

PCI

CANTERRA

BELE 0-35

9211-P28-3-1

Apr 1986 - P.S.

CANADA OIL AND GAS LANDS
ADMINISTRATION
ADMINISTRATION DU PÉROLE ET DU
GAZ DES TERRES DU CANADA

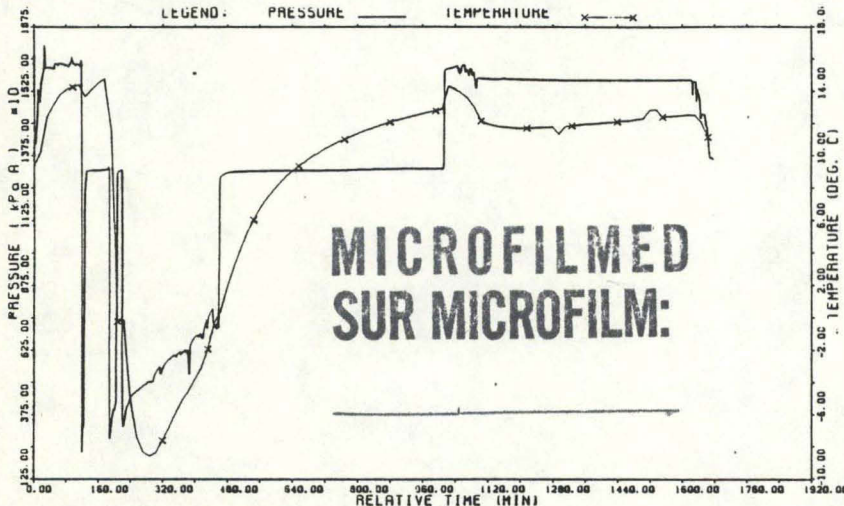
MAY 7 1986

ENGINEERING BRANCH
GÉNIE

PCI CANTERRA BELE O-35
400/ 66.345 / 126.210 /00
DST#01
1351.00m to 1362.00m
MOUNT CLARK

DEPTH: 1354.00m

RECORDER # 001761



PRESSURE
kPa(a)

- 1) Initial Hydro : 17297.
- 2) 1st Flow Start: 2293.
- 3) 1st Flow End : 3284.
- 4) END 1st Shutin: 13238.
- 5) 2nd Flow Start: 2835.
- 6) 2nd Flow End : 4299.
- 7) END 2nd Shutin: 13238.
- 8) 3rd Flow Start: 3646.
- 9) 3rd Flow End : 7119.
- 10) END 3rd Shutin: 13264.
- 14) Final Hydro. : 17220.

TEST TIMES (MIN)

1st FLOW : 4.0
SHUTIN: 58.0
2nd FLOW : 16.0
SHUTIN: 14.0
3rd FLOW : 238.0
SHUTIN: 552.0

RECOVERY DATA

GAS TO SURFACE AT AN OPENING FINAL FLOW RATE OF 70 418.00 M3/D INCREASING TO 99 672.00 M3/D. TOTAL FLUID RECOVERY OF 46.00 M CONSISTED OF 30.00 M OF CONDENSATE AND 16.00 M OF CONDENSATE CUT DRILLING MUD.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest HIGH PERMEABILITY within the interval tested. The final flow appears to be affected by fluid surging through the tools. Opened the tool for the final flow and the annulus started bubbling. Closed the tool, repumped the packers and continued with the test. The final shut-in stabilized in 458 minutes at 13 264.00 kPa, therefore was not extrapolated. Recorder #20426 - no pressures available due to excessive stylus drag.

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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 : PCI CANTERRA BELE O-35
Location : 400/ 66.345 / 126.210 /00
Interval : 1351.00m to 1362.00m
Test Date : 86/03/30
Test Type : INFLATE STRADDLE
Formation : MOUNT CLARK

K.B.Elevation : 397.80m
Grd.Elevation : 393.30m
TD @ test Date: 1384.00m
Ticket Number : 74019
Unit Number :

Started in hole at : 0030 hrs
Tool opened at : 0530 hrs
Reverse circulated?: NO
Contractor & Rig No: JADE #5
Lynes#1 : 1 of 1 on the same trip.

Operator: PETRO-CANADA INC.
ROOM 937 WEST
150 - 6TH AVE. S.W.
CALGARY ALBERTA
T2P3E3

Company Rep : HOPE Y
Testers : BARKER R

5 REPORTS(S) TO: CATHY BACKLAND
Company:

BLOW DESCRIPTION

Preflow: Weak blow increasing a very strong air blow in 1 minute. Gas to surface in 3 minutes.
Second flow: Strong blow with gas to surface immediately.
Final flow: Gas to surface immediately with a light water spray.

TOTAL LIQUID RECOVERY : 46.00m

For DST# 1 through DST# 1
3 Fluid Samples

Sent to: TAKEN BY THE
CUSTOMER.

Btm. Hole Sampler #: 206

Sent to: TAKEN BY THE
CUSTOMER.

30.00m CONDENSATE.
16.00m CONDENSATE CUT DRILLING MUD.

GAS MEASUREMENTS Device: ORIFICE WELL TESTER
----- Device:
Riser: 50.8mm

Gas Measurements Continued on Next Page

Dst#01
PCI CANTERRA BELE O-35
1351.00m To 1362.00m

p.1a

FLOW #	TIME MIN	CHOKE mm	READING kPa	CUBIC METRES/D
3	10.	31.75	375.	70418.0
3	15.	31.75	400.	74113.0
3	20.	31.75	450.	81496.0
3	25.	31.75	470.	84439.0
3	30.	31.75	480.	85910.0
3	35.	31.75	480.	85910.0
3	40.	31.75	485.	86645.0
3	45.	31.75	485.	86645.0
3	50.	31.75	490.	87381.0
3	55.	31.75	490.	87381.0
3	60.	31.75	490.	87381.0
3	65.	31.75	495.	88116.0
3	70.	31.75	500.	88852.0
3	205.	38.10	300.	94796.0
3	210.	38.10	300.	94796.0
3	215.	38.10	310.	97248.0
3	220.	38.10	310.	97248.0
3	238.	38.10	320.	99672.0

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.33
CROSS OVER SUB	.30
BAR STOP SUB	.30
INSIDE RECORDER	1.22
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 INFALTE PACKER	1.78
PACKER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.02
SPACING	7.44
PACKER STICK UP	.42
BTM.INFLATE PACKER	1.90
SPACING	.61
RECORDER CARRIER	1.38
PERFORATED SPACING	.61
BELLY SPRING	2.00

1) NUMBER : 001761	ELECTRONIC GAUGE.
TYPE : DMRB	PRESSURES AND
LOCATION: OUTSIDE	TEMPERATURE.
RANGE: 34500.00kPa (a)	
DEPTH : 1354.00m	
2) NUMBER : 012420	ABOVE INTERVAL.
TYPE : K-3	
LOCATION: INSIDE	
RANGE: 20300.00kPa	
DEPTH : 1344.00m	
3) NUMBER : 019661	BELOW INTERVAL.
TYPE : K-3	
LOCATION: INSIDE	
RANGE: 22800.00kPa	
DEPTH : 1365.00m	
4) NUMBER : 020426	ABOVE HYDRAULIC
TYPE : K-3	TOOL. NO
LOCATION: INSIDE	READINGS.
RANGE: 19500.00kPa	
DEPTH : 1337.00m	
5) NUMBER : 020618	
TYPE : K-3	
LOCATION: OUTSIDE	
RANGE: 21500.00kPa	
DEPTH : 1354.00m	

***** TOOL TOTAL 31.65
DRILL COLLARS

ID= 60.0mm: 133.40
ID= :

DRILL PIPE

OD=114.3mm: 1204.83
OD= :

COLLAR-PIPE TOTAL 1338.23

STICK UP ABOVE TABLE : 1.38
TOOL ABOVE INTERVAL : 14.15
TOTAL INTERVAL : 11.00
BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 220.00mm	Water Loss : 8.5cc/s
Hole Condition at Test Time : GOOD	Filter Cake: 1.2 mm
Hole Conditioned Prior to Test? : YES	
Mud Weight : 1290.0 kg/m3	Main Hole Size: 215.00mm
Mud Type : GEL CHEMICAL	
Viscosity : 65.0s/l	Temperature @1354.00m = 14.3C

Location: 400/ 66.345 / 126.210 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 001761
Recorder Depth: 1354.00 m
Subsea Depth: -956.20 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
1	INITIAL HYDROSTATIC			17297		
2	START OF 1st FLOW	0.0		2293		
		2.0		3430		
3	END OF 1st FLOW	4.0		3284		
	1st SHUTIN PERIOD	0.0		3284		
		2.0	9041	12324	3.0000	151.8884
		6.0	9894	13178	1.6667	173.6491
		8.0	9903	13186	1.5000	173.8759
		10.0	9911	13195	1.4000	174.1028
		12.0	9911	13195	1.3333	174.1028
		14.0	9911	13195	1.2857	174.1028
		16.0	9920	13203	1.2500	174.3298
		18.0	9920	13203	1.2222*	174.3298
		22.0	9928	13212	1.1818*	174.5570
		24.0	9928	13212	1.1667*	174.5570
		26.0	9928	13212	1.1538*	174.5570
		28.0	9928	13212	1.1429*	174.5570
		30.0	9928	13212	1.1333*	174.5570
		32.0	9928	13212	1.1250*	174.5570
		34.0	9928	13212	1.1176*	174.5570
		38.0	9928	13212	1.1053*	174.5570
		40.0	9928	13212	1.1000*	174.5570
		42.0	9937	13221	1.0952*	174.7869
		44.0	9937	13221	1.0909*	174.7869
		46.0	9937	13221	1.0870*	174.7869
		48.0	9946	13229	1.0833*	175.0144
		50.0	9946	13229	1.0800*	175.0144
		54.0	9946	13229	1.0741*	175.0144
		56.0	9954	13238	1.0714*	175.2420
4	END OF 1st SHUTIN	58.0	9954	13238	1.0690*	175.2420
5	START OF 2nd FLOW	0.0		2835		

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 66.345 / 126.210 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 001761
Recorder Depth: 1354.00 m
Subsea Depth: -956.20 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA	PRESSURE SQUARED kPa(a) ² /10 ⁶
		2.0		3016		
		6.0		3577		
		8.0		3766		
		10.0		3964		
		12.0		3934		
		14.0		4111		
6	END OF 2nd FLOW	16.0		4299		
	2nd SHUTIN PERIOD	0.0		4299		
		2.0	8775	13074	11.0000	170.9321
		6.0	8870	13169	4.3333	173.4200
		8.0	8887	13186	3.5000	173.8759
		10.0	8896	13195	3.0000	174.1028
		12.0	8930	13229	2.6667	175.0144
7	END OF 2nd SHUTIN	14.0	8939	13238	2.4286	175.2420
8	START OF 3rd FLOW	0.0		3646		
		12.0		4077		
		24.0		4494		
		34.0		4663		
		46.0		4809		
		58.0		4938		
		70.0		5059		
		80.0		5274		
		92.0		5611		
		104.0		5645		
		114.0		5878		
		126.0		6059		
		138.0		6145		
		150.0		6171		
		160.0		6248		
		172.0		6576		
		184.0		6817		
		194.0		6938		

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 66.345 / 126.210 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 001761
Recorder Depth: 1354.00 m
Subsea Depth: -956.20 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a) ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		206.0		7300	
		218.0		7731	
		230.0		7127	
9	END OF 3rd FLOW	238.0		7119	
	3rd SHUTIN PERIOD	0.0		7119	
		18.0	5981	13100	15.3333
		36.0	6024	13143	8.1667
		56.0	6041	13160	5.6071
		74.0	6050	13169	4.4865
		92.0	6059	13178	3.8043
		110.0	6059	13178	3.3455
		128.0	6067	13186	3.0156
		146.0	6067	13186	2.7671
		164.0	6076	13195	2.5732
		184.0	6076	13195	2.4022
		202.0	6076	13195	2.2772
		220.0	6076	13195	2.1727
		238.0	6076	13195	2.0840
		256.0	6076	13195	2.0078
		274.0	6085	13203	1.9416
		292.0	6085	13203	1.8836
		312.0	6093	13212	1.8269
		330.0	6102	13221	1.7818
		348.0	6110	13229	1.7414
		366.0	6110	13229	1.7049
		384.0	6128	13247	1.6719
		402.0	6128	13247	1.6418
		420.0	6136	13255	1.6143
		440.0	6136	13255	1.5864
		458.0	6145	13264	1.5633
		476.0	6145	13264	1.5420
		494.0	6145	13264	1.5223
		512.0	6145	13264	1.5039
		530.0	6145	13264	1.4868

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 66.345 / 126.210 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 001761
Recorder Depth: 1354.00 m
Subsea Depth: -956.20 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	PRESSURE SQUARED kPa(a)^2/10^6
		548.0	6145	13264	1.4708
10	END OF 3rd SHUTIN	552.0	6145	13264	1.4674
14	FINAL HYDROSTATIC			17220	

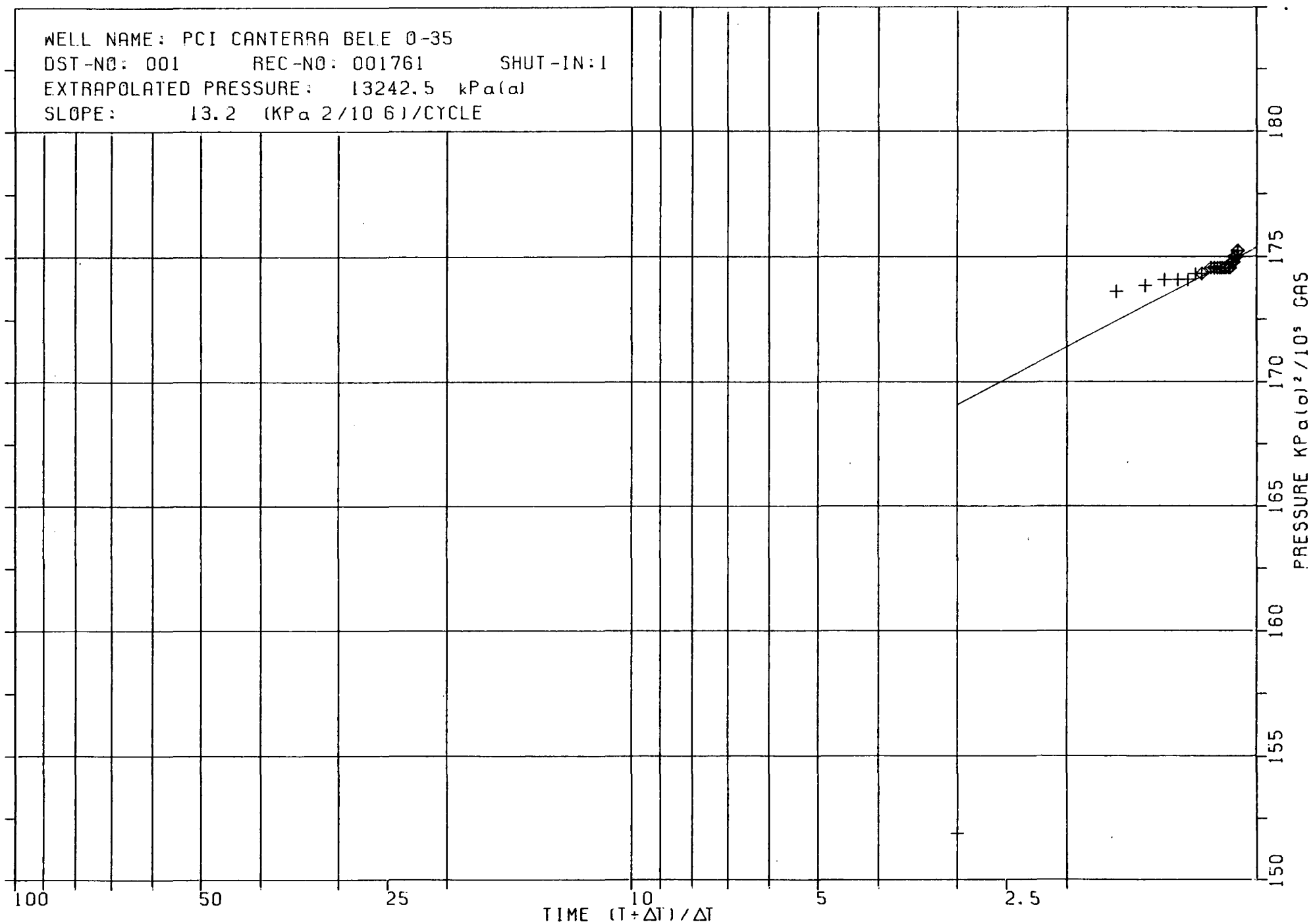
* VALUES USED FOR EXTRAPOLATIONS

1st SHUT-IN
HORNER EXTRAPOLATION 13242.50 kPa(a)
HORNER SLOPE 13.20833 (kPa(a)**2/10**6)/CYCLE

2nd SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 (kPa(a)**2/10**6)/CYCLE

3rd SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 (kPa(a)**2/10**6)/CYCLE

SLOPE: 13.2 (KPa 2/10 6)/CYCLE



WELL NAME: PCI CANTERRA BELE 0-35

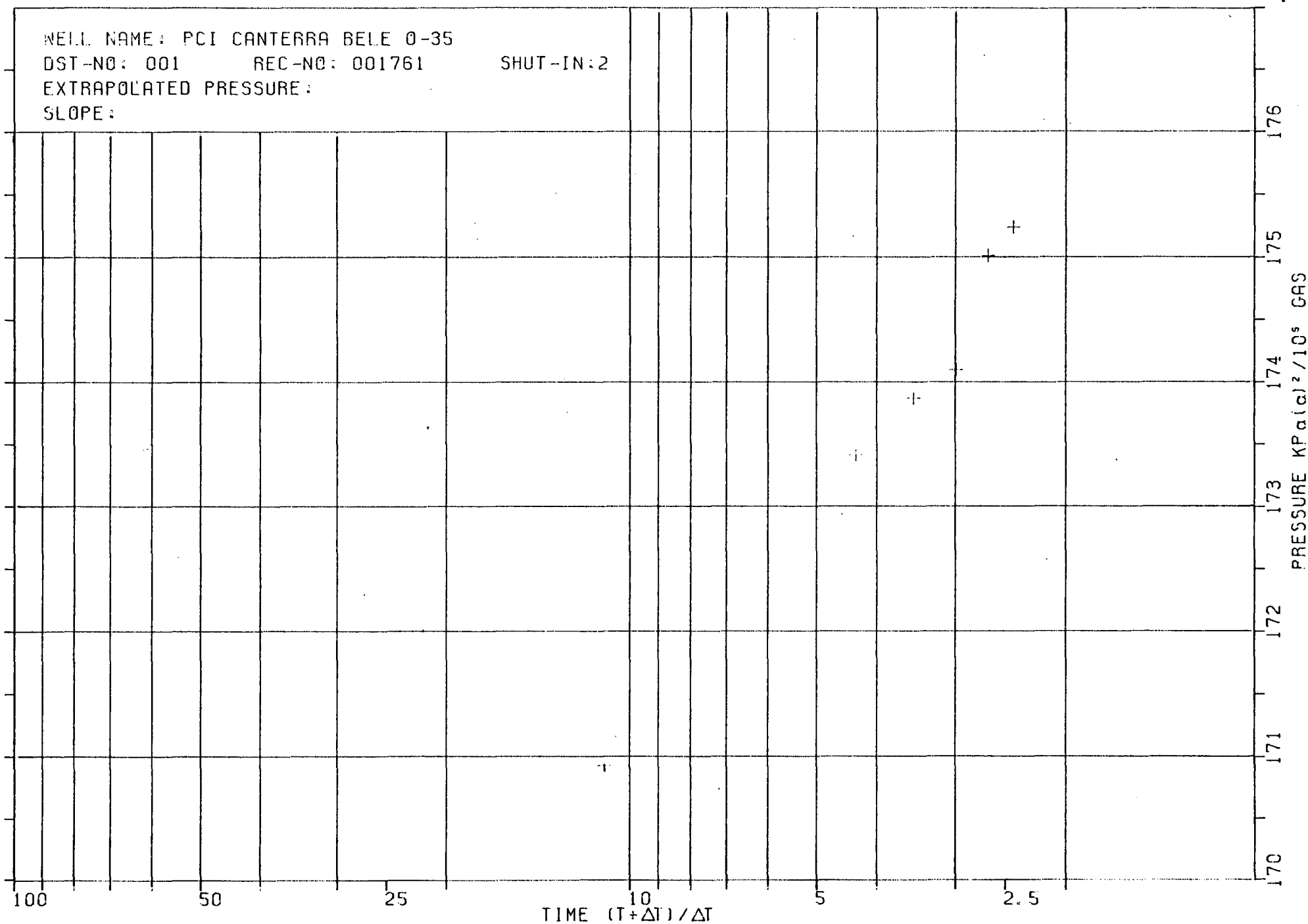
DST-NO: 001

REC-NO: 001761

SHUT-IN: 2

EXTRAPOLATED PRESSURE:

SLOPE:



WELL NAME: PCI CANTERRA BELE 0-35

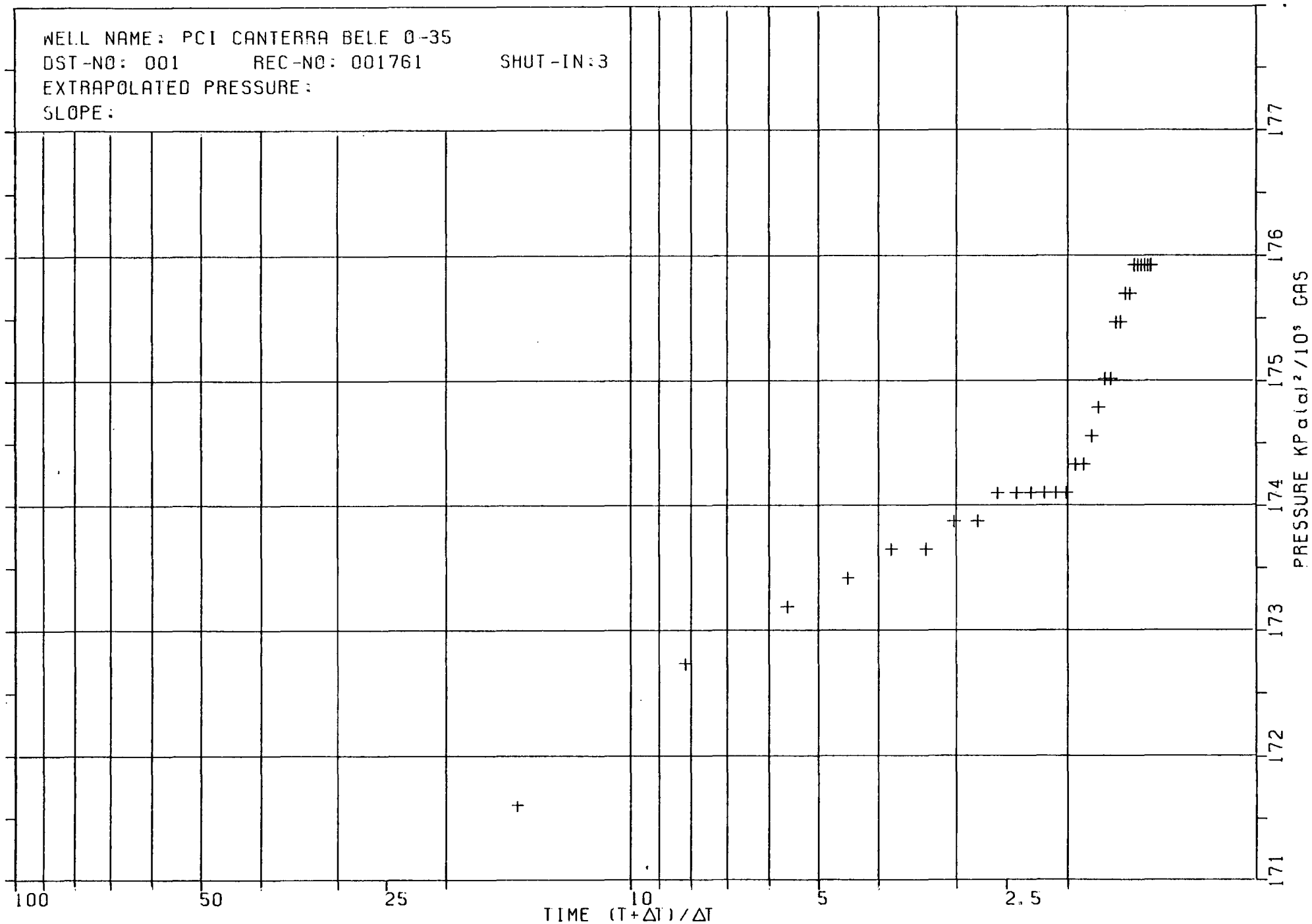
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REC-NO: 001761

SHUT-IN: 3

EXTRAPOLATED PRESSURE:

SLOPE:



PCI CANTERRA BELE 0-35

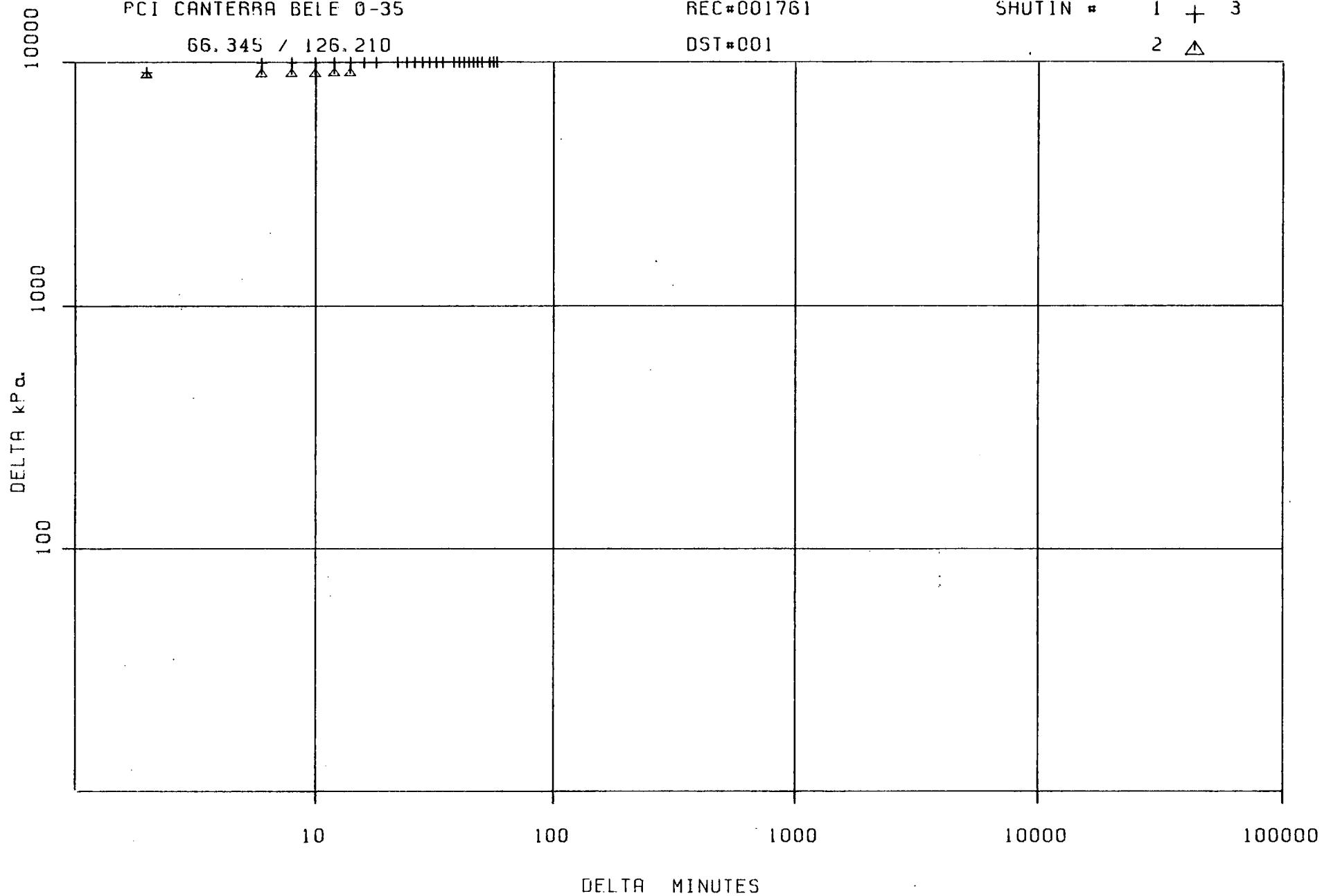
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SHUTIN # 1 + 3

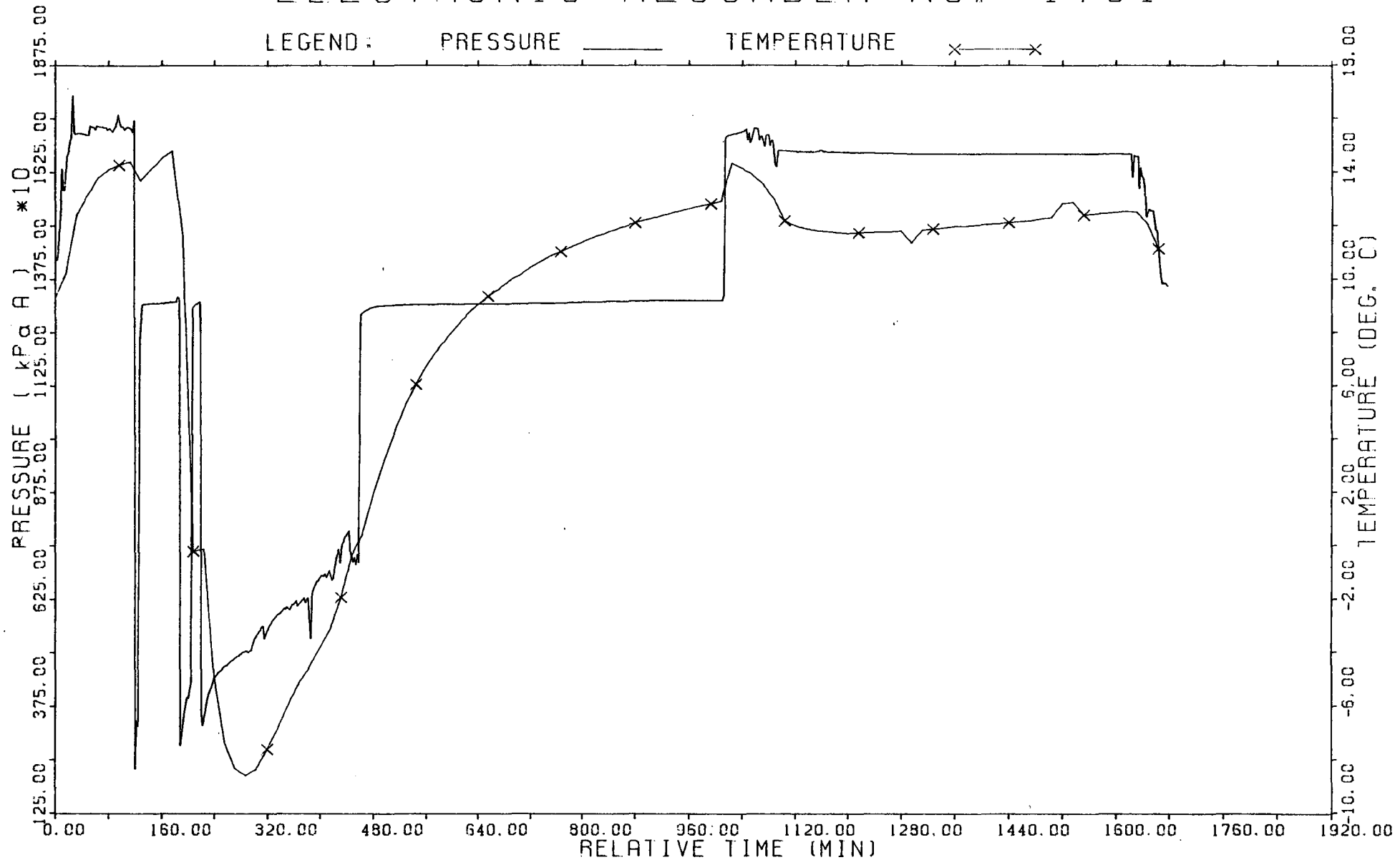
66.345 / 126.210

DST#001

2 $\triangle$



PCI CANTERRA BELLE 0-35
66.345 126.210 DST NO. 1
ELECTRONIC RECORDER NO. 1761



DST#01
PCI CANTERRA BELE O-35
1351.00m to 1362.00m

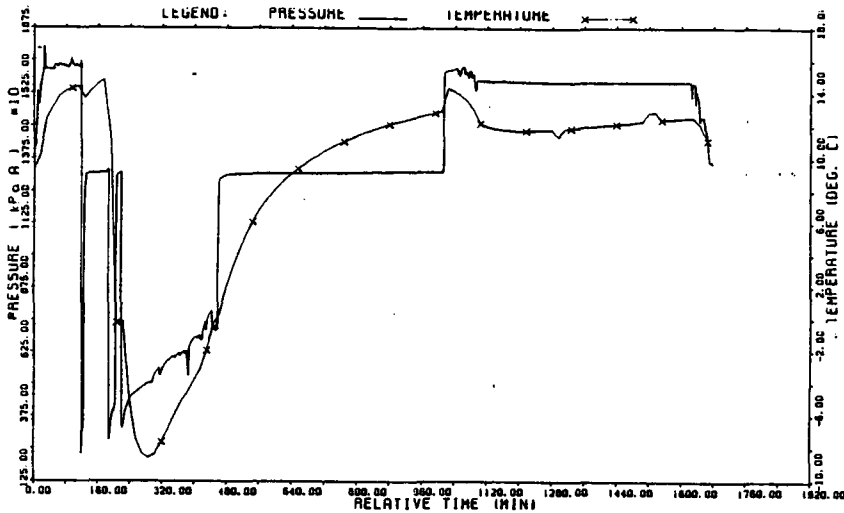
PRESSURE RECORDER NUMBER : 001761

DEPTH : 1354.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

PRESSURE
kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 43.0 C

- 1) Initial Hydro : 17297.
- 2) 1st Flow Start: 2293.
- 3) 1st Flow End : 3284.
- 4) END 1st Shutin: 13238.
- 5) 2nd Flow Start: 2835.
- 6) 2nd Flow End : 4299.
- 7) END 2nd Shutin: 13238.
- 8) 3rd Flow Start: 3646.
- 9) 3rd Flow End : 7119.
- 10) END 3rd Shutin: 13264.
- 14) Final Hydro. : 17220.



ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

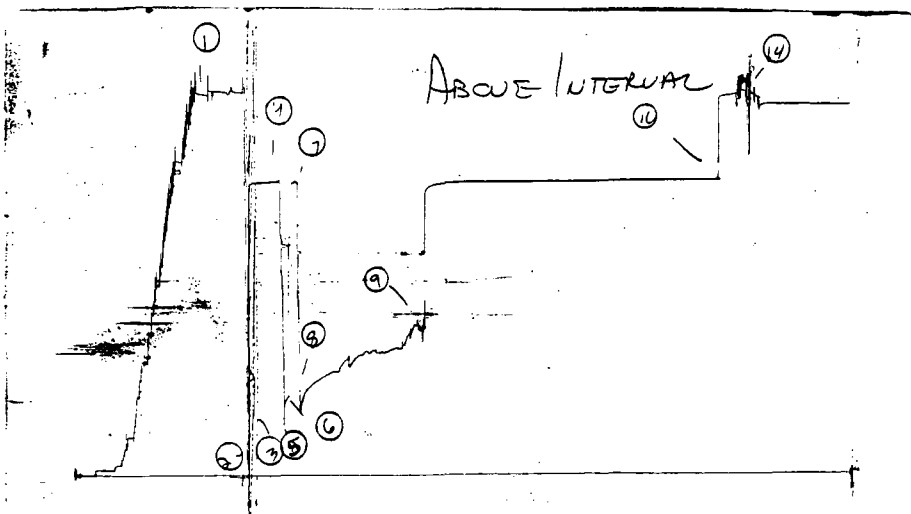
- TEST TIMES (MIN)
- | | | |
|----------|---|-------|
| 1st FLOW | : | 4.0 |
| SHUTIN: | | 58.0 |
| 2nd FLOW | : | 16.0 |
| SHUTIN: | | 14.0 |
| 3rd FLOW | : | 238.0 |
| SHUTIN: | | 552.0 |

PRESSURE RECORDER NUMBER : 012420

DEPTH : 1344.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 17005.
- 2) 1st Flow Start: 1524.
- 3) 1st Flow End : 2724.
- 4) END 1st Shutin: 13088.
- 5) 2nd Flow Start: 2256.
- 6) 2nd Flow End : 3490.
- 7) END 2nd Shutin: 13088.
- 8) 3rd Flow Start: 2724.
- 9) 3rd Flow End : 6452.
- 10) END 3rd Shutin: 13088.
- 14) Final Hydro. : 16911.



ABOVE INTERVAL.

DST#01
PCI CANTERRA BELE O-35
1351.00m to 1362.00m

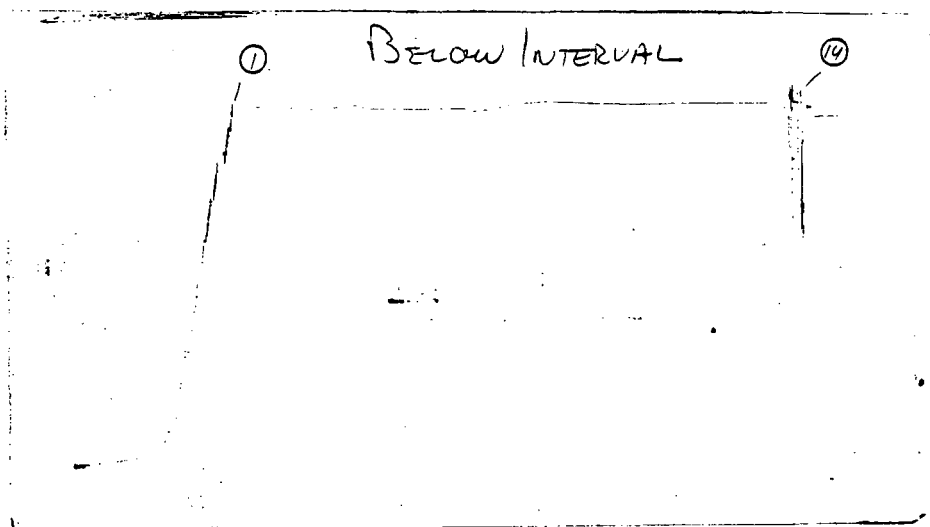
PRESSURE RECORDER NUMBER : 019661

DEPTH : 1365.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 22800.00 kPa

PRESSURE
kPa

1) Initial Hydro : 17331.
14) Final Hydro. : 17208.



BELOW INTERVAL.

TEST TIMES (MIN)

1st FLOW : 4.0
SHUTIN: 58.0
2nd FLOW : 16.0
SHUTIN: 14.0
3rd FLOW : 238.0
SHUTIN: 552.0

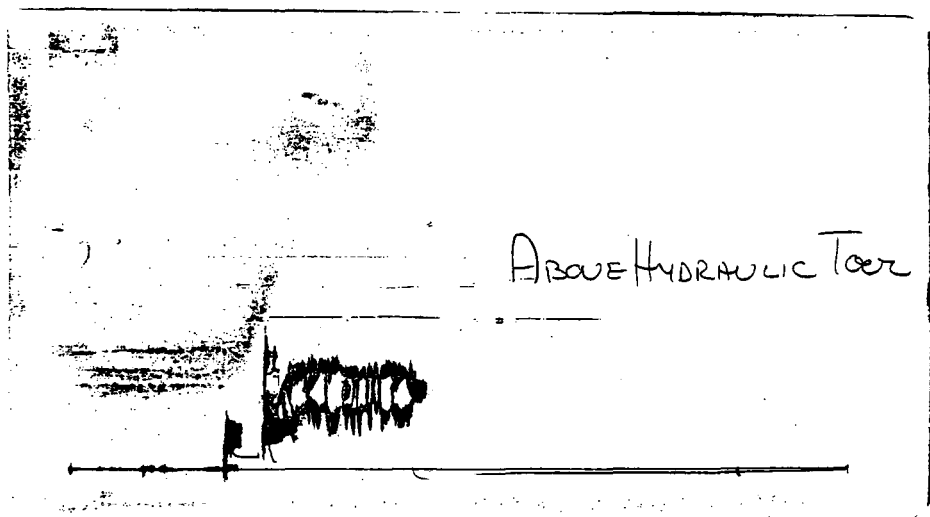
PRESSURE RECORDER NUMBER : 020426

DEPTH : 1337.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 19500.00 kPa

PRESSURE
kPa

1) Initial Hydro :
14) Final Hydro. :



ABOVE HYDRAULIC
TOOL. NO
READINGS.

DST#01
PCI CANTERRA BELE O-35
1351.00m to 1362.00m

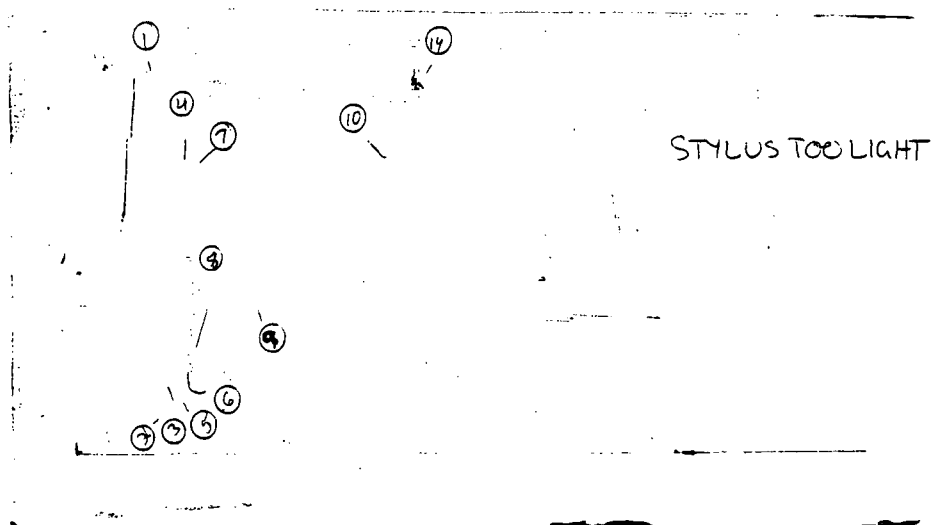
PRESSURE RECORDER NUMBER : 020618

DEPTH : 1354.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 21500.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 17201.
- 2) 1st Flow Start: 1652.
- 3) 1st Flow End : 3322.
- 4) END 1st Shutin: 13150.
- 5) 2nd Flow Start: 2778.
- 6) 2nd Flow End : 3564.
- 7) END 2nd Shutin: 13114.
- 8) 3rd Flow Start: 3340.
- 9) 3rd Flow End : 6958.
- 10) END 3rd Shutin: 13132.
- 14) Final Hydro. : 17120.



TEST TIMES (MIN)

1st FLOW : 4.0
SHUTIN: 58.0
2nd FLOW : 16.0
SHUTIN: 14.0
3rd FLOW : 238.0
SHUTIN: 552.0