE
 kPa

- 1) Initial Hydro : 15774.
- 2) 1st Flow Start: 640.
- 3) 1st Flow End : 575.
- 4) END 1st Shutin: 665.
- 5) 2nd Flow Start: 624.
- 6) 2nd Flow End : 607.
- 7) END 2nd Shutin: 616.
- 14) Final Hydro. : 15725.



TEST TIMES (MIN)
 1st FLOW : 16.0
 SHUTIN: 60.0
 2nd FLOW : 60.0
 SHUTIN: 120.0

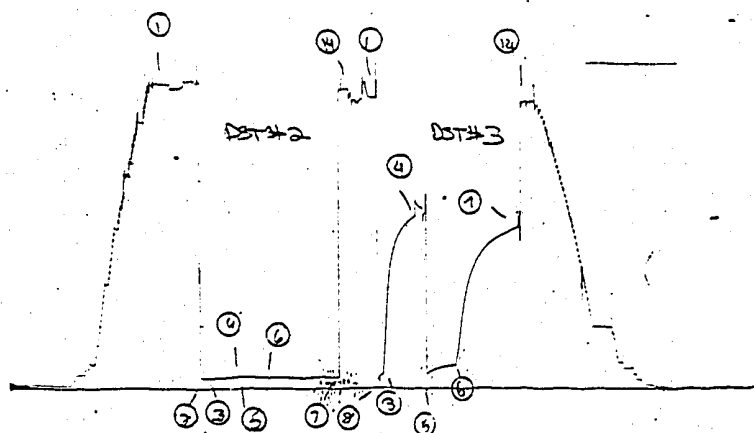
PRESSURE RECORDER NUMBER : 021353

DEPTH : 1453.00m
 TYPE : K-3

LOCATION : OUTSIDE
 CAPACITY : 23000.00 kPa

PRESSURE
 kPa

- 1) Initial Hydro : 15759.
- 2) 1st Flow Start: 663.
- 3) 1st Flow End : 597.
- 4) END 1st Shutin: 691.
- 5) 2nd Flow Start: 663.
- 6) 2nd Flow End : 644.
- 7) END 2nd Shutin: 644.
- 14) Final Hydro. : 15721.



PARA ET AL CAMERON HILLS I-10
400/ 60.093 / 117.300 /00
DST#03
1392.00m to 1410.00m
SLAVE POINT

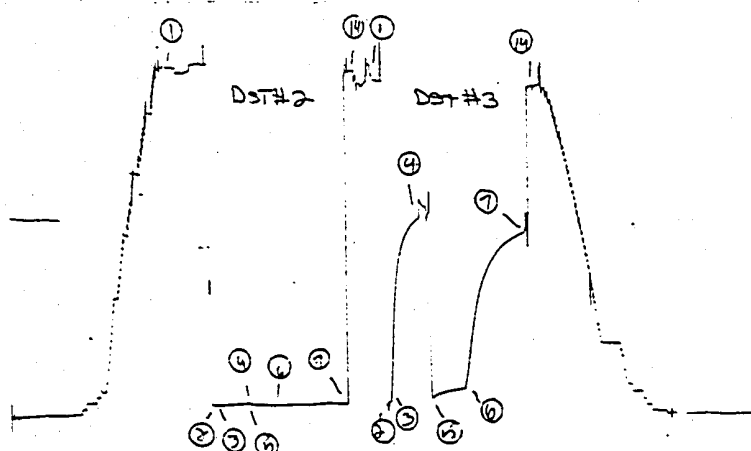
DEPTH: 1394.00m

PRESSURE
kPa(a)

- 1) Initial Hydro : 15281.
- 2) 1st Flow Start: 819.
- 3) 1st Flow End : 905.
- 4) END 1st Shutin: 9222.
- 5) 2nd Flow Start: 741.
- 6) 2nd Flow End : 1413.
- 7) END 2nd Shutin: 8593.
- 14) Final Hydro. : 15203.

TEST TIMES (MIN)

- 1stFLOW : 9.0
SHUTIN: 59.0
2ndFLOW : 60.0
SHUTIN: 119.0



RECOVERY DATA

TOTAL FLUID RECOVERY FOR DST #2 & #3 CONSISTED OF 133.00 M OF GASIFIED INHIBITOR CUT MUD. NO GAS TO SURFACE.

REMARKS AND TEST SUMMARY

This is the second of two tests run on the same trip in the hole. Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest LOW PERMEABILITY within the interval tested. The flow pressures indicate that the majority of the fluid recovered was produced on this test. The initial and final shut-in were incremented but not extrapolated due to insufficient curve development. Prior to starting the test, 130 liters of inhibitor was added to the drill pipe.

TABLE OF CONTENTS

PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Blow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

Well name : PARA ET AL CAMERON HILLS I-10
Location : 400/ 60.093 / 117.300 /00
Interval : 1392.00m to 1410.00m
Test Date : 86/03/05
Test Type : INFLATE STRADDLE
Formation : SLAVE POINT

K.B.Elevation : 816.25m
Grd.Elevation : 811.95m
TD @ test Date: 1563.00m
Ticket Number : 72995
Unit Number : M-5

Started in hole at : 1900 hrs
Tool opened at : 0646 hrs
Reverse circulated?: NO
Contractor & Rig No: CACTUS #21
Lynes#2 : 2 of 2 on the same trip.

Operator: PARAMOUNT RESOURCES LTD.
4100
350 - 7TH AVE. S.W.
CALGARY ALBERTA
T2P3W5

Company Rep : DORTCH J
Testers : SOUKEROFF M

9 REPORTS(S) TO: MR. KEN HARRIS
Company:

BLOW DESCRIPTION

Preflow: Weak air blow increasing to strong in 4 minutes. No gas to surface.
Final flow: Fair air blow increasing to strong in 1 minute. No gas to surface.

TOTAL LIQUID RECOVERY : 133.00m

For DST# 2 through DST# 3

3 Fluid Samples

Sent to: CHEMEX
HIGH LEVEL.

Btm. Hole Sampler #: NO #

Sent to: CHEMEX
HIGH LEVEL.

133.00m GASIFIED INHIBITOR CUT MUD.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.33
CROSS OVER SUB	.30
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
HYDRAULIC JARS	2.22
INSIDE RECORDER	1.38
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACKER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.02
CROSS OVER SUB	.30
DRILL COLLARS	9.63
CROSS OVER SUB	.30
SPACING	4.13
PACKER STICK UP	.50
BTM.INFLATE PACKER	1.90
BELLY SPRING	2.60

1) NUMBER :	002002	ELECTRONIC GAUGE
TYPE :	DMRB	PRESSURES AND
LOCATION:	OUTSIDE	TEMPERATURE.
RANGE:	34500.00kPa(a)	
DEPTH :	1394.00m	
2) NUMBER :	009490	ABOVE INTERVAL.
TYPE :	K-3	
LOCATION:	INSIDE	
RANGE:	21000.00kPa	
DEPTH :	1385.00m	
3) NUMBER :	020425	
TYPE :	K-3	
LOCATION:	OUTSIDE	
RANGE:	19700.00kPa	
DEPTH :	1394.00m	
4) NUMBER :	021353	
TYPE :	K-3	
LOCATION:	OUTSIDE	
RANGE:	23000.00kPa	
DEPTH :	1394.00m	

***** TOOL TOTAL 35.13

DRILL COLLARS

ID= 58.0mm: 104.44

ID= :

DRILL PIPE

OD=114.3mm: 1280.07

OD= :

COLLAR-PIPE TOTAL 1384.51

STICK UP ABOVE TABLE : 5.14

TOOL ABOVE INTERVAL : 12.63

TOTAL INTERVAL : 18.00

BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth:	220.00mm	Water Loss :	9.0cc/s
Hole Condition at Test Time :	FAIR	Filter Cake:	1.6 mm
Hole Conditioned Prior to Test? :	YES		
Mud Weight : 1120.0 kg/m3		Main Hole Size:	216.00mm
Mud Type : GEL CHEMICAL			
Viscosity : 88.0s/l		Temperature @1394.00m	= 49.7C

Location: 400/ 60.093 / 117.300 /00
 Test Type: INFLATE STRADDLE
 Formation: SLAVE POINT

Recorder Number: 002002
 Recorder Depth: 1394.00 m
 Subsea Depth: -577.75 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE (T+dt)/dt kPa(a)	ABSCISSA
	INITIAL HYDROSTATIC			15281	
2	START OF 1st FLOW	0.0		819	
		1.0		802	
		2.0		758	
		3.0		733	
		4.0		767	
		5.0		802	
		7.0		853	
		8.0		870	
	END OF 1st FLOW	9.0		905	
	1st SHUTIN PERIOD	0.0		905	
		2.0	724	1629	5.5000
		4.0	1620	2525	3.2500
		7.0	3206	4111	2.2857
		9.0	4197	5102	2.0000
		11.0	4973	5878	1.8182
		14.0	5766	6671	1.6429
		16.0	6136	7041	1.5625
		18.0	6429	7334	1.5000
		20.0	6671	7576	1.4500
		23.0	6972	7877	1.3913
		25.0	7145	8050	1.3600
		27.0	7283	8188	1.3333
		30.0	7464	8369	1.3000
		32.0	7576	8481	1.2813
		34.0	7670	8575	1.2647
		36.0	7748	8653	1.2500
		39.0	7851	8756	1.2308
		41.0	7912	8817	1.2195
		43.0	7989	8894	1.2093
		46.0	8067	8972	1.1957
		48.0	8119	9024	1.1875

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 60.093 / 117.300 /00
Test Type: INFLATE STRADDLE
Formation: SLAVE POINT

Recorder Number: 002002
Recorder Depth: 1394.00 m
Subsea Depth: -577.75 m

TIME-PRESSURE LISTING

CART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE (T+dt)/dt kPa(a)	ABSCISSA
		50.0	8153	9058	1.1800
		52.0	8205	9110	1.1731
		55.0	8256	9161	1.1636
		57.0	8291	9196	1.1579
	END OF 1st SHUTIN	59.0	8317	9222	1.1525
5	START OF 2nd FLOW	0.0		741	
		3.0		983	
		5.0		1043	
		7.0		1069	
		9.0		1086	
		12.0		1129	
		14.0		1146	
		16.0		1146	
		19.0		1189	
		21.0		1198	
		23.0		1198	
		25.0		1215	
		28.0		1258	
		30.0		1250	
		32.0		1241	
		35.0		1258	
		37.0		1267	
		39.0		1276	
		41.0		1284	
		44.0		1293	
		46.0		1301	
		48.0		1310	
		51.0		1319	
		53.0		1319	
		55.0		1327	
		57.0		1336	
6	END OF 2nd FLOW	60.0		1413	
	2nd SHUTIN PERIOD	0.0		1413	

* VALUES USED FOR EXTRAPOLATIONS

DST#03
PARA ET AL CAMERON HILLS I-10
1392.00 m to 1410.00 m

p.3b

Location: 400/ 60.093 / 117.300 /00
Test Type: INFLATE STRADDLE
Formation: SLAVE POINT

Recorder Number: 002002
Recorder Depth: 1394.00 m
Subsea Depth: -577.75 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA
		4.0	595	2008	18.2500
		9.0	1500	2913	8.6667
		13.0	2336	3749	6.3077
		18.0	3275	4688	4.8333
		23.0	4008	5421	4.0000
		27.0	4439	5852	3.5556
		32.0	4878	6291	3.1563
		36.0	5154	6567	2.9167
		41.0	5447	6860	2.6829
		45.0	5645	7059	2.5333
		50.0	5852	7265	2.3800
		55.0	6024	7438	2.2545
		59.0	6154	7567	2.1695
		64.0	6300	7714	2.0781
		68.0	6395	7808	2.0147
		73.0	6507	7920	1.9452
		77.0	6593	8007	1.8961
		82.0	6679	8093	1.8415
		87.0	6765	8179	1.7931
		91.0	6834	8248	1.7582
		96.0	6903	8317	1.7188
		100.0	6955	8369	1.6900
		105.0	7024	8437	1.6571
		109.0	7076	8489	1.6330
		114.0	7127	8541	1.6053
	END OF 2nd SHUTIN	119.0	7179	8593	1.5798
14	FINAL HYDROSTATIC			15203	

* VALUES USED FOR EXTRAPOLATIONS

DST#03
PARA ET AL CAMERON HILLS I-10
1392.00 m to 1410.00 m

p.3c

Location: 400/ 60.093 / 117.300 /00
Test Type: INFLATE STRADDLE
Formation: SLAVE POINT

Recorder Number: 002002
Recorder Depth: 1394.00 m
Subsea Depth: -577.75 m

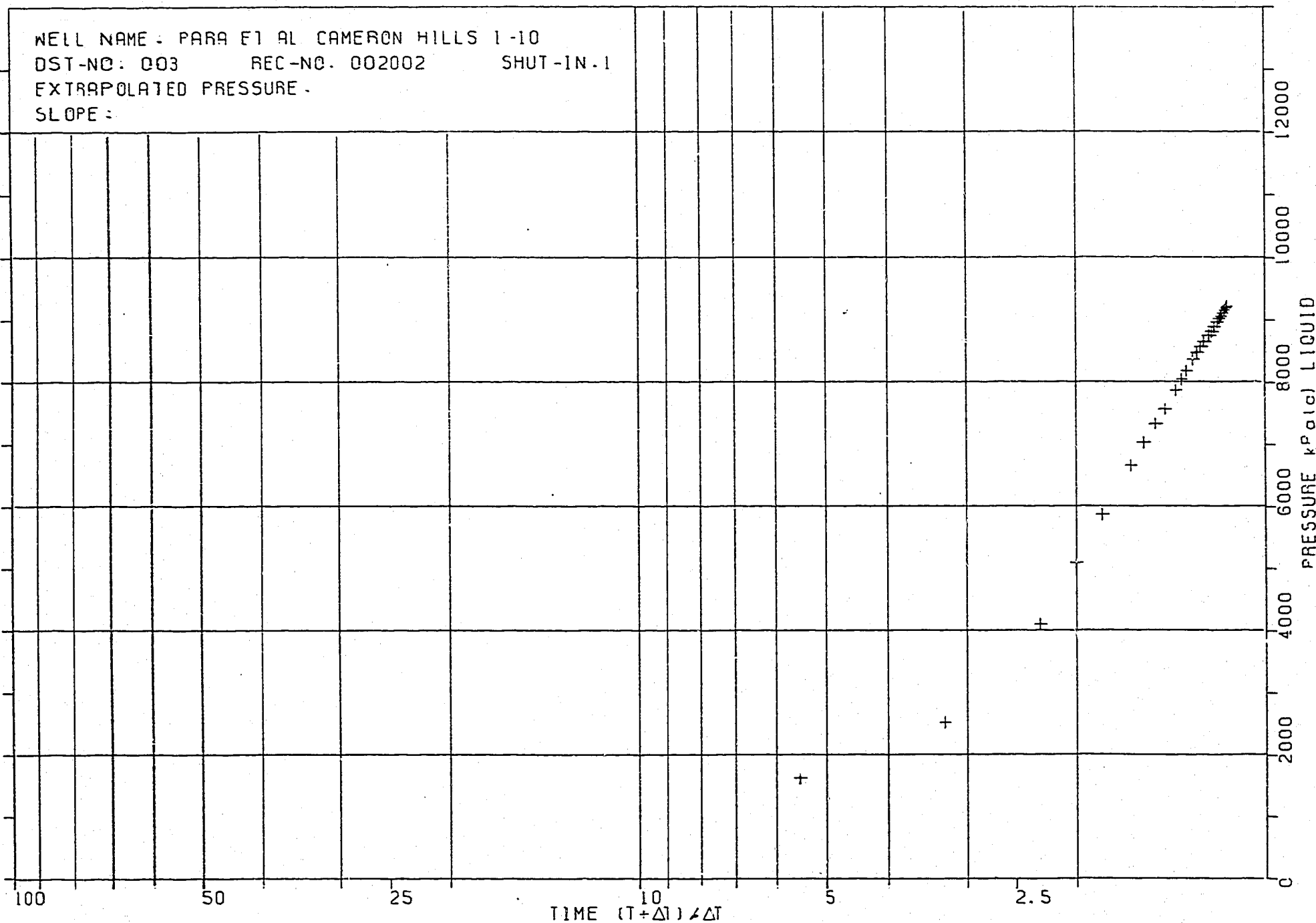
1st SHUT-IN

HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

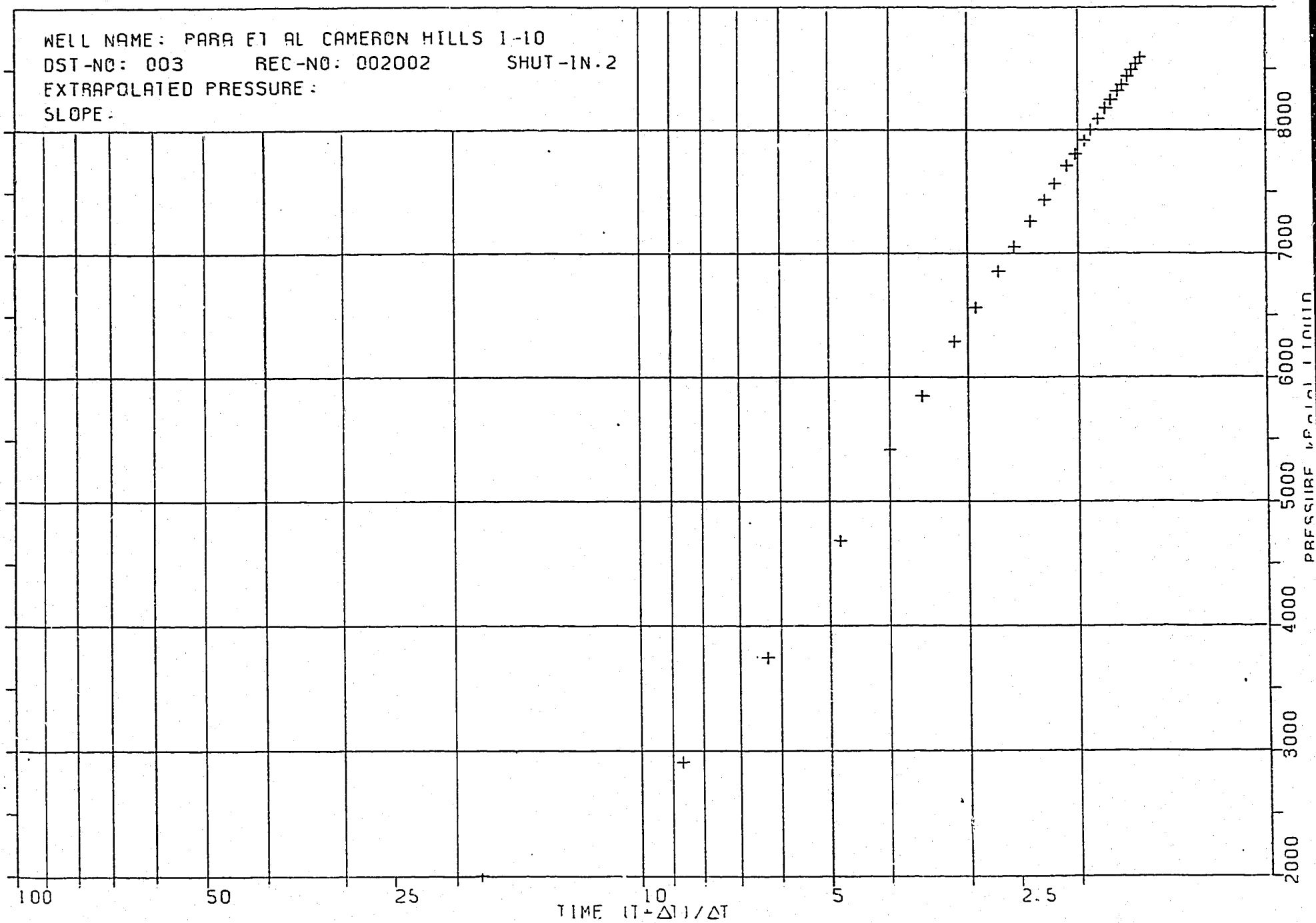
2nd SHUT-IN

HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

WELL NAME: PARA F1 AL CAMERON HILLS 1-10
DST-NO: 003 REC-NO: 002002 SHUT-IN: 1
EXTRAPOLATED PRESSURE.
SLOPE:



WELL NAME: PARA F1 AL CAMERON HILLS 1-10
 DST-NO: 003 REC-NO: 002002 SHUT-IN.2
 EXTRAPOLATED PRESSURE:
 SLOPE:



PARA ET AL CAMERON HILLS 1-10

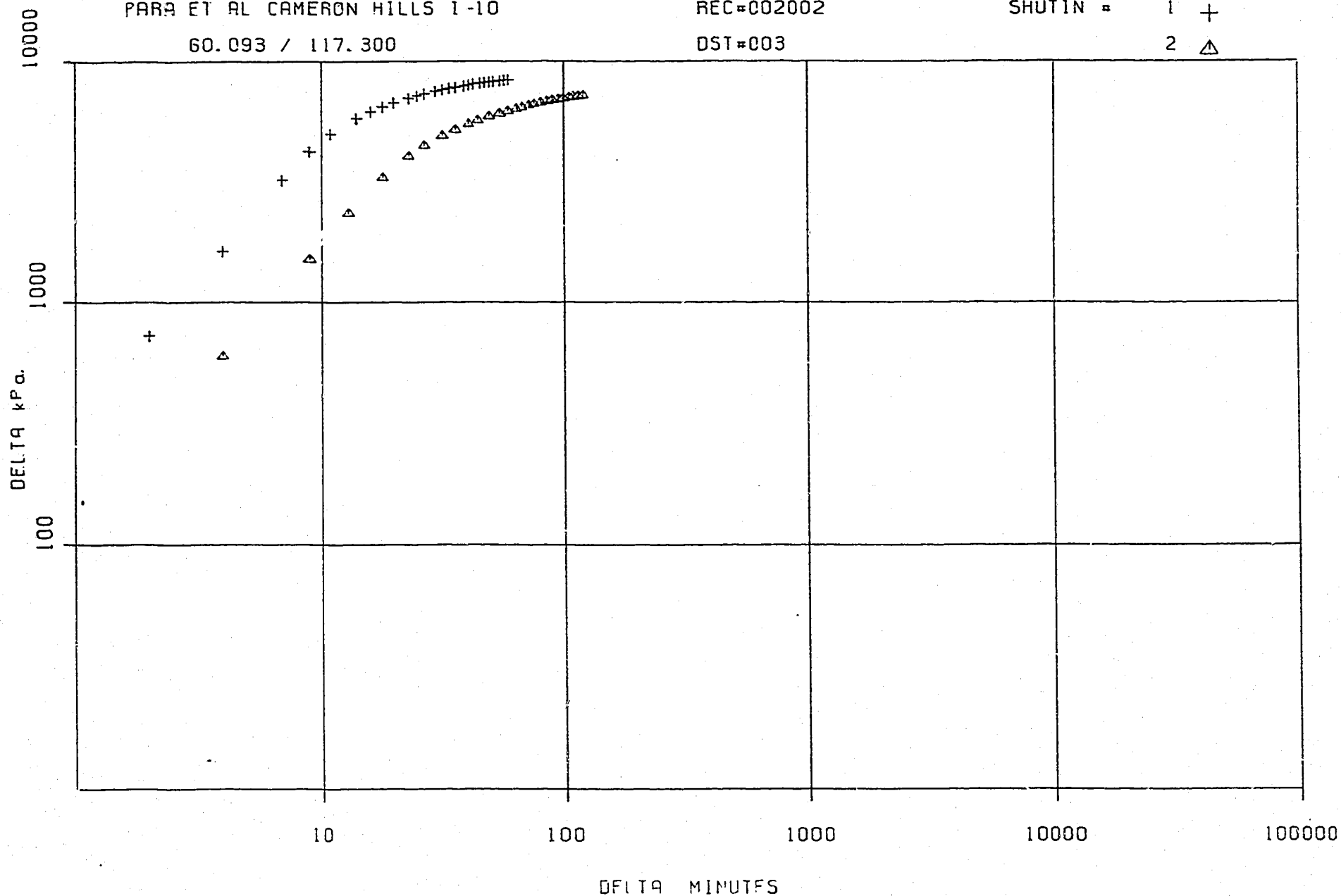
60.093 / 117.300

REC=002002

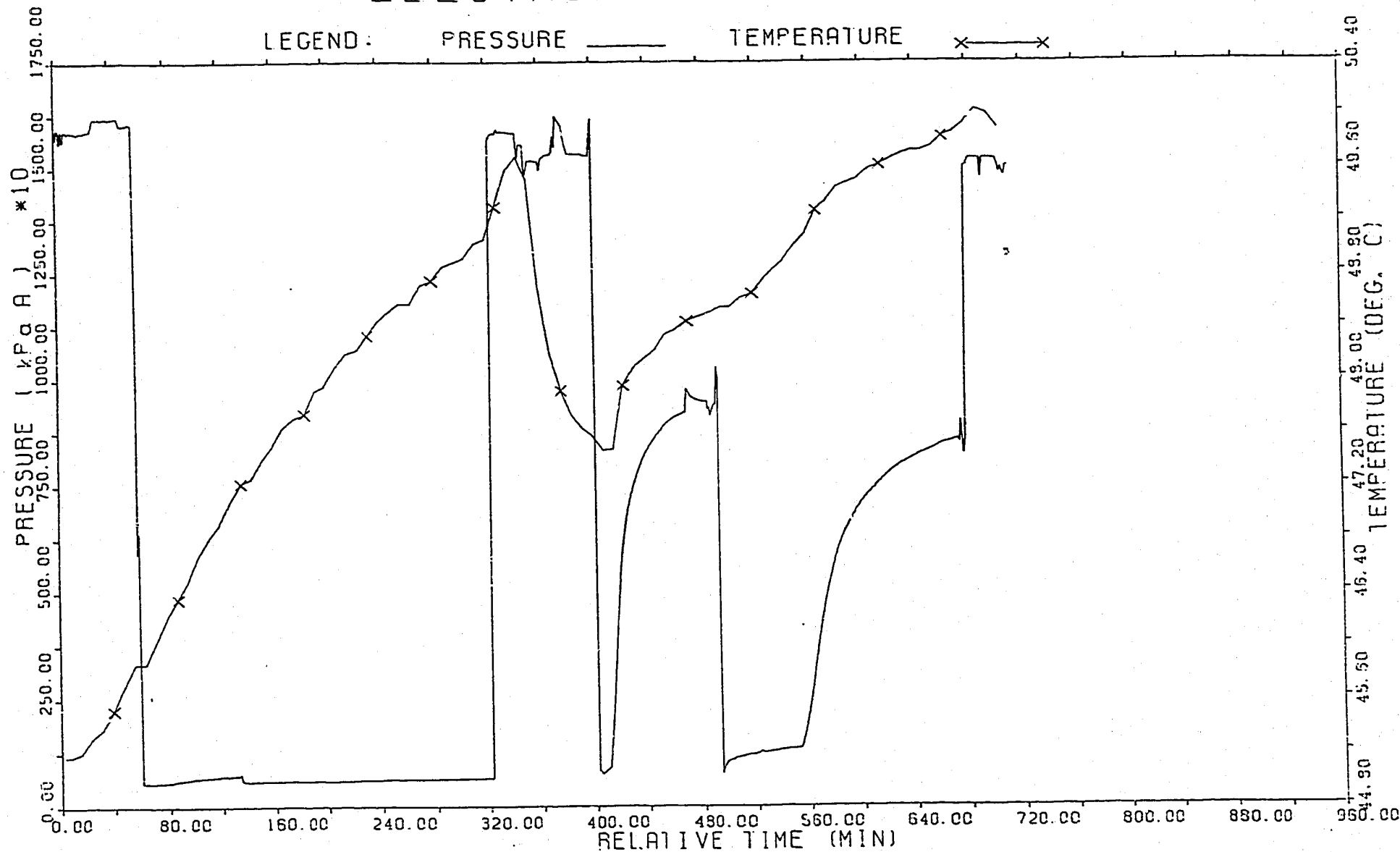
DST=003

SHUTIN = 1 +

2 Δ



PARA ET AL CAMERON HILLS I-10
60.093 / 117.300 DST #2 & #3
ELECTRONIC GAUGE #2002



DST#03
PARA ET AL CAMERON HILLS I-10
1392.00m to 1410.00m

PRESSURE RECORDER NUMBER : 002002

DEPTH : 1394.00m
TYPE : DMRB

LOCATION : OUTSIDE
CAPACITY : 34500.00kPa(a)

PRESSURE
kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 49.7 C

- 1) Initial Hydro : 15281.
- 2) 1st Flow Start: 819.
- 3) 1st Flow End : 905.
- 4) END 1st Shutin: 9222.
- 5) 2nd Flow Start: 741.
- 6) 2nd Flow End : 1413.
- 7) END 2nd Shutin: 8593.
- 14) Final Hydro. : 15203.

ELECTRONIC GAUGE
PRESSURES AND
TEMPERATURE.

TEST TIMES (MIN)

1st FLOW : 9.0
SHUTIN: 59.0
2nd FLOW : 60.0
SHUTIN: 119.0

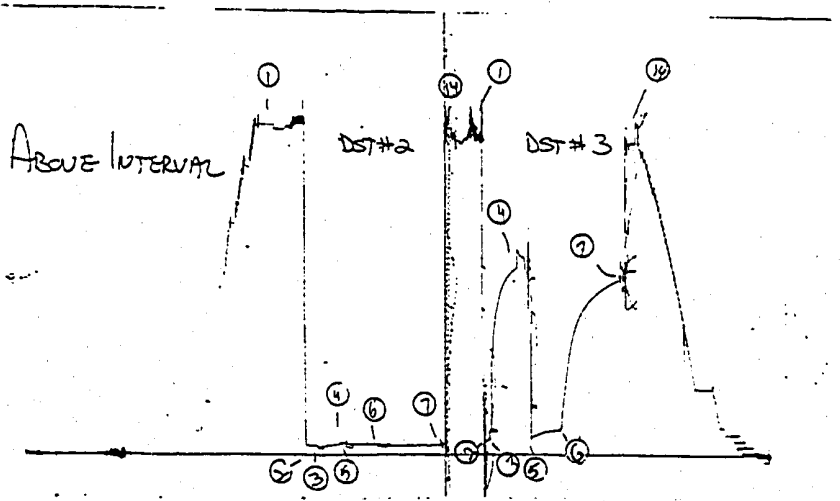
PRESSURE RECORDER NUMBER : 009490

DEPTH : 1385.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 21000.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 15124.
- 2) 1st Flow Start: 640.
- 3) 1st Flow End : 763.
- 4) END 1st Shutin: 8967.
- 5) 2nd Flow Start: 746.
- 6) 2nd Flow End : 1237.
- 7) END 2nd Shutin: 8386.
- 14) Final Hydro. : 14982.



ABOVE INTERVAL.

DST#03
 PARA ET AL CAMERON HILLS I-10
 1392.00m to 1410.00m

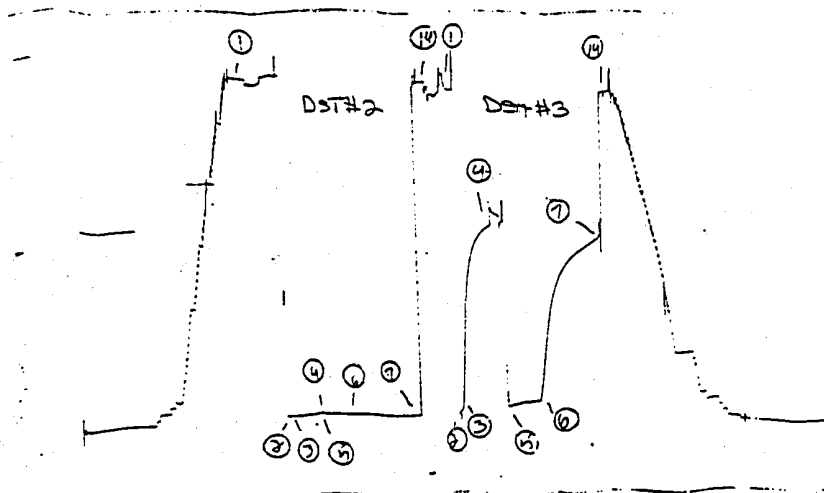
PRESSURE RECORDER NUMBER : 020425

DEPTH : 1394.00m
 TYPE : K-3

LOCATION : OUTSIDE
 CAPACITY : 19700.00 kPa

PRESSURE
 kPa

- 1) Initial Hydro : 15260.
- 2) 1st Flow Start: 550.
- 3) 1st Flow End : 722.
- 4) END 1st Shutin: 9101.
- 5) 2nd Flow Start: 845.
- 6) 2nd Flow End : 1248.
- 7) END 2nd Shutin: 8472.
- 14) Final Hydro. : 15064.



TEST TIMES (MIN)

1st FLOW : 9.0
 SHUTIN: 59.0
 2nd FLOW : 60.0
 SHUTIN: 119.0

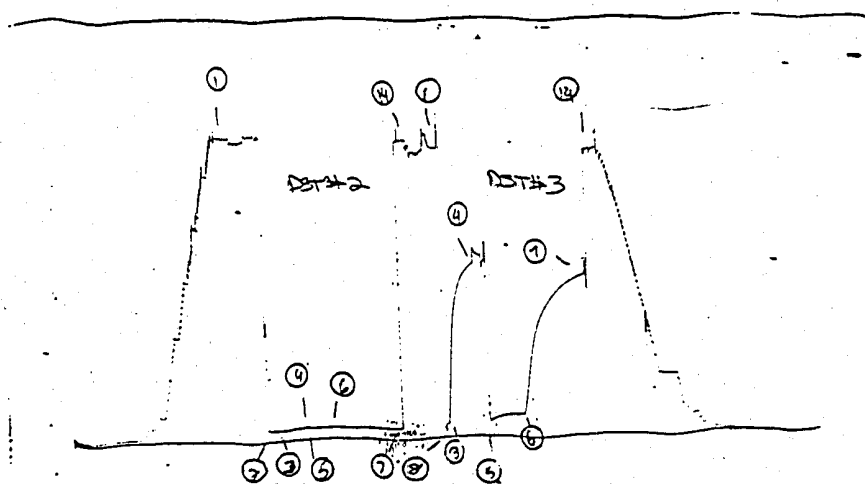
PRESSURE RECORDER NUMBER : 021353

DEPTH : 1394.00m
 TYPE : K-3

LOCATION : OUTSIDE
 CAPACITY : 23000.00 kPa

PRESSURE
 kPa

- 1) Initial Hydro : 15267.
- 2) 1st Flow Start: 530.
- 3) 1st Flow End : 777.
- 4) END 1st Shutin: 9107.
- 5) 2nd Flow Start: 827.
- 6) 2nd Flow End : 1288.
- 7) END 2nd Shutin: 8465.
- 14) Final Hydro. : 15077.



ALMECH SUB-SURFACE TOOLS (1976) LTD.

Subsurface Pressure Measurements

Company:	PARAMOUNT RESOURCES LTD.	Well Name:	PARAMOUNT etal CAMERON HILLS
Address:	c/o RIDGESTAR PETROLEUM, CALGARY	Location:	I-10
Field & Pool:	CAMERON HILLS - Keg River	Status:	OIL
Type of Test:	STATIC GRADIENT	Test Date:	Mar. 20, 1986
Perf Int CF:	1520.5 to 1523.0	Prod. Through:	TBG
Elev. (CF):	811.95 (KB) 815.95	Prod Int Midpoint(CF):	1521.75
Pool Datum:	NA m(subsea)	Datum Depth(CF)	NA

STATIC TEST

Tubing Pres.:	3150 KPA	Shut-in Time:	19/03/86 @21:30hrs
Casing Pres.:	0 KPA	On /Off Bot.:	07:10hrs/08:00hrs
Run Depth Top	1519.5 m CF	Grad /Run Depth(KPA/m)	9.236
Temp Run Depth	67 C	Pres /Run Depth(KPA)	9331
		Pres /Midpt Perfs(KPA)	9351.8
		Pres /Datum Depth(KPA)	NA

NOTE: ALL UNITS ARE IN METRIC

Element Serial No.	7319N	Clock Range (hrs):	3
Pres. Range	From: 0 To: 22443	Calibration Date:	19-Feb-86
Calc. Equ.	473.9 x Deflec. +		-22.5

TOP RECORDER DEPTH CF m	TIME HOURS	DEFL. -----	PRESSURE KPAG-----			GRADIENT kPa/m
		CALC. PRES.	CORR	CORR. PRES.		
-2.00		2908.3	16.0	2924.3		
-2.00		2891.7	16.1	2907.8		
98.00		2922.5	16.0	2938.5		0.307
198.00		2953.3	15.9	2969.3		0.307
298.00		2980.8	15.9	2996.7		0.274
398.00		3005.5	15.8	3021.3		0.246
498.00		3033.9	15.7	3049.6		0.284
598.00		3063.7	15.7	3079.4		0.298
698.00		3090.8	15.6	3106.4		0.270
798.00		3119.7	15.6	3135.2		0.288
898.00		3762.7	14.2	3776.8		6.416
998.00		4635.5	6.9	4642.4		8.656
1098.00		5487.0	-1.9	5485.1		8.427
1198.00		6317.7	-10.5	6307.2		8.220
1298.00		7220.4	-19.9	7200.5		8.933
1398.00		8206.0	-28.7	8177.3		9.768
1498.00		9156.1	-30.8	9125.3		9.480
1519.50	07:15hrs	9355.1	-31.2	9323.9		9.236
1519.50	07:25hrs	9357.5	-31.2	9326.2		

ALMECH SUB-SURFACE TOOLS (1976) LTD.

Subsurface Pressure Measurements

Company:	PARAMOUNT RESOURCES LTD.	Well Name:	PARAMOUNT etal CAMERON HILLS
Address:	c/o RIDGESTAR PETROLEUM, CALGARY	Location:	I-10
Field & Pool:	CAMERON HILLS - Keg River	Status:	OIL
Type of Test:	STATIC GRADIENT	Test Date:	Mar. 20, 1986
Perf Int CF:	1520.5 to 1523.0	Prod. Through:	T86
Elev. (CF):	811.95 (KB) 815.95	Prod Int Midpoint (CF):	1521.75
Pool Datum:	NA m(subsea)	Datum Depth (CF)	NA

STATIC TEST

Tubing Pres.:	3150 KPA	Shut-in Time:	19/03/86 @21:30hrs
Casing Pres.:	0 KPA	On /Off Bot.:	07:10hrs/08:00hrs
Run Depth Bot	1521.5 m CF	Grad /Run Depth (KPA/m)	9.197
Temp Run Depth	67 C	Pres /Run Depth (KPA)	9352.1
		Pres /Midpt Perfs (KPA)	9354.4
		Pres /Datum Depth (KPA)	NA

NOTE: ALL UNITS ARE IN METRIC

Element Serial No.	7954N	Clock Range (hrs):	3
Pres. Range	From: 0 To: 23442	Calibration Date:	19-Feb-86
Calc. Equ.	457.9 x Deflec. + -27.3		

BOTTOM RECORDER DEPTH CF m	TIME HOURS	DEFL. -----	PRESSURE KPAG-----			GRADIENT kPa/m
			CALC. PRES.	CORR	CORR. PRES.	
0.00		6.464	2932.9	14.0	2946.9	
0.00		6.438	2921.0	14.1	2935.0	
100.00		6.492	2945.7	14.0	2959.7	0.246
200.00		6.564	2978.7	13.8	2992.5	0.328
300.00		6.630	3008.9	13.7	3022.6	0.301
400.00		6.690	3036.4	13.6	3049.9	0.274
500.00		6.752	3064.8	13.4	3078.2	0.283
600.00		6.819	3095.4	13.3	3108.7	0.305
700.00		6.880	3123.4	13.2	3136.5	0.278
800.00		6.943	3152.2	13.0	3165.3	0.287
900.00		8.385	3812.6	10.1	3822.7	6.574
1000.00		10.275	4678.1	2.1	4680.2	8.575
1100.00		12.128	5526.7	-6.8	5519.9	8.397
1200.00		13.955	6363.3	-15.5	6347.8	8.279
1300.00		15.915	7260.9	-24.9	7236.0	8.882
1400.00		18.060	8243.2	-33.1	8210.1	9.741
1500.00		20.116	9184.7	-33.5	9151.2	9.411
1521.50	07:15hrs	20.548	9382.5	-33.6	9348.9	9.197
1521.50	07:25hrs	20.555	9385.7	-33.6	9352.1	

Company: PARAMOUNT RESOURCES LTD.

Test Date: Mar. 20, 1986

Run Depth Bot 1521.5

BOTTOM TIME

RECORDER DECIMAL

DEPTH CF m HRS

1521.50 07:40hrs

1521.50 08:00hrs

Well Name: PARAMOUNT etal CAMERON HILLS

Location: I-10

Element Serial No. 7954N

DEFL. ----- PRESSURE KPAG-----

CALC.

CORR

CORF.

GRADIENT

PRES.

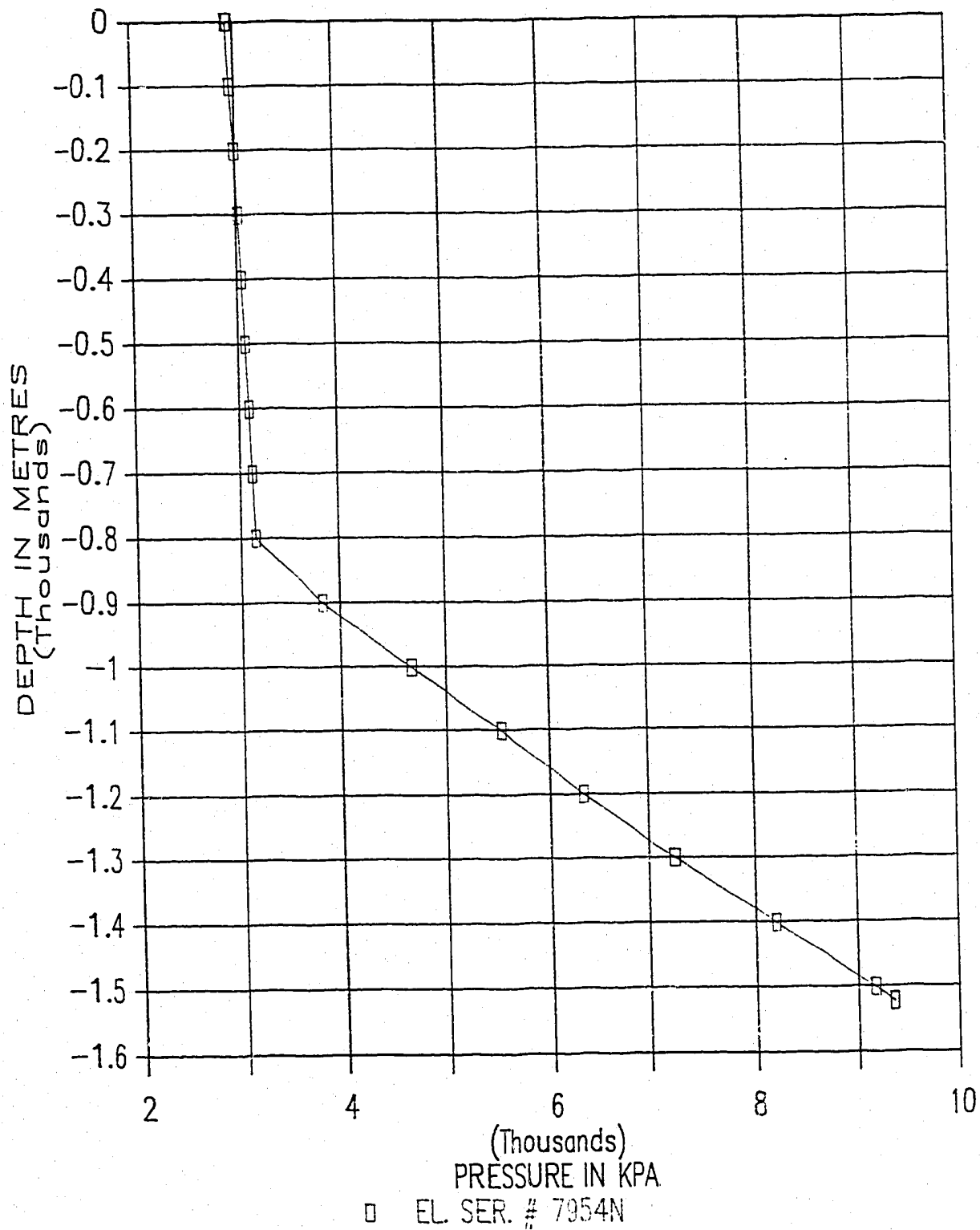
PRES.

kPa/m

REMARKS: Clock on bottom gauge #7954N stopped after 15 minutes
on bottom

PARAMOUNT RESOURCES LTD.

Mar. 20, 1986 Loc: I-10



APPENDIX "I"

SWAB REPORT

SWAB REPORT

Well Paramount et al Cameron Hills I-10

Date 86 03 18

Formation Keg River

Interval 1524.5 - 1527 m K.B **

Tank Gauge 0.156 m³/cm.

Tubing Size & Wt. 73 mm 67 kg/m

[illegible]

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date 86 03 19

Formation Keg River Interval 1524.5 - 1527

Tank Gauge 0.156 m³/cm. Tubing Size & Wt. 73 mm 67 kg/m

[illegible]

FLOW TEST

Paramount et al Cameron Hills I-10

1986 03 19

Time	Choke mm	Fluid Recovery		Tubing Pressure kPa	Remarks
		Production Oil & Water m ³	Cum. Production Oil & Water m ³		
1800				5200	Shut in
1815	11				Open choke, gas for 15 mins. Some oil 7% H ₂ O
1830	11	.795	15.2	650	56% H ₂ O well fl.
1845	11	1.19	16.447	1400	50% " " "
1900	11	.795	17.242	2100	52% " " "
1915	11	.795	18.037	2450	60% " " "
1930	11	1.192	19.229	2500	70% " " "
Pinch choke	5				
1945	5	.198	19.427	2700	70% " " "
2000	5	1.192	20.619	2500	65% " " "
2015	5	.198	20.817	2500	55% " " "
2030	5	.397	21.214	2800	55% " " "
2045	5	.238	21.452	1500	70% " " "
2100	5	.094	21.546	1600	60% " " "
2115	5	.198	21.744	1000	65% " " "
2130	5	.198	21.942	1950	65% " " " shut in
2200				1950	
2230	Csg. Pressure	500 kPa		3100	
2300	" "	500 kPa		3150	
2400				3150	

PARAMOUNT ET AL CAMERON HILLS I-10
OPERATION FROM 0001 hours 86 03 19

- No packer
- Ran in to swab after 1 hour
- Tagged fluid level at 365.76 m K.B.
- Pull tubing out of hole
- Run tubing with packer (1508 m K.B.) in hole. Landed at 1511 m K.B.
- Began swabbing - see swab report 86 03 19

Fluid recovered @ 1400 hours 11.68 m³

New fluid recovered 4.07 m³. This does not include KCL in the annulus
that still has to be recovered.

PARAMOUNT ET AL CARMERON HILLS I-10

1986 03 19

WATER TEST

9000 ppm

pH 4.0

Density 1095 kg/m³

PRESSURE BUILD UP

Time

Pressure

kPa

1115

3500

1135

3500

1146

3600

1200

3650

1215

3700

1230

3900

1245

3950

1300

4000

1315

4100

1330

4200

1330

Started flow, tubing pressure @ 4000 kPa

Gas has 1.8% H₂S

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date March 20, 1986

Formation Keg River Interval 1524.5 - 1527

Tank Gauge 0.156 m³/cm. Tubing Size & Wt. 73, 9.67 kg/m

TIME	SWAB No.	FLUID LEVEL m	SWAB DEPTH m	IN TANK cm	FLUID PULLED		TOTAL SWABBED m ³	Tubing PRESS. kPa	REMARKS (S&W %, etc.)
					cm	m ³			
1000	1	548	914			1.065			90%
1025	2	670	1219			1.605	2.67		52%
1115	3	762	1371			2.941	5.611		60%
	Well Flowing							1850	
1130						.540	6.151	850	22%
1200						5.000	11.151	2300	40%
1215								2300	45%
1230						.54	11.691	1300	56%
1245								1100	54%
1300						.524	12.215	800	38%
1315								800	40%
1330						.540	12.755	800	58%
1345								500	60%
1400	Well dead								
1445	4	609	914			.624	13.379	0	62%
1530	5	609	1219			.720	14.099	0	78%
1545	Well flowing, kick swab out of hole								
1600	.040 inch choke					.418	14.517	800	50%
1615								1000	40%
1630						2.032	16.549	1300	14%
1645								1300	70%
1700						2.032	18.581	1000	66%
1715								750	66%
1730						1.520	20.101	500	50%
1745								750	68%
1800						0		400	62% gas only
1815								100	54% gas only
1830						0		1100	55% gas
1845								0	66%
1900						0.254	20.355	0	gas
1915	Swabbing								

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date March 20, 1986

Formation Keg River Interval 1524.5 - 1527

Tank Gauge _____ m³/cm. Tubing Size & Wt. 73 mm, 9.67 kg/m

[illegible]

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date March 21, 1986

Formation Keg River Interval 1524.5 1527

Tank Gauge _____ m³/cm. Tubing Size & Wt. 73 mm, 9.67 kg/m

Choke Size 0.40 inches

[illegible]

SWAB REPORT

Well Paramount et al Cameron Hills I-10

Date March 21, 1986

Formation Keg River

Interval 1524.5 - 1527

Tank Gauge _____ m³/cm.

Tubing Size & Wt. 73 mm. 9.57 kg/m

[illegible]

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date March 24, 1986

Formation Keg River Interval 1508 - 1515 m

Tank Gauge _____ m³/cm. Tubing Size & Wt. 73 mm, 9.67 kg/m

TIME	SWAB No.	FLUID LEVEL m	SWAB DEPTH m	IN-TANK	FLUID PULLED		TOTAL SWABBED m ³	CASING PRESS. kPa	REMARKS (BS&W %, etc.)
					cm	m ³			
0805	1	500	914			.540			100%
	2	760	1219						
	3	760	1060						
	4	609	1060			3.74	4.28		24%, 11% Chlorides
	5	550	1000			1.57	5.85		36%
	6	730	1219						37%
1100	Well	flowing	.4" choke					500	2.2% Chlorides
1115								1400	
1130						4.00	9.85	900	
1145								750	80%
1200						1.06	10.91	550	70%
1215								550	12.9% Chlorides
1230						.540	11.45	0	76%
1300	Pull well.	(open choke)				.540	11.99	250	70%
1315								250	
1330						.27	12.26	250	84%
1345								0	
	Pulled well								
1415	7	150	600			.270	12.53	0	72%
1440	8	670	1060						52%
1515	9	850	PSN 1497			1.6	14.13		70%
1550	10	800	PSN 1497			1.6	15.73		13% Chlorides
1550								400	40% Chlorides
1610	Choke	.45"						1300	H ₂ S 100 ppm
1615						2.13	17.86	1250	40% H ₂ O
1630								1100	58% H ₂ O
1645						.80	18.66	1100	64% H ₂ O
1700	Choke	.35"						750	70% H ₂ O
1715	Choke	.29"				1.33	19.99	500	13.7% Chlorides
1730								1100	64% H ₂ O
1745	Shut in					.8	20.79	300	76% H ₂ O

SWAB REPORT

Well Paramount et al Cameron Hills I-10 Date 86 03 27

Formation Keg River Interval 1508-1515

Tank Gauge _____ m³/cm. Tubing Size & Wt. 73 mm, 9.67 kg/m

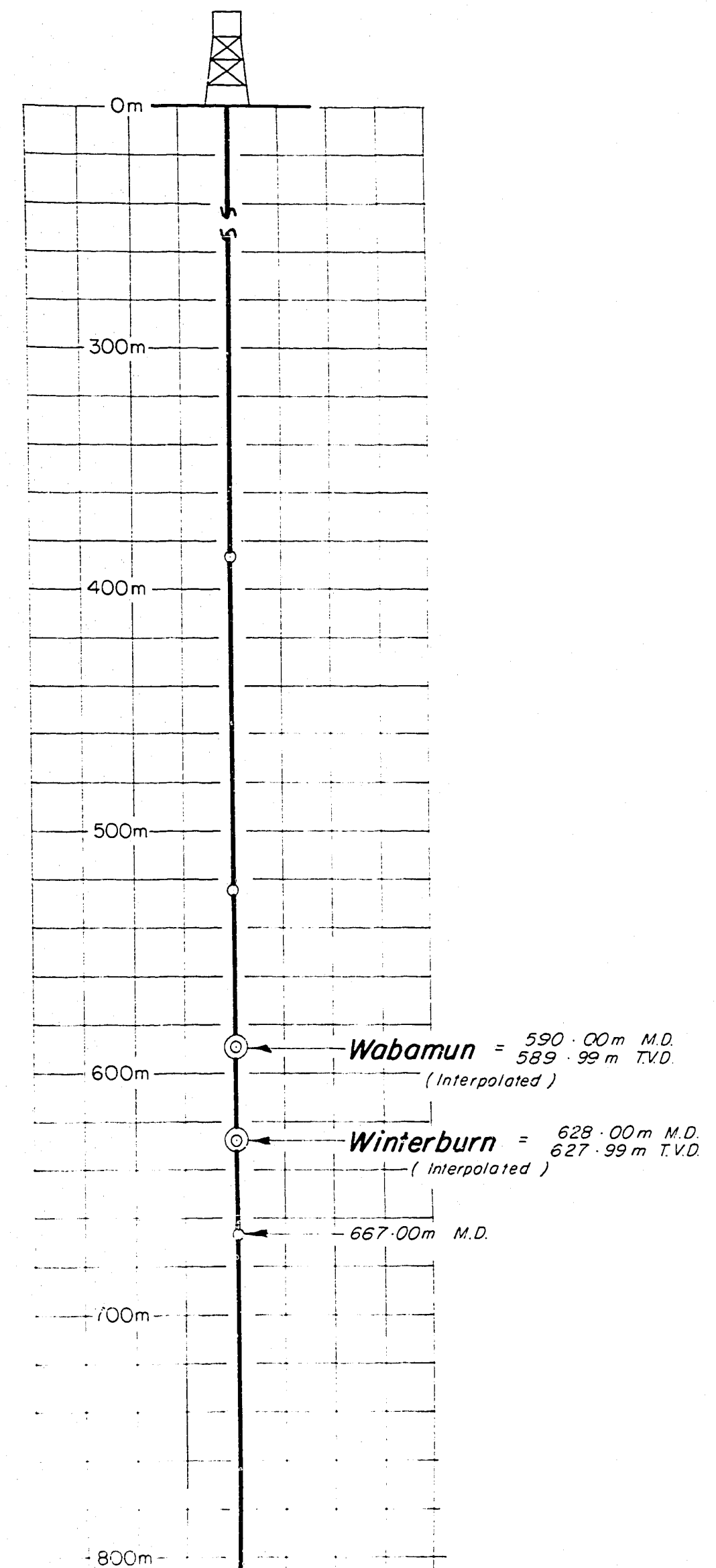
[illegible]

1026
Total Depth = 1563.00m M.D.
1521.49m T.V.D.

er = 1504.00m M.D.
1466.68m T.V.D.

om surface location = 87.13m SOUTH
195.11m EAST

3



Unit I, Section 10

Unit L, Section 80

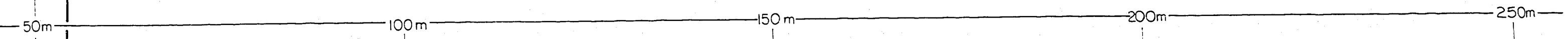
CO-ORDINATES; U.T.M. Reference Meridian: 117°
NORTH 6,669,230.70m
EAST 472,191.14m

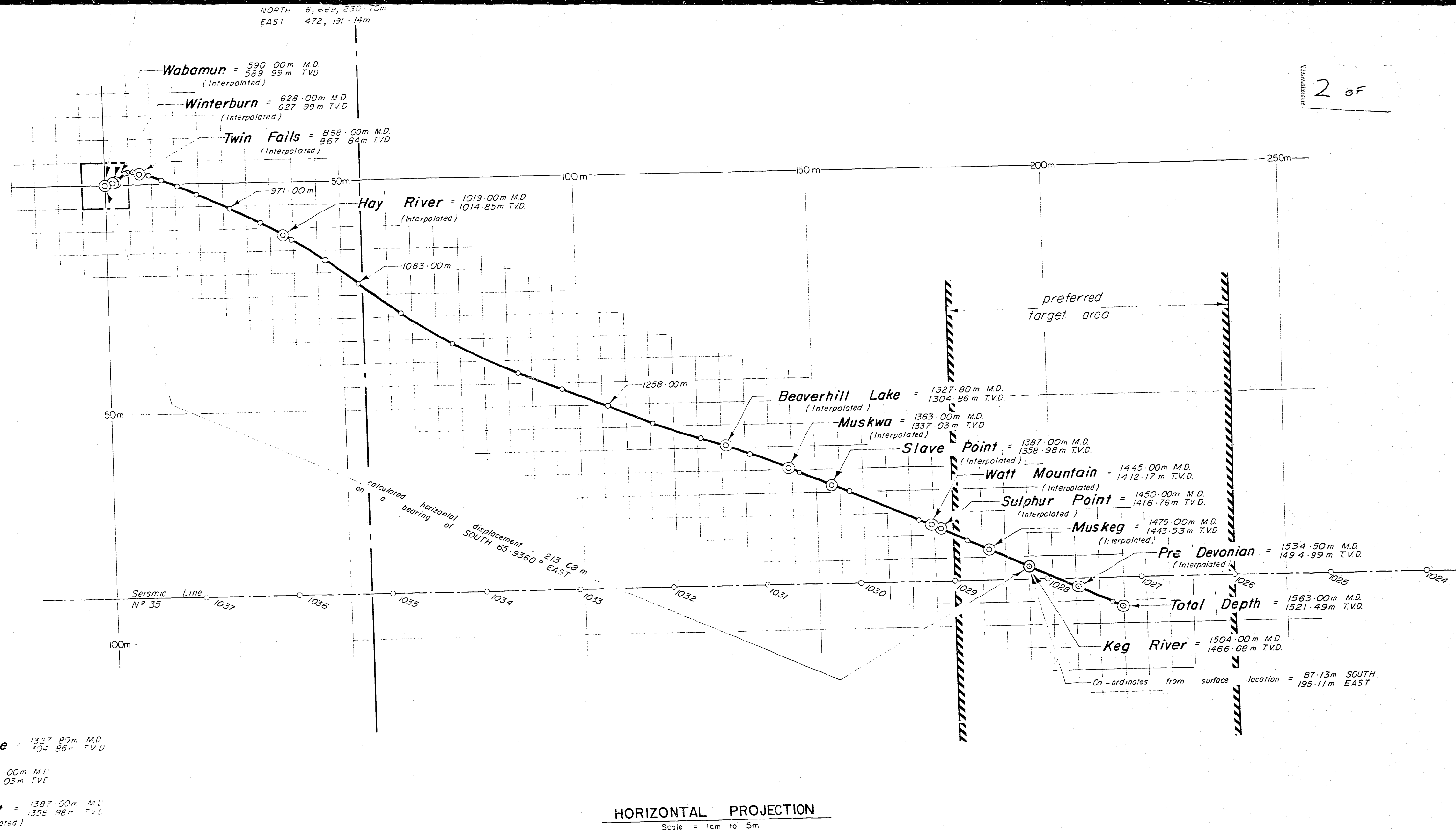
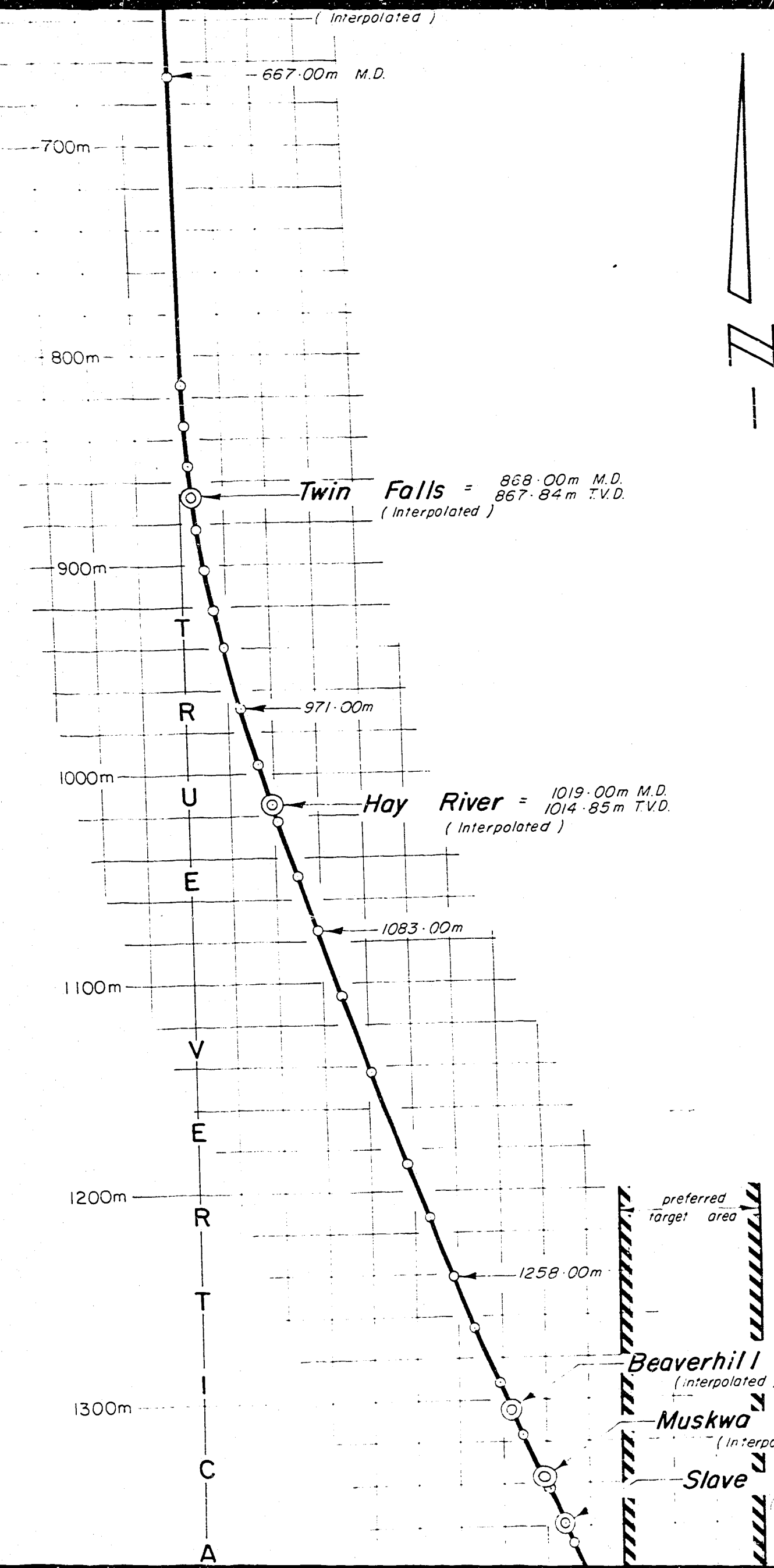
Wabamun = 590.00m M.D.
589.99m T.V.D.
(Interpolated)

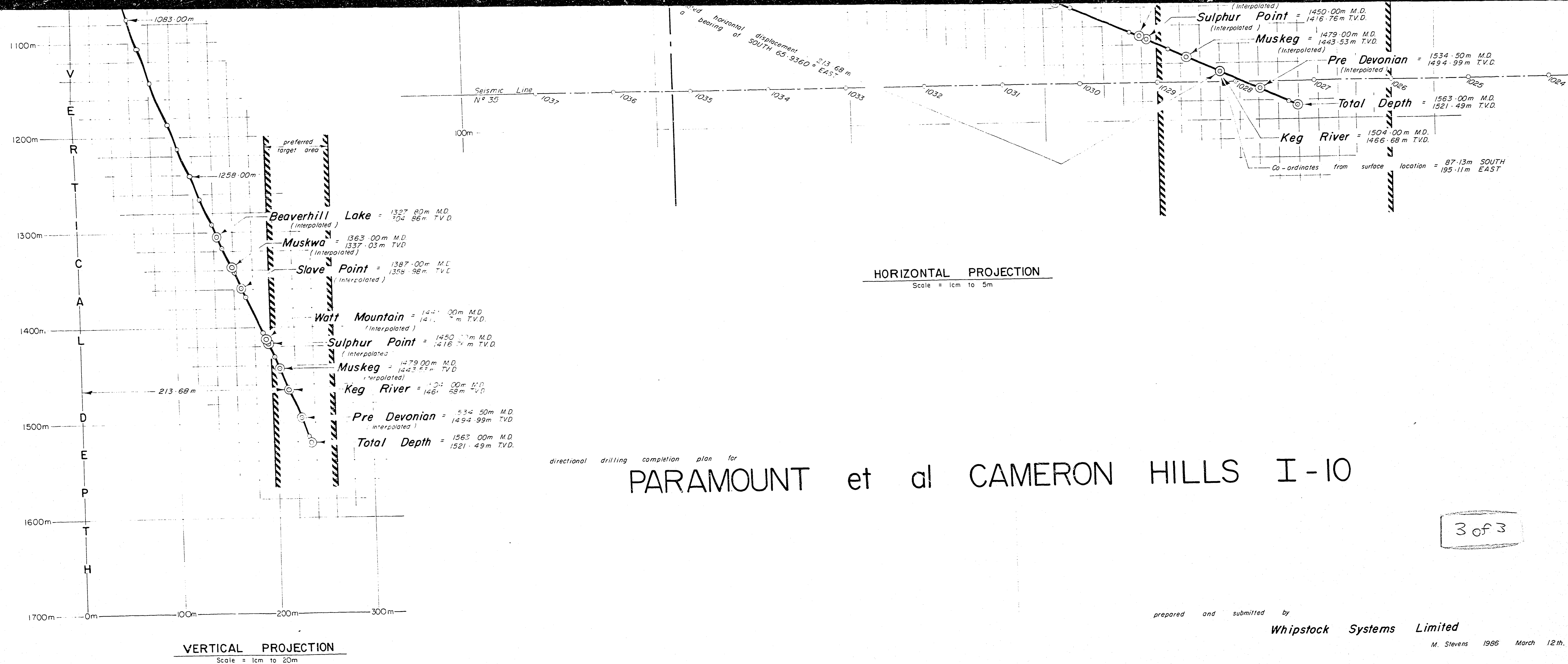
Winterburn = 628.00m M.D.
627.99m T.V.D.
(Interpolated)

Twin Falls = 868.00m M.D.
867.84m T.V.D.
(Interpolated)

971.00m







9 211 E9 1 3

Canada Oil and Gas Lands Administration Administration du pétrole et du gaz des terres du Canada
MAY 2 1985
Resource Evaluation Branch Direction de l'évaluation des Ressources
Project #

GEOLOGICAL REPORT

EXCO et al CAMERON HILLS I-10

60°09' 39.27"N., 117°30' 03.54"W

PREPARED FOR

EXCO ENERGY LTD.

APRIL, 1985

H. Steghaus
H. Steghaus, Ph.D., P. Geol.

TABLE OF CONTENTS

	<u>Page No.</u>
PERTINENT DATA	1
SAMPLE DESCRIPTION	2
REMARKS	7

PERTINENT DATA

WELL NAME: EXCO et al CAMERON HILLS I-10

LOCATION: 60°09' 39.27"N., 117°30' 03.54"W

ELEVATIONS: Ground: 811.95 m K.B.: 815.95 m

TOTAL DEPTH: Driller; 1613 m

WELL TYPE: Exploratory

STATUS: Suspended

OPERATOR: EXCO ENERGY LTD.

CONTRACTOR: ARNCO DRILLING LTD., RIG #1

SPUD DATE: February 19, 1985

RIG RELEASED: April 3, 1985

DITCH SAMPLES: Company: 400 - 1613 m Government: 400 - 1613 m

CORED INTERVALS: None

D.S.T.: None

LOG RECORD: No logs run

CASING RECORD: 244.5 mm, Surface - 387 m

SAMPLE DESCRIPTION

- 1300 - 1305m Shale, gray and part slightly greenish, to dark gray, some pieces brown and part silty, part slightly calcareous, part micropyrritic
- 1305 - 1310m Shale, gray to dark gray, part greenish, calcareous, part micropyrritic, some pieces micromicaceous; stringers of limestone, buff, silty
- 1310 - 1315m Shale, dark gray to gray, micropyrritic; shale, greenish gray, calcareous, micropyrritic, part micromicaceous
- 1315 - 1320m Shale, gray to dark gray, part micromicaceous, some pieces micropyrritic
- BEAVERHILL LAKE 1325m
- 1320 - 1325m Shale, dark brown to black, calcareous
- 1325 - 1330m Shale, black to dark brown, calcareous, micromicaceous; stringers of limestone, buff, microcrystalline, silty, slightly pyritic
- 1330 - 1335m Shale, greenish gray to gray, part calcareous, part micromicaceous, slightly pyritic and micropyrritic; stringers of siltstone, buff, calcareous
- 1335 - 1340m Shale, gray to black, some pieces greenish or brown, part calcareous, pyritic; stringers of limestone, buff, crypto - to microcrystalline
- 1340 - 1345m Shale and stringers of limestone as above; stringers of siltstone, buff, calcareous; few borings
- 1345 - 1350m Shale, gray to green, variably calcareous, part micropyrritic; stringers of siltstone, buff, calcareous
- MUSKWA 1355m
- 1350 - 1355m Shale, black to brown, calcareous, stringers of (microfossil) coquina
- 1355 - 1360m Shale as above; shale, gray, calcareous, part silty, few ostracods; trace limestone, buff to brown, few brachiopod fragments and ostracods

- 1360 - 1365m Shale, black to gray, some pieces white speckled, calcareous, part micropyrritic; stringers of limestone, buff to gray, argillaceous, few brachiopods
- 1365 - 1370m Limestone, buff to light gray, cryptocrystalline, part argillaceous, slightly pyritic and micropyrritic, brachiopod fragments; some shale as above
- 1370 - 1375m As above; predominantly shale with few centaculites
- SLAVE POINT 1380m
- 1375 - 1380m Shale, gray to greenish gray, calcareous, part micropyrritic, few pieces micromicaceous; limestone, buff to light gray, one piece light gray brown, part highly argillaceous, cryptocrystalline, pyritic and micropyrritic, few brachiopod fragments
- 1380 - 1385m Limestone, brown to buff, cryptocrystalline, pyritic
- 1385 - 1395m Limestone, tan to brown, micro - to cryptocrystalline, part pelletoidal or fragmental, some poor to fair intergranular porosity; spotty condensate staining
- 1395 - 1400m Limestone, tan to cream and light brown, crypto-crystalline, part pelletoidal, some poor intergranular porosity, little spotty condensate stain
- 1400 - 1405m Limestone, brown to cream, cryptocrystalline, some pieces pelletoidal, little very poor pin point porosity with some bitumen, little clear vug fill, trace spotty condensate stain
- 1405 - 1410m Limestone, tan to cream and brown, crypto - to micro-crystalline, some pieces pelletoidal, very slightly pyritic, few stylolites, trace very poor pin point porosity and spotty condensate stain, few brachiopods
- 1410 - 1415m Limestone, brown to cream, cryptocrystalline, few pieces pelletoidal, few stylolites, trace very poor pin point porosity, gastropod
- FORT VERMILION 1420m
- 1415 - 1420m Limestone, brown to cream, mottled and fragmental, crypto - to microcrystalline; anhydrite white to buff, micro - to cryptocrystalline

- 1420 - 1425m Limestone, brown to cream, part mottled and fragmental, micro - to cryptocrystalline, few small brachiopods; some white anhydrite lumps, cryptocrystalline
- 1425 - 1430m Anhydrite, tan to white cryptocrystalline; limestone as above
- 1430 - 1435m Anhydrite, buff to white, micro - to cryptocrystalline, part silty
- 1435 - 1440m Limestone, buff to brown, micro - to cryptocrystalline, part silty, few pieces argillaceous, some scattered gypsum crystals, few brachiopods and ostracods; little marlstone, greenish brown, clusters of ostracods
- 1440 - 1445m Limestone, brown to tan, micro - to cryptocrystalline, anhydrite, buff to white, cryptocrystalline; stringers of shale, gray and green, part calcareous
- WATT MOUNTAIN 1450m
- 1445 - 1450m Calcareous shale grading to argillaceous limestone, dark brown to black, bituminous, some pieces micropyrritic; trace shale, green, waxy, calcareous, part micropyrritic
- 1450 - 1455m As above; some limestone tan to buff, crypto - to microcrystalline; trace shale, green waxy, calcareous
- 1455 - 1465m Limestone, cream to brown, cryptocrystalline, slightly pyritic; argillaceous limestone grading to calcareous shale, dark brownish gray to black part coaly; shale, light green to light gray, slightly calcareous, waxy, finely pyritic
- BISTCHO 1470m
- 1465 - 1475m Limestone, brown to cream, part mottled and pelletoidal, crypto - to microcrystalline; little poor intergranular porosity; green shale as above
- SULPHUR POINT 1480m
- 1475 - 1480m Limestone as above, some fair interpelletoidal porosity, some spotty condensate staining; dolomite, brown to tan, finely to microcrystalline, some poor intercrystalline porosity, spotty condensate stain

- 1480 - 1490m Dolomite, brown to buff, finely to microcrystalline, fair intercrystalline and vuggy porosity, good light oil staining
- 1490 - 1495m Dolomite, brown to tan, micro to finely crystalline, some fair vuggy and intercrystalline porosity, selective oil staining and trace residual bitumen
- 1495 - 1500m Dolomite as above, fair vuggy porosity and extensive light oil staining
- 1500 - 1505m Dolomite, dark brown to tan, micro to finely crystalline, poor vuggy porosity and selective oil staining
- MUSKEG 1510m
- 1505 - 1510m Dolomite, light brownish gray to buff, crypto to very finely crystalline, little pin - point porosity, trace condensate stain
- 1510 - 1515m Dolomite, tan to buff, micro to very finely crystalline, little very poor pin - point and vuggy porosity, trace condensate staining; stringers of shale, black, calcareous
- 1515 - 1520m Dolomite, brown to tan, very finely to cryptocrystalline, trace very poor pin - point porosity, slightly pyritic; very little anhydrite, white to tan, cryptocrystalline
- 1520 - 1525m Dolomite, brown to tan, microcrystalline, little very poor intercrystalline porosity, little spotty condensate stain; anhydrite, buff to tan, cryptocrystalline
- 1525 - 1530m Dolomite brown to light gray, micro to very finely crystalline, some poor intercrystalline and vuggy porosity, trace residual bitumen; little anhydrite as above
- 1530 - 1535m Dolomite, brown to cream, very finely to crypto-crystalline, very poor to poor intercrystalline and vuggy porosity, selective oil staining; trace anhydrite, white to tan
- 1535 - 1540m As above; trace coarse vug fill, few dolomite pieces pyritic

KEG RIVER 1545m

- 1540 - 1550m Dolomite, tan to brown and light gray, micro to medium crystalline, little coarse crystalline vug fill, little very poor pin - point porosity
- 1550 - 1555m Dolomite, brown to cream, micro to medium crystalline, some coarse crystalline vug fill, trace very poor intercrystalline porosity
- 1555 - 1560m Dolomite, brown to buff, micro to medium crystalline, little vug fill, some poor intercrystalline porosity, trace interstitial bitumen, very slightly pyritic
- 1560 - 1570m As above; porosity poor to fair, some crinoid ossicles, very few stromatopora fragments

GRANITE WASH 1575m

- 1570 - 1575m Dolomite as above, fair intercrystalline porosity; sandstone, white, calcareous, fine to coarse, sub-angular, poorly sorted, friable, slightly pyritic

PREDEVONIAN 1580m

- 1575 - 1580m Trace schist, dark gray, silky, "red beds" soft, completely absorbed by mudsystem, trace sandstone as above; various dolomites and shales, cavings (?)
- 1580 - 1590m Some schist, dark gray, silky, few rusty spots, few angular quartz grains

PRECAMBRIAN 1595m

- 1590 - 1613m Schist as above; some gray granite, increasing from top to bottom

REMARKS:

The well was drilled directionally from a surface location in I-10, Grid Area 60°10'N, 117°30'W to a subsurface target in L-80 Grid Area 60°10'N, 117°15'W. After reaching the total depth of 1603 m the drill string became stuck in the hole. The bottom-hole assembly and some fishing collars have been left at the bottom of the hole. Because of the spring break-up the well was plugged back and had to be suspended. It is planned to re-enter and complete the well during the next drilling season.

No logs were run. The top of the fish is above the top of the Slave Point formation. Drill cuttings from the Slave Point, Bistcho, Sulphur Point, Muskeg and the Keg River display generally fair porosities and spotty staining. The Sulphur Point samples are oil stained. The Keg River appears to be reefal and there is some interstitial bitumen present.



CHEMICAL & GEOLOGICAL LABORATORIES LTD.



CONTAINER IDENTITY		LABORATORY NUMBER	
		G86-1069	
LICENCE NUMBER		OPERATOR NAME	
		PARAMOUNT RESOURCES LTD.	
LOCATION		WELL NAME	
L-80 (NWT)		I-10 PARAMOUNT CAMERON HILLS L-80	
FIELD OR AREA		ELEVATIONS K.B. (metres) GRD.	
CAMERON HILLS		816.25 811.95	
POOL OR ZONE		COMPANY	
SLAVE POINT-SLAVE POINT		BAKER PRODUCTION TECHNOLOGY	
TEST TYPE	NO.	TEST RECOVERY	
DST	283	133 M	
MULTIPLE RECOVERY	Y N		
	X		
SAMPLING POINT		AMT. & TYPE OF CUSHION	
SEE BELOW			
TYPE OF PRODUCTION		MUD RESISTIVITY	
PUMPING FLOWING GAS LIFT SWAB		20%	
PRODUCTION RATES			
WATER m ³ /d OIL m ³ /d GAS 10 ³ m ³ /d			
SEPARATOR TREATER RESERVOIR SOURCE			
GAUGE PRESSURE kPa			
SEPARATOR TREATER RESERVOIR SOURCE			
TEMPERATURE °C			
DATE SAMPLED (Y-M-D)	DATE RECEIVED (Y-M-D)	DATE REPORTED (Y-M-D)	ANALYST
86/03/05	86/03/24	86/03/27	K.M.
OTHER INFORMATION			

G86-1069-1: Sampled from Top
RESISTIVITY: 1.36 Ohm metres @ 25°C
Watery mud.

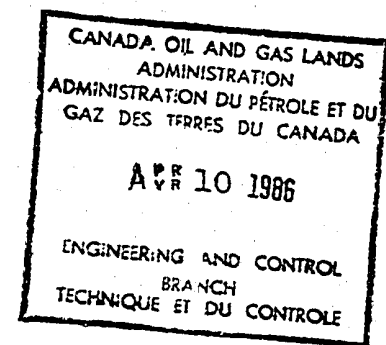
G86-1069-2: Sampled from Middle
RESISTIVITY: 0.400 Ohm metres @ 25°C
Watery mud.

CANADA OIL AND GAS LANDS
ADMINISTRATION DU PETROLE ET DU
GAZ DES TERRES DU CANADA
APR 10 1986
ENGINEERING AND CONTROL
BRANCH
TECHNIQUE ET DU CONTROLE

CORE LABORATORIES - CANADA, LTD.

Petroleum Reservoir Engineering

9211-E9-1-3 *ett*



CORE ANALYSIS

PARAMOUNT RESOURCES LTD.
PARA ET AL CAMERON HILLS I-10
CAMERON HILLS, N.W.T.
60° 09' 39.27" N LAT 117° 30' 03.50" W LONG
86-02-27

CORE LABORATORIES - CANADA, LTD.

COMPANY PARAMOUNT RESOURCES LTD.
WELL PARA ET AL CAMERON HILLS I-10
FIELD CAMERON HILLS, N.W.T.
LOCATION 60° 09' 39.27" N LAT 117° 30' 03.50" W LONG

FORMATION SULPHUR POINT
CORING EQUIPMENT DIAMOND
CORE DIAMETER.(mm) 132
CORING FLUID WATER BASE MUD

PAGE 1
FILE 71275-86-044C
DATE 86-02-27
ANALYSTS RLR

FULL DIAMETER ANALYSIS

Sample Number	Depth Metres (m)	m Rep.	Sample Length	Permeability to Air Millidarcys			Perm. X m	Residual Saturation (Frac of Pore Vol)							VISUAL EXAMINATION
				mD Max.	mD 90 des.	mD V		Porosity X m	Porosity X m	Bulk	Grain	Oil	Water		
CORE NO. 1 1522.00 m - 1522.75 (core received 0.75 m) (1 Boxes)															
SP 1	1522.00-22.35	0.35	-	0.11	-	0.01	0.039	0.043	0.015	-	2840	0.242	0.101	23.5 API dol i anhy sty	
SP 2	1522.35-22.52	0.17	-	0.05	-	<0.01	0.009	0.038	0.006	-	2840	0.323	0.206	dol i anhy sty	
SP 3	1522.52-22.75	0.23	-	0.03	-	0.02	0.007	0.014	0.003	-	2840	0.447	0.124	dol i anhy frac	

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD. (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABILITY OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

CORE LABORATORIES - CANADA, LTD.

WELL PARA ET AL CAMERON HILLS I-10

PAGE 2

FORMATION SULPHUR POINT

SUMMARY INTERVAL 1522.00-1522.75

FILE 71275-86-044C

TOTAL 0.75

METRES ANALYZED 0.75

METRES NOT ANALYZED: TOTAL 0.00 DENSE 0.00 LOST 0.00 *NA 0.00 DRILLED 0.00 RUBBLE 0.00

SUMMARY OF ANALYZED CORE:

TOTAL

BY
PERM
RANGES

LESS THAN 0.01 mD
0.01 0.09 mD
0.10 0.49 mD
0.50 0.99 mD
1.0 9.99 mD
GREATER THAN 9.99 mD

METRES	FRACTION OF ANALYZED CORE	WEIGHTED AVERAGE POROSITY	POROSITY METRES	WEIGHTED AV. HORIZONTAL PERMEABILITY	PERMEABILITY METRES	WEIGHTED AVERAGE RESID. OIL	WEIGHTED AVERAGE TOT. WATER
0.750	1.000	0.033	0.025	0.072	0.054	0.290	0.131
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.400	0.533	0.024	0.010	0.038	0.015	0.364	0.179
0.350	0.467	0.043	0.015	0.110	0.038	0.242	0.101
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*NOT ANALYZED BY REQUEST

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD. (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

CORE LABORATORIES - CANADA, LTD.

CODE KEY - DESCRIPTIONS

anhv	= Anhydrite	hal	= Halite (Salt)	SCAL	= removed for special core analysis
AST	= Appears similar to	i	= Intergranular	sdv	= Sandy
bk	= Break	lam	= Laminæ (Laminated)	SEM	= Scanning electron microscope analysis
bldr	= Boulder	lmv	= Limy	sh	= Shale
c	= Coarse	ls	= Limestone	sltst	= Siltstone
calc	= Calcite (areous)	lv	= Large vus	slty	= Silty
carb	= Carbonaceous	m	= Medium	ss	= Sandstone
cbl	= Cobble	mi	= Mud invaded	sshy	= Slightly Shaly (<20%)
CEC	= Cation exchange capacity	mic	= Micaceous	stx	= Stylolite (ic)
csl	= Conglomerate	mshy or shy	= Moderately shaly (20-40%)	sulf	= Sulphur
cht	= Chert	mv	= Medium vus	sv	= small vus
coal	= Coal/Coal Inclusion	NA	= Not analysed by request	tr	= Trace
dol	= Dolomite	NP	= No permeability measurement	TS	= Thin section
f	= Fine	ool	= Oolitic	uncons	= Unconsolidated
fest	= Ironstone	OB	= Overburden	vfrac	= Vertical fracture
foss	= Fossil (iferous)	P	= Preserved for future studies	vf	= Very fine
frac	= Fracture	pbl	= Pebble	VOR	= Vertical overburden sample
fri	= Friable	POA	= Portion removed for oil analysis	vshy	= Very shaly (>40%)
glau	= Glauconite (ic)	PPV	= Pinpoint Vus	vus	= Vussy (ular)
grnl	= Granule	PSA	= Particle size analysis	*	= broken core
gyp	= Gypsum	pyr	= Pyrite (ic)	**	= Permeability > 10240 mD
h frac	= Horizontal fracture	pyrbit	= Pyrobitumen	SA	= Sieve Analysis

CLEANING

Solvent	TOLUENE
Extraction Equipment	CO2 AND VAPOUR PHASE EXTRACTORS
Extraction Time	240 HOURS
Drying Equipment	GRAVITY OVEN
Drying Time	24 HOURS
Drying Temperature	120 DEGREES C.

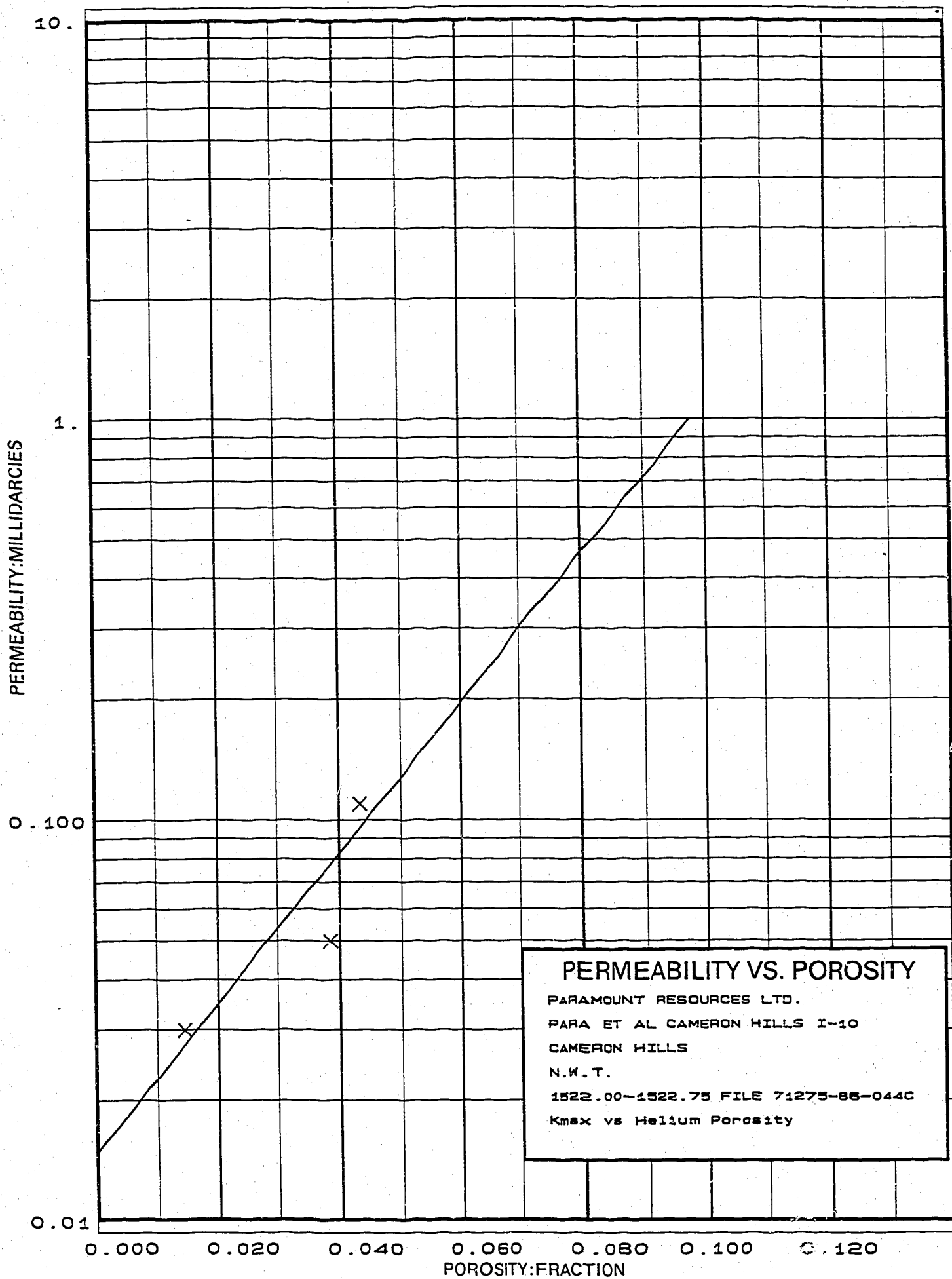
ANALYSIS

Pore volume measured by Boyle's Law in a Hassler holder using He
 Grain vol msrd by Boyle's Law in a modified U.S.R.M. porosimeter using He
 X Grain volume measured by Boyle's Law in a matrix cup using He
 X Bulk volume measured by caliperings
 X Bulk Volume by Archimedes Principle
 Porosity determined by summation of fluids (retort)
 Fluid saturations by retort on end pieces of full diameter samples
 X Fluid saturation by retort
 Water saturations by Dean-Stark
 Oil saturations by weight difference in Dean-Stark
 Permeabilities measured on 20mm cubes
 X Permeabilities measured on 38.1 mm diameter drilled plugs
 X Core Gamma Composite
 Core Gamma Spectral

REMARKS:

FINAL REPORT.

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD. (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY



EQUATION OF REDUCED LINE RELATING PERMEABILITY (K) TO POROSITY			
LOG (K) = (SLOPE)(POROSITY) + LOG OF INTERCEPT			
K = ANTILOG (SLOPE)(POROSITY) + LOG OF INTERCEPT			
RANGE	SYMBOL	EQUATION OF THE LINE	
1	X	PERM=ANTILOG (0.1869) (POROSITY)	-1.3254

PERMEABILITY VS POROSITY

PAGE 1
FILE: 71275-86-044C

COMPANY: PARAMOUNT RESOURCES LTD.

WELL : PARA ET AL CAMERON HILLS I-10

FIELD : CAMERON HILLS

PROVINCE: N.W.T.

FORMATION: SULPHUR POINT

AIR PERMEABILITY : MD - MAXIMUM
POROSITY : FRACTION

(UNCORRECTED FOR SLIPPAGE)
(HELIUM)

DEPTH INTERVAL	METERS ANALYZED	RANGE & SYMBOL	PERMEABILITY		POROSITY		POROSITY AVERAGE	PERMEABILITY AVERAGES		
			MINIMUM	MAXIMUM	MIN.	MAX.		ARITHMETIC	HARMONIC	GEOMETRIC
1522.00 - 1522.75	0.75	1 (X)	0.000	1.0	0.000	0.100	0.033	0.07	0.05	0.06

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :

$\log(K) = (\text{SLOPE})(\text{POROSITY}) + \log \text{ OF INTERCEPT}$

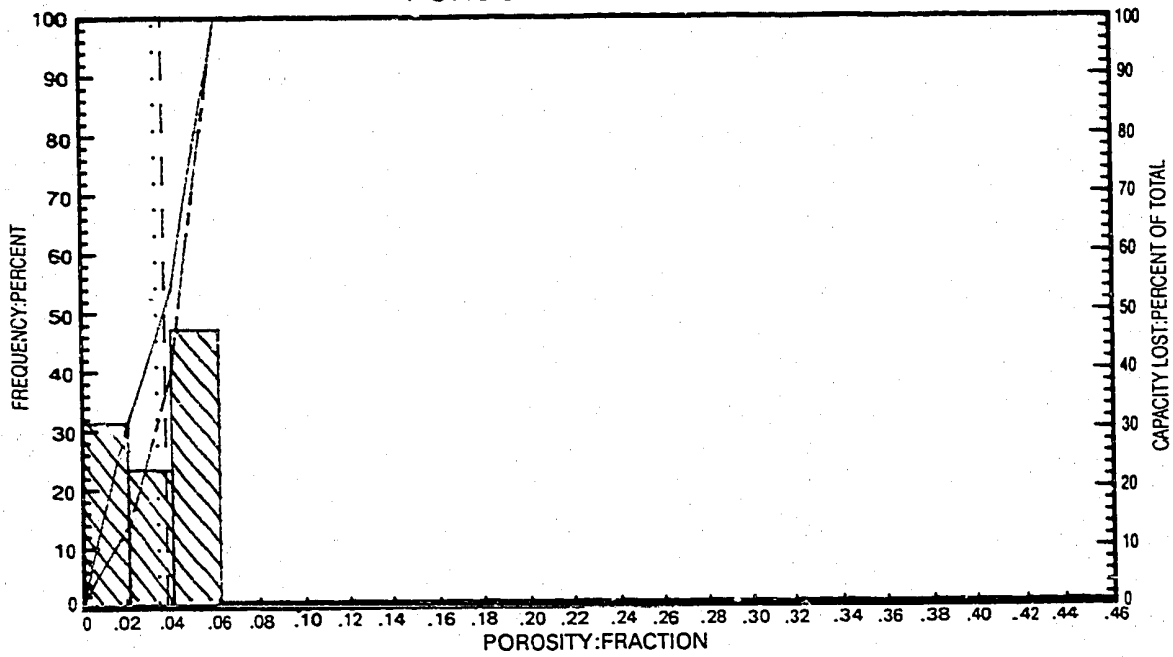
$K = \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \log \text{ OF INTERCEPT})$

RANGE EQUATION OF THE LINE

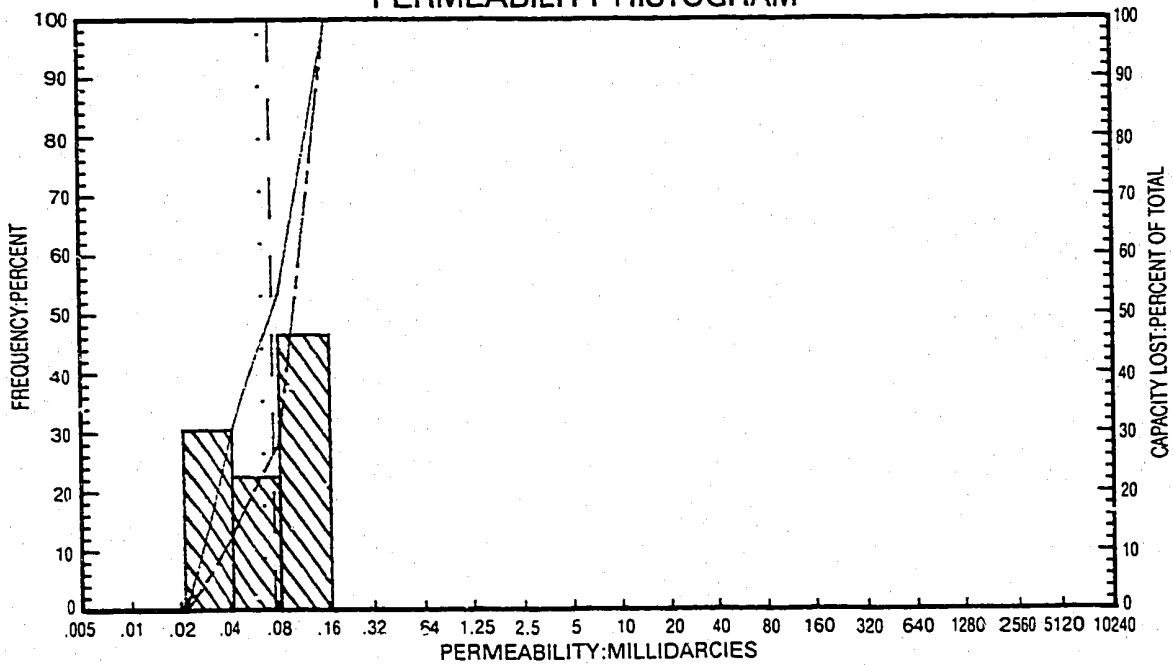
1 PERM = ANTILOG((0.1869)(POROSITY) + -1.8254)

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD.(ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER HYDROCARBON WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

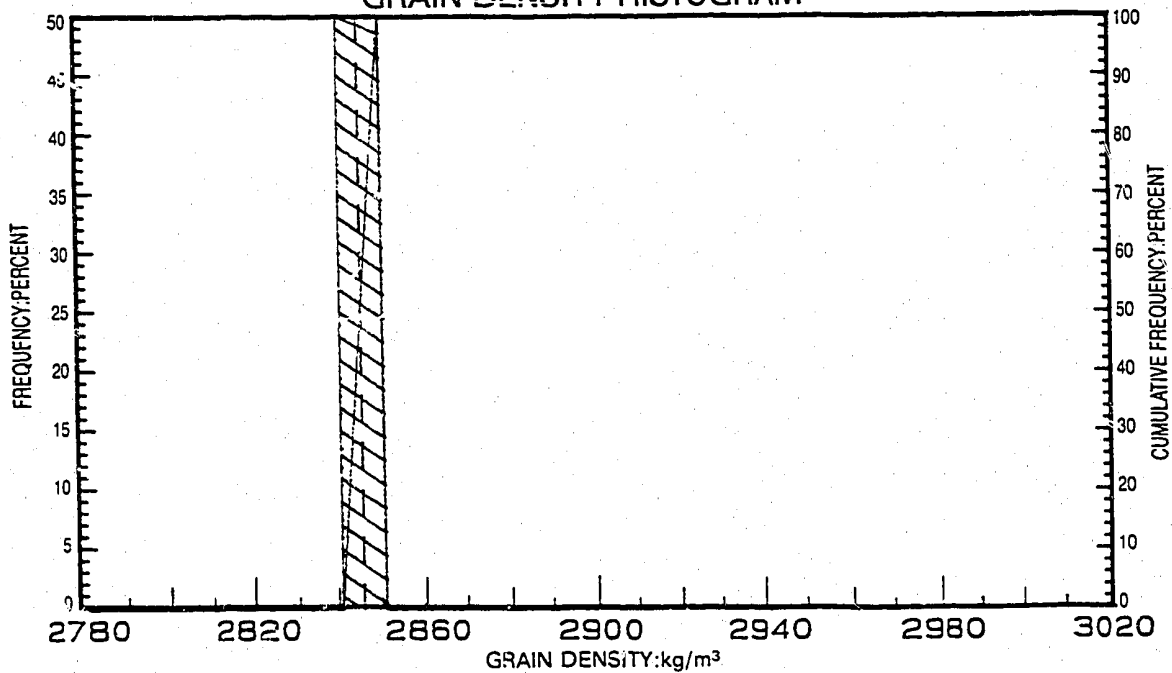
POROSITY HISTOGRAM



PERMEABILITY HISTOGRAM



GRAIN DENSITY HISTOGRAM



PARAMOUNT RESOURCES LTD.
 PARA ET AL CAMERON HILLS I-10
 CAMERON HILLS
 N.W.T.
 1522.00-1522.75 FILE 71275-86-044C
 Kmax and Helium Porosity

LEGEND

MEDIAN VALUE ————
 CUMULATIVE FREQUENCY ————
 CUMULATIVE CAPACITY LOST ————
 ARITHMETIC MEAN POROSITY
 GEOMETRIC MEAN PERMEABILITY
 ARITHMETIC MEAN GRAIN DENSITY

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PAGE 1
FILE 71275-86-0440

COMPANY: PARAMOUNT RESOURCES LTD.
FIELD : CAMERON HILLS

WELL : PARA ET AL CAMERON HILLS I-10
PROVINCE: N.W.T.

AIR PERMEABILITY : MD. (MAXIMUM) RANGE USED 0.000 TO 1.
POROSITY : FRACTION (HFLIUM) RANGE USED 0.000 TO .46

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 1522.00 - 1522.75 INTERVAL LENGTH : 0.75
METRES ANALYZED IN ZONE : 0.75 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
0.033	0.07	0.05	0.06

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD.(ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PAGE 2
FILE 71275-86-044C

COMPANY: PARAMOUNT RESOURCES LTD.
FIELD : CAMERON HILLS

WELL : PARA ET AL CAMERON HILLS I-10
PROVINCE: N.W.T.

GROUPING BY POROSITY RANGES

POROSITY RANGE	METRES IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.000 -0.020	0.2	0.014	0.030	0.030	30.7	30.7
0.020 -0.040	0.2	0.038	0.050	0.050	22.7	53.3
0.040 -0.060	0.3	0.043	0.110	0.110	46.7	100.0

TOTAL NUMBER OF METRES = 0.75

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD.(ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PAGE 3
FILE 71275-86-044C

COMPANY: PARAMOUNT RESOURCES LTD.
FIELD : CAMERON HILLS

WELL : PARA ET AL CAMERON HILLS I-10
PROVINCE: N.W.T.

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	METRES IN RANGE	AVERAGE PERM. (GEOM.)	PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.020 - 0.039	0.2	0.030	0.030	0.014	30.7	30.7
0.039 - 0.078	0.2	0.050	0.050	0.038	22.7	53.3
0.078 - 0.156	0.3	0.110	0.110	0.043	46.7	100.0

TOTAL NUMBER OF METRES = 0.75

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD. (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PAGE 4
FILE 71275-86-044C

COMPANY: PARAMOUNT RESOURCES LTD.
FIELD : CAMERON HILLS

WELL : PARA ET AL CAMERON HILLS I-10
PROVINCE: N.W.T.

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.000	0.0	0.0	0.7	100.0	0.033	0.037
0.020	0.2	13.0	0.5	87.0	0.041	0.045
0.040	0.4	39.1	0.3	60.9	0.043	
0.060	0.7	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-METRES = 0.025

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD. (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER HYDROCARBON WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON.

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PAGE 5
FILE 71275-86-044C

COMPANY: PARAMOUNT RESOURCES LTD.
FIELD : CAMERON HILLS

WELL : PARA ET AL CAMERON HILLS I-10
PROVINCE: N.W.T.

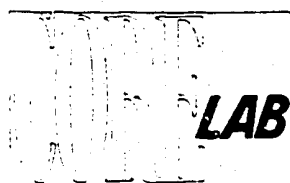
MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	0.7	100.0	0.06	0.07
0.010	0.0	0.0	0.7	100.0	0.06	0.07
0.020	0.0	0.0	0.7	100.0	0.06	0.07
0.039	0.2	12.8	0.5	87.2	0.09	0.09
0.078	0.4	28.6	0.3	71.4	0.11	
0.	0.7	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-METRES(ARITHMETIC) = 0.05

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGMENT OF CORE LABORATORIES - CANADA LTD.(ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES - CANADA LTD. AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABLENESS OF ANY OIL, GAS OR OTHER MINERAL WELL OR SAND IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON

CORE LABORATORIES – CANADA, LTD.



Petroleum Reservoir Engineering

COMPANY PARAMOUNT RESOURCES LTD. FILE NO. 71275-86-044C
WELL PARA ET AL CAMERON HILLS I-10 DATE 86-02-27
FIELD CAMERON HILLS FORMATION SULPHUR POINT ELEV. -
PROVINCE N.W.T. DRUG. FLD. WATER BASE MUD CORES 1
LOCATION 60° 09' 39.27" N LAT 117° 30' 03.50" W LONG

CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories-Canada, Ltd., (all errors or omissions excepted); but Core Laboratories-Canada, Ltd., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

VERTICAL SCALE: 10 cm = 24m

Gamma Ray

API UNITS
CALIBRATION PEAK =
202 API UNITS

Depth
meters

1515

1525

1535

1545

Grain Density (Kg/m³)

2550

2650

2750

2850

2950

Porosity (FRACTION)

.60

.45

.30

.15

0

CORE LABORATORIES - CANADA, LTD.



Petroleum Reservoir Engineering

COMPANY PARAMOUNT RESOURCES LTD. FILE NO. 71275-86-044C
 WELL PARA ET AL CAMERON HILLS I-10 DATE 86-02-27
 FIELD CAMERON HILLS FORMATION SULPHUR POINT ELEV.
 PROVINCE N.W.T. DRUG. FLD. WATER BASE MUD CORES 1
 LOCATION 60° 09' 39.27" N LAT 117° 20' 03.50" W LONG

CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories-Canada, Ltd., (all errors or omissions excepted); but Core Laboratories-Canada, Ltd., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or land in connection with which such report is used or relied upon.

VERTICAL SCALE: 10cm = 24m

