



OIL and GAS DIVISION

23 SEP 1983

Geoservices Overseas S.A.

Final Well Completion Report 83/05A

Hermes 1

W803

for

PHILLIPS AUSTRALIAN OIL COMPANY

AVAILABLE IN WELL FILE ADDENDUM NO. 2

General Section

Contents

GENERAL

- General Well Data
- Well Summary
- Well Location Map
- Days versus Depth Plot
- Bit Record
- Mud Record
- Well Geometry Plot
- Daily Well Diary

PHASE SUMMARIES

- 36" Phase
- 26" Phase
- 17½" Phase
- 12¼" Phase
- 8½" Phase

OVERPRESSURE

- Overpressure Survey Summary
- D Exponent Plot 1/5000
- D Exponent Plot 1/2000
- Temperature Plot
- 13 ³/8" Casing leak off test data

REAL TIME DEPTH PLOT

- Real Time Depth Plot (reduced to A4)

GEOLOGY

- Lithology Plot 1/5000
- Masterlog

GENERAL

- General Well Data
- Well Summary
- Well Location Map
- Days versus Depth Plot
- Bit Record
- Mud Record
- Well Geometry Plot
- Daily Well Diary

GENERAL WELL DATA

Company Name : Phillips Australian Oil Company
 Well Name : Hermes # 1
 Permit Number : Vic/P18
 Country : Australia
 Location : Latitude 38 36 8.55" SOUTH
 : Longitude 148 17 54.19" EAST
 Water Depth : 86.8 m
 Elevation KB AMSL : 22 m
 Elevation KB : 103.8 m
 Total Depth : 4565 m
 Spud Date : 15th February 1983
 Reached TD on : 20th April 1983
 Final Status : Testing / Plug & Abandon
 Type of Well : Wildcat
 Primary Objective : Intra-Latrobe Sands
 Drilling Contractor : Diamond "M" Drilling Company
 Rig Name : Diamond "M" Epoch
 Type : Semi-submersible
 Engineers : A. Buffin N. Hardy
 : D. Andrew K. Rattue C. Ruffle

HERMES # 1; WELL SUMMARY

Hermes # 1 was a vertical exploration well drilled in the north-western corner of Permit Vic/P 18, located in the Gippsland Basin.

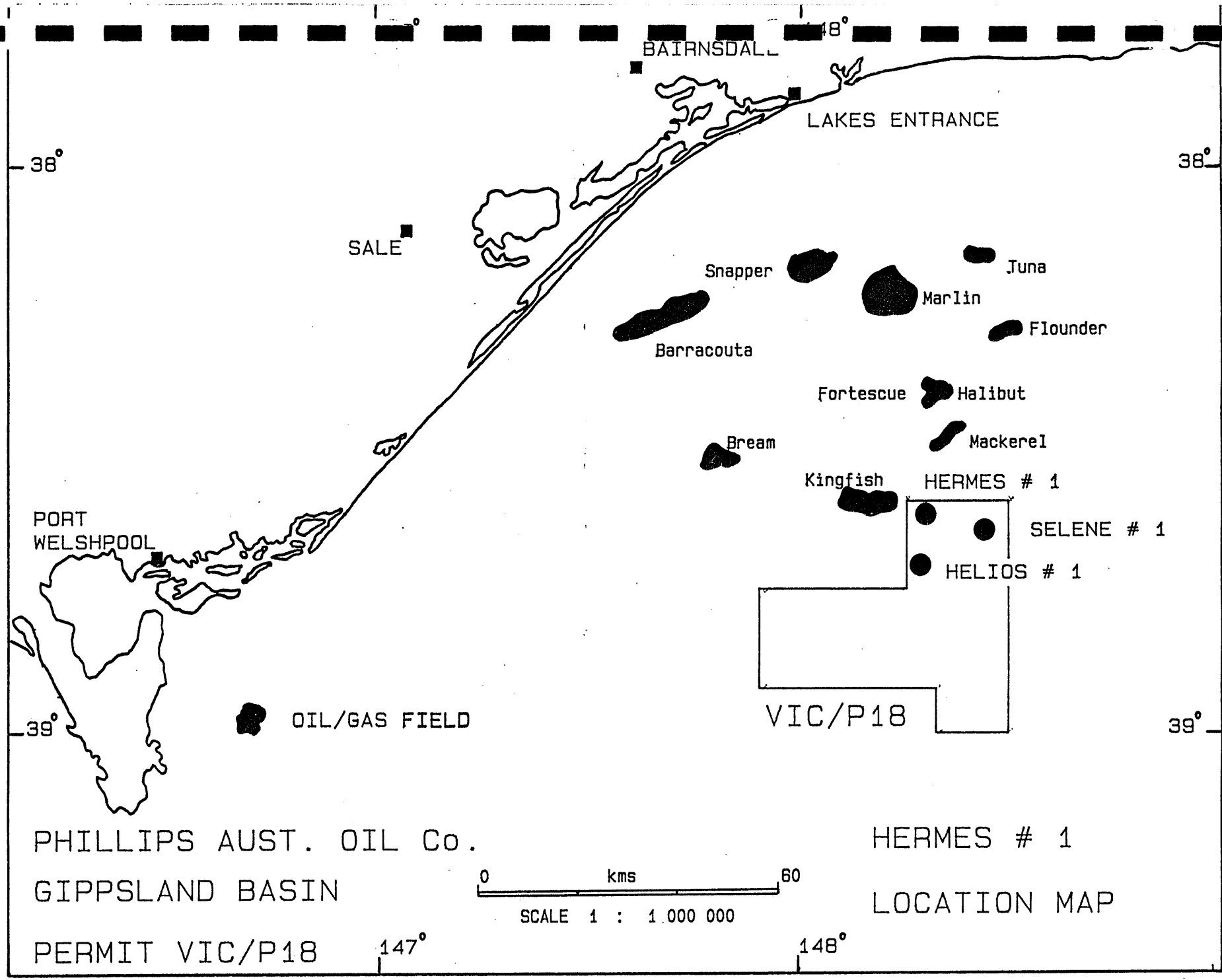
The original primary objective was to evaluate the hydrocarbon potential and stratigraphic facies relationship of the Intra-Latrobe sequence down to below the Upper Cretaceous unconformity level, with a proposed TD at 3750m.

Drilling however continued into Mid Cretaceous sediments and finally reached a TD at 4565m.

The well was spudded on the 15th February 1983 and reached TD on the 20th April 1983. A total of 28 new bits were used to drill the well in a total of 318.9 hours bottom time.

Substantial gas shows were detected at 3960m and the mud weight was raised from 9.1 ppg to 10.1 ppg. Gas was initially associated with coal seams, however at 4380m heavy gases were recorded, these were found to be associated with sand bodies. Drilling continued to 4565m.

7" casing was then run prior to performing a series of drill stem tests within the sand horizons.



SAIRNSDALL

LAKES ENTRANCE

SALE

Snapper

Juna

Marlin

Flounder

Barracouta

Fortescue

Halibut

Bream

MackereI

Kingfish

HERMES # 1

SELENE # 1

HELIOS # 1

PORT WELSHPOOL

OIL/GAS FIELD

VIC/P18

PHILLIPS AUST. OIL Co.

GIPPSLAND BASIN

PERMIT VIC/P18



SCALE 1 : 1 000 000

HERMES # 1

LOCATION MAP

147°

148°

38°

38°

39°

39°

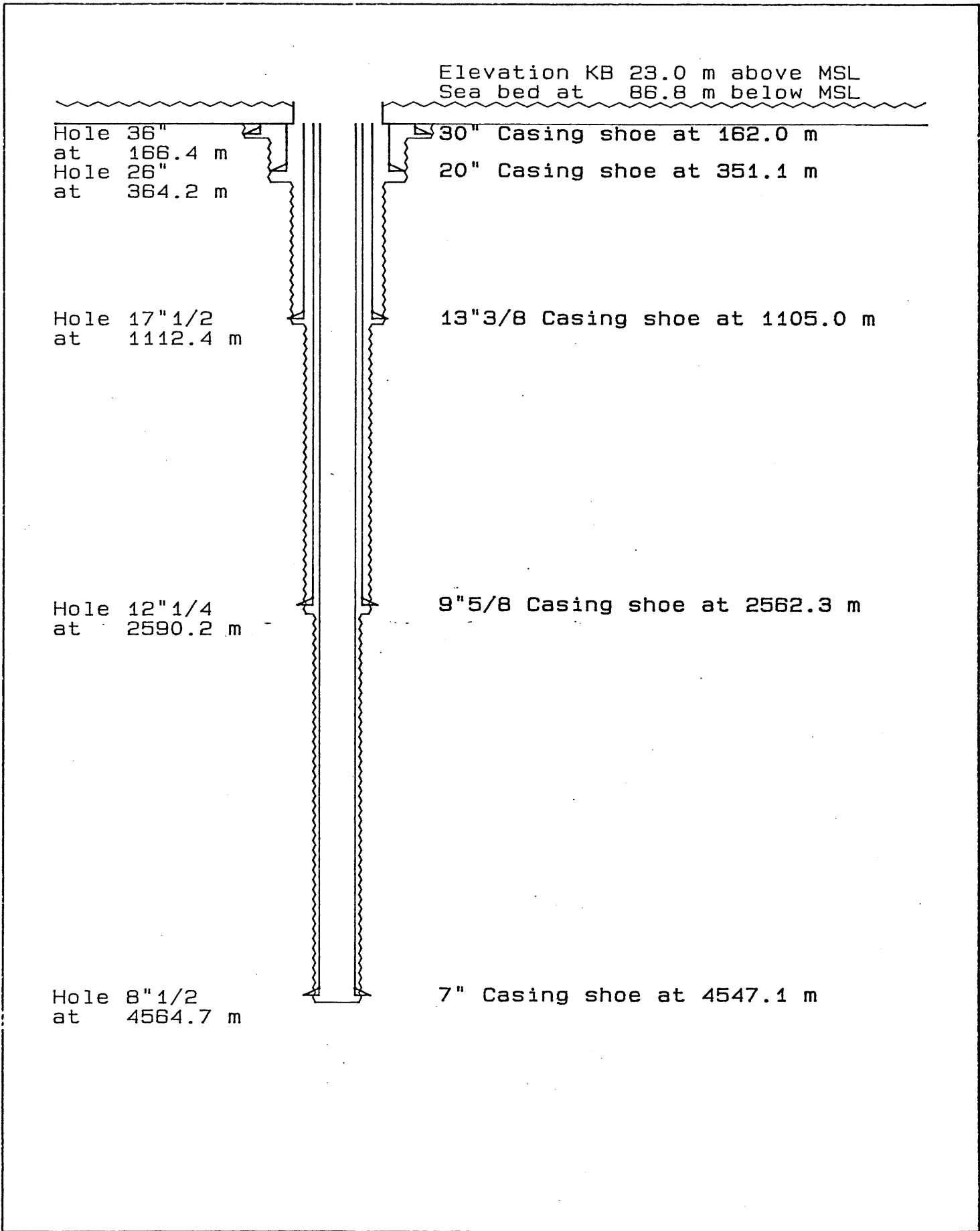
PE601706

This is an enclosure indicator page.
The enclosure PE601706 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601706 has the following characteristics:

ITEM_BARCODE = PE601706
CONTAINER_BARCODE = PE903163
NAME = Drilling log Hermes 1
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log Hermes 1 meterage
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)



Elevation KB 23.0 m above MSL
Sea bed at 86.8 m below MSL

Hole 36"
at 166.4 m
Hole 26"
at 364.2 m

30" Casing shoe at 162.0 m
20" Casing shoe at 351.1 m

Hole 17" 1/2
at 1112.4 m

13" 3/8 Casing shoe at 1105.0 m

Hole 12" 1/4
at 2590.2 m

9" 5/8 Casing shoe at 2562.3 m

Hole 8" 1/2
at 4564.7 m

7" Casing shoe at 4547.1 m

WELL DIARY

Drilling Day # 1 (15.2.83)

Position rig over location.
Pick up BHA and run in with Bit # 1 26" HTC (3*28) +36" H/O (3*22)
Drill ahead from 108.8m (357 ft) to 135m (443 ft).
Drop survey at 135m, 1/2 deg deviation.
POOH and run in with new BHA.
Wash down from 108.8m to 135m.
Flush hole with 50 bbls of high viscous mud.
Drill ahead from 135m to 157m (516 ft).
Drop survey at 157m, 1/2 deg deviation.
Pull out to 114m (375 ft).
Run in and tag bottom at 128m (420 ft).
Pick up kelly, stuck pipe at 134m (440 ft).
Work stuck pipe, 127 tonnes overpull (280 klbs).
Circulate, working pipe.

Drilling Day # 2 (16.2.83)

Wash and ream from 138m (453 ft) to 166.5m (546 ft).
Spot 70 bbls of high viscous mud (MW=12.0 ppg).
POOH, 2 tonnes overpull (5 klbs).
Move FGB and PGB over moonpool.
Rig up to run 30" casing.
Run 30" casing, install PGB on well head.
Wash 30" casing down to 129m (423 ft), casing stuck.
POOH 30" casing and lay down.

Drilling Day # 3 (17.2.83)

RIH with Bit # 1 26" and 36" H/O.
Wash down from 108.8m (357 ft) to 130m (427 ft) and ream on to 166.5m (546 ft).
Spot two high viscous pills.
Wait on weather.
Spot 200 bbls of high viscous mud at 166.5m and POOH.
Rig up to run 30" casing, secure FGB and PGB over moonpool.
Pick up 30" casing.

Drilling Day # 4 (18.2.83)

Move rig over location and stab into hole.
Run 30" casing to 162.5m (533 ft), RKB to casing shoe 162.5m.
Rig up circulating head and circulate to flush hole.
Pump 50 bbls of high viscous mud.
Rig up cement line and test to 2500 psi.
Cement 30" casing with 1500 sacks of class "G" cement.
POOH with running tool.
Pick up new BHA and RIH with Bit # 1RR 26" HTC (3*28).

Drilling Day # 4 (18.2.83) /cont.

Tag cement at 152.5m (500 ft).
Lay down excess HWDP.
Flush casing.
Drill out cement, flush hole and drill out shoe.
Drill ahead from 166.5m (546 ft) to 246m (867 ft).
Circulate and spot 50 bbls of high viscous mud.
Drop survey, 1/2 deg deviation.
Drill ahead from 246m to 364m (1195 ft).

Drilling Day # 5 (19.2.83)

Circulate with 9.6 ppg mud to clean hole.
Wait on formation.
RIH to 364m -no fill.
Circulate and POOH to run 20" casing.
Pick up shoe joint and run 20" casing, shoe set at 351m (1152 ft).
Rig up circulating lines and test to 3000 psi.
Cement 20" casing.
Rig up to run BOP stack and riser.

Drilling Day # 6 (20.2.83)

Stack BOP's in moonpool, function test and secure.
Wait on weather.
Run in stack, test choke and kill lines to 5000 psi, nipple up slip joint.
Latch up nipple joint.
Pick up and nipple up diverter (test to 500 psi).
RIH with test plug and test BOP's.
POOH and lay down test plug.
Pick up kelly, test upper and lower kelly cock valves, stand pipe and manifold valves to 5000 psi.
Pick up under-reamer, secure and test.
Pick up new BHA.

Drilling Day # 7 (21.2.83)

RIH to 341m (1119 ft) and tag float collar.
Drill out float collar, cement and 4.6m (15 ft) of formation.
Perform LOT, 295 psi with 13.5 ppg EMW.
Drill ahead from 369m (1210 ft) to 526m (1726 ft).
Drop survey, 3/4 deg deviation.
Drill ahead from 526m to 821m (2695 ft).
Circulate and drop survey, 1/4 deg deviation.
Drill ahead to 835m (2741 ft).

Drilling Day # 8 (22.2.83)

Continue drilling ahead to 904.5m (2970 ft).
Circulate and POOH.
RIH with new Bit # 3, SMITH DSJ 14 3/4" (2*24) and 17 1/2" U/R.
Drill ahead from 904m.
Ream hole from 914m (3002 ft) to 923m (3032 ft).
Drill ahead from 923m to 1048m (3442.5 ft).

Drilling Day # 9 (23.2.83)

Continue drilling ahead to 1112m (3649 ft).
Circulate and POOH to 20" casing shoe, reaming tight spots.
RIH and circulate to clean and condition hole, POOH.
Rig up Schlumberger.
Run Schlumberger logs, run # 1: DIL, SLS, GR, CALI.
Rig down Schlumberger.
Rig up to run 13 3/8" casing.

Drilling Day # 10 (24.2.83)

Pick up 13 3/8" casing and run in (lay down 11 damaged joints).
Circulate hole prior to cementing.
Pressure test lines to 3000 psi and cement 13 3/8" casing.
Shoe set at 1105m (3624 ft).
Displace cement, bump plug and hold for 10 mins at 1500 psi.
Back out running tool, circulate and POOH with landing string.
RIH with well head jetting tool.
Make up seal assembly and RIH, pressure test seal assembly to 5000 psi.
Pressure test BOP's.

Drilling Day # 11 (25.2.83)

Continue pressure testing BOP's.
Make up new BHA with Bit # 4, SMITH SDT 12 1/4" (3*14).
RIH, tag float collar at 1092m (3582 ft).
Drill out float collar, cement and shoe.
Drill 15ft new formation and perform LOT.
Drill ahead from 1116m to 1223m (4012 ft).

Drilling Day # 12 (26.2.83)

Continue drilling ahead to 1303m (4274.5 ft).
Drop survey and POOH to change bit.
Retrieve survey, 2 deg deviation.
RIH with Bit # 5, ACC STRATA-PAX WILDCAT II
Rig compensators leaking, hang off for repairs.

Drilling Day # 13 (27.2.83)

Continue repairing compensators.
Pump slug and POOH.
Change Strata-pax bit for conventional cone bit.
Pick up bumper-sub.
RIH with Bit # 5, SMITH SDS 12 1/4" (3*14) and bumper-sub.

Drilling Day # 14 (28.2.83)

Continue RIH.
Drill ahead from 1303m to 1345m (4412 ft).
Pump slug and POOH.
Work on motion compensators.

Drilling Day # 15 (1.3.83)

Test surface equipment.
Make up BHA and RIH with Bit # 6, STRATA-PAX WILDCAT II.
Drill ahead from 1345m to 1347.5m (4421 ft).
Lose 850 psi, stop circulation and POOH.
On surface without bit, RIH with reverse circulating basket.
Reverse circulate, POOH to retrieve junk basket.
Make up new BHA and RIH with two junk baskets.
Slip and cut 134 ft of drill line.

Drilling Day # 16 (2.3.83)

RIH and mill hole.
POOH to retrieve junk baskets.
RIH with Bit # 7, SERVCO 12 1/8" and mill hole.
POOH to retrieve junk baskets.
RIH with Bit # 8, SMITH SDGH 12 1/4" (3*14).
Circulate and ream undergauge hole.
Drill ahead from 1347.5m to 1348.9m (4425.5 ft).
POOH with Bit # 8.

Drilling Day # 17 (3.3.83)

RIH with Bit # 9, SMITH SDS 12 1/4" (3*14).
Drill from 1348.9m to 1353m (4439 ft).
POOH with Bit # 9.
RIH with Bit # 10, SMITH SDS 12 1/4" (3*14).
Drill ahead from 1353m to 1419m (4656 ft).
Washout detected, 10 psi drop in pressure.
POOH to locate washout.

Drilling Day # 18 (4.3.83)

Continue POOH - cracked drill collar.
Replace cracked drill collar.
RIH with Bit # 11, SMITH SDS 12 1/4" (3*14).
Drill ahead from 1419m.
Swab in pump # 1 - circulate on pump # 2.
Slow pump rate on pump # 1.
Drill ahead from 1471m.
Slight drop in pump pressure (approx. 250-300 psi).
POOH looking for Wash-out at 1419m.
Wash-out found between 2nd and 3rd drill collars.
Replace drill collar.
RIH with Bit # 12, SMITH SDT 12 1/4" (3*14).

Drilling Day # 19 (5.3.83)

Continue RIH with Bit # 12.
On circulating unable to attain original pump pressure of 2900 psi.
Work on pump - maximum pressure attained 2400 psi.
POOH looking for Wash-out.
One drill collar showing large crack - replaced.
Test BOP's and surface lines.
PIH with Bit # 13, SMITH A1 12 1/4" (1*12 2*15).
Checking each drill collar for stress fatigue.

Drilling Day # 20 (6.3.83)

Continue RIH with Bit # 13.
Ream from 1480m to bottom at 1499m.
Drill ahead from 1499m.
Slight pressure loss of 20-30 psi.
POOH at 1537m looking for Wash-out.
Wash-out found in drill collars.
RIH with Bit # 14, SMITH SDS 12 1/4" (3*14).
Checking each drill collar.

Drilling Day # 21 (7.3.83)

Continue RIH with Bit # 14 inspecting BHA.
Drill ahead from 1537m.
Pressure loss at 1545m of 60 psi.
Pressure loss increased to 170 psi at 1557m then stabilised.
Drilled to 1637m.
Heavy vibration - lifted off bottom.
Inspected BOP's using solus submarine for suspected leak.
Tension anchors.
Drill from 1637m to 1641m.
Drop Survey at 1641m : 2 3/4.
POOH at 1641m.

Drilling Day # 22 (8.3.83)

Continue POOH.

RIH with Bit # 12RR, SMITH SDT 12 1/4" (3*14).

Pressure test at shoe - 2200 psi.

Drill ahead from 1641m.

Pressure loss of 80-90 psi detected at 1648m.

Circulate whilst levelling up rig.

Further pressure loss of approx 200 psi detected at 1728m.

POOH at 1731m looking for wash-out (wet trip).

Drilling Day # 23 (9.3.83)

Continue POOH.

Wash-out found in drill collars.

PIH with BOP test tool.

Test BOP's - Rams : 5000 psi Annulars : 2500 psi.

Inspect and service BHA.

RIH with Bit # 15, SMITH SDGH 12 1/4" (3*14).

Level up rig at shoe.

Continue RIH.

Drill ahead from 1731m.

Drilling Day # 24 (10.3.83)

Drilling ahead from 1735m.

Initial pressure loss of 50 psi at 1759m

Further pressure loss of 100 psi (total loss approx 160 psi).

Drilling break at 1772m (from 5 min/m to 2 min/m).

Flow check - no flow.

Loss of >200 psi when picking up for connection.

Drop Survey at 1793m - 1 deg.

POOH at 1793m.

RIH with Bit # 16, SMITH SDS 12 1/4" (3*14).

Checking BHA.

Drilling Day # 25 (11.3.83)

Continue RIH with Bit # 16 - checking BHA.

Slip and cut drilling line at shoe.

Continue RIH.

Drill ahead from 1793m.

Perform Slow Pump Rate test at 1821m.

Drill ahead from 1821m.

Pressure drop at 1827m of 50-70 psi.

Steady pressure drop of 300 psi to 1845m.

POOH at 1845m looking for wash-out.

Drilling Day # 26 (12.3.83)

Continue POOH.

Inspect BHA - Bit # 16 missing teeth.

Make up new BHA with junk baskets.

RIH with Bit # 15RR SMITH SDGH 12 1/4" (3*14).

Mill junk left by Bit # 16.

POOH at 1847m.

Bit # 15RR on surface with 14 teeth in junk baskets.

Make up new BHA with TURBO-DRILL.

RIH to test turbo - O.K.

RIH with Bit # 17 DIAMAX MS5 12 1/4" (TFA : 1.22).

Pick up 9 singles - wash and ream to bottom.

Drill ahead from 1847m to 1874m.

Drilling Day # 27 (13.3.83)

Drilling ahead from 1874m.

Drop survey at 1916m - 3/4 deg.

POOH to change bit.

RIH with Bit # 18 DIAMAX AD52 12 1/4" (TFA : 1.22).

Drill ahead from 1935m to 1943m.

POOH - no overpull.

Drilling Day # 28 (14.3.83)

Continue POOH.

Make up new BHA.

RIH with Bit # 19 SMITH SDT 12 1/4" (3*14).

Drilling ahead from 1943m.

Overpull at connection at 1943m - wash and ream.

Pressure drop of 40 psi at 1954m - stabilised.

Wiper trip at 2115m - 5 stands.

Drill ahead from 2115m to 2199m (250 psi drop at 2146m).

Drilling Day # 29 (15.3.83)

Drilling ahead from 2199m to 2491m - work on pumps.

Circulate bottoms up and pump slug.

POOH.

Drilling Day # 30 (16.3.83)

RIH with Bit # 20 SMITH SDT 12 1/4" (3*14).

Tight hole - ream from 2362m to bottom.

Drill ahead from 2491m.

High torque encountered at 2588m.

POOH at 2591m - 3 stand wiper trip.

Circulate - 27 stand wiper trip.

RIH and circulate.

POOH.

Drilling Day # 31 (17.3.83)

Continue POOH.

Rig up and run Schlumberger logs: DIL-SLS-GR LDL-CNL-GR HOT CST.

Rig down Schlumberger.

RIH for wiper trip to 2577m and ream to bottom.

circulate and condition hole for casing.

POOH to run 9 5/8" casing.

Drilling Day # 32 (18.3.83)

Continue POOH.

Retrieve Wear Bushing and rig up to run casing.

RIH with casing.

Circulate casing at 40 spm with 400 psi.

Excessive shale cavings returned over shakers.

Run Haliburton pumps to speed up hole cleaning.

Continue circulating on rig pumps only.

Start mixing cement.

Drilling Day # 33 (19.3.83)

Cement 9 5/8" casing shoe at 2562m.

Displace cement with mud and bump plug with 3000 psi.

Release running tool and POOH with landing assembly.

Make up well head flushing tool - flush well head and POOH.

RIH with Seal assembly and test to 5000 psi.

Test pumps.

Test surface lines to 5000 psi.

Test Lower Annular to 2500 psi - Upper Annular failed to test.

Abandon rig.

Repair ballast valves.

Drilling Day # 34 (20.3.83)

Return to rig.

RIH with test plug and test BOP's: Rams 5000 psi Annular 2500 psi.

POOH test tool.

Test surface lines - replace one valve.

RIH with 12 1/4" BHA to lay same down.

Drilling Day # 35 (21.3.83)

Continue laying down 12 1/4" BHA.

Make up new 8 1/2" BHA.

RIH with Bit # 21 SMITH F2 8 1/2" (3*10).

Tag cement at 2533m - pull off bottom and hang off.

Circulate at 2500m to bring mud weight down to 9.2 ppg.

Circulate Riser and displace with sea water.

Wait on weather.

Drilling Day # 36 (22.3.83)

Continue to hang off and wait on weather.
Lay down 11 joints of bent drill pipe ("E" grade).
Pick up 10 joints of drill pipe.
Run to bottom and tag cement at 2533m (8309 ft.).
Circulate - dump sea water from the riser.
Condition mud.
Drill cement from 2533m to 2591m.
Drill 4m of formation to 2595m.
No Leak Off Test performed.
Drill 3 1/2" hole from 2595m.
Drop of 50 psi at 2634m - stabilised.

Drilling Day # 37 (23.3.83)

Drilling ahead from 2725m to 2947m.
Slow Pump Rate test at 2947m.
Drill ahead from 2947m to 2955m.

Drilling Day # 38 (24.3.83)

Drilling ahead from 2955m to 3041m.
Slow Pump Rate test at 3041m.
Drill ahead from 3041m to 3152m.

Drilling Day # 39 (25.3.83)

Drilling ahead from 3152m.
Survey at 3198m - 1 1/4 deg.
Pump slug and POOH.
Tight spot at 3016m - 2987m : 15 - 20000 lbs O/P.
Bit # 21 on surface and 1/4 out of gauge.
Pick up junk baskets.
RIH with Bit # 22 SMITH F3 8 1/2" (3*10).
Tight spot at 2960m.
Wash and ream last 3 singles to bottom.
Drill ahead from 3198m to 3212m.

Drilling Day # 40 (26.3.83)

Drill ahead from 3212m.
Pump malfunction at 3260m - no circulation.
Wiper trip at 3260m to 9 5/8" shoe : 25 - 50000 lbs O/P.
Drill ahead from 3260m.
Flow check at 3291m - no flow.
Drill ahead to 3332m.

Drilling Day # 41 (27.3.83)

Drilling ahead from 3332m to 3451m.

Drilling Day # 42 (28.3.83)

Drilling ahead from 3451m.

Drop Survey at 3494m - 1 1/4 deg.

Pump slug.

POOH : 25 - 50000 lbs Overpull in places.

Lay down junk basket and replace roller reamer.

RIH with Bit # 23 SMITH F3 8 1/2" (3*10).

Ream down last single to bottom.

Drill ahead from 3494m to 3506m.

Drilling Day # 43 (29.3.83)

Drilling ahead from 3506m to 3525m.

Drilling Day # 44 (30.3.83)

Drilling ahead from 3525m.

Drop of 50 psi at 3644m - wash-out in pump # 2.

Circulate Bottoms-up at 3726m for sample.

Circulate and condition hole.

Wiper trip.

Drilling Day # 45 (31.3.83)

Continue wiper trip to 3100m.

RIH to bottom.

Circulate and condition hole prior to Schlumberger logging.

POOH.

Rig up to run Schlumberger.

Run Schlumberger logs : OIL - SDS - GR.

: LTD - CIL.

Test BOP's and surface lines : Rams 5000 psi Annulars 2500 psi.

RIH with Bit # 24 SMITH F3 8 1/2" (3*10).

Drilling Day # 46 (1.4.83)

Continue RIH with Bit # 24 - strapping pipe.

A 2.5m difference was found depth tallies.

Drill ahead from 3728m (due to difference in depth) to 3805m.

Drilling Day # 47 (2.4.83)

Drilling ahead from 3305m to 3920m.

Drilling Day # 43 (3.4.83)

Drilling ahead from 3920m-3950m.
Pump slug and POOH.
RIH with Bit # 25, SMITH F3.
Wash to bottom and drill ahead.
Gas cutting mud, circulate gas out of system.
Weight up mud to 9.3ppg and displace hole.

Drilling Day # 49 (4.4.83)

Continue circulating out gas.
Drill ahead weighting up mud to 9.7ppg.

Drilling Day # 50 (5.4.83)

Continue drilling ahead.
Wiper trip to shoe, WOW.
RIH and circulate out gas.
POOH and circulate off bottom, WOW.

Drilling Day # 51 (6.4.83)

Displace riser with seawater.
Continue WOW.
Displace riser with mud and circulate.
Work on pipe, pipe stuck in hole.

Drilling Day # 52 (7.4.83)

Circulate and work pipe.
Spot heavy weight mud pill.
Shut down pumps to allow pill to work at sticking point.
Work pipe free.
POOH to 9 5/8" casing shoe.
Pump slug and circulate, waiting on Barite.
RIH, circulate 19 stands off bottom.
Continue RIH.
Drill ahead from 4050m.

Drilling Day # 53 (8.4.83)

Continue drilling ahead to 4147m.
Pump slug and POOH with Bit # 25.

Drilling Day # 54 (9.4.83)

Continue POOH.
Test BOP's and surface lines, tested okay.

Drilling Day # 54 (9.4.83) /cont

RH with Bit # 26, SMITH F4.
Drill ahead from 4147m.
Mud cut from 0.8+ bpg to 0.5+ bpg by trip gas.

Drilling Day # 55 (10.4.83)

Continue drilling ahead from 4181m to 4250m.

Drilling Day # 56 (11.4.83)

Continue drilling ahead from 4250m to 4284m.
Drop Potco survey at 4284m.
POOH with Bit # 26.
Retrieve survey 3/4 deg. deviation.

Drilling Day # 57 (12.4.83)

RH with new Bit # 27, SMITH F3.
Slip and cut drill lines.
On bottom and drill ahead.
Mud cut from 0.8 bpg to 0.4 bpg by trip gas.
Drill ahead from 4284m to 4340m.

Drilling Day # 58 (13.4.83)

Continue drilling ahead from 4340m.
Several drilling breaks and associated gas circulated out.
Continue drilling ahead to 4440m.

Drilling Day # 59 (14.4.83)

Continue drilling ahead from 4440m to 4450m.
Circulate and make a 20 stand wider trip.
Circulate, Drop Potco and PPOH with Bit # 27, 1 deg deviation.

Drilling Day # 60 (15.4.83)

Rig up to run Schlumberger logs.
Run # 1: DIL/SLS/GR from 4450m to 3700m.
Run # 2: LCL/CAL/GR from 4450m to 3700m.
Run # 3: DLL/MSFL/GR from 4450m to 3550m.
Run # 4: HDT from 4450m to 2550m.

Drilling Day # 61 (16.4.83)

Continue running Schlumberger logs.

Drilling Day # 61 (16.4.83) /cont.

Run # 5; CST, 51 attempted/36 recovered.
Run # 6; CST, 51 attempted/36 recovered.
Rig up to run SSL seismic survey.

Drilling Day # 62 (17.4.83)

Continue running SSL.
RIH with test tool, test BOP stack.
Circulate around well head.
Gas coming to surface - shut in well.
Circulate at 20 spm for 25 minutes.
Stoo pumps - well flowing, shut in.
Circulate at 20 spm around well head.
Circulate at 55-60 spm, increase to 100 spm and by-pass shakers.
Weight up mud to 9.9 ppg.
Circulating with heavy mud.
RIH open-ended with 5 stands.
Circulate out gas.
RIH with 10 stands and circulate.
RIH with 20 stands and circulate.

Drilling Day # 63 (18.4.83)

RIH to 2100m and circulate out gas.
RIH to 9 5/8" casing shoe, circulate for 7 hours and weight up mud
from 9.9 ppg to 10.1 ppg.
POOH and RIH with new Bit # 23, SMITH F3.
Circulate out gas at casing shoe (C1=33.5%, C2=2.7%, C3=0.855%, C4=0.78%,
C4=0.45%).
RIH to 3200m and circulate out gas (C1=33.0%, C2=2.4%, C3=0.83%, C4=0.74%,
C5=0.363%).
RIH to 3810m and circulate (C1=31.0%, C2=2.7%, C3=0.63%, C4=0.65%, C5=0.12%).

Drilling Day # 64 (19.4.83)

RIH, ream and wash down to bottom from 4421m.
Circulate on bottom (C1=24.0%, C2=4.3%, C3=1.05%, C4=0.5%, C5=0.04%).
Drill ahead from 4461m to 4518m.

Drilling Day # 65 (20.4.83)

Continue drilling ahead.
Drilling break @ 4517m (C1=35.0%, C2=4.26%, C3=1.96%, C4=0.934%).
Drill ahead to 4565m.
Circulate prior to wiper trip.
POOH with 20 stands.
RIH and circulate on bottom.

Drilling Day # 66 (21.4.83)

Continue circulating.
POOH with Bit # 28.
Rig up Schlumberger and run logs.
Run # 1 - DIL/SLS/GR.
Run # 2 - LDL/CNL/GR.
Run # 3 - HDT/CALI.

Drilling Day # 67 (22.4.83)

Continue running Schlumberger logs.
Run # 4 - CST.
Rig down Schlumberger.
RIH to condition the hole prior to running 7" casing.
Circulate and condition hole.
Make 15 stand wiper trip.
Circulate and POOH.

Drilling Day # 68 (23.4.83)

Continue POOH.
7" casing hang off tool sent to town for alterations.
RIH with drill pipe, circulate at casing shoe.
Continue to RIH to bottom.
Circulate on bottom, trip gas (C1= 42.5%, C2= 6.55%, C3= 4.4%, iC4= 0.9%, nC4= 1.51%).
Pump slug and POOH.

Drilling Day # 69 (24.4.83)

Continue POOH.
Rig up to run 7" casing.
Run in with 7" casing.
Circulate at 9 5/8" casing shoe.

Drilling Day # 70 (25.4.83)

Continue circulation at 9 5/8" casing shoe.
Finish circulation and continue running in 7" casing.
Pick up running string and hang off tool.
Land casing and circulate.
Rig up Halliburton.
Test cementing lines and cement head.
Displace mud with cement slurry.
Bump plug and circulate spacer.
Bleed off pressure and circulate.

Drilling Day # 71 (26.4.83)

Continue circulating.
Pump cement and displace with drill mud.
Pressure up plug, and bleed off.
Displace riser.
Break down 5" drill pipe and drill collars.

Drilling Day # 72 (27.4.83)

Pull out BOP stack.
Change out rams and install 7" rams.
Pressure test BOP stack on surface, tested okay.

Drilling Day # 73 (28.4.83)

RIH with BOP stack.
Test BOP's on bottom.

Drilling Day # 74 (29.4.83)

Prepare for Drill Stem Test programme.

36" PHASE SUMMARY

36" PHASE

SUMMARY

After positioning the rig, the well was spudded at 06.30, 15.2.83.

Bit # 1, 26" HTC (3*28) and 36" H/O (3*22) was made up and RIH. A 36" hole was drilled to 157m (516 ft) with surveys dropped at 135m (443 ft) and 157m (516 ft), both 1/2 deg deviation. A stuck pipe at 134m (440 ft) was worked free, some overpull was recorded. Drilling continued to 166.5m (546 ft) and the well was displaced by spud mud (MW 12 ppg). The first attempt to run the 30" casing was unsuccessful and Bit # 1 was re-run washing and reaming down to TD. After spotting 200 bbls of high viscous mud the bit was POOH and the 30" casing was successfully run in and set at 162.5m (546 ft).

WOB/RPM/ROP PRACTICE

One bit, 26" HTC + 36" H/O drilled this phase in 3.5 hours with an average ROP of 16.5 m/hr (54 ft/hr). On bottom time was 24.5 hours including trips, surveys and circulating time.

Drilling practices are summarized below:

DEPTH INTERVAL m	ROP m/hr	WOB klbs	RPM	FR gpm
109-166.5	16.5	0-5	75-100	953

HYDRAULICS

During this phase flow rates and annular velocities must be kept high to maintain good hole cleaning. From the cutting transport tables however it can be seen that although the flow rates are high the annular velocities are low, 19.4 ft/min (DC/OH) and 18.4 (DP/OH) and therefore only the finest cuttings are removed. The hole however was periodically flushed spotting high viscous mud pills. This enabled better hole cleaning throughout the phase and ensured the removal of the larger diameter cuttings.

Bit efficiency was 21.9% with a HP/sqin value of 0.18.

CASING AND CEMENTATION

4 joints of 30" Vetco 1" wall, 310 lb/ft casing and a well head were run in and set at 162.5m (533 ft). The following were then pumped:

- 1) A pre-flush of 50 bbls high viscous mud.
- 2) 1500 sacks of class "G" cement at a weight of 15.8 ppg mixed with seawater.
- 3) The cement was then displaced by 13 bbls of seawater.

CUTTING TRANSPORT TABLES

The tables provide a quick look at hole cleaning and cuttings removal. By controlling the ROP, raising or lowering the flow rate or changing the rheological properties of the mud, one can decide the action necessary to provide the most efficient hole cleaning.

In the following tables the data has been calculated between DC and OH and also between DP and OH, with the specific flow rates and mud properties used over the selected interval. Cuttings sizes are in decimal inches.

The following is a brief explanation of the terms utilised :

V_s = slip velocity (ft/min)

V_c = annular velocity - slip velocity

C_f = cuttings generated at the bit
(gallons/gallon of mud)

C_a = cuttings in annulus
(gallons/gallon of mud)

P_{ct} = cuttings transport ratio (decimal percentage)
= cutting velocity/annular velocity

Interval: 109 m. to 166 m.

FOP: 16.50 m/hr.

Flow rate 953.0 gpm.

Ann.Vel: 5.60 m/min (DP/OH)

MW: 3.5 ppg

PV 1

YP 1

Gel (10 sec) 1

YP/PV 1.00

n = 0.585

K = 0.071

Cuttings Density: 2.40 (Sand)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	13.34	-12.74			
0.750	13.76	-8.16			
0.500	9.17	-3.57			
0.250	4.59	1.02	0.1813	0.0501	0.2762
0.125	1.30	4.30	0.7583	0.0501	0.0652

Interval: 109 m. to 166 m.

FOP: 16.50 m/hr.

Flow rate 953.0 gpm.

Ann.Vel: 5.90 m/min (DC/OH)

MW: 3.5 ppg

PV 1

YP 1

Gel (10 sec) 1

YP/PV 1.00

n = 0.585

K = 0.071

Cuttings Density: 2.40 (Sand)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	19.59	-13.69			
0.750	14.69	-8.79			
0.500	9.80	-3.89			
0.250	4.90	1.01	0.1704	0.0501	0.2938
0.125	1.48	4.42	0.7492	0.0501	0.0668

GEOSERVICES T.D.C

Phillips Aust Co.

Hermes # 1

18.2.83

CASING LIST

CASING SIZE: 30" TYPE: 1" Wall WEIGHT(lbs/ft): 310

CASING LENGTH: 57.19
SHOE DEPTH : 162.46

```
*****  
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *  
*****  
*    1 * 12.19 *     12.19      *     150.27      *Shoe joint      *  
*    2 * 12.10 *     24.29      *     138.17      *                      *  
*    3 * 12.18 *     36.47      *     125.99      *                      *  
*    4 * 12.62 *     49.09      *     113.37      *                      *  
*    5 *  8.10 *     57.19      *     105.27      *Well head       *  
*****
```


26" PHASE SUMMARY

26" PHASE

SUMMARY

The 26" BHA was made up and RIH with Bit # 1RP. Cement was tagged at 152.5m (500 ft). After flushing the casing the cement and shoe were drilled out.

Bit # 1RR, 26" HTC (3*28) drilled from 166.5m (546 ft) to 364m (1195 ft), one survey was made at 246m (867 ft) with 1/2 deg deviation. No problems were encountered during drilling. At TD the hole was cleaned with 9.6 ppg mud and a wiper trip to the 30" casing shoe was made. After waiting one hour on the formation the bit was RIH and tagged bottom at 364m -no fill. After circulating the bit was POOH and the 20" casing run. The shoe was set at 351m (1152 ft).

WOB/RPM/ROP PRACTICE

One bit, 26" HTC drilled this phase in 6.5 hours with an average ROP of 30.5m/hr (100 ft/hr). On bottom time was 16.5 hours including trips and circulating time.

Drilling practices are summarized below:

DEPTH INTERVAL m	ROP m/hr	WOB klbs	RPM	FR gpm
166.5-364	30.4	5-10	75	950

HYDRAULICS

As with the 36" open hole phase, high annular velocities and flow rates must be maintained to ensure good hole cleaning. From the cutting transport tables, although the annular velocities are higher 38 ft/min (DC/OH) and 36 ft/min (DP/OH), we see that again only the fine cuttings (less than 1/4") are removed. Occasional flushing of the hole during drilling however removed the larger cutting. This continued procedure throughout the phase gave a clean hole with no fill.

Bit efficiency throughout the phase was similar to the 36" open hole phase, 21.7% and a HP/sqin value of 0.18.

CASING AND CEMENTATION

20 joints of 20" X-56 Cameron, 133 lb/ft casing and a well head were run in and set at 351.1m (1151.95 ft). The following were then pumped:

- 1) A pre-flush of 500 bbls of seawater.
- 2) Lead slurry: 800 sacks of class "G" cement mixed with 2.5% prehydrated gel at a weight of 12.8 ppg.
- 3) Tail slurry: 500 sacks of neat class "G" cement at 15.8 ppg.

CASING AND CEMENTATION /cont

4) The cement was then displaced by 10 bbls of seawater.
There were good returns of cement to the surface.

CUTTING TRANSPORT TABLES

The tables provide a quick look at hole cleaning and cuttings removal. By controlling the ROP, raising or lowering the flow rate or changing the rheological properties of the mud, one can decide the action necessary to provide the most efficient hole cleaning.

In the following tables the data has been calculated between DC and OH and also between DP and OH, with the specific flowrates and mud properties used over the selected interval. Cuttings sizes are in decimal inches.

The following is a brief explanation of the terms utilised :

V_s = slip velocity (ft/min)

V_c = annular velocity - slip velocity

C_f = cuttings generated at the bit
(gallons/gallon of mud)

C_a = cuttings in annulus
(gallons/gallon of mud)

R_{ct} = cuttings transport ratio (decimal percentage)
= cutting velocity/annular velocity

Interval: 166 m. to 365 m.

POP: 30.50 m/hr.

Flow rate 950.0 gpm.

Ann.Vel: 10.90 m/min (DP/OH)

MW: 8.6 ppb PV 1 YP 1 Gel (10 sec) 1 YP/PV 1.00

n = 0.585 K = 0.071

Cuttings Density: 2.45 (Sand)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	26.05	-15.15			
0.750	19.54	-8.64			
0.500	13.03	-2.12			
0.250	6.51	4.39	0.4026	0.0484	0.1203
0.125	3.26	7.65	0.7013	0.0484	0.0691

Interval: 166 m. to 365 m.

POP: 30.50 m/hr.

Flow rate 950.0 gpm.

Ann.Vel: 12.12 m/min (DC/OH)

MW: 8.6 ppb PV 1 YP 1 Gel (10 sec) 1 YP/PV 1.00

n = 0.585 K = 0.071

Cuttings Density: 2.45 (Sand)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	33.13	-21.02			
0.750	21.68	-9.57			
0.500	14.46	-2.34			
0.250	7.23	4.89	0.4034	0.0484	0.1201
0.125	3.61	8.50	0.7017	0.0484	0.0690

GEO SERVICES T.D.C

Phillips Aust Co.

Hermes # 1

19.2.83

CASING LIST

CASING SIZE: 20"

TYPE: X-56 CAMEPON

WFIGHT(lbs/ft): 133

CASING LENGTH: 246.54

SHOE DEPTH : 351.10

```
*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *
*****
*   1 * 12.79 *   12.79 *   338.31 * *Shoe joint *
*   2 * 11.87 *   24.66 *   326.44 * *
*   3 * 11.90 *   36.56 *   314.54 * *
*   4 * 11.87 *   48.43 *   302.67 * *
*   5 * 11.90 *   60.33 *   290.77 * *
*   6 * 11.88 *   72.21 *   278.89 * *
*   7 * 11.90 *   84.11 *   266.99 * *
*   8 * 11.91 *   96.02 *   255.08 * *
*   9 * 11.90 *  107.92 *   243.18 * *
*  10 * 11.84 *  119.76 *   231.34 * *
*  11 * 11.91 *  131.67 *   219.43 * *
*  12 * 11.90 *  143.57 *   207.53 * *
*  13 * 11.85 *  155.42 *   195.68 * *
*  14 * 11.91 *  167.33 *   183.77 * *
*  15 * 11.90 *  179.23 *   171.87 * *
*  16 * 11.90 *  191.13 *   159.97 * *
*  17 * 11.90 *  203.03 *   148.07 * *
*  18 * 11.90 *  214.93 *   136.17 * *
*  19 * 11.89 *  226.82 *   124.28 * *
*  20 * 11.76 *  238.58 *   112.52 * *Cross-over *
*  21 *  7.96 *  246.54 *   104.56 * *well head *
*****
```


17½" PHASE SUMMARY

17 1/2" PHASE

SUMMARY

The BOP stack and riser were rigged up, function tested and run in. After testing the choke and kill lines to 5000 psi the slip joint was nipped up, the test plug run in and the BOP's tested. Finally the surface equipment was tested to 5000 psi. The new BHA with Bit # 2 and 17 1/2" under-reamer was R/H. Cement was tagged at 341m (1119 ft) and the cement, float collar and 15 ft of new formation were drilled out. A LOT was then performed, (the formation broke at 295 psi with an EMW of 13.5 pp

The phase was drilled with two bits from 365m (1195 ft) to 1112m (3649 ft) a total of 747m (2454 ft). Total drilling time was 28.5 hrs an average rate of penetration of 26.2 m/hr (86 ft/hr) and total bottom time was 54.2 hrs including trips and circulation time, giving an average overall rate of penetration of 13.8 m/hr (45.3 ft/hr).

Bit # 2 SMITH DSJ (3*24) + 17 1/2" U/R, drilled from 365m to 539m (2966 ft). Two surveys were dropped at 526m (1726 ft), 3/4 deg deviation and 835m (2741 ft), 1/4 deg deviation. The bit was POOH after 24 hrs bottom time to change the cutters.

Bit # 3 SMITH DSJ (3*24) + 17 1/2" U/R drilled from 904m to 1112.4m (3649 ft). The bit was POOH when the 13 3/8" casing point was reached.

The hole was reamed on the way out, then conditioned and cleaned before Schlumberger ran in to log the open hole section.

The logs run were: DIL, SLS, GP, CALI.

WOB/PPM/ROP PRACTICES

The phase was drilled with two bits and the drilling practices can be summarized as follows:

DEPTH INTERVAL m	ROP m/hr	WOB klbs	PPM	FR gpm
365-904	44.4	26	105	1070
904-1112	12.7	46	111	1030

HYDRAULICS AND SOLIDS CONTROL

Both bits were run with 3*24 nozzels. The average flow rate over the phase was 1050 gpm (23.9 bpm), which gave an average bit power ratio of 31% and a HP/sqin of 1.5.

Bit # 2 drilled with high ROP values, however a high flow rate and an annular velocity in excess of 25 m/hr (90 ft/hr) ensured that good hole cleaning could be obtained within the entire annulus. From the cutting transport tables it can be seen that even the larger cuttings were removed.

Bit # 3 drilled with slower ROP's and a reduced flow rate, however the decreased amount of cuttings produced at the bit meant that

HYDRAULICS AND SOLIDS CONTROL /cont

cuttings were still removed and the hole successfully cleaned.

The mud weights increased during the bit runs due to the very fine particulate nature of the Limestone/Marl formations drilled, these cuttings were retained in the mud system thus elevating the mud weight.

CEMENT AND CASING

84 joints of 13 3/8" Buttress N-80, 72 lb/ft casing were run and set at 1105m (3624.5 ft).

The following were then pumped:

- 1) A pre-flush of 25 bbls drillwater.
- 2) Lead slurry: 1400 sacks of class "G" cement mixed with drillwater at 12.8 ppg, 10.8 gals/sack of pre-hydrated gel and 0.5% of CFR-2 were added.
- 3) Tail slurry: 500 sacks of class "G" cement mixed with drillwater at 15.8 ppg.
- 4) The cement was displaced by 479 bbls of drill mud.

The plug was bumped with 1500 psi and held for 10 minutes, there was no back flow.

The top of good cement was estimated to be at 327.5m (1075 ft) and the top of contaminated cement at 305m (1000 ft).

CUTTING TRANSPORT TABLES

The tables provide a quick look at hole cleaning and cuttings removal. By controlling the ROP, raising or lowering the flow rate or changing the rheological properties of the mud, one can decide the action necessary to provide the most efficient hole cleaning.

In the following tables the data has been calculated between DC and OH and also between DP and OH, with the specific flowrates and mud properties used over the selected interval. Cuttings sizes are in decimal inches.

The following is a brief explanation of the terms utilised :

V_s = slip velocity (ft/min)

V_c = annular velocity - slip velocity

C_f = cuttings generated at the bit
(gallons/gallon of mud)

C_a = cuttings in annulus
(gallons/gallon of mud)

R_{ct} = cuttings transport ratio (decimal percentage)
= cutting velocity/annular velocity

Interval: 365 m. to 904 m.

ROP: 44.40 m/hr.

Flow rate 1070.0 gpm.

Ann. Vel: 32.47 m/min (DC/OH)

MW: 8.9 ppq PV 5 YP 15

Gel (10 sec) 2 YP/PV 3.20

n = 0.308 K = 3.626

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	22.24	10.23	0.3152	0.0284	0.0900
0.750	16.68	15.79	0.4864	0.0284	0.0583
0.500	11.12	21.35	0.6576	0.0284	0.0431
0.250	5.56	26.91	0.8288	0.0284	0.0342
0.100	1.31	31.16	0.9596	0.0284	0.0296

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	20.26	12.21	0.3761	0.0284	0.0754
0.750	15.19	17.28	0.5321	0.0284	0.0533
0.500	10.13	22.34	0.6880	0.0284	0.0412
0.250	5.06	27.40	0.8440	0.0284	0.0336
0.100	1.17	31.30	0.9640	0.0284	0.0294

Interval: 904-m. to 1112 m.

ROP: 12.70 m/hr.

Flow rate 1030.0 gpm.

Ann. Vel: 31.26 m/min (DC/OH)

MW: 9.4 ppq PV 3 YP 8

Gel (10 sec) 2 YP/PV 2.67

n = 0.348 K = 1.514

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	25.70	5.55	0.1777	0.0084	0.0474
0.750	19.28	11.98	0.3833	0.0084	0.0220
0.500	12.85	18.40	0.5888	0.0084	0.0143
0.250	6.43	24.83	0.7944	0.0084	0.0106
0.100	1.84	29.42	0.9412	0.0084	0.0090

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	23.32	7.94	0.2539	0.0084	0.0332
0.750	17.49	13.77	0.4404	0.0084	0.0191
0.500	11.66	19.60	0.6269	0.0084	0.0134
0.250	5.83	25.43	0.8135	0.0084	0.0104
0.100	1.63	29.63	0.9479	0.0084	0.0089

Interval: 904 m. to 1112 m.

ROP: 12.80 m/hr.

Flow rate 1030.0 gpm.

Ann.Vel: 27.36 m/min (DP/OH)

MW: 9.5 ppq

PV 8

YP 8

Gel (10 sec) 3

YP/PV 1.00

n = 0.585

K = 0.570

Cuttings Density: 2.20 (Lmst/Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	19.10	8.25	0.3017	0.0085	0.0232
0.750	14.33	13.03	0.4763	0.0085	0.0178
0.500	9.55	17.81	0.6509	0.0085	0.0131
0.250	4.78	22.53	0.8254	0.0085	0.0103
0.125	1.68	25.68	0.9386	0.0085	0.0090

Interval: 904 m. to 1112 m.

ROP: 12.80 m/hr.

Flow rate 1030.0 gpm.

Ann.Vel: 27.36 m/min (DP/OH)

MW: 9.5 ppq

PV 8

YP 8

Gel (10 sec) 3

YP/PV 1.00

n = 0.585

K = 0.570

Cuttings Density: 2.30 (Lmst/Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	20.29	7.07	0.2585	0.0085	0.0329
0.750	15.21	12.14	0.4439	0.0085	0.0191
0.500	10.14	17.22	0.6293	0.0085	0.0135
0.250	5.07	22.29	0.8146	0.0085	0.0104
0.125	1.81	25.55	0.9338	0.0085	0.0091

Interval: 904 m. to 1112 m.

ROP: 12.80 m/hr.

Flow rate 1030.0 gpm.

Ann.Vel: 27.36 m/min (DP/OH)

MW: 9.5 ppq

PV 8

YP 8

Gel (10 sec) 3

YP/PV 1.00

n = 0.585

K = 0.570

Cuttings Density: 2.40 (Lmst/Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	21.43	5.92	0.2166	0.0085	0.0392
0.750	16.08	11.28	0.4124	0.0085	0.0206
0.500	10.72	16.64	0.6083	0.0085	0.0140
0.250	5.36	22.00	0.8041	0.0085	0.0106
0.125	1.94	25.42	0.9291	0.0085	0.0091

GEOSERVICES T.D.C

Phillips Aust Co.

Hermes # 1

24.2.83

CASING LIST

CASING SIZE: 13 3/8"

TYPE: Buttress N-80

WEIGHT(lbs/ft): 72

CASING LENGTH: 993.43

SHOE DEPTH : 1105.00

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	* Remarks	*****	
* 1	* 12.70	* 12.70	* 1092.30	* Shoe joint	*****	
* 2	* 11.79	* 24.49	* 1080.51	*	*****	
* 3	* 11.46	* 35.95	* 1069.05	*	*****	
* 4	* 11.45	* 47.40	* 1057.60	*	*****	
* 5	* 12.00	* 59.40	* 1045.60	*	*****	
* 6	* 11.34	* 70.74	* 1034.26	*	*****	
* 7	* 11.93	* 82.67	* 1022.33	*	*****	
* 8	* 11.91	* 94.58	* 1010.42	*	*****	
* 9	* 12.13	* 106.71	* 998.29	*	*****	
* 10	* 12.16	* 118.87	* 986.13	*	*****	
* 11	* 11.69	* 130.56	* 974.44	*	*****	
* 12	* 11.97	* 142.53	* 962.47	*	*****	
* 13	* 11.32	* 153.85	* 951.15	*	*****	
* 14	* 11.52	* 165.37	* 939.63	*	*****	
* 15	* 11.81	* 177.18	* 927.82	*	*****	
* 16	* 11.61	* 188.79	* 916.21	*	*****	
* 17	* 11.69	* 200.48	* 904.52	*	*****	
* 18	* 11.73	* 212.21	* 892.79	*	*****	
* 19	* 11.73	* 223.94	* 881.06	*	*****	
* 20	* 11.76	* 235.70	* 869.30	*	*****	
* 21	* 11.74	* 247.44	* 857.56	*	*****	
* 22	* 11.96	* 259.40	* 845.60	*	*****	
* 23	* 11.68	* 271.08	* 833.92	*	*****	
* 24	* 12.03	* 283.11	* 821.89	*	*****	
* 25	* 11.71	* 294.82	* 810.18	*	*****	
* 26	* 11.19	* 306.01	* 798.99	*	*****	
* 27	* 11.97	* 317.98	* 787.02	*	*****	
* 28	* 11.72	* 329.70	* 775.30	*	*****	
* 29	* 11.52	* 341.22	* 763.78	*	*****	
* 30	* 11.86	* 353.08	* 751.92	*	*****	
* 31	* 11.79	* 364.87	* 740.13	*	*****	
* 32	* 11.75	* 376.62	* 728.38	*	*****	
* 33	* 11.80	* 388.42	* 716.58	*	*****	
* 34	* 12.07	* 400.49	* 704.51	*	*****	
* 35	* 11.55	* 412.04	* 692.96	*	*****	
* 36	* 11.85	* 423.89	* 681.11	*	*****	
* 37	* 11.78	* 435.67	* 669.33	*	*****	
* 38	* 11.90	* 447.57	* 657.43	*	*****	
* 39	* 11.92	* 459.49	* 645.51	*	*****	
* 40	* 11.67	* 471.16	* 633.84	*	*****	

GEOSERVICES T.D.C

Phillips Aust Co.

Hermes # 1

24.2.83

CASING LIST

CASING SIZE: 13 3/8"

TYPE: Buttress N-80

WEIGHT(lbs/ft): 72

CASING LENGTH: 998.43

SHOE DEPTH : 1105.00

```
*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *
*****
* 41 * 11.90 * 483.06 * 621.94 *
* 42 * 11.86 * 494.92 * 610.08 *
* 43 * 11.40 * 506.32 * 598.68 *
* 44 * 11.70 * 518.02 * 586.98 *
* 45 * 11.87 * 529.89 * 575.11 *
* 46 * 11.94 * 541.83 * 563.17 *
* 47 * 11.56 * 553.39 * 551.61 *
* 48 * 11.92 * 565.31 * 539.69 *
* 49 * 11.80 * 577.11 * 527.39 *
* 50 * 11.56 * 588.67 * 516.33 *
* 51 * 11.72 * 600.39 * 504.61 *
* 52 * 11.84 * 612.23 * 492.77 *
* 53 * 11.04 * 623.27 * 481.73 *
* 54 * 12.05 * 635.32 * 469.68 *
* 55 * 11.29 * 646.61 * 458.39 *
* 56 * 11.82 * 658.43 * 446.57 *
* 57 * 11.24 * 669.67 * 435.33 *
* 58 * 11.90 * 681.57 * 423.43 *
* 59 * 11.68 * 693.25 * 411.75 *
* 60 * 11.65 * 704.90 * 400.10 *
* 61 * 11.66 * 716.56 * 388.44 *
* 62 * 11.84 * 728.40 * 376.60 *
* 63 * 11.79 * 740.19 * 364.81 *
* 64 * 11.83 * 752.02 * 352.98 *
* 65 * 11.13 * 763.15 * 341.85 *
* 66 * 11.63 * 774.78 * 330.22 *
* 67 * 11.67 * 786.45 * 318.55 *
* 68 * 11.88 * 798.33 * 306.67 *
* 69 * 11.88 * 810.21 * 294.79 *
* 70 * 11.62 * 821.83 * 283.17 *
* 71 * 11.62 * 833.45 * 271.55 *
* 72 * 11.84 * 845.29 * 259.71 *
* 73 * 11.86 * 857.15 * 247.85 *
* 74 * 11.38 * 868.53 * 236.47 *
* 75 * 12.00 * 880.53 * 224.47 *
* 76 * 11.69 * 892.22 * 212.78 *
* 77 * 11.90 * 904.12 * 200.88 *
* 78 * 11.86 * 915.98 * 189.02 *
* 79 * 10.96 * 926.94 * 178.06 *
* 80 * 11.04 * 937.98 * 167.02 *
*****
```

GEO SERVICES T.D.C

Phillips Aust Co.

Hermes # 1

24.2.83

CASING LIST

CASING SIZE: 13 3/8"

TYPE: Buttress N-80

WEIGHT(lbs/ft): 72

CASING LENGTH: 998.43

SHOE DEPTH : 1105.00

```
*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *
*****
*   81 * 11.57 *   949.55 *      155.45 *
*   82 * 11.51 *   961.06 *      143.94 *
*   83 * 10.94 *   972.00 *      133.00 *
*   84 * 11.15 *   983.15 *      121.85 *
*   85 * 11.84 *   994.99 *      110.01 *
*   86 *  3.12 *   998.11 *      106.89 *Pup joint
*   87 *  0.32 *   998.43 *      106.57 *Hanger
*****
```


12 $\frac{1}{4}$ " PHASE SUMMARY

12 1/4" PHASE

SUMMARY

After running the 13 3/8" casing, the seal assembly and BOP stack were pressure tested and found to be secure. A new BHA was then made up with Bit # 4 to tag and drill out the cement. The cement was tagged at 1092m, the remainder of the cement was drilled out together with 4.5m of formation to a depth of 1116m, at which point a Leak Off Test was performed. The pressure was taken up to 980 psi with a mud weight of 9.3 ppq, giving an EMW of 14.5 ppq with no formation intake.

Drilling of the 12 1/4" Phase was then commenced:

Bit # 4 SMITH SDT 12 1/4" (3*14) drilled from 1112.5m to 1303m, a total of 190.5m. The drilling rate averaged 12.3 m/hr. A survey was run just before pulling the bit which gave a 2 degree deviation.

An ACC STRATA-PAX WILDCAT II was then run into the hole, but was pulled before reaching the bottom (this bit was, therefore, not numbered).

Bit # 5 SMITH SDS 12 1/4" (3*14) drilled from 1303m to 1345m, a total of 42m, averaging 4.6 m/hr. The bit was pulled prematurely to work on the motion compensators and to test the surface lines.

Bit # 6 STRATA-PAX WILDCAT II 12 1/4" (3*15) was then run and drilled from 1345m to 1347m, only 2m before it was pulled due to a suspected wash-out. When the BHA was on surface it was found that the bit was missing.

Junk baskets were then run into the hole and a reverse circulation was performed to try to recover parts of the bit, but to no avail. A mill bit was then run with the junk baskets:

Bit # 7 SERVICO 12 1/8" (3*14) was run to mill the STRATA-PAX. This was pulled after 2 1/2 hours to clean the junk baskets. It was then rerun and milled for a further 2 hours.

Bit # 8 SMITH SDGH 12 1/4" (3*14) was then run and reamed the under gauged hole caused by milling and drilled a further 1.6m to 1349m. The teeth were severely worn (grade 6) and the junk baskets were emptied.

Bit # 9 SMITH SDS 12 1/4" (3*14) drilled from 1349m to 1353m, a total of 4m. This bit was probably milling on junk still in the hole as the bit was more worn than would have been expected.

Bit # 10 SMITH SDS 12 1/4" (3*14) drilled from 1353m to 1419m at which point a slight pressure drop was recorded and a wash-out was suspected. A cracked drill collar was found in the BHA.

Bit # 11 SMITH SDS 12 1/4" (3*14) drilled from 1419m to 1499m, where the pressure dropped by 250-300 psi and another wash-out was suspected. This was, again, found to be in the drill collars.

Bit # 12 SMITH SDT 12 1/4" (3*14) was run in at 1499m but failed to drill as the optimum pump pressure could not be attained and yet another wash-out was suspected. This was, again, thought to be in the drill collars and this was confirmed when on surface.

SUMMARY/cont

Bit # 13 SMITH A1 12 1/4" (1*12 2*15) was run from 1499m to 1537m, at which point another slight pressure drop was detected. This was again found to be a wash-out when on surface.

Bit # 14 SMITH SDS 12 1/4" (3*14) drilled from 1527m to 1641m, a total of 104m at an average rate of 7.7 m/hr. A survey dropped at 1641m gave a deviation of 2 3/4 degrees.

Bit # 12RR SMITH SDT 12 1/4" (3*14) drilled from 1641m to 1731m, a total of 90m. This bit was pulled due to the decreasing rates of penetration and when the bit was back on surface it was found to be 1/8 out of gauge.

Bit # 15 SMITH SDGH 12 1/4" (3*14) drilled from 1731m to 1793, a total of 62m. At approximately 1759m a small pressure loss was detected, and it was not until 1793m when a severe loss was encountered was a wash-out suspected, and the bit pulled.

Bit # 16 SMITH SDS 12 1/4" (3*14) drilled from 1793m to 1845m, a total of 52m. A pressure drop of 50-70 psi was detected at 1827m which rose steadily to 300 psi at 1845m. It was at this point that it was decided to pull the bit and look for a wash-out. There was found to be a crack in the Hydril sub.

When Bit # 16 was on surface it was found to have several teeth missing, so a bit was run in with junk baskets to mill.

Bit # 15RR SMITH SDGH 12 1/4" (3*14) was used to mill junk left by Bit # 16 and ended at 1847m. When it was pulled 14 teeth were found in the junk basket.

Bit # 17 DIAMAX MS5 12 1/4" (TFA : 1.22 approx. - no figure were given) drilled from 1847m to 1935m, a total of 88m.

Bit # 18 DIAMAX AD52 12 1/4" (TFA : 1.22 approx a/a) drilled from 1935m to 1943m, only 8m, before it was decided to pull the bit due to very slow rates of penetration (average 3.3 m/hr).

Bit # 19 SMITH SDT 12 1/4" (3*14) drilled from 1943m to 2491m, a total of 548m. ROP's during this run were very good averaging as high as 22 m/hr.

Bit # 20 SMITH SDT 12 1/4" (3*14) drilled from 2491m to 2591m, a total of 100m. The bit was pulled due to excessive torque values caused by a change in formation.

It was decided to run Schlumberger logs and casing at this point. The following logs were run:

DIL - SLS - GR
LDL - CNL - GR
HDT
CST

WOB/RPM/ROP PRACTICES

The phase was drilling using a total of 19 bits and the main parameters can be summarised in the following table (see over leaf):

WOB/RPM/ROP PRACTICES cont

DEPTH INTERVAL m	ROP m/hr	WOB klbs	RPM	FR gpm
1112 - 1300	12.1	41	95	660
1300 - 1350	4.2	38	92	635
1350 - 1498	9.6	55	107	635
1498 - 1536	4.1	37	82	605
1536 - 1731	7.2	52	132	640
1731 - 1845	8.9	53	127	635
1845 - 1943	4.3	40	*750	625
1943 - 2591	17.0	52	126	675

* Turbo drilling with Diamond bits

HYDRAULICS

The 12 1/4" phase was drilled by 19 bits, 15 of which used 3*14 nozzles. The bit efficiencies were generally very high ranging from 58.6% (Bit # 20) to 69.2%. The two diamond bits run (#17 and #18) had efficiencies calculated at 21.9%. However, the data for these bits was not readily available and the TFA had to be estimated from figures given by the drilling engineer (250 psi pressure drop at 700 gpm). Both these diamond bits drilled poorly and it was for this reason that they were replaced by conventional tooth bits. The HHP/SQ.IN values were correspondingly high, ranging from 4.5 to 6.7 (excluding the diamond and mill bits). The average drilling rates varied enormously from 0.75 m/hr to 22.7 m/hr whilst most other parameter (including the formation) remained remarkably constant. It might have been better to lower the bit efficiencies and HHP/SQ.IN by running, say, 3*15 nozzles. However, the main problem during the first section of the phase was the consistency with which wash-outs occurred. The reason for these was thought to be excessive vibrations.

With the flow kept, generally, between 630 and 660 gpm (going as high as 700 gpm on occasion) and the "n" values ranging from 0.6 to 0.7, the hole cleaning properties of the mud were excellent. However, these high flow rates led to turbulent flow near the bit and around the pipe, in just about all cases. This could have caused hole erosion and some collapse. However, this does not seem to have occurred and very little caving was encountered.

The mud weight kept at around 9.2 - 9.3 ppg during the main part of the phase and it was not until towards the end (Bits #19 and #20) that it was brought up to around 9.7 - 9.8 ppg.

CASING AND CEMENTATION

197 joints of 9 5/8" casing were run - 127 joints of L-80 and 70 of S-95 - with a weight of 47 lb/ft. The shoe was set at 2562.3m (8406.5 ft).

The cementation was as follows:

CASING AND CEMENTATION/cont

- 1) A pre-flush of 25 bbls of drillwater.
- 2) Lead slurry: 1050 sacks of "G" class cement mixed with drillwater at 12.0 ppg, with additives of 3.7% prehydrated gel and 0.5% CFR-2.
- 3) Tail slurry: 500 sacks of "G" class cement mixed with drillwater at 15.8 ppg, with additives of 0.5% CFR-2, 0.8% Halad 22A and 0.01% HR6L.
- 4) The cement was displaced by 590 bbls of drill mud.

The plug was then bumped with 3000 psi and held for 15 mins. The cement was tagged at 2533m (8309 ft).

Phillios Aust Co.

Hermes # 1

BIT REPORT

BJT No	TYPE	SIZE	NOZZLES	DEP. IN	MTRGE	HOURS	DRLNG T/B/G	AVER COST/M		WOB	HYDRO. POWER				Remarks			
								US \$	KLBS		RPM	FLOW	SPP	MW		TTL	BIT /SI	
4	SMITH SDT	12 1/4	14 14 14	1112.5	190.5	15.50	4/5/I	12.3	999	41.0	95	660	2890	9.30	15849	5556	37.0	
5	SMITH SDS	12 1/4	14 14 14	1303.0	42.0	9.10	2/2/I	4.6	3450	37.5	91	635	2820	9.20	14879	4895	32.6	
6	WILDCAT II	12 1/4	15 15 15	1345.0	2.0	0.35	0/0/I	5.74	6290	20.0	60	645	2870	9.20	15382	3893	25.9	Washed out
7	SERVO	12 1/4	14 14 14	1347.0			0/0/I			5.0	75	640	2800	9.20	14890	5012	33.4	Milled hole
8	SMITH SDGH	12 1/4	14 14 14	1347.3	1.7	2.50	6/2/I	0.75	3117	43.0	90	615	2630	9.20	13440	4447	29.6	Milling
9	SMITH SDS	12 1/4	14 14 14	1349.0	4.0	2.60	2/1/I	1.52	2679	38.0	68	630	2870	9.20	15024	4780	31.9	Milling
10	SMITH SDS	12 1/4	14 14 14	1353.0	66.0	7.40	3/2/I	8.9	1981	52.0	108	630	2870	9.30	15024	4832	32.2	Washed out
11	SMITH SDS	12 1/4	14 14 14	1419.0	80.0	7.20	4/4/I	11.1	1613	58.0	105	635	2890	9.40	15249	5002	33.3	Washed out
12	SMITH SDT	12 1/4	14 14 14	1499.0			---			0.0	0	0	0	9.40	0	0	0.0	Washed out
13	SMITH A1	12 1/4	12 15 15	1499.0	38.0	10.30	1/1/I	3.7	4145	37.0	82	605	2900	9.20	14579	4149	27.6	Bi-cone/wash out
14	SMITH SDS	12 1/4	14 14 14	1537.0	104.0	13.59	3/5/I	7.7	1753	46.9	133	641	2938	9.20	15548	5035	33.6	
12PR	SMITH SDT	12 1/4	14 14 14	1641.0	90.0	13.10	6/4/O	6.9	1980	56.8	130	634	2875	9.30	15146	4925	32.8	1/8 out gauge
15	SMITH SDGH	12 1/4	14 14 14	1731.0	62.0	8.46	2/3/O	7.3	2392	50.4	126	635	2938	9.30	15502	4948	33.0	1/8 out gauge
16	SMITH SDS	12 1/4	14 14 14	1793.0	52.0	4.95	4/4/I	10.5	2231	55.0	129	632	2935	9.30	15413	4879	32.5	Washed out
15PR	SMITH SDGH	12 1/4	14 14 14	1845.0	2.0	0.50	2/3/O	4.04	0983	16.0	44	336	1483	9.30	4140	733	4.9	Milled
17	DIAMAX MS5	12 1/4	T: 1.22	1847.0	88.0	14.51	---	6.1	2635	41.3	750	623	3026	9.30	15665	5555	33.5	
18	DIAMAX AD52	12 1/4	T: 1.22	1935.0	8.0	2.08	---	3.81	6041	25.1	750	632	2794	9.20	14572	5555	33.5	
19	SMITH SDT	12 1/4	14 14 14	1943.0	548.0	24.10	3/7/I	22.7	523	54.6	126	672	2928	9.50	16349	5991	39.9	
20	SMITH SDT	12 1/4	14 14 14	2491.0	100.0	7.34	3/4/O	13.6	1552	49.6	127	680	2932	9.50	16567	6207	41.4	3/8 out gauge

CUTTING TRANSPORT TABLES

The tables provide a quick look at hole cleaning and cuttings removal. By controlling the ROP, raising or lowering the flow rate or changing the rheological properties of the mud, one can decide the action necessary to provide the most efficient hole cleaning.

In the following tables the data has been calculated between DC and OH and also between DP and OH, with the specific flowrates and mud properties used over the selected interval. Cuttings sizes are in decimal inches.

The following is a brief explanation of the terms utilised :

V_s = slip velocity (ft/min)

V_c = annular velocity - slip velocity

C_f = cuttings generated at the bit
(gallons/gallon of mud)

C_a = cuttings in annulus
(gallons/gallon of mud)

R_{ct} = cuttings transport ratio (decimal percentage)
= cutting velocity/annular velocity

Interval: 1112 m. to 1300 m.

FOP: 12.10 m/hr.

Flow rate 650.0 gpm.

Ann.Vel: 54.78 m/min (DC/OH)

MW: 9.3 ppg

PV 8

YP 5

Gel (10 sec) 2

YP/PV 0.63

n = 0.691

K = 0.252

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.60	22.19	0.4050	0.0061	0.0152
0.750	28.23	26.56	0.4847	0.0061	0.0127
0.500	23.05	31.74	0.5793	0.0061	0.0106
0.250	9.70	45.08	0.8229	0.0061	0.0075
0.100	3.88	50.90	0.9292	0.0061	0.0066

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.32	24.46	0.4465	0.0061	0.0138
0.750	26.26	28.52	0.5207	0.0061	0.0118
0.500	17.62	37.16	0.6783	0.0061	0.0091
0.250	8.81	45.97	0.8392	0.0061	0.0073
0.100	3.52	51.26	0.9357	0.0061	0.0066

Interval: 1300 m. to 1360 m.

FOP: 4.20 m/hr.

Flow rate 635.0 gpm.

Ann.Vel: 52.71 m/min (DC/OH)

MW: 9.2 ppg

PV 8

YP 5

Gel (10 sec) 2

YP/PV 0.63

n = 0.691

K = 0.252

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.90	19.81	0.3758	0.0022	0.0059
0.750	28.50	24.21	0.4594	0.0022	0.0048
0.500	23.27	29.44	0.5586	0.0022	0.0040
0.250	9.73	42.98	0.8154	0.0022	0.0027
0.100	3.89	48.82	0.9261	0.0022	0.0024

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.63	22.08	0.4189	0.0022	0.0053
0.750	26.52	26.18	0.4968	0.0022	0.0045
0.500	17.69	35.02	0.6644	0.0022	0.0033
0.250	8.84	43.86	0.8322	0.0022	0.0027
0.100	3.54	49.17	0.9329	0.0022	0.0024

Interval: 1360 m. to 1498 m.

ROP: 9.60 m/hr.

Flow rate 635.0 gpm.

Ann.Vel: 52.71 m/min (DC/OH)

MW: 9.4 ppj

PV 5

YP 5

Gel (10 sec) 1

YP/PV 1.00

n = 0.585

K = 0.356

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.29	20.42	0.3874	0.0051	0.0131
0.750	27.96	24.75	0.4695	0.0051	0.0108
0.500	22.83	29.88	0.5668	0.0051	0.0039
0.250	10.29	42.42	0.8048	0.0051	0.0063
0.100	4.11	48.59	0.9219	0.0051	0.0055

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.02	22.69	0.4305	0.0051	0.0118
0.750	26.00	26.71	0.5068	0.0051	0.0100
0.500	21.23	31.48	0.5973	0.0051	0.0085
0.250	9.33	43.38	0.8229	0.0051	0.0062
0.100	3.73	48.93	0.9292	0.0051	0.0054

Interval: 1498 m. to 1536 m.

ROP: 4.10 m/hr.

Flow rate 605.0 gpm.

Ann.Vel: 50.22 m/min (DC/OH)

MW: 9.1 ppj

PV 5

YP 5

Gel (10 sec) 1

YP/PV 1.00

n = 0.585

K = 0.356

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	33.22	17.00	0.3386	0.0023	0.0067
0.750	28.77	21.45	0.4272	0.0023	0.0053
0.500	23.49	26.73	0.5323	0.0023	0.0043
0.250	10.48	39.74	0.7913	0.0023	0.0029
0.100	4.19	46.03	0.9165	0.0023	0.0025

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.94	19.28	0.3839	0.0023	0.0059
0.750	26.79	23.43	0.4665	0.0023	0.0049
0.500	21.88	28.34	0.5644	0.0023	0.0040
0.250	9.53	40.68	0.8101	0.0023	0.0028
0.100	3.81	46.41	0.9241	0.0023	0.0025

Interval: 1536 m. to 1731 m.

ROP: 7.20 m/hr.

Flow rate 640.0 gpm.

Ann.Vel: 53.12 m/min (DC/OH)

MW: 9.3 ppq

PV 6

YP 4

Gel (10 sec) 1

YP/PV 0.67

n = 0.678

K = 0.210

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.60	20.53	0.3864	0.0038	0.0098
0.750	28.23	24.90	0.4686	0.0038	0.0080
0.500	23.05	30.08	0.5661	0.0038	0.0067
0.250	10.79	42.33	0.7969	0.0038	0.0047
0.100	4.32	48.81	0.9188	0.0038	0.0041

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.32	22.80	0.4292	0.0038	0.0038
0.750	26.26	26.86	0.5057	0.0038	0.0075
0.500	21.44	31.68	0.5964	0.0038	0.0063
0.250	9.80	43.33	0.8155	0.0038	0.0046
0.100	3.92	49.20	0.9262	0.0038	0.0041

Interval: 1731 m. to 1845 m.

ROP: 8.90 m/hr.

Flow rate 635.0 gpm.

Ann.Vel: 52.71 m/min (DC/OH)

MW: 9.3 ppq

PV 8

YP 5

Gel (10 sec) 1

YP/PV 0.63

n = 0.691

K = 0.252

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.60	20.11	0.3816	0.0047	0.0123
0.750	28.23	24.48	0.4645	0.0047	0.0101
0.500	23.05	29.66	0.5627	0.0047	0.0083
0.250	10.06	42.64	0.8091	0.0047	0.0058
0.100	4.03	48.68	0.9235	0.0047	0.0051

Cuttings Density: 2.40 (Marl)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.32	22.39	0.4247	0.0047	0.0111
0.750	26.26	26.45	0.5018	0.0047	0.0094
0.500	21.44	31.27	0.5932	0.0047	0.0079
0.250	9.14	43.57	0.8266	0.0047	0.0057
0.100	3.66	49.05	0.9306	0.0047	0.0050

Interval: 1845 m. to 1943 m.

ROP: 4.30 m/hr.

Flow rate 625.0 gpm.

Ann.Vel: 51.88 m/min (DC/OH)

MW: 9.3 ppb PV 7 YP 4 Gel (10 sec) 1 YP/PV 0.57

n = 0.710 K = 0.192

Cuttings Density: 2.60 (Calcarenite)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	32.60	19.28	0.3717	0.0023	0.0062
0.750	28.23	23.55	0.4559	0.0023	0.0051
0.500	23.05	28.83	0.5557	0.0023	0.0041
0.250	10.61	41.27	0.7954	0.0023	0.0029
0.100	4.24	47.63	0.9182	0.0023	0.0025

Cuttings Density: 2.49 (Siltstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	31.37	20.51	0.3954	0.0023	0.0058
0.750	27.16	24.72	0.4764	0.0023	0.0043
0.500	22.18	29.70	0.5725	0.0023	0.0040
0.250	10.08	41.80	0.8057	0.0023	0.0029
0.100	4.03	47.85	0.9223	0.0023	0.0025

Interval: 1943 m. to 2591 m.

ROP: 17.00 m/hr.

Flow rate 675.0 gpm.

Ann.Vel: 56.03 m/min (DC/OH)

MW: 9.2 ppb PV 8 YP 5 Gel (10 sec) 1 YP/PV 0.63

n = 0.691 K = 0.252

Cuttings Density: 2.49 (Siltstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	31.67	24.36	0.4347	0.0084	0.0194
0.750	27.43	28.60	0.5105	0.0084	0.0165
0.500	22.40	33.63	0.6003	0.0084	0.0141
0.250	9.73	46.30	0.8263	0.0084	0.0102
0.100	3.89	52.14	0.9305	0.0084	0.0091

Cuttings Density: 2.25 (Claystone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	28.80	27.23	0.4859	0.0084	0.0174
0.750	24.94	31.09	0.5548	0.0084	0.0152
0.500	20.37	35.66	0.6365	0.0084	0.0133
0.250	8.57	47.46	0.8470	0.0084	0.0100
0.100	3.43	52.60	0.9388	0.0084	0.0090

CASING LIST

CASING SIZE: 9 5/8"

TYPE: S-95 + L-80

WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56

SHOE DEPTH : 2562.30

```

*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *
*****
*      * 13.62 *      13.62      *      2548.63      *Shoe B + Joint *
*      *  0.53 *      14.15      *      2548.15      *Float Collar C *
*  1 * 11.80 *      25.95      *      2536.35      *Joint C        *
*  2 * 13.86 *      39.81      *      2522.49      *S-95           *
*  3 * 14.08 *      53.89      *      2508.41      *                *
*  4 * 13.27 *      67.16      *      2495.14      *                *
*  5 * 13.58 *      80.74      *      2481.56      *                *
*  6 * 12.62 *      93.36      *      2468.94      *Cent           *
*  7 * 13.50 *     106.86      *      2455.44      *                *
*  8 * 13.33 *     120.19      *      2442.11      *                *
*  9 * 13.06 *     133.25      *      2429.05      *                *
* 10 * 12.80 *     146.05      *      2416.25      *                *
* 11 * 14.24 *     160.29      *      2402.01      *Cent           *
* 12 * 13.81 *     174.10      *      2388.20      *                *
* 13 * 13.36 *     187.46      *      2374.84      *                *
* 14 * 13.24 *     200.70      *      2361.60      *                *
* 15 * 13.48 *     214.18      *      2348.12      *                *
* 16 * 12.40 *     226.58      *      2335.72      *Cent           *
* 17 * 13.11 *     239.69      *      2322.61      *                *
* 18 * 11.45 *     251.14      *      2311.16      *                *
* 19 * 13.70 *     264.84      *      2297.46      *                *
* 20 * 13.99 *     278.83      *      2283.47      *                *
* 21 * 13.91 *     292.74      *      2269.56      *Cent           *
* 22 * 13.65 *     306.39      *      2255.91      *                *
* 23 * 13.86 *     320.25      *      2242.05      *                *
* 24 * 13.66 *     333.91      *      2228.39      *                *
* 25 * 12.70 *     346.61      *      2215.69      *                *
* 26 * 12.66 *     359.27      *      2203.03      *Cent           *
* 27 * 12.79 *     372.06      *      2190.24      *                *
* 28 * 13.60 *     385.66      *      2176.64      *                *
* 29 * 14.15 *     399.81      *      2162.49      *                *
* 30 * 14.05 *     413.86      *      2148.44      *                *
* 31 * 12.08 *     425.94      *      2136.36      *Cent           *
* 32 * 12.55 *     438.49      *      2123.81      *                *
* 33 * 13.37 *     451.86      *      2110.44      *                *
* 34 * 13.92 *     465.78      *      2096.52      *                *
* 35 * 14.14 *     479.92      *      2082.38      *                *
* 36 * 12.91 *     492.83      *      2069.47      *Cent           *
* 37 * 13.81 *     506.64      *      2055.66      *                *
* 38 * 13.64 *     520.28      *      2042.02      *                *
*****
    
```

CASING LIST

CASING SIZE: 9 5/8"

TYPE: S-95 + L-80

WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56

SHOE DEPTH : 2562.30

```

*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *
*****
*   39 * 13.70 *   533.98 *   2028.32 *          *          *
*   40 * 13.58 *   547.56 *   2014.74 *          *          *
*   41 * 13.94 *   551.50 *   2000.80 *      *Cent *          *
*   42 * 13.50 *   575.00 *   1987.30 *          *          *
*   43 * 11.90 *   586.90 *   1975.40 *          *          *
*   44 * 14.11 *   601.01 *   1961.29 *          *          *
*   45 * 13.52 *   614.53 *   1947.77 *          *          *
*   46 * 13.42 *   627.95 *   1934.35 *      *Cent *          *
*   47 * 13.30 *   641.25 *   1921.05 *          *          *
*   48 * 13.02 *   654.27 *   1908.03 *          *          *
*   49 * 13.96 *   668.23 *   1894.07 *          *          *
*   50 * 11.73 *   679.96 *   1882.34 *          *          *
*   51 * 14.10 *   694.06 *   1868.24 *      *Cent *          *
*   52 * 13.46 *   707.52 *   1854.78 *          *          *
*   53 * 14.17 *   721.69 *   1840.61 *          *          *
*   54 * 14.03 *   735.72 *   1826.58 *          *          *
*   55 * 13.91 *   749.63 *   1812.67 *          *          *
*   56 * 11.88 *   761.51 *   1800.79 *      *Cent *          *
*   57 * 13.70 *   775.21 *   1787.09 *          *          *
*   58 * 13.77 *   788.98 *   1773.32 *          *          *
*   59 * 11.46 *   800.44 *   1761.86 *          *          *
*   60 * 13.39 *   813.83 *   1748.47 *          *          *
*   61 * 14.36 *   828.19 *   1734.11 *      *Cent *          *
*   62 * 12.26 *   840.45 *   1721.85 *          *          *
*   63 * 14.06 *   854.51 *   1707.79 *          *          *
*   64 * 12.64 *   867.15 *   1695.15 *          *          *
*   65 * 13.94 *   881.09 *   1681.21 *          *          *
*   66 * 13.66 *   894.75 *   1667.55 *      *Cent *          *
*   67 * 13.79 *   908.54 *   1653.76 *          *          *
*   68 * 13.26 *   921.80 *   1640.50 *          *          *
*   69 * 14.22 *   936.02 *   1626.28 *          *          *
*   70 * 14.19 *   950.21 *   1612.09 *          *          *
*   71 * 13.38 *   963.59 *   1593.71 *      *Cent *          *
*   72 * 11.93 *   975.52 *   1585.78 *      *Start L-80 *          *
*   73 * 11.58 *   987.10 *   1575.20 *          *          *
*   74 * 11.81 *   993.91 *   1563.39 *          *          *
*   75 * 11.73 *  1010.69 *   1551.61 *          *          *
*   76 * 11.72 *  1022.41 *   1539.89 *          *          *
*   77 * 11.35 *  1033.76 *   1528.54 *          *          *
*   78 * 11.53 *  1045.34 *   1516.96 *          *          *

```

CASING LIST

CASING SIZE: 9 5/8" TYPE: S-95 + L-80 WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56

SHOE DEPTH : 2562.30

```

*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *          Remarks          *
*****
*   79 * 11.34 * 1057.13 * 1505.12 *
*   80 * 11.34 * 1069.12 * 1493.13 *
*   81 * 11.54 * 1080.66 * 1481.54 *
*   82 * 11.45 * 1092.11 * 1470.19 *
*   83 * 11.34 * 1103.95 * 1458.35 *
*   84 * 11.48 * 1115.43 * 1446.37 *
*   85 * 11.47 * 1126.90 * 1435.40 *
*   86 * 11.57 * 1138.47 * 1423.83 *
*   87 * 11.32 * 1150.29 * 1412.01 *
*   88 * 11.62 * 1161.91 * 1400.39 *
*   89 * 11.27 * 1173.18 * 1389.12 *
*   90 * 11.90 * 1185.08 * 1377.22 *
*   91 * 11.93 * 1197.01 * 1365.29 *
*   92 * 11.93 * 1208.94 * 1353.36 *
*   93 * 11.57 * 1220.51 * 1341.79 *
*   94 * 11.70 * 1232.21 * 1330.09 *
*   95 * 11.38 * 1243.59 * 1318.71 *
*   96 * 11.98 * 1255.57 * 1306.73 *
*   97 * 11.47 * 1267.04 * 1295.26 *
*   98 * 12.00 * 1279.04 * 1283.26 *
*   99 * 11.50 * 1290.54 * 1271.76 *
*  100 * 11.77 * 1302.31 * 1259.99 *
*  101 * 11.59 * 1313.90 * 1248.40 *
*  102 * 11.02 * 1324.92 * 1237.38 *
*  103 * 11.68 * 1336.60 * 1225.70 *
*  104 * 11.85 * 1348.45 * 1213.85 *
*  105 * 11.86 * 1360.31 * 1201.99 *
*  106 * 11.70 * 1372.01 * 1190.29 *
*  107 * 11.84 * 1383.85 * 1178.45 *
*  108 * 11.79 * 1395.64 * 1166.66 *
*  109 * 11.88 * 1407.52 * 1154.73 *
*  110 * 11.70 * 1419.22 * 1143.08 *
*  111 * 11.92 * 1431.14 * 1131.16 *
*  112 * 11.57 * 1442.71 * 1119.59 *
*  113 * 11.95 * 1454.66 * 1107.54 *
*  114 * 11.58 * 1466.24 * 1095.06 *
*  115 * 11.83 * 1478.07 * 1084.23 *Pos Cent
*  116 * 11.28 * 1489.35 * 1072.95 *Pos Cent
*  117 * 11.74 * 1501.09 * 1061.21 *
*  118 * 11.81 * 1512.90 * 1049.40 *
    
```

GEO SERVICES T.O.C

Phillips Aust Co.

Hermes # 1

17/3/83

CASING LIST

CASING SIZE: 9 5/8" TYPE: S-95 + L-80 WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56
SHOE DEPTH : 2562.30

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	*	Remarks	*

* 119	* 11.48	* 1524.38	* 1037.92	*		*
* 120	* 11.49	* 1535.87	* 1026.43	*		*
* 121	* 11.83	* 1547.70	* 1014.60	*		*
* 122	* 11.33	* 1559.53	* 1002.77	*		*
* 123	* 11.41	* 1570.94	* 991.36	*		*
* 124	* 11.07	* 1532.01	* 980.29	*		*
* 125	* 11.37	* 1593.88	* 968.42	*		*
* 126	* 11.80	* 1605.68	* 956.62	*		*
* 127	* 11.63	* 1617.36	* 944.94	*		*
* 128	* 11.36	* 1623.72	* 933.58	*		*
* 129	* 11.78	* 1640.50	* 921.80	*		*
* 130	* 11.57	* 1652.17	* 910.13	*		*
* 131	* 11.36	* 1664.03	* 898.27	*		*
* 132	* 11.92	* 1675.95	* 886.35	*		*
* 133	* 12.04	* 1687.99	* 874.31	*		*
* 134	* 11.57	* 1699.56	* 862.74	*		*
* 135	* 11.66	* 1711.22	* 851.08	*		*
* 136	* 11.73	* 1722.95	* 839.35	*		*
* 137	* 11.65	* 1734.60	* 827.70	*		*
* 138	* 11.69	* 1746.29	* 816.01	*		*
* 139	* 11.87	* 1758.16	* 804.14	*		*
* 140	* 11.19	* 1769.35	* 792.95	*		*
* 141	* 11.90	* 1781.25	* 781.05	*		*
* 142	* 11.73	* 1792.93	* 769.32	*		*
* 143	* 11.50	* 1804.48	* 757.82	*		*
* 144	* 11.30	* 1816.28	* 746.02	*		*
* 145	* 11.84	* 1828.12	* 734.18	*		*
* 146	* 11.55	* 1839.67	* 722.63	*		*
* 147	* 11.66	* 1851.33	* 710.97	*		*
* 148	* 11.39	* 1863.22	* 699.08	*		*
* 149	* 11.88	* 1875.10	* 687.20	*		*
* 150	* 11.72	* 1886.82	* 675.48	*		*
* 151	* 11.60	* 1898.42	* 663.88	*		*
* 152	* 12.03	* 1910.45	* 651.35	*		*
* 153	* 12.04	* 1922.49	* 639.81	*		*
* 154	* 12.10	* 1934.59	* 627.71	*		*
* 155	* 11.73	* 1946.32	* 615.93	*		*
* 156	* 11.39	* 1957.71	* 604.59	*		*
* 157	* 12.16	* 1969.37	* 592.43	*		*
* 153	* 11.69	* 1981.56	* 580.74	*		*

GEOSERVICES T.D.C

Phillips Aust Co.

Hermes # 1

17/3/83

CASING LIST

CASING SIZE: 9 5/8"

TYPE: S-95 + L-80

WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56

SHOE DEPTH : 2562.30

* Jt # *	* LENGTH *	* TOTAL LENGTH *	* Depth From KB *	* Remarks		*

* 159 *	* 11.75 *	* 1993.31 *	* 558.99 *	*		*
* 160 *	* 11.73 *	* 2005.04 *	* 557.26 *	*		*
* 161 *	* 11.21 *	* 2016.25 *	* 546.05 *	*		*
* 162 *	* 11.87 *	* 2028.12 *	* 534.13 *	*		*
* 163 *	* 11.73 *	* 2039.85 *	* 522.45 *	*		*
* 164 *	* 11.66 *	* 2051.51 *	* 510.79 *	*		*
* 165 *	* 11.58 *	* 2063.09 *	* 499.21 *	*		*
* 166 *	* 11.70 *	* 2074.79 *	* 487.51 *	*		*
* 167 *	* 11.97 *	* 2086.76 *	* 475.54 *	*		*
* 168 *	* 11.70 *	* 2098.46 *	* 463.84 *	*		*
* 169 *	* 11.51 *	* 2109.97 *	* 452.33 *	*		*
* 170 *	* 11.31 *	* 2121.28 *	* 441.02 *	*		*
* 171 *	* 11.96 *	* 2133.24 *	* 429.06 *	*		*
* 172 *	* 11.73 *	* 2144.97 *	* 417.33 *	*		*
* 173 *	* 11.69 *	* 2156.66 *	* 405.64 *	*		*
* 174 *	* 11.69 *	* 2168.35 *	* 393.95 *	*		*
* 175 *	* 11.73 *	* 2180.08 *	* 382.22 *	*		*
* 176 *	* 11.81 *	* 2191.89 *	* 370.41 *	*		*
* 177 *	* 11.46 *	* 2203.35 *	* 358.95 *	*		*
* 178 *	* 11.66 *	* 2215.01 *	* 347.29 *	*		*
* 179 *	* 11.57 *	* 2226.58 *	* 335.72 *	*		*
* 180 *	* 11.89 *	* 2238.47 *	* 323.83 *	*		*
* 181 *	* 11.95 *	* 2250.42 *	* 311.88 *	*		*
* 182 *	* 11.41 *	* 2261.83 *	* 300.47 *	*		*
* 183 *	* 11.84 *	* 2273.67 *	* 288.63 *	*		*
* 184 *	* 12.01 *	* 2285.58 *	* 276.62 *	*		*
* 185 *	* 12.00 *	* 2297.58 *	* 264.62 *	*		*
* 185 *	* 11.66 *	* 2309.34 *	* 252.96 *	*		*
* 187 *	* 12.14 *	* 2321.48 *	* 240.32 *	*		*
* 188 *	* 11.87 *	* 2333.35 *	* 228.95 *	*		*
* 189 *	* 12.00 *	* 2345.35 *	* 216.95 *	*		*
* 190 *	* 12.09 *	* 2357.44 *	* 204.86 *	*		*
* 191 *	* 11.43 *	* 2368.87 *	* 193.43 *	*		*
* 192 *	* 12.04 *	* 2380.91 *	* 181.39 *	*		*
* 193 *	* 11.93 *	* 2392.84 *	* 169.46 *	*		*
* 194 *	* 12.01 *	* 2404.85 *	* 157.45 *	*		*
* 195 *	* 11.73 *	* 2416.58 *	* 145.72 *	*		*
* 196 *	* 11.82 *	* 2428.40 *	* 133.90 *	*		*
* 197 *	* 11.71 *	* 2440.11 *	* 122.19 *	*		*
* 198 *	* 11.44 *	* 2451.55 *	* 110.75 *	*		*

GEOSERVICES T.D.C

Phillips Aust Co.

Hermes # 1

17/3/33

CASING LIST

CASING SIZE: 9 5/8" TYPE: S-95 + L-80 WEIGHT(lbs/ft): 47

CASING LENGTH: 2454.56

SHOE DEPTH : 2562.30

```
*****  
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB *      Remarks      *  
*****  
*      * 3.01 * 2454.56      * 107.74      *Hanger      *  
*****
```

8½" PHASE SUMMARY

8 1/2" PHASE

SUMMARY

After running the 9 5/8" casing the BOP stack and surface lines were tested and found to be secure. Bit # 21, SMITH F2 8 1/2" (3*10) was run in and tagged cement at 2533m (8309ft). The cement, float collar, and shoe were drilled out from 2533m to 2591m. No leak off test was performed and Bit # 21 drilled new formation from 2595m to 3198m. A totco survey was dropped at 3198m with 1 1/4 deg. deviation. The bit was pulled out at 3198m and tight spots were recorded between 3016m to 2937m with 15-20000 lbs overpull.

Bit # 22, SMITH F3 8 1/2" (3*10) was run in. A tight spot at 2960m was reamed out and the last three singles were washed and reamed to bottom. Bit # 22 drilled ahead from 3198m to 3494m. A wiper trip was made at 3250m to the 9 5/8" casing shoe (25-50000 lbs overpull was recorded). A totco survey was dropped at 3494m with 1 1/4 deg. deviation. The bit was pulled out at 3494m, 25-50000 lbs overpull was again recorded.

Bit # 23, SMITH F3 8 1/2" (3*10) was run in and the last single was reamed down to bottom. The bit drilled ahead from 3494m to 3726m. The hole was then condition and a wiper trip made to 3100m prior to running an intermediate suite of Schlumberger logs. Bit # 23 was pulled out and Schlumberger rigged up.

Two runs were made:

Run # 1 - DIL/SDS/GR.

Run # 2 - LTD/CNL.

The BOP stack and surface lines were again tested before re-comencing with drilling operations.

Bit # 24, SMITH F3 8 1/2" (3*10) drilled from 3728m to 3960m. Several drilling breaks were recorded during the run, these were associated with coal seams. The bit was pulled out at 3960m.

Bit # 25, SMITH F3 8 1/2" (3*10) drilled from 3960m to 4147m. The last two singles were washed to bottom. A high percentage of trip gas, probably released from the coal seams, caused the mud to cut, this required weighting up the mud and displacing the hole with 9.3 ppg mud. The gas was circulated out and the mud weight was further increased to 9.7 ppg.

A wiper trip was made at 4060m to the 9 5/8" casing shoe and hung off to wait on weather. After waiting in weather, the pipe, which had become stuck was worked free and drilling continued to 4147m. Bit # 25 was then pulled out.

Bit # 25, SMITH F4 8 1/2" (3*10) drilled from 4147m to 4284m. Again a number of drilling breaks occurred both in coal and sand formations. Gas was associated with both the coals and sands. Gas from the sands included small percentages of C3, iC4, and nC4. A totco survey was dropped at 4284m with 3/4 deg. deviation. Bit # 25 was then pulled out.

Bit # 27, SMITH F3 8 1/2" (3*10) drilled from 4284m to 4461m. Drilling breaks were associated solely to sand bodies, high gas readings were recorded. Drilling however slowed down dramatically and the bit was pulled out of the hole at 4461m. A totco survey dropped at 4461m with 1 deg. deviation.

SUMMARY /cont

After conditioning the hole, Schlumberger was rigged up and six runs were made:

- Run # 1 - DIL/SLS/GR (4459m-3700m)
- Run # 2 - LDL/CNL/GR (4450m-3700m)
- Run # 3 - DLL/MSFL/GR (4456m-3550m)
- Run # 4 - HDT (4459m-2259m)
- Run # 5 - CST (51 attempted /36 recovered)
- Run # 6 - CST (51 attempted/36 recovered)

A seismic survey was also performed by SSL.

After testing the BOP stack, conditioning the hole and weighting up the mud to 10.1 bpg drilling operations continued. Trip gas was circulated out before drilling ahead with Bit # 23, SMITH F3 8 1/2" (3*9). This bit drilled from 4451m to TD at 4565m. Drilling was slow with only one small drilling break and associated gas. A totco survey was dropped with 2 deg. deviation and the bit was pulled out.

A 20 stand wiper trip was made and the hole conditioned before strapping out the pipe.

Schlumberger was then rigged up and four runs were made:

- Run # 1 - DIL/SLS/GR
- Run # 2 - LDL/CNL/GR/CAL
- Run # 3 - HDT/CAL
- Run # 4 - CST

The well was then conditioned prior to running 7" casing in preparation for drill stem testing.

WOB/RPM/ROP PRACTICE

Eight bits were used to drill the 8 1/2" phase from 2950m to 4565m, in a total rotary time of 358.2 hours. This gave an average drilling ROP of 4.51 m/hr. The total on bottom time however, including circulation, waiting on weather, and wiper trips was 467.5 hours, and results in an overall ROP of 3.45 m/hr.

The WOB and RPM practice is summarized below:

DEPTH INTERVAL m	ROP m/hr	WOB klbs	RPM	FR gpm
2590-3198	3.9	40.0	71	380
3198-3494	5.6	46.0	65	370
3494-3726	5.2	44.0	56	370
3726-3960	5.3	45.0	57	370
3960-4147	4.2	44.5	53	355
4147-4284	3.0	42.5	53	355
4284-4461	4.2	42.0	52	360
4461-4565	3.2	45.2	53	300

HYDRAULICS AND RHEOLOGY

Bits were run throughout the 8 1/2" phase with 3*10 nozzels (except Bit # 23) and flow rates between 380-355 gpm. These factors resulted in slight variations of both bit efficiency and HP/sqin.

Bit # 21 was run with a flow rate of 380 gpm giving a bit efficiency of 72% and HP/sqin of 9.6.

Bits # 22,23,24 and 27 were run with flow rates of 370 gpm and produced bit efficiencies averaging 65% with HP/sqin values between 8-9.

Bits # 25 and 26 were run with flow rates of 355 gpm and produced bit efficiencies averaging 60% and HP/sqin values between 7-7.5.

Bit # 28 (3*9) was run with a flow rate of 300 gpm giving a bit efficiency of 70% and HP/sqin of 7.5.

It can be seen from simulated hydraulic data that with 3*10 nozzels, increasing flow will maintain high bit efficiencies but HP/sqin values will become excessively high, possibly causing bit failure and that turbulent annular flow will result.

If the bits were run with 3*11 nozzels, bit efficiency would decrease. At a flow rate of 350 gpm, although laminar flow is maintained in the annulus, bit efficiency is lowered, increasing the flow creates turbulent flow and although HP/sqin increases to very high values, bit efficiency remains below 60%.

If the bits were run with 3*12 nozzels poor bit efficiencies result and increasing the flow will again only result in turbulent flow and very high HP/sqin values.

However if 3*9 nozzels were run at a reduced flow rate high bit efficiencies are obtained with low HP/sqin values, these parameters will produce a laminar flow throughout the whole annulus.

It would seem then that with 3*9 nozzels and lower flow rates (60 stk/min) the most effective bit and annular conditions would be achieved and the hole damage created in the sand bodies during Bit # 27, would have been averted.

It was with this factor in mind that Bit # 28 was run with 3*9 nozzels. Laminar flow was maintained between the drill collars and annulus, so reducing any further hole damage.

Due to the 8 1/2" open hole and generally lower ROP values, hole cleaning throughout the phase was very good. This fact can be seen by referring to the cutting transport tables. It should be noted that only small quantities of cuttings are generated at the bit. With the low slip factors and high annular velocities the Rct values are shown to be high and representative of good hole cleaning.

n-Values during the phase varied between 0.45-0.76 (ave. 0.65). Ideally values between 0.2-0.5 are better, thus increasing the non-Newtonian behavior of the mud, so increasing its ability to clean the hole and suspend cuttings. However due to the small quantities of cuttings generated values of 0.65 in this case would be quite acceptable.

The mud weight was increased at 3960m from 9.1 ppg to 9.7 ppg when high trip gas values were recorded. The mud was kept at this weight until 4461m. After Schlumberger logging, the mud was again increased to 10.1 ppg and maintained at this weight until TD was reached at 4565m.

A laminar flow was maintained in the annulus throughout the phase except Bit # 27 where turbulent flow at the collars caused the sands to wash out.

CASING AND CEMENTATION

111 joints of 7" N-80 Buttress (29 lbs/ft) and 234 joints of 7" S-95 (29 lbs/ft) were run in 24 hours (including circulating). The casing shoe was set at 4547.1 m (14918.36 ft).

The cementation programme was then run as follows:

STAGE 1 :

- 1) Pre-flush: 10 bbls of drill water were pumped, followed by a flowcheck preflush of 40 bbls. A further 10 bbls of drill water were then pumped followed by 20 bbls of CS-2 spacer.
- 2) Lead Slurry: 550 sacks of class "G" cement were mixed with drill water at 16.0 ppg and pumped. 4.5 lbs/bbl of Halad 22A, 5.6 lbs/bbl of CFF-2, and 4.0 lbs/bbl of HP-12 were added to the slurry.
- 3) Tail Slurry: 585 sacks of class "G" cement with 50% silica flour mixed with drill water at 15.2 ppg was pumped. Similar quantities of Halad 22A, CFF-2 and HP-12 were again pumped.
- 4) Displacement: The mud was displaced with 554.6 bbls of drill mud.

The plug was bumped and held at 3000 psi for 10 minutes, there was no bleed back.

The estimated top of good cement was at 3139 m (10300 ft) and the top of contaminated cement at 3048 m (10000 ft).

STAGE 2 :

- 1) Pre-flush: 25 bbls of drill water were pumped.
- 2) Lead Slurry: 250 sacks of class "G" cement mixed with drill water at 15.8 ppg was then pumped, 6.3 lbs/bbl of Halad 22A, 4.0 lbs/bbl of CFF-2 and 0.8 gal/bbl of HP 6L were added.
- 3) Tail Slurry: No tail slurry was pumped.
- 4) Displacement: The cement was displaced with 310.3 bbls of drill mud.

The plug was then bumped and held for 15 minutes again there was no bleed back.

The estimated top of good cement was at 1951 m (6400 ft) and the estimated top of contaminated cement was at 1933 m (6342 ft).

CUTTINGS TRANSPORT TABLES

The tables provide a quick look at hole cleaning and cuttings removal. By controlling the ROP, raising or lowering the flow rate or changing the rheological properties of the mud, one can decide the action necessary to provide the most efficient hole cleaning.

In the following tables the data has been calculated between DC and OH and also between DP and OH, with the specific flowrates and mud properties used over the selected interval. Cuttings sizes are in decimal inches.

The following is a brief explanation of the terms utilized :

V_s = slip velocity (ft/min)

V_c = annular velocity - slip velocity

CF = cuttings generated at the bit
(gallons/gallon of mud)

Ca = cuttings in annulus
(gallons/gallon of mud)

Rct = cuttings transport ratio (decimal percentage)
= cutting velocity/annular velocity

Interval: 2591 m. to 3193 m.

ROP: 3.90 m/hr.

Flow rate 330.0 gpm.

Ann. Vel: 50.03 m/min (DP/DH)

MW: 9.2 ppq PV 15 YP 13

Gel (10 sec) 3 YP/PV 0.87

n = 0.619 K = 0.322

Cuttings Density: 2.25 (Claystone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	28.30	31.23	0.5205	0.0017	0.0032
0.750	20.03	40.05	0.5655	0.0017	0.0025
0.500	13.35	45.73	0.7777	0.0017	0.0021
0.250	6.53	53.40	0.8839	0.0017	0.0019
0.125	3.34	56.74	0.9444	0.0017	0.0018
0.062	1.99	59.00	0.9819	0.0017	0.0017

Interval: 2591 m. to 3193 m.

ROP: 3.90 m/hr.

Flow rate 330.0 gpm.

Ann. Vel: 50.08 m/min (DP/DH)

MW: 9.2 ppq PV 15 YP 13

Gel (10 sec) 3 YP/PV 0.87

n = 0.619 K = 0.322

Cuttings Density: 2.45 (Sandstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	31.21	28.87	0.4805	0.0017	0.0034
0.750	22.30	37.79	0.6239	0.0017	0.0026
0.500	14.85	45.22	0.7526	0.0017	0.0022
0.250	7.43	52.65	0.8763	0.0017	0.0019
0.125	3.72	56.37	0.9382	0.0017	0.0018
0.062	1.24	58.84	0.9793	0.0017	0.0017

Interval: 3193 m. to 3726 m.

ROP: 5.50 m/hr.

Flow rate 370.0 gpm.

Ann. Vel: 58.50 m/min (DP/DH)

MP: 9.1 ppq PV 44 YP 15

Gel. (10 sec) 13 YP/PV 0.34

n = 0.803

K = 0.504

Cuttings Density: 1.80 (Coal)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	15.19	43.31	0.7404	0.0024	0.0032
0.750	11.39	47.11	0.8053	0.0024	0.0030
0.500	7.59	50.31	0.8702	0.0024	0.0023
0.250	3.80	54.70	0.9351	0.0024	0.0026
0.125	1.27	57.23	0.9783	0.0024	0.0025
0.062	0.44	58.06	0.9924	0.0024	0.0024

Cuttings Density: 2.25 (Claystone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	21.07	37.43	0.6393	0.0024	0.0037
0.750	15.81	42.59	0.7293	0.0024	0.0033
0.500	10.54	47.95	0.8199	0.0024	0.0029
0.250	5.27	53.23	0.9099	0.0024	0.0025
0.125	1.91	55.59	0.9573	0.0024	0.0025
0.062	0.67	57.83	0.9886	0.0024	0.0024

Cuttings Density: 2.30 (Shale)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	21.68	36.32	0.6295	0.0024	0.0038
0.750	16.26	42.24	0.7221	0.0024	0.0033
0.500	10.84	47.66	0.8147	0.0024	0.0029
0.250	5.42	53.08	0.9074	0.0024	0.0026
0.125	1.93	56.52	0.9561	0.0024	0.0025
0.062	0.69	57.81	0.9882	0.0024	0.0024

Cuttings Density: 2.35 (Siltstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	22.27	36.23	0.5193	0.0024	0.0039
0.750	16.70	41.80	0.7145	0.0024	0.0034
0.500	11.13	47.37	0.8097	0.0024	0.0030
0.250	5.57	52.93	0.9043	0.0024	0.0026
0.125	2.05	55.45	0.9549	0.0024	0.0025
0.062	0.72	57.73	0.9877	0.0024	0.0024

Interval: 3193 m. to 3725 m.

FOP: 5.50 m/hr.

Flow rate 370.0 gpm.

Ann. Vel: 53.50 m/min (DP/DH)

MW: 9.1 ppq PV 44 YP 15

Gel (10 sec) 13 YP/PV 0.34

n = 0.303 K = 0.604

Cuttings Density: 2.49 (Sandstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	23.89	34.61	0.5916	0.0024	0.0041
0.750	17.92	40.53	0.5937	0.0024	0.0035
0.500	11.95	46.55	0.7953	0.0024	0.0030
0.250	5.97	52.53	0.3979	0.0024	0.0027
0.125	2.99	55.51	0.9490	0.0024	0.0025
0.062	0.73	57.72	0.9866	0.0024	0.0024

Cuttings Density: 2.60 (Sand Grains)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	25.13	33.37	0.5705	0.0024	0.0042
0.750	18.34	39.56	0.5773	0.0024	0.0035
0.500	12.56	45.94	0.7352	0.0024	0.0031
0.250	6.28	52.22	0.3926	0.0024	0.0027
0.125	3.14	55.36	0.9463	0.0024	0.0025
0.062	0.83	57.67	0.9353	0.0024	0.0024

Interval: 3725 m. to 4147 m.

RDP: 4.2) m/hr.

Flow rate 354.0 gpm.

Ann. vel: 55.97 m/min (DP/DT)

HW: 9.7 opa PV 45 YP 15

sel (10 sec) 12 YP/PV 0.33

n = 0.397 $k = 0.602$

Cuttings Density: 1.80 (Coal)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	13.32	42.15	0.7530	0.0019	0.0025
0.750	10.37	45.50	0.8148	0.0019	0.0023
0.500	6.91	49.06	0.8765	0.0019	0.0022
0.250	3.46	52.51	0.9383	0.0019	0.0020
0.125	1.15	54.82	0.9795	0.0019	0.0020
0.062	0.40	55.57	0.9923	0.0019	0.0019

Cuttings Density: 2.25 (Shale)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	19.73	36.24	0.6474	0.0019	0.0030
0.750	14.80	41.17	0.7356	0.0019	0.0026
0.500	9.87	46.10	0.8237	0.0019	0.0023
0.250	4.93	51.04	0.9119	0.0019	0.0021
0.125	1.79	54.13	0.9580	0.0019	0.0020
0.062	0.63	55.35	0.9888	0.0019	0.0019

Cuttings Density: 2.35 (Siltstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	20.93	35.94	0.6261	0.0019	0.0031
0.750	15.69	40.28	0.7195	0.0019	0.0027
0.500	10.46	45.51	0.8131	0.0019	0.0024
0.250	5.23	50.74	0.9065	0.0019	0.0021
0.125	1.93	54.04	0.9556	0.0019	0.0020
0.062	0.67	55.30	0.9880	0.0019	0.0019

Cuttings Density: 2.40 (Sandstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	22.54	33.43	0.5973	0.0019	0.0032
0.750	16.00	39.07	0.6980	0.0019	0.0027
0.500	11.27	44.70	0.7987	0.0019	0.0024
0.250	5.63	50.34	0.8993	0.0019	0.0021
0.125	2.82	53.15	0.9497	0.0019	0.0020
0.062	0.74	55.23	0.9863	0.0019	0.0019

Interval: 4147 m. to 4254 m.

ROP: 3.00 m/hr.

Flow rate 354.0 gpm.

Ann. vel: 55.97 m/min (OP/OS)

W: 9.3 mg PV 43 YP 12

Gel (10 sec) 22 YP/PV 0.23

n = 0.333 K = 0.476

Cuttings Density: 1.30 (Coal)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	12.99	42.93	0.7679	0.0014	0.0018
0.750	7.74	46.23	0.3259	0.0014	0.0017
0.500	6.49	49.43	0.3349	0.0014	0.0015
0.250	3.25	52.72	0.9420	0.0014	0.0015
0.125	1.03	54.04	0.9816	0.0014	0.0014
0.062	0.36	55.51	0.9936	0.0014	0.0014

Cuttings Density: 2.25 (Shale)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	13.64	37.33	0.6659	0.0014	0.0020
0.750	13.98	41.99	0.7502	0.0014	0.0018
0.500	9.32	46.65	0.3335	0.0014	0.0016
0.250	4.66	51.31	0.9167	0.0014	0.0015
0.125	1.61	54.36	0.9712	0.0014	0.0014
0.062	0.56	55.41	0.9879	0.0014	0.0014

Cuttings Density: 2.35 (Siltstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	19.73	36.19	0.6466	0.0014	0.0021
0.750	14.83	41.14	0.7350	0.0014	0.0019
0.500	9.89	46.93	0.8233	0.0014	0.0017
0.250	4.94	51.83	0.9117	0.0014	0.0015
0.125	1.74	54.23	0.9689	0.0014	0.0014
0.062	0.61	55.36	0.9891	0.0014	0.0014

Interval: 4147 m. to 4234 m.

POP: 3.00 m/hr.

Flow rate 354.0 gpm.

Ann.Vel: 55.97 m/min (DP/DB)

W: 9.3 ppq PV 43 YP 12

Gel (10 sec) 22 YP/PV 0.23

n = 0.333

K = 0.476

Cuttings Density: 2.49 (Sandstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	21.32	34.65	0.6191	0.0014	0.0022
0.750	15.99	39.98	0.7143	0.0014	0.0019
0.500	10.66	45.31	0.8075	0.0014	0.0017
0.250	5.33	50.64	0.9048	0.0014	0.0015
0.125	1.91	54.06	0.9659	0.0014	0.0014
0.062	0.67	55.39	0.9831	0.0014	0.0014

Cuttings Density: 2.60 (Sand Grains)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	22.49	33.43	0.5931	0.0014	0.0023
0.750	16.37	39.10	0.6985	0.0014	0.0020
0.500	11.25	44.72	0.7991	0.0014	0.0017
0.250	5.62	50.35	0.8995	0.0014	0.0015
0.125	2.04	53.93	0.9535	0.0014	0.0014
0.062	0.71	55.26	0.9673	0.0014	0.0014

Interval: 4284 m. to 4451 m.

POP: 4.20 m/hr.

Flow rate 350.0 gpm.

Ann.Vel: 55.34 m/min (DP/OH)

WV: 9.9 ppq PV 13 YP 15

Gel (10 sec) 7 YP/PV 1.15

n = 0.550 K = 1.215

Cuttings Density: 2.35 (Siltstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	27.96	27.38	0.4947	0.0019	0.0039
0.750	18.05	37.29	0.6739	0.0019	0.0029
0.500	12.03	43.31	0.7826	0.0019	0.0025
0.250	6.02	49.32	0.8913	0.0019	0.0022
0.125	3.01	52.33	0.9456	0.0019	0.0020
0.062	0.91	54.43	0.9836	0.0019	0.0020

Cuttings Density: 2.49 (Sandstone)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	29.59	25.74	0.4652	0.0019	0.0042
0.750	19.47	35.87	0.6482	0.0019	0.0030
0.500	12.98	42.36	0.7655	0.0019	0.0025
0.250	6.49	48.85	0.8827	0.0019	0.0022
0.125	3.24	52.09	0.9414	0.0019	0.0021
0.062	1.00	54.34	0.9820	0.0019	0.0020

Cuttings Density: 2.60 (Sand)

Cutting size	Vs	Vc	Rct	Cf	Ca
1.000	30.82	24.52	0.4431	0.0019	0.0044
0.750	20.55	34.79	0.6287	0.0019	0.0031
0.500	13.70	41.64	0.7525	0.0019	0.0026
0.250	6.85	48.49	0.8762	0.0019	0.0022
0.125	3.42	51.91	0.9381	0.0019	0.0021
0.062	1.07	54.27	0.9807	0.0019	0.0020

Interval: 4461 m. to 4565 m.

FOP: 3.20 m/hr.

Flow rate 300.0 gpm.

Ann.Vel: 47.43 m/min (DP/OH)

MW: 10.1 ppg PV 15 YP 16

Gel (10 sec) 3 YP/PV 1.07

n = 0.569 K = 1.207

Cuttings Density: 2.35 (Siltstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	27.40	20.04	0.4224	0.0017	0.0041
0.750	17.77	29.67	0.6255	0.0017	0.0028
0.500	11.84	35.59	0.7503	0.0017	0.0023
0.250	5.92	41.51	0.8752	0.0017	0.0020
0.125	2.95	44.47	0.9375	0.0017	0.0018
0.062	0.90	46.53	0.9811	0.0017	0.0018

Cuttings Density: 2.49 (Sandstone)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	29.03	18.40	0.3830	0.0017	0.0044
0.750	19.19	28.24	0.5954	0.0017	0.0029
0.500	12.80	34.64	0.7302	0.0017	0.0024
0.250	6.40	41.03	0.8651	0.0017	0.0020
0.125	3.20	44.23	0.9326	0.0017	0.0018
0.062	0.99	46.44	0.9791	0.0017	0.0018

Cuttings Density: 2.60 (Sand)

Cutting size	Vs	Vc	Rct	CF	Ca
1.000	30.25	17.18	0.3622	0.0017	0.0047
0.750	20.28	27.16	0.5725	0.0017	0.0030
0.500	13.52	33.91	0.7150	0.0017	0.0024
0.250	6.75	40.67	0.8575	0.0017	0.0020
0.125	3.33	44.05	0.9288	0.0017	0.0019
0.062	1.06	46.37	0.9777	0.0017	0.0018

 Phillips Aust Co. Hermes # 1 BIT REPORT

BIT NO	TYPE	SIZE	NOZZLES	DEP. IN	MTRGE	HOURS	DRLNG			AVER COST/M WOB				HYDFO. POWER			Remarks		
							T/B/G	M/HR	US \$	KLBS	RPM	FLOW	SPF	HP	TTL	DIT		/SI	
21	SMITH F2	8 1/2	10 10 10	2501.0		207.0	53.03	6/6/O	3.9	2539	39.5	71	379	2738	9.20	8780	3998	55.3	1/4 out gauge
22	SMITH F3	8 1/2	10 10 10	3198.0		296.0	52.50	5/8/O	5.6	1915	46.3	65	372	2812	9.10	8692	3740	51.8	1/4 out gauge
23	SMITH F3	8 1/2	10 10 10	3494.0		232.0	44.49	4/4/O	5.2	2155	44.3	56	370	2825	9.10	8685	3680	50.9	1/8 out gauge
24	SMITH F3	8 1/2	10 10 10	3726.0		233.0	43.90	4/5/O	5.3	2125	44.8	57	371	2793	9.10	8610	3710	51.3	1/8 out gauge
25	SMITH F3	8 1/2	10 10 10	3959.0		188.0	44.60	5/4/O	4.2	2665	44.5	53	354	2740	9.80	8060	3471	48.0	1/8 out gauge
26	SMITH F4	8 1/2	10 10 10	4147.0		137.0	45.30	3/3/I	3.0	3821	42.5	53	354	2626	9.80	7724	3471	48.0	
27	SMITH F3	8 1/2	10 10 10	4284.0		177.0	42.11	5/5/O	4.2	2807	42.1	52	350	2600	9.80	7777	3650	50.5	1/8 out gauge
28	SMITH F3	8 1/2	9 9 9	4461.0		104.0	32.30	6/6/O	3.2	4632	45.2	53	303	2790	10.10	7024	3419	47.3	3/32 out gauge

GLOSERVICES T.D.C

Phillips Aust.Co.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Butt. N-30/S-95

WTIGHT(lbs/ft): 20

CASING LENGTH: 4441.86

SPOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KE	* Remarks	*****	
*	* 0.27	* 0.27	* 4546.83	*Hanger	*****	
*	* 2.88	* 3.15	* 4543.95	*Puc joint	*****	
* 1	* 12.08	* 15.23	* 4531.87	*	*****	
* 2	* 11.99	* 27.22	* 4519.88	*	*****	
* 3	* 12.03	* 39.25	* 4507.85	*	*****	
* 4	* 11.94	* 51.19	* 4495.91	*	*****	
* 5	* 12.13	* 63.32	* 4483.78	*	*****	
* 6	* 11.99	* 75.31	* 4471.79	*	*****	
* 7	* 12.16	* 87.47	* 4459.63	*	*****	
* 8	* 11.91	* 99.38	* 4447.72	*	*****	
* 9	* 12.04	* 111.42	* 4435.68	*	*****	
* 10	* 12.11	* 123.53	* 4423.57	*	*****	
* 11	* 12.01	* 135.54	* 4411.56	*	*****	
* 12	* 12.06	* 147.60	* 4399.50	*	*****	
* 13	* 12.04	* 159.64	* 4387.46	*	*****	
* 14	* 11.98	* 171.62	* 4375.48	*	*****	
* 15	* 12.05	* 183.67	* 4363.43	*	*****	
* 16	* 11.43	* 195.10	* 4352.00	*	*****	
* 17	* 11.98	* 207.08	* 4340.02	*	*****	
* 18	* 12.00	* 219.08	* 4328.02	*	*****	
* 19	* 12.05	* 231.13	* 4315.97	*	*****	
* 20	* 12.16	* 243.29	* 4303.81	*	*****	
* 21	* 11.69	* 254.98	* 4292.12	*	*****	
* 22	* 12.04	* 267.02	* 4280.08	*	*****	
* 23	* 12.01	* 279.03	* 4268.07	*	*****	
* 24	* 11.98	* 291.01	* 4256.09	*	*****	
* 25	* 12.00	* 303.01	* 4244.09	*	*****	
* 26	* 11.80	* 314.81	* 4232.29	*	*****	
* 27	* 11.93	* 326.74	* 4220.36	*	*****	
* 28	* 11.93	* 338.67	* 4208.43	*	*****	
* 29	* 12.19	* 350.86	* 4196.24	*	*****	
* 30	* 11.74	* 362.60	* 4184.50	*	*****	
* 31	* 12.03	* 374.63	* 4172.47	*	*****	
* 32	* 12.14	* 386.77	* 4160.33	*	*****	
* 33	* 11.94	* 398.71	* 4148.39	*	*****	
* 34	* 12.03	* 410.74	* 4136.36	*	*****	
* 35	* 12.02	* 422.76	* 4124.34	*	*****	
* 36	* 11.99	* 434.75	* 4112.35	*	*****	
* 37	* 11.98	* 446.73	* 4100.37	*	*****	
* 38	* 12.10	* 458.83	* 4088.27	*	*****	

GEO SERVICES T.D.C

Phillips Aust.Co.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Butt. N-80/S-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.36

SHOR DEPTH : 4547.10

* Jt # *	* LENGTH *	* TOTAL LENGTH *	* Depth From KE *	* Remarks *
* 39 *	* 12.05 *	* 470.88 *	* 4076.22 *	* *
* 40 *	* 12.00 *	* 482.88 *	* 4054.22 *	* *
* 41 *	* 12.03 *	* 494.91 *	* 4052.19 *	* *
* 42 *	* 12.12 *	* 507.03 *	* 4040.07 *	* *
* 43 *	* 12.00 *	* 519.03 *	* 4028.07 *	* *
* 44 *	* 11.87 *	* 530.90 *	* 4016.20 *	* *
* 45 *	* 11.83 *	* 542.73 *	* 4004.37 *	* *
* 46 *	* 11.81 *	* 554.54 *	* 3992.56 *	* *
* 47 *	* 12.05 *	* 566.59 *	* 3980.51 *	* *
* 48 *	* 11.97 *	* 578.56 *	* 3968.54 *	* *
* 49 *	* 12.01 *	* 590.57 *	* 3956.53 *	* *
* 50 *	* 12.11 *	* 602.68 *	* 3944.42 *	* *
* 51 *	* 11.95 *	* 614.63 *	* 3932.47 *	* *
* 52 *	* 11.92 *	* 626.55 *	* 3920.55 *	* *
* 53 *	* 11.65 *	* 638.20 *	* 3908.90 *	* *
* 54 *	* 11.98 *	* 650.18 *	* 3896.92 *	* *
* 55 *	* 11.97 *	* 662.15 *	* 3884.95 *	* *
* 56 *	* 11.81 *	* 673.96 *	* 3873.14 *	* *
* 57 *	* 12.01 *	* 685.97 *	* 3861.13 *	* *
* 58 *	* 12.12 *	* 698.09 *	* 3849.01 *	* *
* 59 *	* 12.18 *	* 710.27 *	* 3836.83 *	* *
* 60 *	* 12.05 *	* 722.33 *	* 3824.77 *	* *
* 61 *	* 11.64 *	* 733.97 *	* 3813.13 *	* *
* 62 *	* 12.13 *	* 746.10 *	* 3801.00 *	* *
* 63 *	* 11.33 *	* 757.43 *	* 3789.67 *	* *
* 64 *	* 11.56 *	* 768.99 *	* 3778.11 *	* *
* 65 *	* 11.99 *	* 780.98 *	* 3766.12 *	* *
* 66 *	* 12.06 *	* 793.04 *	* 3754.06 *	* *
* 67 *	* 11.56 *	* 804.60 *	* 3742.50 *	* *
* 68 *	* 11.87 *	* 816.47 *	* 3730.63 *	* *
* 69 *	* 11.95 *	* 828.42 *	* 3718.68 *	* *
* 70 *	* 12.15 *	* 840.57 *	* 3706.53 *	* *
* 71 *	* 11.94 *	* 852.51 *	* 3694.59 *	* *
* 72 *	* 12.03 *	* 864.59 *	* 3682.51 *	* *
* 73 *	* 12.03 *	* 876.62 *	* 3670.48 *	* *
* 74 *	* 12.02 *	* 888.64 *	* 3658.46 *	* *
* 75 *	* 12.00 *	* 900.64 *	* 3646.46 *	* *
* 76 *	* 12.13 *	* 912.77 *	* 3634.33 *	* *
* 77 *	* 12.09 *	* 924.86 *	* 3622.24 *	* *
* 78 *	* 11.89 *	* 936.75 *	* 3610.35 *	* *

GEO SERVICES T.D.C

Phillips Aust.Co.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Butt. R-20/S-25

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.36

SHOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	* Remarks	*****	
* 79	* 12.07	* 948.82	* 3598.28	*	*****	
* 80	* 12.20	* 961.02	* 3586.08	*	*****	
* 81	* 12.15	* 973.17	* 3573.93	*	*****	
* 82	* 12.08	* 985.25	* 3561.85	*	*****	
* 83	* 11.92	* 997.17	* 3549.93	*	*****	
* 84	* 12.13	* 1009.30	* 3537.80	*	*****	
* 85	* 12.15	* 1021.45	* 3525.65	*	*****	
* 86	* 12.08	* 1033.53	* 3513.57	*	*****	
* 87	* 12.12	* 1045.65	* 3501.45	*	*****	
* 88	* 11.95	* 1057.60	* 3489.50	*	*****	
* 89	* 12.20	* 1069.80	* 3477.30	*	*****	
* 90	* 12.09	* 1081.89	* 3465.21	*	*****	
* 91	* 11.99	* 1093.88	* 3453.22	*	*****	
* 92	* 12.18	* 1106.06	* 3441.04	*	*****	
* 93	* 11.93	* 1117.99	* 3429.11	*	*****	
* 94	* 11.94	* 1129.93	* 3417.17	*	*****	
* 95	* 12.03	* 1141.96	* 3405.14	*	*****	
* 96	* 12.12	* 1154.08	* 3393.02	*	*****	
* 97	* 11.97	* 1166.05	* 3381.05	*	*****	
* 98	* 12.08	* 1178.13	* 3368.97	*	*****	
* 99	* 11.95	* 1190.08	* 3357.02	*	*****	
* 100	* 12.05	* 1202.13	* 3344.97	*	*****	
* 101	* 12.11	* 1214.24	* 3332.86	*	*****	
* 102	* 12.08	* 1226.32	* 3320.78	*	*****	
* 103	* 11.97	* 1238.29	* 3308.81	*	*****	
* 104	* 12.14	* 1250.43	* 3296.67	*	*****	
* 105	* 12.09	* 1262.52	* 3284.58	*	*****	
* 106	* 12.06	* 1274.58	* 3272.52	*	*****	
* 107	* 11.97	* 1286.55	* 3260.55	*	*****	
* 108	* 12.10	* 1298.65	* 3248.45	*	*****	
* 109	* 11.99	* 1310.64	* 3236.46	*	*****	
* 110	* 11.98	* 1322.62	* 3224.48	*	*****	
* 111	* 11.93	* 1334.55	* 3212.55	*	*****	
* 112	* 13.20	* 1348.35	* 3198.75	*	*****	
* 113	* 14.06	* 1362.41	* 3184.69	*	*****	
* 114	* 13.62	* 1376.03	* 3171.07	*	*****	
* 115	* 14.19	* 1390.22	* 3156.88	*	*****	
* 116	* 13.40	* 1403.62	* 3143.48	*	*****	
* 117	* 13.50	* 1417.12	* 3129.98	*	*****	
* 118	* 14.07	* 1431.19	* 3115.91	*	*****	

CASING LIST

CASING SIZE: 7"

TYPE: Dutt. N-80/C-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.85

SHOE DEPTH : 4547.10

```

*****
* Jt # * LENGTH * TOTAL LENGTH * Depth From KB * Remarks *
*****
* 119 * 13.24 * 1444.43 * 3102.67 * *
* 120 * 13.51 * 1457.94 * 3089.16 * *
* 121 * 14.06 * 1472.00 * 3075.10 * *
* 122 * 13.08 * 1485.08 * 3062.02 * *
* 123 * 13.85 * 1498.93 * 3048.17 * *
* 124 * 13.93 * 1512.86 * 3034.24 * *
* 125 * 14.05 * 1526.91 * 3020.19 * *
* 126 * 14.17 * 1541.08 * 3006.02 * *
* 127 * 13.56 * 1554.64 * 2992.46 * *
* 128 * 13.87 * 1568.51 * 2978.59 * *
* 129 * 14.13 * 1582.64 * 2964.46 * *
* 130 * 14.00 * 1596.64 * 2950.46 * *
* 131 * 13.52 * 1610.16 * 2936.94 * *
* 132 * 14.12 * 1624.28 * 2922.82 * *
* 133 * 14.21 * 1638.49 * 2908.61 * *
* 134 * 11.69 * 1650.18 * 2896.92 * *
* 135 * 13.07 * 1663.25 * 2883.85 * *
* 136 * 13.84 * 1677.09 * 2870.01 * *
* 137 * 11.59 * 1688.68 * 2858.42 * *
* 138 * 11.15 * 1699.83 * 2847.27 * *
* 139 * 11.38 * 1711.21 * 2835.89 * *
* 140 * 13.63 * 1724.84 * 2822.26 * *
* 141 * 13.30 * 1733.14 * 2808.96 * *
* 142 * 13.18 * 1751.32 * 2795.78 * *
* 143 * 12.76 * 1764.08 * 2783.02 * *
* 144 * 13.12 * 1777.20 * 2769.90 * *
* 145 * 12.79 * 1789.99 * 2757.11 * *
* 146 * 12.94 * 1802.93 * 2744.17 * *
* 147 * 13.43 * 1816.36 * 2730.74 * *
* 148 * 11.56 * 1827.92 * 2719.18 * *
* 149 * 11.93 * 1839.85 * 2707.25 * *
* 150 * 12.14 * 1851.99 * 2695.11 * *
* 151 * 14.29 * 1866.28 * 2680.82 * *
* 152 * 12.57 * 1878.85 * 2668.25 * *
* 153 * 13.17 * 1892.02 * 2655.08 * *
* 154 * 13.06 * 1905.08 * 2642.02 * *
* 155 * 14.25 * 1919.33 * 2627.77 * *
* 156 * 13.23 * 1932.56 * 2614.54 * *
* 157 * 14.30 * 1946.95 * 2600.15 * *
* 158 * 14.12 * 1961.07 * 2586.03 * *

```

GEOSERVICES T.D.C

Phillips Aust.Cc.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Pult. N-30/S-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.86

SHOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	* Remarks
* 159	* 13.72	* 1974.79	* 2572.31	*
* 160	* 14.39	* 1989.18	* 2557.92	*
* 161	* 14.40	* 2003.58	* 2543.52	*
* 162	* 13.41	* 2016.99	* 2530.11	*
* 163	* 11.38	* 2028.37	* 2518.73	*
* 164	* 13.94	* 2042.31	* 2504.79	*
* 165	* 14.18	* 2056.49	* 2490.61	*
* 166	* 13.77	* 2070.26	* 2476.84	*
* 167	* 14.08	* 2084.34	* 2462.76	*
* 168	* 13.07	* 2097.41	* 2449.69	*
* 169	* 12.72	* 2110.13	* 2436.97	*
* 170	* 13.84	* 2123.97	* 2423.13	*
* 171	* 14.02	* 2137.99	* 2409.11	*
* 172	* 14.20	* 2152.19	* 2394.91	*
* 173	* 11.28	* 2163.47	* 2383.63	*
* 174	* 13.79	* 2177.26	* 2369.84	*
* 175	* 13.25	* 2190.51	* 2356.59	*
* 176	* 13.10	* 2203.61	* 2343.49	*
* 177	* 13.34	* 2216.95	* 2330.15	*
* 178	* 13.24	* 2230.19	* 2316.91	*
* 179	* 12.64	* 2242.83	* 2304.27	*
* 180	* 13.62	* 2256.45	* 2290.65	*
* 181	* 14.36	* 2270.81	* 2276.29	*
* 182	* 13.11	* 2283.92	* 2263.18	*
* 183	* 13.96	* 2297.88	* 2249.22	*
* 184	* 14.17	* 2312.05	* 2235.05	*
* 185	* 13.73	* 2325.78	* 2221.32	*
* 186	* 13.15	* 2338.93	* 2208.17	*
* 187	* 13.46	* 2352.39	* 2194.71	*
* 188	* 12.94	* 2365.33	* 2181.77	*
* 189	* 14.07	* 2379.40	* 2167.70	*
* 190	* 13.12	* 2392.52	* 2154.58	*
* 191	* 10.53	* 2403.05	* 2144.05	*
* 192	* 10.91	* 2413.96	* 2133.14	*
* 193	* 12.69	* 2426.65	* 2120.45	*
* 194	* 11.11	* 2437.76	* 2109.34	*
* 195	* 0.98	* 2438.74	* 2108.36	*DV Tool
* 195	* 13.26	* 2452.00	* 2095.10	*
* 196	* 12.93	* 2464.93	* 2082.17	*
* 197	* 12.95	* 2477.88	* 2069.22	*

GEOSERVICES T.D.C

Phillips Aust.Co.

Hermes # 1

20.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Pott. N-80/S-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.86
SHOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	*	Remarks	*

* 198	* 12.22	* 2490.10	* 2057.00	*		*
* 199	* 13.41	* 2503.51	* 2043.59	*		*
* 200	* 14.07	* 2517.58	* 2029.52	*		*
* 201	* 13.22	* 2530.80	* 2016.30	*		*
* 202	* 13.78	* 2544.58	* 2002.52	*		*
* 203	* 12.66	* 2557.24	* 1989.86	*		*
* 204	* 12.56	* 2569.80	* 1977.30	*		*
* 205	* 12.94	* 2582.74	* 1964.36	*		*
* 206	* 13.14	* 2595.88	* 1951.22	*		*
* 207	* 12.69	* 2608.57	* 1938.53	*		*
* 208	* 12.91	* 2621.48	* 1925.62	*		*
* 209	* 13.18	* 2634.66	* 1912.44	*		*
* 210	* 12.72	* 2647.38	* 1899.72	*		*
* 211	* 12.90	* 2660.28	* 1886.82	*		*
* 212	* 13.22	* 2673.50	* 1873.60	*		*
* 213	* 12.73	* 2686.23	* 1860.82	*		*
* 214	* 12.85	* 2699.13	* 1847.97	*		*
* 215	* 13.75	* 2712.38	* 1834.22	*		*
* 216	* 13.38	* 2726.25	* 1820.84	*		*
* 217	* 12.58	* 2738.84	* 1803.26	*		*
* 218	* 13.18	* 2752.02	* 1795.08	*		*
* 219	* 13.49	* 2765.51	* 1781.59	*		*
* 220	* 14.05	* 2779.56	* 1767.54	*		*
* 221	* 13.08	* 2792.64	* 1754.46	*		*
* 222	* 11.17	* 2803.81	* 1743.29	*		*
* 223	* 13.30	* 2817.11	* 1729.99	*		*
* 224	* 12.90	* 2830.01	* 1717.09	*		*
* 225	* 12.83	* 2842.84	* 1704.26	*		*
* 226	* 12.84	* 2855.68	* 1691.42	*		*
* 227	* 13.82	* 2869.50	* 1677.60	*		*
* 228	* 13.60	* 2883.10	* 1664.00	*		*
* 229	* 14.13	* 2897.23	* 1649.82	*		*
* 230	* 13.81	* 2911.09	* 1636.01	*		*
* 231	* 13.12	* 2924.21	* 1622.89	*		*
* 232	* 13.22	* 2937.43	* 1609.67	*		*
* 233	* 13.03	* 2950.46	* 1596.64	*		*
* 234	* 12.85	* 2963.31	* 1583.79	*		*
* 235	* 13.82	* 2977.13	* 1569.97	*		*
* 236	* 13.23	* 2990.36	* 1556.74	*		*
* 237	* 14.04	* 3004.40	* 1542.70	*		*

GEOSEVICES F.D.C

Phillips Aust.Cc.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Dutt. N-80/S-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.86

SHOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KB	* Remarks
* 238	* 13.64	* 3018.04	* 1529.06	*
* 239	* 13.88	* 3031.92	* 1515.18	*
* 240	* 12.37	* 3044.79	* 1502.31	*
* 241	* 13.04	* 3057.83	* 1489.27	*
* 242	* 13.29	* 3071.12	* 1475.98	*
* 243	* 13.75	* 3084.87	* 1462.23	*
* 244	* 13.55	* 3098.42	* 1448.68	*
* 245	* 14.10	* 3112.52	* 1434.58	*
* 246	* 11.85	* 3124.37	* 1422.73	*
* 247	* 13.18	* 3137.55	* 1409.55	*
* 248	* 13.17	* 3150.72	* 1396.38	*
* 249	* 12.47	* 3163.19	* 1383.91	*
* 250	* 12.94	* 3176.13	* 1370.97	*
* 251	* 12.99	* 3189.12	* 1357.98	*
* 252	* 13.28	* 3202.40	* 1344.70	*
* 253	* 10.96	* 3213.36	* 1333.74	*
* 254	* 13.57	* 3226.93	* 1320.17	*
* 255	* 12.31	* 3239.24	* 1307.86	*
* 256	* 12.93	* 3252.17	* 1294.93	*
* 257	* 13.13	* 3265.30	* 1281.80	*
* 258	* 13.84	* 3279.14	* 1267.96	*
* 259	* 13.27	* 3292.41	* 1254.69	*
* 260	* 11.94	* 3304.35	* 1242.75	*
* 261	* 13.00	* 3317.35	* 1229.75	*
* 262	* 12.67	* 3330.02	* 1217.08	*
* 263	* 13.14	* 3343.16	* 1203.94	*
* 264	* 13.19	* 3356.35	* 1190.75	*
* 265	* 13.83	* 3370.18	* 1176.92	*
* 266	* 12.78	* 3382.96	* 1164.14	*
* 267	* 12.92	* 3395.88	* 1151.22	*
* 268	* 12.70	* 3408.58	* 1138.52	*
* 269	* 12.54	* 3421.12	* 1125.98	*
* 270	* 13.14	* 3434.26	* 1112.84	*
* 271	* 13.62	* 3447.88	* 1099.22	*
* 272	* 14.29	* 3462.17	* 1084.93	*
* 273	* 13.32	* 3475.49	* 1071.61	*
* 274	* 13.85	* 3489.34	* 1057.76	*
* 275	* 14.21	* 3503.55	* 1043.55	*
* 276	* 13.26	* 3516.81	* 1030.29	*
* 277	* 13.92	* 3530.73	* 1016.37	*

GEOSENVICES T.D.C

Phillips Aust.Co.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Putt. N-80/S-95

WEIGHT(lbs/ft): 29

CASING LENGTH: 4441.86

SHOE DEPTH : 4547.10

* Jt # *	* LENGTH *	* TOTAL LENGTH *	* Depth From KB *	* Remarks *		

* 278 *	* 13.36 *	* 3544.09 *	* 1003.01 *	* *		
* 279 *	* 13.66 *	* 3557.75 *	* 989.35 *	* *		
* 280 *	* 13.99 *	* 3571.74 *	* 975.36 *	* *		
* 281 *	* 14.15 *	* 3585.89 *	* 961.21 *	* *		
* 282 *	* 13.77 *	* 3599.66 *	* 947.44 *	* *		
* 283 *	* 12.80 *	* 3612.46 *	* 934.64 *	* *		
* 284 *	* 12.55 *	* 3625.01 *	* 922.09 *	* *		
* 285 *	* 13.34 *	* 3638.35 *	* 908.75 *	* *		
* 286 *	* 12.75 *	* 3651.10 *	* 896.00 *	* *		
* 287 *	* 11.42 *	* 3662.52 *	* 884.58 *	* *		
* 288 *	* 12.78 *	* 3675.30 *	* 871.80 *	* *		
* 289 *	* 12.95 *	* 3688.25 *	* 858.85 *	* *		
* 290 *	* 12.88 *	* 3701.13 *	* 845.97 *	* *		
* 291 *	* 12.91 *	* 3714.04 *	* 833.06 *	* *		
* 292 *	* 13.07 *	* 3727.11 *	* 819.99 *	* *		
* 293 *	* 12.82 *	* 3739.93 *	* 807.17 *	* *		
* 294 *	* 12.23 *	* 3752.16 *	* 794.94 *	* *		
* 295 *	* 13.86 *	* 3766.02 *	* 781.08 *	* *		
* 296 *	* 14.02 *	* 3780.04 *	* 767.06 *	* *		
* 297 *	* 13.62 *	* 3793.66 *	* 753.44 *	* *		
* 298 *	* 14.00 *	* 3807.66 *	* 739.44 *	* *		
* 299 *	* 11.74 *	* 3819.40 *	* 727.70 *	* *		
* 300 *	* 12.75 *	* 3832.15 *	* 714.95 *	* *		
* 301 *	* 14.33 *	* 3846.48 *	* 700.62 *	* *		
* 302 *	* 14.33 *	* 3860.81 *	* 686.29 *	* *		
* 303 *	* 13.00 *	* 3873.81 *	* 673.29 *	* *		
* 304 *	* 14.11 *	* 3887.92 *	* 659.18 *	* *		
* 305 *	* 12.98 *	* 3900.90 *	* 646.20 *	* *		
* 306 *	* 13.34 *	* 3914.24 *	* 632.86 *	* *		
* 307 *	* 11.44 *	* 3925.68 *	* 621.42 *	* *		
* 308 *	* 13.08 *	* 3938.76 *	* 608.34 *	* *		
* 309 *	* 10.99 *	* 3949.75 *	* 597.35 *	* *		
* 310 *	* 13.06 *	* 3962.81 *	* 584.29 *	* *		
* 311 *	* 12.89 *	* 3975.70 *	* 571.40 *	* *		
* 312 *	* 13.05 *	* 3988.75 *	* 558.35 *	* *		
* 313 *	* 14.02 *	* 4002.77 *	* 544.33 *	* *		
* 314 *	* 14.10 *	* 4016.87 *	* 530.23 *	* *		
* 315 *	* 12.73 *	* 4029.60 *	* 517.50 *	* *		
* 316 *	* 10.76 *	* 4040.36 *	* 506.74 *	* *		
* 317 *	* 13.61 *	* 4053.97 *	* 493.13 *	* *		

CROSS SERVICES T.D.C

Phillips Aust.Co.

Hermes # 1

26.4.83

CASING LIST

CASING SIZE: 7"

TYPE: Butt. N-80/S-95

WEIGHT (lbs/Ft): 29

CASING LENGTH: 4441.86

SHOE DEPTH : 4547.10

* Jt #	* LENGTH	* TOTAL LENGTH	* Depth From KE	*	Remarks	*

* 318	* 13.75	* 4067.72	* 479.38	*		*
* 319	* 13.17	* 4080.89	* 466.21	*		*
* 320	* 12.56	* 4093.45	* 453.65	*		*
* 321	* 13.94	* 4107.39	* 439.71	*		*
* 322	* 12.86	* 4120.25	* 426.85	*		*
* 323	* 13.86	* 4134.11	* 412.99	*		*
* 324	* 12.47	* 4146.58	* 400.52	*		*
* 325	* 13.12	* 4159.70	* 387.40	*		*
* 326	* 13.05	* 4172.75	* 374.35	*		*
* 327	* 13.63	* 4186.38	* 360.72	*		*
* 328	* 13.28	* 4199.66	* 347.44	*		*
* 329	* 14.38	* 4214.05	* 333.05	*		*
* 330	* 12.55	* 4226.60	* 320.50	*		*
* 331	* 12.01	* 4238.61	* 308.49	*		*
* 332	* 12.91	* 4251.52	* 295.58	*		*
* 333	* 12.80	* 4264.32	* 282.78	*		*
* 334	* 13.09	* 4277.41	* 269.69	*		*
* 335	* 12.97	* 4290.38	* 256.72	*		*
* 336	* 13.93	* 4304.31	* 242.79	*		*
* 337	* 13.07	* 4317.38	* 229.72	*		*
* 338	* 13.21	* 4330.59	* 216.51	*		*
* 339	* 13.08	* 4343.67	* 203.43	*		*
* 340	* 14.03	* 4357.70	* 189.40	*		*
* 341	* 13.89	* 4371.59	* 175.51	*		*
* 342	* 14.26	* 4385.85	* 161.25	*		*
* 343	* 14.22	* 4400.07	* 147.03	*		*
* 344	* 13.15	* 4413.22	* 133.88	*		*
* 345	* 13.37	* 4426.59	* 120.51	*		*
*	* 0.54	* 4427.13	* 119.97	*	*Float Collar	*
* 346	* 14.21	* 4441.34	* 105.76	*		*
*	* 0.52	* 4441.86	* 105.24	*	*Casing Shoe	*

OVERPRESSURE

- Overpressure Survey Summary
- D Exponent Plot 1/5000
- D Exponent Plot 1/2000
- Temperature Plot
- 13 2/8" Casing leak off test data

OVERPRESSURE SURVEY

Various indicators can be used in the detection of abnormally pressurized formations during drilling, including:

- Dcs Exponent.
- Torque and drag.
- Resistivity.
- Formation temperature gradients (Flow line temperature).
- Physical indications (cuttings etc.).

Throughout drilling operations all these parameters were continuously monitored and recorded.

Dcs Exponent.

After drilling through the initial zone of undercompacted, unconsolidated sediments a trend was established within the deeper normally compacted sediments.

Once this trend was established, any overcompacted or undercompacted sediments drilled would result in a trend shift to the right (overcompacted) or the left (undercompacted), and it is this leftward deviation of the trend that indicates any abnormal pressures.

The Dcs however is designed primarily for use in shale and only becomes truly representative in shale zones, a comparison with the lithology and other overpressure parameters must be made to establish actual overpressured formations.

In the case of Hermes # 1 shales were thinly bedded and generally silty, it was for this reason that a good trend line could not easily be set. Shifts to the left correlated with undercompacted sands, and do not appear to be related to any abnormal pressures.

Resistivity.

An increasing formation gradient will lead to an increasing volume of saline formation water entering the mud system, this will lead to an overall decrease in mud resistivity.

Mud resistivities were continuously recorded in both the suction pit and the flow line to detect any resistivity drop. No such decrease was recorded however during the drilling operations.

Torque and Drag.

Overpressured shales will increase torque values during drilling due to "squeezing". Although overpull was recorded during trips, and the drill pipe became stuck once (due to coal seams), no "squeezing" was evident and torque values remained normal throughout.

Physical indications.

An overpressured shale will "flow" into the well and so increase the quantity of cavings. Cavings however remained low and the splintery cavings typical to abnormally pressured shales were not evident in the ditch cuttings collected.

Formation temperature gradients.

The ability of water to conduct heat is 1/3 that of rock and an undercompacted sequence with an abnormally high percentage of pore

Formation temperature gradients. cont/

fluids will therefore trap heat, and immediately above an overpressured unit a zone of heat stauation will exist.

A normal thermal gradient will therefore decrease above the overpressured zone, increase throughout the unit and return to the normal thermal gradient beneath the zone.

Such a thermal trend shift was noted over the section, 4080m to 4120m when the temperature measured at the flow line increased 12.2 deg. C, this would give a temperature gradient of 16.45 deg. F/100 ft. as opposed to the average temperature gradient of 1.65 deg. F/100 ft. (see temperature report).

This temperature anomaly however was the sole indicator of any possible overpressure (it may also have represented a stratigraphic or tectonic horizon). No indications were seen in the other parameters and therefore the possibility of an overpressured zone was discounted.

Conclusion

With the exception of temperature, indications of any overpressure were not noted during drilling operations by those parameters available

It could there for be assumed that no abnormally pressurized formations were present in Hermes # 1.

PE601707

This is an enclosure indicator page.
The enclosure PE601707 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601707 has the following characteristics:

ITEM_BARCODE = PE601707
CONTAINER_BARCODE = PE903163
NAME = Overpressure log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log overpressuring Hermes 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601708

This is an enclosure indicator page.
The enclosure PE601708 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601708 has the following characteristics:

ITEM_BARCODE = PE601708
CONTAINER_BARCODE = PE903163
NAME = Overpressure log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log overpressuring Hermes 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601709

This is an enclosure indicator page.
The enclosure PE601709 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601709 has the following characteristics:

- ITEM_BARCODE = PE601709
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:5000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressuring Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601710

This is an enclosure indicator page.
The enclosure PE601710 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601710 has the following characteristics:

ITEM_BARCODE = PE601710
CONTAINER_BARCODE = PE903163
NAME = Overpressure log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log overpressuring Hermes 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601711

This is an enclosure indicator page.
The enclosure PE601711 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601711 has the following characteristics:

- ITEM_BARCODE = PE601711
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601712

This is an enclosure indicator page.
The enclosure PE601712 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601712 has the following characteristics:

ITEM_BARCODE = PE601712
CONTAINER_BARCODE = PE903163
NAME = Overpressure log Hermes 1 1:2000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log overpressure 1:2000 Hermes 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601713

This is an enclosure indicator page.
The enclosure PE601713 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601713 has the following characteristics:

- ITEM_BARCODE = PE601713
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601714

This is an enclosure indicator page.
The enclosure PE601714 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601714 has the following characteristics:

- ITEM_BARCODE = PE601714
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601715

This is an enclosure indicator page.
The enclosure PE601715 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601715 has the following characteristics:

ITEM_BARCODE = PE601715
CONTAINER_BARCODE = PE903163
NAME = Overpressure log Hermes 1 1:2000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well log overpressure 1:2000 Hermes 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601716

This is an enclosure indicator page.
The enclosure PE601716 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601716 has the following characteristics:

- ITEM_BARCODE = PE601716
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601717

This is an enclosure indicator page.
The enclosure PE601717 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601717 has the following characteristics:

- ITEM_BARCODE = PE601717
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601718

This is an enclosure indicator page.
The enclosure PE601718 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601718 has the following characteristics:

- ITEM_BARCODE = PE601718
- CONTAINER_BARCODE = PE903163
- NAME = Overpressure log Hermes 1 1:2000
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Well log overpressure 1:2000 Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601719

This is an enclosure indicator page.
The enclosure PE601719 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601719 has the following characteristics:

- ITEM_BARCODE = PE601719
- CONTAINER_BARCODE = PE903163
- NAME = Temperature log Hermes 1
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = well log temperature Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601720

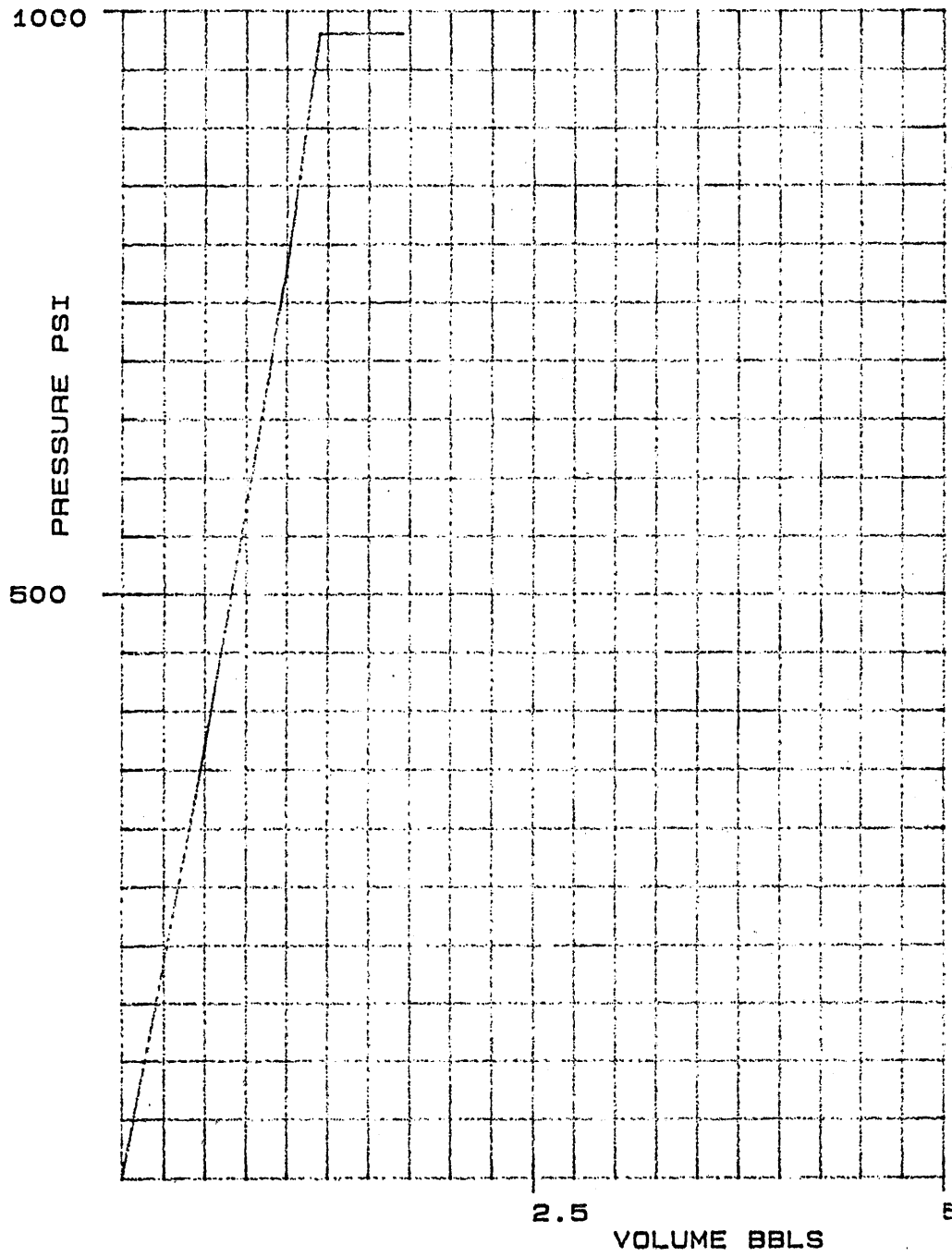
This is an enclosure indicator page.
The enclosure PE601720 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601720 has the following characteristics:

- ITEM_BARCODE = PE601720
- CONTAINER_BARCODE = PE903163
- NAME = Temperature summary log Hermes 1
- BASIN = GIPPSLAND
- PERMIT = VIC/P18
- TYPE = WELL
- SUBTYPE = WELL_LOG
- DESCRIPTION = Summary well log temperature Hermes 1
- REMARKS =
- DATE_CREATED =
- DATE_RECEIVED = 23/09/83
- W_NO = W803
- WELL_NAME = Hermes-1
- CONTRACTOR = Geoservices Overseas S.A
- CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

LEAK OFF TEST 13 3/8" CASING



VOLUME	PRESSURE
0.5	370
1.0	780
1.2	980
1.7	980

CASING SHOE TVD
= 3650 FT

DEPTH TESTED TVD
= 3681 FT

MUD WEIGHT
= 9.3 PPG

PUMP PRESSURE AT LEAK OFF
= 980 PSI

SEA BED FROM RTKB
= 357 FT

MEAN SEA LEVEL FROM RTKB
= 72 FT

BOTTOM HOLE PRESSURE
= 2745.14 PSI

FRACTURE GRADIENT
= 15.28 PPG

EMW LEAK OFF
= 14.46 PPG

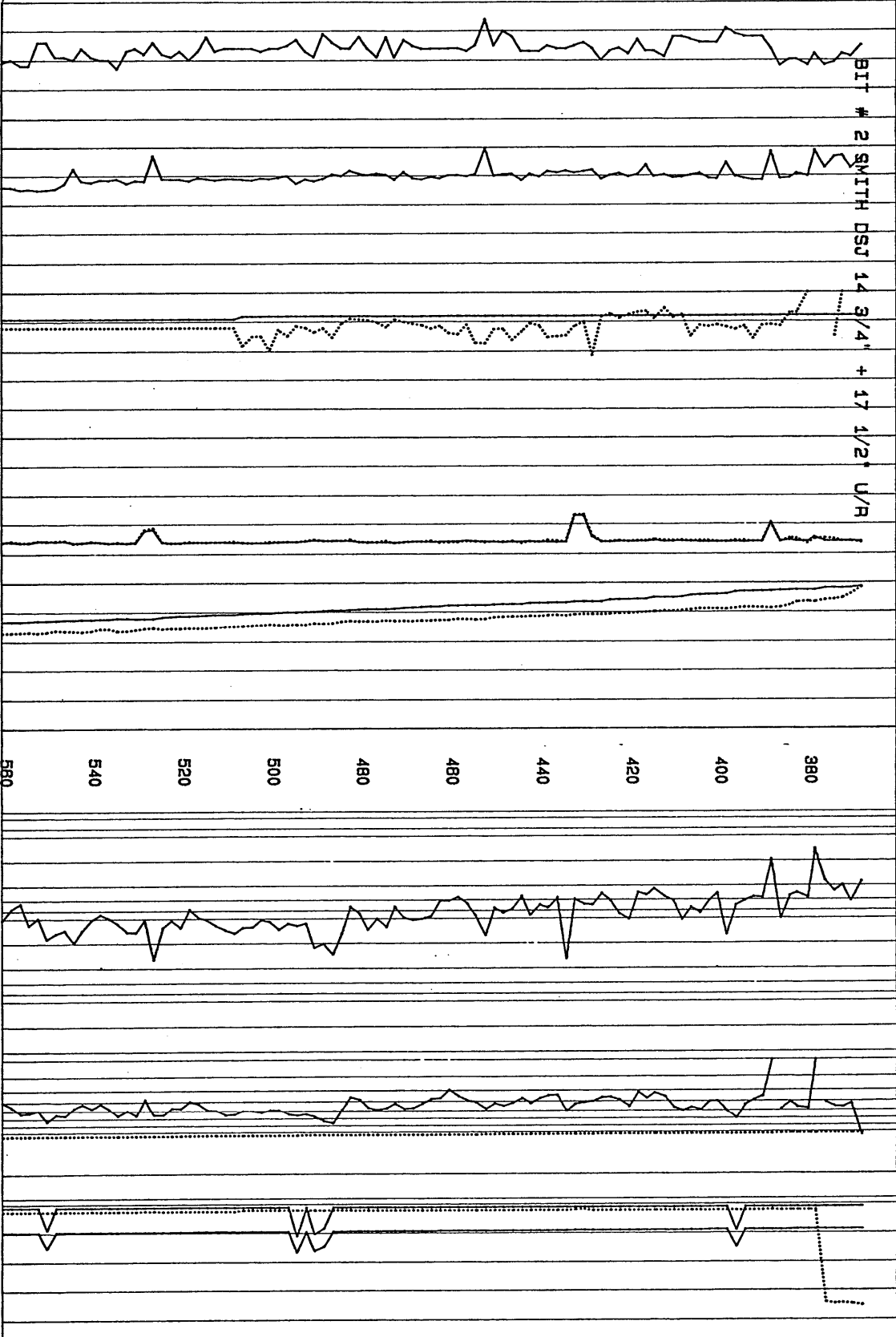
REAL TIME DEPTH PLOT

- Real Time Depth Plot
(reduced to A4)

21/ 2/ 88 17 1/2" PHASE

AVG TORQUE	DRILLER MOB	MUD WEIGHTS	FLOW RATES	TEMPERATURES	DEPTH	DEPTH ROP	DCS TREND	PF/ECD/FRAC
ft-lb	k-lbs	ppg	gpm	degc	met	mm/m		ppg
1000.	20.0	9.00	300.0	25.0	380	1.00	1.00	11.0
2000.	40.0	10.0	600.0	35.0	400	10.0	9.00	13.7
3000.	80.0	11.0	900.0	45.0	420	40.0	9.00	16.8
4000.	80.0	12.0	1200.	55.0	440			18.0
5000.	100.0	13.0	1500.	65.0	460			24.7

BIT # 2 SMITH DSI 14 3/4' + 17 1/2' U/R



TOTAL GAS	%
1.00	
10.0	
100.0	

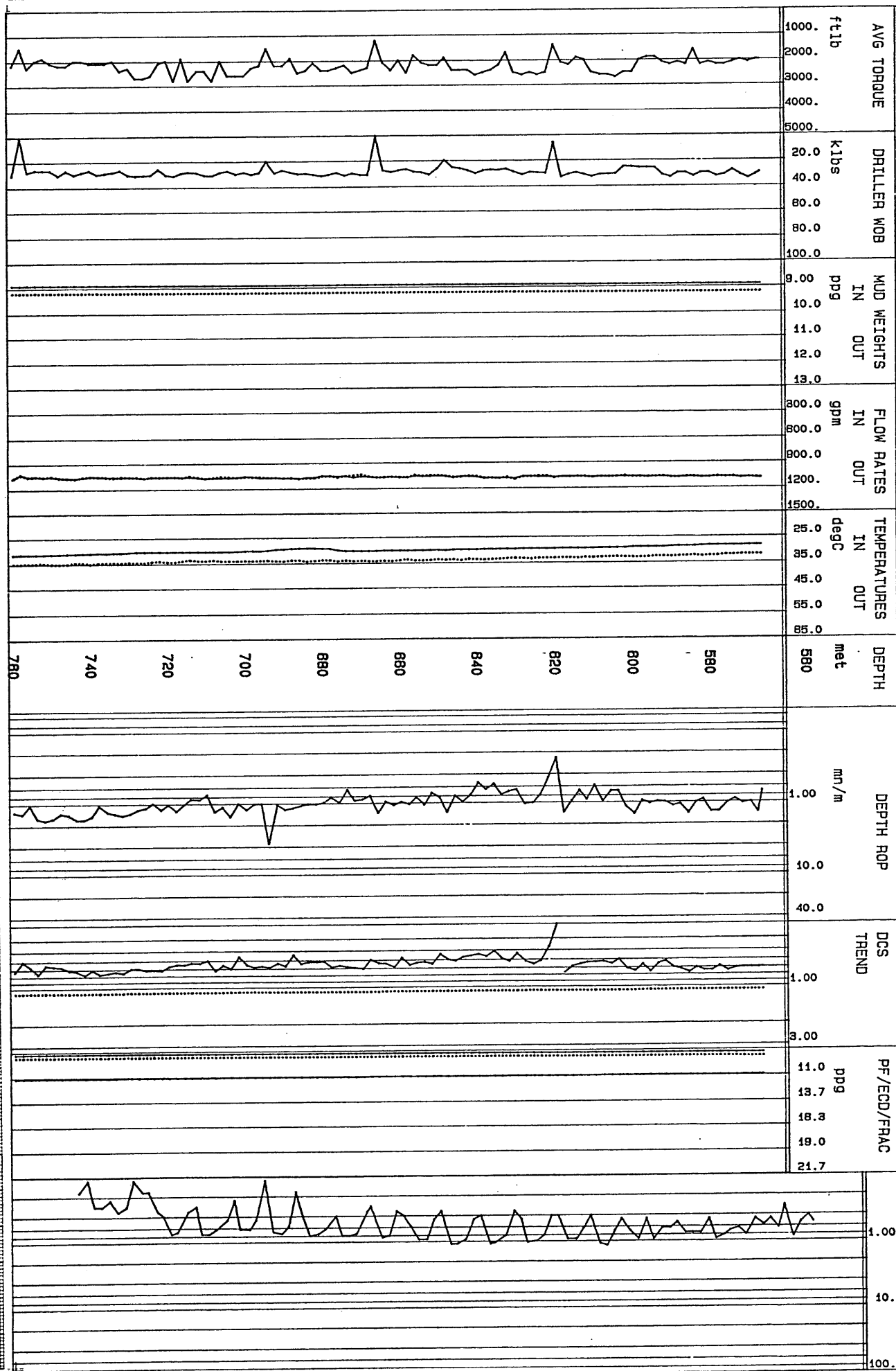
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

21/ 2/ 83

HERMES # 1

SCALE 1/ 1000



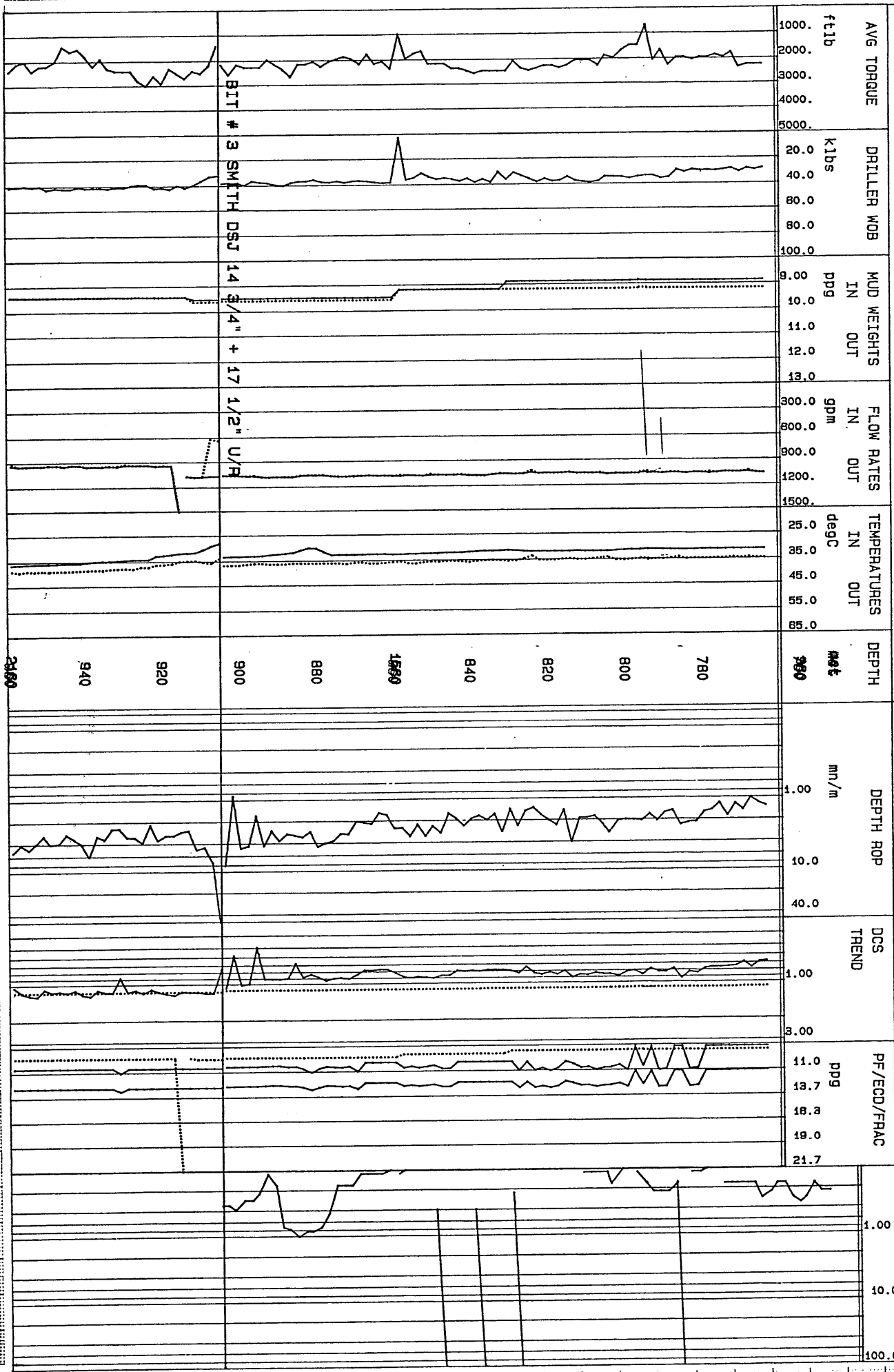
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

22 / 2 / 83

HERMES # 1

SCALE 1 / 5000



BIT # 3 SMITH DSJ 14 3/4" + 17 1/2" U/R

TOTAL GAS
%

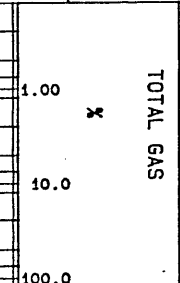
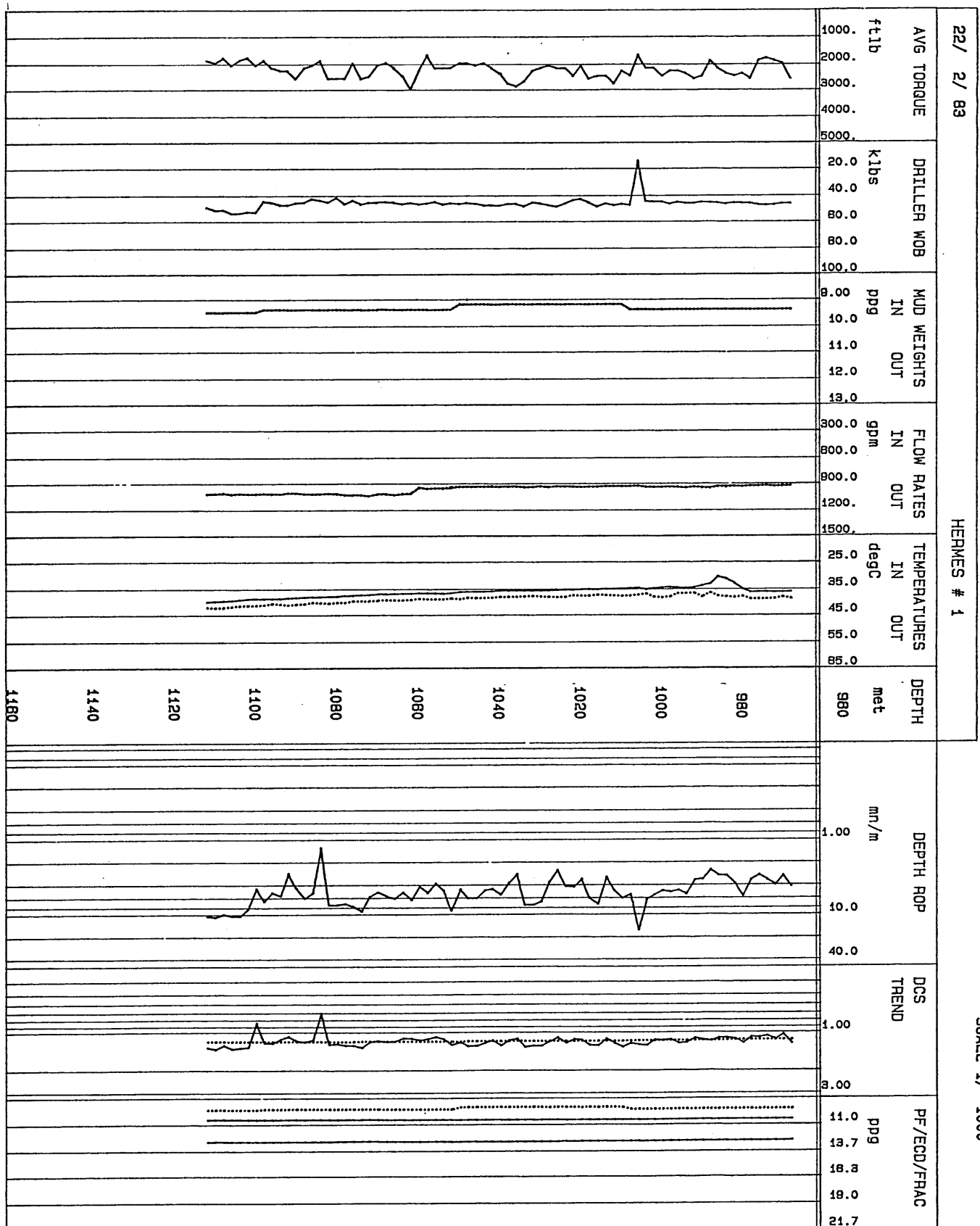
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

22/ 2/ 83

HERMES # 1

SCALE 1/ 1000

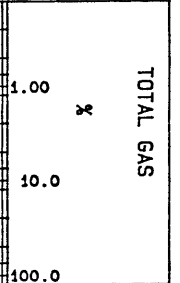
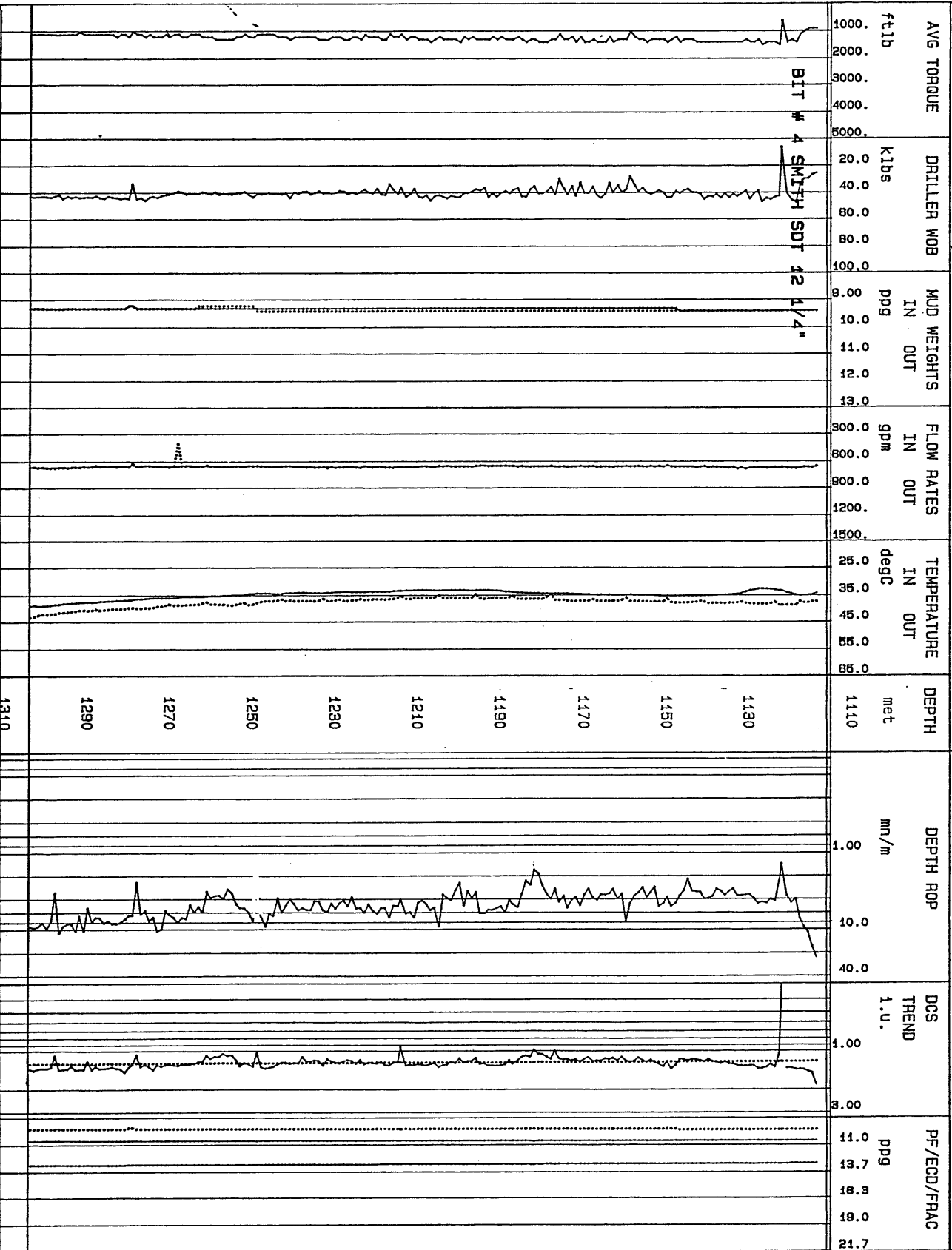


25 / 2 / 83

12 1/4" PHASE

HERMES # 1

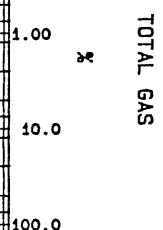
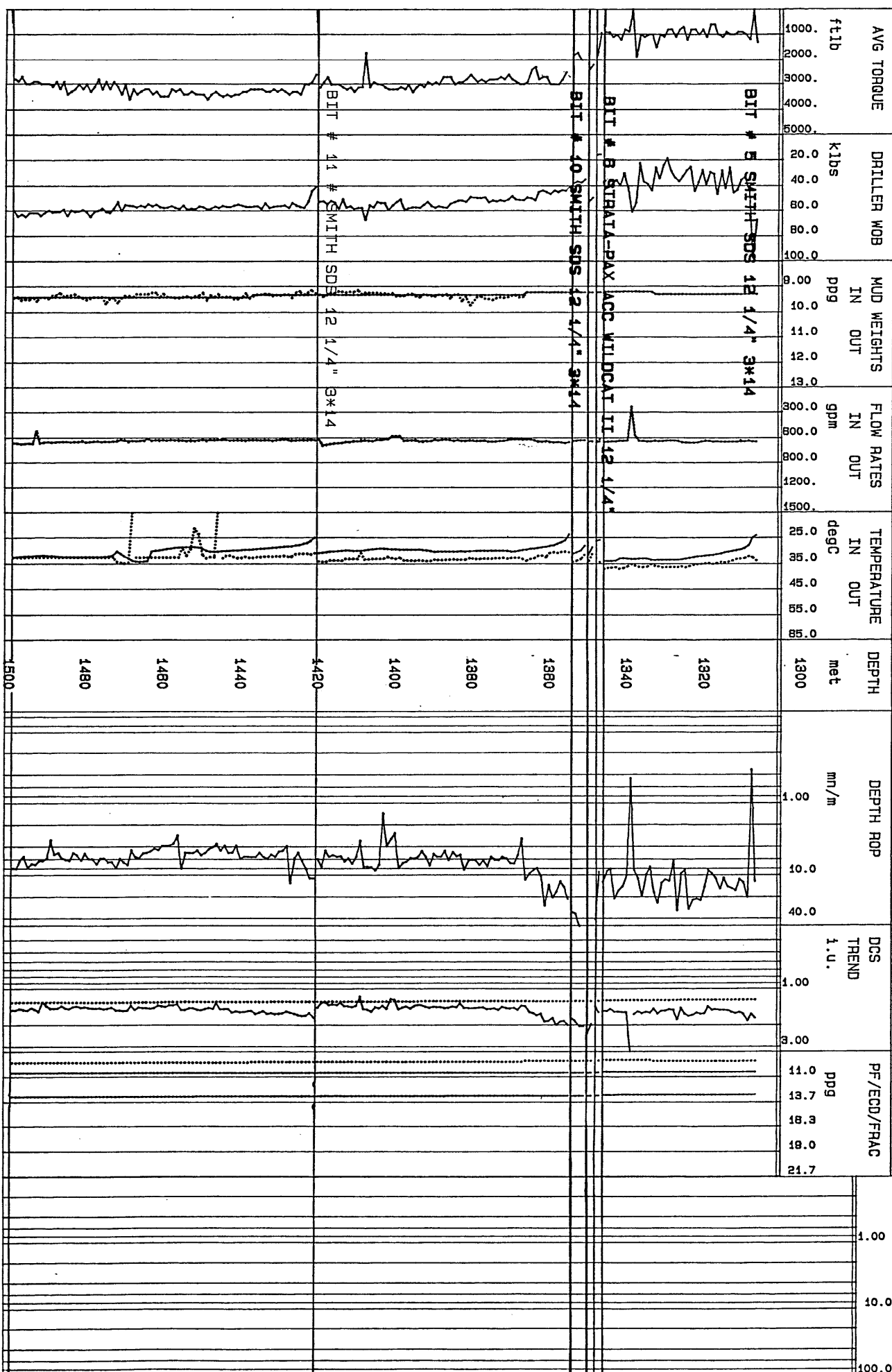
SCALE 1 / 1000



28 / 2 / 83

HERMES # 1

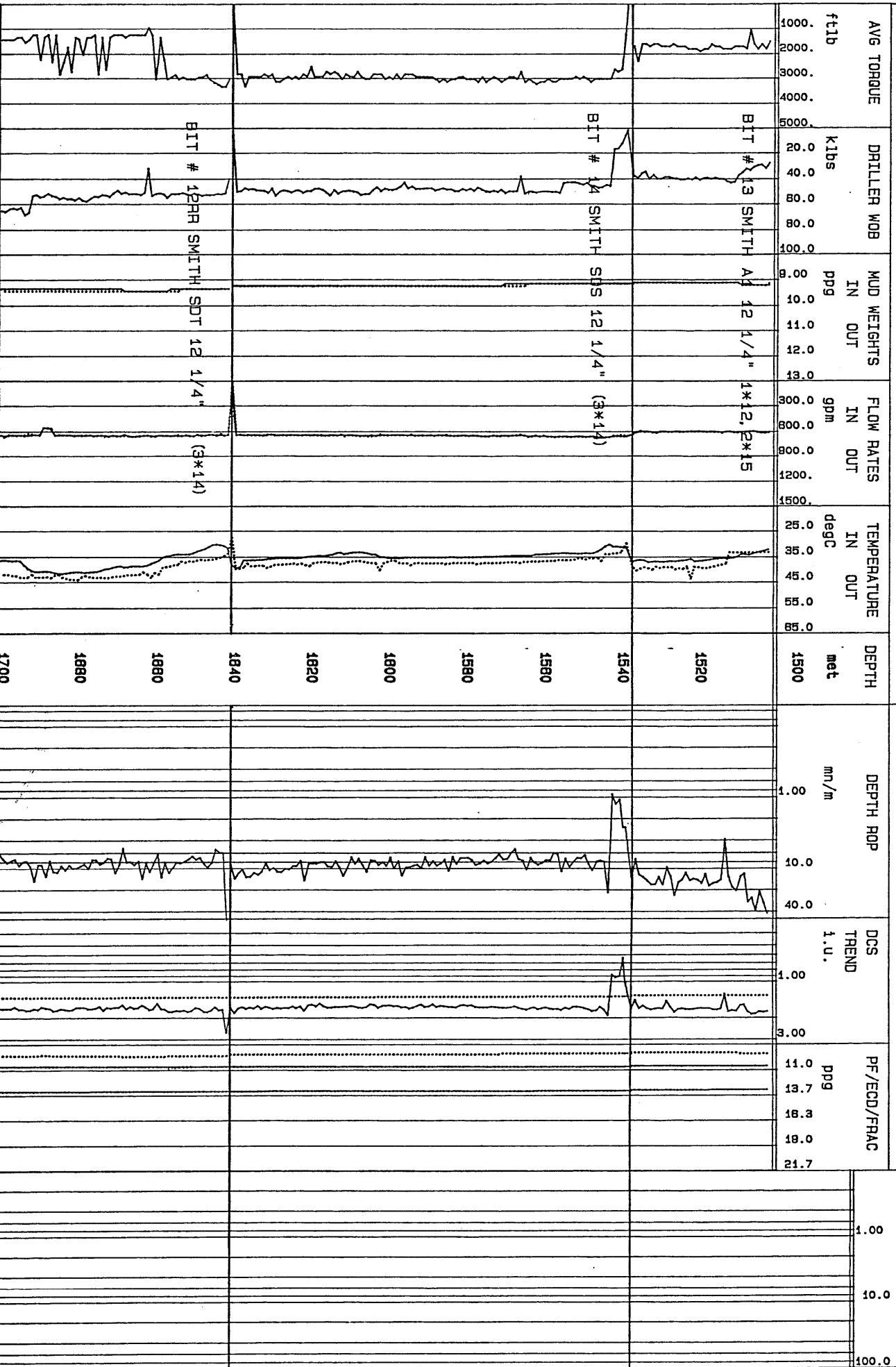
SCALE 1 / 1000



4 / 3 / 83

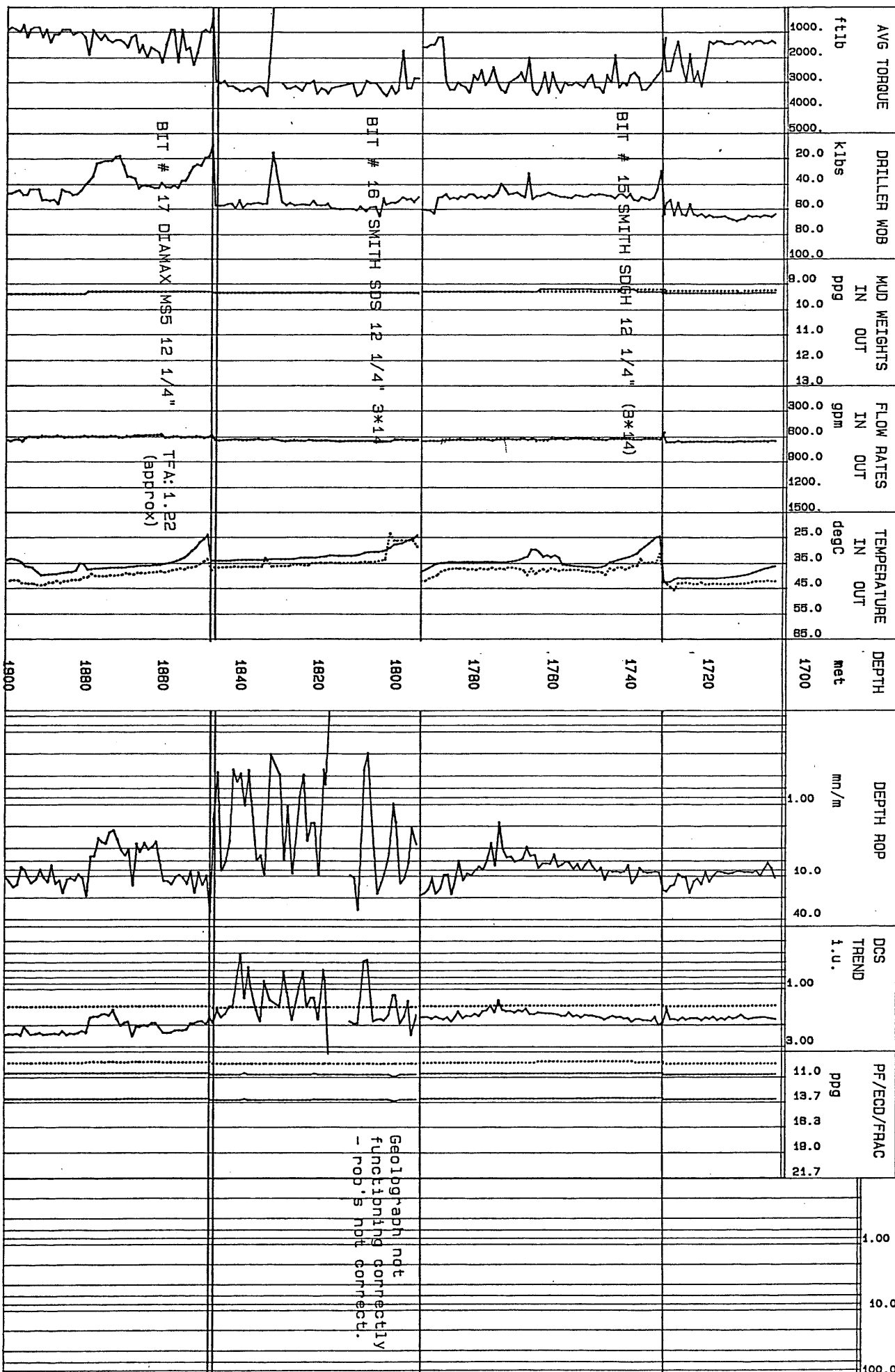
HERMES # 1

SCALE 1 / 1000



8/ 3/ 83

HERMES # 1



Geolograph not
functioning correctly
- rop's not correct.

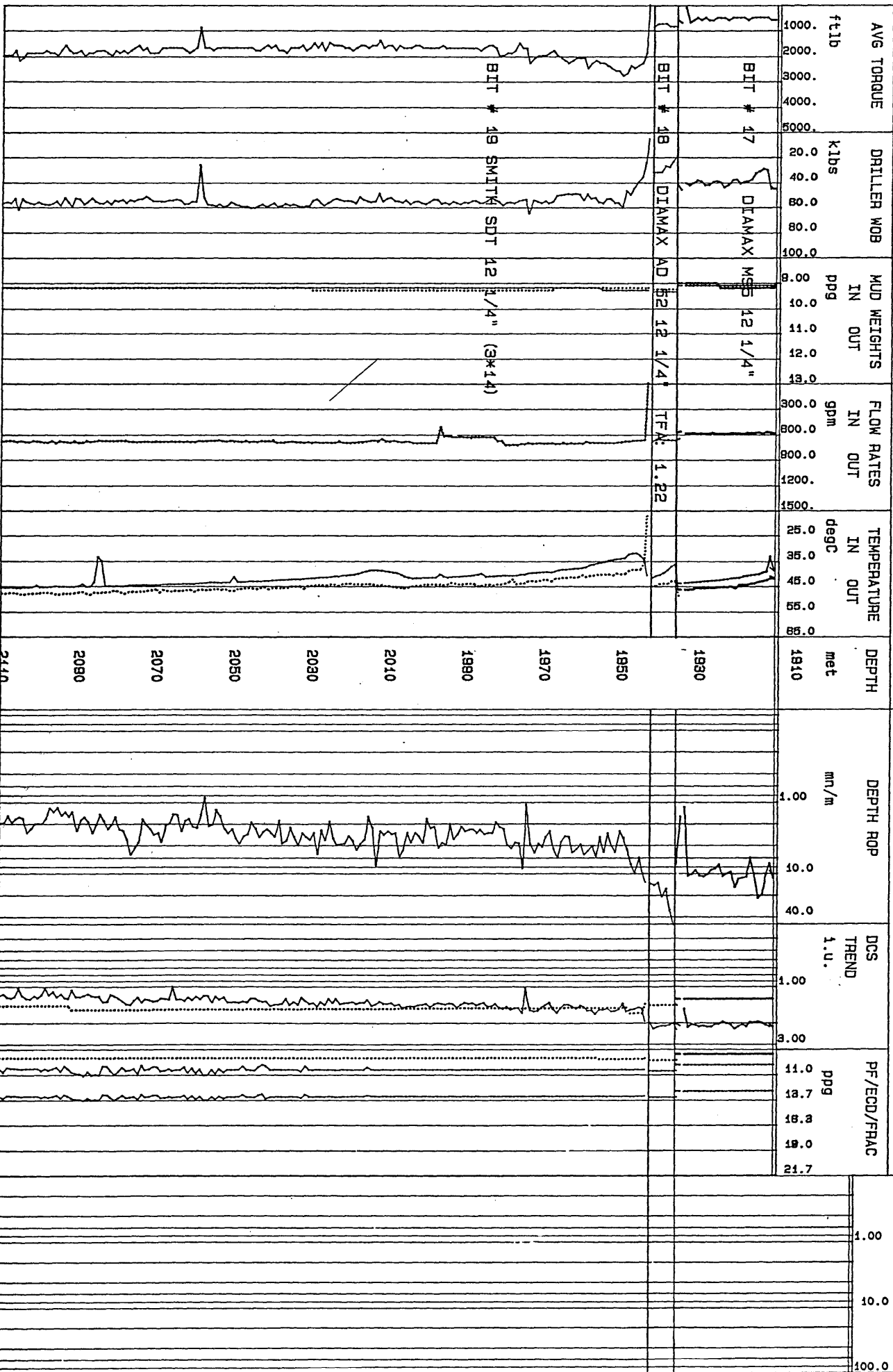
19/ 3/ 83

HERMES # 1

SCALE 1/ 1000

TOTAL GAS

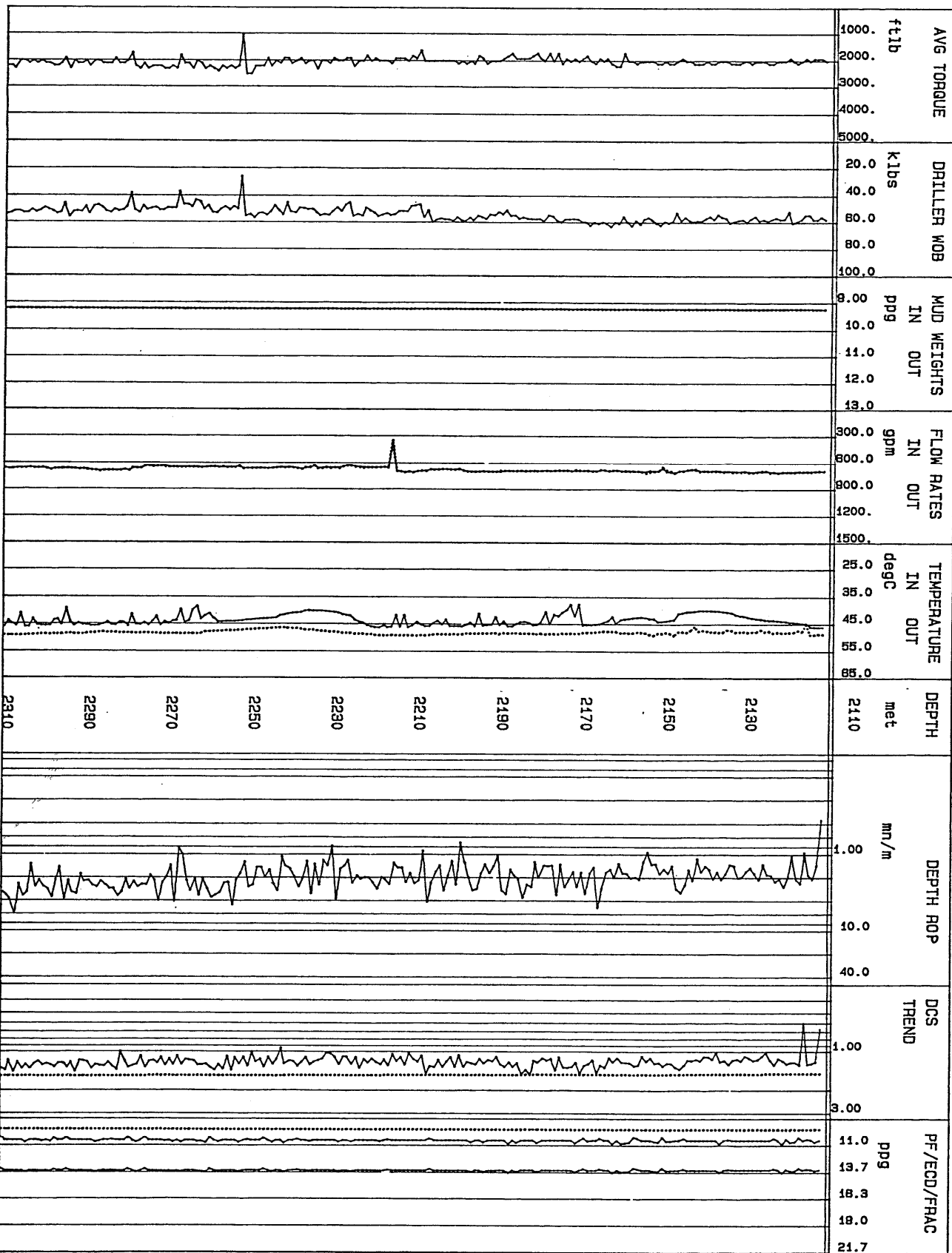
%



14/ 3/ 83

HERMES # 1

SCALE 1/ 1000



15 / 3 / 88

HERMES # 1

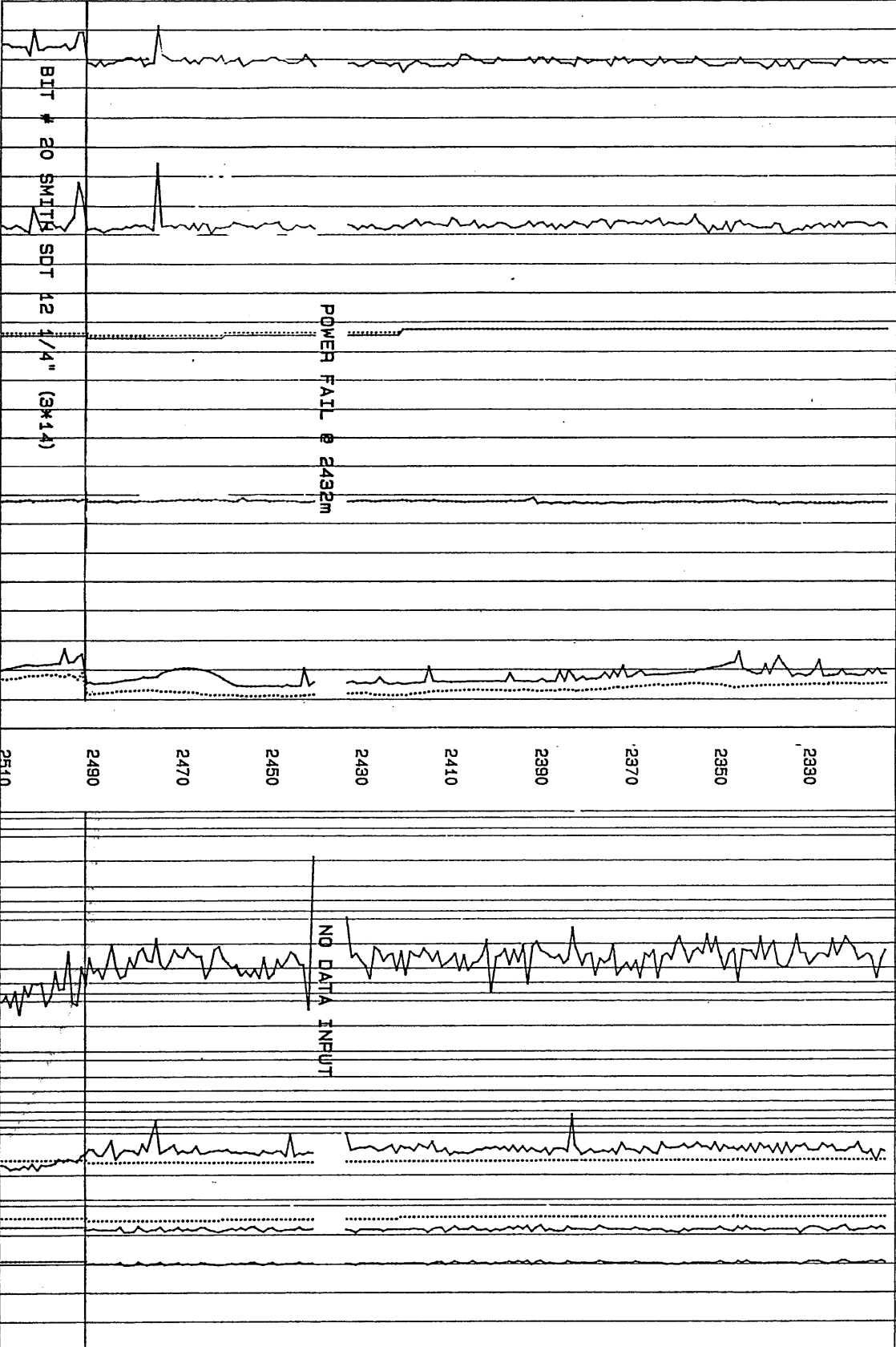
SCALE 1 / 1000

TOTAL GAS

%

1.00
10.0
100.0

AVG TORQUE	DRILLER WOB	MUD WEIGHTS	FLOW RATES	TEMPERATURES	DEPTH	DEPTH ROP	DCS TREND	PF/ECD/FRAC
ft-lb	kibs	IN OUT ppg	IN OUT gpm	IN OUT degC	met	mm/m		ppg
1000.	20.0	9.00	300.0	25.0	2310	1.00		11.0
2000.	40.0	10.0	800.0	35.0	2460	10.0		13.7
3000.	80.0	11.0	900.0	45.0	2470	40.0		18.3
4000.	80.0	12.0	1200.	55.0	2480			18.0
5000.	100.0	13.0	1500.	65.0	2490			21.7

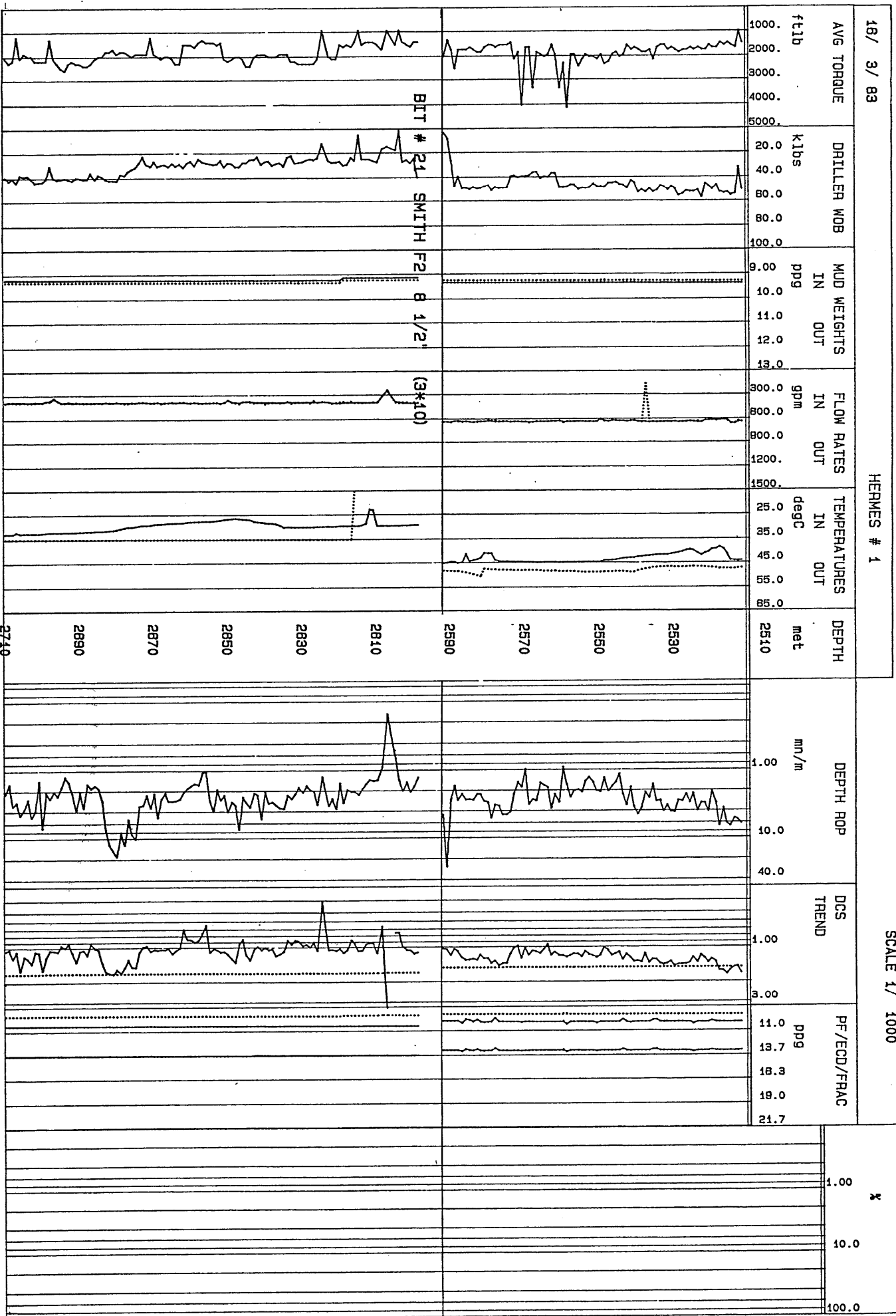


GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

HERMES # 1

SCALE 1/ 1000



BIT # 24 SMITH P2 8 1/2" (3*10)

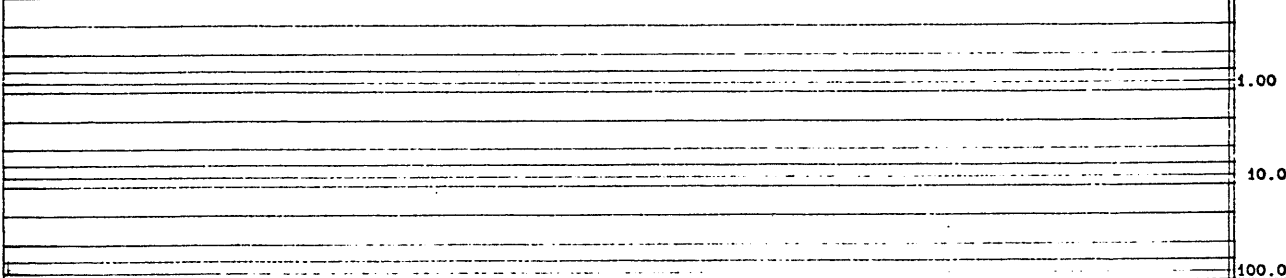
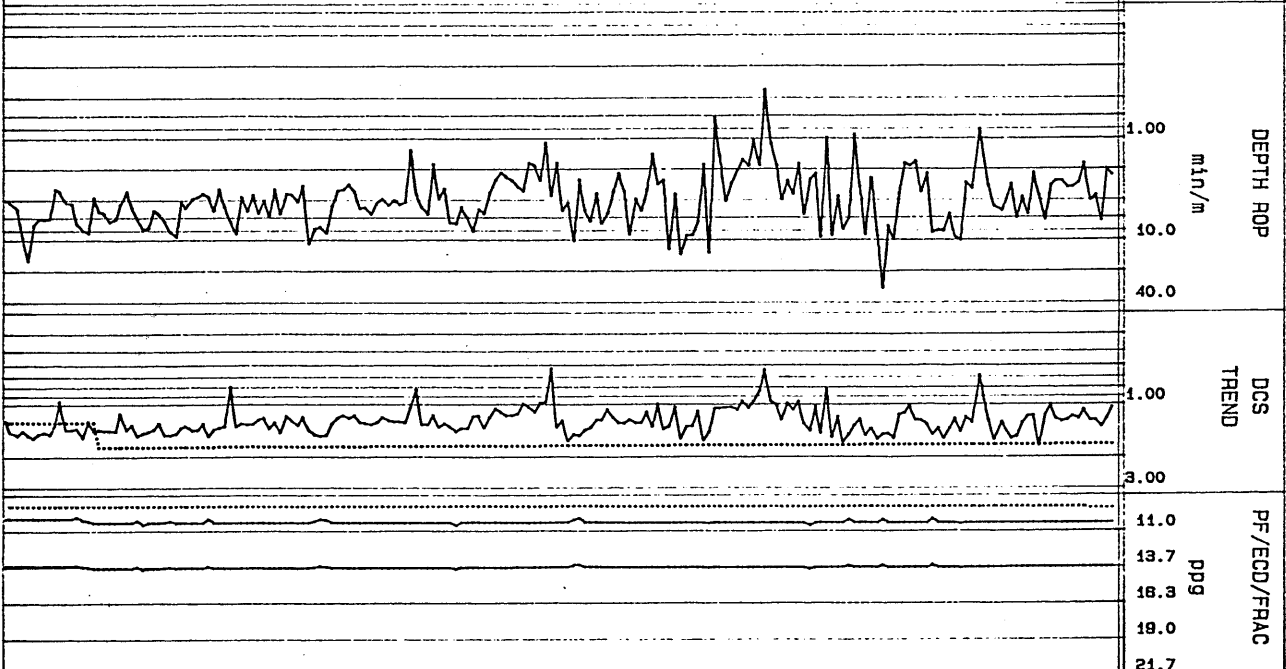
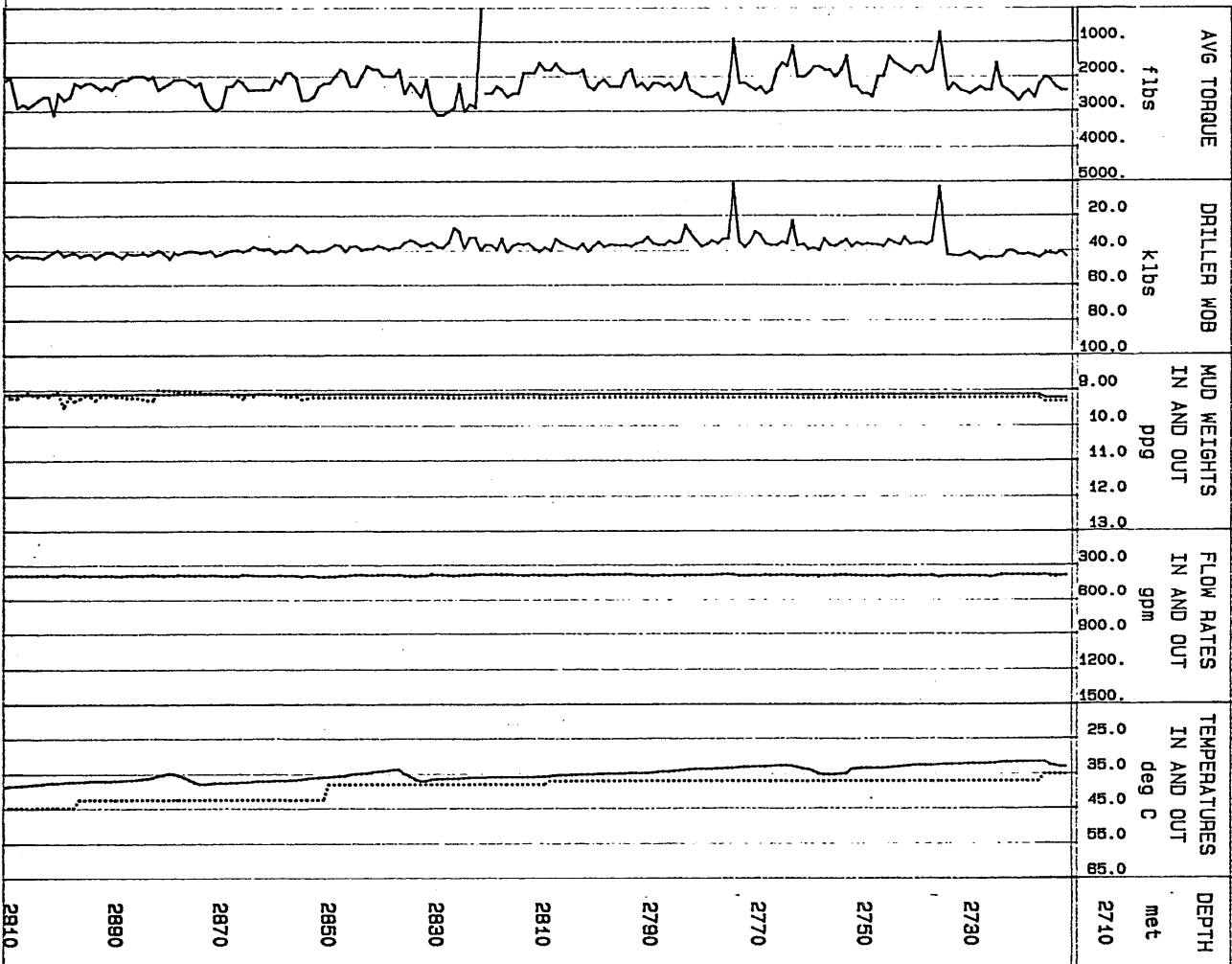
GEOSERVICES
ON-LINE TDC

22/ 2/ 83

HEMES # 1

REAL TIME DEPTH PLOT

SCALE 1/ 1000

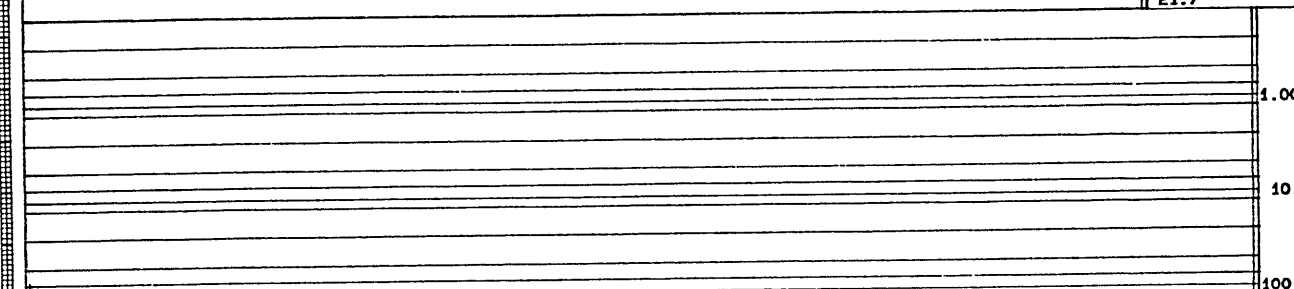
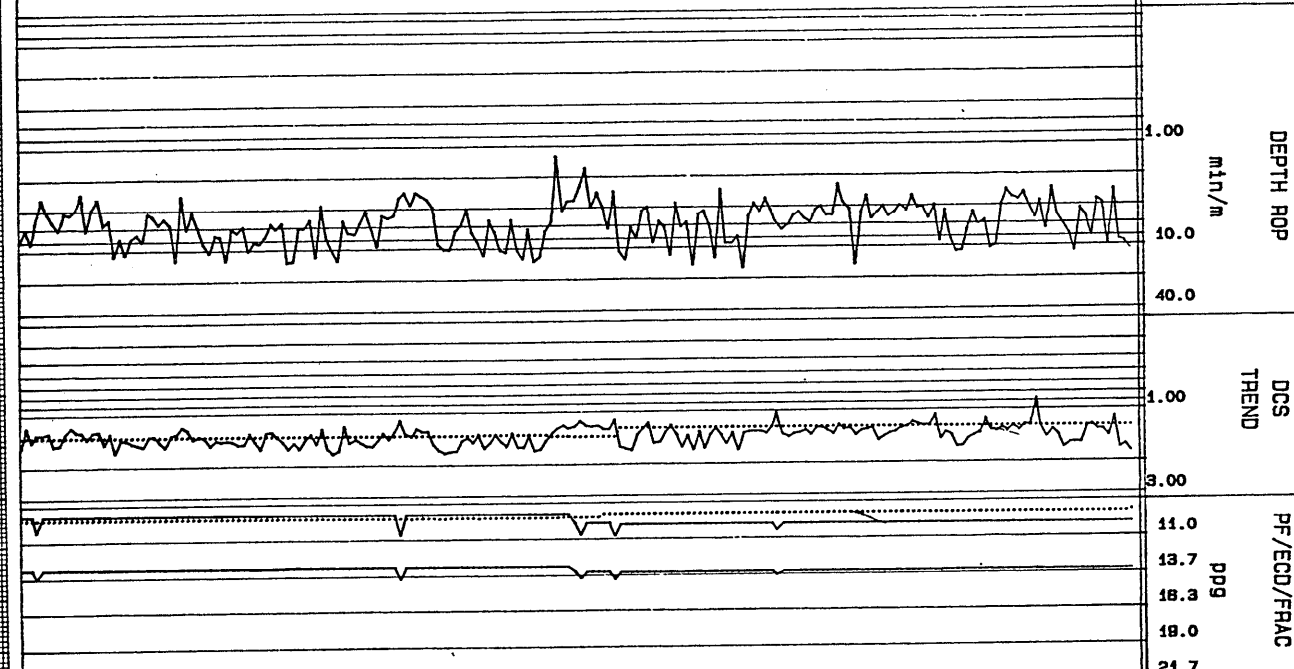
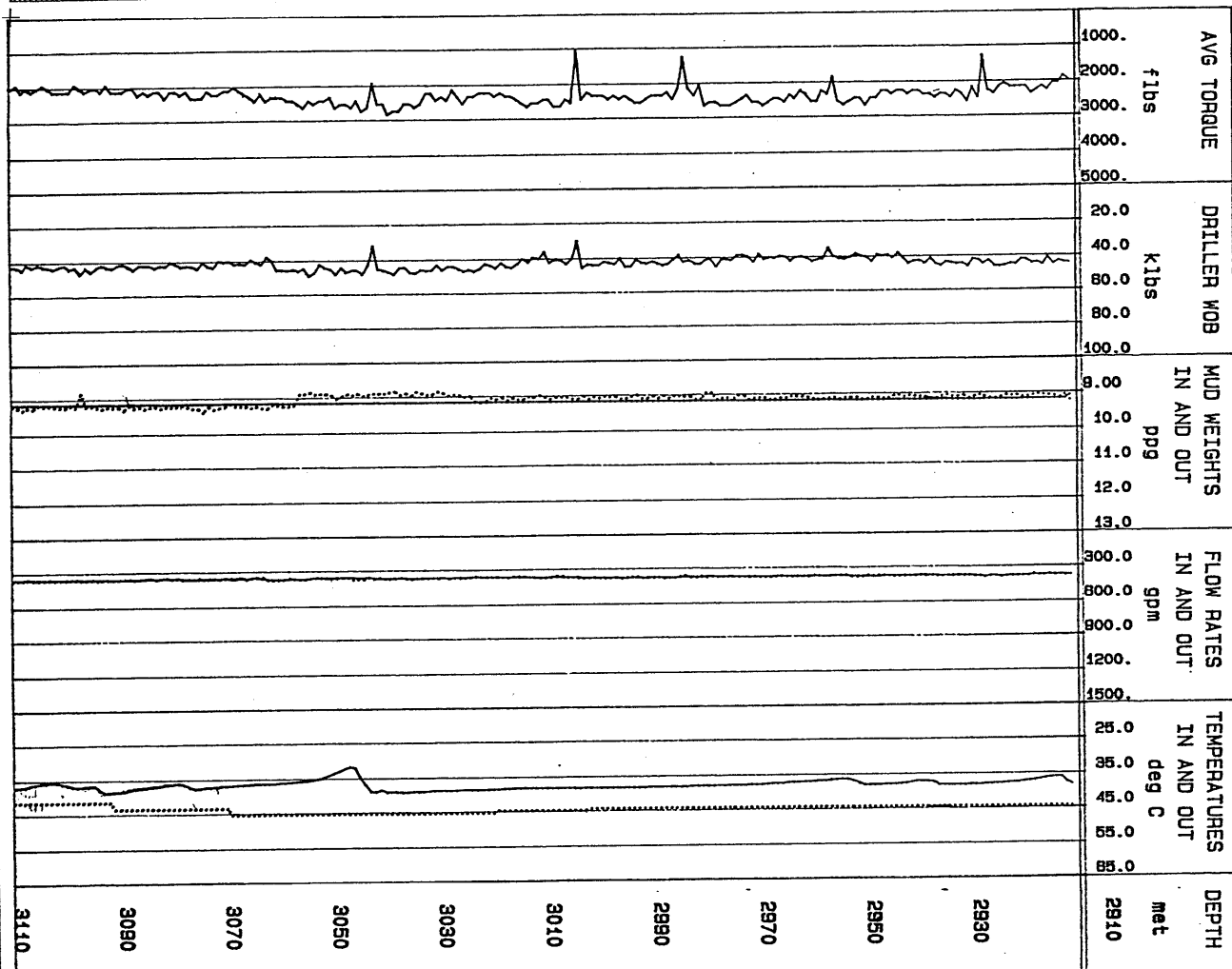


GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

HERMES # 1

SCALE 1/ 1000



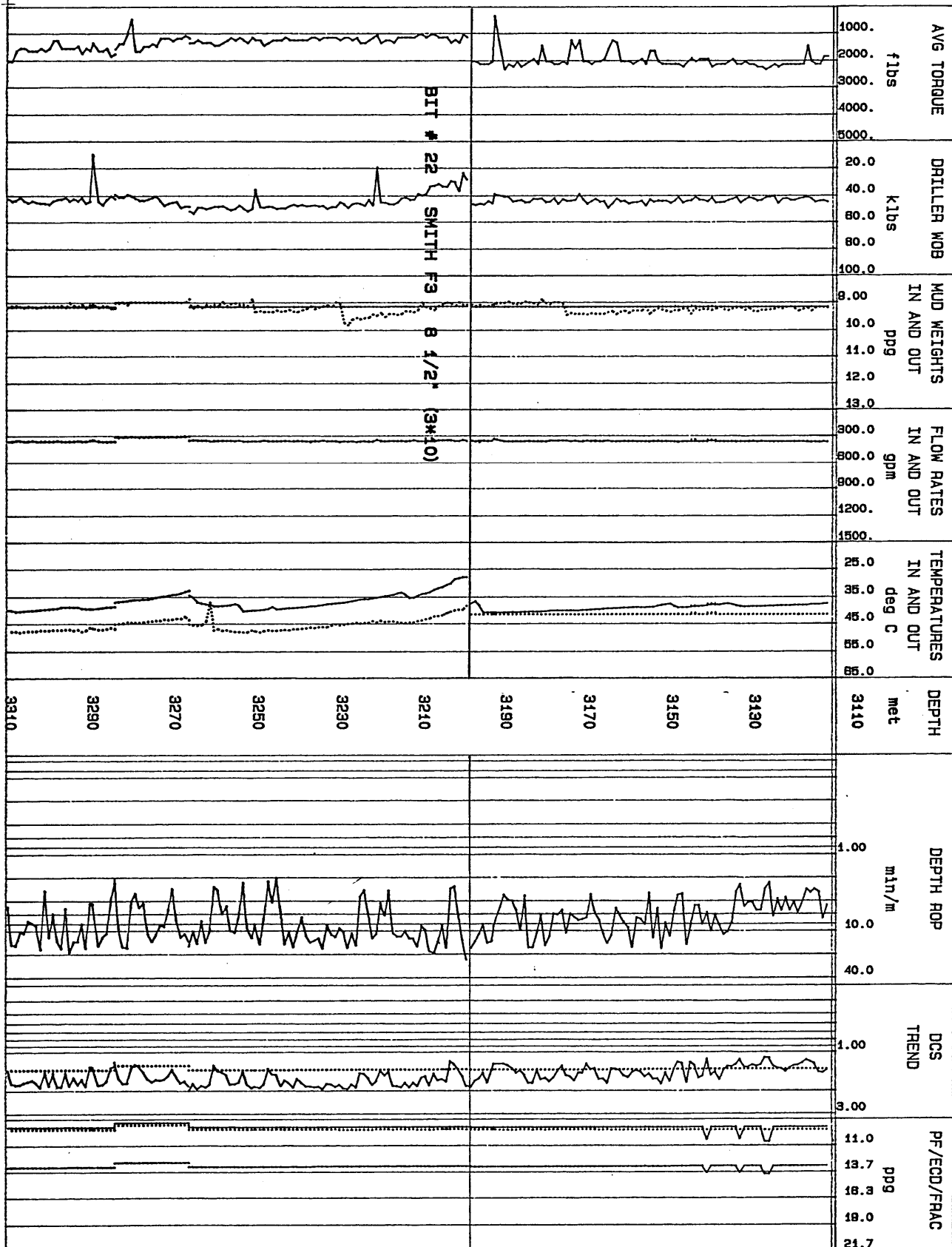
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

24/ 2/ 83

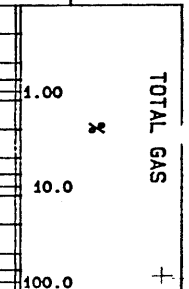
HERMES # 1

SCALE 1/ 1000



BIT # 22 SMITH F3 8 1/2" (3K10)

DEPTH met 3110 3180 3150 3170 3190 3210 3230 3250 3270 3290 3310



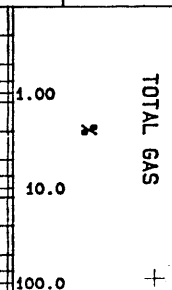
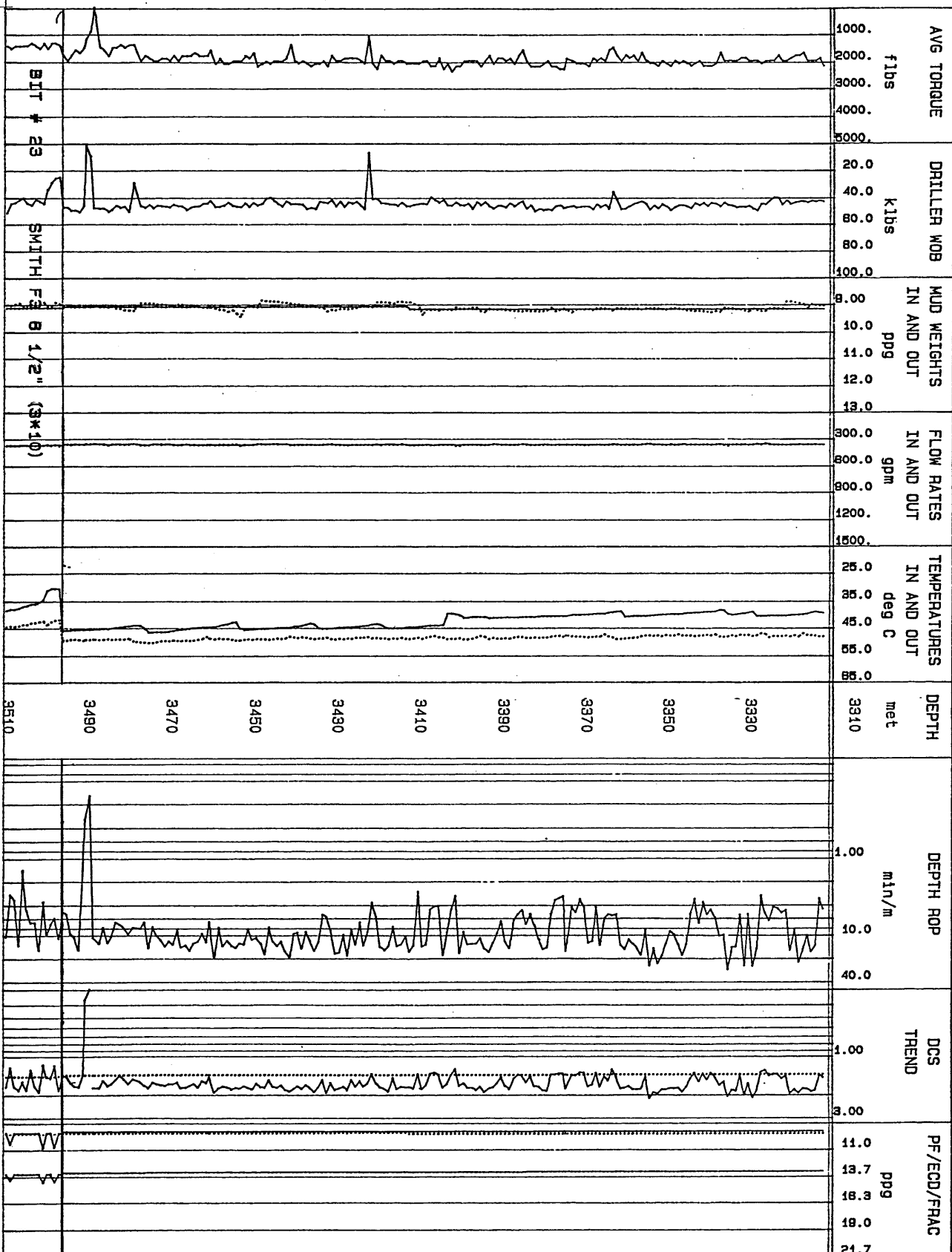
GEOSERVICES
ON-LINE TDCC

REAL TIME DEPTH PLOT

26 / 3 / 83

HERMES # 1

SCALE 1 / 1000



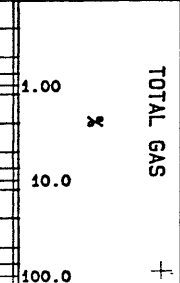
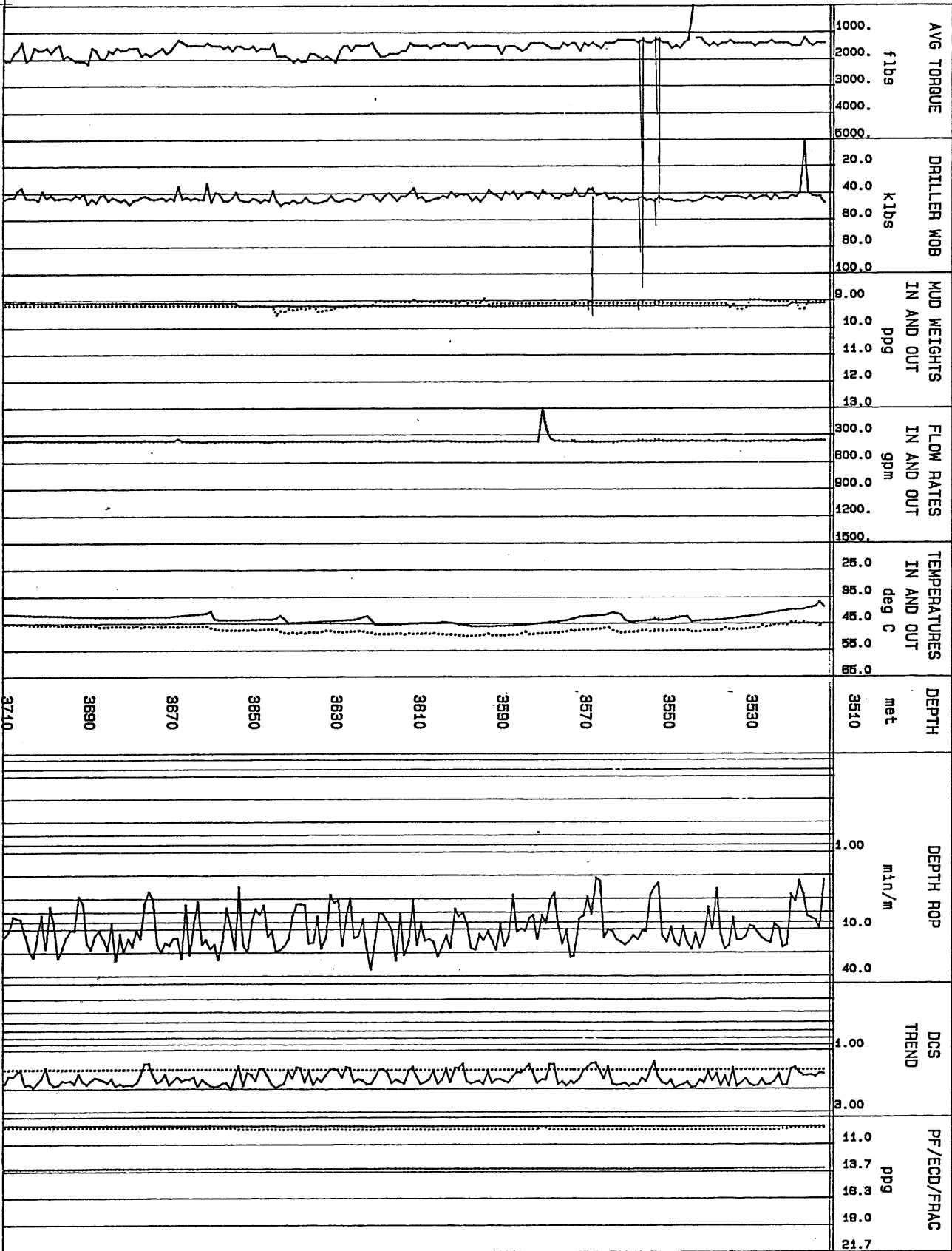
ZERO

GEOSERVICES
ON-LINE TDCC

REAL TIME DEPTH PLOT

HERMES # 1

SCALE 1/ 1000



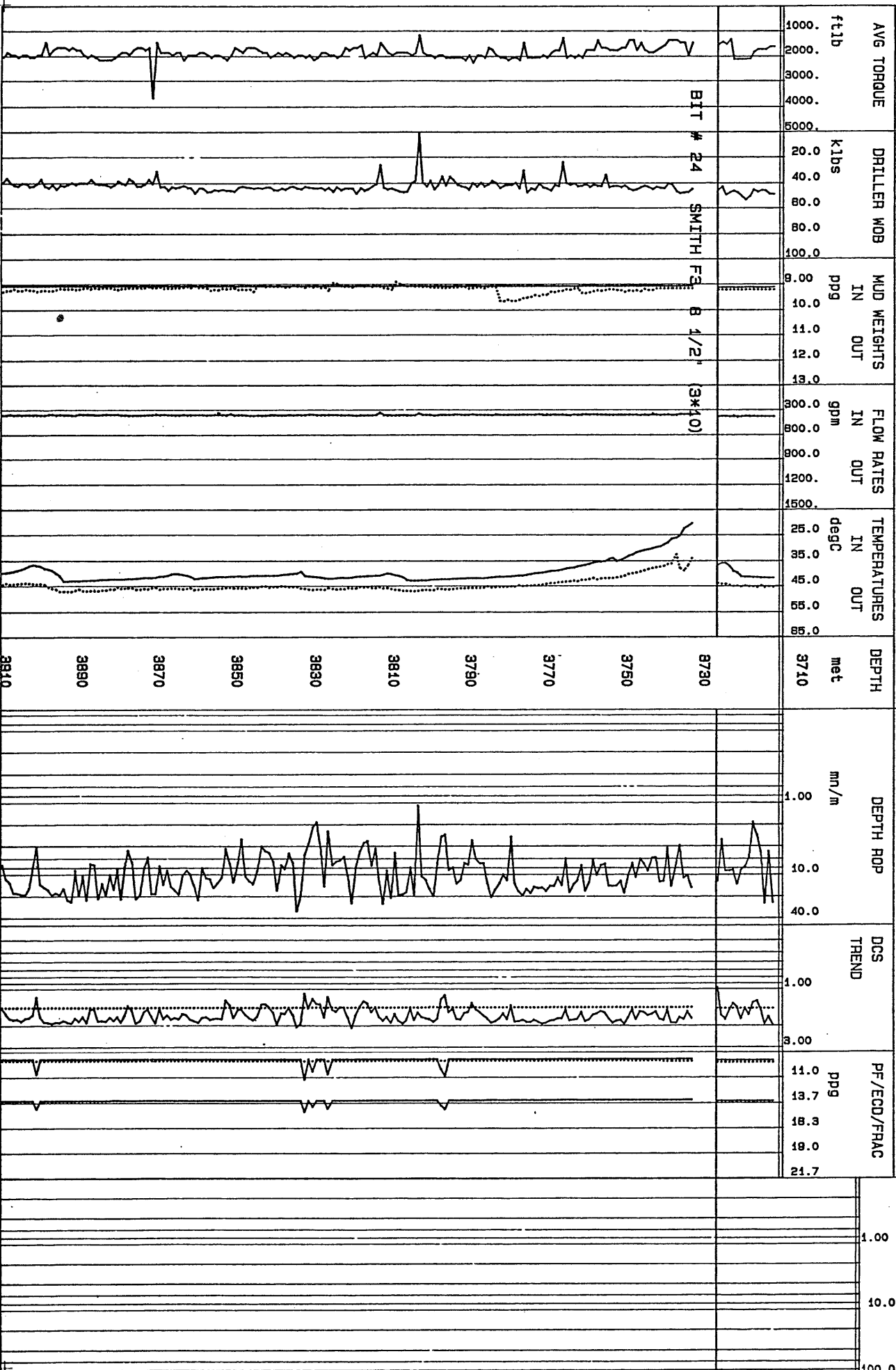
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

30 / 3 / 89

HERMES # 1

SCALE 1 / 1000



BIT # 24 SMITH FB 8 1/2" (3*10)

TOTAL GAS (%)
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0
90.0
100.0

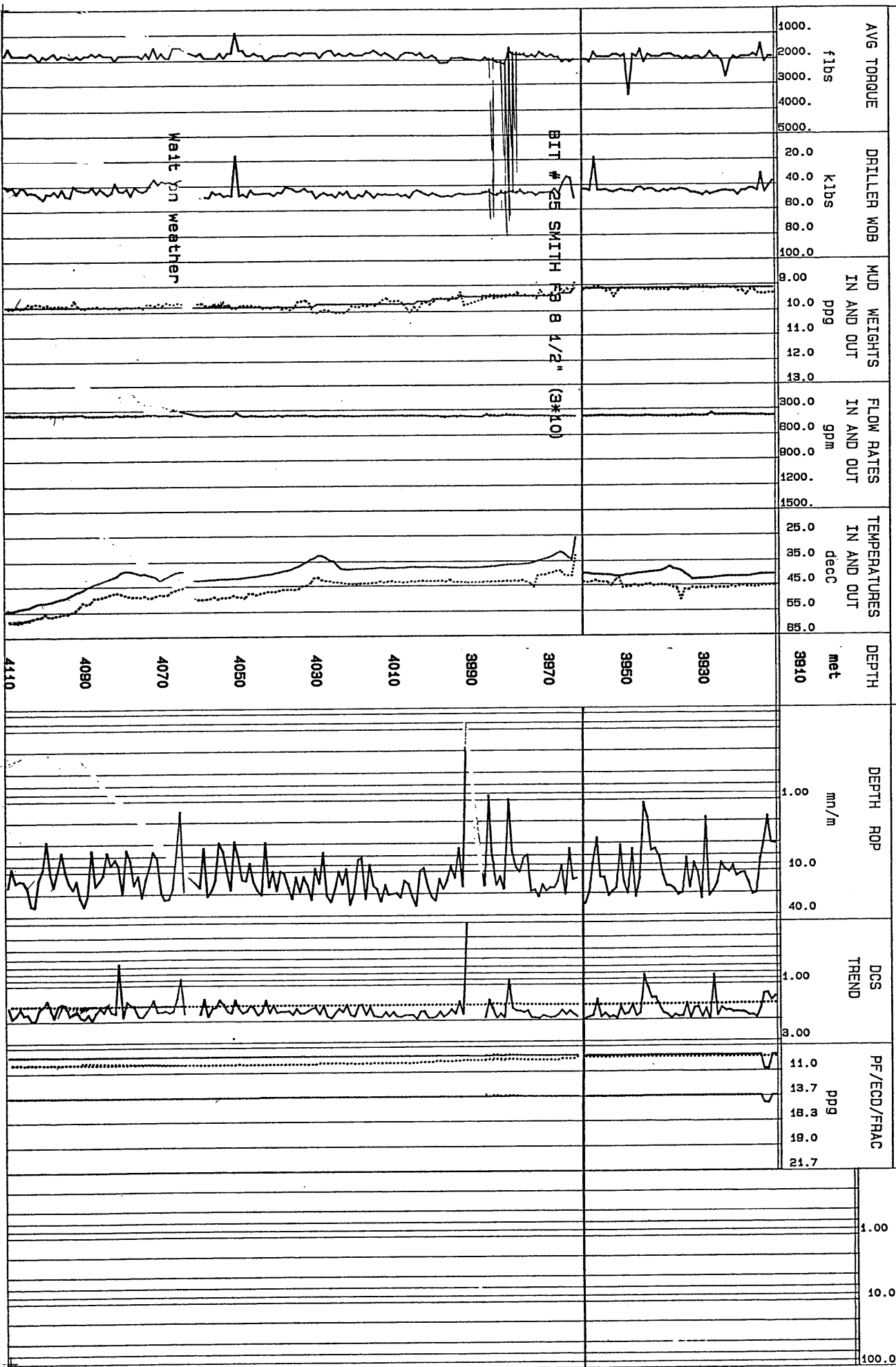
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

2 / 4 / 88

HERMES # 1

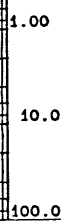
SCALE 1 / 1000



BIT # 25 SMITH P 8 1/2" (3*10)

Wait on weather

TOTAL GAS



ZERO

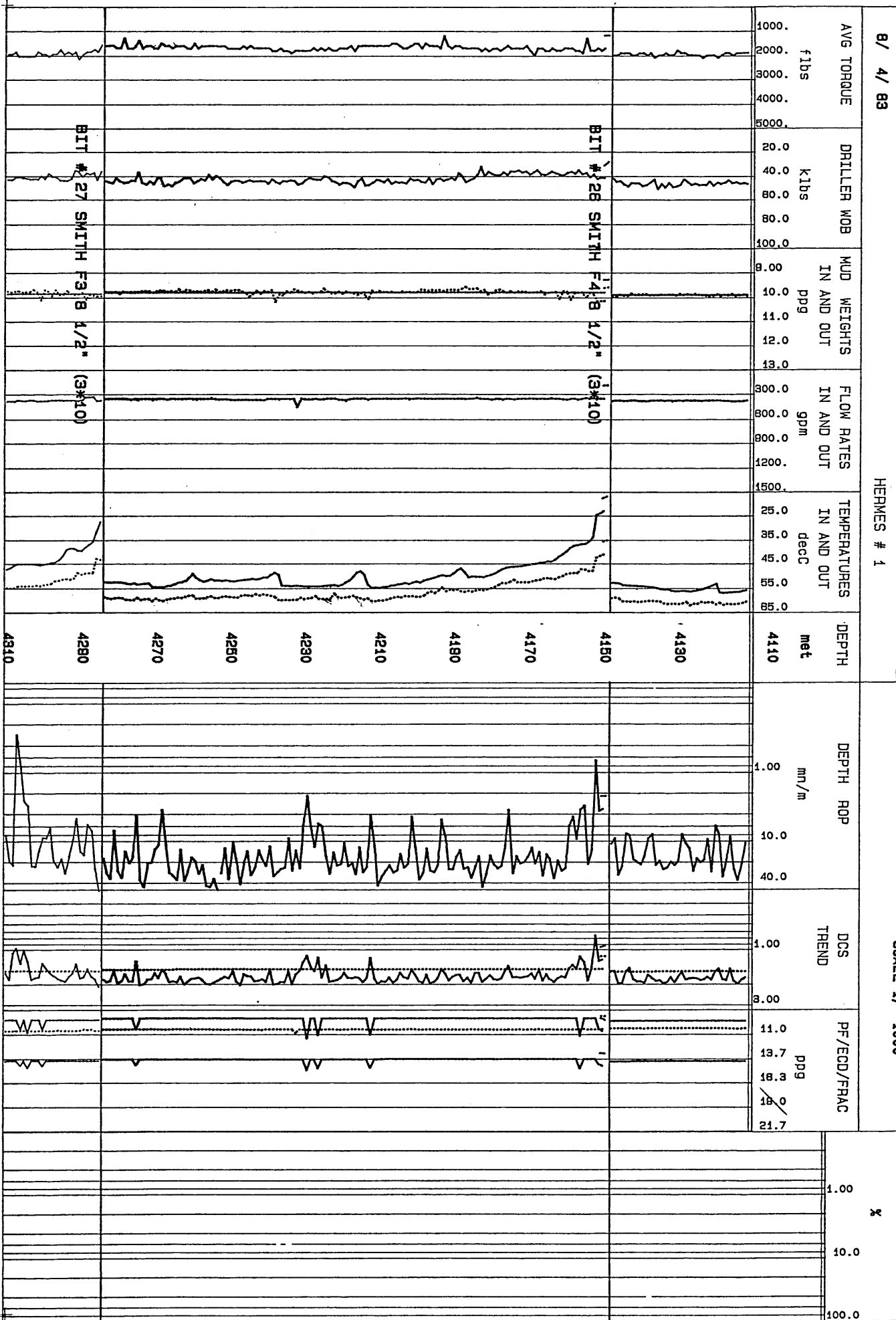
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

8/ 4/ 83

HERMES # 1

SCALE 1/ 1000



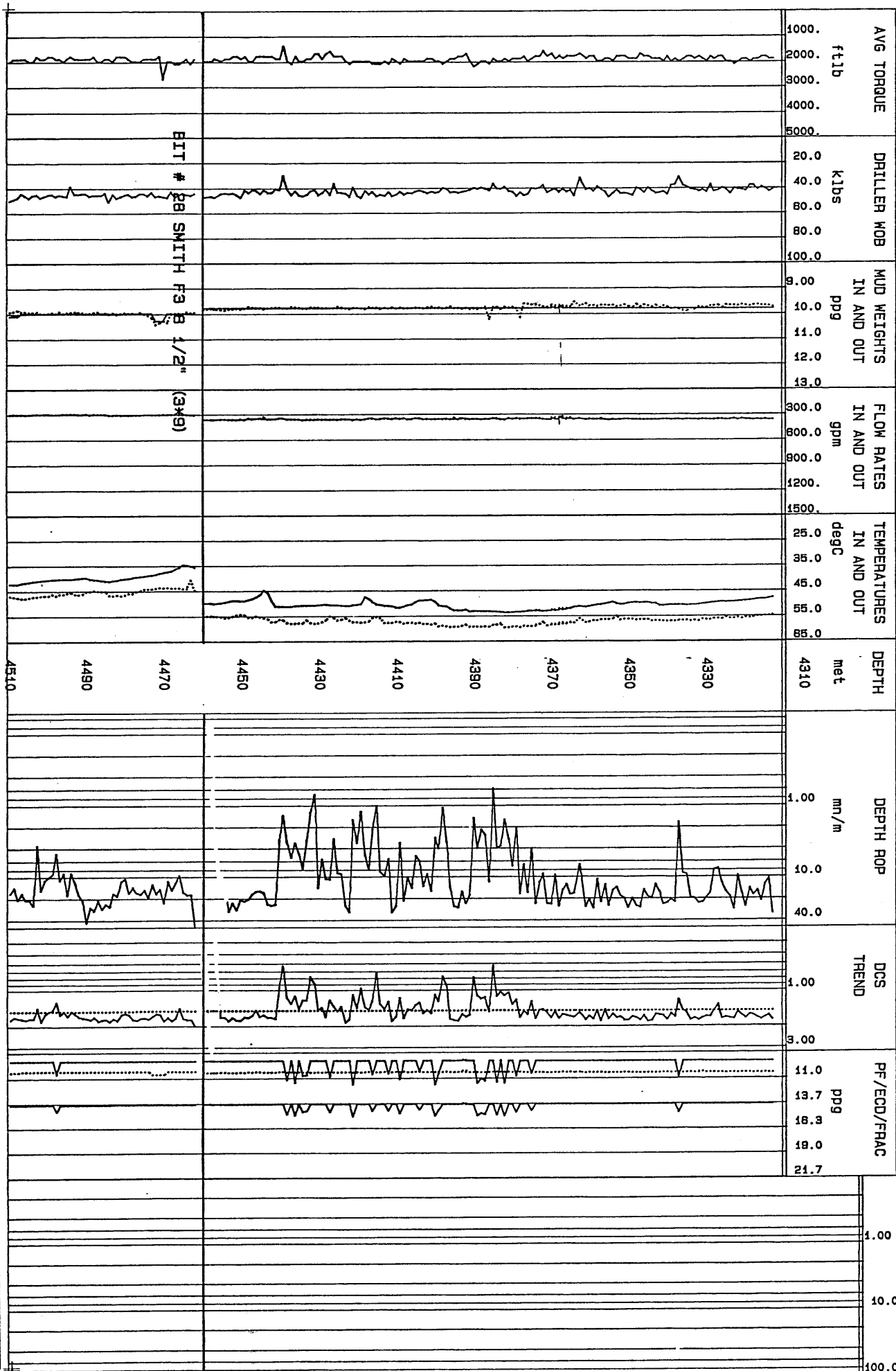
GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

12/ 4/ 83

HERMES # 1

SCALE 1/ 1000



BIT # P8 SMITH F3 B 1/2" (3*9)

4310 4330 4350 4370 4390 4410 4430 4450 4470 4490 4510

TOTAL GAS

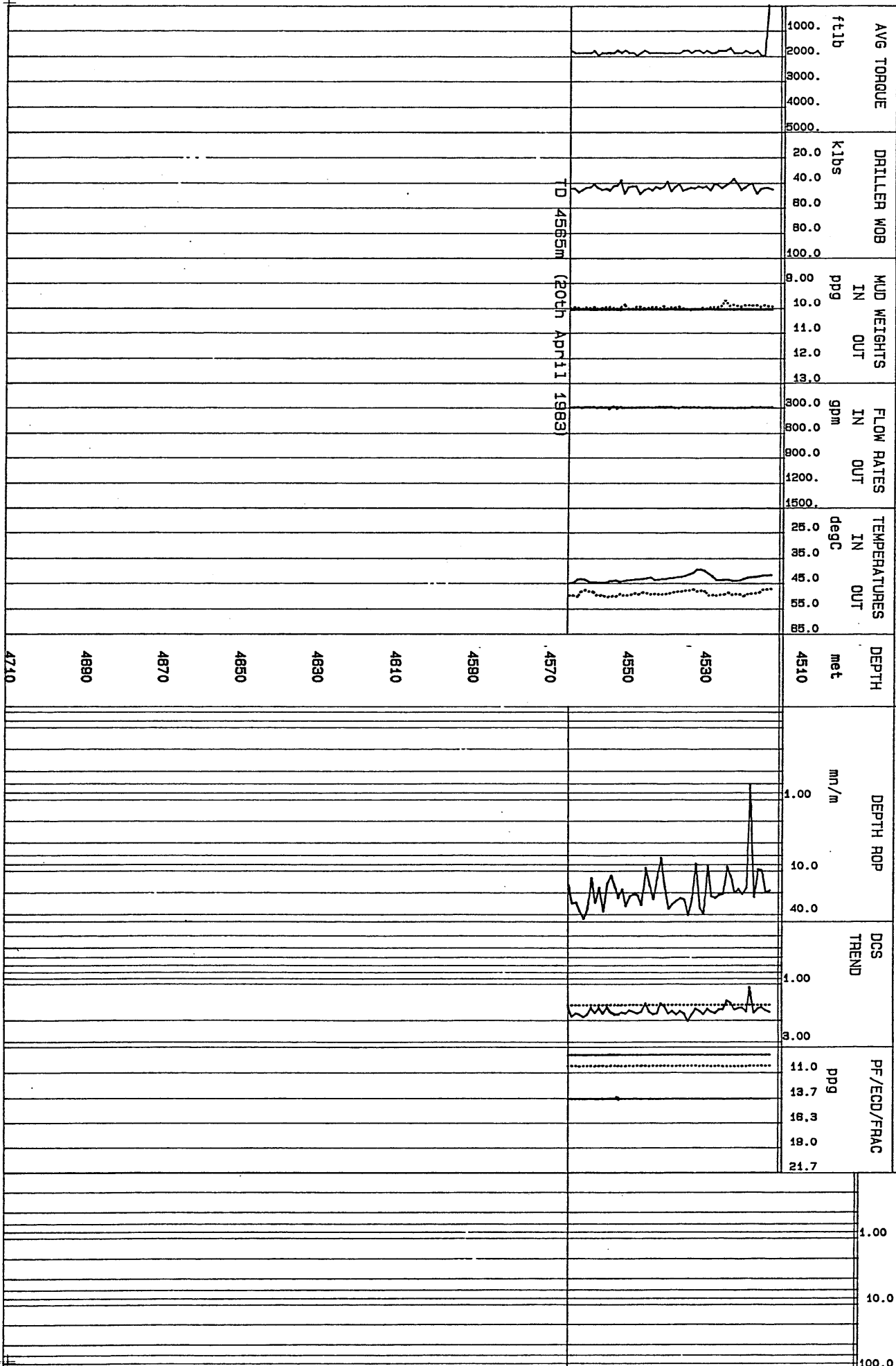
1.00
10.0
100.0

GEOSERVICES
ON-LINE TDC

REAL TIME DEPTH PLOT

HERMES # 1

SCALE 1/ 1000



4510
4530
4550
4570
4590
4610
4630
4650
4670
4690
4710

TD 4565m (200h APR 11 1983)

TOTAL GAS
%

GEOLOGY

- Lithology Plot 1/5000
- Masterlog

PE601721

This is an enclosure indicator page.
The enclosure PE601721 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601721 has the following characteristics:

ITEM_BARCODE = PE601721
CONTAINER_BARCODE = PE903163
NAME = Lithology log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Lithology log Hermes 1 1:5000
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601722

This is an enclosure indicator page.
The enclosure PE601722 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601722 has the following characteristics:

ITEM_BARCODE = PE601722
CONTAINER_BARCODE = PE903163
NAME = Lithology log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Lithology log Hermes 1 1:5000
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601723

This is an enclosure indicator page.
The enclosure PE601723 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601723 has the following characteristics:

ITEM_BARCODE = PE601723
CONTAINER_BARCODE = PE903163
NAME = Lithology log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Lithology log Hermes 1 1:5000
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)

PE601724

This is an enclosure indicator page.
The enclosure PE601724 is enclosed within the
container PE903163 at this location in this
document.

The enclosure PE601724 has the following characteristics:

ITEM_BARCODE = PE601724
CONTAINER_BARCODE = PE903163
NAME = Lithology log Hermes 1 1:5000
BASIN = GIPPSLAND
PERMIT = VIC/P18
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Lithology log Hermes 1 1:5000
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 23/09/83
W_NO = W803
WELL_NAME = Hermes-1
CONTRACTOR = Geoservices Overseas S.A
CLIENT_OP_CO = Phillips Australian Oil Company

(Inserted by DNRE - Vic Govt Mines Dept)