292001

HALLIBURTON SDL

END OF WELL REPORT

FOR

SAGASCO RESOURCES LIMITED

FLINDERS-1

29th NOVEMBER - 16th DECEMBER, 1992

HALLIBURTON SDL
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OR_299

292002

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292003

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SERVICE AND CREW

Halliburton SDL were contracted to provide a mudlogging and data acquisition service for FLINDERS-1. Full service commenced at 92m, Spud, and continued till the bridge plug was set. Five End Of Well Reports were tendered to SAGASCO on completion of drilling. The service was performed with a purpose-built pressurised laboratory located on the rig, connected to an array of external sensors. Full details Section 5. This unit was manned on a continuous basis by a crew of four, two of each being on shift at any time. The crew comprised of:

Data Engineers:	Logging Geologists	Samplers
N. Brown	P. Cartledge	I. Kazem
M. Woodmansee	M. Smith	K. Balfour
A. Oraekwuotu	R. Bates	

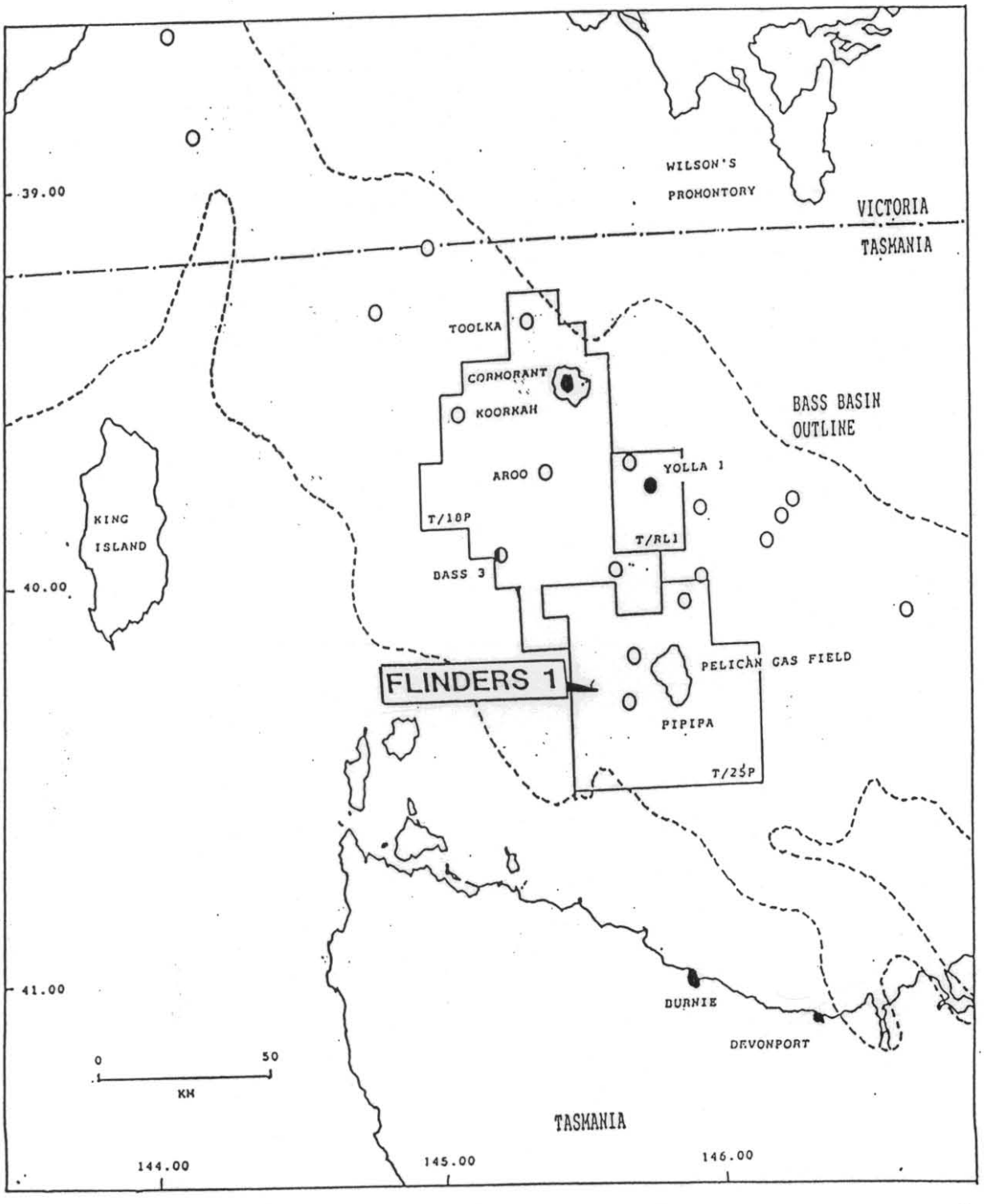
WELL SUMMARY

WELL NAME	FLINDERS-1
TYPE	VERTICAL WILDCAT
SPUD DATE	29TH NOVEMBER, 1992
TOTAL DEPTH	2723M, 16TH DECEMBER 11:15 HRS, 1992
OBJECTIVE	TO TEST THE HYDROCARBON POTENTIAL OF THE EASTERN VIEW COAL MEASURES.
LOCATION	40° 22' 51.83" SOUTH, 145° 40' 18.70" EAST
	LINE TNK4-79, SHOT POINT 900
PERMIT/BASIN	T/25P - BASS BASIN
ELEVATIONS	FOR THIS REPORT ALL DEPTHS ARE FROM THE ROTARY TABLE
ROTARY TABLE TO MSL	22.3M
WATER DEPTH	69.25M
RIG NAME	OCEAN EPOCH
TYPE	SEMISUBMERSIBLE
CONTRACTOR	DIAMOND M. GENERAL CO.
CONTROL WELLS	CORMORANT-1, TOOLKA-1A, AROO-1 AND YOLLA-1.

292006

SAGASCO RESOURCES Ltd

LOCATION MAP - FLINDERS 1



ANTICIPATED STRATIGRAPHICAL SUMMARY

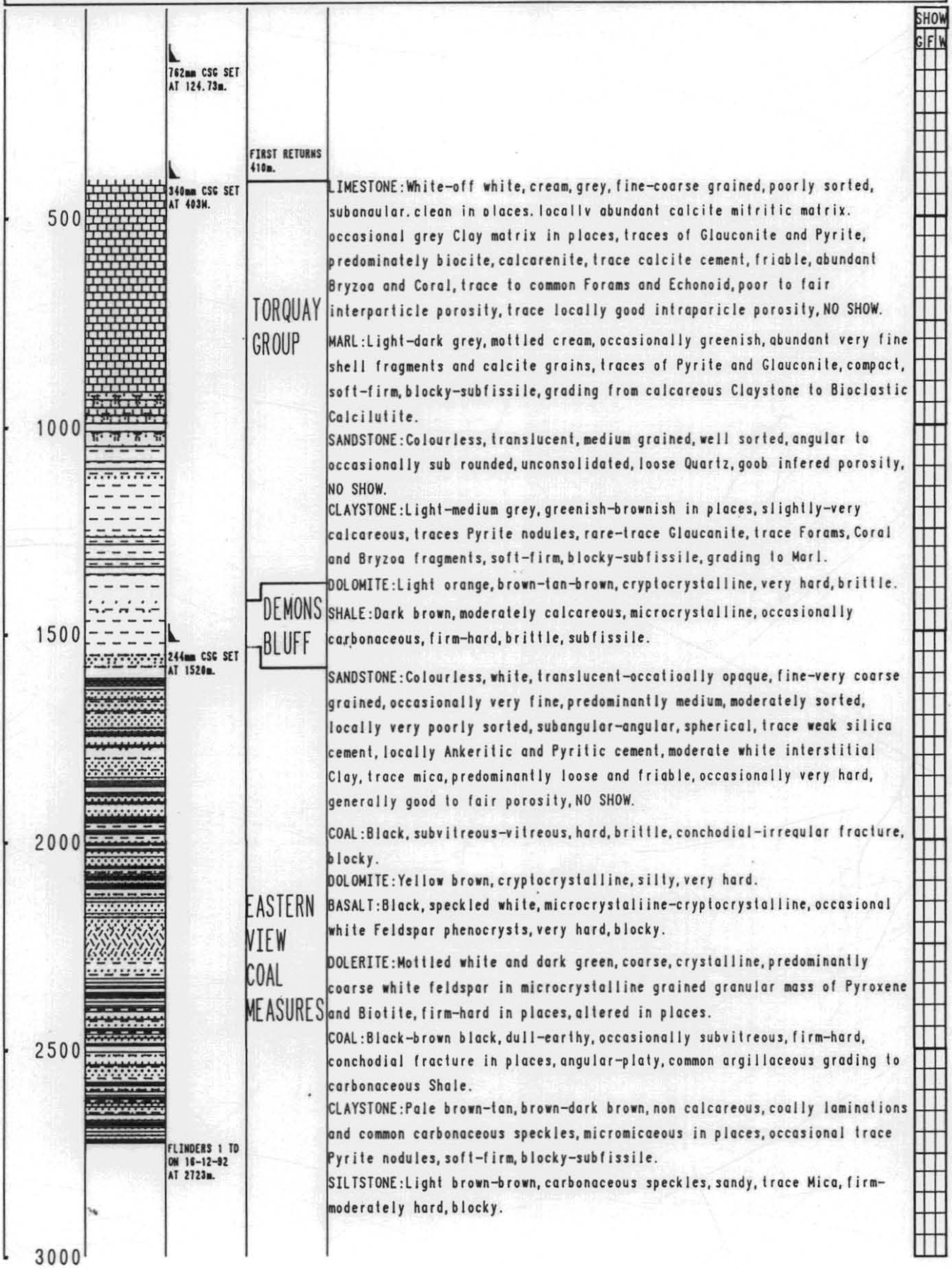
	PROGNOSED	ACTUAL
SUBSEA	92m	92m
Torquay	92m	92m
Demons Bluff Formation	1442m	1432m
Top EVCM	1552m	1544m
Total Depth	**2723m**	**2723m**

292008

HALLIBURTON GEODATA

CONDENSED LITHOLOGY COLUMN

SAGASCO RESOURCES
FLINDERS 1



RIG and DRILLING SUMMARY

Rig Equipped with:
BOP equipment included: A 18 3/4" 10000 psi Cameron BOP Stack and 20" OD marine riser with: Cameron Flex/Ball joint, 18 3/4" 5000 psi 10 degree, Cameron Type "DL" 18 3/4" 5000 psi upper annular preventer, Cameron Type "DL" 18 3/4" 5000 psi lower annular preventer, Cameron Double "U11" rams, upper 5" Pipe ram, Lower Blind/Shear ram, Cameron Double "U11" rams, upper variable 3 1/2" to 7 5/8" ram, lower 5" Pipe ram, Cameron 18 3/4" 10000 psi hydraulic collet connector, 3" 10000 psi Choke and Kill lines.

914mm (36") HOLE SECTION
Depth from 91.55m to 127.6m, Mtg = 36.
762mm (30") casing set at 124.73m and cemented to surface.

BR1 RR1 SMITH DSJ JETS (3x24), 660mm (26") with 914mm (36") hole opener was used to spud **FLINDERS-1**. RR1 tagged the sea bed at 91.55m RKB and rotary drilled from 91.55m to 127.6m. The hole was then flushed with 15.89 cu m (100 bbl) hi-vis mud sweep. A wiper trip was run, no fill was observed on bottom. 47.67 cu m (300 bbl) of hi vis mud was then spotted on bottom prior to surveying (3/4 deg) and POH.

762mm (30") casing was cemented with 695 sacks class "G" W/2% cacl slurry wieght at 1.89sg (15.8 ppg), displaced with 1.32 cu m (11 bbl) of sea water.

445mm (17½") HOLE SECTION
Depth from 127.6m to 408m, Mtg=280.4.
340mm (13-3/8") casing set at 403m and cemented to surface.

BR2 RR2 SMITH DSJ 17½" JETS (3x18) tagged cement at 122m. RR2 then drilled cement and the shoe from 122 to 124.5m, then cleaned to bottom at 127.6m, before drilling new formation to 408m. At 408m 15.89 cu m (100 bbl) a hi-vis sweep was circulated prior to a wiper trip being conducted to the 30" shoe, on RIH no fill was encountered. 127 cu m (800 bbl) of hi-vis mud was spotted on bottom prior to surveying (1/2 deg) and POOH.

The casing program included 340mm (13-3/8") casing run to a depth of 403m. To cement the 340mm casing a lead slurry of class "G" 9.72 gal water/sack, 2.2% BWOC prehydrated gel, weight 1.6 sg (13.2 ppg), yield 1.79 cu ft per sack, excess 100% over calculated volume was pumped. Followed by a tail slurry of class "G", mixwater 5.0 gal seawater/sack, additives none, slurry weight 1.9 sg (15.8 ppg), yield 1.15 cu ft per sack, excess 100% over calculated volume. The cement was displaced with 22.5 cu m (142 bbl) of sea water, the plug was bumped to 10335 kpa and held for 5 minuites, no back flow was observed.

311mm (12¼") HOLE SECTION
Depth from 408m to 1525.0m, Mtg = 1117.
244mm (9-5/8"- ID 8.681"- 47lbs/ft) casing set at 1520m.
LOT @ 410m 1.7 sg EMW (14.2 ppg).

BR3 NB1 SMITH FDS (JETS 3x14) on RIH tagged the cement at 377m, the shoe was drilled at 403m and the hole cleaned to bottom (408m) prior to 2m of new formation being drilled. At 410m the hole was displaced with 1.04 sg (8.7 ppg) S/W ben poly mud and conditioned. A Leak Off Test was performed to an EMW of 1.7sg. NB1 then drilled ahead to 1041m at which depth the hole was surveyed (3/4 deg), bottoms up circulated and a wiper trip conducted to the shoe. 22 tonnes drag was measured while pulling the first 5 stands, there after only 9 tonnes overpull occured. On RIH 2m of fill was measured. NB1 then drilled ahead to 1525m (311mm TD). 8 cu m (50 bbl) hi-vis sweeps were pumped every 100m. At 1525m the hole was circulated clean prior to a wiper trip being conducted to the shoe. 27 tonnes over pull occured in spots while pulling the first 10 stands. There after only 4.5 tonnes overpull was observed. On RIH tight spots at 1131, 1260, 1275, 1290, 1319m were worked, maximum drag observed was 32 tonnes, 2m of fill was encountered on bottom. The hole was then circulated clean, surveyed (1.25 deg) and 8 cu m (50 bbl) hi-vis mud spotted on bottom prior to POH.

Wireline operations were performed over this section:
DLL-MSFL-LSS-GR-SP-DTD (from 1240-403m), unable to pass 1240m.

Prior to running casing, a wiper trip was completed and the hole circulated clean, hi-drag occured at 1245m, 2.5m of fill was present on bottom.. The 244mm (9 5/8") casing was run to 1520m, circulated clean and then cemented as follows. Lead slurry, class "G", mixwater 9.72 gal/sack, 2.2% BWOC prehydrated gel, slurry weight 1.6 sg (13.2ppg), yield 1.79 cu ft per sack, excess 10% over calculated volume. Tail slurry, class "G", mixwater 5.0 gal seawater/sack, 1.0 gal/10bbl mixwater SCR-100L retarder, slurry weight 1.9 sg (15.8 ppg), yield 1.15 cu ft per sack, excess 10% over caliper volume. The plug was bumped to 13780 kpa, and held for 5 minutes, and released. No back flow was observed. The seal assembly was tested to 34450 kpa. The BOPs, lines, valves, rams, and choke manifold were also tested after cementing.

216mm (8½") HOLE SECTION
Depth from 1525 to 2723m, Mtg = 1198.
FIT @ 1527m, 1.72sg EMW (14.3ppg).

BR4 NB2 SMITH FDGH 216mm (JETS 2x11, 1x10) drilled out cement, float-collar and casing shoe at 1520m. The hole was then washed to bottom (1525m), and drilled to 1527m where the hole started packing off. It was worked at this depth and 3.18 cu m (20 bbls) hi-vis pill pumped prior to displacing hole to PHPA mud. FIT was also performed at this depth to 14.3 ppg EMW (1.72sg). NB2 then drilled from 1527m to 1634m, reaming each connection. A wiper trip to shoe was done, and the hole drilled ahead, reaming each connection. At 1775m, a survey was dropped, and the drill string pulled for bit change. Maximum drag during trip (15.88 tonnes at 1653m).

BR5 NB3 SMITH F2 216mm (JETS 2x11, 1x10) was RIH to 1764m and washed to bottom at 1775m, no fill. NB3 drilled from 1775m to 2031m, at which depth a wiper trip to shoe was done. The hole was washed and reamed from 2017m to 2031m, and drilled ahead, reaming each connection. At 2317m, a wiper trip to 2025m was done. (Overpull during wiper trip = 27.22 tonnes at 2136-2132m and 2111-2106m). Washed and reamed from 2309m to bottom at 2317m, and drilled ahead to 2382m, reaming each connection. The hole was circulated clean, and a survey dropped prior to POH. (Overpull during tripping out of hole : 22.68 tonnes at 2320-2291m). Survey 1.75 deg.

BR6 NB4 SMITH F2 216mm (JETS 2x11, 1x10) on running into the hole reamed from 1592-2382m prior to drilling new hole. (18.14 tonnes maximum overpull at 1885m, 2172m, 2322m). Connections were reamed and a sample was circulated to surface from the 2420m drill break, water wet. Drilled ahead to 2482m, and pulled 7 stand wiper trip, (36.29 tonnes overpull while tripping out of hole at 2424m). Drilled ahead, reaming connections, (some high torque observed), pulled 7 stand wiper trip at 2609m. 36.29 tonnes overpull at 2553m, 2496m, and 2467m. Drilled ahead from 2609m, tight at 2636m, pulled 5 stand wiper trip at 2666m, and lay down washed single. Drilled ahead to 2723m TD a flow check at 2706m showed negative. A wiper trip was then conducted to the shoe, the hole appeared in good shape no fill was measured on bottom. The mud was then circulated and conditioned for logging, a survey dropped and the drill string strapped out of the hole.

Halliburton Logging Services ran the following logs at TD:

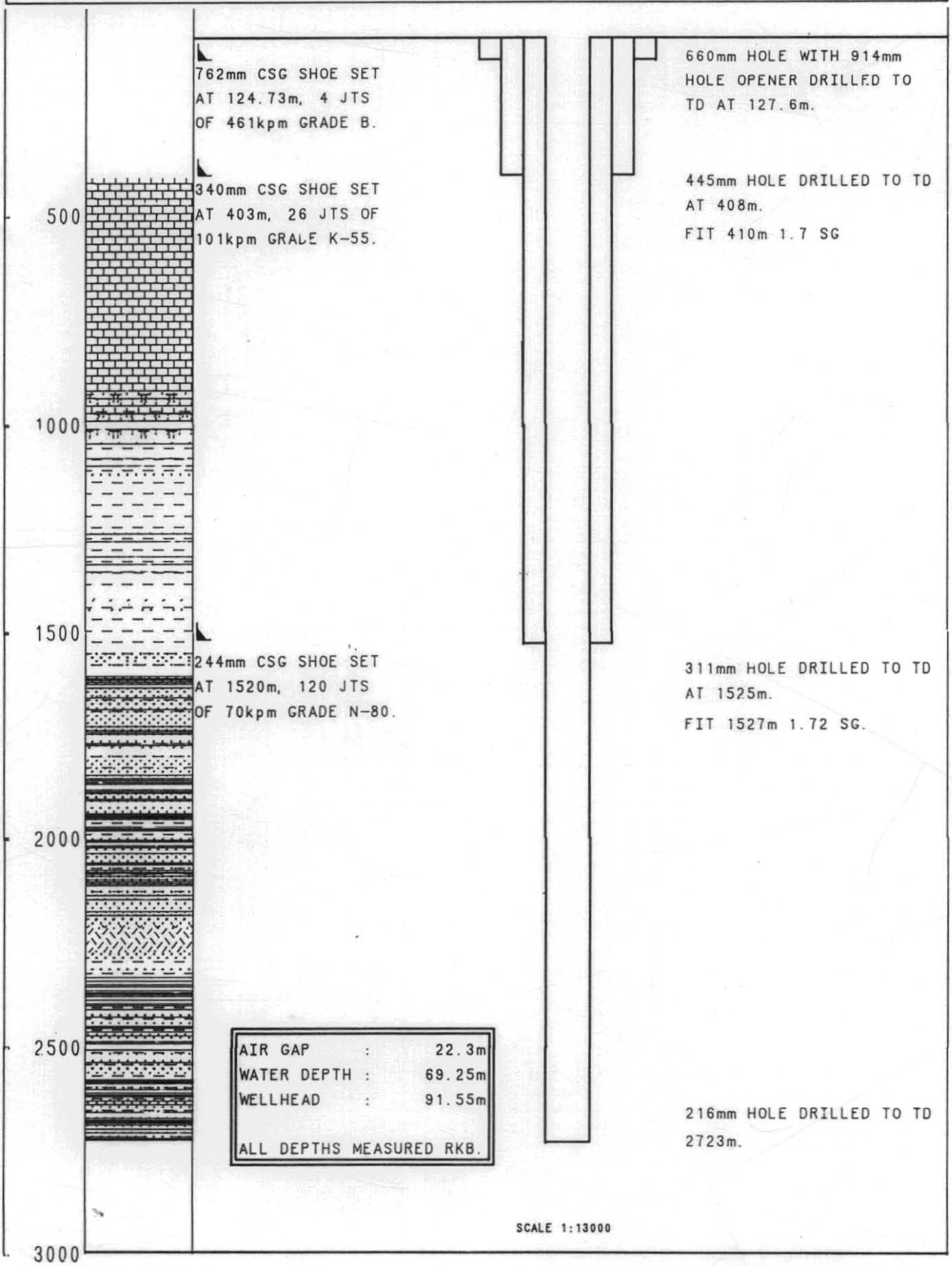
Run #1. HRI-MSFL-LSS-GR-SR-DTD
Run #2. SDL-DSN-CSNG
Run #3. SED-GR

Flinders-1 was plugged back and abandoned on 19nd December, 1992.

292012

HALLIBURTON GEODATA

WELL PROFILE — SAGASCO RESOURCES Ltd, FLINDERS 1



AIR GAP	:	22.3m
WATER DEPTH	:	69.25m
WELLHEAD	:	91.55m

ALL DEPTHS MEASURED RKB.

SCALE 1:13000

5 cm

DRILLING PARAMETER PLOTS

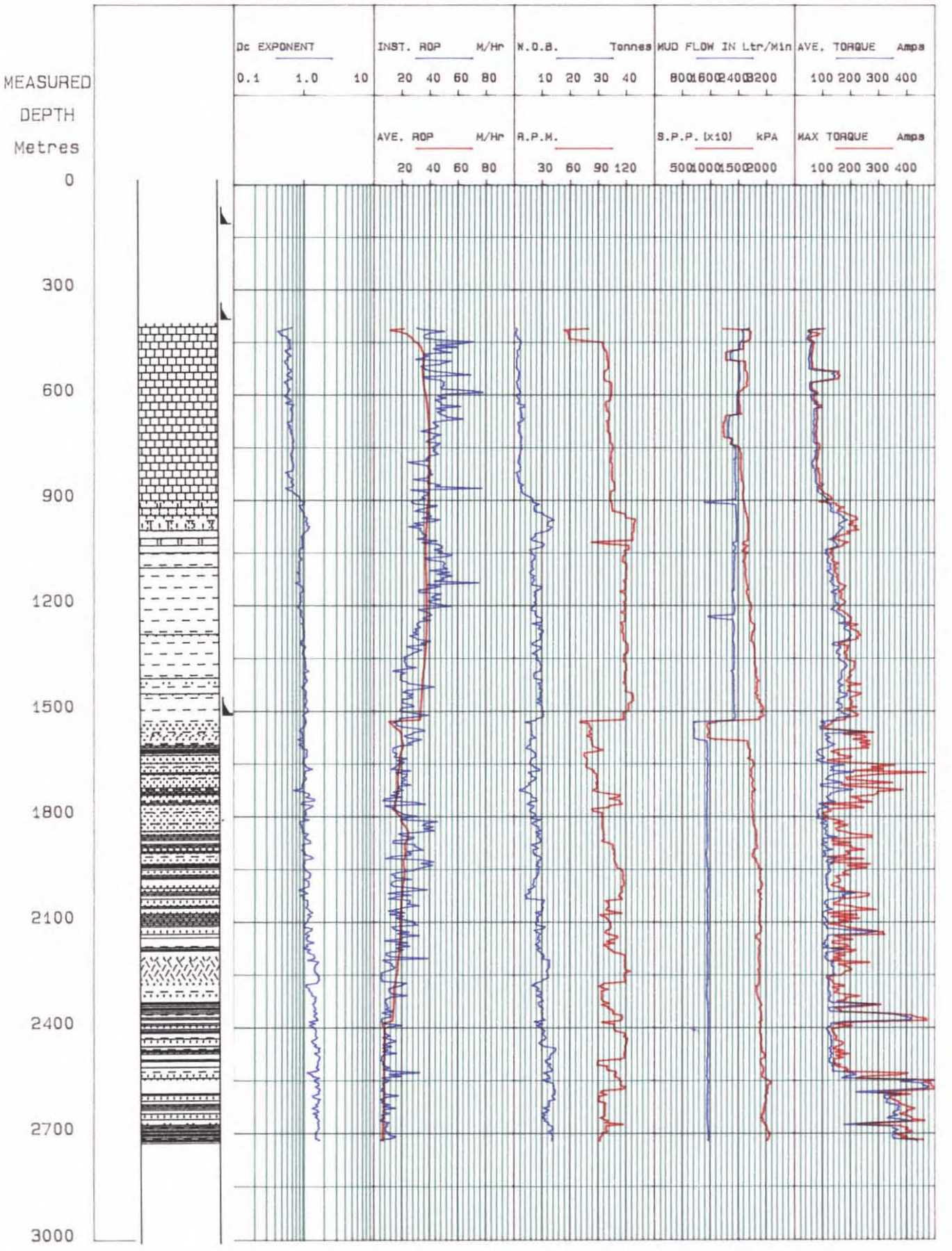
The plots included in this report generally use a 5 metre data average. These plots along with others in this report provide a comparison for most of the major parameters recorded during the drilling of this well. They are provided on a scale small enough to allow representation of several parameters on each plot. The plots are intended as a tool for picking trends. Values for any drilling parameter are best looked up in the data print-outs.

292014

DRILLING PARAMETERS PLOT

HALLIBURTON GEODATA

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES



5 cm

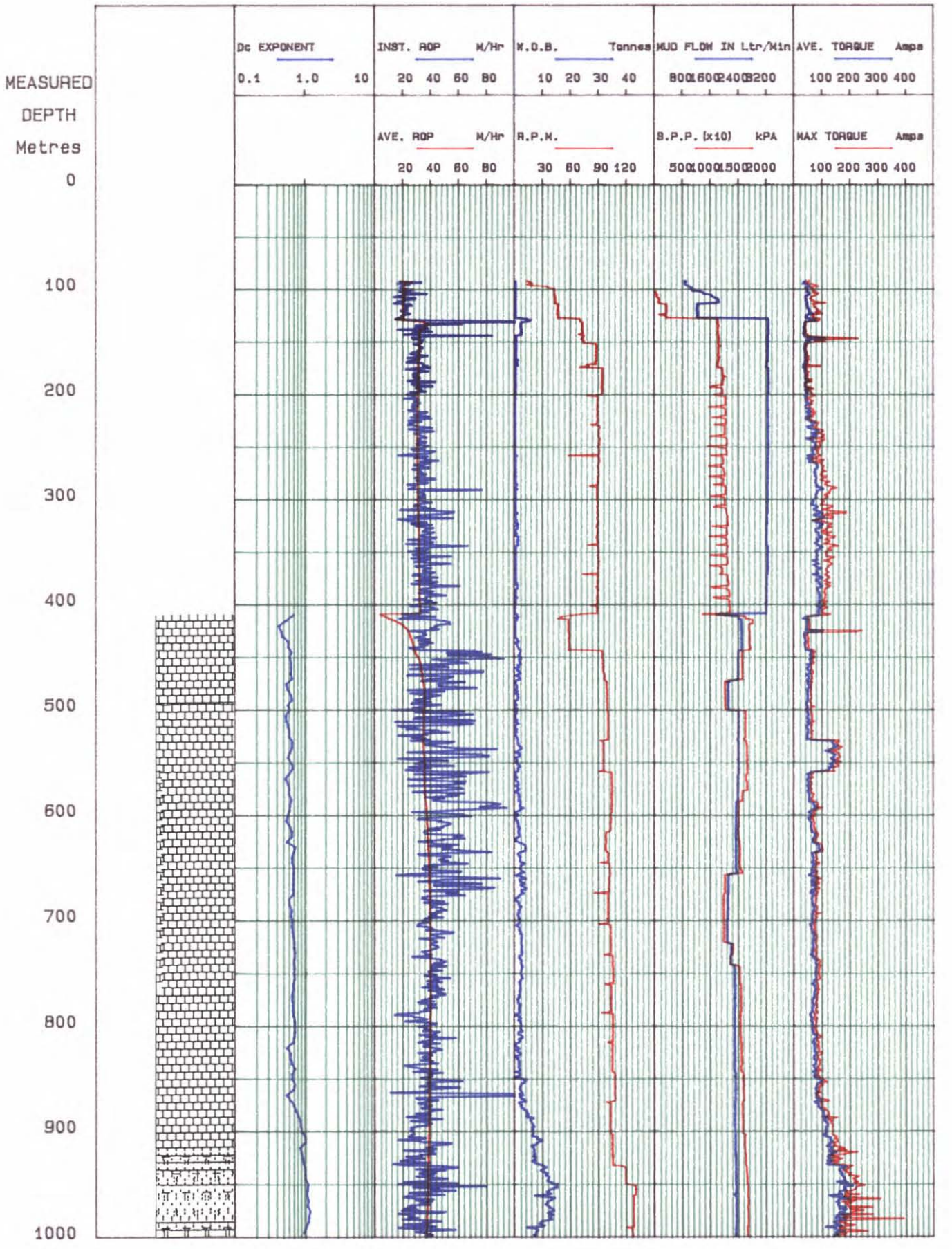
DEPTH SCALE = 1 : 15000

292015

DRILLING DATA PLOT

HALLIBURTON GEODATA

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES



5 cm

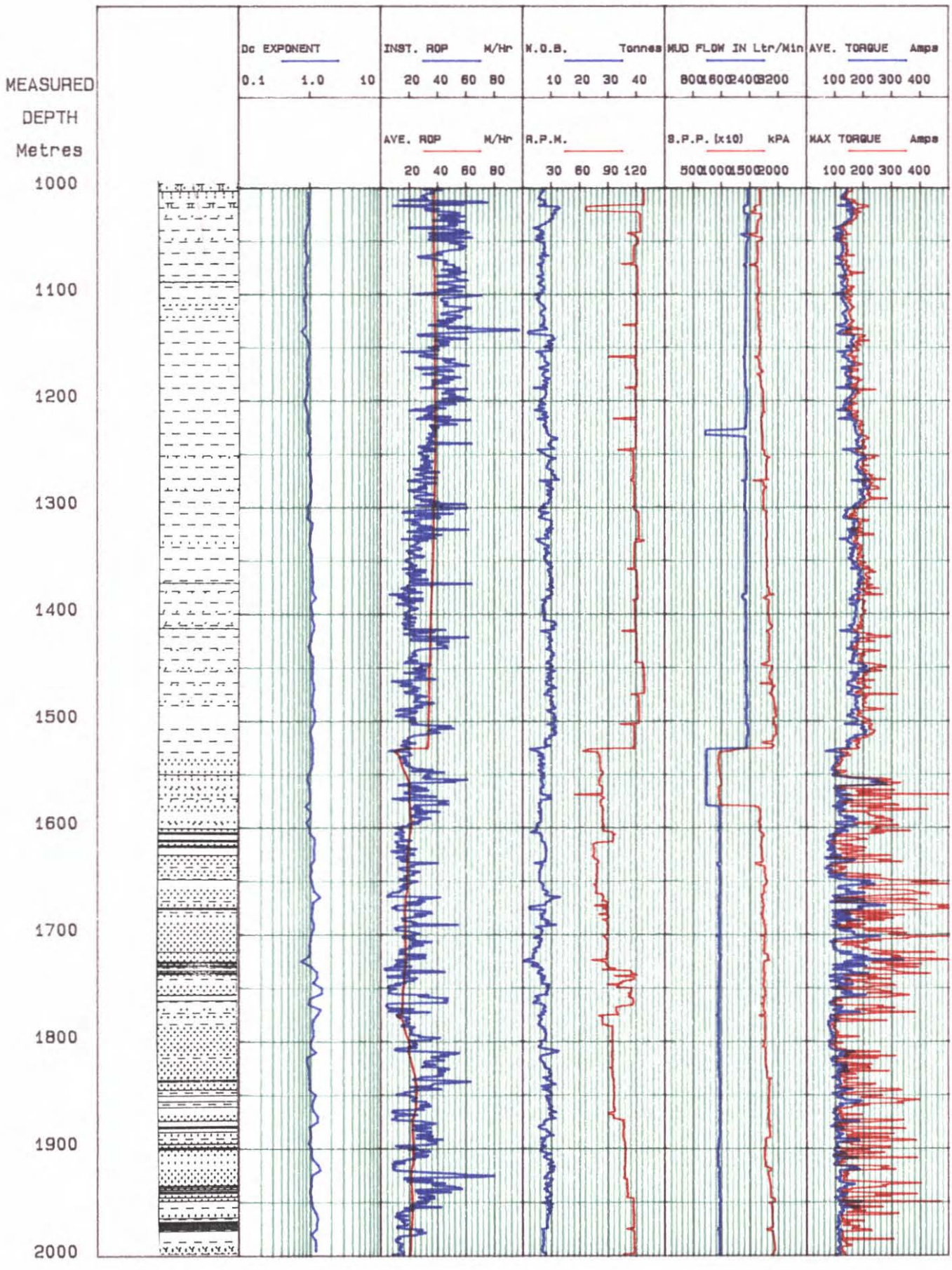
DEPTH SCALE = 1 : 5000

292016

HALLIBURTON GEODATA

DRILLING DATA PLOT

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES



DEPTH SCALE = 1 : 5000

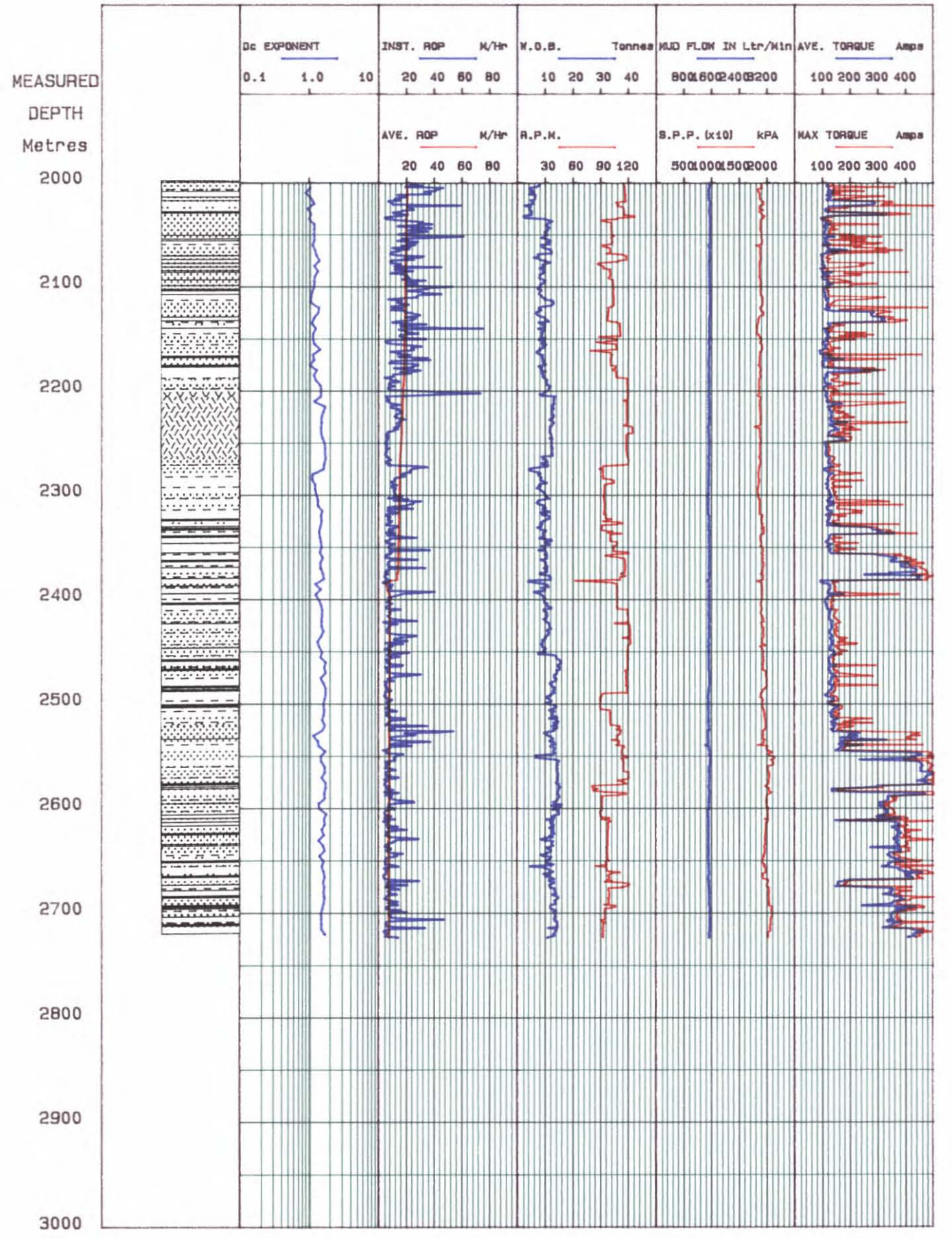
5 cm

292017

DRILLING DATA PLOT

HALLIBURTON GEODATA

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES

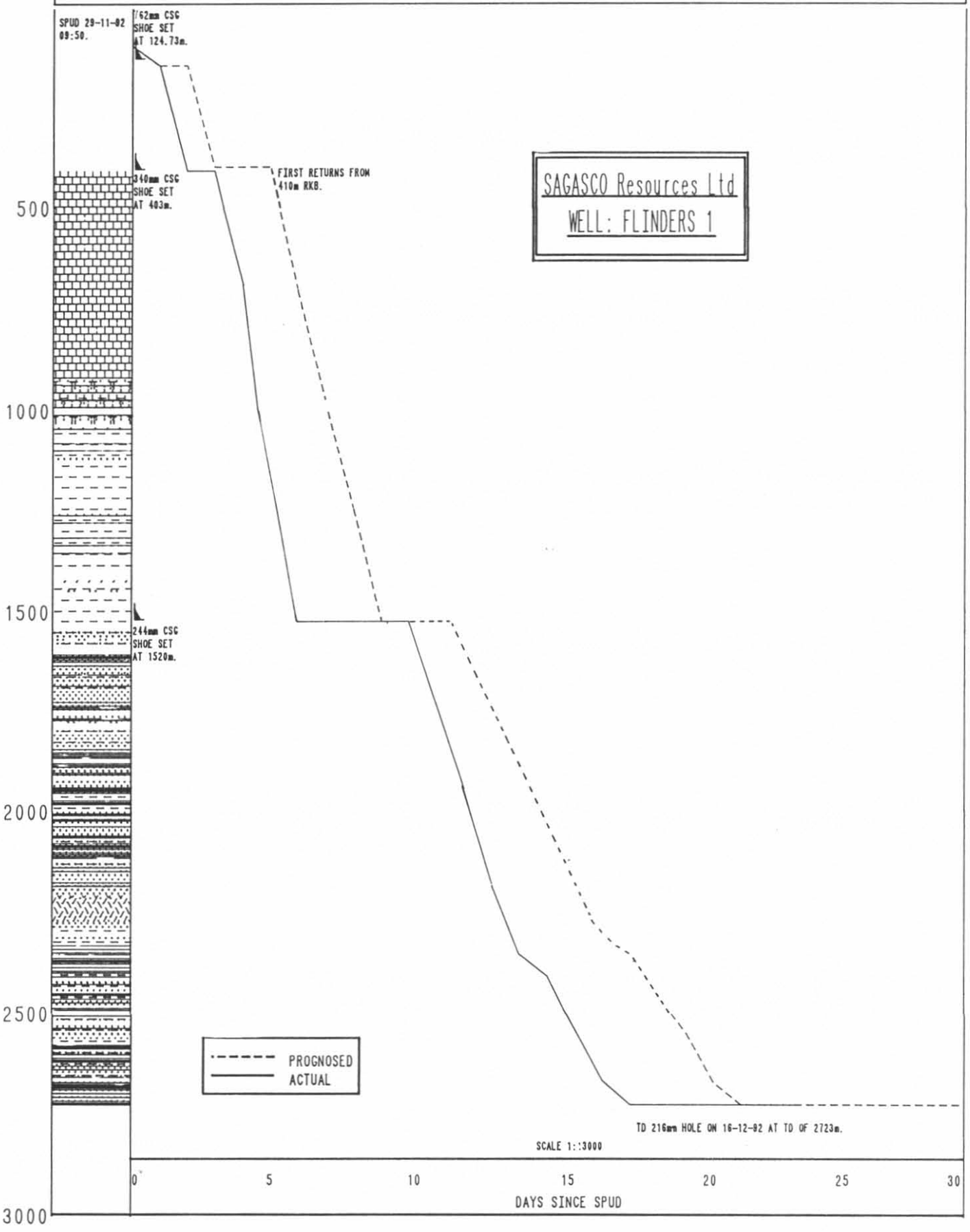


DEPTH SCALE = 1 : 5000

29201S WELL PROGRESS CHART

HALLIBURTON GEODATA

WELL PROGRESS SAGASCO RESOURCES Ltd
TIME/DEPTH FLINDERS 1



5 cm

ROTATING HOURS vs DEPTH PLOT

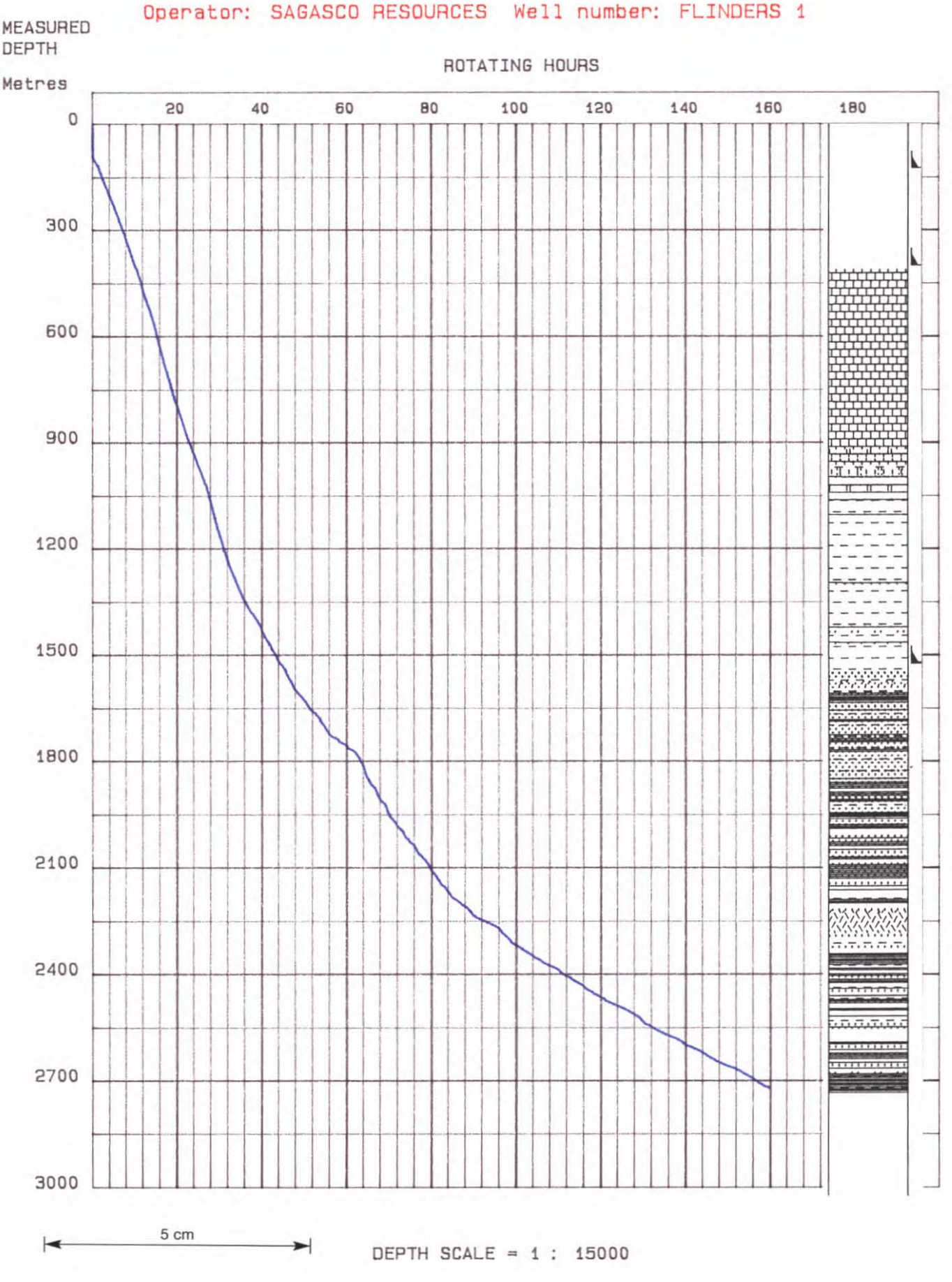
292019

292020

ROTATING HOURS PLOT

HALLIBURTON GEODATA LTD.

Operator: SAGASCO RESOURCES Well number: FLINDERS 1



DEPTH SCALE = 1 : 15000

292021

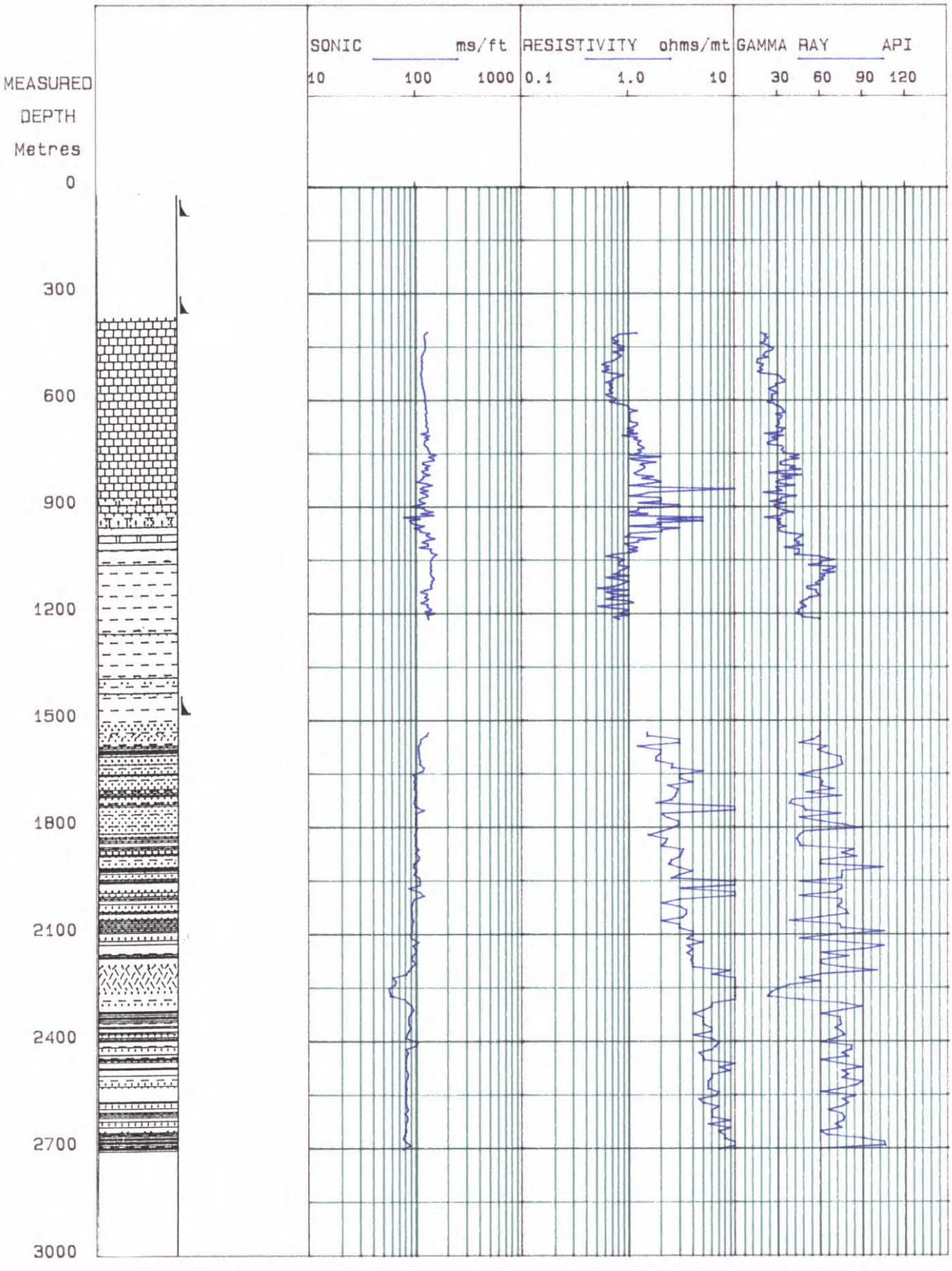
COMBINED Dxc-ELOG PLOT

292022

COMBINED ELOG PLOT

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES

HALLIBURTON GEODATA



5 cm

DEPTH SCALE = 1 : 15000

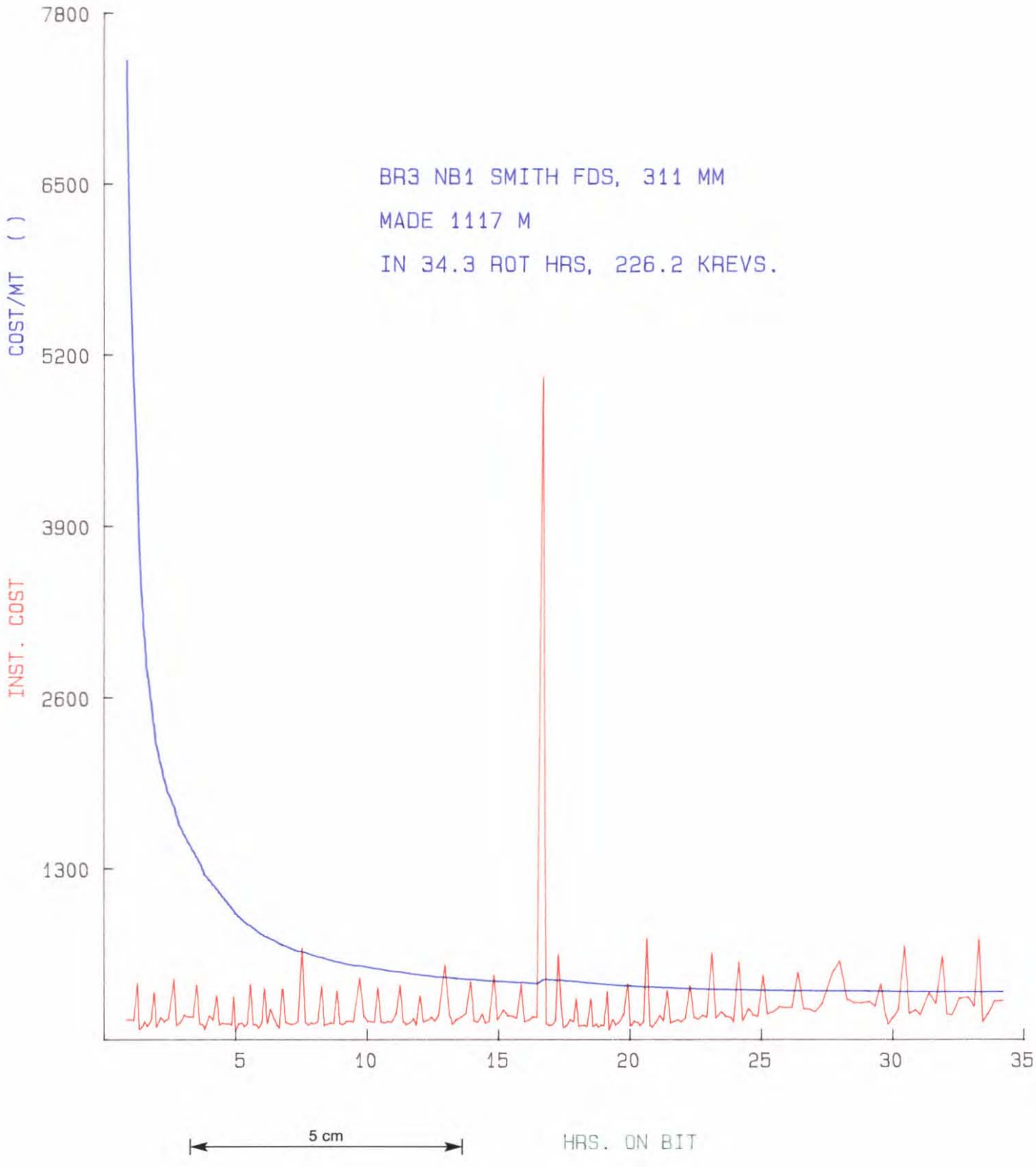
ICOST PLOT

292024

HALLIBURTON GEODATA Ltd.

INDIVIDUAL COST PLOT - BIT RUN 3

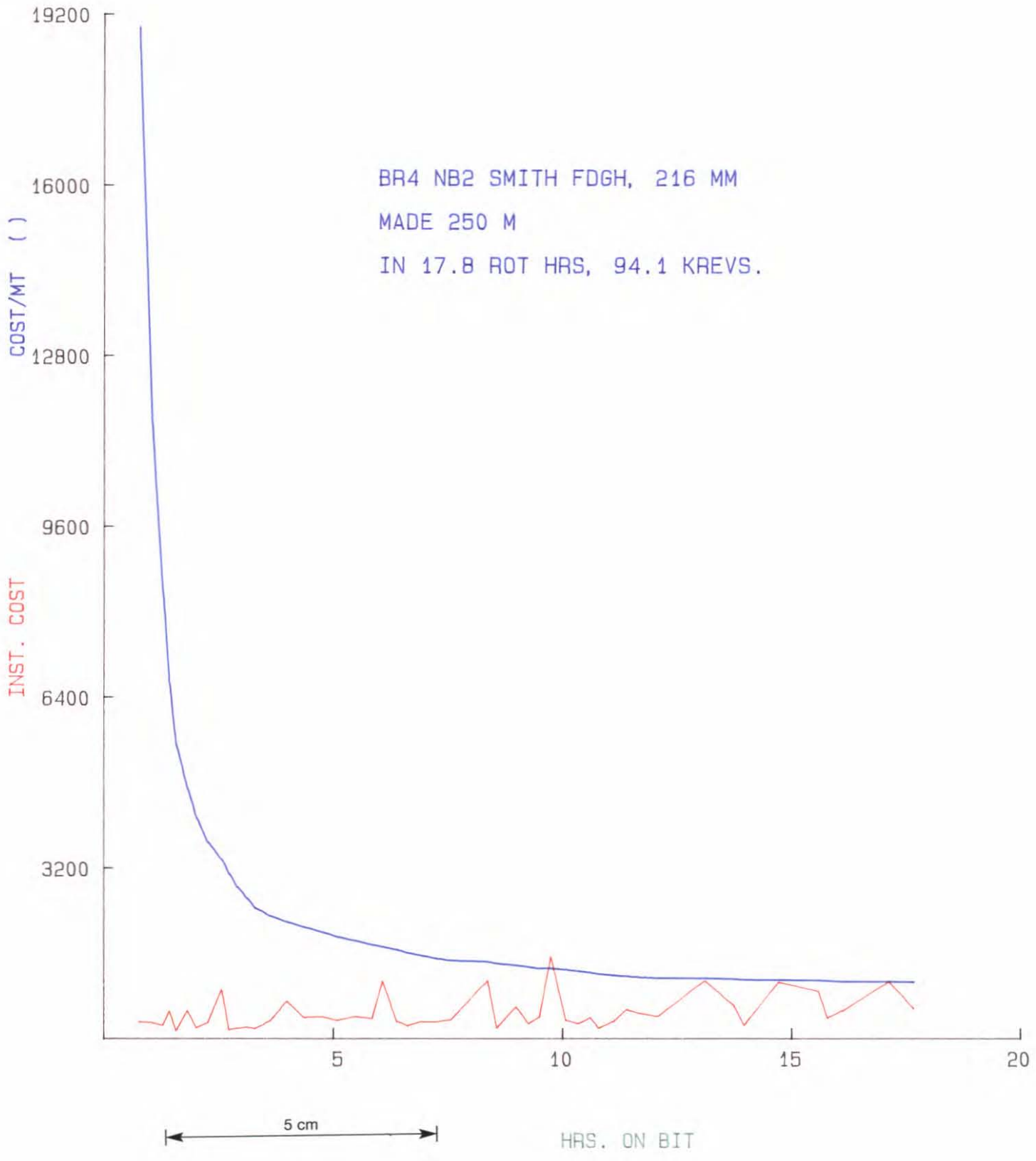
Operator: SAGASCO RESOURCES Well No: FLINDERS 1



HALLIBURTON GEODATA Ltd. 292025

INDIVIDUAL COST PLOT - BIT RUN 4

Operator: SAGASCO RESOURCES Well No: FLINDERS 1

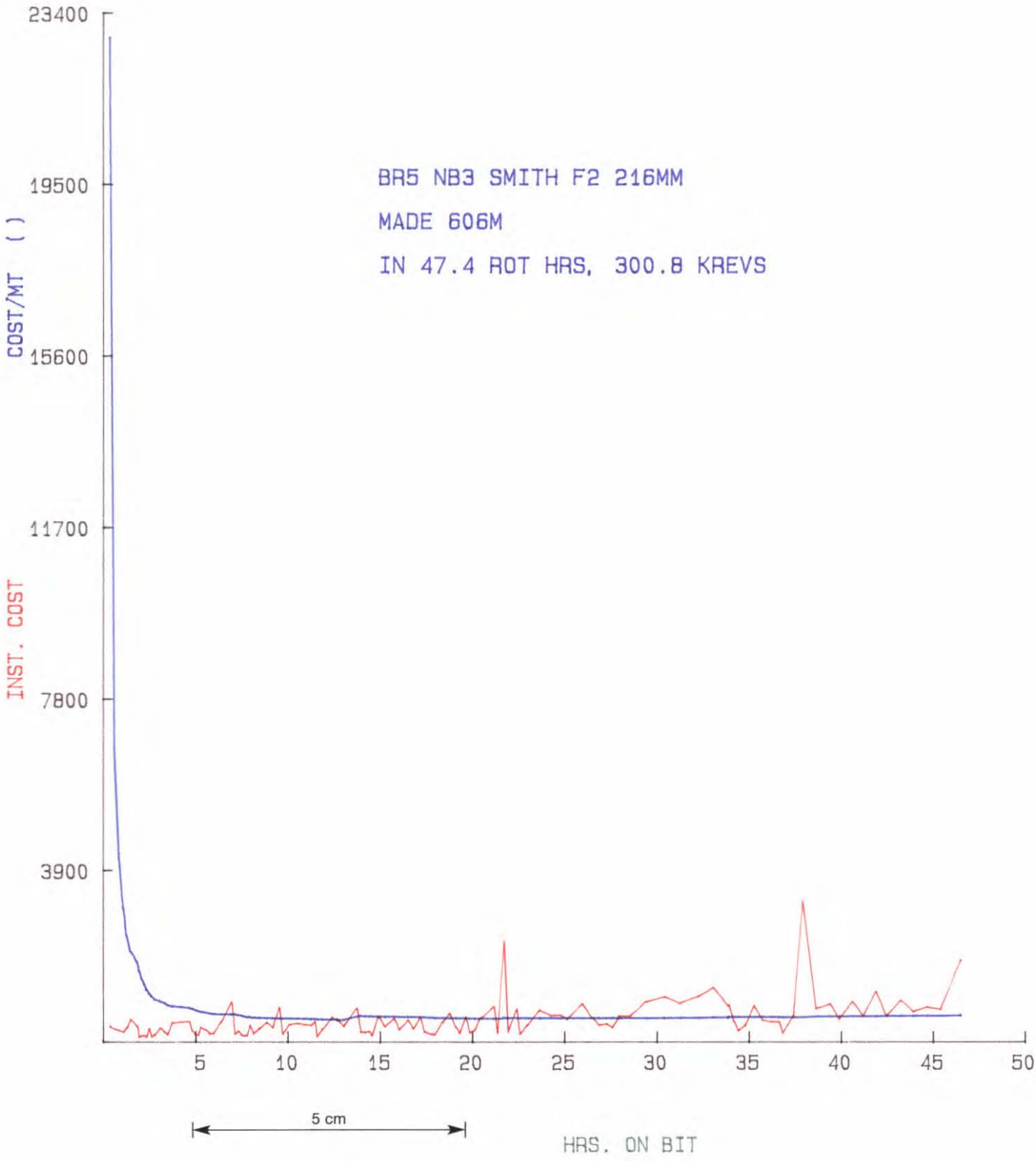


292026

HALLIBURTON GEODATA Ltd.

INDIVIDUAL COST PLOT - BIT RUN 5

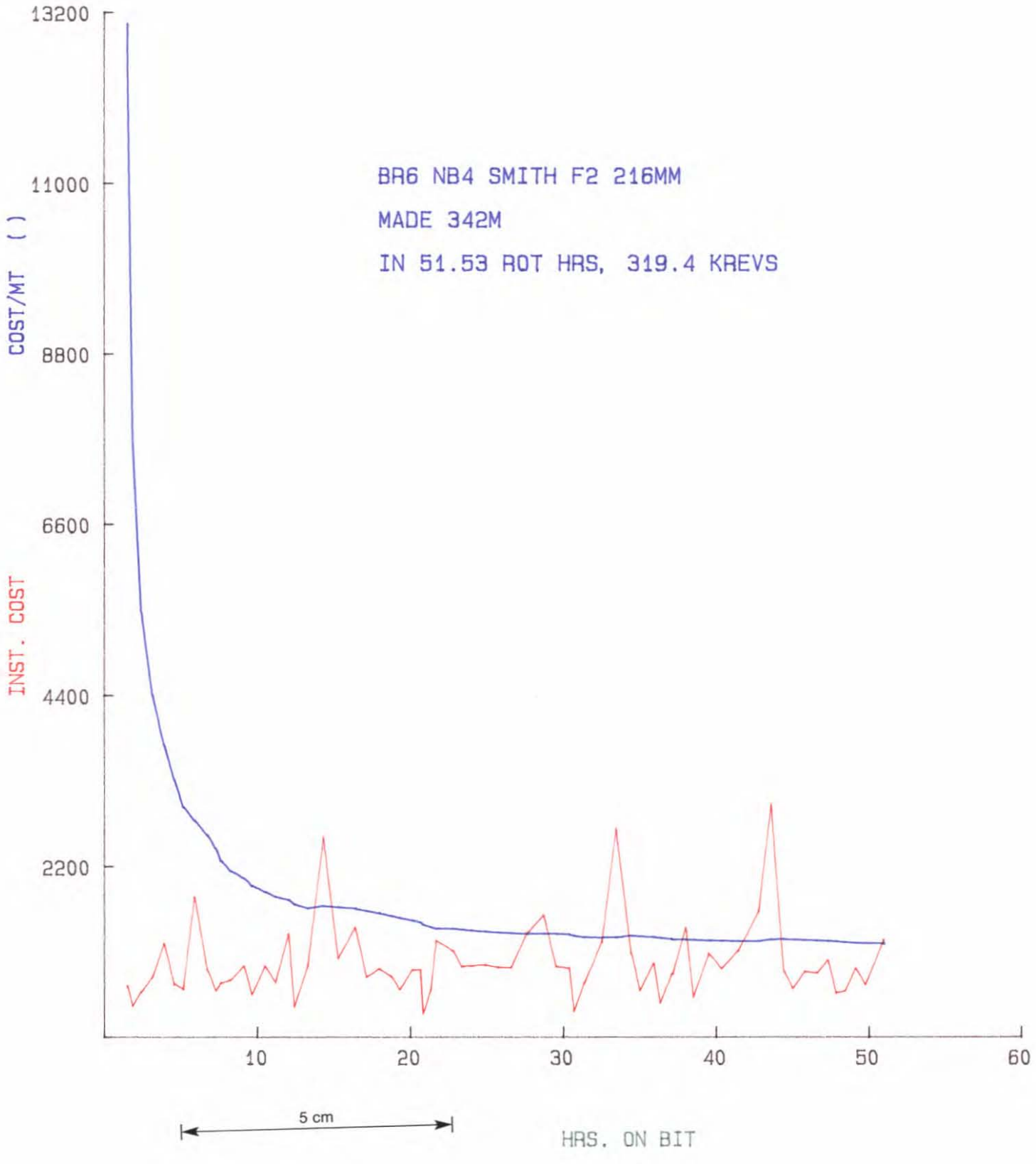
Operator: SAGASCO RESOURCES Well No: FLINDERS 1



HALLIBURTON GEODATA Ltd.

INDIVIDUAL COST PLOT - BIT RUN 6

Operator: SAGASCO RESOURCES Well No: FLINDERS 1



292028

SECTION 2: THE FORMATION EVALUATION LOG

Summary of the Formation Evaluation log
Sampling Routine
Formation Evaluation Log Format
Copy of the Formation Evaluation log

SUMMARY OF THE FORMATION EVALUATION LOG

This discussion is divided into formation based sections. These intervals were chosen primarily on the basis of lithology differences in cuttings and, secondly, on changes in the rate of penetration (ROP), gas values and gas breakdowns. The divisions do not necessarily represent time stratigraphic units, and is primarily based upon the wellsite geologists' cuttings samples descriptions, interpretations and reports, as per SAGASCO Resources requirements.

Gas measurements mentioned in this discussion are expressed either in ppm for the chromatograph analyses, or, API gas units for the total gas readings. 50 gas units = 10000ppm methane equivalent or, 1.0%. Chromatographic analyses are abbreviated as follows - Methane = C1, Ethane = C2, Propane = C3, Iso-Butane = IC4, N-Butane = NC4, and, Pentane = C5

INTRA-TORQUAY:

408-740m
LIMESTONE

LIMESTONE:White to off white, cream, grey, fine to coarse grained, poorly sorted, subangular, clean in part, locally abundant calcareous micritic matrix, occasional grey clay matrix in part, trace glauconite and pyrite, predominately bioclastic calcarenite, trace calcareous cement, friable, abundant bryozoan and coral, trace to common foraminiferia and echinoidea, poor to fair interparticle porosity, trace to locally good intraparticle porosity,no show.

Penetration Rate: Max 95m/hr, Min 15m/hr, Av 39.5m/hr.

740-790m
LIMESTONE

LIMESTONE:White to light grey, fine to coarse grained, abundant grey clay matrix, rare trace glauconite and pyrite, bioclastic calcilutite, compact, abundant coral, bryozoan and foraminiferia, soft to friable, no porosity, no show.

Penetration Rate: Max 54m/hr, Min 30m/hr, Av 39.4m/

790-900m
LIMESTONE

LIMESTONE:Off white to cream, occasionally light grey, very fine to very coarse grained, occasional grey clay matrix, predominately white recrystallized calcite and calcareous micrite matrix, trace glauconite, bioclastic calcarenite, compact and recrystallized in part with sucrosic texture, abundant bryozoan and coral fragments, trace foraminiferia, friable to hard, trace intergranular porosity, no intragranular porosity, no show.

Penetration Rate: Max 58m/hr, Min 31m/hr,Av 38.9m/hr.

Total Gas: Max 0.6u, Min 0.2u, Av 0.4u.
Chromatograph: C1 115ppm.

900-1040m
LIMESTONE WITH INTERBEDDED MARL

LIMESTONE:As above; locally with abundant lutitic matrix and clay, locally grading to bioclatic calcilutite.

MARL:Light to dark grey, mottled cream, occasionally greenish, abundant very fine shell fragments and calcite grains, trace pyrite and glauconite, compact, soft to firm, blocky to subfissile, grades from calcareous claystone to bioclastic calcilutite.

Penetration Rate: Max 55m/hr, Min 20m/hr, Av 36.8m/hr.

Total Gas: Max 8.7u, Min 0.6u, Av 3.0u.
Chromatograph: C1 1671ppm.
Wiper Trip Gas: 8.5u @ 1014m.

1040-1240m
CLAYSTONE WITH OCCASIONAL THIN SANDSTONE AND DOLOMITE

CLAYSTONE:Light to medium grey, greenish and brownish in part, slight to very calcareous, trace pyrite nodules, rare to trace glauconite, trace foraminiferia, coral and bryozoan fragments, soft to firm, blocky to subfissile, grades to marl.

DOLOMITE:Light orange, brown to tan, cryptocystalline, very hard, brittle.

SANDSTONE:Colourless, translucent, medium grained, well sorted, angular to occasionally subrounded, unconsolidated, loose quartz, good inferred porosity, no show.

Penetration Rate: Max 97m/hr, Min 19.5m/hr, Av 37.9m/hr.

Total Gas: Max 10.0u, Min 5.7u, Av 7.3u.
Chromatograph C1 1753ppm.

1240-1330m
CLAYSTONE WITH OCCASIONAL THIN MARLY LIMESTONE STRINGERS

CLAYSTONE:Generally as above; but grey, grey brown, slightly to moderately calcareous, trace carbonaceous specks.

LIMESTONE:Grey to grey brown, microcrystalline, very argillaceous, trace glauconite, trace carbonaceous specks, calcisiltite, compact, soft to firm, trace intergranular porosity, no show, grades to marl.

Penetration Rate: Max 64.3m/hr, Min 14.3m/hr, Av 29m/hr.

Total Gas: Max 17.1u, Min 6.6u, Av 9.5u.
Chromatograph: C1 3160ppm.

1330-1432m
CLAYSTONE WITH OCCASIONAL THIN INTERBEDS OF SILTSTONE AND DOLOMITE

CLAYSTONE:As above.

SILTSTONE:Brown, grey brown in part, argillaceous, slightly calcareous, trace disseminated pyrite, firm to very soft, blocky, dispersive in part.

DOLOMITE:Light orange brown, cryptocrystalline, trace siltstone, trace disseminated pyrite, very hard.

Penetration Rate: Max 64.3m/hr, Min 5.6m/hr, Av 21.3m/hr.

Total Gas: Max 29.4u, Min 6.2u, Av 12.6u.
Chromatograph: C1 4489ppm.

DEMONS BLUFF FORMATION: 1432-1544m

1432-1544m
INTERBEDDED SILTSTONE,CLAYSTONE WITH OCCASIONAL THIN DOLOMITE STRINGERS.

CLAYSTONE:Dark gray to dark brown, slightly to non calcareous, silty, abundant to trace pyrite nodules, carbonaceous specks, firm to soft, sub fissile, grading to argillaceous siltstone.

SILTSTONE:Brown to dark brown, very argillaceous, non calcarareous, carbonaceous specs, firm to soft, dispersive in places.

DOLOMITE:Cream to tan to brown, cryptocrystalline, very hard, angular, trace disseminated pyrite.

Penetration Rate: Max 51.4m/hr, Min 5.2m/hr, Av 22.0m/hr.

Total Gas: Max 23.9u, Min 5.4u, Av 10.5u.
Chromatograph: C1 4330ppm, C2 116ppm, C3 86ppm.
Trip Gas: 38u @ 1525m
32u @ 1525m
33u @ 1525m
23u @ 1525m
39u @ 1525m.

EASTERN VIEW COAL MEASURES: 1544-2723m (TD)

1544-1578m
SANDSTONE WITH OCCASIONAL THIN INTERBEDS OF CLAYSTONE AND RARE DOLOMITE.

SANDSTONE:Light to dark brown, very fine to very coarse, very poorly sorted, subangular to rounded, spherical to sub-spherical, weak traces of siliceous cement in places, rare trace pyritic cement, trace interstitial brown clay with clay rarely coating quartz grains, trace glauconite, predominantly loose unconsolidated quartz grains, fair to good porosity, no

show.

CLAYSTONE:Brown to light brown, occasionally very dark brown, silty, slightly calcareous in places, abundant disseminated and nodular pyrite, soft, dispersive.

DOLOMITE:Tan, cryptocrystalline, argillaceous, very hard, trace quartz, blocky to splintery.

Penetration Rate: Max 61.0m/hr, Min 1.5m/hr, Av 24.4m/hr.

Total Gas: Max 9.5u, Min 2.4u, Av 5.1u.
Chromatograph: C1 1717ppm, C2 71ppm.

1578-1631m
INTERBEDDED SILTSTONE AND CLAYSTONE WITH THIN SANDSTONE BEDS AND OCCASIONAL COAL BEDS.

SILTSTONE:Off white to very light grey brown, siliceous, micromicaceous, trace glauconite, argillaceous in places, firm to very hard, locally blocky.

CLAYSTONE:Light grey brown, micromicaceous, non calcareous, slightly silty, very soft, dispersive.

SANDSTONE:As above, locally poorly sorted, generally well sorted but varying grain sizes, friable to unconsolidated, fair porosity, no show.

COAL:Black-brown black, dull to resinous, hard to firm, pyritic, sub bituminous.

Penetration Rate: Max 47.4m/hr, Min 6.7m/hr, Av 18.8m/hr.

Total Gas: Max 26.7u, Min 1.3u, Av 5.2u.
Chromatograph: C1 4651ppm, C2 166ppm.

1631-1733m
SANDSTONE WITH THIN INTERBEDS OF SILTSTONE, CLAYSTONE AND COAL.

SANDSTONE:Colourless to light brown, predominately fine to medium, locally very fine or coarse grained, subrounded, well sorted, spherical, trace calcareous cement, locally well cemented by calcite or pyrite, trace interstitial clay, trace mica, generally clean, friable, good to fair porosity, no show, no cut.

COAL:Black, submetallic to subvitreous lustre, firm to hard, pyrite, argillaceous in part, sub blocky.

CLAYSTONE:Light brownish grey to grey brown, silty, micromicaceous, non calcareous, carbonaceous specks, soft to firm, dispersive, subfissile.

SILTSTONE:Off white to greenish white, firm to hard, siliceous cement, trace green glauconite, no porosity, no show.

Penetration Rate: Max 41.9m/hr, Min 1.9m/hr, Av 10.0m/hr.

Total Gas: Max 23.1u, Min 0.9u, Av 3.2u.
Chromatograph: C1 4552ppm, C2 132ppm.

1733-1793m
INTERBEDDED CLAYSTONE, SANDSTONE, COAL WITH MINOR SILTSTONE.

COAL:Black, subvitreous to vitreous, hard, brittle, conchoidal fracture, angular.

CLAYSTONE:Light to dark grey brown to brown, micromicaceous, non calcareous, variably carbonaceous, trace pyrite nodules, soft to firm, dispersive, locally subfissile to fissile.

SILTSTONE:Light grey, very argillaceous, micromicaceous, carbonaceous specks and laminations, soft, dispersive, occasionally very strong calcareous cement, very hard.

SANDSTONE:White, colourless, light grey, translucent to opaque, fine to coarse, occasionally very coarse grained, predominately fine to medium grained, well to moderately sorted, spherical, angular to subangular, frosted, trace calcareous/ankeritic cement, locally strong pyrite cement, trace to moderate white to grey clay matrix, friable to predominately loose, fair porosity, no show, no cut.

DOLOMITE (TR):Brown, cryptocrystalline, very hard.

Penetration Rate: Max 47.4m/hr, Min 3.7m/hr, Av 18.5m/hr.

Total Gas: Max 13.8u, Min 0.9u, Av 3.5u.
Chromatograph: C1 2240ppm, C2 253ppm.
Trip Gas: 11.6u @ 1775m

1793-1845m
PREDOMINATELY SANDSTONE WITH THIN INTERBEDS
OF CLAYSTONE AND SHALE.

SANDSTONE:Colourless, white, translucent to occasionally opaque, fine to very coarse, occasionally very fine, predominately medium, moderately sorted, locally very poorly sorted, subangular to angular, spherical, trace weak siliceous cement, locally strong ankeritic and pyritic cement, moderate white interstial clay, trace mica, predominately loose and friable, occasionally very hard, generally fair to good porosity, no show, no cut.

CLAYSTONE:Light grey to grey to grey brown, occasionally dark grey, non calcareous, variably carbonaceous, micromicaceous, silty in part, soft, dispersive, occasionally firm to hard and fissile, grading to carbonaceous shale.

SHALE:Dark brown, moderately calcareous, micromicaceous, occasionally carbonaceous, firm to hard, brittle, subfissile.

Penetration Rate: Max 55.4m/hr, Min 9.2m/hr, Av 29.0m/hr.

Total Gas: Max 1.3u, Min 0.7u, Av 0.9u.
Chromatograph: C1 161ppm.

1845-1950m
PREDOMINATELY CLAYSTONE WITH INTERBEDS OF SANDSTONE AND COAL.

CLAYSTONE:Off white to grey to grey brown, non calcareous, variably carbonaceous, locally silty, micromicaceous, very soft and dispersive.

SANDSTONE:Colourless, white, translucent to opaque, fine to very coarse, predominately coarse, poorly sorted, angular to subangular, spherical, frosted, trace siliceous cement, trace to commonly weak to moderate ankeritic cement, generally trace siliceous cement, clean, trace mica, friable to loose, fair to good porosity, no show, no cut.

COAL:Black, subvitreous to vitreous, hard, brittle, conchoidal to irregular fracture, blocky.

Penetration Rate: Max 80.0m/hr, Min 7.3m/hr, Av 21.7m/hr.

Total Gas: Max 12.4u, Min 0.9u, Av 2.2u.
Chromatograph: C1 1310ppm, C2 466ppm, C3 80ppm.

1950-1999m
PREDOMINATELY CLAYSTONE WITH THIN INTERBEDS OF COAL, DOLOMITE, SANDSTONE AND BASALT.

CLAYSTONE:Off white, light brown grey to grey brown, micromicaceous, slightly carbonaceous, non calcareous, very soft, dispersive, sticky.

SANDSTONE:Off white, very fine grained, subangular to subrounded, well sorted, moderate calcareous cement, white matrix, friable to moderately hard, no visible porosity, no show, no cut.

COAL:Black, subvitreous, hard, brittle, argillaceous in part grading to carbonaceous shale.

DOLOMITE:Yellow brown, cryptocrystalline, silty, very hard.

BASALT:Black, speckled white, microcyrstalline, occasional white feldspar phenocrysts, very hard, blocky.

Penetration Rate: Max 42.3m/hr, Min 7.7m/hr, Av 21.9m/hr.

Total Gas: Max20.7u, Min 1.1u, Av 5.0u.
Chromatograph: C1 1918ppm, C2 899ppm, C3 130ppm.

1999-2178m
INTERBEDDED SANDSTONE AND CLAYSTONE WITH OCCASIONAL SILTSTONE, COAL, DOLOMITE AND SHALE BEDS.

SANDSTONE (1):Light brown, occasionally white, translucent to opaque in part, fine to medium, occasionally very fine, well sorted, subangular, spherical, predominately loose quartz, trace weak sideritic cement, commonly brown argillaceous matrix, locally clean, trace mica, trace altered feldspar, friable in aggregates, poor to fair porosity.

FLUORESCENCE:2004-2015m, 10%, moderately bright, pin point, yellow green fluorescence,slow blooming to trace milky white cut, colourless thin to trace film residue.

SANDSTONE (2):Light brown, very fine to fine, subrounded, well sorted, very strong dolomitic cement and matrix, very hard, no porosity, no show, no cut.

CLAYSTONE:As above;predominately pale brown, occasionally dark brown, firm and fissile, grading to carbonaceous shale.

COAL:Black, dull to subvitreous, firm, blocky, argillaceous in part, subfissile in part.

SILTSTONE:Off white to pale brown, argillaceous, micromicaceous, very soft, dispersive.

DOLOMITE:Brown, cryptocrstalline, very hard, brittle.

SHALE:Dark grey to dark brown, micromicaceous, commonly carbonaceous, non calcareous, soft to moderately hard, fissile.

FLUORESCENCE:2070-2074m, trace dull yellow green spotty fluorescence,slow milky crush cut, trace to thin colourless residue.

Penetration Rate: Max 75.0m/gr, Min 4.2m/hr, Av 22.2m/hr.

Total Gas: Max 25.9u, Min 1.7u, Av 10.3u.
Chromatograph: C1 2540ppm, c2 1194ppm, C3 387ppm.
Wiper Trip Gas: 11.4u @ 2031m, 6.4u @ 2160m.

<u>2178-2211m</u>
PREDOMINATELY CLAYSTONE WITH THIN INTERBEDDED COAL, SANDSTONE AND VOLCANNICS.

CLAYSTONE:Off white to light grey to grey, micromicaceous, occasionally silty, slightly carbonaceous, soft to firm, commonly dispersive, subfissile.

SANDSTONE:White to colourless, very fine to very coarse, very poorly sorted, angular to rounded, elongate to spherical, abundant white matrix, tuffaceous in part, friable to loose, no to trace porosity, no show, no cut.

VOLCANICS:Off white, greenish white, pale green/speckled white, altered, silky lustre in part, cryptocrystalline ground mass, silt to medium quartz phenocrysts in part, slightly calcareous, soft to firm, dispersive in part.

COAL:As above.

Penetration Rate: Max 73.5m/hr, Min 4.3m/hr, Av 9.0m/hr.

Total Gas: Max 18.2u, Min 1.8u, Av 4.8u.
Chromatograph: C1 1461ppm, C2 907ppm, C3 123ppm.

2211-2271m
MASSIVE DOLERITE.

DOLERITE:Mottled white and dark green, coarsely crystalline, subhedral to anhedral crystals, predominately coarse white feldspar in microcrystalline grained ground mass of pyroxene and biotite, firm to hard in part, altered in part.

Penetration Rate: Max17.1m/hr, Min 4.5m/hr, Av 9.0m/hr.

Total Gas: max2.7u, Min 0.7u, Av 1.2u.
Chromatograph: C1 268ppm, C2 28ppm, C3 327ppm.

2271-2300m
CLAYSTONE OVERLAIN BY SANDSTONE.

CLAYSTONE:Dark grey to grey, micromicaceous, carbonaceous in part, soft to firm, subfissile to dispersive, non calcareous.

SANDSTONE:White to colourless, fine, well sorted, subrounded, spherical, abundant white argillaceous matrix, weak siliceous cement, friable, poor to good porosity, no show, no cut.

Penetration Rate: Max 35.5m/hr, Min 8.4m/hr, Av 14.0m/hr.

Total Gas: Max 8.9u, Min 3.2u, Av 5.6u.
Chromatograph: C1 1332ppm, C2 101ppm, C3 80ppm.

2300-2397m
PREDOMINATELY CLAYSTONE WITH INTERBEDS OF SILTSTONE, SANDSTONE AND COAL.

CLAYSTONE:Very pale brown to light brown, occasionally brown to dark brown, occasionally white, non calcareous, carbonaceous specks, silty, micromicaceous, very soft and dispersive.

SANDSTONE:Light brown, translucent, angular to subangular, medium to coarse, well sorted, subspherical, weak siliceous cement, trace light brown argillaceous matrix, trace mica, friable to loose quartz, fair porosity, no show.

SILTSTONE:Very pale brown to light brown, non calcareous, argillaceous, soft and dispersive.

Coal:Black, subvitreous to dull, firm to moderately hard, brittle.

Penetration rate: Max 40.5m/hr, Min 2.5m/hr, Av 10.3m/hr.

Total Gas: Max 113.9u, Min 3.3u, Av 20.4u.
Chromatograph: C1 18895ppm, C2 980ppm, C3 630ppm.
Wiper Trip Gas: 26u @ 2317m.
Trip Gas: 19.6u @ 2381m.

2397-2433m
CLAYSTONE AND SANDSTONE INTERBEDDED WITH COAL.

SANDSTONE:Colourless, white, fine grained, subrounded to rounded, predominately spherical, very well sorted, abundant to common white argillaceous matrix, commonly loose quartz, very friable in aggregates, poor to fair porosity, no show.

CLAYSTONE:As above.

COAL:As above.

Penetration Rate: Max 27.9m/hr, Min 2.8m/hr, Av 8.5m/hr.

Total Gas: Max 32.8u, Min 5.3u, Av 10.8u.
Chromatograph: C1 4525ppm, C2 432ppm, C3 388ppm.

2433-2473m
PREDOMINATELY SANDSTONE WITH THIN INTERBEDS OF CLAYSTONE AND COAL.

SANDSTONE:Colourless, white, occasionally stained light brown, fine grained, occasionally very fine to medium, subangular to rounded, well sorted, locally poorly sorted, subspherical to spherical, trace to moderate sideratic cement, abundant to common argillaceous matrix, occasionally clean, trace mica, friable, occasionally hard when well cemented, trace to poor to occasionally fair to good porosity, no show, commonly orange mineral fluorescence.

CLAYSTONE:Pale to light brown, occasionally medium brown, slightly silty, non calcareous, carbonaceous specks, soft to firm, dispersive.

COAL:Black, dull to subvitreous, hard to very hard, brittle, argillaceous in part, blocky to platy, grading to carbonaceous shale in part.

Penetration Rate: Max 30.3m/hr, Min 3.6m/hr, Av 11.1m/hr.

Total Gas: Max 50.6u, Min 5.2u, Av 14.0u.
Chromatograph: C1 8974ppm, C2 560ppm, C3 10ppm.

2473-2511m
PREDOMINATELY CLAYSTONE WITH OCCASIONAL THIN SANDSTONE, SILTSTONE, COAL AND SHALE.

CLAYSTONE:Off white, predominately pale brown to light brown grey, non calcareous, silty, carbonaceous specks, soft, sticky.

SANDSTONE:Colourless, white, very fine grained, predominately fine to coarse, very poorly sorted, subangular to subrounded, spherical to nonspherical, weak to moderate sideritic cement, trace white interstitial clay, trace mica, friable to loose, trace to poor porosity, no show, trace orange pink mineral fluorescence.

SILTSTONE:Off white to light brown, carbonaceous specks, argillaceous matrix, micromicaceous, sandy in part, laminated, soft to firm, blocky to platy.

COAL:Black to brown black, dull to subvitreous, hard to firm, argillaceous in part, grading to carbonaceous shale.
SHALE:Brown, carbonaceous flakes and laminations, non calcareous, firm, fissile.

Penetration Rate: Max 11.7m/hr, Min 3.4m/hr, Av 6.3m/hr.

Total Gas: Max 32.5u, Min 2.8u, Av 8.4u.
Chromatograph: C1 5096ppm, C2 342ppm, C3 243ppm.
Wiper Trip Gas: 15.0u @ 2481m.

2511-2536m
PREDOMINATELY SANDSTONE WITH MINOR INTERBEDDED CLAYSTONE, SILTSTONE, COAL, SHALE AND TUFF.

SANDSTONE (1):White, colourless, translucent, very fine to very coarse, very poorly sorted, nonspherical to spherical, angular to subangular, clean in part, white tuffaceous matrix in part, abundant biotite and muscovite, quartzose, trace to common white feldspar, good porosity, no show, grades to arkose.

SANDSTONE (2):Pale brown, off white, fine to coarse, predominately fine to medium, moderately sorted, angular to elongate, very strong sideritic cement, white argillaceous matrix, abundant carbonaceous detritus and stringers, trace mica, very hard, no show, bright orange pink mineral fluorescence.

TUFF: Off white, pink, pale green, speckled white, semitranslucent, welded hard, brittle, conchoidal fracture.

CLAYSTONE:As above.

SILTSTONE:As above.

COAL:As above.

SHALE:As above.

Penetration Rate: Max 53.7m/hr, Min 4.5m/hr, Av 13.9m/hr.

Total Gas: Max 12.6u, Min 4.1u, Av 7.2u.
Chromatograph: C1 2070ppm, C2 157ppm, C3 190ppm.

2536-2579m
SANDSTONE WITH INTERBEDDED CLAYSTONE.

SANDSTONE:Colourless to white, medium to predominately fine grained, subangular to subrounded, spherical, well sorted, weak siliceous cement, trace secondary calcareous cement, trace to occasionally common white clay matrix, rare mica, friable to loose, poor to fair porosity.
FLUORESCENCE:2561-2564m, 10%, spotty to patchy moderately bright yellow white fluorescence, slow streaming to blooming milky white cut, colourless to thin ring residue.

CLAYSTONE:Off white to pale brown, brown, non calcareous, silty, micromicaceous in part, carbonaceous specks, predominately soft

and sticky, firm and subfissile in part.

Penetration Rate: Max 23.7m/hr, Min 3.2m/hr, Av 7.3m/hr.

Total Gas: Max 11.9u, MIn 3.8, Av 6.7u.
Chromatograph: C1 1826ppm, C2 163ppm, C3 73ppm.

2579-2667m
INTERBEDDED SANDSTONE AND CLAYSTONE WITH OCCASIONAL THIN INTERBEDS OF COAL AND SILTSTONE.

SANDSTONE:Colourless to white, translucent to transparent, very fine to very coarse, very poorly sorted, predominately fine to coarse, angular to subrounded, subspherical to elongate, weak siliceous cement, locally strong sideritic cement, trace to occasionally moderate white clay matrix, locally common feldspar, commonly clean, quartz overgrowths in part, trace mica and grain contacts, friable to loose, fair to commonly good inferred porosity, no show, orange mineral fluorescence in part.

CLAYSTONE:Pale brown to tan, brown to dark brown, non calcareous, commonly carbonaceous and coaly laminations/specks, micromicaceous in part, occasionally pyrite nodules, soft to firm, blocky to subfissile.

SILTSTONE:Brown to grey brown, argillaceous, non calcareous, carbonaceous specks and laminations, soft to firm, dispersive in part, grades to silty claystone.

COAL:Black to brown black, dull to earthy, occasionally subvitreous, firm to hard, conchoidal fracture in part, angular to platy, commonly argillaceous grading to carbonaceous shale.

Penetration Rate: Max 28.8m/hr, Min 2.7m/hr. Av 7.8m/hr.

Total Gas: Max 54.8u, Min 3.1u, Av 11.2u.
Chromatograph: C1 9014ppm, C2 560ppm, C3 274ppm.
Wiper Trip Gas: 13.5u @ 2610m, 16.3u @ 2667m.

2667-2723m TD
INTERBEDDED SANDSTONE, SHALE AND CLAYSTONE WITH FREQUENT THIN COAL SEAMS AND SILTSTONE BEDS.

SANDSTONE:Colourless to off white, translucent to opaque, very fine to very coarse, occasionally fine to coarse, generally very poorly to poorly sorted, predominately medium and moderately sorted, angular to subrounded with frequent fracture grains, subspherical to elongate, spherical in part, weak siliceous cement with common quartz overgrowths in part, trace secondary calcareous cement in upper part of interval, trace to common white and bentonite matrix, trace to locally common white feldspar, lithic grains, chert and mica, predominately quartzose, occasionally clean, friable to hard, trace to poor porosity, occcasionally fair to good, predominately no show.
FLUORESCENCE:2673-2675m, 10%, dull yellow green fluorescence, very weak crush cut, trace ring residue.

SHALE:Brown to dark brown to blackish to brown, commonly very carbonaceous and coaly, firm to hard, brittle in part, fissile.

CLAYSTONE:Tan to light brown to brown, carbonaceous specks and microlaminations, micromicaceous and silty in part, trace pyrite nodules, soft to firm becoming hard in part, becoming shale towards base.

SILTSTONE:Light brown to brown, carbonaceous specks, sandy, trace mica, firm to moderately hard, blocky.

COAL:Black to brown black, dull becoming predominately subvitreous with depth, firm to hard, blocky, platy, argillaceous in part, grades to carbonaceous shale.

Penetration Rate: Max 47.4m/hr, Min 3.6m/hr, Av 10.8m/hr.

Total Gas: Max 73.7u, Min 6.9u, Av 53.5u.
Chromatograph: C1 10461ppm, C2 1211ppm, C3 617ppm.
Wiper Trip Gas: 14.8u @ 2723m.

SAMPLING ROUTINE

From 410m to 2723m the sampling routine consisted of :

10m intervals from 410m to 1530m, 3m int thereafter to 2723m.

3 sets of 100gm washed, air dried cuttings (Air dried-plastic bags), distribution: 1 SAGASCO, 2 BMR, 3 DMR.

INTERVAL	BOX No.
400-2007m	1
2007-2723m	2

One set of Bulk 500gm washed cuttings Samples (Air dried cloth-bags) 410m to 1530m at 10m int and 1530 to 2723m at 3m int, distribution: SAGASCO.

BOX INTERVAL	BOX No.
410-1010m	1
1010-1608m	2
1608-1842m	3
1842-1980m	4
1980-2160m	5
2160-2340m	6
2340-2550m	7
2550-2723m	8

Composite samples over 30m from 410 to 2723m, 1 set of 500gm bulk unwashed cuttings, distribution: SAGASCO.

BOX INTERVAL	BOX No.
410-1840m	1
1840-2723m plus FISSION TRACK	2

Fission track samples taken at regular intervals and where directed by wellsite geologist: 1000gm each collected from 1680-1710m, 2080-2110m, 2520-2250m, 2690-2720m.

1 set of 1 litre bottles of flowline-mud sample every 300m from 410m to TD, distribution: SAGASGO.

One box samplex trays, 410-2723m, to GAS @ FUEL EXPLORATION NL.
One box samplex trays, 410-2723m, to BRIDGE OIL LTD.

ADDRESSES:

SAGASCO Resources Ltd.,
c/- Amdel Core Services Pty Ltd.,
31 Flemington St.,
FREWVILLE SA 5063
Attn: Mr Robert East.

Bureau of Mineral Resources
Core and Cuttings Laboratory
80 Collie St.,
FYSHWICK ACT 2609
Attn: Officer-in-charge

Department of Mineral Resources
Gordons Hill Rd.,
ROSNY PARK, TASMANIA.
Attn: Mr Peter Baillie

Gas and Fuel Exploration NL
11th Floor
151 Flinders St.,
MELBOURNE VIC 3000
Attn: Mr Andrew Hodgson.

292042

Bridge Oil Ltd.
Level 9
255 Elizabeth St.,
SYDNEY NSW 2000
Attn. Mr David Cliff.

FORMATION EVALUATION LOG FORMAT

The **Formation Evaluation Log** for **Flinders-1** was plotted using a Samsung SD820 386sx PC microcomputer connected to a Zeta Plotter.

The **Formation Evaluation Log** was drawn using a scale of 1: 500 from surface to TD (2723m), all depths being measured below the rotary table. It is divided into 10 columns which, from left to right, display the following information:

1) Rate of penetration (ROP), Bit Data, Drilling Parameters (WOB, RPM, LPM, PP), and Midnight Depths.

2) Depth labelled every 50 Metres, Casing Information, Deviation Surveys, and Sidewall Core Information.

3) Wellsite geologist's percentage cuttings lithology of each sample taken from the shakers.

4) Graphical representation of any oil shows observed in the mud or cuttings.

5) Total hydrocarbon gas content (this ranges from 0 units to 100 units), and percentage breakdown of the components (C1 to C5). The Cuttings gas content of the samples as determined using the cuttings gas detector is also contained in this column, and ranges from 0 to 100 units.

6) Chromatograph analysis of the gas in the returning mud stream (C1-C5), trip and connection gas concentrations. The scale is logarithmic and ranges from 1 ppm to 100K ppm.

7) Percentage calcite and dolomite content of the samples.

8) Graphical representation of any fluorescence cut observed in the cuttings.

9) Interpreted lithology column.

10) Detailed lithological descriptions, mud properties, details of wireline log runs, and any other relevant information.

COPY OF THE FORMATION EVALUATION LOG

See Rear Enclosure 1

SECTION 3: OVERPRESSURE EVALUATION

Pore Pressure Regime and LOT/PIT Results
DcExp Raw Data Plot
Shifted DcExp Plot with Eaton Overlay
ΔT Sonic Plot with Eaton Overlay
Pressure Gradient Analysis Plot
Resistivity, Gamma-Ray and Density Plots
Migrated Flowline Temperature Plot
Pressure Data Printout
Format of the Pressure Evaluation Log
Copy of the Pressure Evaluation Log

PORE PRESSURE REGIME and FORMATION TESTS RESULTS

Flinders 1, pore pressures were continuously evaluated from 410m to TD (2723m). Parameters measured and calculated included corrected drilling exponent (**DcExp**), shale density, flowline temperatures, delta T, flowline mud conductivity, and total gas values. Observations of hole conditions, for example drag and overpull, torque, trip and connection gases and cuttings condition ie pressure cavings and rock flour were also used.

In addition, fracture gradients were continuously calculated using the Daines' method. For these calculations, Formation Integrity Test results were taken as true Leak Off, even if the formation was not pressured to the point of fracture, in order to provide a sufficient safety margin during the drilling of the well.

The overburden gradient used for these calculations and for the formulation of Eaton Overlays was calculated from the wireline sonic data.

Formation integrity tests performed during the drilling of **Flinders-1** were used for the re-calculation of fracture gradients while drilling.

DEPTH	TYPE OF TEST	RESULT
410M	FORMATION INTEGRITY TEST	14.20 PPG EMW 1.70 SG EMW
1527M	FORMATION INTEGRITY TEST	14.30 PPG EMW 1.72 SG EMW

LITHOLOGY SUMMARY

FLINDERS 1 drilled through three basic geological units the Torquay, Demons Bluff Formation and the Eastern View Coal Measures. Both the Torquay and Demons Bluff Formation are marine formations unlike the Eastern View Coal Measures. Within the top marine unit, the Torquay. This consisted of 100% Limestone from first returns at 410m to a depth of 900m. Between 900m-1040m the Limestone was interbedded with Marl. After 1040m to the top of the Demons Bluff Formation the lithology consisted of Claystone with thin interbedded Marly Limestone, Siltstone and Dolomite stringers. The Demons Bluff Formation, 1432-1544m, was marked by a change in the Claystone as it became darker and consisted of interbedded Claystone and Siltstone, with minor Dolomite stringers. The Eastern View Coal Measures (1544m) were marked by a change to a non-calcareous Claystone and a medium to very coarse Sandstone. Further stratigraphic break down of this group was not possible, in the field, without the further examination of collected samples. The Eastern View Coal Measures can be summarised as an interbedded sequence of very fine to coarse Sandstone, argillaceous Siltstone, non-calcareous, carbonaceous and often micromicaceous Claystone, and dull black to brown Coal.

CORRECTED DRILLING EXPONENT

From the shifted Dxc plot, the Dxc appears to roughly follow a normal compaction trend in the Torquay and Demons Bluff Formation. However, since these sections were mainly Limestone and soft claystone, the Dxc is of limited used for any quantitative analysis. Within the Eastern View Coal Measures the Dxc follows a fairly erratic trend due to the numerous lithology changes, the Dxc is of no use within sandstone,coal or igneous rock. However, within the claystones of the Eastern View Coal Measures the Dxc shows a normal trend.

In conclusion the Dxc indicates that the pore pressure within **Flinders-1** is normal.

GAS

During the drilling of the 311mm (12 1/4") hole, 408-1525m, background gas slowly increased from a trace to an average of 12.6 units. Occasional gas peaks occurred, due to changes in lithology, with a maximum of 29.4 units at 1381m, however, there was no significant step in the background gas which might indicate overpressure. No Connection gases were observed and trip gases were low 8.5 units at 1041m but between 23-39 units were observed at 1525m whilst performing wiper trips prior to the running of wireline logging and the running of casing. Although these gases were high in comparison with the gases observed whilst drilling they were not related to overpressure. All other measurement indicate a normal pattern and these gas values were high owing to the swab effect of the pipe whilst trying to overcome the effects of swelling clays.

During the drilling of the 216mm (8 1/2") hole (1525m-2723m TD),

background gas generally remained constant, 5 units, to a depth of 1793m where it abruptly dropped to below 1 unit. After 1793m background gas levels slowly increased with depth from 2-11 units until 2667m where the gas averaged 5 units to TD. A reduction was recorded during the drilling of the Dolerite intrusion with the average being 1.2 units between 2211-2271m. Coal was responsible for the gas peaks which were present throughout this section and ranged from as low as 7 units up to 73.7 units at 2699m. Wiper trip/trip gases remained low, between 11.4-19.6 units showing little evidence to indicate that the formation had changed in pressure during this section. Changes in drill rates were reflected in the changes seen in the gas values but no abnormal values were recorded.

All recorded gas values, during the drilling of Flinders 1, indicated that the formation pressure remained constant. Background gas values were consistantly low giving a good indication of overbalance. Apart from the high trip gases observed at 1525m the hole produced low trip/wiper trip gases and no connection gases thus giving no indication of a change within the estimated pore pressure . At 1525m this swabbing was a likely result of a reactive formation rather than an overpressured formation.

BULK DENSITY and SHALE DENSITY

Bulk and shale density measurements were performed rarely while drilling Flinders-1 as the shale/claystone was dispersive in water and generally hydroturgic throughout the well. Since the formation was unsuitable to establish a trend little information can be gained from this analysis.

TEMPERATURE

Flinders-1 was drilled in 69.25m of water. Numerous mud additions made necessary because of losses to the formation from 600m to 1520m (244mm csg depth) made early trend analysis difficult. From the 244mm csg depth to TD the temperature trend was normal with the exception of two regions. While drilling dolerite from 2205m-2275m a negative thermal gradient was observed, the reason for this is not easy to explain however, it may result from the higher thermal conducitivity observed in crystalline rocks conducting away laterally the heat from the mud. From 2580m-2620m a negative thermal gradient was also observed, however, here it was the result of mud additions and a wiper trip.

In conclusion, the thermal gradient observed in Flinders-1 appears to about 2.3 deg/100m which is within the normal be range. The temperature profile of Flinders-1 does not suggest the presence of overpressure.

WIRELINE DATA

Wireline sonic data was obtained over the hole from 403-1240m and 1520-2718m, for the purpose of this analysis the sonic data has

been plotted with a Eaton Overlay. Over the region 403-1240m, within the Torquay Group, sonic data forms an erratic trend with depth and is therefore of little use for pressure analysis. From 1520-2718m a normal compaction trend (NCT) has been established. Local variations in the sonic away from the NCT tend to be the result of lithology changes. The dolerite shows up quite clearly as a low delta T anomaly. In conclusion, the sonic shows a normal formation density increase with depth and does not show any evidence of overpressure.

OTHER DATA

No pressure cavings or any other indications of over-pressure were observed while drilling **Flinders-1**.

SUMMARY and CONCLUSION

Data from the Dxc, gas, shale density, mud temperature and sonic indicate that **Flinders-1** has a normal pore pressure regime.

RAW DcExp PLOT

Raw, untreated data as recorded whilst drilling the well, with no attempt made to allow for bit 'shifting' effects.

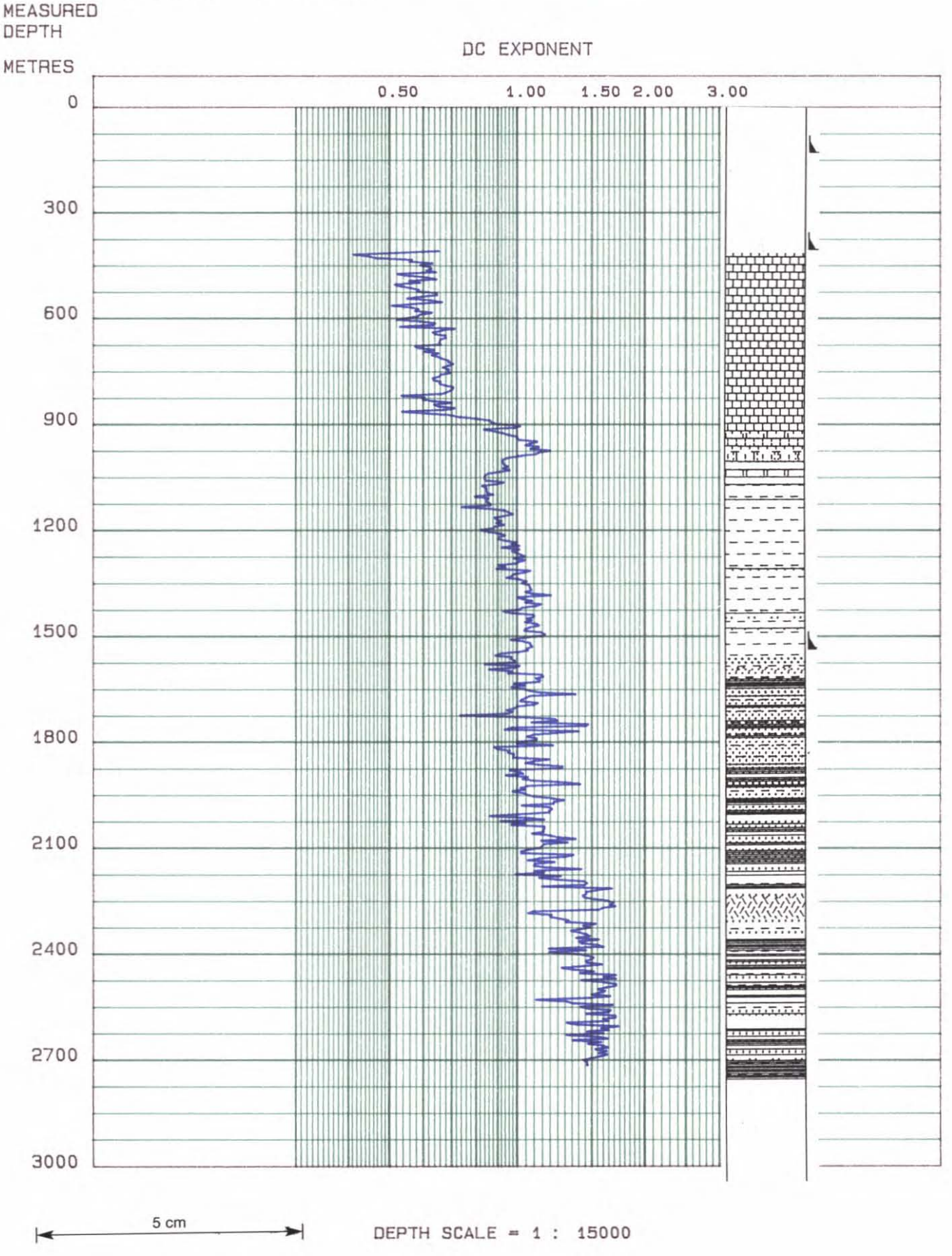
292051

DC EXPONENT PLOT

HALLIBURTON GEODATA

Operator: SAGASCO RESOURCE

Well number: FLINDERS 1



SHIFTED DcExp WITH EATON OVERLAY

This Plot consists of data points which have been analyzed and re-positioned to allow for suspect bit "shifting" effects, different hole size effects, marked changes in hydraulics, and occasional unconformities. This is made in respect to the normal compaction trend, which remains constant for the entire well. This shifting allows for quantitative interpretation For this report, the Dxc values have been incremented by the appropriate amounts to enable the construction of a continuous plot against both the normal compaction trend and the Eaton overlay. The Eaton overlay is derived from the overburden gradient obtained from wireline data.

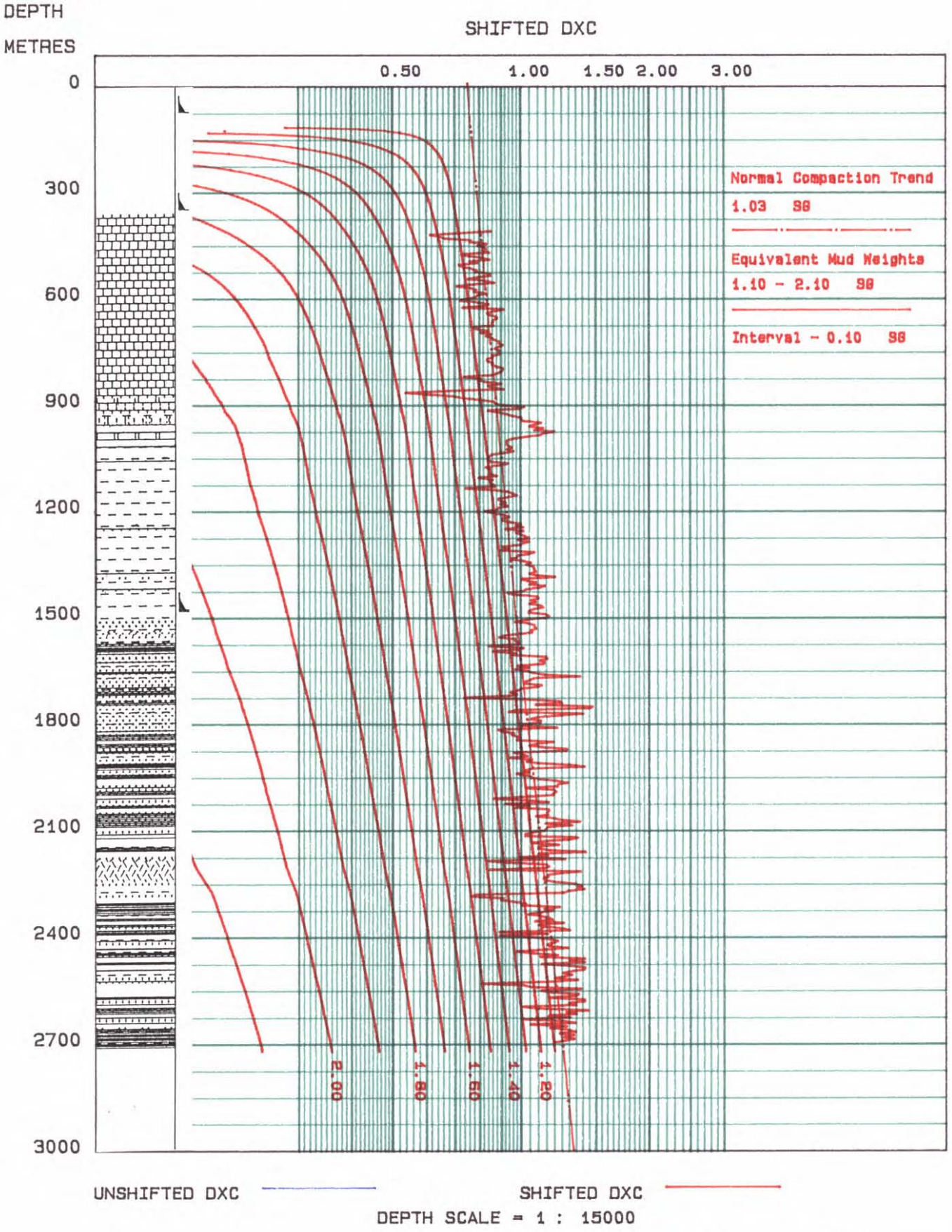
292053

SHIFTED DXC PLOT

Operator: SAGASCO RESOURCE

Well number: FLINDERS 1

HALLIBURTON GEODATA



DEPTH SCALE = 1 : 15000

5 cm

292054

ΔT SONIC PLOT WITH EATON OVERLAY

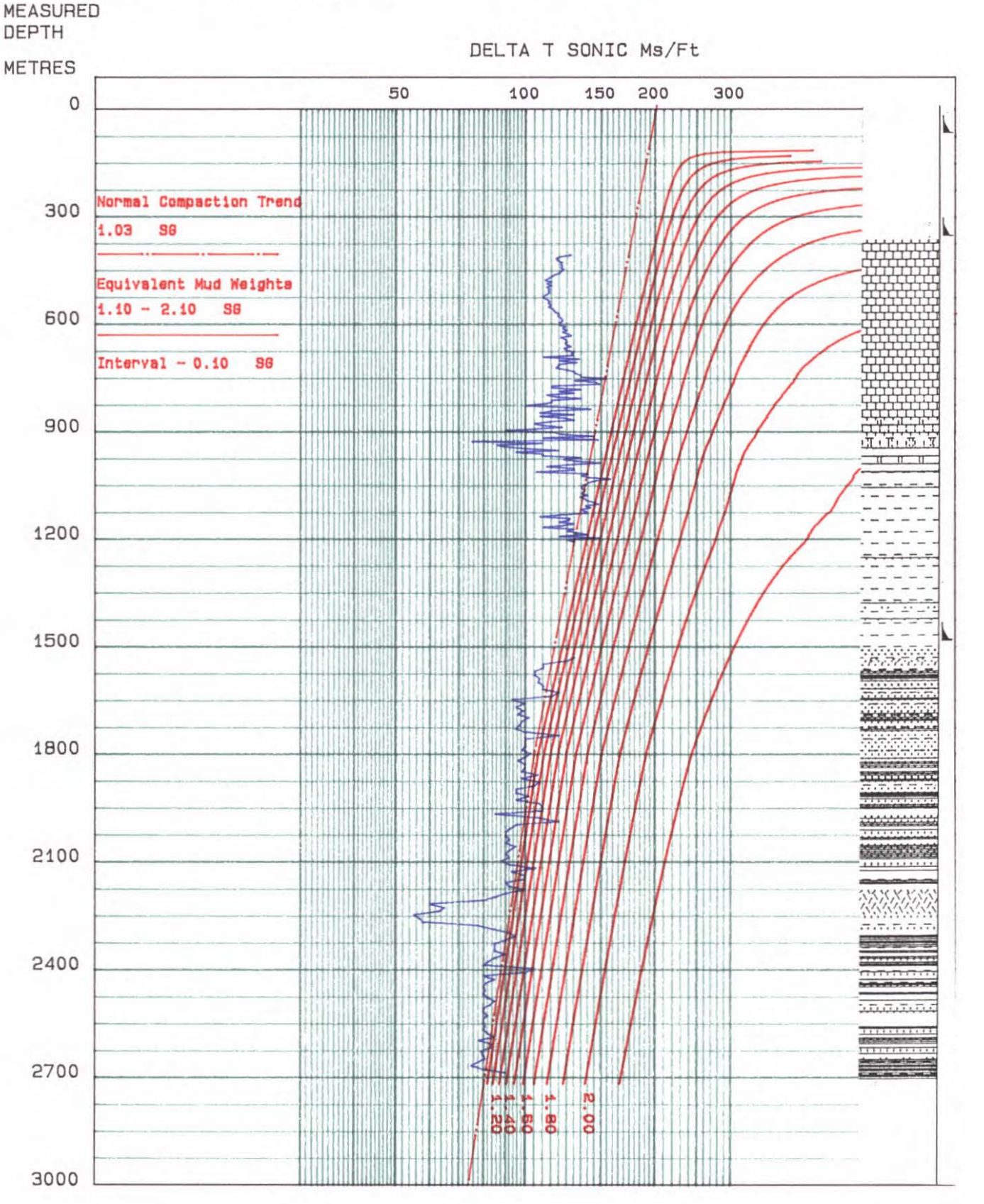
292055

DELTA T SONIC PLOT

Operator: SAGASCO RESOURCE

Well number: FLINDERS 1

HALLIBURTON GEODATA



DEPTH SCALE = 1 : 15000

5 cm

PRESSURE GRADIENT ANALYSIS PLOT

This plot displays the pressure gradients for the well. The formation pressure gradient plotted is the estimate whilst drilling. The overburden gradient is calculated from bulk densities or from wireline log information. The fracture gradient is then calculated by using this same overburden gradient and a shaliness index (Poisson's ratio).

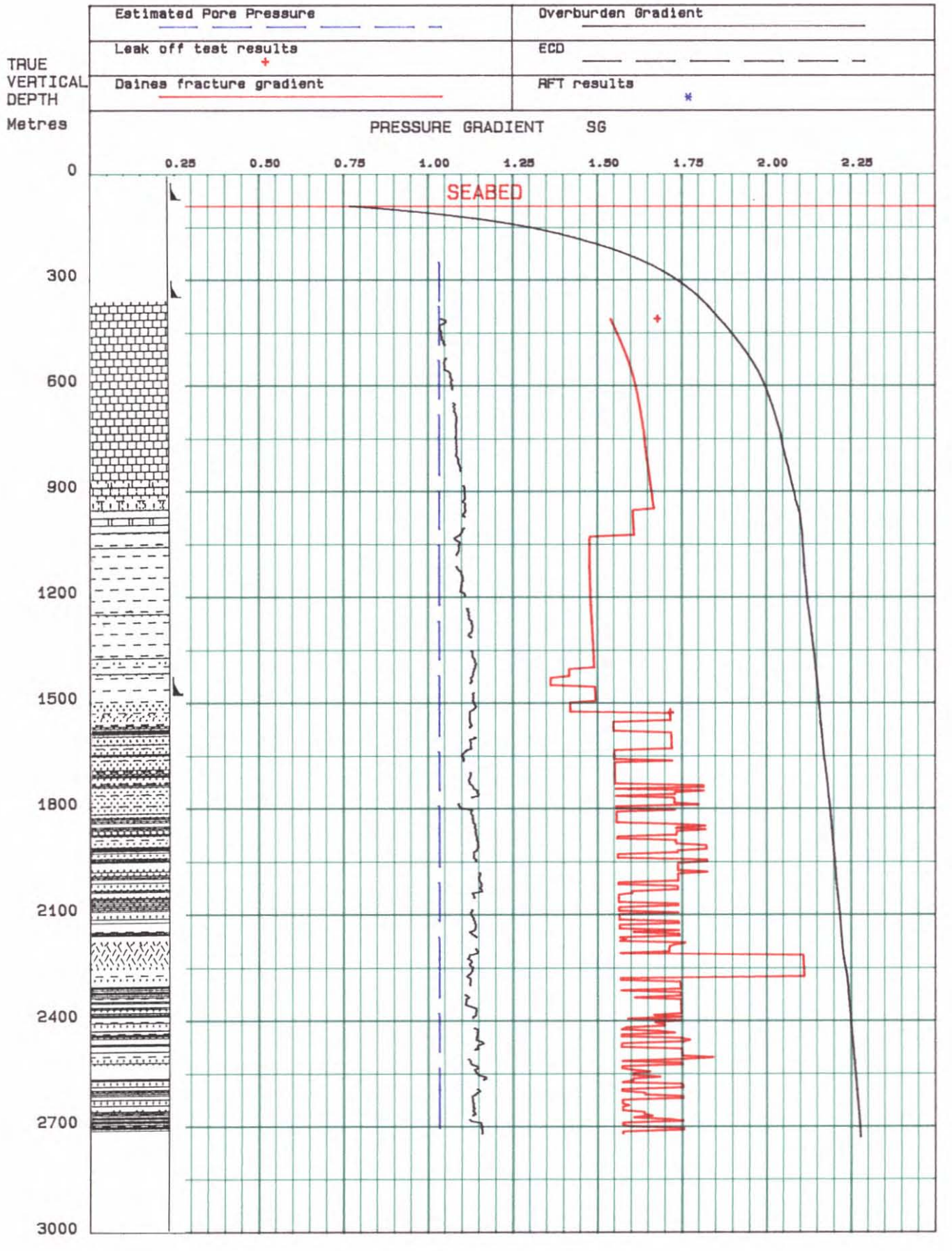
292057

PRESSURE GRADIENT vs DEPTH PLOT

Operator: SAGASCO RESOURCE

Well number: FLINDERS 1

HALLIBURTON GEODATA



DEPTH SCALE = 1 : 15000

5 cm

292058

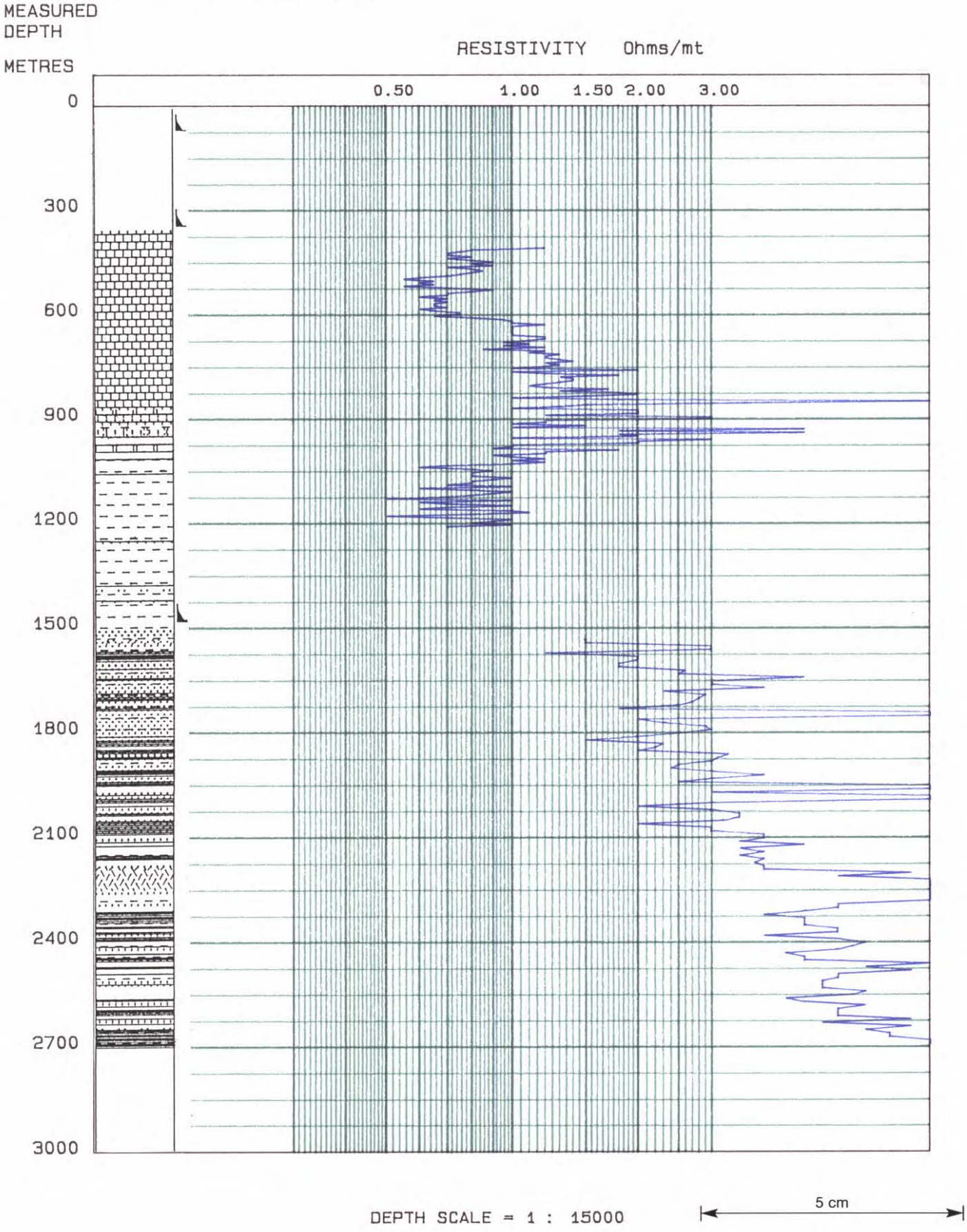
RESISTIVITY, GAMMA-RAY, and DENSITY PLOTS

RESISTIVITY PLOT

HALLIBURTON GEODATA

Operator: SAGASCO RESOURCE

Well number: FLINDERS 1



DEPTH SCALE = 1 : 15000

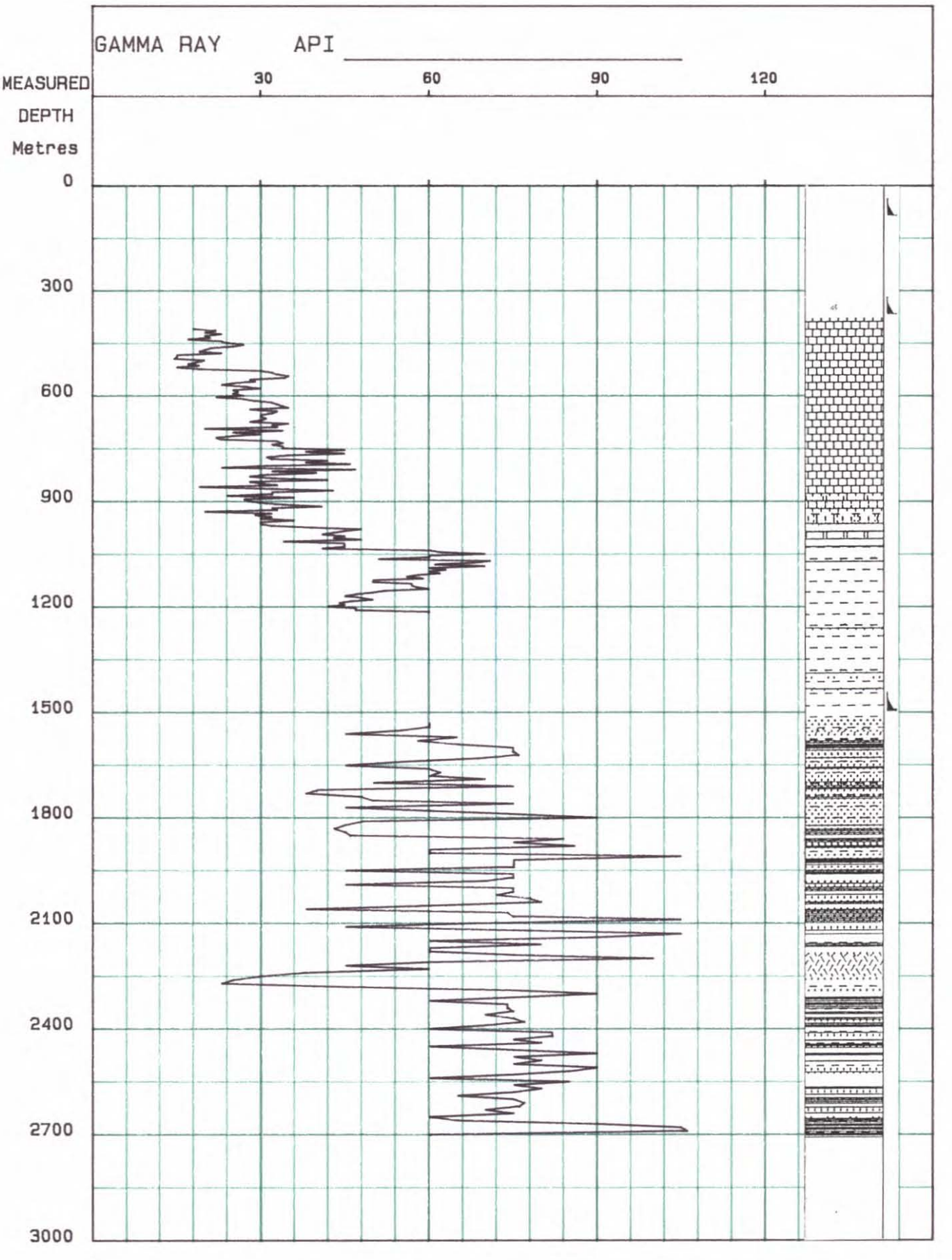
5 cm

292060

HALLIBURTON GEODATA

OVERPRESSURE PLOT

Well No: FLINDERS 1
Operator: SAGASCO RESOURCES



DEPTH SCALE = 1 : 15000

5 cm

292061

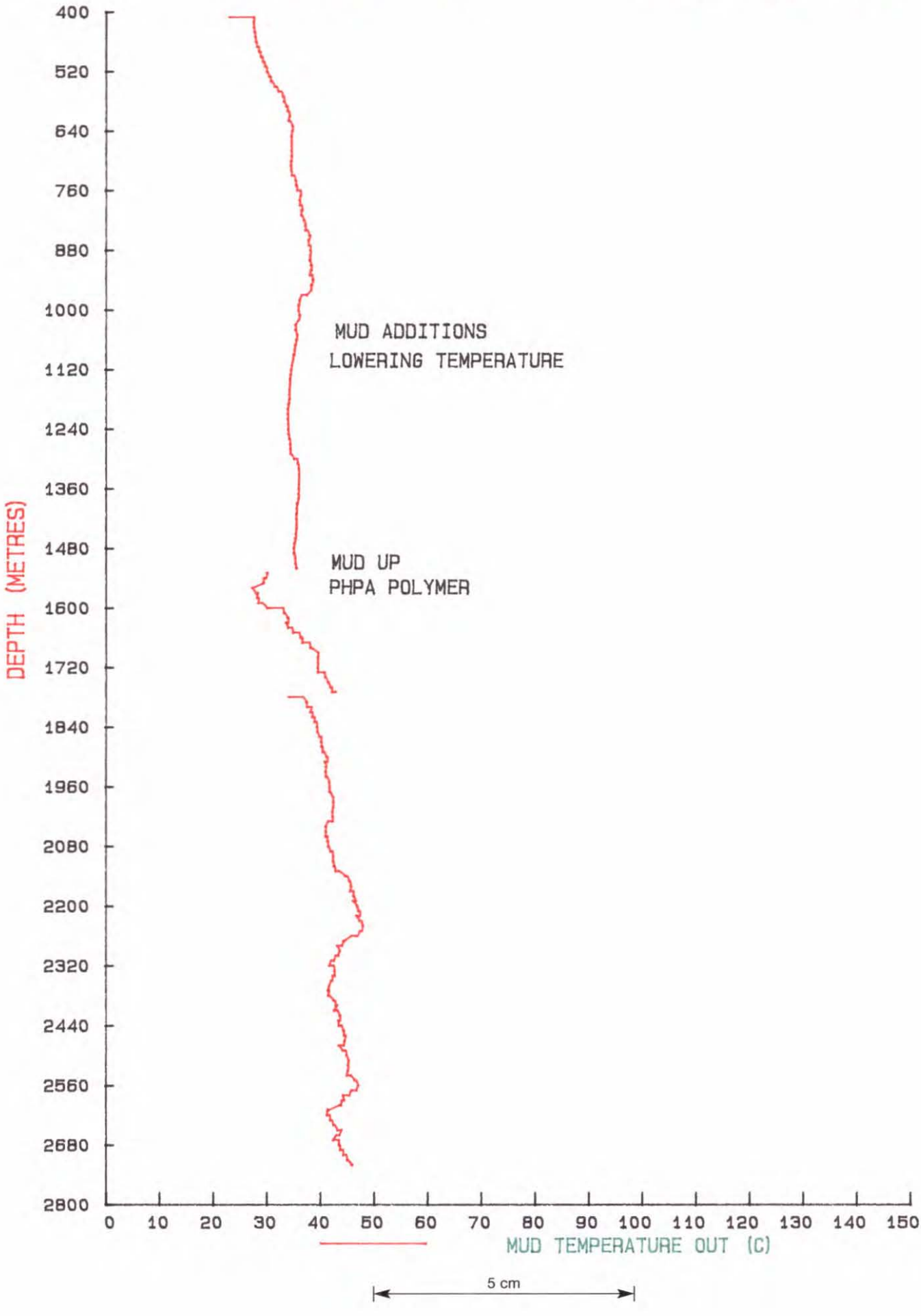
MIGRATED FLOWLINE TEMPERATURE PLOT

292062

HALLIBURTON GEODATA LTD.

FLOWLINE TEMPERATURE PLOT.

Operator: SAGASCO RESOURCES Well No: FLINDERS 1



292063

PRESSURE DATA PRINTOUT

292064

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
90	*****	-999	-999.25	-999	-999	-999	*****	*****	0.77	*****	*****	*****	******
95	*****	-999	-999.25	-999	-999	-999	*****	*****	0.83	*****	*****	*****	******
100	*****	-999	-999.25	-999	-999	-999	*****	*****	0.89	*****	*****	*****	******
105	*****	-999	-999.25	-999	-999	-999	*****	*****	0.95	*****	*****	*****	******
110	*****	-999	-999.25	-999	-999	-999	*****	*****	1.00	*****	*****	*****	******
115	*****	-999	-999.25	-999	-999	-999	*****	*****	1.05	*****	*****	*****	******
120	*****	-999	-999.25	-999	-999	-999	*****	*****	1.09	*****	*****	*****	******
125	*****	-999	-999.25	-999	-999	-999	*****	*****	1.13	*****	*****	*****	******
130	*****	-999	-999.25	-999	-999	-999	*****	*****	1.17	*****	*****	*****	******
135	*****	-999	-999.25	-999	-999	-999	*****	*****	1.21	*****	*****	*****	******
140	*****	-999	-999.25	-999	-999	-999	*****	*****	1.24	*****	*****	*****	******
145	*****	-999	-999.25	-999	-999	-999	*****	*****	1.27	*****	*****	*****	******
150	*****	-999	-999.25	-999	-999	-999	*****	*****	1.30	*****	*****	*****	******
155	*****	-999	-999.25	-999	-999	-999	*****	*****	1.32	*****	*****	*****	******
160	*****	-999	-999.25	-999	-999	-999	*****	*****	1.35	*****	*****	*****	******
165	*****	-999	-999.25	-999	-999	-999	*****	*****	1.37	*****	*****	*****	******
170	*****	-999	-999.25	-999	-999	-999	*****	*****	1.39	*****	*****	*****	******
175	*****	-999	-999.25	-999	-999	-999	*****	*****	1.41	*****	*****	*****	******
180	*****	-999	-999.25	-999	-999	-999	*****	*****	1.43	*****	*****	*****	******
185	*****	-999	-999.25	-999	-999	-999	*****	*****	1.45	*****	*****	*****	******
190	*****	-999	-999.25	-999	-999	-999	*****	*****	1.47	*****	*****	*****	******
195	*****	-999	-999.25	-999	-999	-999	*****	*****	1.49	*****	*****	*****	******
200	*****	-999	-999.25	-999	-999	-999	*****	*****	1.50	*****	*****	*****	******
205	*****	-999	-999.25	-999	-999	-999	*****	*****	1.52	*****	*****	*****	******
210	*****	-999	-999.25	-999	-999	-999	*****	*****	1.54	*****	*****	*****	******
215	*****	-999	-999.25	-999	-999	-999	*****	*****	1.55	*****	*****	*****	******
220	*****	-999	-999.25	-999	-999	-999	*****	*****	1.57	*****	*****	*****	******
225	*****	-999	-999.25	-999	-999	-999	*****	*****	1.58	*****	*****	*****	******
230	*****	-999	-999.25	-999	-999	-999	*****	*****	1.59	*****	*****	*****	******
235	*****	-999	-999.25	-999	-999	-999	*****	*****	1.61	*****	*****	*****	******
240	*****	-999	-999.25	-999	-999	-999	*****	*****	1.62	*****	*****	*****	******
245	*****	-999	-999.25	-999	-999	-999	*****	*****	1.63	*****	*****	*****	******
250	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.64	*****	*****	*****	******
255	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.65	*****	*****	*****	******
260	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.66	*****	*****	*****	******
265	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.67	*****	*****	*****	******
270	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.68	*****	*****	*****	******
275	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.69	*****	*****	*****	******
280	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.70	*****	*****	*****	******
285	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.71	*****	*****	*****	******
290	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.72	*****	*****	*****	******
295	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.73	*****	*****	*****	******
300	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.74	*****	*****	*****	******
305	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.74	*****	*****	*****	******
310	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.75	*****	*****	*****	******
315	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.76	*****	*****	*****	******
320	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.76	*****	*****	*****	******
325	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.77	*****	*****	*****	******
330	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.78	*****	*****	*****	******
335	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.78	*****	*****	*****	******

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
340	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.79	*****	*****	*****	******
345	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.80	*****	*****	*****	******
350	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.80	*****	*****	*****	******
355	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.81	*****	*****	*****	******
360	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.81	*****	*****	*****	******
365	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.82	*****	*****	*****	******
370	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.82	*****	*****	*****	******
375	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.83	*****	*****	*****	******
380	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.83	*****	*****	*****	******
385	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.84	*****	*****	*****	******
390	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.84	*****	*****	*****	******
395	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.85	*****	*****	*****	******
400	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.85	*****	*****	*****	******
405	*****	-999	-999.25	-999	-999	-999	1.03	*****	1.86	*****	*****	*****	******
410	0.65	128	1.20	18	0	7	1.03	1.04	1.86	1.37	1.54	1.42	0.280
415	0.52	120	0.80	22	0	14	1.03	1.05	1.87	1.38	1.54	1.42	0.280
420	0.41	118	0.75	20	0	10	1.03	1.05	1.87	1.37	1.54	1.43	0.280
425	0.45	119	0.70	23	0	15	1.03	1.04	1.88	1.39	1.55	1.43	0.280
430	0.47	122	0.70	20	0	10	1.03	1.03	1.88	1.38	1.55	1.43	0.280
435	0.57	121	0.80	21	0	12	1.03	1.03	1.88	1.38	1.55	1.44	0.280
440	0.56	122	0.70	17	0	5	1.03	1.03	1.89	1.37	1.55	1.44	0.280
445	0.63	121	0.80	23	0	15	1.03	1.04	1.89	1.39	1.56	1.44	0.280
450	0.59	123	0.90	24	0	17	1.03	1.04	1.90	1.40	1.56	1.45	0.280
455	0.62	121	0.80	27	0	22	1.03	1.04	1.90	1.41	1.56	1.45	0.280
460	0.63	120	0.90	25	0	19	1.03	1.04	1.90	1.41	1.56	1.45	0.280
465	0.61	117	0.70	21	0	12	1.03	1.04	1.91	1.39	1.57	1.46	0.280
470	0.65	115	0.80	20	0	10	1.03	1.04	1.91	1.39	1.57	1.46	0.280
475	0.52	113	0.85	19	0	8	1.03	1.05	1.92	1.39	1.57	1.46	0.280
480	0.56	111	0.80	23	0	15	1.03	1.04	1.92	1.40	1.57	1.47	0.280
485	0.61	115	0.75	15	0	1	1.03	1.05	1.92	1.37	1.58	1.47	0.280
490	0.65	112	0.70	15	0	1	1.03	1.05	1.93	1.38	1.58	1.47	0.280
495	0.56	115	0.60	14	0	0	1.03	1.05	1.93	1.38	1.58	1.47	0.280
500	0.59	112	0.55	20	0	10	1.03	1.05	1.94	1.40	1.58	1.48	0.280
505	0.51	114	0.65	18	0	7	1.03	1.05	1.94	1.39	1.58	1.48	0.280
510	0.53	113	0.60	17	0	5	1.03	1.05	1.94	1.39	1.59	1.48	0.280
515	0.56	114	0.65	19	0	8	1.03	1.06	1.95	1.40	1.59	1.49	0.280
520	0.59	112	0.55	15	0	1	1.03	1.06	1.95	1.38	1.59	1.49	0.280
525	0.58	110	0.70	19	0	8	1.03	1.05	1.95	1.40	1.59	1.49	0.280
530	0.65	110	0.90	30	0	28	1.03	1.05	1.96	1.45	1.59	1.50	0.280
535	0.65	113	0.80	32	0	31	1.03	1.04	1.96	1.46	1.59	1.50	0.280
540	0.59	114	0.70	33	0	33	1.03	1.05	1.96	1.46	1.60	1.50	0.280
545	0.55	113	0.70	35	0	36	1.03	1.05	1.97	1.47	1.60	1.50	0.280
550	0.63	115	0.60	34	0	35	1.03	1.05	1.97	1.47	1.60	1.51	0.280
555	0.67	113	0.70	28	0	24	1.03	1.05	1.97	1.45	1.60	1.51	0.280
560	0.58	116	0.65	29	0	26	1.03	1.06	1.98	1.45	1.60	1.51	0.280
565	0.51	117	0.70	25	0	19	1.03	1.06	1.98	-1.43	1.60	1.51	0.280
570	0.56	118	0.65	23	0	15	1.03	1.07	1.98	1.43	1.61	1.52	0.280
575	0.59	120	0.65	27	0	22	1.03	1.07	1.98	1.45	1.61	1.52	0.280
580	0.57	119	0.70	30	0	28	1.03	1.07	1.99	1.46	1.61	1.52	0.280
585	0.63	121	0.60	25	0	19	1.03	1.07	1.99	1.44	1.61	1.52	0.280

292066

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
590	0.59	122	0.65	26	0	21	1.03	1.07	1.99	1.44	1.61	1.53	0.280
595	0.58	122	0.75	25	0	19	1.03	1.07	1.99	1.44	1.61	1.53	0.280
600	0.55	120	0.75	27	0	22	1.03	1.07	2.00	1.45	1.61	1.53	0.280
605	0.52	120	0.65	22	0	14	1.03	1.07	2.00	1.43	1.62	1.53	0.280
610	0.59	124	0.80	27	0	22	1.03	1.07	2.00	1.45	1.62	1.54	0.280
615	0.64	122	0.95	29	0	26	1.03	1.07	2.00	1.46	1.62	1.54	0.280
620	0.63	125	1.00	32	0	31	1.03	1.07	2.00	1.48	1.62	1.54	0.280
625	0.53	122	1.00	33	0	33	1.03	1.07	2.01	1.48	1.62	1.54	0.280
630	0.71	126	1.20	34	0	35	1.03	1.07	2.01	1.49	1.62	1.54	0.280
635	0.67	128	1.00	35	0	36	1.03	1.07	2.01	1.49	1.62	1.55	0.280
640	0.63	121	1.00	28	0	24	1.03	1.07	2.01	1.46	1.62	1.55	0.280
645	0.64	124	1.00	33	0	33	1.03	1.07	2.01	1.48	1.62	1.55	0.280
650	0.68	125	1.00	32	0	31	1.03	1.07	2.01	1.48	1.62	1.55	0.280
655	0.68	124	1.00	30	0	28	1.03	1.08	2.02	1.47	1.63	1.55	0.280
660	0.66	125	1.00	30	0	28	1.03	1.07	2.02	1.47	1.63	1.56	0.280
665	0.66	128	1.20	31	0	29	1.03	1.08	2.02	1.48	1.63	1.56	0.280
670	0.65	123	1.20	30	0	28	1.03	1.08	2.02	1.47	1.63	1.56	0.280
675	0.66	125	1.10	28	0	24	1.03	1.08	2.02	1.47	1.63	1.56	0.280
680	0.57	130	0.95	35	0	36	1.03	1.08	2.02	1.50	1.63	1.56	0.280
685	0.59	128	1.10	32	0	31	1.03	1.08	2.03	1.48	1.63	1.57	0.280
690	0.64	130	0.95	33	0	33	1.03	1.08	2.03	1.49	1.63	1.57	0.280
695	0.60	110	1.20	20	0	10	1.03	1.08	2.03	1.43	1.63	1.57	0.280
700	0.65	134	0.85	34	0	35	1.03	1.08	2.03	1.50	1.63	1.57	0.280
705	0.63	120	1.20	25	0	19	1.03	1.08	2.03	1.46	1.63	1.57	0.280
710	0.65	132	1.10	30	0	28	1.03	1.08	2.03	1.48	1.64	1.58	0.280
715	0.67	120	1.30	25	0	19	1.03	1.08	2.04	1.46	1.64	1.58	0.280
720	0.69	119	1.20	22	0	14	1.03	1.08	2.04	1.44	1.64	1.58	0.280
725	0.69	118	1.20	23	0	15	1.03	1.08	2.04	1.45	1.64	1.58	0.280
730	0.71	125	1.30	33	0	33	1.03	1.08	2.04	1.50	1.64	1.58	0.280
735	0.69	130	1.40	34	0	35	1.03	1.08	2.04	1.50	1.64	1.58	0.280
740	0.67	131	1.20	32	0	31	1.03	1.08	2.04	1.49	1.64	1.59	0.280
745	0.69	135	1.30	34	0	35	1.03	1.08	2.04	1.50	1.64	1.59	0.280
750	0.69	135	1.20	34	0	35	1.03	1.08	2.04	1.50	1.64	1.59	0.280
755	0.70	155	1.00	45	0	54	1.03	1.08	2.05	1.56	1.64	1.59	0.280
760	0.66	130	2.00	38	0	42	1.03	1.08	2.05	1.52	1.64	1.59	0.280
765	0.66	146	1.00	45	0	54	1.03	1.08	2.05	1.56	1.64	1.59	0.280
770	0.63	149	1.20	35	0	36	1.03	1.08	2.05	1.51	1.64	1.60	0.280
775	0.64	115	1.80	31	0	29	1.03	1.08	2.05	1.49	1.64	1.60	0.280
780	0.66	115	1.30	32	0	31	1.03	1.08	2.05	1.49	1.64	1.60	0.280
785	0.65	135	1.40	42	0	49	1.03	1.08	2.05	1.54	1.64	1.60	0.280
790	0.68	120	1.40	38	0	42	1.03	1.08	2.05	1.53	1.65	1.60	0.280
795	0.71	130	1.30	46	0	56	1.03	1.08	2.05	1.57	1.65	1.60	0.280
800	0.71	112	1.20	31	0	29	1.03	1.08	2.06	1.49	1.65	1.61	0.280
805	0.69	118	1.10	23	0	15	1.03	1.09	2.06	1.46	1.65	1.61	0.280
810	0.68	135	1.20	47	0	57	1.03	1.09	2.06	1.57	1.65	1.61	0.280
815	0.66	115	1.70	32	0	31	1.03	1.09	2.06	1.50	1.65	1.61	0.280
820	0.53	115	1.30	40	0	45	1.03	1.09	2.06	1.54	1.65	1.61	0.280
825	0.61	110	1.80	31	0	29	1.03	1.09	2.06	1.50	1.65	1.61	0.280
830	0.60	100	2.00	28	0	24	1.03	1.09	2.06	1.48	1.65	1.62	0.280
835	0.64	125	1.50	32	0	31	1.03	1.10	2.07	1.50	1.65	1.62	0.280

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DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
840	0.70	142	1.00	42	0	49	1.03	1.09	2.07	1.55	1.65	1.62	0.280
845	0.64	115	1.80	28	0	24	1.03	1.10	2.07	1.48	1.65	1.62	0.280
850	0.65	108	20.00	30	0	28	1.03	1.10	2.07	1.49	1.65	1.62	0.280
855	0.71	130	3.60	33	0	33	1.03	1.10	2.07	1.51	1.65	1.62	0.280
860	0.67	108	1.50	19	0	8	1.03	1.10	2.07	1.44	1.66	1.63	0.280
865	0.53	125	1.30	32	0	31	1.03	1.10	2.07	1.50	1.66	1.63	0.280
870	0.61	130	1.00	43	0	50	1.03	1.10	2.07	1.56	1.66	1.63	0.280
875	0.70	114	2.00	32	0	31	1.03	1.10	2.07	1.50	1.66	1.63	0.280
880	0.74	105	2.00	32	0	31	1.03	1.10	2.08	1.51	1.66	1.63	0.280
885	0.80	110	2.00	24	0	17	1.03	1.11	2.08	1.47	1.66	1.63	0.280
890	0.86	122	1.20	36	0	38	1.03	1.11	2.08	1.53	1.66	1.64	0.280
895	0.87	105	3.00	27	0	22	1.03	1.11	2.08	1.48	1.66	1.64	0.280
900	0.90	90	3.00	28	0	24	1.03	1.11	2.08	1.49	1.66	1.64	0.280
905	1.02	118	1.20	30	0	28	1.03	1.11	2.08	1.50	1.66	1.64	0.280
910	0.99	122	1.20	34	0	35	1.03	1.11	2.08	1.52	1.66	1.64	0.280
915	0.83	145	1.00	41	0	47	1.03	1.11	2.08	1.55	1.66	1.64	0.280
920	0.89	110	1.50	32	0	31	1.03	1.11	2.09	1.51	1.66	1.65	0.280
925	0.93	148	1.00	33	0	33	1.03	1.10	2.09	1.51	1.66	1.65	0.280
930	0.96	75	5.00	20	0	10	1.03	1.10	2.09	1.45	1.67	1.65	0.280
935	1.00	110	1.80	32	0	31	1.03	1.11	2.09	1.51	1.67	1.65	0.280
940	1.00	86	5.00	29	0	26	1.03	1.11	2.09	1.50	1.67	1.65	0.280
945	1.02	90	1.80	32	0	31	1.03	1.11	2.09	1.51	1.67	1.65	0.280
950	1.12	100	2.00	30	0	28	1.03	1.11	2.09	1.50	1.67	1.66	0.280
955	1.07	120	1.00	36	0	38	1.03	1.11	2.10	1.53	1.60	1.66	0.247
960	1.04	95	3.00	30	0	28	1.03	1.11	2.10	1.50	1.60	1.66	0.247
965	1.13	110	2.00	30	0	28	1.03	1.10	2.10	1.51	1.61	1.66	0.247
970	1.07	110	2.00	32	0	31	1.03	1.10	2.10	1.52	1.61	1.66	0.247
975	1.20	135	1.00	39	0	43	1.03	1.11	2.10	1.55	1.61	1.66	0.247
980	1.13	123	1.00	48	0	59	1.03	1.11	2.10	1.60	1.61	1.67	0.247
985	1.11	132	0.90	45	0	54	1.03	1.11	2.10	1.58	1.61	1.67	0.247
990	1.02	150	1.80	43	0	50	1.03	1.11	2.10	1.57	1.61	1.67	0.247
995	0.95	126	1.20	41	0	47	1.03	1.11	2.10	1.56	1.61	1.67	0.247
1000	0.92	112	1.20	45	0	54	1.03	1.11	2.10	1.58	1.61	1.67	0.247
1005	0.92	130	0.90	43	0	50	1.03	1.11	2.10	1.57	1.61	1.67	0.247
1010	0.93	130	1.00	48	0	59	1.03	1.10	2.10	1.60	1.61	1.67	0.247
1015	0.94	106	1.20	34	0	35	1.03	1.10	2.11	1.53	1.61	1.67	0.247
1020	0.95	140	1.00	45	0	54	1.03	1.09	2.11	1.59	1.61	1.68	0.247
1025	0.92	135	1.20	45	0	54	1.03	1.09	2.11	1.59	1.61	1.68	0.247
1030	0.96	140	1.00	45	0	54	1.03	1.08	2.11	1.59	1.48	1.68	0.170
1035	0.91	158	0.70	41	0	47	1.03	1.07	2.11	1.56	1.48	1.68	0.170
1040	0.85	145	0.60	60	0	80	1.03	1.08	2.11	1.67	1.48	1.68	0.170
1045	0.84	140	0.80	62	0	84	1.03	1.09	2.11	1.68	1.48	1.68	0.170
1050	0.84	138	0.90	70	0	98	1.03	1.09	2.11	1.73	1.48	1.68	0.170
1055	0.84	135	0.80	60	0	80	1.03	1.09	2.11	1.67	1.48	1.68	0.170
1060	0.85	135	0.80	60	0	80	1.03	1.09	2.11	1.67	1.48	1.68	0.170
1065	0.93	138	0.80	51	0	64	1.03	1.09	2.11	1.62	1.48	1.68	0.170
1070	0.90	137	1.00	71	0	100	1.03	1.09	2.11	1.74	1.48	1.69	0.170
1075	0.83	135	0.90	68	0	94	1.03	1.08	2.11	1.72	1.48	1.69	0.170
1080	0.85	140	0.80	61	0	82	1.03	1.08	2.11	1.68	1.48	1.69	0.170
1085	0.85	134	0.80	70	0	98	1.03	1.08	2.11	1.74	1.48	1.69	0.170

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DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
1090	0.85	138	0.70	60	0	80	1.03	1.08	2.11	1.67	1.48	1.69	0.170
1095	0.85	139	1.00	63	0	85	1.03	1.08	2.11	1.69	1.48	1.69	0.170
1100	0.88	145	0.60	60	0	80	1.03	1.09	2.11	1.67	1.48	1.69	0.170
1105	0.79	148	0.80	62	0	84	1.03	1.09	2.11	1.69	1.48	1.69	0.170
1110	0.86	138	1.00	58	0	77	1.03	1.08	2.11	1.66	1.48	1.69	0.170
1115	0.84	142	0.90	56	0	73	1.03	1.08	2.11	1.65	1.48	1.69	0.170
1120	0.85	135	0.80	59	0	78	1.03	1.09	2.11	1.67	1.48	1.70	0.170
1125	0.87	138	0.70	50	0	63	1.03	1.09	2.11	1.62	1.48	1.70	0.170
1130	0.87	140	0.50	50	0	63	1.03	1.10	2.11	1.62	1.48	1.70	0.170
1135	0.74	120	1.00	57	0	75	1.03	1.10	2.11	1.66	1.48	1.70	0.170
1140	0.86	108	0.60	57	0	75	1.03	1.10	2.11	1.66	1.48	1.70	0.170
1145	0.94	127	0.70	58	0	77	1.03	1.10	2.11	1.66	1.48	1.70	0.170
1150	0.96	126	1.00	60	0	80	1.03	1.10	2.12	1.68	1.48	1.70	0.170
1155	0.98	120	0.70	52	0	66	1.03	1.10	2.12	1.63	1.48	1.70	0.170
1160	0.93	130	0.60	50	0	63	1.03	1.10	2.12	1.62	1.48	1.71	0.170
1165	0.88	122	1.00	47	0	57	1.03	1.10	2.12	1.60	1.48	1.71	0.170
1170	0.90	110	1.10	45	0	54	1.03	1.10	2.12	1.59	1.48	1.71	0.170
1175	0.92	130	0.80	48	0	59	1.03	1.09	2.12	1.61	1.48	1.71	0.170
1180	0.89	125	0.50	50	0	63	1.03	1.10	2.12	1.62	1.48	1.71	0.170
1185	0.93	132	0.70	46	0	56	1.03	1.09	2.12	1.60	1.48	1.71	0.170
1190	0.89	140	1.00	44	0	52	1.03	1.11	2.12	1.59	1.48	1.71	0.170
1195	0.88	120	0.90	45	0	54	1.03	1.11	2.12	1.59	1.48	1.71	0.170
1200	0.82	150	0.80	42	0	49	1.03	1.10	2.12	1.58	1.48	1.71	0.170
1205	0.86	125	1.00	47	0	57	1.03	1.10	2.12	1.60	1.48	1.71	0.170
1210	0.91	130	0.70	47	0	57	1.03	1.10	2.12	1.60	1.48	1.72	0.170
1215	0.94	130	0.80	60	0	80	1.03	1.11	2.12	1.68	1.48	1.72	0.170
1220	0.90	122	1.00	-999	0	0	1.03	1.11	2.12	1.44	1.48	1.72	0.170
1225	0.90	110	0.80	-999	0	0	1.03	1.11	2.12	1.44	1.48	1.72	0.170
1230	0.94	-999	0.50	-999	0	0	1.03	1.11	2.12	1.44	1.48	1.72	0.170
1235	1.00	-999	0.60	-999	0	0	1.03	1.12	2.12	1.44	1.48	1.72	0.170
1240	0.97	-999	0.80	-999	0	0	1.03	1.11	2.13	1.44	1.48	1.72	0.170
1245	1.01	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.48	1.72	0.170
1250	0.92	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.48	1.73	0.170
1255	1.02	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.48	1.73	0.170
1260	0.97	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.48	1.73	0.170
1265	1.00	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.48	1.73	0.170
1270	1.03	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.48	1.73	0.170
1275	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.48	1.73	0.170
1280	0.98	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.48	1.73	0.170
1285	1.05	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.49	1.73	0.170
1290	1.01	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.49	1.74	0.170
1295	0.99	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.49	1.74	0.170
1300	0.90	-999	-999.25	-999	0	0	1.03	1.13	2.13	1.44	1.49	1.74	0.170
1305	0.94	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.49	1.74	0.170
1310	0.89	-999	-999.25	-999	0	0	1.03	1.12	2.13	1.44	1.49	1.74	0.170
1315	1.08	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.74	0.170
1320	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.74	0.170
1325	0.98	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.74	0.170
1330	0.97	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.74	0.170
1335	0.94	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.75	0.170

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
1340	1.02	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.44	1.49	1.75	0.170
1345	1.06	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.45	1.49	1.75	0.170
1350	1.03	-999	-999.25	-999	0	0	1.03	1.12	2.14	1.45	1.49	1.75	0.170
1355	1.07	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.45	1.49	1.75	0.170
1360	1.07	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.45	1.49	1.75	0.170
1365	1.08	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.45	1.49	1.75	0.170
1370	1.08	-999	-999.25	-999	0	0	1.03	1.13	2.14	1.45	1.49	1.75	0.170
1375	1.04	-999	-999.25	-999	0	0	1.03	1.14	2.14	1.45	1.49	1.76	0.170
1380	1.09	-999	-999.25	-999	0	0	1.03	1.14	2.14	1.45	1.49	1.76	0.170
1385	1.20	-999	-999.25	-999	0	0	1.03	1.14	2.14	1.45	1.49	1.76	0.170
1390	1.00	-999	-999.25	-999	0	0	1.03	1.14	2.14	1.45	1.49	1.76	0.170
1395	1.04	-999	-999.25	-999	0	0	1.03	1.14	2.14	1.45	1.49	1.76	0.170
1400	1.09	-999	-999.25	-999	0	0	1.03	1.14	2.15	1.45	1.49	1.76	0.170
1405	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.41	1.76	0.120
1410	1.14	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.41	1.76	0.120
1415	1.10	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.41	1.76	0.120
1420	1.02	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.42	1.77	0.120
1425	1.01	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.42	1.77	0.120
1430	0.93	-999	-999.25	-999	0	0	1.03	1.12	2.15	1.45	1.36	1.77	0.080
1435	0.98	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.36	1.77	0.080
1440	1.09	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.36	1.77	0.080
1445	1.10	-999	-999.25	-999	0	0	1.03	1.12	2.15	1.45	1.36	1.77	0.080
1450	1.05	-999	-999.25	-999	0	0	1.03	1.12	2.15	1.45	1.36	1.77	0.080
1455	1.08	-999	-999.25	-999	0	0	1.03	1.12	2.15	1.45	1.49	1.77	0.170
1460	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.49	1.77	0.170
1465	1.11	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.49	1.77	0.170
1470	1.13	-999	-999.25	-999	0	0	1.03	1.14	2.15	1.45	1.49	1.78	0.170
1475	1.07	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.49	1.78	0.170
1480	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.49	1.78	0.170
1485	1.04	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.50	1.78	0.170
1490	1.15	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.50	1.78	0.170
1495	1.17	-999	-999.25	-999	0	0	1.03	1.13	2.15	1.45	1.50	1.78	0.170
1500	1.13	-999	-999.25	-999	0	0	1.03	1.13	2.16	1.45	1.42	1.78	0.120
1505	1.03	-999	-999.25	-999	0	0	1.03	1.14	2.16	1.45	1.42	1.78	0.120
1510	0.96	-999	-999.25	-999	0	0	1.03	1.14	2.16	1.45	1.42	1.78	0.120
1515	1.04	-999	-999.25	-999	0	0	1.03	1.14	2.16	1.45	1.42	1.79	0.120
1520	1.08	-999	-999.25	-999	0	0	1.03	1.13	2.16	1.45	1.42	1.79	0.120
1525	1.08	-999	-999.25	-999	0	0	1.03	1.12	2.16	1.45	1.42	1.79	0.120
1530	1.09	130	1.50	60	0	0	1.03	1.12	2.16	1.46	1.72	1.79	0.170
1535	1.05	130	-999.25	-999	0	0	1.03	1.12	2.16	1.46	1.72	1.79	0.170
1540	1.06	125	1.50	60	0	0	1.03	1.12	2.16	1.46	1.72	1.79	0.170
1545	1.00	125	-999.25	-999	0	0	1.03	1.12	2.16	1.46	1.72	1.79	0.170
1550	0.91	110	3.00	55	0	0	1.03	1.12	2.16	1.46	1.72	1.80	0.170
1555	0.89	110	-999.25	-999	0	0	1.03	1.12	2.16	1.46	1.55	1.80	0.050
1560	0.97	110	3.00	45	0	0	1.03	1.13	2.16	1.46	1.55	1.80	0.050
1565	0.97	110	-999.25	-999	0	0	1.03	1.13	2.16	-1.46	1.55	1.80	0.050
1570	0.99	105	1.20	65	0	0	1.03	1.12	2.16	1.46	1.55	1.80	0.050
1575	0.99	105	-999.25	-999	0	0	1.03	1.13	2.16	1.46	1.55	1.80	0.050
1580	0.84	105	2.00	58	0	0	1.03	1.13	2.16	1.46	1.55	1.80	0.050
1585	1.02	105	-999.25	-999	0	0	1.03	1.13	2.16	1.46	1.72	1.80	0.170

292070

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
1590	0.98	108	2.00	65	0	0	1.03	1.12	2.16	1.46	1.72	1.80	0.170
1595	0.86	108	-999.25	-999	0	0	1.03	1.12	2.16	1.46	1.72	1.80	0.170
1600	0.98	107	1.80	75	0	0	1.03	1.14	2.16	1.46	1.72	1.80	0.170
1605	0.95	107	-999.25	-999	0	0	1.03	1.12	2.17	1.46	1.72	1.81	0.170
1610	1.15	110	1.80	75	0	0	1.03	1.12	2.17	1.46	1.72	1.81	0.170
1615	1.16	110	-999.25	-999	0	0	1.03	1.13	2.17	1.46	1.72	1.81	0.170
1620	1.10	110	2.60	76	0	0	1.03	1.12	2.17	1.46	1.72	1.81	0.170
1625	1.14	110	-999.25	-999	0	0	1.03	1.12	2.17	1.46	1.72	1.81	0.170
1630	1.13	120	2.50	69	0	0	1.03	1.13	2.17	1.46	1.72	1.81	0.170
1635	0.98	120	-999.25	-999	0	0	1.03	1.11	2.17	1.46	1.55	1.81	0.050
1640	1.05	115	5.00	55	0	0	1.03	1.11	2.17	1.46	1.55	1.81	0.050
1645	0.97	115	-999.25	-999	0	0	1.03	1.10	2.17	1.46	1.55	1.81	0.050
1650	1.04	93	3.00	45	0	0	1.03	1.10	2.17	1.46	1.55	1.81	0.050
1655	1.07	93	-999.25	-999	0	0	1.03	1.10	2.17	1.46	1.55	1.82	0.050
1660	1.14	100	3.00	60	0	0	1.03	1.10	2.17	1.46	1.55	1.82	0.050
1665	1.38	100	-999.25	-999	0	0	1.03	1.10	2.17	1.46	1.72	1.82	0.170
1670	1.07	95	4.00	62	0	0	1.03	1.10	2.17	1.46	1.55	1.82	0.050
1675	1.04	95	-999.25	-999	0	0	1.03	1.10	2.17	1.46	1.55	1.82	0.050
1680	1.02	99	2.30	60	0	0	1.03	1.11	2.17	1.46	1.55	1.82	0.050
1685	1.01	99	-999.25	-999	0	0	1.03	1.11	2.17	1.46	1.55	1.82	0.050
1690	1.12	96	2.90	70	0	0	1.03	1.11	2.17	1.46	1.55	1.82	0.050
1695	1.09	96	-999.25	-999	0	0	1.03	1.11	2.18	1.46	1.55	1.82	0.050
1700	1.00	96	2.80	50	0	0	1.03	1.13	2.18	1.46	1.55	1.82	0.050
1705	0.98	96	-999.25	-999	0	0	1.03	1.12	2.18	1.46	1.55	1.82	0.050
1710	0.94	98	2.70	75	0	0	1.03	1.12	2.18	1.46	1.55	1.83	0.050
1715	0.98	98	-999.25	-999	0	0	1.03	1.12	2.18	1.46	1.55	1.83	0.050
1720	0.94	97	2.50	40	0	0	1.03	1.12	2.18	1.46	1.55	1.83	0.050
1725	0.73	97	-999.25	-999	0	0	1.03	1.12	2.18	1.46	1.55	1.83	0.050
1730	1.02	95	1.80	38	0	0	1.03	1.12	2.18	1.46	1.55	1.83	0.050
1735	1.23	95	-999.25	-999	0	0	1.03	1.13	2.18	1.46	1.82	1.83	0.220
1740	1.25	100	30.00	48	0	0	1.03	1.13	2.18	1.46	1.82	1.83	0.220
1745	1.08	100	-999.25	-999	0	0	1.03	1.13	2.18	1.46	1.55	1.83	0.050
1750	1.48	120	40.00	50	0	0	1.03	1.15	2.18	1.46	1.82	1.83	0.220
1755	1.44	120	-999.25	-999	0	0	1.03	1.14	2.18	1.47	1.73	1.83	0.170
1760	0.97	100	2.00	75	0	0	1.03	1.15	2.18	1.47	1.73	1.83	0.170
1765	0.93	100	-999.25	-999	0	0	1.03	1.14	2.18	1.47	1.55	1.84	0.050
1770	1.40	100	2.30	45	0	0	1.03	1.12	2.18	1.47	1.73	1.84	0.170
1775	1.24	100	-999.25	-999	0	0	1.03	1.12	2.18	1.47	1.73	1.84	0.170
1780	1.09	100	2.90	60	0	0	1.03	1.09	2.19	1.47	1.73	1.84	0.170
1785	1.05	100	-999.25	-999	0	0	1.03	1.09	2.19	1.47	1.73	1.84	0.170
1790	1.12	98	3.00	76	0	0	1.03	1.09	2.19	1.47	1.80	1.84	0.210
1795	1.11	98	-999.25	-999	0	0	1.03	1.09	2.19	1.47	1.55	1.84	0.050
1800	1.00	103	2.50	90	0	0	1.03	1.10	2.19	1.47	1.55	1.84	0.050
1805	1.00	103	-999.25	-999	0	0	1.03	1.13	2.19	1.47	1.73	1.84	0.170
1810	1.22	100	2.00	48	0	0	1.03	1.12	2.19	1.47	1.55	1.84	0.050
1815	0.88	100	-999.25	-999	0	0	1.03	1.13	2.19	1.47	1.55	1.84	0.050
1820	0.90	96	1.50	45	0	0	1.03	1.13	2.19	1.47	1.55	1.84	0.050
1825	0.96	96	-999.25	-999	0	0	1.03	1.13	2.19	1.47	1.55	1.85	0.050
1830	0.95	100	2.30	43	0	0	1.03	1.13	2.19	1.47	1.56	1.85	0.050
1835	0.98	100	-999.25	-999	0	0	1.03	1.13	2.19	1.47	1.56	1.85	0.050

292071

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
1840	0.98	100	2.20	45	0	0	1.03	1.13	2.19	1.47	1.56	1.85	0.050
1845	0.98	100	-999.25	-999	0	0	1.03	1.14	2.19	1.47	1.73	1.85	0.170
1850	1.19	98	2.00	46	0	0	1.03	1.14	2.19	1.47	1.82	1.85	0.220
1855	1.09	98	-999.25	-999	0	0	1.03	1.14	2.19	1.47	1.73	1.85	0.170
1860	1.04	107	3.30	84	0	0	1.03	1.14	2.19	1.47	1.82	1.85	0.220
1865	1.12	107	-999.25	-999	0	0	1.03	1.14	2.19	1.47	1.73	1.85	0.170
1870	1.28	98	3.10	75	0	0	1.03	1.14	2.19	1.47	1.73	1.85	0.170
1875	1.27	98	-999.25	-999	0	0	1.03	1.14	2.19	1.47	1.73	1.85	0.170
1880	0.96	108	3.00	86	0	0	1.03	1.14	2.20	1.47	1.56	1.86	0.050
1885	1.01	108	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.56	1.86	0.050
1890	1.03	105	2.50	60	0	0	1.03	1.14	2.20	1.47	1.73	1.86	0.170
1895	0.94	105	-999.25	-999	0	0	1.03	1.15	2.20	1.47	1.73	1.86	0.170
1900	1.06	95	2.40	60	0	0	1.03	1.15	2.20	1.47	1.73	1.86	0.170
1905	1.03	95	-999.25	-999	0	0	1.03	1.15	2.20	1.47	1.82	1.86	0.220
1910	1.10	95	3.00	105	0	0	1.03	1.15	2.20	1.47	1.82	1.86	0.220
1915	1.30	95	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.82	1.86	0.220
1920	1.41	102	4.00	75	0	0	1.03	1.14	2.20	1.47	1.73	1.86	0.170
1925	1.06	102	-999.25	-999	0	0	1.03	1.13	2.20	1.47	1.73	1.86	0.170
1930	1.01	95	3.00	75	0	0	1.03	1.13	2.20	1.47	1.56	1.86	0.050
1935	1.05	95	-999.25	-999	0	0	1.03	1.13	2.20	1.47	1.56	1.86	0.050
1940	0.97	108	2.50	75	0	0	1.03	1.13	2.20	1.47	1.56	1.86	0.050
1945	1.04	108	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.83	1.87	0.220
1950	1.06	110	16.00	45	0	0	1.03	1.14	2.20	1.47	1.83	1.87	0.220
1955	1.10	110	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.74	1.87	0.170
1960	1.22	110	16.00	75	0	0	1.03	1.14	2.20	1.47	1.74	1.87	0.170
1965	1.29	110	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.74	1.87	0.170
1970	1.22	85	3.00	75	0	0	1.03	1.14	2.20	1.47	1.74	1.87	0.170
1975	1.22	85	-999.25	-999	0	0	1.03	1.14	2.20	1.47	1.74	1.87	0.170
1980	1.02	108	18.00	70	0	0	1.03	1.15	2.20	1.47	1.83	1.87	0.220
1985	1.19	108	-999.25	-999	0	0	1.03	1.15	2.20	1.47	1.74	1.87	0.170
1990	1.21	120	26.00	45	0	0	1.03	1.15	2.20	1.47	1.74	1.87	0.170
1995	1.19	120	-999.25	-999	0	0	1.03	1.15	2.20	1.47	1.74	1.87	0.170
2000	1.19	95	3.00	75	0	0	1.03	1.15	2.21	1.47	1.74	1.87	0.170
2005	1.01	95	-999.25	-999	0	0	1.03	1.15	2.21	1.47	1.74	1.88	0.170
2010	0.86	92	2.00	75	0	0	1.03	1.15	2.21	1.47	1.56	1.88	0.050
2015	1.04	92	-999.25	-999	0	0	1.03	1.16	2.21	1.47	1.56	1.88	0.050
2020	1.16	90	3.00	72	0	0	1.03	1.16	2.21	1.47	1.74	1.88	0.170
2025	0.91	90	-999.25	-999	0	0	1.03	1.15	2.21	1.47	1.74	1.88	0.170
2030	1.04	90	3.50	78	0	0	1.03	1.16	2.21	1.47	1.74	1.88	0.170
2035	0.97	90	-999.25	-999	0	0	1.03	1.16	2.21	1.47	1.60	1.88	0.080
2040	1.16	92	3.50	80	0	0	1.03	1.13	2.21	1.47	1.60	1.88	0.080
2045	1.16	92	-999.25	-999	0	0	1.03	1.13	2.21	1.47	1.56	1.88	0.050
2050	1.15	90	3.20	60	0	0	1.03	1.13	2.21	1.47	1.56	1.88	0.050
2055	1.16	90	-999.25	-999	0	0	1.03	1.13	2.21	1.47	1.56	1.88	0.050
2060	1.08	95	2.00	38	0	0	1.03	1.14	2.21	1.47	1.56	1.88	0.050
2065	1.20	95	-999.25	-999	0	0	1.03	1.14	2.21	1.47	1.56	1.88	0.050
2070	1.26	92	3.00	74	0	0	1.03	1.13	2.21	1.47	1.74	1.89	0.170
2075	1.38	92	-999.25	-999	0	0	1.03	1.13	2.21	1.47	1.74	1.89	0.170
2080	1.13	90	3.00	75	0	0	1.03	1.13	2.21	1.47	1.56	1.89	0.050
2085	1.32	90	-999.25	-999	0	0	1.03	1.13	2.21	1.47	1.56	1.89	0.050

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
2090	1.15	92	4.00	105	0	0	1.03	1.13	2.21	1.47	1.56	1.89	0.050
2095	1.14	92	-999.25	-999	0	0	1.03	1.12	2.22	1.47	1.74	1.89	0.170
2100	1.13	88	4.00	68	0	0	1.03	1.12	2.22	1.47	1.56	1.89	0.050
2105	1.06	88	-999.25	-999	0	0	1.03	1.13	2.22	1.47	1.56	1.89	0.050
2110	1.02	92	3.50	45	0	0	1.03	1.13	2.22	1.47	1.56	1.89	0.050
2115	1.02	92	-999.25	-999	0	0	1.03	1.13	2.22	1.47	1.56	1.89	0.050
2120	1.36	106	5.00	75	0	0	1.03	1.14	2.22	1.47	1.74	1.89	0.170
2125	1.29	106	-999.25	-999	0	0	1.03	1.14	2.22	1.47	1.74	1.89	0.170
2130	1.12	93	3.50	105	0	0	1.03	1.14	2.22	1.47	1.56	1.89	0.050
2135	1.06	93	-999.25	-999	0	0	1.03	1.14	2.22	1.47	1.56	1.89	0.050
2140	1.23	100	4.00	90	0	0	1.03	1.14	2.22	1.47	1.56	1.90	0.050
2145	1.09	100	-999.25	-999	0	0	1.03	1.13	2.22	1.47	1.74	1.90	0.170
2150	1.09	100	3.50	60	0	0	1.03	1.12	2.22	1.47	1.60	1.90	0.080
2155	1.17	100	-999.25	-999	0	0	1.03	1.13	2.22	1.47	1.74	1.90	0.170
2160	1.42	90	4.00	80	0	0	1.03	1.14	2.22	1.47	1.74	1.90	0.170
2165	1.09	90	-999.25	-999	0	0	1.03	1.14	2.22	1.47	1.56	1.90	0.050
2170	1.16	92	3.80	60	0	0	1.03	1.13	2.22	1.47	1.58	1.90	0.065
2175	0.99	92	-999.25	-999	0	0	1.03	1.13	2.22	1.47	1.56	1.90	0.050
2180	1.27	100	4.00	60	0	0	1.03	1.14	2.22	1.47	1.76	1.90	0.180
2185	1.12	100	-999.25	-999	0	0	1.03	1.14	2.22	1.47	1.73	1.90	0.160
2190	1.23	90	4.00	75	0	0	1.03	1.14	2.22	1.47	1.71	1.90	0.151
2195	1.44	90	-999.25	-999	0	0	1.03	1.14	2.22	1.47	1.71	1.90	0.150
2200	1.46	85	9.00	100	0	0	1.03	1.14	2.22	1.47	1.71	1.90	0.150
2205	1.43	85	-999.25	-999	0	0	1.03	1.15	2.23	1.47	1.71	1.90	0.150
2210	1.14	80	6.00	60	0	0	1.03	1.14	2.23	1.48	1.56	1.91	0.050
2215	1.68	80	-999.25	-999	0	0	1.03	1.12	2.23	1.48	2.11	1.91	0.340
2220	1.54	60	50.00	45	0	0	1.03	1.12	2.23	1.48	2.11	1.91	0.340
2225	1.45	60	-999.25	-999	0	0	1.03	1.11	2.23	1.48	2.11	1.91	0.340
2230	1.46	65	60.00	60	0	0	1.03	1.13	2.23	1.48	2.11	1.91	0.340
2235	1.42	65	-999.25	-999	0	0	1.03	1.13	2.23	1.48	2.11	1.91	0.340
2240	1.44	63	60.00	38	0	0	1.03	1.12	2.23	1.48	2.11	1.91	0.340
2245	1.52	63	-999.25	-999	0	0	1.03	1.12	2.23	1.48	2.11	1.91	0.340
2250	1.64	55	70.00	30	0	0	1.03	1.13	2.23	1.48	2.11	1.91	0.340
2255	1.69	55	-999.25	-999	0	0	1.03	1.13	2.23	1.48	2.11	1.91	0.340
2260	1.65	57	65.00	25	0	0	1.03	1.13	2.23	1.48	2.11	1.91	0.340
2265	1.71	57	-999.25	-999	0	0	1.03	1.12	2.24	1.48	2.11	1.91	0.340
2270	1.59	58	40.00	23	0	0	1.03	1.12	2.24	1.48	2.11	1.91	0.340
2275	1.55	58	-999.25	-999	0	0	1.03	1.11	2.24	1.48	2.11	1.91	0.340
2280	1.08	78	15.00	45	0	0	1.03	1.12	2.24	1.48	1.57	1.92	0.050
2285	1.06	78	-999.25	-999	0	0	1.03	1.12	2.24	1.48	1.57	1.92	0.050
2290	1.21	85	6.00	75	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2295	1.19	85	-999.25	-999	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2300	1.26	92	6.00	90	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2305	1.33	92	-999.25	-999	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2310	1.30	95	5.00	75	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2315	1.53	95	-999.25	-999	0	0	1.03	1.12	2.24	1.48	1.57	1.92	0.050
2320	1.43	90	4.00	60	0	0	1.03	1.12	2.24	1.48	1.75	1.92	0.170
2325	1.49	90	-999.25	-999	0	0	1.03	1.10	2.24	1.48	1.75	1.92	0.170
2330	1.41	85	5.00	74	0	0	1.03	1.11	2.24	1.48	1.75	1.92	0.170
2335	1.33	85	-999.25	-999	0	0	1.03	1.12	2.24	1.48	1.61	1.92	0.080

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
2340	1.41	85	5.00	74	0	0	1.03	1.11	2.24	1.48	1.75	1.92	0.170
2345	1.46	85	-999.25	-999	0	0	1.03	1.11	2.24	1.48	1.75	1.92	0.170
2350	1.49	85	5.00	75	0	0	1.03	1.11	2.24	1.48	1.75	1.92	0.170
2355	1.37	85	-999.25	-999	0	0	1.03	1.11	2.24	1.48	1.75	1.93	0.170
2360	1.56	90	6.00	70	0	0	1.03	1.12	2.25	1.48	1.75	1.93	0.170
2365	1.39	90	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.75	1.93	0.170
2370	1.43	85	6.00	75	0	0	1.03	1.14	2.25	1.48	1.75	1.93	0.170
2375	1.55	85	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.75	1.93	0.170
2380	1.60	82	4.00	77	0	0	1.03	1.14	2.25	1.48	1.75	1.93	0.170
2385	1.18	82	-999.25	-999	0	0	1.03	1.14	2.25	1.35	1.66	1.88	0.170
2390	1.46	80	6.00	70	0	0	1.03	1.13	2.25	1.48	1.75	1.93	0.170
2395	1.19	80	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.59	1.93	0.064
2400	1.37	105	7.00	60	0	0	1.03	1.14	2.25	1.48	1.75	1.93	0.170
2405	1.47	105	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.67	1.93	0.120
2410	1.52	100	6.50	82	0	0	1.03	1.14	2.25	1.48	1.70	1.93	0.140
2415	1.49	100	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.70	1.93	0.140
2420	1.45	80	6.00	82	0	0	1.03	1.13	2.25	1.48	1.58	1.93	0.060
2425	1.47	80	-999.25	-999	0	0	1.03	1.15	2.25	1.48	1.57	1.93	0.050
2430	1.59	85	4.50	75	0	0	1.03	1.15	2.25	1.48	1.68	1.94	0.129
2435	1.44	85	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.73	1.94	0.158
2440	1.27	81	5.00	80	0	0	1.03	1.14	2.25	1.48	1.57	1.94	0.050
2445	1.37	81	-999.25	-999	0	0	1.03	1.14	2.25	1.48	1.57	1.94	0.050
2450	1.52	80	5.00	60	0	0	1.03	1.14	2.25	1.48	1.75	1.94	0.170
2455	1.40	80	-999.25	-999	0	0	1.03	1.14	2.25	1.35	1.77	1.89	0.220
2460	1.72	81	10.00	75	0	0	1.03	1.16	2.25	1.48	1.75	1.94	0.170
2465	1.59	81	-999.25	-999	0	0	1.03	1.16	2.25	1.48	1.57	1.94	0.050
2470	1.71	80	7.00	90	0	0	1.03	1.14	2.26	1.48	1.57	1.94	0.050
2475	1.41	80	-999.25	-999	0	0	1.03	1.14	2.26	1.48	1.57	1.94	0.050
2480	1.60	82	9.00	75	0	0	1.03	1.15	2.26	1.48	1.75	1.94	0.170
2485	1.72	82	-999.25	-999	0	0	1.03	1.12	2.26	1.48	1.75	1.94	0.170
2490	1.71	85	6.00	80	0	0	1.03	1.12	2.26	1.48	1.75	1.94	0.170
2495	1.62	85	-999.25	-999	0	0	1.03	1.11	2.26	1.48	1.75	1.94	0.170
2500	1.55	83	6.00	75	0	0	1.03	1.11	2.26	1.48	1.75	1.94	0.170
2505	1.62	83	-999.25	-999	0	0	1.03	1.12	2.26	1.48	1.84	1.94	0.220
2510	1.56	80	5.50	90	0	0	1.03	1.12	2.26	1.48	1.75	1.95	0.170
2515	1.49	80	-999.25	-999	0	0	1.03	1.12	2.26	1.48	1.57	1.95	0.050
2520	1.66	80	5.50	85	0	0	1.03	1.12	2.26	1.48	1.75	1.95	0.170
2525	1.49	80	-999.25	-999	0	0	1.03	1.13	2.26	1.48	1.75	1.95	0.170
2530	1.10	82	5.50	75	0	0	1.03	1.14	2.26	1.48	1.57	1.95	0.050
2535	1.32	82	-999.25	-999	0	0	1.03	1.15	2.26	1.48	1.57	1.95	0.050
2540	1.36	80	7.00	60	0	0	1.03	1.13	2.26	1.48	1.60	1.95	0.074
2545	1.69	80	-999.25	-999	0	0	1.03	1.14	2.26	1.48	1.66	1.95	0.110
2550	1.41	80	6.50	85	0	0	1.03	1.14	2.26	1.48	1.60	1.95	0.074
2555	1.48	80	-999.25	-999	0	0	1.03	1.15	2.26	1.48	1.61	1.95	0.075
2560	1.66	81	4.50	75	0	0	1.03	1.17	2.26	1.48	1.69	1.95	0.130
2565	1.64	81	-999.25	-999	0	0	1.03	1.17	2.26	1.48	1.60	1.95	0.074
2570	1.45	80	5.00	80	0	0	1.03	1.15	2.26	1.48	1.60	1.95	0.074
2575	1.71	80	-999.25	-999	0	0	1.03	1.15	2.26	1.48	1.57	1.95	0.050
2580	1.71	82	7.00	75	0	0	1.03	1.15	2.27	1.48	1.75	1.95	0.170
2585	1.59	82	-999.25	-999	0	0	1.03	1.15	2.27	1.48	1.75	1.95	0.170

292074

DEPTH METRE	CORR. DRILLING EXPONENT	SONIC TRANSIT TIME	RESIST	GAMMA RAY API	% SHALE (MANUAL)	% SHALE (GAMMA)	PORE PRESSURE SG	ECD SG	OVERBURD GRADIENT SG	EATON FRA GRAD SG	DAINES FRA GRAD SG	GEODATA FRA GRAD SG	POISSONS RATIO
2590	1.65	85	6.00	65	0	0	1.03	1.15	2.27	1.48	1.75	1.96	0.170
2595	1.31	85	-999.25	-999	0	0	1.03	1.15	2.27	1.48	1.57	1.96	0.050
2600	1.38	78	6.00	75	0	0	1.03	1.15	2.27	1.48	1.57	1.96	0.050
2605	1.74	78	-999.25	-999	0	0	1.03	1.14	2.27	1.48	1.64	1.96	0.100
2610	1.57	84	6.00	77	0	0	1.03	1.14	2.27	1.48	1.64	1.96	0.100
2615	1.65	84	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.75	1.96	0.170
2620	1.46	83	9.00	76	0	0	1.03	1.13	2.27	1.48	1.75	1.96	0.170
2625	1.60	83	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.57	1.96	0.050
2630	1.30	79	5.50	70	0	0	1.03	1.13	2.27	1.48	1.57	1.96	0.050
2635	1.56	79	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.57	1.96	0.050
2640	1.64	80	9.00	75	0	0	1.03	1.13	2.27	1.48	1.59	1.96	0.065
2645	1.35	80	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.57	1.96	0.050
2650	1.58	81	7.00	60	0	0	1.03	1.14	2.27	1.48	1.57	1.96	0.050
2655	1.46	81	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.57	1.96	0.050
2660	1.59	78	8.00	65	0	0	1.03	1.13	2.27	1.48	1.64	1.96	0.098
2665	1.64	78	-999.25	-999	0	0	1.03	1.14	2.27	1.48	1.64	1.96	0.098
2670	1.53	75	8.00	90	0	0	1.03	1.13	2.27	1.48	1.66	1.97	0.113
2675	1.63	75	-999.25	-999	0	0	1.03	1.10	2.27	1.48	1.61	1.97	0.074
2680	1.56	80	15.00	105	0	0	1.03	1.12	2.27	1.48	1.71	1.97	0.146
2685	1.64	80	-999.25	-999	0	0	1.03	1.13	2.27	1.48	1.75	1.97	0.170
2690	1.56	90	25.00	106	0	0	1.03	1.16	2.27	1.48	1.57	1.97	0.050
2695	1.49	90	-999.25	-999	0	0	1.03	1.15	2.27	1.48	1.57	1.97	0.050
2700	1.43	75	7.00	60	0	0	1.03	1.16	2.28	1.48	1.60	1.97	0.070
2705	1.46	-999	-999.25	-999	0	0	1.03	1.16	2.28	1.48	1.76	1.97	0.170
2710	1.47	-999	-999.25	-999	0	0	1.03	1.16	2.28	1.48	1.76	1.97	0.170
2715	1.47	-999	-999.25	-999	0	0	1.03	1.16	2.28	1.48	1.57	1.97	0.050
2720	1.67	-999	-999.25	-999	0	0	1.03	1.16	2.28	1.48	1.57	1.97	0.050

FORMAT OF THE PRESSURE EVALUATION LOG

The **Halliburton SDL Pressure Evaluation Log** for **Flinders-1** was plotted using a Samsung SD820 PC microcomputer connected to a Zeta Plotter.

The **Pressure Evaluation Log** was plotted using a scale of 1:2500 from 0m to 2723m (TD), all depths being measured below the rotary table.

It is divided into eight columns which , from left to right, display the following information:

1) Dxc Exponent, Bit Data, Drilling Parameters (WOB, RPM, LPM, PP), and Midnight depths.

2)Interpreted cuttings lithology of each sample.

3) Measured Depth, and True Vertical Depth (in case of deviated holes), casing and formation integrity test information.

4) Shale/Bulk density of shale/clay cuttings.

5) Plots of Flowline Temperature, Delta T. Comments on additions of mud, drillwater, baryte, and KCl to the Active Pit are also made here.

6) Total hydrocarbon gas content in the returning mud stream, trip and connection gas concentrations. The scale is logarithmic and ranges from 2 to 200 units.

7) Pressure gradient, Equivalent Circulating Density (ECD), Daines´ Fracture gradient, and Overburden gradient.

8) Lithological descriptions, and mud data (mud weight, plastic viscosity, and yield point).

COPY OF THE PRESSURE EVALUATION LOG

See Rear Enclosure 2

SECTION 4: DRILLING DATA

Drilling Data Listings, and Hydraulics
Mud Data Record
Bit Data Record

DRILLING DATA LISTINGS and end of bit run HYDRAULICS

Representative hydraulics printouts for each of the Bit runs have been provided, the POWERS LAW being used.

Each hydraulics listing shows the hydraulic performance of that particular Bit run in relation to the drilling mud, bottom hole assembly, hole configuration and the total flow area of the bit.

The printouts list the inputs and mud properties relevant to the drilling hydraulics calculations.

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 1

DATE 29-NOV-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	0.000	CASING SIZE	0.000
BIT SIZE	914.000	BIT NUMBER & TYPE	BR1 RR1 SMITH DSJC
RIG COST/HR	5254.000	INITIAL COST	126097.000
TRIP TIME	24.000	PUMP CAP LITS.STK	18.988
BIT COST	1.000	JET SIZES	24 24 24 0
START DRILLING	91.550		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.03	10	1	1	7/ 12	9.0	1.00	1.00	5.00	0.25

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
92.0	09:56	17.6	17.6	0	13	39	45	0	25	86	1.0	1.0	16.9	0.0	0.0	0.03	0.65	0.5	0	92
93.0	09:58	33.0	26.0	0	16	35	46	0	26	86	1.0	1.0	17.0	0.0	0.0	0.06	0.55	1.5	0	93
94.0	10:02	15.4	20.3	0	19	30	46	0	26	87	1.0	1.0	17.1	0.0	0.1	0.12	0.77	2.5	0	94
95.0	10:04	24.7	21.4	0	12	44	46	0	27	87	1.0	1.0	16.9	0.0	0.1	0.16	0.54	3.5	0	95
96.0	10:08	18.9	20.8	0	17	53	49	0	26	87	1.0	1.0	17.1	0.0	0.2	0.21	0.70	4.5	0	96
97.0	10:11	17.8	20.2	0	33	55	52	0	26	87	1.0	1.0	17.1	0.0	0.3	0.27	0.87	5.5	0	97
98.0	10:14	17.4	19.7	0	35	38	56	0	26	87	1.0	1.0	17.1	0.0	0.4	0.33	0.89	6.5	0	98
99.0	10:17	20.0	19.7	0	42	43	56	0	28	87	1.0	1.0	16.9	0.0	0.6	0.38	0.81	7.5	0	99
100.0	10:20	27.3	20.4	0	42	47	57	0	27	86	1.0	1.0	17.0	0.0	0.6	0.41	0.82	8.5	0	100
101.0	10:22	23.2	20.7	0	42	49	58	0	26	85	1.0	1.0	17.0	0.0	0.7	0.46	0.86	9.5	0	101
102.0	10:26	17.2	20.3	0	42	44	70	184	26	84	1.0	1.0	17.0	0.0	0.9	0.52	0.94	10.5	0	102
103.0	10:28	23.8	20.5	0	42	53	73	237	25	83	1.0	1.0	17.1	0.0	1.0	0.56	0.45	11.5	0	103
104.0	10:30	37.1	21.3	0	42	54	75	288	25	83	1.0	1.0	16.9	0.0	1.1	0.58	0.39	12.5	0	104
105.0	10:33	19.9	21.2	0	42	49	85	521	25	83	1.0	1.0	17.0	0.0	1.2	0.63	0.59	13.5	0	105
106.0	10:37	16.4	20.8	0	43	43	85	250	26	82	1.0	1.0	17.0	0.0	1.4	0.70	0.30	14.5	0	106
107.0	10:41	13.4	20.1	0	43	39	88	441	26	79	1.0	1.0	17.1	0.0	1.6	0.77	0.70	15.5	0	107
108.0	10:43	28.8	20.4	0	43	43	91	695	24	78	1.0	1.0	17.0	0.0	1.6	0.80	0.59	16.5	0	108
109.0	10:45	28.1	20.8	0	43	42	95	824	24	77	1.0	1.0	16.9	0.0	1.7	0.84	0.69	17.5	0	109
110.0	10:48	21.6	20.8	0	43	42	96	864	23	76	1.0	1.0	17.0	0.0	1.9	0.89	0.89	18.5	0	110
111.0	10:52	16.4	20.5	0	43	42	96	861	23	76	1.0	1.0	17.0	0.0	2.0	0.95	0.95	19.5	0	111
112.0	10:56	15.5	20.2	0	43	46	97	576	23	76	1.0	1.0	17.1	0.0	2.2	1.01	0.38	20.5	0	112
113.0	11:22	13.3	19.7	0	43	45	90	834	25	76	1.0	1.0	17.1	0.0	2.4	1.09	1.01	21.5	0	113
114.0	11:24	25.9	19.9	0	46	45	63	2108	21	76	1.0	1.0	17.0	0.0	2.5	1.13	0.86	22.5	0	114
115.0	11:26	26.3	20.1	0	46	45	63	2109	21	74	1.0	1.0	17.1	0.0	2.6	1.16	0.85	23.5	0	115
116.0	11:29	21.4	20.2	0	46	48	63	2113	21	74	1.0	1.0	17.1	0.0	2.7	1.21	0.90	24.5	0	116
117.0	11:32	22.9	20.3	0	46	49	63	2116	21	75	1.0	1.0	17.0	0.0	2.8	1.25	0.89	25.5	0	117
118.0	11:35	20.9	20.3	0	46	50	63	2127	21	75	1.0	1.0	17.0	0.0	3.0	1.30	0.91	26.5	0	118
119.0	11:37	23.1	20.4	0	46	54	63	2112	21	75	1.0	1.0	17.0	0.0	3.1	1.35	0.88	27.5	0	119
120.0	11:41	18.2	20.3	0	46	55	63	2119	20	74	1.0	1.0	17.0	0.0	3.3	1.40	0.94	28.5	0	120
121.0	11:43	20.9	20.3	0	46	54	63	2133	20	74	1.0	1.0	17.0	0.0	3.4	1.45	0.91	29.5	0	121
122.0	11:46	23.2	20.4	0	46	55	63	2125	20	74	1.0	1.0	17.0	0.0	3.5	1.49	0.88	30.5	0	122
123.0	11:48	25.2	20.5	0	45	68	63	2102	20	73	1.0	1.0	17.1	0.0	3.6	1.53	0.86	31.5	0	123
124.0	11:51	20.8	20.5	0	46	50	65	791	23	71	1.0	1.0	17.0	0.0	3.7	1.58	0.56	32.5	0	124
125.0	11:54	18.7	20.5	0	46	41	64	1912	23	70	1.0	1.0	17.1	0.0	3.9	1.63	0.94	33.5	0	125
126.0	11:58	19.8	20.5	0	46	43	63	2113	23	70	1.0	1.0	17.0	0.0	4.0	1.68	0.57	34.5	0	126
127.0	12:01	16.5	20.3	0	46	40	63	2073	26	73	1.0	1.0	17.0	0.0	4.2	1.74	0.42	35.5	0	127

BR1 RR1 DRILLED 35m IN 1.74 RHOB, AVE ROP 20.3 m/hr, KREVS 4.2.

RR1 SMITH DSJ (JETS 2X24) 660mm with 914mm HOLE OPENER POH TO RUN 762mm CSG

292081

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 2

DATE 30-NOV-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	124.730	CASING SIZE	762.000
BIT SIZE	445.000	BIT NUMBER & TYPE	BR2 RR2 SMITH DSJ
RIG COST/HR	5254.000	INITIAL COST	126097.000
TRIP TIME	24.000	PUMP CAP LITS.STK	18.988
BIT COST	1.000	JET SIZES	18 18 18 0
START DRILLING	127.000		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.05	10	1	1	0/ 0	9.0	0.00	0.00	0.00	0.00

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
128.0	01:45	14.5	14.5	4	69	59	170	11215	31	74	1.0	1.0	17.0	0.0	0.3	0.07	1.83	1.0	0	128
129.0	01:47	32.7	20.1	5	70	78	171	11343	31	81	1.0	1.0	17.0	0.0	0.4	0.10	1.61	2.0	0	129
130.0	01:48	144.0	28.1	4	70	74	171	11326	31	84	1.0	1.0	17.0	0.0	0.4	0.11	0.92	3.0	0	130
131.0	01:48	144.0	35.2	2	72	38	171	11281	31	85	1.0	1.0	17.0	0.0	0.4	0.11	0.82	4.0	0	131
132.0	01:50	36.7	35.5	2	72	36	171	11332	31	87	1.0	1.0	17.1	0.0	0.6	0.14	1.30	5.0	0	132
133.0	01:51	62.1	38.2	2	72	37	171	11338	32	91	1.0	1.0	17.0	0.0	0.6	0.16	1.10	6.0	0	133
134.0	01:53	29.0	36.6	2	72	37	171	11327	33	97	1.0	1.0	17.0	0.0	0.8	0.19	1.37	7.0	0	134
135.0	01:55	29.0	35.4	2	72	37	171	11545	37	103	1.0	1.0	17.0	0.0	0.9	0.23	1.38	8.0	0	135
136.0	01:56	37.1	35.6	1	72	35	171	11262	38	103	1.0	1.0	17.0	0.0	1.0	0.25	1.27	9.0	0	136
137.0	01:58	37.9	35.8	2	72	34	171	11243	39	105	1.0	1.0	17.0	0.0	1.2	0.28	1.31	10.0	0	137
138.0	02:02	15.7	32.1	2	72	35	171	11243	41	107	1.0	1.0	17.1	0.0	1.4	0.34	1.63	11.0	0	138
139.0	02:04	28.8	31.8	2	72	36	171	11227	43	109	1.0	1.0	17.0	0.0	1.6	0.38	1.40	12.0	0	139
140.0	02:05	40.9	32.3	2	72	35	171	11225	44	109	1.0	1.0	16.9	0.0	1.7	0.40	1.27	13.0	0	140
141.0	02:08	26.9	31.9	2	72	34	171	11232	44	110	1.0	1.0	17.0	0.0	1.9	0.44	1.43	14.0	0	141
142.0	02:10	28.8	31.7	2	73	33	171	11217	45	111	1.0	1.0	17.1	0.0	2.0	0.47	1.39	15.0	0	142
143.0	02:29	20.6	30.6	2	68	33	171	11383	49	115	1.0	1.0	17.1	0.0	2.2	0.52	0.02	16.0	0	143
144.0	02:30	83.7	31.8	0	73	37	170	11469	45	110	1.0	1.0	16.9	0.0	2.3	0.53	0.01	17.0	0	144
145.0	02:32	35.6	32.0	0	73	39	169	11449	42	108	1.0	1.0	17.0	0.0	2.4	0.56	0.01	18.0	0	145
146.0	02:34	26.5	31.7	0	72	56	169	11426	40	105	1.0	1.0	17.0	0.0	2.5	0.60	0.01	19.0	0	146
147.0	02:36	27.9	31.4	0	71	111	170	11502	37	101	1.0	1.0	17.0	0.0	2.7	0.64	0.01	20.0	0	147
148.0	02:38	34.3	31.6	0	73	46	170	11472	34	92	1.0	1.0	17.0	0.0	2.8	0.67	0.01	21.0	0	148
149.0	02:40	31.6	31.6	0	73	43	170	11474	32	98	1.0	1.0	17.1	0.0	3.0	0.70	0.01	22.0	0	149
150.0	02:41	33.6	31.7	0	73	59	170	11476	30	96	1.0	1.0	17.1	0.0	3.1	0.73	0.02	23.0	0	150
151.0	02:43	32.4	31.7	0	74	40	170	11448	28	94	1.0	1.0	17.1	0.0	3.2	0.76	0.02	24.0	0	151
152.0	02:45	27.7	31.5	0	86	39	170	11411	26	92	1.0	1.0	16.9	0.0	3.4	0.79	0.02	25.0	0	152
153.0	02:47	31.0	31.5	0	87	38	170	11418	26	91	1.0	1.0	17.1	0.0	3.6	0.83	0.02	26.0	0	153
154.0	02:49	32.1	31.5	0	87	36	170	11876	29	62	1.0	1.0	17.0	0.0	3.7	0.86	0.02	27.0	0	154
155.0	02:51	34.0	31.6	0	87	37	170	11414	29	87	1.0	1.0	17.1	0.0	3.9	0.89	0.02	28.0	0	155
156.0	02:53	33.6	31.7	0	87	35	169	11359	28	93	1.0	1.0	17.1	0.0	4.1	0.92	0.02	29.0	0	156
157.0	02:55	31.6	31.7	0	87	35	169	11361	27	93	1.0	1.0	17.1	0.0	4.2	0.95	0.02	30.0	0	157
158.0	02:57	30.3	31.6	0	87	38	170	11377	27	93	1.0	1.0	17.0	0.0	4.3	0.98	0.02	31.0	0	158
159.0	02:58	32.4	31.6	0	87	40	170	11369	26	92	1.0	1.0	17.1	0.0	4.5	1.01	0.02	32.0	0	159
160.0	03:01	27.1	31.5	0	87	41	169	11359	27	93	1.0	1.0	16.9	0.0	4.7	1.05	0.02	33.0	0	160
161.0	03:03	25.2	31.2	0	87	40	169	11359	30	95	1.0	1.0	16.9	0.0	5.0	1.09	0.02	34.0	0	161
162.0	03:05	29.8	31.2	0	87	40	169	11323	32	98	1.0	1.0	17.0	0.0	5.1	1.12	0.02	35.0	0	162
163.0	03:07	37.5	31.3	0	87	38	169	11308	34	100	1.0	1.0	16.9	0.0	5.2	1.15	0.02	36.0	0	163
164.0	03:08	33.0	31.4	0	87	40	170	11355	37	102	1.0	1.0	17.0	0.0	5.4	1.18	0.02	37.0	0	164
165.0	03:11	23.1	31.1	0	87	40	170	11705	43	108	1.0	1.0	16.9	0.0	5.7	1.22	0.02	38.0	0	165
166.0	03:13	31.6	31.1	0	87	39	170	11375	46	111	1.0	1.0	17.1	0.0	5.8	1.25	0.02	39.0	0	166
167.0	03:15	29.0	31.0	1	87	42	170	11360	48	113	1.0	1.0	17.1	0.0	6.0	1.29	0.02	40.0	0	167
168.0	03:18	24.5	30.8	0	87	39	170	11359	51	115	1.0	1.0	17.0	0.0	6.2	1.33	0.02	41.0	0	168
169.0	03:20	22.4	30.6	1	87	39	170	11355	53	117	1.0	1.0	17.1	0.0	6.5	1.37	0.02	42.0	0	169
170.0	03:22	33.6	30.6	0	86	39	168	11196	56	120	1.0	1.0	17.1	0.0	6.5	1.40	0.02	43.0	0	170
171.0	03:24	35.3	30.7	1	86	38	168	11169	58	121	1.0	1.0	17.1	0.0	6.7	1.43	0.02	44.0	0	171
172.0	03:29	34.3	30.8	1	77	32	169	11232	59	123	1.0	1.0	17.0	0.0	6.9	1.46	0.02	45.0	0	172
173.0	03:30	38.3	30.9	0	79	40	168	11189	57	122	1.0	1.0	17.0	0.0	7.0	1.49	0.02	46.0	0	173
174.0	03:48	40.0	31.1	0	70	31	169	11386	53	118	1.0	1.0	17.0	0.0	7.1	1.51	0.01	47.0	0	174
175.0	03:50	29.3	31.0	0	94	37	171	12133	43	108	1.0	1.0	17.0	0.0	7.2	1.55	0.02	48.0	0	175
176.0	03:53	22.1	30.8	0	94	39	171	12149	41	106	1.0	1.0	16.9	0.0	7.5	1.59	0.02	49.0	0	176
177.0	03:55	34.3	30.8	0	94	38	171	12137	40	105	1.0	1.0	16.9	0.0	7.7	1.62	0.02	50.0	0	177

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
177.0	03:55	34.3	30.8	0	94	38	171	12137	40	105	1.0	1.0	16.9	0.0	7.7	1.62	0.02	50.0	0	177
178.0	03:56	38.3	31.0	0	94	38	172	12168	39	104	1.0	1.0	17.1	0.0	7.8	1.65	0.02	51.0	0	178
179.0	03:58	30.8	31.0	0	94	41	172	12190	37	102	1.0	1.0	17.0	0.0	8.0	1.68	0.02	52.0	0	179
180.0	04:01	27.7	30.9	0	94	38	172	12185	37	101	1.0	1.0	17.1	0.0	8.2	1.72	0.02	53.0	0	180
181.0	04:03	27.1	30.8	0	94	41	171	12191	36	101	1.0	1.0	17.1	0.0	8.5	1.75	0.02	54.0	0	181
182.0	04:05	31.0	30.8	0	94	42	172	12207	36	101	1.0	1.0	17.0	0.0	8.6	1.78	0.02	55.0	0	182
183.0	04:07	27.3	30.7	0	94	38	172	12665	35	100	1.0	1.0	17.0	0.0	8.9	1.82	0.02	56.0	0	183
184.0	04:09	32.1	30.8	0	94	38	172	12197	31	96	1.0	1.0	17.1	0.0	8.9	1.85	0.02	57.0	0	184
185.0	04:11	30.3	30.8	0	94	38	172	12218	27	93	1.0	1.0	17.1	0.0	9.1	1.89	0.03	58.0	0	185
186.0	04:13	28.3	30.7	0	94	43	172	12169	26	92	1.0	1.0	17.0	0.0	9.3	1.92	0.03	59.0	0	186
187.0	04:15	23.2	30.6	0	93	52	172	12143	26	92	1.0	1.0	17.1	0.0	9.6	1.96	0.03	60.0	0	187
188.0	04:17	43.4	30.7	0	93	49	171	12112	27	93	1.0	1.0	16.9	0.0	9.7	1.99	0.02	61.0	0	188
189.0	04:19	32.1	30.7	0	94	37	171	12105	28	93	1.0	1.0	17.1	0.0	9.9	2.02	0.02	62.0	0	189
190.0	04:21	26.3	30.6	0	94	37	171	12105	29	94	1.0	1.0	16.9	0.0	10.1	2.06	0.02	63.0	0	190
191.0	04:23	30.3	30.6	0	94	37	171	12086	30	95	1.0	1.0	17.1	0.0	10.3	2.09	0.02	64.0	0	191
192.0	04:24	41.4	30.8	0	93	37	170	10348	33	95	1.0	1.0	17.0	0.0	10.5	2.11	0.02	65.0	0	192
193.0	04:26	29.3	30.7	0	93	37	170	9871	37	96	1.0	1.0	17.0	0.0	10.7	2.15	0.02	66.0	0	193
194.0	04:28	29.5	30.7	0	93	47	171	11904	38	96	1.0	1.0	16.9	0.0	10.9	2.18	0.02	67.0	0	194
195.0	04:30	33.3	30.7	0	93	52	172	12127	38	97	1.0	1.0	17.0	0.0	11.0	2.21	0.02	68.0	0	195
196.0	04:32	32.4	30.8	0	94	38	172	12154	39	97	1.0	1.0	17.1	0.0	11.1	2.24	0.02	69.0	0	196
197.0	04:34	36.4	30.8	0	93	43	171	12164	39	98	1.0	1.0	16.9	0.0	11.3	2.27	0.02	70.0	0	197
198.0	04:36	25.5	30.8	0	93	46	171	12156	40	98	1.0	1.0	17.0	0.0	11.5	2.31	0.02	71.0	0	198
199.0	04:38	29.5	30.7	0	93	47	171	12173	41	99	1.0	1.0	17.0	0.0	11.7	2.34	0.02	72.0	0	199
200.0	04:41	22.4	30.6	0	92	49	171	10644	43	99	1.0	1.0	17.0	0.0	12.0	2.39	0.02	73.0	0	200
201.0	04:59	27.3	30.5	0	78	36	170	11532	45	106	1.0	1.0	17.1	0.0	12.1	2.42	0.02	74.0	0	201
202.0	05:01	28.8	30.5	0	89	46	171	12702	42	106	1.0	1.0	17.0	0.0	12.3	2.46	0.02	75.0	0	202
203.0	05:03	29.3	30.5	0	89	40	171	12719	39	103	1.0	1.0	17.0	0.0	12.5	2.49	0.02	76.0	0	203
204.0	05:06	20.6	30.3	0	89	38	171	12697	36	100	1.0	1.0	17.0	0.0	12.8	2.54	0.02	77.0	0	204
205.0	05:08	31.3	30.3	0	89	41	171	12690	36	99	1.0	1.0	17.1	0.0	13.0	2.57	0.02	78.0	0	205
206.0	05:10	28.8	30.3	0	88	48	171	12711	35	99	1.0	1.0	17.1	0.0	13.1	2.61	0.02	79.0	0	206
207.0	05:13	27.9	30.3	0	89	41	171	12721	35	98	1.0	1.0	17.1	0.0	13.3	2.64	0.02	80.0	0	207
208.0	05:14	32.7	30.3	0	88	51	171	12745	34	98	1.0	1.0	17.0	0.0	13.5	2.67	0.02	81.0	0	208
209.0	05:17	27.1	30.2	0	88	55	171	12752	34	97	1.0	1.0	17.0	0.0	13.7	2.71	0.02	82.0	0	209
210.0	05:19	26.9	30.2	0	89	44	171	12760	33	97	1.0	1.0	17.1	0.0	13.9	2.75	0.02	83.0	0	210
211.0	05:21	31.0	30.2	0	89	40	171	11876	33	95	1.0	1.0	16.9	0.0	14.0	2.78	0.02	84.0	0	211
212.0	05:23	26.3	30.2	0	88	41	170	9694	37	95	1.0	1.0	17.1	0.0	14.3	2.82	0.02	85.0	0	212
213.0	05:25	27.3	30.1	0	89	44	171	12413	38	95	1.0	1.0	17.1	0.0	14.5	2.86	0.02	86.0	0	213
214.0	05:27	29.5	30.1	0	88	53	171	12670	39	95	1.0	1.0	16.9	0.0	14.7	2.89	0.02	87.0	0	214
215.0	05:30	23.7	30.0	0	88	57	171	12767	44	101	1.0	1.0	17.0	0.0	14.8	2.93	0.02	88.0	0	215
216.0	05:32	25.0	29.9	0	88	60	171	12786	51	108	1.0	1.0	17.1	0.0	15.1	2.97	0.02	89.0	0	216
217.0	05:34	37.9	30.0	0	89	44	171	12786	57	113	1.0	1.0	17.0	0.0	15.2	3.00	0.02	90.0	0	217
218.0	05:36	33.6	30.1	0	89	51	171	12770	61	117	1.0	1.0	17.0	0.0	15.4	3.03	0.02	91.0	0	218
219.0	05:38	28.1	30.0	0	88	58	171	12763	66	122	1.0	1.0	17.0	0.0	15.6	3.06	0.02	92.0	0	219
220.0	05:40	30.5	30.0	0	89	46	171	12762	71	127	1.0	1.0	17.0	0.0	15.7	3.10	0.02	93.0	0	220
221.0	05:41	39.1	30.1	0	88	61	171	11755	75	130	1.0	1.0	17.0	0.0	15.9	3.12	0.02	94.0	0	221
222.0	05:44	25.2	30.0	0	88	39	170	10341	82	133	1.0	1.0	16.9	0.0	16.1	3.16	0.02	95.0	0	222
223.0	05:45	40.9	30.1	0	89	41	171	12500	82	134	1.0	1.0	16.9	0.0	16.2	3.19	0.02	96.0	0	223
224.0	05:47	30.5	30.1	0	89	47	171	12757	86	137	1.0	1.0	17.1	0.0	16.4	3.22	0.02	97.0	0	224
225.0	05:49	24.0	30.1	0	88	55	171	12801	87	138	1.0	1.0	17.0	0.0	16.6	3.26	0.02	98.0	0	225
226.0	05:51	33.3	30.1	0	88	60	171	12801	86	141	1.0	1.0	17.0	0.0	16.7	3.29	0.02	99.0	0	226

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
226.0	05:51	33.3	30.1	0	88	60	171	12801	86	141	1.0	1.0	17.0	0.0	16.7	3.29	0.02	99.0	0	226
227.0	05:54	24.7	30.0	0	87	75	171	12849	84	143	1.0	1.0	17.1	0.0	17.0	3.33	0.02	100.0	0	227
228.0	05:56	27.7	30.0	0	87	71	171	12855	84	146	1.0	1.0	17.0	0.0	17.2	3.37	0.02	101.0	0	228
229.0	06:13	23.4	29.9	0	82	65	170	10752	87	147	1.0	1.0	17.1	0.0	17.4	3.41	0.02	102.0	0	229
230.0	06:15	29.8	29.9	0	90	66	171	12585	91	149	1.0	1.0	17.0	0.0	17.6	3.44	0.02	103.0	0	230
231.0	06:17	34.3	29.9	0	91	46	171	12581	89	147	1.0	1.0	17.0	0.0	17.7	3.47	0.02	104.0	0	231
232.0	06:18	41.4	30.0	0	91	51	171	12529	87	144	1.0	1.0	16.9	0.0	17.9	3.50	0.02	105.0	0	232
233.0	06:20	24.0	30.0	0	90	70	171	12563	84	142	1.0	1.0	17.0	0.0	18.1	3.54	0.02	106.0	0	233
234.0	06:22	29.8	30.0	0	90	83	171	12607	83	141	1.0	1.0	17.0	0.0	18.2	3.57	0.02	107.0	0	234
235.0	06:24	42.4	30.0	0	89	90	171	12594	81	139	1.0	1.0	16.9	0.0	18.4	3.60	0.02	108.0	0	235
236.0	06:26	32.7	30.1	0	90	79	171	12592	79	137	1.0	1.0	16.9	0.0	18.5	3.63	0.02	109.0	0	236
237.0	06:28	28.1	30.0	0	90	61	171	12560	78	136	1.0	1.0	17.0	0.0	18.7	3.66	0.03	110.0	0	237
238.0	06:30	31.3	30.0	0	89	81	171	12585	78	136	1.0	1.0	17.0	0.0	18.9	3.69	0.03	111.0	0	238
239.0	06:32	33.3	30.1	0	89	82	171	11751	78	135	1.0	1.0	17.1	0.0	19.1	3.72	0.02	112.0	0	239
240.0	06:33	35.6	30.1	0	89	61	170	9978	82	136	1.0	1.0	17.0	0.0	19.2	3.75	0.02	113.0	0	240
241.0	06:35	37.1	30.2	0	90	78	171	12475	82	135	1.0	1.0	17.0	0.0	19.3	3.78	0.02	114.0	0	241
242.0	06:37	30.3	30.2	0	92	41	171	12888	81	135	1.0	1.0	16.9	0.0	19.5	3.81	0.02	115.0	0	242
243.0	06:39	32.4	30.2	0	91	57	171	12992	81	135	1.0	1.0	17.0	0.0	19.7	3.84	0.02	116.0	0	243
244.0	06:41	30.5	30.2	0	90	69	171	13019	81	134	1.0	1.0	16.9	0.0	19.9	3.88	0.02	117.0	0	244
245.0	06:42	36.7	30.2	0	91	64	171	13004	81	134	1.0	1.0	17.0	0.0	20.1	3.90	0.02	118.0	0	245
246.0	06:44	36.0	30.3	0	90	75	171	13016	80	134	1.0	1.0	17.0	0.0	20.2	3.93	0.02	119.0	0	246
247.0	06:46	29.8	30.3	0	90	78	171	13019	80	134	1.0	1.0	17.0	0.0	20.3	3.96	0.02	120.0	0	247
248.0	06:48	31.3	30.3	0	90	79	171	12874	81	133	1.0	1.0	17.0	0.0	20.5	4.00	0.02	121.0	0	248
249.0	06:49	38.3	30.3	0	89	80	170	9459	84	133	1.0	1.0	16.9	0.0	20.7	4.02	0.02	122.0	0	249
250.0	06:51	35.6	30.4	0	90	62	171	11549	85	134	1.0	1.0	17.0	0.0	20.9	4.05	0.02	123.0	0	250
251.0	06:53	35.0	30.4	0	90	72	171	12759	85	137	1.0	1.0	16.9	0.0	21.0	4.08	0.02	124.0	0	251
252.0	06:55	25.9	30.4	0	91	62	171	12912	84	139	1.0	1.0	17.0	0.0	21.2	4.12	0.03	125.0	0	252
253.0	06:57	27.9	30.3	0	91	66	171	12949	83	142	1.0	1.0	17.0	0.0	21.4	4.15	0.03	126.0	0	253
254.0	06:59	43.4	30.4	0	90	69	171	12973	82	144	1.0	1.0	16.9	0.0	21.5	4.18	0.02	127.0	0	254
255.0	07:00	40.0	30.5	0	90	69	171	13026	82	144	1.0	1.0	17.1	0.0	21.6	4.20	0.02	128.0	0	255
256.0	07:02	37.9	30.5	0	90	66	172	13031	82	144	1.0	1.0	17.1	0.0	21.8	4.23	0.02	129.0	0	256
257.0	07:04	25.0	30.5	0	90	73	172	12675	82	144	1.0	1.0	16.9	0.0	22.0	4.27	0.03	130.0	0	257
258.0	07:20	16.5	30.3	1	57	47	170	10250	86	141	1.0	1.0	16.9	0.0	22.2	4.33	0.03	131.0	0	258
259.0	07:22	38.3	30.3	0	90	65	170	12223	78	132	1.0	1.0	17.0	0.0	22.4	4.35	0.03	132.0	0	259
260.0	07:24	28.3	30.3	0	91	48	170	12262	74	128	1.0	1.0	17.0	0.0	22.6	4.39	0.08	133.0	0	260
261.0	07:26	36.4	30.3	0	91	48	170	12359	70	124	1.0	1.0	17.0	0.0	22.8	4.42	0.08	134.0	0	261
262.0	07:27	36.0	30.4	0	90	67	170	12372	72	126	1.0	1.0	16.9	0.0	22.8	4.44	0.03	135.0	0	262
263.0	07:29	45.6	30.4	0	91	54	170	12373	75	129	1.0	1.0	17.0	0.0	23.0	4.47	0.03	136.0	0	263
264.0	07:31	32.1	30.5	0	91	51	170	12310	79	133	1.0	1.0	17.1	0.0	23.1	4.50	0.03	137.0	0	264
265.0	07:32	40.0	30.5	0	89	73	170	12295	83	136	1.0	1.0	17.0	0.0	23.3	4.52	0.02	138.0	0	265
266.0	07:34	36.7	30.5	0	90	81	171	12313	85	138	1.0	1.0	17.0	0.0	23.4	4.55	0.03	139.0	0	266
267.0	07:36	28.1	30.5	0	89	83	170	11875	85	137	1.0	1.0	17.0	0.0	23.7	4.59	0.03	140.0	0	267
268.0	07:38	33.0	30.5	0	88	86	170	9685	87	135	1.0	1.0	16.9	0.0	23.8	4.62	0.03	141.0	0	268
269.0	07:39	38.7	30.6	0	90	85	170	12037	86	134	1.0	1.0	17.0	0.0	23.9	4.64	0.03	142.0	0	269
270.0	07:41	38.7	30.6	0	89	81	171	12431	84	132	1.0	1.0	17.0	0.0	24.0	4.67	0.03	143.0	0	270
271.0	07:43	26.5	30.6	0	90	73	170	12427	82	130	1.0	1.0	17.0	0.0	24.3	4.71	0.03	144.0	0	271
272.0	07:45	31.6	30.6	0	89	75	170	12431	83	131	1.0	1.0	17.1	0.0	24.4	4.74	0.03	145.0	0	272
273.0	07:47	33.3	30.6	0	90	74	170	12483	86	134	1.0	1.0	16.9	0.0	24.6	4.77	0.03	146.0	0	273
274.0	07:48	34.0	30.6	0	90	71	170	12518	89	137	1.0	1.0	17.0	0.0	24.8	4.80	0.03	147.0	0	274
275.0	07:50	30.0	30.6	0	89	74	170	12609	89	137	1.0	1.0	17.1	0.0	24.9	4.83	0.03	148.0	0	275

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
275.0	07:50	30.0	30.6	0	89	74	170	12609	89	137	1.0	1.0	17.1	0.0	24.9	4.83	0.03	148.0	0	275
276.0	07:52	36.7	30.7	0	89	77	171	12628	86	134	1.0	1.0	16.9	0.0	25.1	4.86	0.03	149.0	0	276
277.0	07:54	33.6	30.7	0	89	73	170	12483	84	131	1.0	1.0	16.9	0.0	25.2	4.89	0.03	150.0	0	277
278.0	07:56	30.5	30.7	0	88	81	170	9784	86	128	1.0	1.0	16.9	0.0	25.4	4.92	0.03	151.0	0	278
279.0	07:58	28.6	30.7	0	89	80	170	11869	84	127	1.0	1.0	17.0	0.0	25.6	4.95	0.03	152.0	0	279
280.0	07:59	42.9	30.7	0	89	77	170	12353	82	125	1.0	1.0	17.0	0.0	25.7	4.98	0.03	153.0	0	280
281.0	08:01	42.9	30.8	0	89	77	170	12307	81	123	1.0	1.0	17.1	0.0	25.8	5.00	0.03	154.0	0	281
282.0	08:03	29.3	30.8	0	89	75	170	12292	79	122	1.0	1.0	16.9	0.0	26.0	5.04	0.03	155.0	0	282
283.0	08:05	34.0	30.8	0	89	79	170	12265	78	121	1.0	1.0	16.9	0.0	26.2	5.06	0.03	156.0	0	283
284.0	08:06	38.3	30.8	0	89	74	170	12274	79	121	1.0	1.0	17.0	0.0	26.3	5.09	0.03	157.0	0	284
285.0	08:08	35.0	30.9	0	89	79	170	12289	80	122	1.0	1.0	17.1	0.0	26.5	5.12	0.03	158.0	0	285
286.0	08:10	22.6	30.8	1	88	83	169	10612	87	127	1.0	1.0	17.0	0.0	26.7	5.16	0.04	159.0	0	286
287.0	08:27	29.0	30.8	0	80	78	170	12536	92	134	1.0	1.0	16.9	0.0	26.9	5.20	0.03	160.0	0	287
288.0	08:29	27.9	30.8	0	88	87	170	12826	95	139	1.0	1.0	16.9	0.0	27.1	5.23	0.03	161.0	0	288
289.0	08:31	26.3	30.7	0	88	101	170	12801	98	143	1.0	1.0	17.1	0.0	27.3	5.27	0.03	162.0	0	289
290.0	08:34	23.7	30.7	1	87	104	170	12753	99	147	1.0	1.0	16.9	0.0	27.4	5.31	0.04	163.0	0	290
291.0	08:34	76.6	30.8	0	88	89	170	12685	101	151	1.0	1.0	17.0	0.0	27.5	5.33	0.02	164.0	0	291
292.0	08:36	34.0	30.8	0	88	82	170	12680	101	153	1.0	1.0	17.0	0.0	27.7	5.36	0.03	165.0	0	292
293.0	08:38	29.8	30.8	0	88	83	170	12671	103	157	1.0	1.0	17.0	0.0	27.9	5.39	0.03	166.0	0	293
294.0	08:40	35.3	30.8	0	88	83	170	12666	103	160	1.0	1.0	17.0	0.0	28.1	5.42	0.03	167.0	0	294
295.0	08:42	34.6	30.8	0	88	77	170	12688	104	162	1.0	1.0	17.1	0.0	28.2	5.45	0.03	168.0	0	295
296.0	08:43	36.0	30.9	0	88	76	170	11702	106	164	1.0	1.0	17.1	0.0	28.3	5.48	0.03	169.0	0	296
297.0	08:45	30.8	30.9	0	87	79	169	10080	109	166	1.0	1.0	17.1	0.0	28.5	5.51	0.03	170.0	0	297
298.0	08:47	36.0	30.9	0	88	81	170	12441	107	168	1.0	1.0	17.1	0.0	28.6	5.54	0.03	171.0	0	298
299.0	08:49	30.8	30.9	0	88	75	170	12612	103	165	1.0	1.0	17.0	0.0	28.8	5.57	0.03	172.0	0	299
300.0	08:51	29.8	30.9	0	89	66	170	12569	98	160	1.0	1.0	16.9	0.0	29.0	5.60	0.03	173.0	0	300
301.0	08:53	33.3	30.9	0	89	63	170	12573	96	159	1.0	1.0	17.0	0.0	29.1	5.63	0.03	174.0	0	301
302.0	08:54	35.3	30.9	0	88	70	170	12619	96	158	1.0	1.0	16.9	0.0	29.3	5.66	0.03	175.0	0	302
303.0	08:56	40.9	31.0	0	89	66	170	12661	96	158	1.0	1.0	16.9	0.0	29.4	5.68	0.03	176.0	0	303
304.0	08:58	32.7	31.0	0	89	59	170	12663	95	157	1.0	1.0	16.9	0.0	29.6	5.72	0.03	177.0	0	304
305.0	09:00	28.8	31.0	0	89	65	170	12702	94	156	1.0	1.0	17.1	0.0	29.8	5.75	0.03	178.0	0	305
306.0	09:02	27.9	30.9	0	88	82	170	11038	95	155	1.0	1.0	17.1	0.0	30.0	5.79	0.03	179.0	0	306
307.0	09:03	36.4	31.0	0	88	85	170	10566	97	153	1.0	1.0	17.0	0.0	30.1	5.81	0.03	180.0	0	307
308.0	09:05	34.3	31.0	0	88	80	170	12661	96	151	1.0	1.0	17.0	0.0	30.2	5.84	0.03	181.0	0	308
309.0	09:07	42.9	31.0	0	89	69	170	12863	94	150	1.0	1.0	16.9	0.0	30.4	5.87	0.03	182.0	0	309
310.0	09:10	17.5	30.9	0	89	70	170	12922	92	148	1.0	1.0	17.0	0.0	30.7	5.92	0.03	183.0	0	310
311.0	09:11	45.0	30.9	0	88	88	170	12961	90	147	1.0	1.0	17.0	0.0	30.9	5.95	0.03	184.0	0	311
312.0	09:12	57.1	31.0	0	88	95	170	12956	89	146	1.0	1.0	17.1	0.0	31.0	5.96	0.03	185.0	0	312
313.0	09:14	52.2	31.1	1	88	103	171	13006	88	144	1.0	1.0	17.0	0.0	31.0	5.98	0.03	186.0	0	313
314.0	09:32	47.1	31.2	0	89	74	169	13124	96	149	1.0	1.0	17.0	0.0	31.0	5.99	0.46	187.0	0	314
315.0	09:34	32.4	31.2	0	89	69	169	13141	93	149	1.0	1.0	16.9	0.0	31.2	6.02	0.51	188.0	0	315
316.0	09:37	22.9	31.1	0	89	91	169	13152	91	150	1.0	1.0	17.1	0.0	31.4	6.07	0.55	189.0	0	316
317.0	09:38	40.9	31.2	0	88	110	169	13165	91	153	1.0	1.0	17.0	0.0	31.6	6.09	0.48	190.0	0	317
318.0	09:39	56.2	31.3	0	89	90	169	13146	92	154	1.0	1.0	17.0	0.0	31.7	6.11	0.44	191.0	0	318
319.0	09:43	16.0	31.1	0	88	85	169	13175	97	160	1.0	1.0	16.9	0.0	32.1	6.17	0.60	192.0	0	319
320.0	09:43	23.0	31.3	1	89	64	169	13146	97	160	1.0	1.0	16.9	0.0	32.1	6.17	0.09	193.0	0	320
321.0	09:45	28.6	31.2	0	89	77	169	13159	98	160	1.0	1.0	17.0	0.0	32.2	6.21	0.53	194.0	0	321
322.0	09:47	37.1	31.3	0	89	86	169	13181	101	163	1.0	1.0	17.0	0.0	32.3	6.24	0.49	195.0	0	322
323.0	09:49	26.1	31.2	1	88	102	169	13189	103	165	1.0	1.0	17.0	0.0	32.5	6.27	0.67	196.0	0	323
324.0	09:51	40.9	31.3	0	88	92	169	13189	105	167	1.0	1.0	17.0	0.0	32.7	6.30	0.48	197.0	0	324

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
324.0	09:51	40.9	31.3	0	88	92	169	13189	105	167	1.0	1.0	17.0	0.0	32.7	6.30	0.48	197.0	0	324
325.0	09:53	29.0	31.3	1	88	91	168	10411	112	169	1.0	1.0	16.9	0.0	32.9	6.33	0.64	198.0	0	325
326.0	09:54	34.0	31.3	1	88	99	169	11888	111	168	1.0	1.0	17.1	0.0	33.1	6.36	0.61	199.0	0	326
327.0	09:56	41.9	31.3	1	89	88	169	12912	106	163	1.0	1.0	17.0	0.0	33.1	6.39	0.58	200.0	0	327
328.0	09:57	36.7	31.3	0	89	77	169	12966	101	158	1.0	1.0	17.0	0.0	33.3	6.41	0.49	201.0	0	328
329.0	09:59	35.3	31.4	0	89	76	169	12982	97	154	1.0	1.0	17.0	0.0	33.4	6.44	0.50	202.0	0	329
330.0	10:01	34.0	31.4	0	89	77	169	13010	93	150	1.0	1.0	17.0	0.0	33.6	6.47	0.50	203.0	0	330
331.0	10:02	42.4	31.4	0	89	90	169	13051	90	147	1.0	1.0	17.0	0.0	33.7	6.49	0.47	204.0	0	331
332.0	10:04	39.1	31.4	1	88	88	169	13031	87	145	1.0	1.0	17.1	0.0	33.9	6.52	0.59	205.0	0	332
333.0	10:06	33.6	31.4	0	89	88	169	13030	85	142	1.0	1.0	17.1	0.0	34.0	6.55	0.69	206.0	0	333
334.0	10:08	32.4	31.5	0	89	87	169	12648	82	138	1.0	1.0	17.1	0.0	34.1	6.58	0.70	207.0	0	334
335.0	10:09	34.0	31.5	1	87	98	168	9847	82	134	1.0	1.0	17.0	0.0	34.3	6.61	1.09	208.0	0	335
336.0	10:11	43.9	31.5	1	88	100	169	12335	80	132	1.0	1.0	17.0	0.0	34.4	6.63	1.18	209.0	0	336
337.0	10:12	42.4	31.5	1	89	81	169	12776	82	134	1.0	1.0	17.1	0.0	34.6	6.66	0.66	210.0	0	337
338.0	10:15	23.2	31.5	1	88	85	169	12949	88	139	1.0	1.0	17.0	0.0	34.8	6.70	0.66	211.0	0	338
339.0	10:16	35.6	31.5	1	89	89	169	13065	93	144	1.0	1.0	17.1	0.0	34.9	6.73	0.62	212.0	0	339
340.0	10:18	41.9	31.5	1	89	82	169	13083	97	148	1.0	1.0	17.0	0.0	35.0	6.75	0.57	213.0	0	340
341.0	10:19	40.9	31.6	1	89	73	169	13109	101	152	1.0	1.0	17.0	0.0	35.2	6.78	0.57	214.0	0	341
342.0	10:22	22.0	31.5	1	88	84	169	12464	106	155	1.0	1.0	16.9	0.0	35.4	6.82	0.70	215.0	0	342
343.0	10:34	38.7	31.5	1	79	88	169	11256	102	147	1.0	1.0	17.1	0.0	35.6	6.85	0.59	216.0	0	343
344.0	10:35	66.7	31.6	0	89	95	171	13202	97	144	1.0	1.0	16.9	0.0	35.6	6.86	0.42	217.0	0	344
345.0	10:37	45.6	31.7	0	89	103	171	13120	96	145	1.0	1.0	17.0	0.0	35.8	6.88	0.47	218.0	0	345
346.0	10:39	28.6	31.6	0	90	91	171	13006	96	146	1.0	1.0	17.0	0.0	36.0	6.92	0.53	219.0	0	346
347.0	10:40	38.3	31.7	0	89	91	171	12960	96	148	1.0	1.0	16.9	0.0	36.1	6.95	0.49	220.0	0	347
348.0	10:42	35.0	31.7	0	90	82	171	12957	97	150	1.0	1.0	17.0	0.0	36.2	6.97	0.50	221.0	0	348
349.0	10:45	23.7	31.6	0	90	76	171	12935	97	154	1.0	1.0	17.1	0.0	36.5	7.02	0.55	222.0	0	349
350.0	10:46	39.6	31.7	0	89	84	171	12925	96	155	1.0	1.0	16.9	0.0	36.6	7.04	0.49	223.0	0	350
351.0	10:48	34.6	31.7	0	90	80	171	12984	95	156	1.0	1.0	17.0	0.0	36.8	7.07	0.50	224.0	0	351
352.0	10:50	26.9	31.7	0	89	84	171	12753	96	158	1.0	1.0	16.9	0.0	37.0	7.11	0.54	225.0	0	352
353.0	10:52	29.8	31.6	0	88	87	170	9999	100	157	1.0	1.0	17.0	0.0	37.1	7.14	0.52	226.0	0	353
354.0	10:53	54.5	31.7	0	90	79	171	12274	101	158	1.0	1.0	17.0	0.0	37.2	7.16	0.44	227.0	0	354
355.0	10:55	37.5	31.7	0	90	82	171	13093	101	160	1.0	1.0	17.1	0.0	37.4	7.19	0.49	228.0	0	355
356.0	10:57	25.9	31.7	0	90	81	171	13139	100	162	1.0	1.0	17.0	0.0	37.6	7.23	0.54	229.0	0	356
357.0	10:59	40.0	31.7	0	90	86	171	13185	100	161	1.0	1.0	16.9	0.0	37.7	7.25	0.49	230.0	0	357
358.0	11:00	32.1	31.7	0	90	66	171	13168	100	162	1.0	1.0	17.0	0.0	37.9	7.28	0.51	231.0	0	358
359.0	11:03	28.3	31.7	0	90	80	171	13186	100	162	1.0	1.0	17.1	0.0	38.1	7.32	0.53	232.0	0	359
360.0	11:04	42.9	31.7	0	90	84	171	13224	100	161	1.0	1.0	17.1	0.0	38.2	7.34	0.48	233.0	0	360
361.0	11:05	54.5	31.8	0	89	90	171	13233	100	161	1.0	1.0	17.0	0.0	38.3	7.36	0.44	234.0	0	361
362.0	11:07	39.6	31.8	0	90	69	171	12815	100	161	1.0	1.0	17.1	0.0	38.4	7.38	0.49	235.0	0	362
363.0	11:09	29.0	31.8	0	89	78	170	10006	104	160	1.0	1.0	17.0	0.0	38.6	7.42	0.53	236.0	0	363
364.0	11:11	30.3	31.8	0	89	82	171	11907	105	160	1.0	1.0	17.1	0.0	38.8	7.45	0.52	237.0	0	364
365.0	11:12	40.4	31.8	0	89	98	171	12129	105	159	1.0	1.0	17.0	0.0	39.0	7.48	0.48	238.0	0	365
366.0	11:14	35.3	31.8	0	89	92	171	12196	104	158	1.0	1.0	16.9	0.0	39.1	7.50	0.50	239.0	0	366
367.0	11:16	34.3	31.9	0	89	81	171	12223	102	156	1.0	1.0	17.0	0.0	39.2	7.53	0.51	240.0	0	367
368.0	11:17	34.3	31.9	0	89	82	171	12269	100	154	1.0	1.0	17.0	0.0	39.4	7.56	0.51	241.0	0	368
369.0	11:19	42.9	31.9	0	89	86	171	12248	98	153	1.0	1.0	17.0	0.0	39.5	7.59	0.48	242.0	0	369
370.0	11:20	40.0	31.9	0	89	89	170	11838	98	151	1.0	1.0	17.0	0.0	39.7	7.61	0.48	243.0	0	370
371.0	11:33	27.3	31.9	0	73	66	169	11630	93	142	1.0	1.0	16.9	0.0	39.8	7.65	0.53	244.0	0	371
372.0	11:36	26.9	31.9	0	89	82	169	13162	82	131	1.0	1.0	17.0	0.0	40.0	7.68	1.10	245.0	0	372
373.0	11:37	37.5	31.9	0	89	93	169	13148	76	125	1.0	1.0	17.1	0.0	40.1	7.71	1.01	246.0	0	373

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
373.0	11:37	37.5	31.9	0	89	93	169	13148	76	125	1.0	1.0	17.1	0.0	40.1	7.71	1.01	246.0	0	373
374.0	11:39	45.0	31.9	0	88	103	169	13140	71	120	1.0	1.0	17.1	0.0	40.3	7.73	0.96	247.0	0	374
375.0	11:40	32.4	31.9	0	89	92	169	13147	66	116	1.0	1.0	17.0	0.0	40.4	7.76	1.05	248.0	0	375
376.0	11:42	40.4	32.0	0	89	78	168	13132	64	113	1.0	1.0	16.9	0.0	40.6	7.79	0.99	249.0	0	376
377.0	11:44	29.0	32.0	0	89	78	169	13249	71	120	1.0	1.0	17.0	0.0	40.8	7.82	1.08	250.0	0	377
378.0	11:45	45.0	32.0	0	88	93	169	13330	77	126	1.0	1.0	16.9	0.0	40.8	7.85	0.96	251.0	0	378
379.0	11:47	40.9	32.0	1	89	93	169	13370	83	131	1.0	1.0	17.1	0.0	41.0	7.87	0.61	252.0	0	379
380.0	11:49	25.9	32.0	0	89	89	169	13343	89	138	1.0	1.0	17.0	0.0	41.2	7.91	0.54	253.0	0	380
381.0	11:51	39.1	32.0	1	89	96	169	13383	96	144	1.0	1.0	17.0	0.0	41.3	7.93	0.60	254.0	0	381
382.0	11:52	61.0	32.1	1	88	102	169	13069	102	149	1.0	1.0	17.1	0.0	41.4	7.95	0.51	255.0	0	382
383.0	11:53	42.9	32.1	1	87	97	168	10143	111	154	1.0	1.0	17.0	0.0	41.6	7.97	0.58	256.0	0	383
384.0	11:55	37.1	32.1	1	88	83	168	10874	114	156	1.0	1.0	17.1	0.0	41.7	8.00	0.59	257.0	0	384
385.0	11:57	31.3	32.1	0	89	83	169	13062	114	156	1.0	1.0	17.1	0.0	41.8	8.03	0.52	258.0	0	385
386.0	11:58	33.6	32.1	0	89	87	169	13379	114	156	1.0	1.0	17.0	0.0	42.0	8.06	0.51	259.0	0	386
387.0	12:00	41.9	32.2	0	89	88	169	13463	114	156	1.0	1.0	17.0	0.0	42.1	8.09	0.48	260.0	0	387
388.0	12:01	37.9	32.2	0	89	91	169	13498	114	156	1.0	1.0	17.0	0.0	42.3	8.11	0.49	261.0	0	388
389.0	12:03	31.0	32.2	0	89	89	169	13529	114	156	1.0	1.0	17.0	0.0	42.5	8.15	0.52	262.0	0	389
390.0	12:05	43.4	32.2	0	89	91	169	13539	113	156	1.0	1.0	17.1	0.0	42.6	8.17	0.47	263.0	0	390
391.0	12:06	50.7	32.2	0	89	95	169	13550	114	156	1.0	1.0	17.0	0.0	42.6	8.19	0.45	264.0	0	391
392.0	12:07	36.7	32.3	0	89	91	169	13448	114	155	1.0	1.0	17.0	0.0	42.8	8.22	0.50	265.0	0	392
393.0	12:09	36.4	32.3	1	88	89	168	10554	113	151	1.0	1.0	17.1	0.0	43.0	8.24	0.60	266.0	0	393
394.0	12:11	37.1	32.3	0	88	92	168	11601	112	149	1.0	1.0	16.9	0.0	43.1	8.27	0.49	267.0	0	394
395.0	12:13	27.7	32.3	0	89	92	169	13305	111	149	1.0	1.0	17.0	0.0	43.3	8.31	0.53	268.0	0	395
396.0	12:14	40.9	32.3	0	89	91	169	13436	111	149	1.0	1.0	17.1	0.0	43.5	8.33	0.48	269.0	0	396
397.0	12:16	36.4	32.3	0	89	95	169	13472	111	149	1.0	1.0	17.1	0.0	43.6	8.36	0.50	270.0	0	397
398.0	12:17	43.9	32.3	0	89	91	169	13492	110	148	1.0	1.0	16.9	0.0	43.7	8.38	0.47	271.0	0	398
399.0	12:19	34.6	32.3	0	88	93	169	13452	110	149	1.0	1.0	16.9	0.0	43.8	8.41	0.50	272.0	0	399
400.0	12:43	25.4	32.3	0	82	81	168	13504	110	145	1.0	1.0	17.0	0.0	44.1	8.45	0.53	273.0	0	400
401.0	12:45	26.3	32.3	0	88	88	168	13574	110	144	1.0	1.0	17.0	0.0	44.2	8.49	0.54	274.0	0	401
402.0	12:47	42.4	32.3	0	88	99	169	13608	110	145	1.0	1.0	17.0	0.0	44.3	8.51	0.48	275.0	0	402
403.0	12:48	42.4	32.3	0	88	93	169	13584	110	145	1.0	1.0	16.9	0.0	44.5	8.53	0.48	276.0	0	403
404.0	12:49	45.6	32.4	0	89	88	168	13555	111	145	1.0	1.0	17.1	0.0	44.6	8.56	0.47	277.0	0	404
405.0	12:51	31.9	32.4	0	88	88	169	13553	111	146	1.0	1.0	17.0	0.0	44.8	8.59	0.51	278.0	0	405
406.0	12:53	35.6	32.4	0	88	88	169	13573	111	146	1.0	1.0	17.0	0.0	45.0	8.62	0.50	279.0	0	406
407.0	12:54	38.7	32.4	0	88	89	169	13576	111	146	1.0	1.0	16.9	0.0	45.0	8.64	0.49	280.0	0	407
408.0	12:56	31.3	32.4	0	88	93	169	13606	112	147	1.0	1.0	17.1	0.0	45.2	8.67	0.52	281.0	0	408

BR2 RR2 DRILLED 281m IN 8.7 RHOB, AVE ROP 32.3 m/hr, KREVS 45.5.

RR2 SMITH DSJ (JETS 3X18) 445mm, POH TO RUN 340mm CSG.

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 3

DATE 02-DEC-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	403.000	CASING SIZE	340.000
BIT SIZE	311.000	BIT NUMBER & TYPE	BR3 NB1 SMITH FDS
RIG COST/HR	5254.000	INITIAL COST	128875.000
TRIP TIME	24.000	PUMP CAP LITS.STK	18.988
BIT COST	2779.000	JET SIZES	14 14 14 0
START DRILLING	408.000		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.04	38	7	15	13/ 10	8.9	25.00	1.00	0.00	0.00

292088

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
409.0	12:04	19.7	3.3	1	70	89	93	8591	90	155	1.0	1.1	15.0	26.4	1.3	0.30	0.70	1.0	0	409
410.0	14:46	26.7	5.8	1	61	87	107	11706	89	134	1.0	1.1	20.3	27.8	1.4	0.34	0.60	2.0	0	410
411.0	14:47	43.9	8.2	1	50	47	127	16405	85	102	1.0	1.1	22.6	27.7	1.5	0.36	0.53	3.0	0	411
412.0	14:50	20.2	9.7	0	50	38	127	16448	84	105	1.1	1.1	22.7	27.7	1.6	0.41	0.51	4.0	0	412
413.0	15:03	17.5	10.6	1	46	31	128	16453	84	106	1.0	1.0	22.8	27.7	1.8	0.47	0.64	5.0	0	413
414.0	15:03	45.0	12.7	1	58	53	132	17556	86	92	1.0	1.1	23.0	27.8	1.8	0.47	0.51	6.0	0	414
415.0	15:04	50.0	14.7	0	58	46	132	17556	86	92	1.1	1.0	22.9	27.7	1.8	0.48	0.40	7.0	0	415
416.0	15:05	53.7	16.2	0	58	47	132	17556	85	92	1.0	1.0	23.0	27.7	1.8	0.49	0.40	8.0	0	416
417.0	15:06	52.9	17.5	0	58	47	132	17570	85	93	1.0	1.0	23.0	27.7	1.9	0.51	0.40	9.0	0	417
418.0	15:07	54.5	18.8	0	58	47	132	17577	84	94	1.0	1.0	23.0	27.7	2.0	0.53	0.40	10.0	0	418
419.0	15:08	46.2	19.9	0	58	45	132	16940	84	96	1.0	1.0	23.0	27.7	2.0	0.55	0.42	11.0	0	419
420.0	15:10	42.9	20.8	0	58	46	132	16959	84	98	1.0	1.0	23.1	27.7	2.1	0.58	0.43	12.0	0	420
421.0	15:11	43.9	21.7	0	58	45	132	16971	83	100	1.0	1.0	23.1	27.7	2.2	0.60	0.43	13.0	0	421
422.0	15:13	40.0	22.4	0	58	45	132	16985	83	102	1.0	1.0	23.2	27.7	2.3	0.62	0.44	14.0	0	422
423.0	15:14	46.2	23.2	0	58	43	132	17017	83	104	1.0	1.0	23.3	27.7	2.3	0.65	0.43	15.0	0	423
424.0	15:15	41.4	23.9	0	58	44	132	17025	83	106	1.0	1.0	23.3	27.6	2.5	0.67	0.44	16.0	0	424
425.0	15:18	24.7	23.9	0	57	106	132	17102	83	106	1.0	1.0	23.5	27.6	2.6	0.71	0.51	17.0	0	425
426.0	15:19	36.4	24.4	0	58	76	132	17087	83	106	1.0	1.0	23.6	27.6	2.7	0.74	0.46	18.0	0	426
427.0	15:21	34.3	24.8	0	59	37	132	17073	83	106	1.0	1.0	23.7	27.6	2.8	0.77	0.47	19.0	0	427
428.0	15:23	37.1	25.2	0	59	37	132	17075	83	106	1.0	1.0	23.9	27.6	2.9	0.79	0.46	20.0	0	428
429.0	15:24	35.6	25.5	0	59	38	132	17076	83	106	1.0	1.0	24.0	27.6	3.0	0.82	0.47	21.0	0	429
430.0	15:26	32.4	25.8	0	59	38	132	17086	83	106	1.0	1.0	24.1	27.6	3.1	0.85	0.48	22.0	0	430
431.0	15:28	29.0	25.9	0	58	39	132	17032	83	106	1.0	1.0	24.3	27.6	3.2	0.89	0.49	23.0	0	431
432.0	15:30	35.6	26.2	1	58	40	132	17034	83	106	1.0	1.0	24.5	27.6	3.3	0.92	0.57	24.0	0	432
433.0	15:32	39.6	26.6	1	58	42	132	17009	83	106	1.0	1.0	24.6	27.7	3.4	0.94	0.56	25.0	0	433
434.0	15:34	31.0	26.7	1	58	43	132	17018	83	105	1.0	1.0	24.8	27.7	3.5	0.97	0.62	26.0	0	434
435.0	15:35	38.3	27.0	1	58	44	132	17000	83	105	1.0	1.0	25.0	27.8	3.6	1.00	0.59	27.0	0	435
436.0	15:37	41.9	27.4	0	58	39	132	16990	82	105	1.0	1.0	25.1	27.8	3.7	1.02	0.44	28.0	0	436
437.0	15:38	31.9	27.5	1	58	40	132	17041	82	105	1.0	1.1	25.3	27.8	3.8	1.05	0.59	29.0	0	437
438.0	15:40	37.9	27.8	1	58	40	132	17073	82	105	1.0	1.0	25.5	27.8	3.9	1.08	0.56	30.0	0	438
439.0	15:42	33.0	27.9	1	58	42	132	17113	82	105	1.0	1.1	25.7	27.8	4.0	1.11	0.60	31.0	0	439
440.0	15:43	35.3	28.1	1	59	41	132	17175	82	104	1.0	1.1	25.9	27.8	4.1	1.14	0.59	32.0	0	440
441.0	15:46	24.7	28.0	1	58	42	133	17218	82	104	1.0	1.0	26.1	27.8	4.2	1.18	0.68	33.0	0	441
442.0	15:48	28.6	28.0	1	58	44	133	17216	81	104	1.0	1.0	26.4	27.8	4.4	1.21	0.66	34.0	0	442
443.0	16:06	34.3	28.1	2	57	42	132	17158	81	103	1.0	1.0	26.5	27.9	4.5	1.24	0.65	35.0	0	443
444.0	16:07	70.6	28.6	2	94	64	126	15742	81	86	1.0	1.0	21.6	28.0	4.5	1.26	0.60	36.0	0	444
445.0	16:08	76.6	29.1	2	94	65	126	15742	81	86	1.0	1.1	21.6	28.0	4.6	1.27	0.58	37.0	0	445
446.0	16:09	51.4	29.4	1	94	60	126	15747	81	87	1.0	1.1	21.7	28.0	4.7	1.29	0.64	38.0	0	446
447.0	16:10	83.7	29.9	2	94	58	126	15742	81	89	1.0	1.1	21.7	28.0	4.8	1.30	0.56	39.0	0	447
448.0	16:11	52.2	30.3	1	95	57	126	15766	80	90	1.0	1.1	21.8	28.0	4.9	1.32	0.61	40.0	0	448
449.0	16:11	81.8	30.7	2	94	63	126	15798	80	92	1.0	1.1	21.8	28.0	5.0	1.33	0.56	41.0	0	449
450.0	16:12	85.7	31.2	2	94	67	126	15798	80	93	1.0	1.1	21.9	28.0	5.1	1.35	0.58	42.0	0	450
451.0	16:13	92.3	31.7	2	94	63	126	15815	80	93	1.0	1.1	21.9	28.0	5.1	1.36	0.56	43.0	0	451
452.0	16:14	41.4	31.9	1	95	54	126	15800	80	94	1.0	1.1	21.9	28.0	5.2	1.38	0.67	44.0	0	452
453.0	16:15	50.7	32.1	2	95	58	126	15802	80	96	1.0	1.1	22.0	28.0	5.3	1.40	0.65	45.0	0	453
454.0	16:16	59.0	32.5	2	94	60	126	15798	80	98	1.0	1.1	22.1	28.0	5.4	1.42	0.63	46.0	0	454
455.0	16:17	66.7	32.8	2	94	63	126	15798	80	99	1.0	1.1	22.1	28.0	5.5	1.43	0.61	47.0	0	455
456.0	16:18	52.9	33.1	2	95	58	126	15806	80	100	1.0	1.1	22.2	28.0	5.6	1.45	0.66	48.0	0	456
457.0	16:21	24.7	32.8	1	95	46	126	15785	80	102	1.0	1.1	22.2	28.1	5.8	1.49	0.70	49.0	0	457
458.0	16:22	50.7	33.1	1	95	54	126	15796	80	102	1.0	1.1	22.3	28.1	5.9	1.51	0.63	50.0	0	458

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
458.0	16:22	50.7	33.1	1	95	54	126	15796	80	102	1.0	1.1	22.3	28.1	5.9	1.51	0.63	50.0	0	458
459.0	16:23	52.9	33.3	1	95	55	126	15798	80	102	1.0	1.1	22.3	28.1	6.0	1.53	0.62	51.0	0	459
460.0	16:25	35.0	33.4	0	95	47	126	15805	80	102	1.0	1.1	22.4	28.2	6.2	1.56	0.53	52.0	0	460
461.0	16:27	25.2	33.1	1	95	48	126	15804	80	102	1.0	1.1	22.5	28.2	6.4	1.60	0.71	53.0	0	461
462.0	16:29	51.4	33.4	1	95	50	126	15798	80	102	1.0	1.0	22.5	28.3	6.6	1.62	0.58	54.0	0	462
463.0	16:29	78.3	33.7	1	95	58	126	15835	80	102	1.0	1.0	22.6	28.3	6.6	1.63	0.56	55.0	0	463
464.0	16:30	76.6	34.1	2	96	59	126	15845	80	102	1.0	1.0	22.6	28.3	6.7	1.64	0.58	56.0	0	464
465.0	16:31	64.3	34.3	2	96	58	126	15821	80	102	1.0	1.0	22.6	28.3	6.8	1.66	0.62	57.0	0	465
466.0	16:34	23.5	34.1	1	97	44	126	15844	80	102	1.0	1.1	22.7	28.3	7.1	1.70	0.72	58.0	0	466
467.0	16:36	23.1	33.8	0	96	45	126	15821	80	102	1.0	1.0	22.8	28.3	7.3	1.75	0.59	59.0	0	467
468.0	16:37	56.2	34.0	1	96	54	126	15798	80	102	1.0	1.1	22.9	28.3	7.4	1.76	0.62	60.0	0	468
469.0	16:38	53.7	34.2	2	96	54	126	15798	80	101	1.0	1.1	22.9	28.4	7.5	1.78	0.64	61.0	0	469
470.0	16:40	50.0	34.4	2	96	56	126	15820	80	101	1.0	1.1	23.0	28.4	7.6	1.80	0.67	62.0	0	470
471.0	16:41	37.5	34.5	1	96	49	126	15809	80	101	1.0	1.1	23.0	28.5	7.8	1.83	0.66	63.0	0	471
472.0	16:57	33.0	34.4	0	98	45	115	13293	80	89	1.0	1.1	23.5	28.6	7.9	1.86	0.54	64.0	0	472
473.0	16:57	64.3	34.7	0	99	52	111	12572	80	84	1.0	1.1	23.7	28.7	8.0	1.87	0.45	65.0	0	473
474.0	16:58	57.1	34.9	0	99	50	112	12584	80	84	1.0	1.1	23.7	28.7	8.1	1.89	0.46	66.0	0	474
475.0	17:00	45.0	35.0	0	99	47	111	12584	79	84	1.0	1.1	23.8	28.7	8.2	1.91	0.50	67.0	0	475
476.0	17:01	47.4	35.1	1	99	53	111	12585	79	83	1.0	1.1	23.8	28.7	8.4	1.94	0.60	68.0	0	476
477.0	17:02	45.6	35.3	1	99	55	111	12611	79	83	1.0	1.1	23.9	28.7	8.5	1.96	0.60	69.0	0	477
478.0	17:03	57.1	35.4	1	99	54	111	12621	79	84	1.0	1.1	23.9	28.7	8.6	1.97	0.56	70.0	0	478
479.0	17:04	73.5	35.7	1	99	54	111	12639	79	84	1.0	1.0	23.9	28.7	8.7	1.99	0.53	71.0	0	479
480.0	17:06	48.6	35.8	0	99	49	112	12653	80	84	1.0	1.1	23.6	28.7	8.8	2.01	0.49	72.0	0	480
481.0	17:08	23.2	35.6	0	100	43	112	12663	80	84	1.0	1.1	22.1	28.8	9.0	2.05	0.58	73.0	0	481
482.0	17:09	50.0	35.7	1	99	49	112	12640	79	84	1.0	1.0	22.2	28.9	9.2	2.07	0.60	74.0	0	482
483.0	17:11	40.9	35.8	1	99	49	112	12666	79	84	1.0	1.0	22.2	29.0	9.3	2.10	0.62	75.0	0	483
484.0	17:13	25.2	35.6	0	99	47	112	12688	79	84	1.0	1.1	22.2	29.0	9.5	2.14	0.57	76.0	0	484
485.0	17:15	33.0	35.5	1	99	49	112	12691	79	83	1.0	1.0	22.3	29.0	9.7	2.17	0.69	77.0	0	485
486.0	17:16	47.4	35.7	1	99	50	112	12664	79	83	1.0	1.1	22.4	29.0	9.8	2.19	0.60	78.0	0	486
487.0	17:18	40.9	35.7	1	99	51	112	12690	79	83	1.0	1.1	22.4	29.0	10.0	2.21	0.65	79.0	0	487
488.0	17:19	35.0	35.7	1	99	48	112	12695	79	85	1.0	1.0	22.4	29.0	10.1	2.24	0.65	80.0	0	488
489.0	17:21	39.6	35.7	1	99	51	112	12695	79	85	1.0	1.0	22.5	29.1	10.3	2.27	0.65	81.0	0	489
490.0	17:23	28.3	35.6	1	99	47	112	12695	79	85	1.0	1.0	22.5	29.1	10.5	2.30	0.68	82.0	0	490
491.0	17:25	30.3	35.6	0	99	47	112	12695	79	85	1.0	1.1	22.6	29.2	10.7	2.33	0.55	83.0	0	491
492.0	17:27	40.4	35.6	0	99	47	112	12693	79	85	1.0	1.1	22.6	29.3	10.8	2.36	0.51	84.0	0	492
493.0	17:29	27.3	35.5	0	99	44	112	12695	78	85	1.0	1.0	22.7	29.3	11.1	2.40	0.56	85.0	0	493
494.0	17:31	26.1	35.3	0	99	43	112	12704	78	85	1.0	1.0	22.7	29.4	11.3	2.43	0.57	86.0	0	494
495.0	17:32	48.0	35.4	1	99	47	112	12700	78	85	1.0	1.0	22.8	29.4	11.4	2.45	0.59	87.0	0	495
496.0	17:34	39.1	35.5	0	99	44	112	12727	78	85	1.0	1.1	22.8	29.4	11.7	2.48	0.52	88.0	0	496
497.0	17:36	31.9	35.4	0	99	49	112	12713	78	85	1.0	1.1	22.8	29.4	11.8	2.51	0.54	89.0	0	497
498.0	17:38	27.1	35.3	0	99	47	112	12734	77	83	1.0	1.1	22.9	29.4	12.1	2.55	0.56	90.0	0	498
499.0	17:40	34.3	35.3	1	99	48	112	12735	77	82	1.0	1.1	22.9	29.5	12.2	2.58	0.66	91.0	0	499
500.0	17:58	11.8	34.6	0	99	41	113	12957	77	82	1.0	1.1	23.0	29.6	12.7	2.66	0.67	92.0	0	500
501.0	17:59	64.3	34.7	1	100	51	127	16468	76	81	1.1	1.0	23.3	29.7	12.7	2.68	0.54	93.0	0	501
502.0	18:01	28.8	34.7	0	100	46	126	16282	75	80	1.1	1.0	23.3	29.7	12.9	2.71	0.55	94.0	0	502
503.0	18:02	48.6	34.8	1	100	51	126	16288	75	79	1.0	1.0	23.4	29.8	13.1	2.73	0.58	95.0	0	503
504.0	18:03	70.6	34.9	0	100	52	126	16296	75	79	1.0	1.1	23.4	29.8	13.1	2.75	0.43	96.0	0	504
505.0	18:04	61.0	35.1	0	100	52	126	16296	75	79	1.0	1.1	23.4	29.8	13.2	2.76	0.46	97.0	0	505
506.0	18:05	47.4	35.2	0	100	51	126	16296	75	79	1.1	1.0	23.4	29.9	13.4	2.78	0.49	98.0	0	506
507.0	18:08	28.8	35.1	0	100	46	126	16301	74	79	1.0	1.0	23.4	29.9	13.7	2.82	0.56	99.0	0	507

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
507.0	18:08	28.8	35.1	0	100	46	126	16301	74	79	1.0	1.0	23.4	29.9	13.7	2.82	0.56	99.0	0	507
508.0	18:10	27.9	35.0	0	100	46	126	16296	74	79	1.1	1.0	23.5	29.9	13.9	2.86	0.56	100.0	0	508
509.0	18:11	67.9	35.2	1	100	53	126	16296	74	79	1.1	1.0	23.5	29.9	14.0	2.87	0.53	101.0	0	509
510.0	18:11	72.0	35.4	1	100	55	126	16296	74	79	1.0	1.0	23.5	29.9	14.0	2.88	0.53	102.0	0	510
511.0	18:16	14.4	34.9	0	100	47	126	16294	74	79	1.1	1.0	23.6	29.9	14.5	2.95	0.64	103.0	0	511
512.0	18:16	65.5	35.0	1	100	50	126	16256	74	80	1.1	1.0	23.6	30.0	14.5	2.97	0.54	104.0	0	512
513.0	18:17	70.6	35.2	1	100	55	126	16267	74	81	1.1	1.0	23.6	30.1	14.6	2.98	0.56	105.0	0	513
514.0	18:18	61.0	35.3	0	100	51	126	16280	74	82	1.1	1.0	23.6	30.1	14.7	3.00	0.45	106.0	0	514
515.0	18:22	16.1	35.0	0	100	44	126	16287	74	86	1.1	1.0	23.7	30.1	15.1	3.06	0.63	107.0	0	515
516.0	18:25	23.2	34.8	0	100	46	126	16259	73	89	1.1	1.1	23.7	30.1	15.3	3.10	0.58	108.0	0	516
517.0	18:27	30.8	34.7	0	100	48	126	16254	73	91	1.1	1.1	23.8	30.2	15.5	3.14	0.54	109.0	0	517
518.0	18:29	22.5	34.6	1	100	50	126	16237	73	94	1.1	1.1	23.9	30.2	15.8	3.18	0.71	110.0	0	518
519.0	18:31	46.2	34.7	0	100	51	126	16241	73	97	1.1	1.0	23.9	30.3	15.9	3.20	0.49	111.0	0	519
520.0	18:32	39.6	34.7	1	100	52	126	16245	73	99	1.1	1.0	24.0	30.3	16.1	3.23	0.61	112.0	0	520
521.0	18:33	53.7	34.8	1	100	48	126	16238	73	100	1.1	1.0	24.0	30.3	16.2	3.25	0.57	113.0	0	521
522.0	18:35	35.0	34.8	0	100	48	126	16240	73	102	1.0	1.1	24.1	30.0	16.4	3.28	0.53	114.0	2	522
523.0	18:36	37.9	34.8	0	100	49	126	16264	72	104	1.0	1.1	24.2	30.0	16.5	3.30	0.52	115.0	0	523
524.0	18:40	16.6	34.5	0	100	46	126	16257	71	106	1.0	1.1	24.3	30.4	16.9	3.36	0.63	116.0	0	524
525.0	18:42	34.3	34.5	1	100	47	126	16244	71	109	1.0	1.1	24.5	30.7	17.0	3.39	0.65	117.0	0	525
526.0	18:44	26.5	34.4	1	100	46	126	16257	71	112	1.0	1.1	24.6	30.7	17.3	3.43	0.69	118.0	0	526
527.0	18:46	36.4	34.4	1	100	46	125	16069	71	114	1.0	1.1	24.7	30.6	17.4	3.46	0.66	119.0	0	527
528.0	18:47	40.0	34.5	1	100	46	125	15987	71	116	1.0	1.1	24.8	30.4	17.6	3.48	0.62	120.0	0	528
529.0	19:04	25.4	34.4	1	92	82	126	16221	71	121	1.0	1.1	25.1	30.6	17.8	3.52	0.71	121.0	0	529
530.0	19:05	57.1	34.5	1	95	143	127	16528	72	126	1.0	1.1	25.5	30.8	17.9	3.54	0.58	122.0	0	530
531.0	19:07	52.9	34.6	1	95	136	127	16533	72	127	1.0	1.1	25.5	30.9	18.0	3.56	0.58	123.0	0	531
532.0	19:08	35.6	34.6	1	95	139	127	16606	72	129	1.0	1.1	25.5	30.9	18.1	3.59	0.66	124.0	0	532
533.0	19:10	37.5	34.6	1	95	144	127	16611	72	129	1.0	1.1	25.6	30.9	18.3	3.61	0.67	125.0	0	533
534.0	19:11	43.4	34.7	1	95	145	127	16613	71	129	1.0	1.1	25.6	30.9	18.4	3.64	0.66	126.0	1	534
535.0	19:12	50.0	34.7	2	95	156	127	16629	71	128	1.0	1.1	25.6	30.8	18.6	3.66	0.66	127.0	0	535
536.0	19:13	58.1	34.9	2	95	144	127	16609	71	129	1.0	1.1	25.7	30.8	18.7	3.67	0.65	128.0	0	536
537.0	19:14	87.8	35.0	2	95	133	127	16629	71	129	1.0	1.1	25.7	31.1	18.7	3.68	0.54	129.0	0	537
538.0	19:15	63.2	35.1	1	95	126	127	16627	71	129	1.0	1.1	25.7	31.1	18.8	3.70	0.58	130.0	0	538
539.0	19:16	49.3	35.2	1	95	112	127	16627	71	128	1.0	1.1	25.7	30.9	18.9	3.72	0.60	131.0	0	539
540.0	19:19	22.9	35.1	0	95	124	127	16611	71	128	1.0	1.1	25.7	31.0	19.2	3.76	0.58	132.0	0	540
541.0	19:20	51.4	35.2	1	95	137	127	16623	71	129	1.0	1.1	25.7	30.9	19.3	3.78	0.62	133.0	0	541
542.0	19:21	76.6	35.3	2	95	143	127	16646	71	129	1.0	1.1	25.8	31.2	19.4	3.80	0.57	134.0	0	542
543.0	19:22	81.8	35.4	1	95	150	127	16662	71	129	1.0	1.1	25.8	31.3	19.5	3.81	0.53	135.0	0	543
544.0	19:22	81.8	35.6	1	95	143	127	16655	71	129	1.0	1.1	25.8	31.2	19.5	3.82	0.55	136.0	0	544
545.0	19:24	52.2	35.7	0	95	142	127	16647	71	129	1.0	1.1	25.8	31.2	19.6	3.84	0.47	137.0	0	545
546.0	19:27	16.2	35.4	0	95	131	127	16633	71	128	1.0	1.1	25.8	31.3	20.0	3.90	0.63	138.0	0	546
547.0	19:29	31.3	35.3	1	95	137	127	16636	70	128	1.0	1.1	25.8	31.3	20.2	3.93	0.66	139.0	0	547
548.0	19:30	52.2	35.4	1	95	147	127	16680	70	128	1.0	1.1	25.7	31.8	20.3	3.95	0.57	140.0	0	548
549.0	19:32	32.4	35.4	1	95	145	127	16675	70	128	1.0	1.1	25.7	31.8	20.5	3.98	0.66	141.0	0	549
550.0	19:34	35.6	35.4	1	95	136	127	16664	70	128	1.0	1.1	25.7	31.8	20.6	4.01	0.64	142.0	0	550
551.0	19:36	28.6	35.3	1	95	125	127	16643	70	127	1.0	1.1	25.8	31.9	20.8	4.05	0.67	143.0	0	551
552.0	19:38	36.4	35.3	1	95	136	127	16659	70	127	1.0	1.1	25.8	31.8	20.9	4.07	0.69	144.0	0	552
553.0	19:39	57.1	35.4	2	95	143	127	16684	70	127	1.0	1.1	25.8	32.1	21.0	4.09	0.63	145.0	0	553
554.0	19:41	23.8	35.3	1	95	129	127	16669	71	129	1.0	1.1	25.8	32.0	21.3	4.13	0.72	146.0	0	554
555.0	19:43	40.4	35.4	1	95	121	127	16608	74	132	1.0	1.1	25.9	32.0	21.4	4.16	0.63	147.0	0	555
556.0	19:44	32.4	35.3	1	95	126	127	16542	74	132	1.0	1.1	25.9	32.0	21.6	4.19	0.67	148.0	0	556

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
556.0	19:44	32.4	35.3	1	95	126	127	16542	74	132	1.0	1.1	25.9	32.0	21.6	4.19	0.67	148.0	0	556
557.0	19:47	21.6	35.2	1	95	121	127	16690	74	132	1.0	1.1	26.0	32.2	21.9	4.24	0.71	149.0	0	557
558.0	20:00	30.0	35.1	1	90	100	127	16659	73	131	1.0	1.1	26.1	32.3	22.0	4.27	0.65	150.0	0	558
559.0	20:01	81.8	35.3	0	103	56	126	16643	72	130	1.1	1.1	26.3	32.7	22.1	4.28	0.41	151.0	0	559
560.0	20:02	69.2	35.4	0	104	56	126	16665	73	130	1.1	1.1	26.3	32.7	22.2	4.30	0.44	152.0	0	560
561.0	20:04	28.1	35.3	0	104	45	125	16444	73	130	1.1	1.1	26.4	32.8	22.4	4.33	0.56	153.0	0	561
562.0	20:05	61.0	35.4	0	104	51	125	16298	72	130	1.1	1.1	26.4	33.0	22.5	4.35	0.45	154.0	0	562
563.0	20:06	65.5	35.5	0	104	53	125	16309	72	131	1.1	1.1	26.4	33.1	22.7	4.36	0.45	155.0	0	563
564.0	20:07	54.5	35.6	1	103	53	125	16352	72	131	1.1	1.1	26.5	32.8	22.8	4.38	0.56	156.0	0	564
565.0	20:08	41.4	35.6	0	104	49	125	16361	71	131	1.1	1.1	26.5	32.7	22.9	4.40	0.51	157.0	0	565
566.0	20:11	23.4	35.5	0	104	45	125	16344	71	133	1.1	1.1	26.6	32.9	23.2	4.45	0.58	158.0	0	566
567.0	20:13	32.4	35.5	0	104	48	125	16378	71	134	1.1	1.1	26.7	33.1	23.4	4.48	0.54	159.0	0	567
568.0	20:13	65.5	35.6	1	104	51	125	16601	71	133	1.1	1.1	26.7	33.2	23.5	4.49	0.55	160.0	0	568
569.0	20:15	57.1	35.7	1	104	53	125	16623	71	133	1.1	1.1	26.8	33.4	23.6	4.51	0.59	161.0	0	569
570.0	20:15	64.3	35.8	1	104	51	125	16650	71	132	1.1	1.1	26.8	33.2	23.6	4.53	0.55	162.0	0	570
571.0	20:17	53.7	35.9	1	104	49	125	16643	71	132	1.1	1.1	26.9	32.9	23.8	4.55	0.61	163.0	0	571
572.0	20:19	23.4	35.7	0	104	45	125	16648	71	132	1.1	1.1	26.9	33.2	24.0	4.59	0.58	164.0	0	572
573.0	20:20	46.8	35.8	1	104	50	125	16627	71	133	1.1	1.1	27.0	33.5	24.1	4.61	0.61	165.0	0	573
574.0	20:21	62.1	35.9	1	104	52	125	16637	70	133	1.1	1.1	27.1	33.6	24.2	4.63	0.56	166.0	0	574
575.0	20:22	63.2	36.0	1	104	53	125	16649	70	134	1.1	0.6	27.1	29.6	24.3	4.64	0.58	167.0	0	575
576.0	20:23	52.9	36.0	1	104	51	125	16626	70	134	1.1	1.0	27.2	29.2	24.5	4.66	0.59	168.0	0	576
577.0	20:25	38.3	36.1	0	104	47	125	15687	70	134	1.1	1.1	27.2	33.1	24.7	4.69	0.52	169.0	0	577
578.0	20:27	27.1	36.0	0	104	48	125	15679	70	133	1.1	1.1	27.3	33.5	24.9	4.72	0.56	170.0	0	578
579.0	20:28	64.3	36.1	1	103	53	125	15692	70	133	1.1	1.1	27.4	33.5	25.0	4.74	0.57	171.0	0	579
580.0	20:29	51.4	36.1	1	103	55	125	15668	70	133	1.1	1.1	27.4	33.3	25.1	4.76	0.63	172.0	0	580
581.0	20:30	60.0	36.2	1	103	55	125	15649	69	133	1.1	1.1	27.5	33.3	25.2	4.78	0.57	173.0	0	581
582.0	20:31	54.5	36.3	1	104	53	125	15644	69	133	1.1	1.1	27.5	33.1	25.3	4.79	0.61	174.0	0	582
583.0	20:33	35.6	36.3	1	103	55	125	15642	69	134	1.1	1.1	27.6	33.1	25.5	4.82	0.69	175.0	0	583
584.0	20:34	50.0	36.4	1	104	53	125	15646	69	134	1.1	1.1	27.6	33.2	25.6	4.84	0.62	176.0	0	584
585.0	20:36	41.4	36.4	1	104	52	125	15644	69	133	1.1	1.1	27.7	33.4	25.7	4.87	0.66	177.0	0	585
586.0	20:37	42.4	36.4	1	104	53	125	15634	69	78	1.1	1.1	27.8	33.3	25.9	4.89	0.63	178.0	0	586
587.0	20:52	49.3	36.5	2	104	54	123	15293	68	71	1.1	1.1	28.0	33.6	26.0	4.91	0.67	179.0	0	587
588.0	20:53	83.7	36.6	2	103	72	122	14995	67	68	1.1	1.1	28.2	34.0	26.1	4.92	0.56	180.0	0	588
589.0	20:53	90.0	36.7	1	103	72	122	15029	67	67	1.1	1.1	28.2	34.0	26.2	4.93	0.54	181.0	0	589
590.0	20:54	87.8	36.8	1	104	70	122	15029	67	67	1.1	1.1	28.3	34.1	26.2	4.94	0.54	182.0	0	590
591.0	20:55	80.0	36.9	2	103	74	122	15029	67	67	1.1	1.1	28.3	34.2	26.3	4.96	0.57	183.0	0	591
592.0	20:56	75.0	37.0	2	103	72	122	15007	66	66	1.1	1.1	28.3	34.1	26.4	4.97	0.58	184.0	0	592
593.0	20:56	94.7	37.1	3	103	84	122	15023	66	66	1.1	1.2	28.3	34.0	26.5	4.98	0.58	185.0	0	593
594.0	20:57	78.3	37.2	2	103	72	122	15027	66	66	1.1	1.2	28.4	34.0	26.5	4.99	0.58	186.0	0	594
595.0	20:58	60.0	37.3	1	104	66	122	15029	66	67	1.1	1.2	28.4	33.8	26.6	5.01	0.60	187.0	0	595
596.0	20:59	46.8	37.4	1	104	57	122	15003	66	67	1.1	1.3	28.4	33.7	26.8	5.03	0.59	188.0	0	596
597.0	21:02	26.1	37.3	0	104	50	122	15024	67	68	1.1	1.3	28.5	33.9	27.0	5.07	0.56	189.0	0	597
598.0	21:03	45.6	37.3	0	102	59	122	15029	67	68	1.1	1.3	28.6	34.0	27.1	5.09	0.49	190.0	0	598
599.0	21:04	63.2	37.4	1	102	63	122	15037	67	67	1.1	1.3	28.6	34.1	27.2	5.11	0.55	191.0	0	599
600.0	21:05	63.2	37.5	1	102	59	122	15020	66	69	1.1	1.3	28.6	34.1	27.4	5.12	0.54	192.0	0	600
601.0	21:06	69.2	37.6	0	102	58	122	15070	67	82	1.1	1.3	28.6	34.0	27.5	5.14	0.43	193.0	0	601
602.0	21:07	46.2	37.6	0	103	54	122	15085	67	85	1.1	1.3	28.7	34.0	27.6	5.16	0.49	194.0	0	602
603.0	21:09	30.8	37.6	0	103	48	122	15085	67	69	1.1	1.2	28.7	34.3	27.8	5.19	0.54	195.0	0	603
604.0	21:11	30.8	37.5	0	103	53	122	15065	67	69	1.1	1.2	28.8	34.5	28.0	5.22	0.54	196.0	0	604
605.0	21:12	48.0	37.6	1	102	55	122	15085	67	67	1.1	1.2	28.8	34.5	28.1	5.25	0.59	197.0	0	605

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
605.0	21:12	48.0	37.6	1	102	55	122	15085	67	67	1.1	1.2	28.8	34.5	28.1	5.25	0.59	197.0	0	605
606.0	21:14	45.6	37.6	1	102	58	122	15060	67	70	1.1	1.2	28.8	34.6	28.2	5.27	0.59	198.0	0	606
607.0	21:15	52.9	37.6	1	102	62	122	15041	67	85	1.1	1.2	28.8	34.6	28.4	5.29	0.58	199.0	0	607
608.0	21:16	54.5	37.7	1	102	62	122	15040	66	91	1.1	1.2	28.9	34.5	28.5	5.30	0.59	200.0	0	608
609.0	21:17	52.9	37.8	1	102	59	122	15029	66	105	1.1	1.1	28.9	34.4	28.6	5.32	0.59	201.0	0	609
610.0	21:18	49.3	37.8	1	102	58	122	15009	67	84	1.1	1.1	28.9	34.1	28.7	5.34	0.61	202.0	0	610
611.0	21:19	48.6	37.8	1	102	60	122	15085	70	80	1.1	1.1	29.0	33.8	28.8	5.36	0.61	203.0	0	611
612.0	21:21	45.0	37.9	1	102	60	122	14923	70	121	1.1	1.1	29.0	33.5	28.9	5.39	0.65	204.0	0	612
613.0	21:22	38.3	37.9	1	102	62	122	14872	70	132	1.1	1.1	29.0	33.1	29.1	5.41	0.67	205.0	0	613
614.0	21:24	46.8	37.9	1	102	61	122	15064	70	100	1.1	1.1	29.0	33.2	29.2	5.43	0.61	206.0	0	614
615.0	21:25	35.6	37.9	1	101	65	122	14950	70	77	1.1	1.1	29.1	33.4	29.4	5.46	0.67	207.0	0	615
616.0	21:44	35.0	37.9	1	97	61	122	14995	73	97	1.1	1.1	29.1	33.7	29.6	5.49	0.67	208.0	0	616
617.0	21:45	36.4	37.9	1	97	74	122	15088	76	115	1.1	1.1	29.1	34.0	29.8	5.52	0.66	209.0	0	617
618.0	21:47	37.9	37.9	1	97	76	122	15086	77	129	1.1	1.1	29.1	34.1	29.9	5.54	0.66	210.0	0	618
619.0	21:48	63.2	37.9	1	97	76	122	15131	78	138	1.1	1.2	29.1	34.2	30.0	5.56	0.58	211.0	0	619
620.0	21:49	58.1	38.0	1	97	76	122	15120	76	138	1.1	1.2	29.0	34.2	30.1	5.58	0.58	212.0	0	620
621.0	21:50	56.2	38.1	1	97	70	122	15137	74	139	1.1	1.2	28.9	34.2	30.2	5.60	0.54	213.0	0	621
622.0	21:51	64.3	38.1	0	98	68	122	15172	72	139	1.1	1.2	28.9	34.3	30.3	5.61	0.44	214.0	0	622
623.0	21:52	48.6	38.2	0	98	66	122	15170	71	142	1.1	1.2	28.8	34.3	30.4	5.63	0.47	215.0	0	623
624.0	21:54	40.0	38.2	0	98	64	122	15198	73	145	1.1	1.2	28.8	34.5	30.6	5.66	0.50	216.0	0	624
625.0	21:56	30.5	38.1	1	98	63	122	15229	74	131	1.1	1.1	28.8	34.7	30.8	5.69	0.69	217.0	0	625
626.0	21:57	41.4	38.2	2	97	72	122	15251	76	137	1.1	1.1	28.8	34.8	30.9	5.71	0.68	218.0	0	626
627.0	21:58	42.9	38.2	3	97	81	122	15262	77	94	1.1	1.1	28.8	34.9	31.0	5.74	0.72	219.0	0	627
628.0	22:00	60.0	38.2	3	97	89	122	15308	77	84	1.1	1.1	28.8	34.9	31.1	5.75	0.69	220.0	0	628
629.0	22:01	38.3	38.2	3	97	90	122	15307	76	83	1.1	1.1	28.8	34.9	31.3	5.78	0.78	221.0	0	629
630.0	22:02	54.5	38.3	3	97	89	122	15336	73	79	1.1	1.1	28.8	35.1	31.4	5.80	0.70	222.0	0	630
631.0	22:03	50.0	38.3	3	97	86	122	15336	71	81	1.1	1.1	28.8	35.0	31.5	5.82	0.72	223.0	0	631
632.0	22:05	48.0	38.4	4	97	93	122	15350	72	96	1.1	1.1	28.7	35.0	31.6	5.84	0.74	224.0	0	632
633.0	22:06	59.0	38.4	3	97	92	122	15324	72	103	1.1	1.1	28.7	35.0	31.7	5.86	0.70	225.0	0	633
634.0	22:07	67.9	38.5	3	99	86	122	15318	74	85	1.1	1.1	28.7	34.9	31.8	5.87	0.63	226.0	0	634
635.0	22:07	83.7	38.6	1	99	75	122	15308	74	83	1.1	1.1	28.7	34.9	31.9	5.88	0.54	227.0	0	635
636.0	22:08	50.0	38.6	1	100	61	122	15308	75	82	1.1	1.1	28.7	35.0	32.0	5.90	0.59	228.0	0	636
637.0	22:10	30.3	38.6	1	100	62	122	15308	76	82	1.1	1.1	28.8	34.9	32.2	5.94	0.65	229.0	0	637
638.0	22:12	35.3	38.6	1	100	67	122	15317	73	80	1.1	1.1	28.8	34.9	32.4	5.96	0.67	230.0	0	638
639.0	22:13	54.5	38.6	2	99	68	122	15324	70	93	1.1	1.1	28.8	34.9	32.5	5.98	0.62	231.0	0	639
640.0	22:14	48.6	38.7	1	100	69	122	15308	69	114	1.1	1.1	28.8	34.9	32.6	6.00	0.63	232.0	0	640
641.0	22:16	49.3	38.7	2	100	69	122	15312	71	135	1.1	1.1	28.8	34.9	32.7	6.02	0.65	233.0	0	641
642.0	22:17	45.6	38.7	2	100	68	122	15337	72	146	1.1	1.1	28.9	34.9	32.9	6.04	0.65	234.0	1	642
643.0	22:18	52.2	38.8	1	100	67	122	15313	73	146	1.1	1.1	28.9	34.8	33.0	6.06	0.62	235.0	0	643
644.0	22:19	47.4	38.8	1	99	66	121	15071	74	146	1.1	1.1	28.9	34.7	33.1	6.09	0.63	236.0	0	644
645.0	22:37	57.1	38.8	3	92	59	122	15253	71	143	1.1	1.1	29.2	34.7	33.2	6.10	0.66	237.0	0	645
646.0	22:37	66.7	38.9	3	101	78	122	15318	67	138	1.1	1.1	29.3	34.7	33.3	6.12	0.66	238.0	0	646
647.0	22:39	42.4	38.9	2	102	68	122	15348	63	133	1.1	1.1	29.3	34.7	33.4	6.14	0.69	239.0	0	647
648.0	22:41	35.3	38.9	2	102	65	122	15310	62	127	1.1	1.1	29.4	34.7	33.6	6.17	0.70	240.0	0	648
649.0	22:42	44.4	38.9	2	102	65	122	15310	62	127	1.1	1.1	29.5	34.7	33.7	6.19	0.66	241.0	0	649
650.0	22:44	34.0	38.9	1	102	64	122	15390	62	126	1.1	1.1	29.6	34.7	33.9	6.22	0.68	242.0	0	650
651.0	22:45	34.0	38.9	2	102	63	122	15399	62	126	1.1	1.1	29.7	34.7	34.1	6.25	0.71	243.0	0	651
652.0	22:53	36.7	38.9	2	102	59	123	15557	63	127	1.1	1.1	29.8	34.7	34.2	6.28	0.71	244.0	0	652
653.0	22:54	62.1	38.9	3	102	70	124	15706	65	129	1.1	1.1	29.8	34.7	34.3	6.29	0.65	245.0	0	653
654.0	22:55	61.0	39.0	3	101	74	123	15716	64	128	1.1	1.1	29.8	34.7	34.4	6.31	0.66	246.0	1	654

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
654.0	22:55	61.0	39.0	3	101	74	123	15716	64	128	1.1	1.1	29.8	34.7	34.4	6.31	0.66	246.0	1	654
655.0	22:57	40.4	39.0	1	102	60	123	15689	64	128	1.1	1.1	29.8	34.7	34.5	6.34	0.67	247.0	0	655
656.0	22:59	25.9	38.9	1	101	57	114	13442	64	128	1.1	1.1	29.9	34.7	34.8	6.37	0.74	248.0	0	656
657.0	23:03	14.9	38.7	0	102	49	110	12469	64	129	1.1	1.1	29.9	34.7	35.2	6.44	0.63	249.0	0	657
658.0	23:04	48.6	38.7	2	101	66	110	12516	65	129	1.1	1.1	30.0	34.7	35.3	6.46	0.68	250.0	0	658
659.0	23:05	70.6	38.8	3	100	78	110	12561	65	129	1.1	1.1	30.0	34.7	35.4	6.48	0.64	251.0	0	659
660.0	23:06	90.0	38.8	4	101	85	110	12571	65	129	1.1	1.1	30.0	34.7	35.4	6.49	0.61	252.0	0	660
661.0	23:07	49.3	38.9	1	101	63	110	12568	65	129	1.1	1.1	30.0	34.7	35.5	6.51	0.62	253.0	0	661
662.0	23:09	43.4	38.9	2	101	62	110	12566	65	129	1.1	1.1	29.9	34.7	35.8	6.53	0.67	254.0	0	662
663.0	23:11	30.3	38.9	1	101	59	110	12582	65	129	1.1	1.1	29.9	34.7	36.0	6.56	0.71	255.0	0	663
664.0	23:12	60.0	38.9	3	100	75	110	12586	68	131	1.1	1.1	29.9	34.7	36.1	6.58	0.67	256.0	0	664
665.0	23:12	76.6	39.0	3	100	76	110	12582	70	133	1.1	1.1	29.9	34.7	36.2	6.59	0.62	257.0	0	665
666.0	23:14	41.9	39.0	1	101	59	110	12578	71	135	1.1	1.1	29.9	34.7	36.3	6.62	0.66	258.0	0	666
667.0	23:15	42.4	39.0	2	101	67	110	12572	73	136	1.1	1.1	29.9	34.7	36.4	6.64	0.71	259.0	0	667
668.0	23:16	70.6	39.1	3	100	75	110	12552	74	136	1.1	1.1	29.9	34.7	36.5	6.65	0.64	260.0	0	668
669.0	23:17	85.7	39.2	4	100	77	110	12571	75	137	1.1	1.1	30.0	34.7	36.6	6.67	0.63	261.0	0	669
670.0	23:18	76.6	39.2	3	100	78	110	12571	76	138	1.1	1.1	30.0	34.7	36.7	6.68	0.64	262.0	0	670
671.0	23:19	46.8	39.3	2	101	61	110	12564	77	139	1.1	1.1	30.0	34.7	36.8	6.70	0.67	263.0	0	671
672.0	23:21	34.6	39.2	2	101	57	110	12542	76	138	1.1	1.1	30.1	34.7	37.0	6.73	0.72	264.0	0	672
673.0	23:22	60.0	39.3	2	101	69	110	12550	74	137	1.1	1.1	30.1	34.7	37.1	6.75	0.64	265.0	0	673
674.0	23:38	50.7	39.3	3	85	54	110	12530	72	135	1.1	1.1	30.0	34.7	37.2	6.77	0.66	266.0	0	674
675.0	23:39	56.2	39.4	2	100	73	109	12309	69	128	1.1	1.1	29.6	34.7	37.3	6.78	0.62	267.0	0	675
676.0	23:40	64.3	39.4	1	100	67	109	12295	68	127	1.1	1.1	29.5	34.7	37.4	6.80	0.57	268.0	0	676
677.0	23:42	37.5	39.4	1	100	63	109	12291	68	126	1.1	1.1	29.5	34.7	37.5	6.83	0.63	269.0	0	677
678.0	23:44	33.6	39.4	1	100	64	109	12290	68	126	1.1	1.1	29.5	34.7	37.7	6.86	0.63	270.0	0	678
679.0	23:45	33.3	39.4	0	100	62	109	12265	68	125	1.1	1.1	29.5	34.7	37.9	6.89	0.52	271.0	0	679
680.0	23:47	37.5	39.4	0	100	61	109	12257	68	125	1.1	1.1	29.5	34.7	38.0	6.91	0.51	272.0	0	680
681.0	23:48	41.4	39.4	0	100	64	109	12263	68	125	1.1	1.1	29.6	34.7	38.2	6.94	0.49	273.0	0	681
682.0	23:50	49.3	39.4	1	100	64	109	12282	68	125	1.1	1.1	29.6	34.7	38.3	6.96	0.59	274.0	0	682
683.0	23:51	34.6	39.4	1	100	66	109	12288	68	125	1.1	1.1	29.6	34.7	38.5	6.99	0.66	275.0	0	683
684.0	23:53	52.2	39.4	1	100	64	109	12284	68	124	1.1	1.1	29.7	34.7	38.6	7.00	0.58	276.0	0	684
685.0	23:54	39.6	39.4	1	100	64	109	12274	68	125	1.1	1.1	29.7	34.7	38.7	7.03	0.63	277.0	0	685
686.0	23:55	41.4	39.4	1	100	68	109	12291	68	124	1.1	1.1	29.7	34.8	38.9	7.05	0.65	278.0	0	686
687.0	23:57	40.4	39.4	2	100	72	109	12291	68	124	1.1	1.1	29.8	34.7	39.0	7.08	0.70	279.0	0	687
688.0	23:58	46.8	39.4	1	100	72	109	12291	69	125	1.1	1.1	29.8	34.7	39.1	7.10	0.63	280.0	0	688
689.0	23:59	48.6	39.5	1	100	69	111	12304	69	124	1.1	1.1	29.8	34.7	39.3	7.12	0.63	281.0	0	689
690.0	00:01	51.4	39.5	1	100	68	109	12307	69	124	1.1	1.1	29.8	34.7	39.4	7.14	0.58	282.0	0	690
691.0	00:02	43.9	39.5	1	100	67	109	12310	69	124	1.1	1.1	29.9	34.7	39.5	7.16	0.62	283.0	0	691
692.0	00:03	47.4	39.5	1	100	64	109	12301	69	125	1.1	1.1	29.9	34.8	39.6	7.18	0.60	284.0	0	692
693.0	00:05	38.7	39.5	1	100	65	109	12295	69	125	1.1	1.1	29.9	34.7	39.8	7.21	0.61	285.0	0	693
694.0	00:06	43.9	39.5	1	100	66	109	12293	70	125	1.1	1.1	30.0	34.7	39.9	7.23	0.60	286.0	0	694
695.0	00:08	43.4	39.6	1	100	62	109	12326	70	125	1.1	1.1	30.1	34.8	40.0	7.26	0.59	287.0	0	695
696.0	00:09	38.3	39.5	1	100	63	109	12342	70	125	1.1	1.1	30.1	34.7	40.2	7.28	0.65	288.0	0	696
697.0	00:10	48.6	39.6	1	100	64	109	12347	70	125	1.1	1.1	30.2	34.7	40.3	7.30	0.59	289.0	0	697
698.0	00:12	36.0	39.6	1	100	64	109	12348	70	125	1.1	1.1	30.2	34.7	40.5	7.33	0.67	290.0	0	698
699.0	00:14	35.3	39.5	1	100	65	109	12347	70	125	1.1	1.1	30.2	34.7	40.7	7.36	0.68	291.0	0	699
700.0	00:16	33.3	39.5	1	100	66	109	12347	70	125	1.1	1.1	30.3	34.7	40.8	7.39	0.68	292.0	0	700
701.0	00:17	39.1	39.5	1	100	68	109	12350	71	125	1.1	1.1	30.3	34.6	41.0	7.41	0.65	293.0	1	701
702.0	00:19	33.6	39.5	1	100	65	109	12347	74	128	1.1	1.1	30.3	34.5	41.2	7.44	0.64	294.0	0	702
703.0	00:51	30.8	39.5	1	89	54	109	12331	76	130	1.1	1.1	30.4	34.5	41.4	7.48	0.65	295.0	0	703

292095

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
703.0	00:51	30.8	39.5	1	89	54	109	12331	76	130	1.1	1.1	30.4	34.5	41.4	7.48	0.65	295.0	0	703
704.0	00:53	29.8	39.4	0	103	57	109	12342	76	127	1.1	1.1	30.2	34.5	41.6	7.51	0.54	296.0	0	704
705.0	00:55	30.0	39.4	1	103	60	109	12403	79	126	1.1	1.1	30.1	34.5	41.8	7.54	0.65	297.0	0	705
706.0	00:57	37.1	39.4	1	103	62	109	12403	81	128	1.1	1.1	30.0	34.5	41.9	7.57	0.66	298.0	0	706
707.0	00:58	40.4	39.4	1	103	62	109	12404	79	126	1.1	1.1	29.9	34.5	42.1	7.60	0.65	299.0	0	707
708.0	01:00	41.9	39.4	1	103	62	109	12404	76	123	1.1	1.1	29.9	34.5	42.2	7.62	0.64	300.0	0	708
709.0	01:02	36.4	39.4	1	102	62	109	12419	76	123	1.1	1.1	29.8	34.5	42.4	7.65	0.67	301.0	0	709
710.0	01:03	48.6	39.4	2	102	67	109	12428	78	125	1.1	1.1	29.7	34.6	42.5	7.67	0.65	302.0	0	710
711.0	01:04	56.2	39.4	2	102	68	109	12413	80	126	1.1	1.1	29.7	34.6	42.6	7.68	0.63	303.0	0	711
712.0	01:05	52.9	39.5	1	102	65	109	12425	81	127	1.1	1.1	29.7	34.6	42.7	7.70	0.62	304.0	0	712
713.0	01:06	39.1	39.5	2	102	69	109	12462	79	125	1.1	1.1	29.7	34.6	42.9	7.73	0.72	305.0	0	713
714.0	01:08	43.9	39.5	2	102	72	109	12478	77	123	1.1	1.1	29.7	34.7	43.0	7.75	0.69	306.0	0	714
715.0	01:09	44.4	39.5	2	103	69	109	12467	76	121	1.1	1.1	29.7	34.7	43.1	7.77	0.67	307.0	0	715
716.0	01:10	49.3	39.5	2	103	68	109	12462	78	123	1.1	1.1	29.6	34.7	43.4	7.79	0.66	308.0	0	716
717.0	01:12	31.0	39.5	2	102	68	109	12467	80	124	1.1	1.1	29.6	34.7	43.6	7.83	0.73	309.0	0	717
718.0	01:14	40.9	39.5	2	102	66	109	12461	81	125	1.1	1.1	29.6	34.7	43.7	7.85	0.70	310.0	0	718
719.0	01:15	43.4	39.5	2	103	67	109	12501	79	123	1.1	1.1	29.6	34.7	43.8	7.87	0.68	311.0	0	719
720.0	01:17	44.4	39.5	2	102	66	109	12474	78	121	1.1	1.1	29.6	34.7	44.0	7.90	0.68	312.0	0	720
721.0	01:18	40.4	39.5	2	103	65	112	13135	80	123	1.1	1.1	29.7	34.7	44.1	7.92	0.68	313.0	1	721
722.0	01:20	39.6	39.5	2	103	65	116	14029	81	124	1.1	1.1	29.7	34.7	44.3	7.95	0.70	314.0	0	722
723.0	01:21	42.4	39.5	2	103	68	116	14049	79	121	1.1	1.1	29.7	34.7	44.4	7.97	0.70	315.0	0	723
724.0	01:22	44.4	39.5	2	103	68	116	14023	78	120	1.1	1.1	29.7	34.7	44.5	7.99	0.69	316.0	0	724
725.0	01:24	45.6	39.6	2	103	69	116	14025	79	114	1.1	1.1	29.7	34.7	44.7	8.02	0.69	317.0	0	725
726.0	01:25	42.9	39.6	2	103	67	116	14034	81	113	1.1	1.1	29.7	34.7	44.8	8.04	0.69	318.0	0	726
727.0	01:27	40.4	39.6	2	103	64	115	13981	82	115	1.1	1.1	29.7	34.7	44.9	8.06	0.69	319.0	0	727
728.0	01:28	38.7	39.6	2	103	61	115	13970	80	113	1.1	1.1	29.8	34.9	45.1	8.09	0.70	320.0	0	728
729.0	01:30	33.0	39.5	2	102	65	116	14017	76	108	1.1	1.1	29.8	35.0	45.3	8.12	0.75	321.0	0	729
730.0	01:32	36.0	39.5	2	103	67	115	13951	73	105	1.1	1.1	29.8	35.0	45.4	8.15	0.71	322.0	0	730
731.0	01:33	36.4	39.5	2	103	64	115	13965	73	104	1.1	1.1	29.8	34.8	45.7	8.17	0.73	323.0	0	731
732.0	01:49	40.4	39.5	2	95	55	115	13864	73	105	1.1	1.1	29.8	35.3	45.8	8.20	0.69	324.0	0	732
733.0	01:51	39.6	39.5	1	105	68	114	13511	75	104	1.1	1.1	29.8	35.6	45.9	8.22	0.64	325.0	0	733
734.0	01:53	26.1	39.5	1	105	65	114	13500	75	104	1.1	1.1	29.8	35.6	46.1	8.26	0.72	326.0	0	734
735.0	01:54	40.0	39.5	1	105	72	114	13509	75	104	1.1	1.1	29.9	35.6	46.4	8.29	0.66	327.0	0	735
736.0	01:56	45.6	39.5	1	105	73	114	13491	75	104	1.1	1.1	29.9	35.6	46.5	8.31	0.65	328.0	0	736
737.0	01:57	47.4	39.5	2	104	80	114	13481	75	104	1.1	1.1	30.0	35.6	46.6	8.33	0.67	329.0	0	737
738.0	01:58	50.7	39.5	2	104	82	114	13504	75	104	1.1	1.1	30.0	35.5	46.7	8.35	0.67	330.0	0	738
739.0	01:59	49.3	39.5	2	105	77	114	13520	75	103	1.1	1.1	30.1	35.4	46.9	8.37	0.65	331.0	0	739
740.0	02:01	41.9	39.5	2	105	75	114	13520	76	103	1.1	1.1	30.1	35.4	47.0	8.39	0.70	332.0	0	740
741.0	02:02	48.0	39.6	2	105	78	114	13518	76	102	1.1	1.1	30.1	35.4	47.1	8.42	0.66	333.0	0	741
742.0	02:04	40.4	39.6	2	105	82	118	14418	76	102	1.1	1.1	30.1	35.5	47.3	8.44	0.72	334.0	0	742
743.0	02:05	50.7	39.6	2	105	80	120	15179	76	102	1.1	1.1	30.2	35.6	47.4	8.46	0.69	335.0	0	743
744.0	02:06	39.1	39.6	2	105	77	121	15287	76	101	1.1	1.1	30.2	35.7	47.5	8.49	0.70	336.0	0	744
745.0	02:08	43.9	39.6	2	105	76	121	15314	76	101	1.1	1.1	30.2	35.9	47.8	8.51	0.69	337.0	0	745
746.0	02:09	40.4	39.6	2	105	77	121	15308	76	101	1.1	1.1	30.3	35.9	47.9	8.53	0.70	338.0	0	746
747.0	02:10	48.0	39.6	2	106	76	121	15308	76	101	1.1	1.1	30.3	35.8	48.0	8.55	0.66	339.0	0	747
748.0	02:12	37.9	39.6	2	105	75	121	15324	76	101	1.1	1.1	30.3	35.5	48.2	8.58	0.70	340.0	0	748
749.0	02:14	38.7	39.6	1	105	74	121	15273	76	100	1.1	1.1	30.3	35.3	48.3	8.61	0.69	341.0	0	749
750.0	02:15	39.1	39.6	1	105	74	120	15251	76	100	1.1	1.1	30.4	35.4	48.5	8.63	0.68	342.0	0	750
751.0	02:16	43.9	39.6	2	105	77	121	15314	77	100	1.1	1.1	30.4	35.5	48.6	8.65	0.69	343.0	0	751
752.0	02:18	35.3	39.6	2	105	77	121	15344	77	100	1.1	1.1	30.4	35.7	48.8	8.68	0.74	344.0	0	752

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
752.0	02:18	35.3	39.6	2	105	77	121	15344	77	100	1.1	1.1	30.4	35.7	48.8	8.68	0.74	344.0	0	752
753.0	02:20	42.4	39.6	2	105	79	121	15354	78	99	1.1	1.1	30.4	35.9	48.9	8.71	0.71	345.0	0	753
754.0	02:21	53.7	39.7	2	105	77	121	15350	78	99	1.1	1.1	30.5	35.9	49.1	8.72	0.67	346.0	0	754
755.0	02:22	40.9	39.7	2	105	75	121	15321	78	99	1.1	1.1	30.5	35.9	49.2	8.75	0.68	347.0	0	755
756.0	02:24	45.6	39.7	1	105	69	121	15308	78	99	1.1	1.1	30.6	35.8	49.4	8.77	0.65	348.0	0	756
757.0	02:25	37.1	39.7	1	106	69	121	15319	79	99	1.1	1.1	30.6	35.8	49.5	8.80	0.69	349.0	0	757
758.0	02:26	48.0	39.7	1	105	70	121	15327	79	99	1.1	1.1	30.6	35.7	49.7	8.82	0.61	350.0	0	758
759.0	02:28	39.6	39.7	1	106	69	121	15344	79	99	1.1	1.1	30.7	35.6	49.8	8.84	0.67	351.0	0	759
760.0	02:43	37.1	39.7	1	97	62	121	15419	80	107	1.1	1.1	30.9	36.2	49.9	8.87	0.67	352.0	0	760
761.0	02:45	44.4	39.7	2	103	74	121	15510	81	120	1.1	1.1	31.2	36.5	50.1	8.89	0.66	353.0	0	761
762.0	02:46	45.0	39.7	1	103	72	121	15520	80	122	1.1	1.1	31.3	36.5	50.3	8.92	0.65	354.0	0	762
763.0	02:48	33.0	39.7	1	103	73	121	15515	80	126	1.1	1.1	31.3	36.5	50.5	8.95	0.69	355.0	0	763
764.0	02:49	47.4	39.7	1	103	76	121	15518	80	131	1.1	1.1	31.4	36.3	50.6	8.97	0.65	356.0	0	764
765.0	02:50	49.3	39.7	1	103	77	121	15497	80	135	1.1	1.1	31.5	36.4	50.7	8.99	0.63	357.0	0	765
766.0	02:52	37.9	39.7	1	103	73	121	15500	79	137	1.1	1.1	31.6	36.5	50.8	9.01	0.66	358.0	0	766
767.0	02:53	46.8	39.7	2	103	71	121	15492	79	140	1.1	1.1	31.6	36.6	51.0	9.04	0.65	359.0	0	767
768.0	02:54	44.4	39.7	1	103	73	121	15498	79	142	1.1	1.1	31.7	36.5	51.1	9.06	0.64	360.0	0	768
769.0	02:56	50.0	39.8	1	103	70	121	15484	79	142	1.1	1.1	31.8	36.5	51.2	9.08	0.62	361.0	0	769
770.0	02:57	50.0	39.8	1	103	70	121	15474	79	141	1.1	1.1	31.8	36.5	51.3	9.10	0.59	362.0	0	770
771.0	02:58	40.4	39.8	1	103	71	121	15512	79	141	1.1	1.1	31.9	36.5	51.5	9.12	0.66	363.0	0	771
772.0	03:00	45.0	39.8	1	103	71	121	15529	78	139	1.1	1.1	31.9	36.4	51.6	9.15	0.61	364.0	0	772
773.0	03:01	39.1	39.8	1	103	69	121	15525	78	138	1.1	1.1	31.9	36.3	51.7	9.17	0.63	365.0	0	773
774.0	03:03	35.3	39.8	1	103	64	121	15511	79	138	1.1	1.1	31.8	36.4	52.0	9.20	0.63	366.0	0	774
775.0	03:05	33.0	39.8	1	103	65	121	15527	79	138	1.1	1.1	31.7	36.3	52.2	9.23	0.66	367.0	0	775
776.0	03:06	42.4	39.8	1	103	68	121	15531	79	137	1.1	1.1	31.6	36.0	52.3	9.25	0.63	368.0	0	776
777.0	03:08	30.3	39.7	1	103	64	121	15510	80	137	1.1	1.1	31.6	35.9	52.5	9.29	0.65	369.0	0	777
778.0	03:10	32.1	39.7	1	103	68	121	15549	80	136	1.1	1.1	31.5	36.1	52.7	9.32	0.69	370.0	0	778
779.0	03:11	43.4	39.7	2	103	73	121	15511	80	136	1.1	1.1	31.5	36.2	52.8	9.34	0.68	371.0	0	779
780.0	03:13	37.9	39.7	1	103	70	121	15533	80	136	1.1	1.1	31.4	36.2	53.0	9.37	0.66	372.0	0	780
781.0	03:14	38.3	39.7	1	103	67	121	15532	81	136	1.1	1.1	31.4	36.1	53.1	9.39	0.65	373.0	0	781
782.0	03:16	43.9	39.7	1	103	67	121	15540	81	136	1.1	1.1	31.4	36.1	53.3	9.42	0.64	374.0	0	782
783.0	03:18	35.6	39.7	1	103	63	121	15517	81	135	1.1	1.1	31.4	36.2	53.4	9.44	0.66	375.0	0	783
784.0	03:19	34.6	39.7	1	103	66	121	15524	81	136	1.1	1.1	31.4	36.2	53.6	9.47	0.68	376.0	0	784
785.0	03:21	39.1	39.7	1	103	66	121	15530	81	136	1.1	1.1	31.4	36.1	53.8	9.50	0.64	377.0	0	785
786.0	03:23	31.9	39.7	1	103	70	121	15541	82	136	1.1	1.1	31.4	36.1	54.1	9.53	0.70	378.0	0	786
787.0	03:37	30.8	39.6	1	93	58	120	15283	83	137	1.1	1.1	31.5	36.3	54.2	9.56	0.68	379.0	0	787
788.0	03:41	15.6	39.5	0	105	55	121	15421	85	139	1.1	1.1	31.5	36.3	54.6	9.63	0.63	380.0	0	788
789.0	03:45	13.7	39.3	0	105	55	120	15377	84	138	1.1	1.1	31.5	36.5	55.0	9.70	0.64	381.0	0	789
790.0	03:47	27.1	39.2	1	105	62	120	15364	85	130	1.1	1.1	31.5	36.8	55.3	9.74	0.74	382.0	0	790
791.0	03:49	28.3	39.2	1	105	63	120	15360	85	130	1.1	1.1	31.6	36.8	55.5	9.77	0.69	383.0	0	791
792.0	03:51	34.3	39.2	2	105	69	120	15367	85	130	1.1	1.1	31.6	36.8	55.6	9.80	0.73	384.0	0	792
793.0	03:53	37.5	39.2	1	105	62	120	15387	85	131	1.1	1.1	31.6	36.6	55.9	9.83	0.66	385.0	0	793
794.0	03:55	31.9	39.2	1	105	58	121	15406	85	133	1.1	1.1	31.7	36.5	56.1	9.86	0.66	386.0	0	794
795.0	03:57	21.3	39.1	2	105	64	121	15394	86	132	1.1	1.1	31.7	36.7	56.3	9.91	0.79	387.0	0	795
796.0	03:59	37.1	39.1	2	105	67	121	15404	86	133	1.1	1.1	31.8	36.9	56.5	9.93	0.71	388.0	0	796
797.0	04:00	43.9	39.1	2	105	68	121	15420	86	133	1.1	1.1	31.8	36.9	56.6	9.95	0.69	389.0	0	797
798.0	04:02	43.4	39.1	2	105	65	121	15420	86	133	1.1	1.1	31.8	36.8	56.8	9.98	0.68	390.0	0	798
799.0	04:04	35.0	39.1	2	105	67	121	15433	87	133	1.1	1.1	31.8	36.9	56.9	10.01	0.74	391.0	0	799
800.0	04:06	30.5	39.0	1	105	69	121	15445	87	132	1.1	1.1	31.9	36.8	57.1	10.04	0.73	392.0	0	800
801.0	04:07	37.1	39.0	2	105	64	121	15454	87	133	1.1	1.1	31.9	36.9	57.3	10.07	0.69	393.0	0	801

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
801.0	04:07	37.1	39.0	2	105	64	121	15454	87	133	1.1	1.1	31.9	36.9	57.3	10.07	0.69	393.0	0	801
802.0	04:09	35.3	39.0	2	105	63	121	15462	87	133	1.1	1.1	31.9	36.6	57.6	10.09	0.71	394.0	0	802
803.0	04:10	40.0	39.0	2	105	64	121	15474	88	133	1.1	1.1	31.9	36.4	57.7	10.12	0.70	395.0	0	803
804.0	04:12	34.3	39.0	2	105	69	121	15473	88	133	1.1	1.1	31.9	36.3	57.9	10.15	0.75	396.0	0	804
805.0	04:13	46.2	39.0	1	105	68	121	15476	88	133	1.1	1.1	31.9	36.1	58.0	10.17	0.62	397.0	0	805
806.0	04:15	42.9	39.0	1	105	71	121	15490	88	133	1.1	1.1	31.9	36.0	58.1	10.19	0.60	398.0	0	806
807.0	04:16	43.4	39.1	1	105	68	121	15444	89	133	1.1	1.1	32.0	36.1	58.3	10.22	0.61	399.0	0	807
808.0	04:18	31.0	39.0	2	104	77	121	15470	89	132	1.1	1.1	32.0	36.5	58.5	10.25	0.74	400.0	0	808
809.0	04:19	44.4	39.0	2	104	84	121	15483	89	132	1.1	1.1	32.1	36.8	58.6	10.27	0.70	401.0	0	809
810.0	04:21	36.4	39.0	2	104	83	121	15515	89	132	1.1	1.1	32.1	36.9	58.8	10.30	0.75	402.0	0	810
811.0	04:22	58.1	39.1	2	105	79	121	15540	89	131	1.1	1.1	32.1	36.8	58.9	10.32	0.63	403.0	0	811
812.0	04:24	40.9	39.1	1	105	68	121	15485	89	130	1.1	1.1	32.2	36.7	59.1	10.34	0.63	404.0	0	812
813.0	04:25	40.9	39.1	1	104	69	121	15489	90	129	1.1	1.1	32.2	36.5	59.3	10.37	0.66	405.0	0	813
814.0	04:27	33.3	39.1	1	105	72	121	15488	90	129	1.1	1.1	32.2	36.3	59.4	10.40	0.70	406.0	0	814
815.0	04:43	30.5	39.0	1	99	64	120	15430	91	128	1.1	1.1	32.2	36.7	59.6	10.43	0.67	407.0	0	815
816.0	04:45	46.8	39.0	0	105	75	121	15646	92	126	1.1	1.1	32.3	37.0	59.7	10.45	0.48	408.0	0	816
817.0	04:46	34.6	39.0	0	105	71	121	15628	92	126	1.1	1.1	32.3	37.1	59.9	10.48	0.52	409.0	0	817
818.0	04:48	38.3	39.0	0	105	70	121	15625	92	125	1.1	1.1	32.4	37.0	60.1	10.50	0.51	410.0	0	818
819.0	04:50	34.3	39.0	0	104	75	121	15588	92	125	1.1	1.1	32.4	37.2	60.3	10.53	0.52	411.0	0	819
820.0	04:51	40.4	39.0	1	104	74	121	15529	92	125	1.1	1.1	32.5	37.2	60.4	10.56	0.63	412.0	0	820
821.0	04:53	46.2	39.0	1	105	75	121	15588	92	125	1.1	1.1	32.5	37.3	60.5	10.58	0.62	413.0	0	821
822.0	04:54	48.0	39.1	0	105	74	121	15592	92	126	1.1	1.1	32.6	37.2	60.7	10.60	0.47	414.0	0	822
823.0	04:55	41.9	39.1	1	105	74	121	15616	92	126	1.1	1.1	32.6	37.0	60.8	10.62	0.61	415.0	0	823
824.0	04:57	43.4	39.1	1	104	74	121	15613	92	126	1.1	1.1	32.7	37.1	60.9	10.65	0.59	416.0	1	824
825.0	04:59	30.3	39.0	2	104	84	121	15636	92	127	1.1	1.1	32.7	37.2	61.1	10.68	0.74	417.0	0	825
826.0	05:00	40.4	39.0	2	104	83	121	15627	91	127	1.1	1.1	32.8	37.3	61.3	10.71	0.69	418.0	0	826
827.0	05:02	40.9	39.1	1	105	75	121	15645	92	125	1.1	1.1	32.8	37.3	61.5	10.73	0.64	419.0	0	827
828.0	05:03	35.0	39.0	0	104	70	121	15641	91	125	1.1	1.1	32.9	37.4	61.7	10.76	0.51	420.0	0	828
829.0	05:05	33.6	39.0	0	105	70	121	15647	91	124	1.1	1.1	32.9	37.4	61.9	10.79	0.52	421.0	0	829
830.0	05:07	38.3	39.0	1	105	73	121	15654	91	124	1.1	1.1	32.9	37.5	62.0	10.81	0.63	422.0	0	830
831.0	05:08	39.6	39.0	1	105	72	121	15673	91	122	1.1	1.1	33.0	37.6	62.2	10.84	0.60	423.0	0	831
832.0	05:10	32.4	39.0	1	104	78	121	15674	92	122	1.1	1.1	33.0	37.5	62.4	10.87	0.68	424.0	0	832
833.0	05:11	41.4	39.0	1	105	80	121	15696	92	122	1.1	1.1	33.1	37.3	62.5	10.89	0.65	425.0	0	833
834.0	05:13	40.0	39.0	1	105	76	121	15696	91	123	1.1	1.1	33.1	37.0	62.6	10.92	0.63	426.0	0	834
835.0	05:14	45.0	39.0	1	104	78	121	15710	91	125	1.1	1.1	33.1	36.9	62.8	10.94	0.63	427.0	0	835
836.0	05:16	31.6	39.0	1	105	76	121	15698	92	130	1.1	1.1	33.1	36.7	63.0	10.97	0.67	428.0	0	836
837.0	05:19	20.9	38.9	1	105	67	121	15591	92	137	1.1	1.1	33.2	36.9	63.3	11.02	0.76	429.0	0	837
838.0	05:22	23.8	38.9	1	104	71	120	15436	92	140	1.1	1.1	33.3	37.3	63.6	11.06	0.70	430.0	0	838
839.0	05:24	29.5	38.8	1	104	72	120	15450	92	140	1.1	1.1	33.3	37.7	63.8	11.10	0.69	431.0	0	839
840.0	05:25	33.0	38.8	1	104	77	120	15464	92	139	1.1	1.1	33.4	37.7	64.0	11.13	0.69	432.0	0	840
841.0	05:27	45.0	38.8	1	104	78	120	15463	93	139	1.1	1.1	33.4	37.5	64.1	11.15	0.65	433.0	0	841
842.0	05:28	34.0	38.8	1	104	79	120	15449	93	139	1.1	1.1	33.5	37.2	64.3	11.18	0.68	434.0	0	842
843.0	05:46	27.3	38.8	0	105	65	121	15660	94	131	1.1	1.1	33.7	37.7	64.5	11.22	0.54	435.0	0	843
844.0	05:47	48.6	38.8	1	107	76	122	15926	95	122	1.1	1.1	33.8	38.1	64.6	11.24	0.63	436.0	0	844
845.0	05:49	37.5	38.8	1	107	76	122	15956	95	125	1.1	1.1	33.8	38.1	64.7	11.26	0.68	437.0	0	845
846.0	05:50	40.4	38.8	1	107	73	122	15977	94	128	1.1	1.1	33.8	38.1	65.0	11.29	0.65	438.0	0	846
847.0	05:52	40.9	38.8	1	108	71	122	15962	94	130	1.1	1.1	33.9	38.1	65.1	11.31	0.64	439.0	0	847
848.0	05:53	38.7	38.8	0	107	74	122	15949	94	134	1.1	1.1	33.9	37.9	65.3	11.34	0.50	440.0	0	848
849.0	05:55	32.7	38.8	2	107	81	122	15932	94	136	1.1	1.1	33.9	38.1	65.5	11.37	0.72	441.0	0	849
850.0	05:57	37.5	38.8	3	107	91	122	15964	94	136	1.1	1.1	33.9	38.3	65.6	11.40	0.76	442.0	0	850

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
850.0	05:57	37.5	38.8	3	107	91	122	15964	94	136	1.1	1.1	33.9	38.3	65.6	11.40	0.76	442.0	0	850
851.0	05:58	52.9	38.8	4	107	98	122	15985	94	136	1.1	1.1	34.0	38.3	65.7	11.41	0.73	443.0	0	851
852.0	05:59	63.2	38.8	3	107	97	122	15982	93	136	1.1	1.1	34.0	38.2	65.8	11.43	0.66	444.0	0	852
853.0	06:00	37.1	38.8	3	107	94	122	15955	93	136	1.1	1.1	34.0	38.3	66.1	11.46	0.77	445.0	0	853
854.0	06:02	37.9	38.8	2	107	86	122	15973	94	135	1.1	1.1	34.0	38.3	66.2	11.48	0.73	446.0	0	854
855.0	06:03	42.9	38.8	2	107	82	122	15986	94	135	1.1	1.1	34.1	38.4	66.4	11.51	0.67	447.0	0	855
856.0	06:05	40.0	38.9	2	107	85	122	15987	94	135	1.1	1.1	34.1	38.2	66.5	11.53	0.70	448.0	0	856
857.0	06:07	31.6	38.8	1	107	80	122	15979	94	135	1.1	1.1	34.1	38.1	66.7	11.56	0.71	449.0	0	857
858.0	06:08	61.0	38.9	2	107	80	122	15981	94	134	1.1	1.1	34.1	38.0	66.8	11.58	0.61	450.0	0	858
859.0	06:09	47.4	38.9	1	108	75	122	15983	94	134	1.1	1.1	34.1	37.9	66.9	11.60	0.62	451.0	0	859
860.0	06:11	37.5	38.9	2	107	78	122	15979	94	134	1.1	1.1	34.2	37.8	67.1	11.63	0.70	452.0	0	860
861.0	06:12	36.0	38.9	2	107	79	122	16005	94	134	1.1	1.1	34.2	37.7	67.4	11.65	0.71	453.0	0	861
862.0	06:14	37.9	38.9	2	107	84	122	16002	94	133	1.1	1.1	34.2	37.7	67.5	11.68	0.72	454.0	0	862
863.0	06:19	10.7	38.6	2	107	86	122	16006	94	133	1.1	1.1	34.3	37.9	67.7	11.77	0.97	455.0	0	863
864.0	06:19	900.0	38.7	1	108	74	122	16035	94	131	1.1	1.1	34.4	37.9	67.7	11.78	0.13	456.0	0	864
865.0	06:20	900.0	38.8	3	107	83	122	16035	94	131	1.1	1.1	34.4	37.9	67.7	11.78	0.15	457.0	0	865
866.0	06:20	900.0	38.9	1	108	78	122	16035	94	131	1.1	1.1	34.4	38.0	67.7	11.78	0.13	458.0	0	866
867.0	06:21	46.8	38.9	2	107	78	122	16020	94	131	1.1	1.1	34.4	37.8	67.8	11.80	0.66	459.0	0	867
868.0	06:23	29.0	38.9	2	107	79	122	16022	94	131	1.1	1.1	34.4	37.9	68.0	11.83	0.76	460.0	0	868
869.0	06:25	31.3	38.9	3	107	85	122	16026	94	131	1.1	1.1	34.5	37.9	68.2	11.87	0.79	461.0	0	869
870.0	06:26	45.6	38.9	3	107	95	122	16059	94	130	1.1	1.1	34.5	38.1	68.3	11.89	0.74	462.0	3	870
871.0	06:28	40.4	38.9	4	106	98	121	15820	94	130	1.1	1.1	34.6	38.1	68.6	11.91	0.78	463.0	0	871
872.0	06:40	35.0	38.9	1	98	71	121	15682	96	126	1.1	1.1	35.0	38.1	68.6	11.94	0.65	464.0	0	872
873.0	06:42	30.8	38.8	1	103	81	120	15690	95	126	1.1	1.1	35.1	38.3	68.8	11.97	0.68	465.0	0	873
874.0	06:44	36.0	38.8	2	103	87	121	15743	95	128	1.1	1.1	35.1	38.3	69.0	12.00	0.71	466.0	0	874
875.0	06:45	40.9	38.8	2	103	89	121	15763	94	130	1.1	1.1	35.1	38.3	69.2	12.03	0.69	467.0	0	875
876.0	06:47	36.7	38.8	2	103	87	121	15782	94	132	1.1	1.1	35.1	38.3	69.4	12.05	0.70	468.0	0	876
877.0	06:48	33.0	38.8	2	103	91	121	15776	94	135	1.1	1.1	35.1	38.3	69.6	12.08	0.74	469.0	0	877
878.0	06:50	34.3	38.8	3	102	97	121	15796	94	136	1.1	1.1	35.2	38.3	69.7	12.11	0.76	470.0	0	878
879.0	06:51	48.6	38.8	3	102	97	121	15810	94	138	1.1	1.1	35.2	38.3	69.9	12.13	0.70	471.0	0	879
880.0	06:53	41.9	38.8	4	102	104	121	15797	94	140	1.1	1.1	35.2	38.3	70.0	12.16	0.77	472.0	1	880
881.0	06:54	37.9	38.8	4	102	108	121	15822	96	143	1.1	1.1	35.2	38.3	70.2	12.18	0.78	473.0	0	881
882.0	06:56	40.0	38.8	4	102	106	121	15810	97	146	1.1	1.1	35.2	38.3	70.3	12.21	0.77	474.0	0	882
883.0	06:58	29.5	38.8	5	102	103	121	15792	97	147	1.1	1.1	35.2	38.3	70.5	12.24	0.86	475.0	0	883
884.0	06:59	40.0	38.8	5	102	109	121	15835	97	148	1.1	1.1	35.1	38.3	70.7	12.27	0.80	476.0	0	884
885.0	07:01	34.3	38.8	4	102	104	121	15831	97	147	1.1	1.1	35.1	38.3	70.8	12.30	0.79	477.0	0	885
886.0	07:04	22.2	38.7	4	102	100	120	15783	97	147	1.1	1.1	35.0	38.3	71.1	12.34	0.90	478.0	0	886
887.0	07:06	34.6	38.7	6	102	122	121	15849	98	147	1.1	1.1	35.0	38.3	71.3	12.37	0.89	479.0	0	887
888.0	07:07	48.6	38.7	5	102	112	121	15863	98	147	1.1	1.1	35.0	38.3	71.4	12.39	0.77	480.0	0	888
889.0	07:09	36.4	38.7	5	102	107	121	15867	98	147	1.1	1.1	34.9	38.3	71.5	12.42	0.83	481.0	0	889
890.0	07:11	25.5	38.7	6	102	110	121	15863	98	146	1.1	1.1	34.9	38.3	71.9	12.46	0.93	482.0	0	890
891.0	07:12	38.7	38.7	6	102	114	121	15888	98	147	1.1	1.1	34.9	38.3	72.0	12.48	0.84	483.0	0	891
892.0	07:14	40.9	38.7	6	102	117	121	15879	98	147	1.1	1.1	34.9	38.3	72.2	12.51	0.84	484.0	0	892
893.0	07:16	37.1	38.7	6	102	122	121	15874	98	146	1.1	1.1	34.9	38.2	72.3	12.53	0.87	485.0	0	893
894.0	07:17	36.7	38.7	6	102	121	121	15860	98	146	1.1	1.1	34.9	38.1	72.5	12.56	0.87	486.0	0	894
895.0	07:19	29.5	38.7	7	102	117	121	15869	98	146	1.1	1.1	34.9	38.0	72.7	12.60	0.94	487.0	0	895
896.0	07:21	25.5	38.6	6	102	112	121	15867	98	146	1.1	1.1	34.9	38.0	72.9	12.63	0.88	488.0	0	896
897.0	07:23	26.9	38.7	6	103	114	121	15879	99	147	1.1	1.1	34.9	38.0	73.0	12.65	0.91	489.0	0	897
898.0	07:25	27.9	38.8	6	103	116	121	15888	100	148	1.1	1.1	34.9	38.0	73.2	12.67	0.93	490.0	0	898
899.0	07:28	24.9	38.9	6	102	112	121	15862	101	149	1.1	1.1	34.9	38.0	73.4	12.71	0.87	491.0	0	899

292099

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
899.0	07:28	24.9	38.9	6	102	112	121	15862	101	149	1.1	1.1	34.9	38.0	73.4	12.71	0.87	491.0	0	899
900.0	07:30	28.0	39.0	6	103	116	121	15889	102	150	1.1	1.1	34.9	38.0	73.6	12.73	0.93	492.0	0	900
901.0	07:33	28.2	39.0	6	103	116	121	15890	103	151	1.1	1.1	34.9	38.0	73.9	12.75	0.93	493.0	0	901
902.0	07:35	28.1	39.1	6	103	116	121	15889	104	152	1.1	1.1	35.0	38.0	74.1	12.78	0.93	494.0	0	902
903.0	07:48	25.5	38.4	6	105	99	123	16354	108	156	1.1	1.1	35.3	38.1	74.4	12.90	1.30	495.0	0	903
904.0	07:50	25.7	38.3	6	105	110	122	16280	107	155	1.1	1.1	35.3	38.2	74.8	12.94	0.93	496.0	0	904
905.0	07:52	23.8	38.3	8	105	116	122	16117	105	155	1.1	1.1	35.3	38.3	75.0	12.98	1.02	497.0	0	905
906.0	07:54	36.7	38.3	8	105	132	122	16175	105	153	1.1	1.1	35.3	38.4	75.2	13.00	0.92	498.0	0	906
907.0	07:56	31.6	38.3	8	105	128	122	16171	104	153	1.1	1.1	35.2	38.4	75.4	13.04	0.95	499.0	0	907
908.0	08:00	16.4	38.2	10	105	129	122	16143	103	153	1.1	1.1	35.3	38.5	75.7	13.10	1.16	500.0	0	908
909.0	08:01	32.4	38.2	9	105	136	122	16167	102	152	1.1	1.1	35.4	38.6	75.9	13.13	0.98	501.0	0	909
910.0	08:03	35.6	38.2	8	105	135	122	16219	101	150	1.1	1.1	35.4	38.6	76.1	13.16	0.93	502.0	0	910
911.0	08:04	55.4	38.2	7	105	126	122	16202	101	149	1.1	1.1	35.4	38.6	76.2	13.17	0.81	503.0	0	911
912.0	08:05	50.0	38.2	7	105	130	122	16202	101	148	1.1	1.1	35.4	38.6	76.4	13.19	0.83	504.0	0	912
913.0	08:07	41.4	38.2	5	105	119	122	16210	101	146	1.1	1.1	35.4	38.6	76.5	13.22	0.82	505.0	0	913
914.0	08:08	40.9	38.2	6	105	115	122	16198	100	146	1.1	1.1	35.4	38.6	76.7	13.24	0.83	506.0	0	914
915.0	08:10	36.7	38.2	7	105	134	122	16250	100	146	1.1	1.1	35.3	38.6	76.8	13.27	0.88	507.0	0	915
916.0	08:11	43.9	38.2	6	105	139	122	16244	100	146	1.1	1.1	35.3	38.6	77.0	13.29	0.83	508.0	0	916
917.0	08:13	41.4	38.2	7	105	130	122	16239	99	144	1.1	1.1	35.3	38.5	77.1	13.32	0.86	509.0	0	917
918.0	08:16	20.3	38.2	7	105	124	122	16240	97	141	1.1	1.1	35.3	38.4	77.4	13.37	1.02	510.0	0	918
919.0	08:17	42.4	38.2	6	105	126	122	16205	91	133	1.1	1.1	35.3	38.5	77.5	13.39	0.84	511.0	0	919
920.0	08:19	38.3	38.2	7	104	152	122	16267	87	128	1.1	1.1	35.2	38.6	77.7	13.42	0.87	512.0	0	920
921.0	08:20	43.4	38.2	7	105	130	122	16265	86	127	1.1	1.1	35.1	38.6	77.8	13.44	0.85	513.0	0	921
922.0	08:22	32.7	38.2	7	105	140	122	16366	84	124	1.1	1.1	35.0	36.5	78.1	13.47	0.91	514.0	0	922
923.0	08:24	33.3	38.2	6	105	124	122	16398	80	120	1.1	1.1	34.9	34.7	78.3	13.50	0.90	515.0	0	923
924.0	08:26	22.2	38.1	7	105	117	122	16375	75	115	1.1	1.1	34.8	35.6	78.6	13.54	1.02	516.0	0	924
925.0	08:29	28.3	38.1	6	105	123	122	16378	74	113	1.1	1.1	34.6	36.3	78.8	13.58	0.94	517.0	0	925
926.0	08:30	35.6	38.1	7	105	133	122	16380	76	114	1.1	1.1	34.5	36.7	78.9	13.61	0.90	518.0	0	926
927.0	08:33	22.4	38.0	7	105	127	122	16372	77	116	1.1	1.1	34.4	37.0	79.2	13.65	1.02	519.0	0	927
928.0	08:36	17.9	37.9	6	105	116	122	16309	77	115	1.1	1.1	34.5	38.0	79.6	13.71	1.02	520.0	0	928
929.0	08:38	27.5	37.9	7	105	133	122	16321	74	111	1.1	1.1	34.5	38.2	79.8	13.74	0.96	521.0	0	929
930.0	08:40	40.0	37.9	7	105	127	122	16333	75	112	1.1	1.1	34.5	38.1	80.0	13.77	0.88	522.0	0	930
931.0	08:45	12.8	37.8	8	105	114	122	16293	77	114	1.1	1.1	34.6	38.2	80.4	13.85	1.18	523.0	0	931
932.0	08:48	20.7	37.7	9	105	128	122	16264	79	115	1.1	1.1	34.8	38.7	80.7	13.90	1.10	524.0	0	932
933.0	09:03	48.6	37.7	10	116	167	123	16513	73	110	1.1	1.1	34.7	38.8	80.8	13.92	0.92	525.0	1	933
934.0	09:04	60.0	37.8	11	119	186	123	16549	72	110	1.1	1.1	34.7	38.8	81.0	13.93	0.90	526.0	1	934
935.0	09:05	55.4	37.8	10	119	176	122	16474	73	112	1.1	1.1	34.6	38.8	81.1	13.95	0.91	527.0	1	935
936.0	09:07	29.0	37.8	10	119	158	123	16532	76	115	1.1	1.1	34.6	38.8	81.3	13.99	1.05	528.0	1	936
937.0	09:08	50.7	37.8	9	119	159	123	16568	78	116	1.1	1.1	34.6	38.8	81.6	14.01	0.89	529.0	1	937
938.0	09:10	33.6	37.8	10	119	165	123	16578	79	116	1.1	1.1	34.6	38.8	81.7	14.03	1.02	530.0	1	938
939.0	09:11	43.9	37.8	11	119	169	123	16595	80	116	1.1	1.1	34.7	38.8	81.9	14.06	0.98	531.0	1	939
940.0	09:13	31.3	37.8	11	119	172	123	16570	81	115	1.1	1.1	34.7	38.8	82.2	14.09	1.08	532.0	1	940
941.0	09:15	42.4	37.8	11	119	167	123	16623	79	113	1.1	1.1	34.8	39.0	82.3	14.11	0.98	533.0	1	941
942.0	09:16	39.1	37.8	11	119	173	123	16604	76	107	1.1	1.1	34.8	39.1	82.5	14.14	1.02	534.0	1	942
943.0	09:18	29.8	37.7	12	119	174	123	16604	76	107	1.1	1.1	34.8	38.9	82.8	14.17	1.11	535.0	1	943
944.0	09:20	41.9	37.8	12	119	179	123	16626	78	109	1.1	1.1	34.8	38.8	82.9	14.20	1.02	536.0	1	944
945.0	09:21	52.2	37.8	12	119	179	123	16643	79	110	1.1	1.1	34.8	38.6	83.0	14.22	0.95	537.0	1	945
946.0	09:22	37.5	37.8	12	119	178	123	16653	80	109	1.1	1.1	34.8	38.6	83.3	14.24	1.04	538.0	1	946
947.0	09:24	35.0	37.8	11	119	183	123	16641	80	109	1.1	1.1	34.8	38.6	83.4	14.27	1.04	539.0	0	947
948.0	09:27	20.2	37.7	13	119	150	123	16600	80	108	1.1	1.1	34.8	38.4	83.7	14.32	1.22	540.0	0	948

292100

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
948.0	09:27	20.2	37.7	13	119	150	123	16600	80	108	1.1	1.1	34.8	38.4	83.7	14.32	1.22	540.0	0	948
949.0	09:28	60.0	37.7	13	119	191	123	16675	77	105	1.1	1.1	34.9	38.3	83.9	14.34	0.95	541.0	1	949
950.0	09:32	16.3	37.6	15	121	165	123	16619	78	105	1.1	1.1	34.8	38.3	84.4	14.40	1.35	542.0	1	950
951.0	09:33	39.6	37.6	15	130	210	123	16814	80	107	1.1	1.1	34.8	38.4	84.5	14.42	1.12	543.0	2	951
952.0	09:34	80.0	37.7	14	130	207	123	16824	80	107	1.1	1.1	34.8	38.3	84.6	14.44	0.91	544.0	2	952
953.0	09:36	27.1	37.7	15	130	177	123	16812	77	104	1.1	1.1	34.9	38.3	84.9	14.47	1.22	545.0	2	953
954.0	09:38	46.2	37.7	13	130	183	123	16803	73	99	1.1	1.1	34.9	38.3	85.0	14.49	1.05	546.0	2	954
955.0	09:39	39.6	37.7	12	130	176	123	16756	70	96	1.1	1.1	34.8	38.3	85.3	14.52	1.06	547.0	2	955
956.0	09:40	58.1	37.7	12	130	186	123	16811	69	95	1.1	1.1	34.8	38.3	85.4	14.54	0.95	548.0	2	956
957.0	09:42	39.1	37.7	11	130	160	123	16727	69	95	1.1	1.1	34.7	38.3	85.5	14.56	1.03	549.0	2	957
958.0	09:44	24.5	37.7	12	130	158	123	16720	69	94	1.1	1.1	34.7	38.3	85.9	14.60	1.16	550.0	2	958
959.0	09:46	34.0	37.7	13	130	165	123	16702	69	94	1.1	1.1	34.6	38.3	86.2	14.63	1.11	551.0	2	959
960.0	09:47	50.0	37.7	10	129	172	119	16744	69	93	1.1	1.1	34.6	38.3	86.3	14.65	0.97	552.0	2	960
961.0	10:06	23.1	37.6	7	126	124	123	16609	70	92	1.1	1.1	34.4	38.3	86.7	14.70	1.04	553.0	1	961
962.0	10:09	20.3	37.6	11	128	139	123	16777	71	91	1.1	1.1	34.0	38.4	87.0	14.75	1.20	554.0	1	962
963.0	10:11	27.3	37.5	14	127	174	123	16808	71	91	1.1	1.1	34.0	38.5	87.3	14.78	1.20	555.0	2	963
964.0	10:13	42.4	37.6	13	127	196	124	16921	71	90	1.1	1.1	34.0	38.5	87.5	14.81	1.06	556.0	2	964
965.0	10:15	29.0	37.5	12	128	156	123	16791	71	90	1.1	1.1	34.1	38.4	87.7	14.84	1.15	557.0	2	965
966.0	10:16	41.4	37.5	11	127	158	123	16813	71	89	1.1	1.1	34.1	38.4	88.0	14.86	1.03	558.0	2	966
967.0	10:18	32.4	37.5	11	128	149	123	16801	71	89	1.1	1.1	34.1	38.5	88.1	14.90	1.09	559.0	2	967
968.0	10:20	35.3	37.5	11	127	161	123	16809	71	89	1.1	1.1	34.2	38.3	88.4	14.92	1.06	560.0	2	968
969.0	10:21	39.6	37.5	10	128	156	123	16811	71	89	1.1	1.1	34.2	38.3	88.5	14.95	1.03	561.0	1	969
970.0	10:24	25.5	37.5	11	128	154	123	16790	71	88	1.1	1.1	34.3	34.2	88.9	14.99	1.15	562.0	1	970
971.0	10:26	23.2	37.5	12	127	159	123	16553	68	85	1.1	1.1	34.4	33.4	89.2	15.03	1.18	563.0	1	971
972.0	10:28	28.8	37.4	12	127	185	123	16716	64	80	1.1	1.1	34.5	33.5	89.4	15.07	1.13	564.0	1	972
973.0	10:31	20.3	37.4	13	128	160	123	16770	66	81	1.1	1.1	34.4	33.6	89.8	15.12	1.26	565.0	1	973
974.0	10:33	30.5	37.4	14	127	186	123	16806	66	84	1.1	1.1	34.3	33.6	90.1	15.15	1.15	566.0	1	974
975.0	10:37	18.9	37.3	14	127	178	123	16780	66	87	1.1	1.1	34.3	33.7	90.5	15.20	1.28	567.0	2	975
976.0	10:38	50.7	37.3	12	127	176	123	16788	66	90	1.1	1.1	34.4	33.6	90.6	15.22	0.99	568.0	1	976
977.0	10:39	45.6	37.3	11	127	164	123	16817	66	91	1.1	1.1	34.5	33.6	90.8	15.24	1.00	569.0	1	977
978.0	10:43	16.4	37.2	13	127	157	123	16799	66	94	1.1	1.1	34.6	36.2	91.2	15.30	1.30	570.0	1	978
979.0	10:45	25.5	37.2	14	127	193	123	16853	66	99	1.1	1.1	34.8	36.2	91.6	15.34	1.20	571.0	0	979
980.0	10:47	28.3	37.2	12	127	148	123	16791	66	101	1.1	1.1	34.9	36.2	91.9	15.38	1.13	572.0	1	980
981.0	10:50	23.8	37.2	13	127	156	123	16777	65	104	1.1	1.1	35.0	36.2	92.1	15.42	1.19	573.0	1	981
982.0	10:52	30.8	37.1	12	127	146	123	16814	65	106	1.1	1.1	35.1	36.2	92.4	15.45	1.12	574.0	1	982
983.0	10:55	19.6	37.1	13	127	186	123	16830	65	109	1.1	1.1	32.6	36.2	92.8	15.50	1.25	575.0	2	983
984.0	10:56	40.0	37.1	11	127	169	123	16869	65	112	1.1	1.1	32.6	36.2	93.0	15.53	1.03	576.0	2	984
985.0	10:58	47.4	37.1	9	128	147	123	16853	65	113	1.1	1.1	32.1	36.2	93.2	15.55	0.93	577.0	2	985
986.0	10:59	34.0	37.1	9	128	139	123	16854	64	115	1.1	1.1	32.1	36.1	93.3	15.58	1.00	578.0	2	986
987.0	11:01	38.7	37.1	8	127	150	123	16845	64	117	1.1	1.1	32.1	36.1	93.6	15.60	0.96	579.0	2	987
988.0	11:04	20.0	37.1	9	127	148	123	16727	64	117	1.1	1.1	32.1	36.1	94.0	15.65	1.13	580.0	2	988
989.0	11:06	34.3	37.0	10	127	164	123	16742	64	116	1.1	1.1	32.2	36.0	94.2	15.68	1.04	581.0	2	989
990.0	11:07	43.4	37.1	10	127	171	123	16754	63	116	1.1	1.1	32.1	35.9	94.3	15.71	0.97	582.0	2	990
991.0	11:24	16.1	37.0	4	120	109	122	16570	64	115	1.1	1.1	31.4	35.8	94.8	15.77	0.98	583.0	4	991
992.0	11:26	29.0	37.0	7	126	148	122	16598	64	114	1.1	1.1	31.1	35.9	95.0	15.80	1.00	584.0	4	992
993.0	11:27	58.1	37.0	8	126	149	122	16606	64	113	1.1	1.1	31.0	35.9	95.1	15.82	0.85	585.0	3	993
994.0	11:29	40.4	37.0	8	126	156	122	16634	64	113	1.1	1.1	31.0	36.0	95.4	15.85	0.94	586.0	3	994
995.0	11:31	28.6	37.0	7	126	179	122	16712	64	113	1.1	1.1	31.0	36.0	95.7	15.88	1.00	587.0	3	995
996.0	11:32	35.6	37.0	7	127	146	122	16656	65	113	1.1	1.1	31.0	36.0	95.8	15.91	0.95	588.0	3	996
997.0	11:34	39.6	37.0	7	127	149	122	16664	65	113	1.1	1.1	31.1	36.0	96.0	15.93	0.91	589.0	3	997

292101

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
997.0	11:34	39.6	37.0	7	127	149	122	16664	65	113	1.1	1.1	31.1	36.0	96.0	15.93	0.91	589.0	3	997
998.0	11:35	41.4	37.0	7	126	154	122	16657	65	113	1.1	1.1	31.1	36.0	96.2	15.96	0.89	590.0	3	998
999.0	11:37	37.1	37.0	7	127	139	122	16678	65	112	1.1	1.1	31.1	36.0	96.4	15.98	0.94	591.0	3	999
1000.0	11:39	35.0	37.0	6	127	138	122	16643	66	112	1.1	1.1	31.2	36.0	96.7	16.01	0.93	592.0	3	1000
1001.0	11:41	30.3	37.0	7	127	142	122	16698	65	111	1.1	1.1	31.2	36.0	96.8	16.05	0.98	593.0	3	1001
1002.0	11:42	42.9	37.0	7	127	141	122	16671	65	111	1.1	1.1	31.4	36.0	97.1	16.07	0.89	594.0	3	1002
1003.0	11:44	34.6	37.0	6	127	137	122	16658	62	108	1.1	1.1	31.5	36.0	97.3	16.10	0.93	595.0	3	1003
1004.0	11:46	34.6	37.0	6	126	134	122	16622	62	108	1.1	1.1	31.6	36.0	97.4	16.13	0.93	596.0	3	1004
1005.0	11:47	37.5	37.0	6	127	130	122	16590	62	107	1.1	1.1	31.4	36.0	97.7	16.15	0.88	597.0	3	1005
1006.0	11:49	32.1	36.9	6	127	128	122	16693	63	107	1.1	1.1	31.1	36.0	98.0	16.18	0.92	598.0	3	1006
1007.0	11:51	29.5	36.9	5	127	122	122	16710	64	107	1.1	1.1	30.8	36.1	98.2	16.22	0.93	599.0	3	1007
1008.0	11:53	27.9	36.9	5	127	122	122	16703	66	107	1.1	1.1	30.6	36.2	98.5	16.25	0.94	600.0	3	1008
1009.0	11:55	31.9	36.9	5	127	116	122	16675	66	107	1.1	1.1	30.4	36.2	98.7	16.29	0.92	601.0	3	1009
1010.0	11:57	30.5	36.9	5	127	117	122	16649	67	107	1.1	1.1	30.3	36.2	99.0	16.32	0.91	602.0	3	1010
1011.0	11:59	32.7	36.9	6	127	131	122	16687	68	107	1.1	1.1	30.2	36.2	99.1	16.35	0.94	603.0	3	1011
1012.0	12:04	13.0	36.8	7	127	144	122	16723	68	106	1.1	1.1	30.4	36.3	99.8	16.43	1.20	604.0	3	1012
1013.0	12:04	70.6	36.8	7	126	149	122	16753	69	106	1.1	1.1	30.6	36.4	99.9	16.44	0.80	605.0	3	1013
1014.0	12:05	75.0	36.8	7	127	137	122	16759	69	106	1.1	1.1	30.6	36.4	100.0	16.45	0.77	606.0	3	1014
1015.0	12:07	33.6	36.8	7	127	151	122	16776	69	106	1.1	1.1	30.6	36.4	100.2	16.48	0.97	607.0	4	1015
1016.0	12:08	58.1	36.8	7	127	156	122	16761	69	106	1.1	1.1	30.7	36.4	100.3	16.50	0.84	608.0	4	1016
1017.0	16:49	7.8	36.6	5	87	106	117	15873	76	122	1.1	1.1	28.9	29.8	101.0	16.63	1.12	609.0	2	1017
1018.0	16:51	31.9	36.6	12	65	159	115	15579	79	125	1.1	1.1	27.7	37.7	101.2	16.66	0.95	610.0	3	1018
1019.0	16:53	30.8	36.6	12	65	166	115	15600	79	125	1.1	1.1	27.7	38.1	101.3	16.69	0.97	611.0	3	1019
1020.0	16:54	40.9	36.6	12	65	150	115	15799	82	128	1.1	1.1	27.6	38.3	101.4	16.72	0.88	612.0	3	1020
1021.0	16:56	30.8	36.6	10	66	139	116	15926	85	131	1.1	1.1	27.5	38.6	101.5	16.75	0.93	613.0	3	1021
1022.0	16:58	36.0	36.6	10	67	144	115	15353	86	132	1.1	1.1	27.4	38.8	101.6	16.78	0.89	614.0	3	1022
1023.0	16:59	51.4	36.6	11	120	164	116	15204	86	132	1.1	1.1	27.3	38.9	101.7	16.80	0.95	615.0	4	1023
1024.0	17:00	55.4	36.6	11	122	160	117	15319	86	132	1.1	1.1	27.2	36.9	101.9	16.81	0.93	616.0	0	1024
1025.0	17:01	54.5	36.7	9	123	149	122	16873	86	133	1.1	1.1	27.1	48.8	102.0	16.83	0.91	617.0	0	1025
1026.0	17:03	40.0	36.7	10	123	159	122	16972	86	133	1.1	1.1	30.0	48.9	102.2	16.86	1.01	618.0	2	1026
1027.0	17:04	59.0	36.7	10	123	159	122	16933	86	133	1.1	1.1	32.8	48.3	102.4	16.87	0.92	619.0	4	1027
1028.0	17:05	41.9	36.7	10	123	154	122	16909	85	132	1.1	1.1	32.7	39.8	102.5	16.90	1.00	620.0	2	1028
1029.0	17:06	46.8	36.7	10	123	153	122	16795	85	131	1.1	1.1	32.6	45.8	102.6	16.92	0.98	621.0	0	1029
1030.0	17:07	54.5	36.7	9	123	145	120	16386	85	131	1.1	1.1	32.6	47.8	102.9	16.94	0.91	622.0	0	1030
1031.0	17:09	36.0	36.7	9	123	146	120	16301	84	130	1.1	1.1	32.5	48.1	103.0	16.97	1.02	623.0	2	1031
1032.0	17:10	59.0	36.7	8	123	137	120	16244	83	129	1.1	1.1	32.5	48.5	103.1	16.98	0.88	624.0	5	1032
1033.0	17:11	47.4	36.8	7	123	128	120	16207	83	129	1.1	1.1	32.4	48.2	103.2	17.00	0.90	625.0	5	1033
1034.0	17:13	47.4	36.8	7	123	133	120	16204	82	128	1.1	1.1	32.4	48.2	103.5	17.03	0.91	626.0	4	1034
1035.0	17:14	53.7	36.8	6	123	122	120	16179	82	128	1.1	1.1	32.4	48.1	103.6	17.04	0.84	627.0	5	1035
1036.0	17:15	51.4	36.8	5	123	115	120	16158	82	127	1.1	1.1	32.4	48.0	103.7	17.06	0.83	628.0	6	1036
1037.0	17:16	39.6	36.8	5	123	106	120	16145	81	127	1.1	1.1	32.5	48.2	103.9	17.09	0.86	629.0	6	1037
1038.0	17:20	19.1	36.8	3	123	90	120	16091	80	127	1.1	1.1	32.6	48.5	104.2	17.14	0.92	630.0	6	1038
1039.0	17:21	44.4	36.8	5	123	112	120	16109	80	129	1.1	1.1	32.7	43.6	104.5	17.16	0.84	631.0	6	1039
1040.0	17:22	58.1	36.8	6	123	118	120	16135	80	129	1.1	1.1	32.7	35.5	104.6	17.18	0.82	632.0	7	1040
1041.0	17:23	52.2	36.8	6	123	123	120	16163	79	129	1.1	1.1	32.9	35.3	104.7	17.20	0.86	633.0	7	1041
1042.0	17:24	62.1	36.8	7	122	126	120	16061	79	129	1.1	1.1	33.0	35.2	104.9	17.22	0.82	634.0	8	1042
1043.0	17:48	33.3	36.8	5	109	102	119	16078	79	129	1.1	1.1	33.3	35.3	105.1	17.25	0.88	635.0	5	1043
1044.0	17:49	58.1	36.8	7	114	127	111	14329	74	123	1.1	1.1	34.5	35.6	105.2	17.26	0.80	636.0	3	1044
1045.0	17:59	36.4	36.8	4	117	98	116	15479	67	124	1.1	1.1	34.5	35.6	105.3	17.29	0.84	637.0	3	1045
1046.0	18:07	34.0	36.8	4	118	93	119	16041	67	123	1.1	1.1	34.2	35.7	105.5	17.32	0.85	638.0	3	1046

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1046.0	18:07	34.0	36.8	4	118	93	119	16041	67	123	1.1	1.1	34.2	35.7	105.5	17.32	0.85	638.0	3	1046
1047.0	18:08	64.3	36.9	7	120	120	123	17093	68	123	1.1	1.1	34.1	35.8	105.6	17.34	0.81	639.0	4	1047
1048.0	18:09	50.7	36.9	6	120	119	123	17147	68	123	1.1	1.1	34.2	35.8	105.8	17.36	0.85	640.0	4	1048
1049.0	18:11	33.0	36.9	4	121	93	123	17115	68	122	1.1	1.1	34.3	35.8	106.0	17.39	0.84	641.0	5	1049
1050.0	18:12	42.9	36.9	5	120	107	121	16573	68	122	1.1	1.1	34.4	35.8	106.1	17.41	0.84	642.0	4	1050
1051.0	18:13	58.1	36.9	6	120	115	119	16140	68	122	1.1	1.1	34.4	35.8	106.3	17.43	0.81	643.0	2	1051
1052.0	18:15	48.0	36.9	7	120	123	119	16163	68	122	1.1	1.1	34.5	35.8	106.4	17.45	0.89	644.0	2	1052
1053.0	18:16	54.5	36.9	7	120	124	119	16199	67	121	1.1	1.1	34.5	35.8	106.5	17.47	0.84	645.0	6	1053
1054.0	18:17	57.1	37.0	7	117	123	119	16201	67	121	1.1	1.1	34.6	35.8	106.6	17.48	0.82	646.0	8	1054
1055.0	18:18	60.0	37.0	7	116	126	119	16185	67	121	1.1	1.1	34.6	35.7	106.7	17.50	0.82	647.0	7	1055
1056.0	18:19	54.5	37.0	7	115	128	119	16238	67	121	1.1	1.1	34.7	35.6	107.0	17.52	0.85	648.0	7	1056
1057.0	18:20	58.1	37.0	7	115	125	119	16258	67	121	1.1	1.1	34.7	35.6	107.1	17.54	0.82	649.0	7	1057
1058.0	18:21	55.4	37.0	7	116	124	119	16255	67	121	1.1	1.1	34.7	35.6	107.2	17.55	0.83	650.0	7	1058
1059.0	18:22	47.4	37.0	6	116	126	119	16286	67	121	1.1	1.1	34.8	35.6	107.3	17.57	0.85	651.0	7	1059
1060.0	18:24	43.4	37.1	7	116	124	119	16320	67	121	1.1	1.1	34.8	35.6	107.4	17.60	0.89	652.0	6	1060
1061.0	18:25	39.1	37.1	7	115	122	119	16286	67	120	1.1	1.1	34.8	35.6	107.7	17.62	0.92	653.0	6	1061
1062.0	18:27	38.7	37.1	6	116	118	119	16256	67	120	1.1	1.1	34.9	35.6	107.8	17.65	0.89	654.0	6	1062
1063.0	18:28	42.9	37.1	7	116	122	119	16302	68	120	1.1	1.1	34.9	35.5	108.0	17.67	0.89	655.0	6	1063
1064.0	18:30	33.0	37.1	8	116	120	119	16297	68	120	1.1	1.1	35.0	35.5	108.1	17.70	1.00	656.0	5	1064
1065.0	18:32	25.4	37.0	5	116	98	119	16198	68	120	1.1	1.1	35.0	35.5	108.5	17.74	0.95	657.0	5	1065
1066.0	18:34	27.9	37.0	5	116	102	119	16177	68	119	1.1	1.1	35.0	35.5	108.7	17.78	0.94	658.0	5	1066
1067.0	18:36	39.1	37.0	6	116	113	119	16207	68	119	1.1	1.1	35.0	35.4	108.9	17.80	0.90	659.0	6	1067
1068.0	18:38	38.7	37.0	7	116	116	119	16227	69	119	1.1	1.1	35.1	35.4	109.1	17.83	0.91	660.0	6	1068
1069.0	18:39	46.2	37.0	6	116	123	119	16228	68	119	1.1	1.1	35.1	35.4	109.2	17.85	0.86	661.0	6	1069
1070.0	18:40	45.6	37.0	7	115	122	119	16282	69	118	1.1	1.1	35.2	35.4	109.3	17.87	0.87	662.0	7	1070
1071.0	18:42	43.9	37.0	6	115	117	118	16023	69	118	1.1	1.1	35.2	35.4	109.6	17.90	0.87	663.0	7	1071
1072.0	18:54	44.4	37.1	4	103	95	116	15426	70	118	1.1	1.1	35.1	35.4	109.6	17.92	0.79	664.0	5	1072
1073.0	18:56	51.4	37.1	5	118	123	115	14803	71	118	1.1	1.1	35.1	35.4	109.7	17.94	0.82	665.0	5	1073
1074.0	18:57	51.4	37.1	6	120	128	119	16243	71	117	1.1	1.1	35.1	35.4	110.0	17.96	0.84	666.0	6	1074
1075.0	18:58	55.4	37.1	6	120	125	119	16308	71	117	1.1	1.1	35.1	35.3	110.1	17.97	0.82	667.0	6	1075
1076.0	18:59	55.4	37.1	6	120	126	119	16289	72	116	1.1	1.1	35.0	35.3	110.2	17.99	0.82	668.0	5	1076
1077.0	19:00	41.9	37.1	6	120	129	119	16311	72	116	1.1	1.1	34.9	35.2	110.3	18.02	0.88	669.0	4	1077
1078.0	19:02	47.4	37.1	6	120	138	120	16313	73	116	1.1	1.1	34.8	35.2	110.5	18.04	0.86	670.0	3	1078
1079.0	19:03	60.0	37.2	6	120	131	119	16306	73	116	1.1	1.1	34.8	35.2	110.6	18.05	0.81	671.0	7	1079
1080.0	19:04	48.0	37.2	6	120	131	119	16284	73	115	1.1	1.1	34.8	35.2	110.8	18.08	0.87	672.0	8	1080
1081.0	19:05	55.4	37.2	7	120	136	120	16313	74	115	1.1	1.1	34.8	35.2	110.9	18.09	0.84	673.0	8	1081
1082.0	19:06	45.0	37.2	6	120	133	119	16285	73	114	1.1	1.1	34.8	35.2	111.1	18.12	0.87	674.0	8	1082
1083.0	19:08	37.9	37.2	4	120	110	119	16234	74	114	1.1	1.1	34.8	35.2	111.3	18.14	0.85	675.0	7	1083
1084.0	19:09	52.9	37.2	6	120	120	119	16280	74	114	1.1	1.1	34.8	35.2	111.4	18.16	0.83	676.0	8	1084
1085.0	19:10	53.7	37.2	6	120	129	119	16311	74	114	1.1	1.1	34.9	35.2	111.6	18.18	0.84	677.0	8	1085
1086.0	19:11	53.7	37.3	7	120	132	120	16323	75	113	1.1	1.1	34.9	35.2	111.7	18.20	0.85	678.0	8	1086
1087.0	19:12	61.0	37.3	7	120	131	119	16317	75	114	1.1	1.1	34.9	35.2	111.8	18.21	0.81	679.0	8	1087
1088.0	19:13	50.0	37.3	6	120	126	119	16276	76	114	1.1	1.1	34.9	35.2	111.9	18.23	0.84	680.0	8	1088
1089.0	19:15	40.0	37.3	5	120	117	119	16315	76	113	1.1	1.1	35.0	35.2	112.2	18.26	0.87	681.0	7	1089
1090.0	19:16	39.1	37.3	5	120	125	119	16336	76	113	1.1	1.1	35.0	35.1	112.3	18.29	0.86	682.0	7	1090
1091.0	19:18	50.0	37.3	6	120	124	119	16295	76	113	1.1	1.1	35.0	35.1	112.4	18.31	0.84	683.0	8	1091
1092.0	19:19	52.9	37.3	6	120	128	119	16319	77	113	1.1	1.1	35.1	35.1	112.5	18.32	0.84	684.0	10	1092
1093.0	19:20	59.0	37.3	7	120	139	120	16446	77	113	1.1	1.1	35.1	35.1	112.7	18.34	0.83	685.0	9	1093
1094.0	19:21	48.0	37.4	7	120	139	120	16599	77	113	1.1	1.1	35.1	35.0	112.9	18.36	0.88	686.0	9	1094
1095.0	19:22	51.4	37.4	7	120	128	120	16459	77	113	1.1	1.1	35.1	35.0	113.0	18.38	0.87	687.0	9	1095

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1095.0	19:22	51.4	37.4	7	120	128	120	16459	77	113	1.1	1.1	35.1	35.0	113.0	18.38	0.87	687.0	9	1095
1096.0	19:24	39.6	37.4	6	120	122	120	16468	78	113	1.1	1.1	35.2	35.0	113.1	18.41	0.89	688.0	9	1096
1097.0	19:25	57.1	37.4	6	120	127	120	16463	78	114	1.1	1.1	35.2	35.0	113.3	18.42	0.82	689.0	9	1097
1098.0	19:26	44.4	37.4	7	120	125	120	16469	78	117	1.1	1.1	35.2	35.0	113.5	18.45	0.89	690.0	9	1098
1099.0	19:28	33.3	37.4	5	120	104	119	16384	78	119	1.1	1.1	35.2	35.0	113.6	18.48	0.89	691.0	8	1099
1100.0	19:40	22.0	37.4	3	115	89	119	16281	80	123	1.1	1.1	35.2	35.0	114.0	18.52	0.91	692.0	8	1100
1101.0	19:41	70.6	37.4	6	119	135	118	16177	84	113	1.1	1.1	35.1	35.0	114.1	18.54	0.75	693.0	8	1101
1102.0	19:42	61.0	37.4	5	119	132	118	16260	84	112	1.1	1.1	35.1	35.0	114.2	18.55	0.77	694.0	8	1102
1103.0	19:43	52.9	37.4	5	119	122	118	16269	84	112	1.1	1.1	35.1	34.9	114.3	18.57	0.79	695.0	8	1103
1104.0	19:44	41.9	37.4	4	119	118	118	16230	84	111	1.1	1.1	35.1	34.9	114.5	18.60	0.82	696.0	7	1104
1105.0	19:46	41.9	37.4	5	119	126	118	16244	84	112	1.1	1.1	35.1	34.8	114.7	18.62	0.83	697.0	4	1105
1106.0	19:47	41.9	37.4	5	119	130	118	16281	84	115	1.1	1.1	35.1	34.8	114.8	18.64	0.85	698.0	4	1106
1107.0	19:48	46.2	37.4	5	119	124	118	16280	84	119	1.1	1.1	35.0	34.8	115.0	18.66	0.83	699.0	4	1107
1108.0	19:50	44.4	37.5	5	119	133	118	16380	84	121	1.1	1.1	34.9	34.8	115.2	18.69	0.85	700.0	4	1108
1109.0	19:51	46.2	37.5	6	119	137	119	16452	85	123	1.1	1.1	34.8	34.8	115.3	18.71	0.87	701.0	6	1109
1110.0	19:52	43.9	37.5	7	119	135	118	16296	85	125	1.1	1.1	34.7	34.8	115.4	18.73	0.89	702.0	6	1110
1111.0	19:54	45.0	37.5	7	119	135	118	16286	85	127	1.1	1.1	34.7	34.8	115.7	18.75	0.89	703.0	6	1111
1112.0	19:55	57.1	37.5	7	119	145	119	16347	84	127	1.1	1.1	34.7	34.8	115.8	18.77	0.84	704.0	6	1112
1113.0	19:56	63.2	37.5	7	119	144	118	16383	85	127	1.1	1.1	34.8	34.7	115.9	18.79	0.83	705.0	6	1113
1114.0	19:57	58.1	37.5	7	119	144	118	16368	85	127	1.1	1.1	34.9	34.7	116.0	18.80	0.83	706.0	6	1114
1115.0	19:58	54.5	37.6	6	119	136	118	16309	85	127	1.1	1.1	35.0	34.8	116.2	18.82	0.83	707.0	6	1115
1116.0	19:59	56.2	37.6	6	119	133	118	16355	84	126	1.1	1.1	35.1	34.8	116.3	18.84	0.81	708.0	6	1116
1117.0	20:00	46.2	37.6	5	119	127	119	16431	85	127	1.1	1.1	35.2	34.7	116.4	18.86	0.84	709.0	6	1117
1118.0	20:02	41.9	37.6	6	119	122	119	16432	84	127	1.1	1.1	35.3	34.7	116.5	18.89	0.87	710.0	6	1118
1119.0	20:03	42.4	37.6	6	119	125	118	16421	84	128	1.1	1.1	35.5	34.7	116.8	18.91	0.87	711.0	6	1119
1120.0	20:04	53.7	37.6	6	119	134	119	16454	84	130	1.1	1.1	35.6	34.6	116.9	18.93	0.84	712.0	6	1120
1121.0	20:05	57.1	37.6	7	119	136	119	16416	84	131	1.1	1.1	35.6	34.6	117.0	18.95	0.83	713.0	6	1121
1122.0	20:06	55.4	37.6	7	120	132	119	16466	84	132	1.1	1.1	35.7	34.6	117.1	18.96	0.84	714.0	5	1122
1123.0	20:08	45.6	37.7	7	119	134	119	16538	84	134	1.1	1.1	35.8	34.6	117.3	18.99	0.88	715.0	5	1123
1124.0	20:09	52.2	37.7	7	119	139	119	16595	84	136	1.1	1.1	35.9	34.6	117.4	19.01	0.86	716.0	6	1124
1125.0	20:10	39.1	37.7	7	119	145	119	16529	84	137	1.1	1.1	36.0	34.6	117.6	19.03	0.92	717.0	6	1125
1126.0	20:11	50.0	37.7	6	120	136	119	16550	84	139	1.1	1.1	36.1	34.6	117.7	19.05	0.85	718.0	6	1126
1127.0	20:13	41.4	37.7	7	119	131	118	16478	83	141	1.1	1.1	36.2	34.6	117.9	19.07	0.90	719.0	5	1127
1128.0	20:14	46.8	37.7	7	119	131	118	16428	83	143	1.1	1.1	36.3	34.6	118.1	19.10	0.88	720.0	4	1128
1129.0	20:30	33.0	37.7	5	104	100	118	16406	83	144	1.1	1.1	36.4	34.6	118.3	19.13	0.87	721.0	3	1129
1130.0	20:31	40.9	37.7	5	119	122	118	16511	85	144	1.1	1.1	36.9	34.5	118.4	19.15	0.85	722.0	4	1130
1131.0	20:32	63.2	37.7	7	119	137	118	16433	85	143	1.1	1.1	36.9	34.5	118.5	19.17	0.82	723.0	4	1131
1132.0	20:33	46.2	37.7	8	119	152	119	16532	84	142	1.1	1.1	36.9	34.5	118.6	19.19	0.90	724.0	5	1132
1133.0	20:34	94.7	37.8	8	119	153	119	16544	84	143	1.1	1.1	36.9	34.5	118.8	19.20	0.74	725.0	7	1133
1134.0	20:35	97.3	37.8	4	119	123	119	16610	84	143	1.1	1.1	36.9	34.4	118.8	19.21	0.64	726.0	9	1134
1135.0	20:35	72.0	37.8	2	119	113	119	16612	84	144	1.1	1.1	36.9	34.4	118.9	19.22	0.59	727.0	7	1135
1136.0	20:36	55.4	37.8	1	119	119	119	16613	84	146	1.1	1.1	36.9	34.4	119.0	19.24	0.59	728.0	6	1136
1137.0	20:38	40.4	37.8	2	119	105	119	16592	83	150	1.1	1.1	37.0	34.5	119.3	19.27	0.69	729.0	6	1137
1138.0	20:40	25.0	37.8	6	119	128	119	16595	83	156	1.1	1.1	37.0	34.6	119.5	19.31	0.97	730.0	7	1138
1139.0	20:43	26.9	37.8	10	118	169	119	16595	83	161	1.1	1.1	37.1	34.4	119.7	19.34	1.09	731.0	5	1139
1140.0	20:44	41.4	37.8	10	118	161	119	16643	83	162	1.1	1.1	37.1	34.4	120.0	19.37	0.97	732.0	3	1140
1141.0	20:45	48.6	37.8	10	119	163	119	16813	82	161	1.1	1.1	37.1	34.4	120.1	19.39	0.95	733.0	1	1141
1142.0	20:46	61.0	37.8	11	119	164	119	16810	82	161	1.1	1.1	37.1	34.4	120.2	19.40	0.89	734.0	1	1142
1143.0	20:48	37.5	37.8	10	119	154	119	16753	82	161	1.1	1.1	37.2	34.4	120.3	19.43	1.00	735.0	5	1143
1144.0	20:49	39.6	37.8	8	119	156	119	16737	82	161	1.1	1.1	37.2	34.4	120.6	19.46	0.94	736.0	8	1144

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1144.0	20:49	39.6	37.8	8	119	156	119	16737	82	161	1.1	1.1	37.2	34.4	120.6	19.46	0.94	736.0	8	1144
1145.0	20:51	48.0	37.8	8	119	152	119	16707	82	161	1.1	1.1	37.2	34.4	120.7	19.48	0.91	737.0	7	1145
1146.0	20:52	40.9	37.8	9	119	159	119	16753	82	161	1.1	1.1	37.3	34.4	120.9	19.50	0.95	738.0	7	1146
1147.0	20:53	41.9	37.8	10	119	165	119	16830	82	161	1.1	1.1	37.3	34.4	121.1	19.53	0.98	739.0	6	1147
1148.0	20:55	47.4	37.9	9	118	165	119	16627	82	161	1.1	1.1	37.3	34.4	121.2	19.55	0.93	740.0	7	1148
1149.0	20:56	39.1	37.9	7	119	141	119	16688	82	161	1.1	1.1	37.4	34.4	121.4	19.57	0.93	741.0	6	1149
1150.0	20:58	33.0	37.9	9	119	151	118	16735	81	161	1.1	1.1	37.4	34.4	121.7	19.60	1.01	742.0	6	1150
1151.0	21:00	40.0	37.9	10	119	157	119	16783	81	160	1.1	1.1	37.5	34.4	121.8	19.63	0.99	743.0	5	1151
1152.0	21:01	40.9	37.9	9	119	158	119	16733	82	161	1.1	1.1	37.5	34.4	121.9	19.65	0.94	744.0	5	1152
1153.0	21:03	36.4	37.9	10	119	158	119	16733	82	161	1.1	1.1	37.6	34.4	122.2	19.68	1.00	745.0	6	1153
1154.0	21:07	14.0	37.8	4	119	106	118	16570	81	160	1.1	1.1	37.6	34.4	122.6	19.75	1.03	746.0	6	1154
1155.0	21:09	30.8	37.8	6	119	134	118	16510	81	160	1.1	1.1	37.7	34.3	122.9	19.78	0.94	747.0	6	1155
1156.0	21:11	31.3	37.7	6	119	134	118	16572	81	160	1.1	1.1	34.5	34.3	123.1	19.82	0.95	748.0	6	1156
1157.0	21:12	40.0	37.8	6	119	132	118	16533	81	160	1.1	1.1	33.1	34.3	123.4	19.84	0.88	749.0	7	1157
1158.0	21:15	26.3	37.7	6	119	125	118	16557	81	160	1.1	1.1	33.0	34.3	123.6	19.88	0.99	750.0	8	1158
1159.0	21:31	32.1	37.7	7	89	123	115	15726	83	151	1.1	1.1	32.8	34.3	123.7	19.91	0.91	751.0	5	1159
1160.0	21:33	37.5	37.7	7	117	140	118	16317	84	142	1.1	1.1	32.7	34.3	124.0	19.94	0.93	752.0	5	1160
1161.0	21:34	52.2	37.7	7	118	149	118	16505	83	142	1.1	1.1	32.7	34.2	124.1	19.96	0.85	753.0	6	1161
1162.0	21:35	43.4	37.7	7	118	147	118	16487	83	141	1.1	1.1	32.7	34.4	124.2	19.98	0.90	754.0	6	1162
1163.0	21:37	48.6	37.8	7	118	146	118	16576	83	141	1.1	1.1	32.7	34.3	124.4	20.00	0.87	755.0	6	1163
1164.0	21:38	45.0	37.8	8	118	157	118	16631	83	143	1.1	1.1	32.7	34.3	124.6	20.02	0.92	756.0	7	1164
1165.0	21:39	53.7	37.8	9	118	165	118	16641	83	146	1.1	1.1	32.7	34.2	124.7	20.04	0.88	757.0	8	1165
1166.0	21:40	57.1	37.8	9	118	170	118	16630	83	148	1.1	1.1	32.7	34.2	124.8	20.06	0.87	758.0	8	1166
1167.0	21:41	62.1	37.8	8	118	160	118	16625	83	150	1.1	1.1	32.7	34.2	124.9	20.07	0.83	759.0	7	1167
1168.0	21:43	45.0	37.8	6	118	145	118	16619	83	152	1.1	1.1	32.7	34.2	125.0	20.10	0.87	760.0	6	1168
1169.0	21:45	23.4	37.8	5	119	122	118	16624	83	154	1.1	1.1	32.7	34.3	125.4	20.14	0.97	761.0	6	1169
1170.0	21:47	27.9	37.8	5	119	122	119	16771	85	156	1.1	1.1	32.4	34.3	125.6	20.17	0.95	762.0	6	1170
1171.0	21:48	50.0	37.8	8	119	152	119	16879	89	159	1.1	1.1	32.2	34.3	125.8	20.19	0.90	763.0	4	1171
1172.0	21:50	50.7	37.8	8	119	160	119	17111	91	161	1.1	1.1	32.0	34.4	125.9	20.21	0.90	764.0	3	1172
1173.0	21:51	38.3	37.8	7	119	141	119	17345	95	164	1.1	1.1	31.9	34.3	126.1	20.24	0.93	765.0	2	1173
1174.0	21:53	37.5	37.8	7	119	134	119	16727	95	163	1.1	1.1	31.7	34.2	126.2	20.27	0.92	766.0	6	1174
1175.0	21:55	29.3	37.8	6	119	137	119	16135	96	164	1.1	1.1	31.6	34.2	126.5	20.30	0.96	767.0	8	1175
1176.0	21:56	44.4	37.8	6	119	135	119	16480	97	163	1.1	1.1	31.5	34.2	126.7	20.32	0.87	768.0	9	1176
1177.0	21:58	44.4	37.8	7	119	143	119	16825	98	164	1.1	1.1	31.4	34.3	126.9	20.35	0.89	769.0	4	1177
1178.0	21:59	56.2	37.8	7	119	148	119	16815	98	163	1.1	1.1	31.3	34.3	127.0	20.36	0.84	770.0	1	1178
1179.0	22:00	42.9	37.8	9	119	163	119	16838	99	163	1.1	1.1	31.3	34.3	127.1	20.39	0.95	771.0	2	1179
1180.0	22:01	50.7	37.8	8	119	146	119	16824	99	163	1.1	1.1	31.2	34.3	127.2	20.41	0.90	772.0	2	1180
1181.0	22:03	35.6	37.8	7	119	142	119	16785	100	164	1.1	1.1	31.1	34.2	127.5	20.43	0.93	773.0	3	1181
1182.0	22:04	38.3	37.8	7	119	153	119	16931	100	163	1.1	1.1	31.1	34.2	127.7	20.46	0.94	774.0	3	1182
1183.0	22:06	48.0	37.8	8	119	158	119	16936	100	164	1.1	1.1	31.1	34.3	127.8	20.48	0.91	775.0	2	1183
1184.0	22:07	36.4	37.8	8	119	151	119	16905	101	163	1.1	1.1	31.1	34.3	128.1	20.51	0.97	776.0	3	1184
1185.0	22:09	36.0	37.8	6	119	136	119	16902	101	163	1.1	1.1	31.2	34.3	128.2	20.54	0.92	777.0	4	1185
1186.0	22:11	36.7	37.8	8	119	153	119	16909	101	163	1.1	1.1	31.3	34.2	128.4	20.56	0.94	778.0	6	1186
1187.0	22:12	36.7	37.8	8	119	147	119	16869	102	163	1.1	1.1	31.4	34.2	128.6	20.59	0.96	779.0	7	1187
1188.0	22:51	27.5	37.8	3	107	103	120	16993	97	151	1.1	1.1	32.6	34.1	128.8	20.63	0.82	780.0	6	1188
1189.0	22:52	61.0	37.8	7	118	153	121	17210	96	149	1.1	1.1	32.7	34.0	128.9	20.64	0.80	781.0	7	1189
1190.0	22:53	45.0	37.8	8	118	178	121	17275	95	149	1.1	1.1	32.7	34.0	129.1	20.67	0.90	782.0	7	1190
1191.0	22:54	51.4	37.9	8	118	160	121	17310	95	149	1.1	1.1	32.6	34.0	129.3	20.69	0.86	783.0	8	1191
1192.0	22:55	45.6	37.9	8	118	163	121	17340	94	149	1.1	1.1	32.6	34.1	129.4	20.71	0.89	784.0	8	1192
1193.0	22:57	42.9	37.9	8	118	166	121	17356	94	148	1.1	1.1	32.6	34.2	129.5	20.73	0.91	785.0	9	1193

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1193.0	22:57	42.9	37.9	8	118	166	121	17356	94	148	1.1	1.1	32.6	34.2	129.5	20.73	0.91	785.0	9	1193
1194.0	22:58	52.2	37.9	8	118	158	121	17334	94	148	1.1	1.1	32.5	34.1	129.7	20.75	0.86	786.0	10	1194
1195.0	22:59	48.0	37.9	7	118	156	121	17292	94	148	1.1	1.1	32.5	34.1	129.9	20.77	0.87	787.0	9	1195
1196.0	23:00	52.9	37.9	7	118	152	121	17320	94	149	1.1	1.1	32.4	34.0	130.0	20.79	0.85	788.0	2	1196
1197.0	23:01	58.1	37.9	7	118	153	121	17284	95	149	1.1	1.1	32.4	34.0	130.1	20.81	0.83	789.0	0	1197
1198.0	23:03	42.9	37.9	6	118	141	121	17305	95	149	1.1	1.1	32.3	34.0	130.3	20.83	0.87	790.0	2	1198
1199.0	23:04	63.2	37.9	6	118	139	121	17266	95	149	1.1	1.1	32.2	34.0	130.4	20.85	0.78	791.0	8	1199
1200.0	23:05	58.1	38.0	5	118	132	121	17321	95	149	1.1	1.1	32.2	34.1	130.5	20.86	0.78	792.0	10	1200
1201.0	23:06	37.9	38.0	5	118	132	121	17339	95	148	1.1	1.1	32.2	34.1	130.7	20.89	0.87	793.0	9	1201
1202.0	23:08	51.4	38.0	7	118	149	121	17364	95	148	1.1	1.1	32.1	34.0	130.9	20.91	0.84	794.0	10	1202
1203.0	23:09	52.9	38.0	8	118	159	121	17388	95	148	1.1	1.1	32.1	34.1	131.0	20.93	0.86	795.0	10	1203
1204.0	23:10	38.7	38.0	5	118	129	121	17351	95	148	1.1	1.1	32.0	34.1	131.1	20.95	0.86	796.0	9	1204
1205.0	23:12	33.6	38.0	5	118	128	121	17358	95	148	1.1	1.1	32.0	34.1	131.3	20.98	0.88	797.0	9	1205
1206.0	23:14	31.9	38.0	5	118	130	121	17325	95	148	1.1	1.1	32.0	34.1	131.6	21.02	0.91	798.0	8	1206
1207.0	23:15	45.6	38.0	7	118	142	121	17373	95	148	1.1	1.1	32.0	34.1	131.7	21.04	0.88	799.0	7	1207
1208.0	23:18	23.7	38.0	5	119	116	121	17372	95	147	1.1	1.1	32.0	34.1	132.1	21.08	0.94	800.0	7	1208
1209.0	23:21	19.5	37.9	4	119	105	121	17334	95	147	1.1	1.1	32.0	34.1	132.4	21.13	0.94	801.0	7	1209
1210.0	23:22	37.5	37.9	7	118	148	121	17452	95	147	1.1	1.1	32.0	34.1	132.5	21.16	0.91	802.0	7	1210
1211.0	23:24	35.3	37.9	8	118	157	121	17546	95	147	1.1	1.1	32.0	34.1	132.8	21.19	0.96	803.0	8	1211
1212.0	23:26	33.0	37.9	8	118	153	120	17083	94	147	1.1	1.1	32.0	34.1	133.0	21.22	0.97	804.0	9	1212
1213.0	23:28	36.0	37.9	6	118	142	120	17047	95	147	1.1	1.1	32.1	34.0	133.1	21.24	0.90	805.0	10	1213
1214.0	23:30	30.0	37.9	8	118	155	120	17080	95	146	1.1	1.1	32.1	34.0	133.4	21.28	0.99	806.0	9	1214
1215.0	23:31	49.3	37.9	8	118	162	120	17095	95	146	1.1	1.1	32.1	34.0	133.5	21.30	0.89	807.0	8	1215
1216.0	23:33	26.5	37.9	8	118	137	119	16888	95	146	1.1	1.1	32.2	34.0	133.9	21.34	1.03	808.0	7	1216
1217.0	23:48	24.8	37.8	5	94	111	119	16887	97	141	1.1	1.1	32.5	34.0	134.0	21.38	0.88	809.0	6	1217
1218.0	23:49	63.2	37.9	7	119	161	119	16952	96	143	1.1	1.1	32.6	34.0	134.1	21.39	0.80	810.0	6	1218
1219.0	23:51	38.3	37.9	8	119	168	119	16988	96	144	1.1	1.1	32.6	34.2	134.4	21.42	0.93	811.0	6	1219
1220.0	23:52	47.4	37.9	8	118	175	119	17012	95	145	1.1	1.1	32.6	34.1	134.5	21.44	0.89	812.0	6	1220
1221.0	23:53	43.9	37.9	7	118	173	119	16931	96	145	1.1	1.1	32.7	34.0	134.6	21.46	0.88	813.0	6	1221
1222.0	23:54	53.7	37.9	7	119	165	119	17018	95	146	1.1	1.1	32.7	34.0	134.7	21.48	0.83	814.0	6	1222
1223.0	23:56	34.0	37.9	7	119	168	119	17031	95	145	1.1	1.1	32.7	34.1	135.0	21.51	0.92	815.0	6	1223
1224.0	23:58	35.6	37.9	8	119	172	119	17053	95	144	1.1	1.1	32.7	34.0	135.2	21.54	0.95	816.0	6	1224
1225.0	23:59	40.9	37.9	8	119	170	119	17097	95	144	1.1	1.1	32.7	34.1	135.4	21.56	0.93	817.0	6	1225
1226.0	00:01	36.0	37.9	8	119	172	119	17118	95	144	1.1	1.1	32.7	34.1	135.6	21.59	0.95	818.0	6	1226
1227.0	00:03	38.7	37.9	8	119	172	103	17120	95	144	1.1	1.1	32.7	34.1	135.8	21.62	0.93	819.0	6	1227
1228.0	00:04	36.4	37.9	8	119	172	59	17152	95	144	1.1	1.1	32.7	34.1	135.9	21.64	0.95	820.0	6	1228
1229.0	00:06	38.7	37.9	8	119	173	59	17222	95	144	1.1	1.1	32.7	34.1	136.2	21.67	0.95	821.0	7	1229
1230.0	00:07	38.7	37.9	8	119	174	59	17178	95	143	1.1	1.1	32.7	34.1	136.3	21.69	0.93	822.0	8	1230
1231.0	00:09	33.3	37.9	8	118	175	59	17145	96	143	1.1	1.1	32.7	34.1	136.5	21.72	0.98	823.0	9	1231
1232.0	00:11	36.0	37.9	9	119	180	59	17199	96	143	1.1	1.1	32.7	34.2	136.8	21.75	0.97	824.0	8	1232
1233.0	00:12	38.7	37.9	10	119	188	103	17221	97	144	1.1	1.1	32.8	34.1	136.9	21.78	0.97	825.0	7	1233
1234.0	00:14	34.3	37.9	10	119	191	119	17203	97	143	1.1	1.1	32.8	34.2	137.1	21.81	1.02	826.0	8	1234
1235.0	00:16	31.9	37.9	12	119	184	119	17263	97	143	1.1	1.1	32.8	34.2	137.4	21.84	1.07	827.0	8	1235
1236.0	00:18	36.0	37.9	11	119	181	119	17260	97	143	1.1	1.1	32.8	34.2	137.5	21.87	1.04	828.0	8	1236
1237.0	00:19	33.6	37.9	9	119	170	119	17179	98	142	1.1	1.1	32.9	34.2	137.7	21.90	0.99	829.0	8	1237
1238.0	00:21	37.1	37.9	9	119	176	119	17207	98	142	1.1	1.1	32.9	34.2	138.0	21.92	0.98	830.0	8	1238
1239.0	00:23	32.7	37.9	10	119	183	119	17193	99	142	1.1	1.1	32.9	34.2	138.2	21.95	1.01	831.0	9	1239
1240.0	00:24	64.3	37.9	8	119	173	119	17206	99	143	1.1	1.1	32.9	34.2	138.2	21.97	0.83	832.0	9	1240
1241.0	00:26	32.4	37.9	9	119	174	119	17167	99	142	1.1	1.1	32.9	34.2	138.5	22.00	0.99	833.0	8	1241
1242.0	00:27	34.3	37.9	9	119	178	119	17217	99	142	1.1	1.1	32.9	34.2	138.7	22.03	0.98	834.0	8	1242

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1242.0	00:27	34.3	37.9	9	119	178	119	17217	99	142	1.1	1.1	32.9	34.2	138.7	22.03	0.98	834.0	8	1242
1243.0	00:30	26.1	37.8	10	118	188	119	17168	99	142	1.1	1.1	33.0	34.2	138.9	22.07	1.07	835.0	8	1243
1244.0	00:32	30.8	37.8	10	118	194	119	17186	99	141	1.1	1.1	33.0	34.2	139.2	22.10	1.03	836.0	8	1244
1245.0	00:33	37.9	37.8	11	115	187	119	17085	99	141	1.1	1.1	33.0	34.2	139.4	22.13	1.00	837.0	7	1245
1246.0	00:49	30.0	37.8	5	99	125	120	17393	103	140	1.1	1.1	33.1	34.2	139.6	22.16	0.84	838.0	7	1246
1247.0	00:50	38.7	37.8	6	116	158	120	17539	102	140	1.1	1.1	33.1	34.2	139.7	22.19	0.87	839.0	5	1247
1248.0	00:52	28.6	37.8	6	116	161	120	17556	102	139	1.1	1.1	33.1	34.2	139.9	22.22	0.92	840.0	5	1248
1249.0	00:55	26.3	37.8	7	116	174	120	17557	102	139	1.1	1.1	33.1	34.2	140.3	22.26	0.98	841.0	6	1249
1250.0	00:57	29.3	37.8	7	116	173	120	17551	101	139	1.1	1.1	33.1	34.2	140.5	22.29	0.97	842.0	9	1250
1251.0	00:59	29.0	37.8	8	116	182	120	17562	102	139	1.1	1.1	33.1	34.2	140.8	22.33	0.99	843.0	10	1251
1252.0	01:00	33.6	37.8	9	116	200	121	17939	101	137	1.1	1.1	33.1	34.3	140.9	22.36	0.98	844.0	9	1252
1253.0	01:02	29.5	37.7	10	116	209	121	18499	102	138	1.1	1.1	33.1	34.3	141.1	22.39	1.03	845.0	8	1253
1254.0	01:04	32.7	37.7	11	116	208	121	18052	102	137	1.1	1.1	33.1	34.3	141.4	22.42	1.04	846.0	8	1254
1255.0	01:06	28.1	37.7	10	116	188	121	17913	103	138	1.1	1.1	33.2	34.4	141.6	22.46	1.04	847.0	7	1255
1256.0	01:08	33.6	37.7	9	116	186	121	17857	103	143	1.1	1.1	33.2	34.3	141.8	22.49	0.97	848.0	7	1256
1257.0	01:10	36.7	37.7	9	116	176	121	17879	103	147	1.1	1.1	33.3	34.3	142.1	22.51	0.95	849.0	6	1257
1258.0	01:12	30.0	37.7	9	116	179	121	17877	103	151	1.1	1.1	33.4	34.3	142.3	22.55	1.00	850.0	7	1258
1259.0	01:14	33.0	37.7	8	116	175	121	17814	103	155	1.1	1.1	33.5	34.4	142.4	22.58	0.97	851.0	7	1259
1260.0	01:15	34.6	37.7	8	116	178	121	17755	102	159	1.1	1.1	33.6	34.4	142.7	22.61	0.96	852.0	6	1260
1261.0	01:18	27.7	37.7	8	116	182	121	17783	103	164	1.1	1.1	33.7	34.4	142.9	22.64	1.00	853.0	6	1261
1262.0	01:20	31.0	37.7	8	116	170	121	17857	102	169	1.1	1.1	33.8	34.4	143.1	22.68	0.97	854.0	6	1262
1263.0	01:21	36.0	37.7	8	116	171	121	17863	103	174	1.1	1.1	33.8	34.4	143.4	22.70	0.93	855.0	5	1263
1264.0	01:24	22.4	37.6	9	116	177	120	17848	104	179	1.1	1.1	33.9	34.4	143.6	22.75	1.07	856.0	2	1264
1265.0	01:26	27.9	37.6	9	116	182	120	17812	104	184	1.1	1.1	34.0	34.5	143.9	22.78	1.04	857.0	0	1265
1266.0	01:28	32.7	37.6	10	116	193	120	17884	102	187	1.1	1.1	34.1	34.5	144.1	22.81	1.02	858.0	0	1266
1267.0	01:29	41.4	37.6	9	116	181	121	17885	102	187	1.1	1.1	34.1	34.5	144.3	22.84	0.94	859.0	2	1267
1268.0	01:31	27.7	37.6	10	116	185	120	17819	102	187	1.1	1.1	34.2	34.5	144.5	22.87	1.04	860.0	5	1268
1269.0	01:34	24.5	37.6	10	116	193	121	17846	101	186	1.1	1.1	34.2	34.5	144.8	22.92	1.08	861.0	5	1269
1270.0	01:36	30.0	37.6	11	116	208	121	17806	101	186	1.1	1.1	34.3	34.5	145.0	22.95	1.05	862.0	6	1270
1271.0	01:38	30.3	37.6	11	116	207	121	17835	100	185	1.1	1.1	34.3	34.5	145.2	22.98	1.04	863.0	7	1271
1272.0	01:39	39.6	37.6	11	116	206	121	17882	100	186	1.1	1.1	34.4	34.4	145.5	23.01	0.99	864.0	8	1272
1273.0	01:41	31.3	37.5	11	116	214	121	17903	100	185	1.1	1.1	34.4	34.4	145.7	23.04	1.06	865.0	10	1273
1274.0	01:44	22.8	37.5	12	113	221	120	18290	100	185	1.1	1.1	34.5	34.4	145.9	23.08	1.15	866.0	11	1274
1275.0	02:13	18.7	37.5	5	114	155	113	15452	106	154	1.1	1.1	35.0	34.4	146.3	23.14	0.99	867.0	3	1275
1276.0	02:15	27.1	37.5	8	117	187	119	17294	102	177	1.1	1.1	34.8	34.4	146.6	23.17	0.99	868.0	4	1276
1277.0	02:17	39.1	37.5	10	117	208	119	17434	100	183	1.1	1.1	34.7	34.4	146.8	23.20	0.96	869.0	6	1277
1278.0	02:19	30.3	37.4	9	117	207	119	17441	99	182	1.1	1.1	34.6	34.4	146.9	23.23	1.01	870.0	8	1278
1279.0	02:21	30.0	37.4	8	117	194	119	17402	99	182	1.1	1.1	34.5	34.4	147.2	23.27	0.97	871.0	10	1279
1280.0	02:23	31.9	37.4	9	117	203	119	17358	100	182	1.1	1.1	34.4	34.4	147.4	23.30	0.98	872.0	9	1280
1281.0	02:25	26.1	37.4	9	117	217	119	17912	101	182	1.1	1.1	34.3	34.4	147.7	23.33	1.04	873.0	8	1281
1282.0	02:27	32.4	37.4	10	117	222	119	17664	102	183	1.1	1.1	34.2	34.6	147.9	23.37	1.01	874.0	8	1282
1283.0	02:29	26.7	37.4	10	117	213	118	17371	103	183	1.1	1.1	34.2	34.5	148.1	23.40	1.07	875.0	7	1283
1284.0	02:32	19.3	37.3	8	117	183	118	17359	103	182	1.1	1.1	34.1	34.6	148.6	23.46	1.08	876.0	7	1284
1285.0	02:35	23.4	37.3	8	117	187	118	17280	103	182	1.1	1.1	34.0	34.6	148.8	23.50	1.04	877.0	6	1285
1286.0	02:37	32.1	37.3	9	117	200	118	17266	104	182	1.1	1.1	34.0	34.6	149.1	23.53	1.00	878.0	7	1286
1287.0	02:39	33.3	37.3	9	117	194	118	17267	104	181	1.1	1.1	33.9	34.6	149.3	23.56	0.99	879.0	7	1287
1288.0	02:40	37.1	37.3	8	117	186	118	17289	104	181	1.1	1.1	33.9	34.6	149.4	23.59	0.93	880.0	7	1288
1289.0	02:43	25.2	37.3	9	117	198	118	17276	104	181	1.1	1.1	33.9	34.6	149.8	23.63	1.04	881.0	3	1289
1290.0	02:45	23.1	37.3	10	117	204	118	17317	104	181	1.1	1.1	33.9	34.6	150.0	23.67	1.08	882.0	1	1290
1291.0	02:48	24.0	37.2	10	117	196	118	17316	104	181	1.1	1.1	33.9	34.6	150.4	23.71	1.07	883.0	1	1291

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1291.0	02:48	24.0	37.2	10	117	196	118	17316	104	181	1.1	1.1	33.9	34.6	150.4	23.71	1.07	883.0	1	1291
1292.0	02:50	27.3	37.2	9	117	206	118	17404	105	182	1.1	1.1	33.9	34.6	150.6	23.75	1.03	884.0	1	1292
1293.0	02:52	37.1	37.2	8	117	187	118	17323	105	181	1.1	1.1	33.9	34.6	150.7	23.77	0.94	885.0	4	1293
1294.0	02:54	28.1	37.2	9	117	188	118	17305	105	181	1.1	1.1	33.9	34.6	151.0	23.81	1.01	886.0	6	1294
1295.0	02:55	41.4	37.2	9	117	185	118	17309	105	181	1.1	1.1	33.9	34.7	151.2	23.83	0.92	887.0	7	1295
1296.0	02:57	34.3	37.2	9	117	189	118	17331	105	180	1.1	1.1	33.9	34.6	151.3	23.86	0.97	888.0	8	1296
1297.0	02:58	60.0	37.2	7	117	169	117	17320	105	180	1.1	1.1	33.9	34.8	151.4	23.88	0.79	889.0	8	1297
1298.0	03:00	24.5	37.2	7	117	168	118	17306	106	181	1.1	1.1	33.9	35.8	151.8	23.92	1.00	890.0	9	1298
1299.0	03:02	42.9	37.2	7	117	165	118	17371	106	180	1.1	1.1	33.9	35.8	151.9	23.94	0.86	891.0	9	1299
1300.0	03:03	42.4	37.2	8	117	182	118	17407	106	181	1.1	1.1	33.9	35.8	152.2	23.97	0.89	892.0	10	1300
1301.0	03:04	61.0	37.2	6	117	153	118	17367	107	181	1.1	1.1	33.9	35.8	152.3	23.98	0.76	893.0	10	1301
1302.0	03:05	46.2	37.2	5	117	145	118	17299	106	181	1.1	1.1	33.9	35.8	152.4	24.01	0.80	894.0	10	1302
1303.0	03:29	30.5	37.2	5	119	132	119	17693	103	174	1.1	1.1	34.1	35.9	152.6	24.04	0.90	895.0	11	1303
1304.0	03:33	16.1	37.2	6	122	143	120	18040	100	169	1.1	1.1	34.3	35.9	153.1	24.10	1.07	896.0	6	1304
1305.0	03:37	14.8	37.1	9	122	137	120	17773	99	169	1.1	1.1	34.2	35.9	153.6	24.17	1.17	897.0	8	1305
1306.0	03:38	50.7	37.1	6	122	138	120	17731	100	169	1.1	1.1	34.2	35.9	153.7	24.19	0.83	898.0	9	1306
1307.0	03:40	30.3	37.1	6	122	132	120	17763	100	169	1.1	1.1	34.1	35.9	153.9	24.22	0.93	899.0	9	1307
1308.0	03:43	23.5	37.1	6	122	140	120	17767	99	168	1.1	1.1	34.1	35.9	154.2	24.26	0.98	900.0	10	1308
1309.0	03:44	41.9	37.1	5	122	127	120	17789	99	168	1.1	1.1	34.0	35.9	154.4	24.29	0.83	901.0	9	1309
1310.0	03:45	41.4	37.1	6	122	130	120	17785	99	168	1.1	1.1	34.0	35.9	154.6	24.31	0.88	902.0	8	1310
1311.0	03:48	27.5	37.1	8	122	152	120	17825	99	167	1.1	1.1	34.0	35.9	154.8	24.35	1.00	903.0	7	1311
1312.0	03:51	16.8	37.0	9	122	176	120	17928	99	167	1.1	1.1	34.1	36.1	155.3	24.41	1.16	904.0	7	1312
1313.0	03:54	22.4	37.0	10	122	179	120	17954	99	167	1.1	1.1	34.1	36.0	155.6	24.45	1.11	905.0	7	1313
1314.0	03:56	26.7	37.0	9	122	163	120	17860	99	167	1.1	1.1	34.2	36.0	155.9	24.49	1.05	906.0	6	1314
1315.0	03:59	22.2	37.0	9	122	162	120	17867	99	167	1.1	1.1	34.3	36.1	156.2	24.53	1.08	907.0	4	1315
1316.0	04:02	21.3	36.9	10	122	168	120	17899	99	167	1.1	1.1	34.3	36.1	156.5	24.58	1.12	908.0	2	1316
1317.0	04:04	26.9	36.9	9	122	166	120	17820	99	167	1.1	1.1	34.4	36.1	156.8	24.62	1.04	909.0	7	1317
1318.0	04:06	35.6	36.9	9	122	165	120	17809	99	167	1.1	1.1	34.5	36.1	157.0	24.65	0.97	910.0	7	1318
1319.0	04:07	34.3	36.9	9	122	161	120	17849	99	166	1.1	1.1	34.5	36.1	157.3	24.68	0.97	911.0	8	1319
1320.0	04:10	25.2	36.9	10	122	175	120	17914	99	166	1.1	1.1	34.6	36.1	157.5	24.72	1.08	912.0	9	1320
1321.0	04:11	62.1	36.9	8	122	142	120	17856	99	165	1.1	1.1	34.7	36.1	157.6	24.73	0.81	913.0	8	1321
1322.0	04:13	28.6	36.9	8	122	151	120	17904	99	165	1.1	1.1	34.7	36.1	157.9	24.77	0.98	914.0	7	1322
1323.0	04:16	18.2	36.9	10	122	172	120	18004	98	164	1.1	1.1	34.8	36.1	158.3	24.82	1.14	915.0	8	1323
1324.0	04:18	28.1	36.9	8	122	149	120	18023	99	164	1.1	1.1	34.9	36.1	158.5	24.86	1.01	916.0	9	1324
1325.0	04:20	35.6	36.8	8	122	162	120	17956	99	163	1.1	1.1	34.9	36.1	158.8	24.89	0.94	917.0	9	1325
1326.0	04:21	42.9	36.9	7	122	175	121	18012	98	163	1.1	1.1	35.0	36.1	158.9	24.91	0.88	918.0	8	1326
1327.0	04:24	22.1	36.8	8	122	148	120	17991	98	163	1.1	1.1	35.1	36.1	159.3	24.95	1.07	919.0	6	1327
1328.0	04:26	31.6	36.8	8	122	148	120	17944	98	162	1.1	1.1	35.1	36.1	159.5	24.99	0.99	920.0	4	1328
1329.0	04:27	38.7	36.8	9	122	158	120	17926	98	162	1.1	1.1	35.2	36.1	159.6	25.01	0.94	921.0	2	1329
1330.0	04:48	14.3	36.8	4	118	114	119	17640	99	161	1.1	1.1	35.3	36.1	160.2	25.08	0.99	922.0	5	1330
1331.0	04:49	33.0	36.8	5	128	146	120	17866	98	147	1.1	1.1	35.6	36.1	160.4	25.11	0.89	923.0	9	1331
1332.0	04:52	24.7	36.7	5	123	144	120	17872	95	140	1.1	1.1	35.5	36.1	160.7	25.15	0.94	924.0	8	1332
1333.0	04:54	26.7	36.7	6	117	149	120	17853	93	145	1.1	1.1	35.5	36.1	161.0	25.19	0.93	925.0	7	1333
1334.0	04:56	25.9	36.7	7	117	154	120	17882	92	149	1.1	1.1	35.5	36.1	161.3	25.23	0.97	926.0	7	1334
1335.0	04:59	24.0	36.7	7	116	165	120	17855	91	148	1.1	1.1	35.5	36.1	161.5	25.27	0.99	927.0	7	1335
1336.0	05:02	21.8	36.7	9	116	176	120	17865	90	147	1.1	1.1	35.5	36.1	161.9	25.32	1.07	928.0	7	1336
1337.0	05:05	20.6	36.6	8	116	166	120	17860	90	147	1.1	1.1	35.5	36.1	162.2	25.36	1.06	929.0	8	1337
1338.0	05:07	27.1	36.6	8	117	169	120	17871	90	146	1.1	1.1	35.5	36.1	162.4	25.40	1.01	930.0	8	1338
1339.0	05:09	28.8	36.6	7	117	149	120	17873	90	145	1.1	1.1	35.5	36.1	162.7	25.44	0.96	931.0	8	1339
1340.0	05:11	26.5	36.6	8	117	166	120	17915	90	145	1.1	1.1	35.5	36.1	162.9	25.47	0.99	932.0	7	1340

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1340.0	05:11	26.5	36.6	8	117	166	120	17915	90	145	1.1	1.1	35.5	36.1	162.9	25.47	0.99	932.0	7	1340
1341.0	05:14	17.8	36.5	8	116	164	120	17828	91	145	1.1	1.1	35.5	36.1	163.4	25.53	1.10	933.0	7	1341
1342.0	05:17	22.2	36.5	7	116	157	120	17845	93	146	1.1	1.1	35.5	36.1	163.6	25.57	1.03	934.0	7	1342
1343.0	05:20	19.1	36.5	9	117	165	120	17912	94	146	1.1	1.1	35.6	36.1	164.0	25.63	1.11	935.0	7	1343
1344.0	05:23	23.8	36.5	7	117	151	120	17877	94	146	1.1	1.1	35.6	36.1	164.3	25.67	1.01	936.0	8	1344
1345.0	05:25	23.4	36.4	8	117	155	120	17888	94	145	1.1	1.1	35.7	36.1	164.6	25.71	1.03	937.0	10	1345
1346.0	05:27	30.5	36.4	7	117	165	120	17947	94	144	1.1	1.1	35.7	36.1	164.8	25.74	0.94	938.0	3	1346
1347.0	05:29	29.3	36.4	7	117	156	120	17945	94	145	1.1	1.1	35.8	36.1	165.1	25.78	0.97	939.0	1	1347
1348.0	05:32	20.0	36.4	7	117	146	120	17908	93	143	1.1	1.1	35.8	36.1	165.4	25.83	1.04	940.0	8	1348
1349.0	05:36	17.8	36.4	7	117	153	120	17968	94	144	1.1	1.1	35.8	36.1	165.8	25.88	1.07	941.0	8	1349
1350.0	05:39	16.9	36.3	8	117	159	120	18065	94	143	1.1	1.1	35.8	36.1	166.2	25.94	1.11	942.0	7	1350
1351.0	05:43	18.4	36.3	8	117	163	120	17934	94	142	1.1	1.1	35.8	36.1	166.6	26.00	1.07	943.0	7	1351
1352.0	05:46	20.3	36.2	10	116	176	120	17996	94	143	1.1	1.1	35.9	36.1	167.0	26.05	1.12	944.0	7	1352
1353.0	05:48	22.2	36.2	8	117	160	120	17924	95	143	1.1	1.1	35.9	36.0	167.3	26.09	1.04	945.0	7	1353
1354.0	05:51	20.9	36.2	9	117	165	120	17933	95	142	1.1	1.1	35.9	36.0	167.7	26.14	1.08	946.0	7	1354
1355.0	05:54	25.2	36.2	9	117	170	120	17953	96	141	1.1	1.1	35.9	36.0	167.9	26.18	1.04	947.0	8	1355
1356.0	05:57	20.0	36.1	10	116	179	120	17971	95	142	1.1	1.1	35.9	35.9	168.3	26.23	1.12	948.0	9	1356
1357.0	05:59	23.7	36.1	9	116	185	120	17954	96	141	1.1	1.1	36.0	36.0	168.5	26.27	1.08	949.0	10	1357
1358.0	06:18	15.0	36.1	9	110	153	119	17736	97	136	1.1	1.1	36.0	35.9	168.9	26.34	1.15	950.0	9	1358
1359.0	06:20	31.9	36.1	8	119	191	120	17837	95	116	1.1	1.1	36.0	35.9	169.2	26.37	0.96	951.0	8	1359
1360.0	06:23	22.6	36.0	9	120	190	120	17952	92	117	1.1	1.1	35.9	35.9	169.4	26.41	1.06	952.0	8	1360
1361.0	06:25	31.3	36.0	9	120	188	120	17867	91	122	1.1	1.1	35.8	35.9	169.7	26.45	0.99	953.0	8	1361
1362.0	06:28	17.3	36.0	9	120	189	120	17925	90	128	1.1	1.1	35.8	35.9	170.2	26.50	1.15	954.0	8	1362
1363.0	06:31	20.1	36.0	9	120	178	120	18021	90	129	1.1	1.1	35.8	35.9	170.5	26.55	1.12	955.0	8	1363
1364.0	06:33	28.1	36.0	9	120	184	120	17904	90	129	1.1	1.1	35.8	36.0	170.8	26.59	1.01	956.0	8	1364
1365.0	06:36	20.0	35.9	9	120	191	120	17864	90	128	1.1	1.1	35.8	35.9	171.1	26.64	1.11	957.0	8	1365
1366.0	06:39	22.1	35.9	9	120	190	120	17879	90	128	1.1	1.1	35.8	36.0	171.4	26.68	1.09	958.0	9	1366
1367.0	06:42	21.8	35.9	10	120	202	120	17985	90	128	1.1	1.1	35.8	36.0	171.7	26.73	1.11	959.0	9	1367
1368.0	06:43	33.3	35.9	9	120	183	120	17960	91	128	1.1	1.1	35.8	35.9	172.0	26.76	0.98	960.0	8	1368
1369.0	06:46	20.1	35.8	10	120	194	120	18054	91	129	1.1	1.1	35.8	35.9	172.3	26.81	1.13	961.0	9	1369
1370.0	06:49	20.3	35.8	9	120	179	120	18105	92	136	1.1	1.1	36.0	36.0	172.7	26.86	1.10	962.0	10	1370
1371.0	06:52	22.8	35.8	10	120	187	120	18022	92	142	1.1	1.1	36.1	36.0	173.0	26.90	1.10	963.0	10	1371
1372.0	06:53	64.3	35.8	9	120	175	120	17929	93	147	1.1	1.1	36.2	36.0	173.1	26.92	0.82	964.0	9	1372
1373.0	06:55	29.3	35.8	9	120	189	120	18065	93	152	1.1	1.1	36.3	36.0	173.3	26.95	1.00	965.0	9	1373
1374.0	06:58	18.2	35.8	10	120	185	120	18071	93	159	1.1	1.1	36.5	36.0	173.7	27.01	1.14	966.0	9	1374
1375.0	07:02	18.2	35.7	10	120	185	120	18250	94	166	1.1	1.1	36.6	36.1	174.2	27.06	1.15	967.0	9	1375
1376.0	07:06	14.0	35.7	9	120	176	120	18350	93	173	1.1	1.1	36.7	36.0	174.7	27.13	1.17	968.0	9	1376
1377.0	07:08	24.5	35.7	8	120	165	120	18223	92	175	1.1	1.1	36.9	36.0	174.9	27.18	1.01	969.0	9	1377
1378.0	07:12	16.4	35.6	9	120	176	120	18273	91	174	1.1	1.1	36.9	36.1	175.4	27.24	1.15	970.0	10	1378
1379.0	07:15	22.0	35.6	10	120	177	120	18319	91	174	1.1	1.1	37.0	36.1	175.8	27.28	1.10	971.0	11	1379
1380.0	07:17	28.8	35.6	9	120	189	120	18370	91	174	1.1	1.1	37.1	36.0	176.0	27.32	1.02	972.0	10	1380
1381.0	07:20	18.7	35.5	10	120	182	120	18339	90	174	1.1	1.1	37.1	36.1	176.4	27.37	1.14	973.0	19	1381
1382.0	07:34	5.6	35.4	9	121	173	114	19260	92	175	1.1	1.1	37.2	36.0	177.6	27.55	1.40	974.0	15	1382
1383.0	07:39	12.4	35.3	9	120	158	113	17887	97	179	1.1	1.1	37.3	35.9	178.2	27.63	1.20	975.0	10	1383
1384.0	07:42	19.6	35.3	8	120	158	113	17561	96	166	1.1	1.1	37.3	35.9	178.6	27.68	1.06	976.0	12	1384
1385.0	07:47	11.9	35.2	9	120	164	113	17292	95	143	1.1	1.1	37.3	35.9	179.2	27.76	1.22	977.0	12	1385
1386.0	07:49	29.8	35.2	7	120	148	116	17772	95	154	1.1	1.1	37.3	35.9	179.5	27.80	0.94	978.0	10	1386
1387.0	08:12	14.6	35.1	6	115	151	119	18346	93	135	1.1	1.1	37.0	35.8	179.9	27.87	1.05	979.0	7	1387
1388.0	08:14	29.5	35.1	7	117	185	120	18215	88	151	1.1	1.1	36.7	35.7	180.2	27.90	0.95	980.0	6	1388
1389.0	08:18	16.6	35.1	7	118	177	120	18256	86	151	1.1	1.1	36.5	35.7	180.5	27.96	1.07	981.0	6	1389

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1389.0	08:18	16.6	35.1	7	118	177	120	18256	86	151	1.1	1.1	36.5	35.7	180.5	27.96	1.07	981.0	6	1389
1390.0	08:21	23.4	35.1	7	118	174	120	18343	84	157	1.1	1.1	36.4	35.7	180.9	28.00	0.99	982.0	6	1390
1391.0	08:26	10.3	35.0	6	118	148	119	18185	84	164	1.1	1.1	36.2	35.7	181.6	28.10	1.15	983.0	6	1391
1392.0	08:30	16.4	34.9	7	117	168	119	18110	84	165	1.1	1.1	36.0	35.7	182.0	28.16	1.07	984.0	5	1392
1393.0	08:33	21.6	34.9	6	117	172	119	18129	85	165	1.1	1.1	35.9	35.7	182.3	28.21	0.98	985.0	6	1393
1394.0	08:36	19.7	34.9	7	117	175	119	18113	84	164	1.1	1.1	35.9	35.7	182.7	28.26	1.03	986.0	7	1394
1395.0	08:38	26.1	34.9	6	118	171	119	18151	85	164	1.1	1.1	35.9	35.7	182.9	28.30	0.95	987.0	7	1395
1396.0	08:41	23.2	34.9	7	117	174	119	18152	86	164	1.1	1.1	35.9	35.7	183.3	28.34	1.00	988.0	7	1396
1397.0	08:44	18.9	34.8	6	117	172	119	18132	86	164	1.1	1.1	35.9	35.7	183.6	28.39	1.01	989.0	7	1397
1398.0	08:47	20.1	34.8	6	117	169	119	18100	86	164	1.1	1.1	36.0	35.7	184.0	28.44	1.00	990.0	7	1398
1399.0	08:50	16.7	34.8	7	118	166	119	18150	87	163	1.1	1.1	35.9	35.7	184.3	28.50	1.07	991.0	7	1399
1400.0	08:54	16.0	34.7	7	118	171	119	18194	88	163	1.1	1.1	35.6	35.7	184.8	28.56	1.09	992.0	7	1400
1401.0	08:58	16.9	34.7	7	118	169	120	18266	90	163	1.1	1.1	35.2	35.7	185.2	28.62	1.08	993.0	8	1401
1402.0	09:01	21.7	34.7	7	118	171	120	18317	91	163	1.1	1.1	35.1	35.7	185.5	28.67	1.00	994.0	7	1402
1403.0	09:04	17.2	34.6	7	118	169	120	18374	91	162	1.1	1.1	35.1	35.7	186.0	28.73	1.08	995.0	7	1403
1404.0	09:06	24.8	34.6	7	118	164	120	18325	92	162	1.1	1.1	35.1	35.7	186.2	28.77	0.98	996.0	2	1404
1405.0	09:10	16.1	34.6	7	118	168	120	18333	93	163	1.1	1.1	35.1	35.7	186.7	28.83	1.08	997.0	5	1405
1406.0	09:13	19.5	34.6	7	118	163	120	18274	94	162	1.1	1.1	35.1	35.7	187.1	28.88	1.03	998.0	6	1406
1407.0	09:16	20.2	34.5	10	118	168	120	18390	95	163	1.1	1.1	35.1	35.7	187.4	28.93	1.12	999.0	7	1407
1408.0	09:19	23.8	34.5	11	118	166	120	18400	96	163	1.1	1.1	35.1	35.7	187.7	28.97	1.10	1000.0	7	1408
1409.0	09:23	14.6	34.5	11	118	165	120	18465	96	163	1.1	1.1	35.1	35.6	188.1	29.04	1.23	1001.0	8	1409
1410.0	09:27	15.9	34.4	11	118	164	120	18622	97	163	1.1	1.1	35.2	35.6	188.6	29.10	1.22	1002.0	8	1410
1411.0	09:29	22.9	34.4	10	118	146	120	18890	98	163	1.1	1.1	35.3	35.5	188.9	29.15	1.09	1003.0	10	1411
1412.0	09:33	17.5	34.4	9	118	159	120	18798	99	162	1.1	1.1	35.3	35.5	189.3	29.21	1.14	1004.0	9	1412
1413.0	09:36	16.1	34.3	10	118	156	120	18743	100	161	1.1	1.1	35.3	35.5	189.7	29.27	1.20	1005.0	9	1413
1414.0	09:40	16.9	34.3	10	118	160	120	18445	101	160	1.1	1.1	35.3	35.5	190.2	29.33	1.18	1006.0	11	1414
1415.0	09:41	45.6	34.3	9	118	147	120	18220	100	158	1.1	1.1	35.4	35.5	190.3	29.35	0.90	1007.0	12	1415
1416.0	09:55	20.6	34.3	6	103	114	118	17766	100	153	1.1	1.1	35.4	35.5	190.6	29.40	0.96	1008.0	10	1416
1417.0	09:57	37.9	34.3	8	119	155	119	18191	100	141	1.1	1.1	35.3	35.5	190.8	29.42	0.91	1009.0	8	1417
1418.0	09:59	27.1	34.3	9	119	172	119	18243	96	131	1.1	1.1	35.2	35.5	191.1	29.46	1.03	1010.0	7	1418
1419.0	10:03	15.8	34.2	9	119	180	120	18375	92	127	1.1	1.1	35.1	35.5	191.5	29.52	1.16	1011.0	7	1419
1420.0	10:05	24.8	34.2	9	119	183	119	18415	91	135	1.1	1.1	35.1	35.5	191.8	29.56	1.05	1012.0	9	1420
1421.0	10:08	22.1	34.2	9	119	178	119	18367	90	137	1.1	1.1	35.1	35.6	192.1	29.61	1.08	1013.0	12	1421
1422.0	10:09	62.1	34.2	8	119	172	119	18345	89	136	1.1	1.1	35.1	35.6	192.2	29.63	0.82	1014.0	11	1422
1423.0	10:10	46.2	34.2	9	119	165	119	18360	89	135	1.1	1.1	35.1	35.6	192.4	29.65	0.89	1015.0	10	1423
1424.0	10:13	20.8	34.2	10	119	185	120	18395	87	133	1.1	1.1	35.1	35.6	192.7	29.70	1.12	1016.0	9	1424
1425.0	10:16	20.8	34.2	10	119	176	119	18327	86	131	1.1	1.1	35.2	35.7	193.0	29.74	1.12	1017.0	12	1425
1426.0	10:17	48.0	34.2	9	119	178	120	18309	86	131	1.1	1.1	35.2	35.7	193.2	29.76	0.89	1018.0	14	1426
1427.0	10:19	41.9	34.2	8	120	153	119	18261	86	130	1.1	1.1	35.2	35.7	193.4	29.79	0.93	1019.0	14	1427
1428.0	10:20	39.1	34.2	9	119	157	119	18297	85	129	1.1	1.1	35.2	35.7	193.5	29.81	0.95	1020.0	16	1428
1429.0	10:22	40.9	34.2	9	119	159	119	18325	85	129	1.1	1.1	35.2	35.7	193.8	29.84	0.95	1021.0	15	1429
1430.0	10:23	46.2	34.2	9	119	158	119	18287	84	127	1.1	1.1	35.3	35.7	193.9	29.86	0.92	1022.0	15	1430
1431.0	10:24	44.4	34.2	8	120	151	119	18272	83	126	1.1	1.1	35.3	35.7	194.0	29.88	0.91	1023.0	16	1431
1432.0	10:26	46.8	34.2	8	119	155	119	18244	83	126	1.1	1.1	35.3	35.7	194.3	29.90	0.89	1024.0	12	1432
1433.0	10:28	31.0	34.2	8	120	138	119	18193	83	125	1.1	1.1	35.3	35.7	194.5	29.94	0.97	1025.0	0	1433
1434.0	10:30	25.4	34.2	9	119	162	119	18227	82	122	1.1	1.1	35.3	35.7	194.7	29.98	1.04	1026.0	4	1434
1435.0	10:32	23.1	34.2	10	119	176	119	18285	81	121	1.1	1.1	35.4	35.7	195.0	30.02	1.09	1027.0	9	1435
1436.0	10:35	23.8	34.2	10	119	165	119	18211	79	117	1.1	1.1	35.4	35.7	195.4	30.06	1.09	1028.0	8	1436
1437.0	10:38	21.7	34.2	10	119	165	120	18332	79	113	1.1	1.1	35.4	35.7	195.6	30.11	1.13	1029.0	7	1437
1438.0	10:40	24.5	34.2	10	119	160	119	18262	77	101	1.1	1.1	35.4	35.7	196.0	30.15	1.08	1030.0	8	1438

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1438.0	10:40	24.5	34.2	10	119	160	119	18262	77	101	1.1	1.1	35.4	35.7	196.0	30.15	1.08	1030.0	8	1438
1439.0	10:43	25.0	34.2	10	119	177	120	18364	76	97	1.1	1.1	35.4	35.7	196.3	30.19	1.09	1031.0	8	1439
1440.0	10:45	22.0	34.1	9	120	162	120	18335	74	95	1.1	1.1	35.3	35.7	196.6	30.23	1.08	1032.0	8	1440
1441.0	10:48	19.1	34.1	9	120	158	120	18297	73	93	1.1	1.1	35.3	35.7	197.0	30.29	1.12	1033.0	8	1441
1442.0	10:51	21.2	34.1	10	120	163	120	18333	71	90	1.1	1.1	35.3	35.7	197.3	30.33	1.11	1034.0	7	1442
1443.0	10:54	20.3	34.1	9	120	165	120	18408	70	89	1.1	1.1	35.2	35.6	197.7	30.38	1.11	1035.0	8	1443
1444.0	10:57	25.7	34.1	9	120	158	120	18445	69	87	1.1	1.1	35.2	35.6	197.9	30.42	1.03	1036.0	9	1444
1445.0	11:26	17.2	34.0	8	117	146	118	18022	67	85	1.1	1.1	35.0	35.5	198.4	30.48	1.12	1037.0	13	1445
1446.0	11:30	16.0	34.0	8	126	153	117	17530	73	103	1.1	1.1	32.4	35.5	198.8	30.54	1.13	1038.0	7	1446
1447.0	11:31	35.0	34.0	9	126	192	120	16900	74	97	1.1	1.1	32.2	35.5	199.0	30.57	1.02	1039.0	6	1447
1448.0	11:33	34.3	34.0	9	126	201	120	17510	74	95	1.1	1.1	32.1	35.5	199.3	30.60	1.01	1040.0	6	1448
1449.0	11:35	27.7	34.0	10	127	210	120	18877	73	94	1.1	1.1	32.1	35.5	199.5	30.63	1.08	1041.0	9	1449
1450.0	11:37	28.6	34.0	8	127	197	120	18712	74	94	1.1	1.1	32.0	35.5	199.8	30.67	1.02	1042.0	12	1450
1451.0	11:40	22.1	34.0	7	127	180	120	18680	75	94	1.1	1.1	32.0	35.5	200.2	30.72	1.06	1043.0	12	1451
1452.0	11:42	31.6	34.0	9	127	204	120	18684	75	93	1.1	1.1	32.0	35.5	200.4	30.75	1.04	1044.0	11	1452
1453.0	11:44	23.5	33.9	11	127	221	120	18595	75	92	1.1	1.1	32.0	35.5	200.7	30.79	1.14	1045.0	11	1453
1454.0	11:46	31.3	33.9	9	127	189	120	18352	75	92	1.1	1.1	32.1	35.5	200.9	30.82	1.03	1046.0	10	1454
1455.0	11:50	15.5	33.9	8	127	149	120	18339	75	91	1.1	1.1	32.1	35.5	201.4	30.89	1.16	1047.0	8	1455
1456.0	11:52	27.1	33.9	9	127	179	120	18384	75	91	1.1	1.1	32.4	35.5	201.7	30.92	1.06	1048.0	8	1456
1457.0	11:54	31.0	33.9	9	127	183	120	18308	74	91	1.1	1.1	32.7	35.5	202.0	30.95	1.02	1049.0	8	1457
1458.0	11:57	27.1	33.9	8	127	161	120	18312	73	90	1.1	1.1	32.9	35.5	202.2	30.99	1.02	1050.0	8	1458
1459.0	11:59	23.5	33.9	8	127	163	120	18284	73	89	1.1	1.1	33.1	35.4	202.5	31.03	1.05	1051.0	9	1459
1460.0	12:01	30.3	33.9	10	127	174	120	18416	72	89	1.1	1.1	33.4	35.4	202.7	31.07	1.06	1052.0	10	1460
1461.0	12:03	38.3	33.9	8	127	158	120	18381	72	88	1.1	1.1	33.5	35.4	203.0	31.09	0.96	1053.0	13	1461
1462.0	12:06	20.5	33.8	9	127	171	120	18881	72	88	1.1	1.1	33.7	35.5	203.4	31.14	1.12	1054.0	13	1462
1463.0	12:15	6.8	33.7	7	127	144	118	18580	71	88	1.1	1.1	34.1	35.4	204.4	31.29	1.31	1055.0	10	1463
1464.0	12:19	15.0	33.7	8	127	141	119	18925	73	90	1.1	1.1	34.2	35.3	204.9	31.36	1.14	1056.0	4	1464
1465.0	12:21	21.8	33.7	7	126	147	119	16708	72	89	1.1	1.1	34.2	35.3	205.3	31.40	1.05	1057.0	3	1465
1466.0	12:25	15.9	33.6	8	127	140	119	18758	71	89	1.1	1.1	34.2	35.3	205.9	31.47	1.13	1058.0	10	1466
1467.0	12:30	13.3	33.6	10	128	154	119	19401	71	88	1.1	1.1	34.1	35.3	206.4	31.54	1.25	1059.0	11	1467
1468.0	12:32	23.8	33.6	10	127	168	119	19023	70	88	1.1	1.1	34.1	35.3	206.8	31.58	1.08	1060.0	10	1468
1469.0	12:34	26.7	33.6	11	127	185	120	18704	71	89	1.1	1.1	34.1	35.3	207.0	31.62	1.11	1061.0	10	1469
1470.0	12:37	21.8	33.5	8	127	153	119	18941	70	87	1.1	1.1	34.2	35.2	207.4	31.67	1.08	1062.0	10	1470
1471.0	12:40	20.9	33.5	8	127	154	119	18729	70	87	1.1	1.1	34.3	35.2	207.7	31.71	1.07	1063.0	10	1471
1472.0	12:42	25.9	33.5	9	127	159	119	18730	70	87	1.1	1.1	34.5	35.2	208.1	31.75	1.06	1064.0	9	1472
1473.0	12:46	16.2	33.5	8	127	143	119	18578	69	86	1.1	1.1	34.6	35.1	208.4	31.81	1.13	1065.0	10	1473
1474.0	12:49	18.1	33.4	8	126	142	118	18261	69	86	1.1	1.1	34.8	35.1	209.0	31.87	1.12	1066.0	14	1474
1475.0	13:13	23.7	33.4	7	113	139	120	18669	68	85	1.1	1.1	35.1	35.0	209.1	31.91	0.97	1067.0	15	1475
1476.0	13:15	27.7	33.4	9	121	163	121	18977	65	82	1.1	1.1	35.4	35.0	209.4	31.95	1.03	1068.0	11	1476
1477.0	13:17	32.1	33.4	10	121	185	121	18952	64	81	1.1	1.1	35.4	35.0	209.7	31.98	1.02	1069.0	10	1477
1478.0	13:20	23.5	33.4	9	121	167	121	19129	65	82	1.1	1.1	35.3	35.0	209.9	32.02	1.06	1070.0	10	1478
1479.0	13:22	26.5	33.4	9	121	172	121	19072	64	81	1.1	1.1	35.2	35.0	210.2	32.06	1.04	1071.0	10	1479
1480.0	13:24	24.7	33.4	9	122	168	121	19077	65	82	1.1	1.1	35.0	35.0	210.5	32.10	1.06	1072.0	10	1480
1481.0	13:27	23.4	33.4	9	121	169	121	19169	66	83	1.1	1.1	34.8	35.0	210.8	32.14	1.05	1073.0	10	1481
1482.0	13:30	22.6	33.4	10	121	178	121	19256	67	85	1.1	1.1	34.6	35.1	211.2	32.19	1.11	1074.0	11	1482
1483.0	13:31	37.5	33.4	10	122	177	121	19227	67	85	1.1	1.1	34.4	35.1	211.3	32.21	0.99	1075.0	11	1483
1484.0	13:33	33.6	33.4	9	122	167	121	19259	67	86	1.1	1.1	34.4	35.1	211.5	32.24	0.98	1076.0	11	1484
1485.0	13:35	27.7	33.4	10	122	167	121	19341	67	87	1.1	1.1	34.3	35.1	211.8	32.28	1.06	1077.0	12	1485
1486.0	13:38	23.5	33.4	10	122	171	121	19309	68	87	1.1	1.1	34.3	35.2	212.1	32.32	1.11	1078.0	13	1486
1487.0	13:40	29.0	33.3	11	122	173	121	19363	68	88	1.1	1.1	34.3	35.2	212.4	32.36	1.07	1079.0	17	1487

292111

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1487.0	13:40	29.0	33.3	11	122	173	121	19363	68	88	1.1	1.1	34.3	35.2	212.4	32.36	1.07	1079.0	17	1487
1488.0	13:42	23.5	33.3	11	122	182	121	19530	68	88	1.1	1.1	34.4	35.2	212.6	32.40	1.12	1080.0	17	1488
1489.0	13:47	12.6	33.3	9	121	180	117	19212	68	89	1.1	1.1	34.4	35.2	213.3	32.48	1.22	1081.0	17	1489
1490.0	13:53	9.9	33.2	8	122	152	119	19599	69	89	1.1	1.1	34.5	35.2	214.0	32.58	1.23	1082.0	12	1490
1491.0	13:56	25.4	33.2	8	121	157	120	19343	70	89	1.1	1.1	34.5	35.2	214.3	32.62	1.04	1083.0	11	1491
1492.0	13:58	23.4	33.2	9	121	157	120	19301	71	91	1.1	1.1	34.6	35.3	214.5	32.66	1.08	1084.0	11	1492
1493.0	14:01	20.7	33.2	10	121	165	120	19396	72	91	1.1	1.1	34.6	35.3	214.9	32.71	1.14	1085.0	10	1493
1494.0	14:06	13.1	33.1	10	122	144	120	19608	71	91	1.1	1.1	34.7	35.3	215.4	32.79	1.26	1086.0	10	1494
1495.0	14:12	9.7	33.1	10	122	138	119	19647	72	92	1.1	1.1	34.7	35.4	216.2	32.89	1.32	1087.0	5	1495
1496.0	14:15	16.4	33.0	11	122	152	120	19457	73	93	1.1	1.1	34.8	35.4	216.7	32.95	1.21	1088.0	9	1496
1497.0	14:18	24.0	33.0	10	121	164	120	18971	74	94	1.1	1.1	34.8	35.5	216.9	32.99	1.09	1089.0	10	1497
1498.0	14:21	20.2	33.0	11	121	174	120	19069	74	94	1.1	1.1	34.9	35.5	217.3	33.04	1.15	1090.0	11	1498
1499.0	14:23	24.2	33.0	10	121	178	120	19018	73	93	1.1	1.1	35.0	35.5	217.6	33.08	1.09	1091.0	11	1499
1500.0	14:26	20.5	33.0	10	121	179	120	19032	74	94	1.1	1.1	35.0	35.5	217.9	33.13	1.13	1092.0	11	1500
1501.0	14:29	20.1	32.9	10	121	168	120	19239	74	94	1.1	1.1	35.1	35.4	218.3	33.18	1.14	1093.0	13	1501
1502.0	14:32	25.0	32.9	10	121	165	120	19090	75	94	1.1	1.1	35.2	35.4	218.6	33.22	1.07	1094.0	15	1502
1503.0	15:07	21.2	32.9	8	102	130	119	18857	76	99	1.1	1.1	35.2	35.4	218.9	33.27	1.01	1095.0	13	1503
1504.0	15:08	32.7	32.9	11	117	196	122	19462	80	100	1.1	1.1	35.1	35.5	219.1	33.30	1.02	1096.0	12	1504
1505.0	15:10	49.3	32.9	10	117	193	122	19476	80	100	1.1	1.1	35.1	35.5	219.2	33.32	0.91	1097.0	12	1505
1506.0	15:11	39.1	32.9	11	116	202	122	19430	80	104	1.1	1.1	35.1	35.5	219.5	33.34	0.98	1098.0	13	1506
1507.0	15:12	51.4	32.9	10	117	187	122	19461	80	106	1.1	1.1	35.2	35.5	219.6	33.36	0.88	1099.0	13	1507
1508.0	15:14	33.3	32.9	9	117	196	122	19508	80	109	1.1	1.1	35.2	35.5	219.7	33.39	0.99	1100.0	13	1508
1509.0	15:16	32.7	32.9	11	117	209	122	19609	79	112	1.1	1.1	35.3	35.5	220.0	33.42	1.01	1101.0	14	1509
1510.0	15:18	38.7	32.9	10	117	199	122	19583	80	116	1.1	1.1	35.3	35.5	220.2	33.45	0.96	1102.0	15	1510
1511.0	15:19	41.4	33.0	11	117	207	122	19551	80	117	1.1	1.1	35.3	35.5	220.3	33.47	0.98	1103.0	15	1511
1512.0	15:21	32.7	33.0	10	117	202	122	19505	80	117	1.1	1.1	35.3	35.5	220.5	33.50	1.01	1104.0	14	1512
1513.0	15:23	28.8	32.9	11	117	202	122	19627	80	118	1.1	1.1	35.3	35.5	220.8	33.54	1.05	1105.0	7	1513
1514.0	15:26	22.6	32.9	8	117	164	120	19081	80	117	1.1	1.1	35.4	35.5	221.1	33.58	1.06	1106.0	0	1514
1515.0	15:29	20.2	32.9	9	117	177	120	19038	80	118	1.1	1.1	35.5	35.6	221.5	33.63	1.09	1107.0	0	1515
1516.0	15:32	18.3	32.9	9	117	163	120	18930	80	118	1.1	1.1	35.5	35.5	221.8	33.69	1.12	1108.0	0	1516
1517.0	15:35	18.7	32.9	7	117	146	120	18903	81	118	1.1	1.1	35.6	35.7	222.2	33.74	1.05	1109.0	0	1517
1518.0	15:38	18.7	32.8	7	117	151	120	18925	83	121	1.1	1.1	35.6	35.7	222.6	33.80	1.06	1110.0	8	1518
1519.0	15:42	14.9	32.8	7	117	135	120	18804	90	127	1.1	1.1	35.6	35.7	223.0	33.86	1.10	1111.0	8	1519
1520.0	15:45	19.7	32.8	8	116	148	119	17177	91	129	1.1	1.1	35.7	35.7	223.4	33.91	1.05	1112.0	6	1520
1521.0	15:48	24.3	32.8	7	116	155	119	17323	90	129	1.1	1.1	35.7	35.7	223.7	33.95	0.99	1113.0	7	1521
1522.0	15:52	15.3	32.7	7	117	141	120	18920	89	128	1.1	1.1	35.7	35.7	224.1	34.02	1.10	1114.0	8	1522
1523.0	15:56	13.5	32.7	9	117	138	120	19177	85	124	1.1	1.1	35.6	35.8	224.7	34.09	1.19	1115.0	10	1523
1524.0	16:00	17.8	32.7	7	117	147	120	18881	83	121	1.1	1.1	35.8	35.9	225.0	34.15	1.07	1116.0	11	1524
1525.0	16:02	20.9	32.7	7	117	148	120	18622	83	121	1.1	1.1	35.9	35.9	225.4	34.20	1.03	1117.0	11	1525

BR3 NB1 DRILLED 1117m IN 34.3 RHOB, AVE ROP 32.7 m/hr, KREVS 226.2

NB1 SMITH FDS (JETS 3X14) 311mm, POH TO RUN 244mm CSG.

292112

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 4

DATE 09-DEC-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	1520.000	CASING SIZE	244.000
BIT SIZE	216.000	BIT NUMBER & TYPE	BR4 NB2 SMITH FDGH
RIG COST/HR	5254.000	INITIAL COST	127925.000
TRIP TIME	24.000	PUMP CAP LITS.STK	18.988
BIT COST	1829.000	JET SIZES	11 11 10 0
START DRILLING	1525.000		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.07	53	8	18	4/ 10	9.4	9.40	1.00	2.30	0.00

292113

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1526.0	03:40	18.3	12.8	2	67	98	61	12871	47	144	1.1	1.1	16.6	29.9	0.3	0.08	1.98	1.0	4	1526
1527.0	03:45	11.5	12.1	3	67	88	61	11960	48	144	1.1	1.1	16.6	30.0	0.6	0.17	1.03	2.0	3	1527
1528.0	06:54	5.2	8.4	5	61	64	60	11367	56	133	1.1	1.1	18.2	30.1	1.3	0.36	1.32	3.0	0	1528
1529.0	06:58	18.7	9.7	5	78	106	60	9434	61	66	1.1	1.1	19.8	30.0	1.6	0.41	1.02	4.0	0	1529
1530.0	07:01	20.1	10.8	6	78	126	60	9359	61	66	1.1	1.1	19.9	29.5	1.8	0.46	1.03	5.0	0	1530
1531.0	07:03	20.9	11.8	7	79	116	60	9340	62	66	1.1	1.1	20.0	30.0	2.1	0.51	1.05	6.0	0	1531
1532.0	07:06	21.4	12.6	5	79	131	60	9341	62	66	1.1	1.1	20.1	30.2	2.3	0.56	0.96	7.0	0	1532
1533.0	07:10	15.6	12.9	7	80	112	60	9295	62	66	1.1	1.1	20.3	30.2	2.6	0.62	1.14	8.0	0	1533
1534.0	07:15	12.2	12.8	7	80	96	60	9333	62	66	1.1	1.1	20.6	30.6	2.9	0.70	1.20	9.0	0	1534
1535.0	07:19	17.2	13.2	7	80	101	60	9330	62	66	1.1	1.1	20.8	30.3	3.3	0.76	1.11	10.0	0	1535
1536.0	07:23	15.1	13.3	5	80	111	60	9220	62	66	1.1	1.1	21.1	29.6	3.6	0.83	1.07	11.0	0	1536
1537.0	07:26	18.0	13.6	6	80	106	60	9203	62	66	1.1	1.1	21.3	29.9	3.8	0.88	1.06	12.0	0	1537
1538.0	07:29	17.3	13.8	5	80	104	60	9276	62	66	1.1	1.1	21.6	29.5	4.2	0.94	1.06	13.0	0	1538
1539.0	07:33	14.9	13.9	6	80	105	60	9310	62	66	1.1	1.1	21.9	29.5	4.5	1.01	1.12	14.0	1	1539
1540.0	07:36	19.9	14.3	7	80	97	60	9380	62	66	1.1	1.1	22.2	31.0	4.7	1.05	1.09	15.0	10	1540
1541.0	07:40	16.8	14.5	5	80	98	60	9402	62	66	1.1	1.1	22.3	30.9	4.9	1.11	1.03	16.0	11	1541
1542.0	07:43	19.1	14.7	6	81	90	60	9471	62	66	1.1	1.1	22.6	23.3	5.2	1.16	1.07	17.0	9	1542
1543.0	07:45	21.4	14.9	5	81	91	60	9460	62	66	1.1	1.1	22.8	28.9	5.4	1.21	1.02	18.0	7	1543
1544.0	07:48	22.1	15.2	7	81	84	60	9392	62	66	1.1	1.1	23.0	24.4	5.6	1.25	1.05	19.0	5	1544
1545.0	07:50	28.1	15.6	6	81	85	60	9412	62	66	1.1	1.1	23.1	27.9	5.8	1.29	0.95	20.0	5	1545
1546.0	07:52	36.4	16.0	5	81	91	60	9402	62	66	1.1	1.1	23.3	29.8	6.0	1.31	0.85	21.0	5	1546
1547.0	08:18	21.2	16.3	6	84	100	60	9576	60	65	1.1	1.1	24.3	31.5	6.1	1.35	1.05	22.0	6	1547
1548.0	08:20	44.4	16.7	5	83	111	60	9611	61	65	1.1	1.1	24.3	28.2	6.2	1.37	0.84	23.0	6	1548
1549.0	08:22	32.4	17.1	7	84	93	60	9609	60	65	1.1	1.1	24.3	28.5	6.4	1.40	0.97	24.0	6	1549
1550.0	08:23	32.7	17.4	6	81	87	60	9614	61	66	1.1	1.1	24.4	28.6	6.5	1.44	0.95	25.0	7	1550
1551.0	08:25	30.3	17.7	5	81	88	60	9620	61	66	1.1	1.1	24.5	28.3	6.7	1.47	0.93	26.0	9	1551
1552.0	08:27	34.3	18.0	7	80	120	60	9660	61	67	1.1	1.1	24.5	31.7	6.8	1.50	0.95	27.0	8	1552
1553.0	08:29	28.8	18.3	7	80	150	60	9708	61	66	1.1	1.1	24.6	30.9	7.0	1.53	0.98	28.0	7	1553
1554.0	08:31	31.6	18.5	5	79	205	61	9772	61	66	1.1	1.1	24.6	28.7	7.1	1.56	0.91	29.0	4	1554
1555.0	08:32	61.0	19.0	6	79	254	61	9833	61	65	1.1	1.1	24.7	28.7	7.2	1.58	0.76	30.0	6	1555
1556.0	08:34	44.4	19.3	6	79	241	61	9799	61	65	1.1	1.1	24.7	26.9	7.3	1.60	0.86	31.0	6	1556
1557.0	08:35	52.2	19.7	6	79	225	61	9777	61	65	1.1	1.1	24.8	27.0	7.4	1.62	0.80	32.0	5	1557
1558.0	08:38	19.6	19.7	6	79	277	61	9834	61	65	1.1	1.1	24.8	27.1	7.7	1.67	1.06	33.0	6	1558
1559.0	08:41	16.4	19.6	6	79	279	61	9862	60	65	1.1	1.1	24.9	26.9	7.9	1.73	1.11	34.0	5	1559
1560.0	09:02	11.5	19.2	7	80	237	61	9814	60	64	1.1	1.0	25.0	27.3	8.4	1.82	1.22	35.0	2	1560
1561.0	09:04	26.5	19.4	6	83	95	60	9399	59	64	1.1	1.0	25.2	27.1	8.5	1.86	0.99	36.0	2	1561
1562.0	09:07	19.1	19.4	7	83	106	60	9345	60	65	1.1	1.0	25.1	26.6	8.8	1.91	1.09	37.0	2	1562
1563.0	09:09	31.6	19.6	5	83	93	60	9385	62	66	1.1	1.0	25.0	27.3	8.9	1.94	0.92	38.0	2	1563
1564.0	09:12	20.9	19.6	5	82	118	60	9311	63	67	1.1	1.0	24.8	27.2	9.2	1.99	1.02	39.0	2	1564
1565.0	09:14	33.3	19.8	6	82	133	60	9340	65	69	1.1	1.1	24.6	28.1	9.4	2.02	0.92	40.0	9	1565
1566.0	09:16	23.1	19.9	6	83	101	60	9349	65	70	1.1	1.1	24.3	30.4	9.5	2.06	1.01	41.0	8	1566
1567.0	09:20	16.1	19.8	5	83	108	60	9346	64	68	1.1	1.1	24.1	30.0	9.9	2.13	1.08	42.0	2	1567
1568.0	09:24	16.4	19.7	6	83	106	60	9335	59	63	1.1	1.1	24.0	27.6	10.1	2.19	1.10	43.0	5	1568
1569.0	09:29	23.2	19.7	7	54	150	60	9310	55	60	1.1	1.1	24.0	27.1	10.3	2.23	0.94	44.0	5	1569
1570.0	09:30	30.5	19.9	9	82	100	60	9300	55	62	1.1	1.1	24.1	27.0	10.5	2.26	1.21	45.0	4	1570
1571.0	09:32	38.7	20.1	9	84	118	60	9367	55	60	1.1	1.1	24.0	27.2	10.6	2.29	1.06	46.0	4	1571
1572.0	09:36	16.7	20.0	8	85	114	60	9406	55	60	1.1	1.0	24.0	27.3	10.9	2.35	1.12	47.0	3	1572
1573.0	09:44	7.5	19.3	9	82	143	60	9489	56	61	1.1	1.0	24.1	27.1	11.6	2.48	1.30	48.0	2	1573
1574.0	10:21	14.4	19.2	5	81	160	60	9619	58	62	1.2	1.1	24.7	29.8	11.9	2.55	1.09	49.0	1	1574
1575.0	10:23	47.4	19.4	6	80	112	60	9556	58	63	1.2	1.1	25.3	28.1	12.0	2.57	0.82	50.0	2	1575

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1575.0	10:23	47.4	19.4	6	80	112	60	9556	58	63	1.2	1.1	25.3	28.1	12.0	2.57	0.82	50.0	2	1575
1576.0	10:24	40.4	19.6	6	80	106	60	9552	58	63	1.2	1.1	25.3	28.1	12.1	2.60	0.84	51.0	2	1576
1577.0	10:26	40.4	19.8	5	80	105	60	9514	58	63	1.2	1.1	25.3	28.1	12.2	2.62	0.82	52.0	2	1577
1578.0	10:27	47.4	20.1	5	80	137	60	9545	59	63	1.2	1.1	25.3	28.1	12.3	2.64	0.79	53.0	3	1578
1579.0	10:29	23.1	20.1	5	81	122	63	9973	59	63	1.2	1.1	25.4	28.2	12.6	2.69	0.96	54.0	3	1579
1580.0	10:32	22.4	20.1	5	83	88	80	15915	58	63	1.1	1.1	25.4	28.3	12.7	2.73	0.96	55.0	3	1580
1581.0	10:34	27.3	20.2	5	83	124	80	16429	58	62	1.1	1.1	25.5	31.0	12.9	2.77	0.93	56.0	3	1581
1582.0	10:37	20.8	20.2	6	83	101	79	16611	57	62	1.0	1.1	25.5	28.2	13.2	2.82	1.01	57.0	3	1582
1583.0	10:39	28.8	20.4	6	84	132	80	16688	57	61	1.0	1.1	25.6	28.3	13.3	2.85	0.95	58.0	2	1583
1584.0	10:42	23.5	20.4	6	83	126	80	16652	57	61	1.0	1.1	25.7	28.4	13.6	2.89	0.99	59.0	2	1584
1585.0	10:43	41.4	20.6	5	83	107	80	16779	57	61	1.0	1.1	25.7	29.8	13.7	2.92	0.80	60.0	2	1585
1586.0	10:46	23.8	20.6	6	84	116	80	16729	56	61	1.0	1.1	25.8	23.1	13.8	2.96	1.00	61.0	2	1586
1587.0	10:48	31.9	20.7	5	83	118	80	16669	56	61	1.0	1.1	25.9	26.0	14.0	2.99	0.88	62.0	2	1587
1588.0	10:50	22.8	20.8	6	83	111	80	16666	57	61	1.1	1.1	26.0	28.0	14.3	3.03	1.00	63.0	2	1588
1589.0	10:53	19.8	20.8	6	83	133	80	16702	58	62	1.1	1.1	26.1	28.1	14.5	3.08	1.02	64.0	2	1589
1590.0	10:56	25.0	20.8	6	82	164	80	16747	59	63	1.2	1.1	26.1	28.2	14.7	3.12	0.97	65.0	2	1590
1591.0	10:57	34.6	20.9	5	83	129	80	16708	59	64	1.2	1.1	26.1	27.9	14.9	3.15	0.88	66.0	2	1591
1592.0	11:00	29.0	21.0	6	84	176	80	16799	60	64	1.2	1.1	26.1	29.2	15.0	3.19	0.94	67.0	2	1592
1593.0	11:02	25.9	21.1	6	82	162	80	16729	60	65	1.3	1.1	26.2	30.0	15.2	3.23	0.96	68.0	2	1593
1594.0	11:04	27.7	21.2	6	82	162	80	16406	61	67	1.3	1.1	26.2	30.6	15.4	3.26	0.93	69.0	2	1594
1595.0	11:07	21.7	21.2	5	84	103	80	16506	62	69	1.1	1.1	26.3	28.9	15.6	3.31	0.97	70.0	2	1595
1596.0	11:09	26.3	21.2	4	83	103	80	16615	63	72	1.1	1.1	26.3	30.6	15.8	3.35	0.90	71.0	2	1596
1597.0	11:12	18.6	21.2	4	84	102	80	16648	62	73	1.1	1.1	26.4	30.7	16.0	3.40	0.97	72.0	3	1597
1598.0	11:15	20.1	21.2	4	85	176	80	16832	62	75	1.1	1.1	26.6	30.7	16.3	3.45	0.96	73.0	2	1598
1599.0	11:19	14.5	21.0	4	84	134	80	16765	63	78	1.1	1.1	26.7	29.3	16.6	3.52	1.05	74.0	2	1599
1600.0	11:26	9.5	20.7	4	84	128	80	16713	64	88	1.1	1.1	27.0	29.9	17.2	3.62	1.14	75.0	2	1600
1601.0	11:30	14.9	20.6	4	84	101	80	16636	65	99	1.1	1.1	27.3	32.9	17.5	3.69	1.03	76.0	1	1601
1602.0	11:34	13.0	20.4	4	84	128	80	16695	65	107	1.2	1.1	27.4	33.1	17.9	3.77	1.06	77.0	1	1602
1603.0	11:56	14.9	20.3	3	85	146	80	16619	67	113	1.2	1.1	27.9	33.3	18.2	3.83	0.95	78.0	1	1603
1604.0	11:59	16.4	20.3	2	93	99	80	16941	68	114	1.2	1.0	28.1	33.2	18.6	3.90	0.89	79.0	1	1604
1605.0	12:05	9.8	20.0	6	94	119	81	17152	68	114	1.2	1.0	28.2	33.2	19.2	4.00	1.22	80.0	1	1605
1606.0	12:12	9.7	19.8	5	97	90	81	17391	68	114	1.1	1.0	28.4	33.4	19.8	4.10	1.22	81.0	1	1606
1607.0	12:16	14.9	19.7	6	94	77	81	17402	69	115	1.1	1.0	28.6	33.4	20.2	4.17	1.14	82.0	2	1607
1608.0	12:19	15.8	19.6	6	94	76	81	17396	69	117	1.1	1.0	28.7	33.4	20.5	4.23	1.13	83.0	2	1608
1609.0	12:24	13.7	19.5	6	94	96	80	16921	69	120	1.1	1.0	28.8	33.4	20.9	4.30	1.16	84.0	2	1609
1610.0	12:28	13.6	19.4	6	94	99	80	16945	70	123	1.1	1.0	29.0	33.4	21.3	4.38	1.16	85.0	2	1610
1611.0	12:32	14.6	19.3	6	94	90	80	16935	70	126	1.1	1.0	29.1	33.4	21.7	4.45	1.14	86.0	2	1611
1612.0	12:35	21.6	19.4	6	93	86	80	16957	71	128	1.1	1.0	29.2	33.4	22.0	4.49	1.06	87.0	2	1612
1613.0	12:41	9.4	19.1	7	94	69	80	16990	70	128	1.1	1.0	29.4	33.4	22.6	4.60	1.27	88.0	3	1613
1614.0	12:47	11.1	19.0	7	76	69	80	16966	71	129	1.1	1.0	29.6	33.5	23.0	4.69	1.20	89.0	3	1614
1615.0	12:52	11.9	18.9	7	73	76	80	16860	71	129	1.1	1.0	29.7	33.6	23.3	4.77	1.18	90.0	5	1615
1616.0	12:57	12.0	18.7	7	73	86	80	16801	72	130	1.1	1.0	29.9	33.6	23.7	4.86	1.19	91.0	6	1616
1617.0	13:00	18.7	18.7	7	73	94	80	16935	72	130	1.1	1.0	30.0	33.7	23.9	4.91	1.07	92.0	5	1617
1618.0	13:06	10.5	18.6	7	74	78	80	16980	72	130	1.1	1.0	30.1	35.3	24.3	5.00	1.22	93.0	6	1618
1619.0	13:09	18.5	18.6	8	74	96	80	16982	73	130	1.1	1.0	30.3	33.8	24.6	5.06	1.10	94.0	18	1619
1620.0	13:11	25.0	18.6	8	74	74	80	17024	73	130	1.1	1.0	30.4	33.7	24.8	5.10	1.01	95.0	25	1620
1621.0	13:15	14.9	18.6	7	74	70	80	17040	73	130	1.1	1.0	30.5	33.8	25.1	5.17	1.14	96.0	25	1621
1622.0	13:24	6.7	18.3	7	74	100	80	17096	73	130	1.1	1.1	30.7	34.2	25.7	5.31	1.35	97.0	10	1622
1623.0	13:30	10.7	18.1	8	74	97	80	17070	71	128	1.1	1.1	30.9	34.6	26.1	5.41	1.23	98.0	3	1623
1624.0	13:33	22.9	18.2	8	73	92	80	17043	72	128	1.1	1.1	31.0	34.6	26.3	5.45	1.02	99.0	2	1624

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1624.0	13:33	22.9	18.2	8	73	92	80	17043	72	128	1.1	1.1	31.0	34.6	26.3	5.45	1.02	99.0	2	1624
1625.0	13:35	23.5	18.2	8	74	82	80	17047	72	128	1.1	1.0	31.1	33.7	26.5	5.49	1.02	100.0	6	1625
1626.0	13:39	17.8	18.2	8	72	121	80	17093	72	128	1.1	1.0	31.2	33.7	26.7	5.55	1.07	101.0	4	1626
1627.0	13:44	11.8	18.1	8	73	100	80	17105	73	129	1.1	1.0	31.3	35.5	27.1	5.63	1.18	102.0	12	1627
1628.0	13:49	10.7	18.0	7	75	62	80	17113	73	128	1.1	1.0	31.5	33.8	27.5	5.73	1.19	103.0	26	1628
1629.0	13:52	19.3	18.0	7	75	73	80	17138	73	128	1.1	1.0	31.7	33.8	27.8	5.78	1.05	104.0	25	1629
1630.0	13:57	13.6	17.9	7	78	170	81	17307	74	128	1.1	1.1	31.8	33.8	28.1	5.85	1.14	105.0	13	1630
1631.0	14:01	14.6	17.9	7	78	153	81	17289	74	128	1.1	1.1	32.0	34.3	28.4	5.92	1.14	106.0	5	1631
1632.0	14:51	19.7	17.9	6	79	136	80	16967	74	127	1.1	1.1	32.1	39.3	28.7	5.97	1.02	107.0	9	1632
1633.0	14:53	40.0	18.0	3	78	83	76	15840	75	124	1.1	1.1	32.1	31.2	28.8	6.00	0.75	108.0	22	1633
1634.0	14:55	25.5	18.1	6	76	88	77	16038	75	124	1.1	1.1	32.2	29.7	29.0	6.04	0.98	109.0	18	1634
1635.0	14:58	20.7	18.1	6	77	81	78	16617	75	124	1.1	1.1	32.2	31.9	29.2	6.09	1.02	110.0	10	1635
1636.0	15:00	22.8	18.1	6	78	68	81	17531	76	124	1.1	1.1	32.3	33.8	29.4	6.13	0.98	111.0	7	1636
1637.0	15:04	18.1	18.1	6	77	76	81	17564	76	124	1.1	1.1	32.3	35.0	29.7	6.19	1.03	112.0	5	1637
1638.0	15:09	11.9	18.0	6	78	61	81	17576	77	124	1.1	1.1	32.3	31.2	30.0	6.27	1.13	113.0	5	1638
1639.0	15:13	13.9	18.0	5	77	89	81	17566	77	124	1.1	1.1	32.3	35.1	30.4	6.34	1.08	114.0	5	1639
1640.0	15:16	18.2	18.0	5	77	83	81	17565	77	124	1.1	1.1	32.3	35.4	30.6	6.40	1.01	115.0	6	1640
1641.0	15:19	27.3	18.0	5	77	76	81	17606	77	124	1.1	1.1	32.3	35.2	30.8	6.43	0.91	116.0	5	1641
1642.0	15:21	23.5	18.1	5	77	74	81	17597	78	124	1.1	1.1	32.3	32.0	30.9	6.48	0.95	117.0	5	1642
1643.0	15:24	21.6	18.1	5	77	82	81	17583	78	124	1.1	1.1	32.3	33.5	31.2	6.52	0.97	118.0	4	1643
1644.0	15:27	23.1	18.1	5	76	138	81	17668	79	124	1.1	1.1	32.3	32.7	31.4	6.57	0.96	119.0	0	1644
1645.0	15:30	16.3	18.1	5	77	118	81	17667	80	124	1.1	1.1	32.3	34.3	31.6	6.63	1.04	120.0	5	1645
1646.0	15:34	16.8	18.1	5	77	76	81	17626	80	124	1.1	1.1	32.3	32.1	32.0	6.69	1.05	121.0	4	1646
1647.0	15:37	18.7	18.1	5	77	105	81	17681	81	124	1.1	1.1	32.4	35.6	32.2	6.74	1.02	122.0	4	1647
1648.0	15:42	13.2	18.0	5	77	114	81	17741	81	124	1.1	1.1	32.4	36.5	32.5	6.82	1.10	123.0	3	1648
1649.0	15:46	12.7	18.0	5	76	153	81	17846	81	124	1.1	1.1	32.6	36.5	32.9	6.89	1.10	124.0	3	1649
1650.0	15:49	26.1	18.0	5	76	224	82	17972	81	124	1.1	1.1	32.7	36.5	33.1	6.93	0.93	125.0	3	1650
1651.0	15:51	21.4	18.1	6	76	189	81	17919	81	124	1.1	1.1	32.8	35.9	33.3	6.98	1.00	126.0	5	1651
1652.0	15:54	19.9	18.1	7	77	193	81	17882	81	124	1.1	1.1	32.9	36.2	33.5	7.03	1.04	127.0	5	1652
1653.0	15:58	15.1	18.0	7	73	238	81	17722	81	123	1.1	1.1	33.1	36.4	33.8	7.10	1.11	128.0	5	1653
1654.0	16:02	17.3	18.0	7	76	150	80	17344	82	124	1.1	1.1	33.2	35.8	34.1	7.15	1.07	129.0	4	1654
1655.0	16:06	13.0	18.0	6	77	113	80	17312	81	123	1.1	0.9	33.3	36.4	34.5	7.23	1.15	130.0	0	1655
1656.0	16:10	18.7	18.0	6	77	108	80	17367	81	123	1.1	1.1	33.4	36.4	34.7	7.28	1.06	131.0	9	1656
1657.0	16:13	17.0	18.0	7	77	107	80	17353	82	123	1.1	1.1	33.5	36.3	34.9	7.34	1.08	132.0	19	1657
1658.0	16:18	13.6	17.9	7	76	150	80	17406	82	123	1.1	1.1	33.6	36.3	35.2	7.42	1.13	133.0	13	1658
1659.0	16:22	13.4	17.9	8	76	142	80	17394	82	123	1.1	1.1	33.8	36.4	35.6	7.49	1.19	134.0	7	1659
1660.0	16:27	12.4	17.8	8	77	134	80	17406	83	123	1.1	1.1	33.9	36.7	36.0	7.57	1.24	135.0	5	1660
1661.0	16:35	7.1	17.6	8	75	205	80	17504	83	122	1.1	1.1	34.2	36.9	36.6	7.71	1.35	136.0	4	1661
1662.0	16:58	6.0	17.4	7	82	168	80	17173	86	123	1.1	1.1	34.5	36.6	37.4	7.88	1.36	137.0	3	1662
1663.0	17:12	4.4	17.0	8	84	126	79	17008	87	123	1.1	1.1	34.6	37.0	38.6	8.10	1.49	138.0	2	1663
1664.0	17:27	4.0	16.6	10	84	88	79	16956	89	123	1.1	1.1	34.7	36.9	39.8	8.36	1.63	139.0	2	1664
1665.0	17:29	41.9	16.7	13	84	114	80	17071	90	123	1.1	1.1	34.8	36.5	40.0	8.38	1.06	140.0	2	1665
1666.0	17:30	35.0	16.8	10	84	95	79	17038	90	123	1.1	1.1	34.8	36.3	40.0	8.41	1.04	141.0	2	1666
1667.0	17:33	26.7	16.8	9	83	176	79	17171	90	123	1.1	1.1	34.8	36.3	40.2	8.45	1.07	142.0	3	1667
1668.0	17:35	25.5	16.9	9	82	203	80	17289	90	122	1.1	1.1	34.9	36.6	40.5	8.49	1.08	143.0	3	1668
1669.0	17:37	30.5	16.9	8	87	84	79	17097	90	122	1.1	1.1	35.0	36.9	40.6	8.52	1.02	144.0	3	1669
1670.0	17:40	17.9	16.9	7	89	81	79	17135	90	122	1.1	1.1	35.0	37.8	40.9	8.57	1.14	145.0	3	1670
1671.0	17:42	28.3	17.0	7	88	209	80	17328	90	122	1.1	1.1	35.1	38.0	41.1	8.61	1.02	146.0	3	1671
1672.0	17:45	25.4	17.0	7	88	218	80	17337	89	121	1.1	1.1	35.2	38.2	41.3	8.65	1.05	147.0	2	1672
1673.0	17:56	9.6	16.9	5	74	278	80	17474	90	121	1.1	1.0	35.5	38.2	41.7	8.75	1.13	148.0	1	1673

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1673.0	17:56	9.6	16.9	5	74	278	80	17474	90	121	1.1	1.0	35.5	38.2	41.7	8.75	1.13	148.0	1	1673
1674.0	18:03	9.3	16.8	2	88	181	80	17319	90	120	1.1	1.1	35.8	38.3	42.4	8.86	0.99	149.0	2	1674
1675.0	18:14	7.3	16.7	2	83	186	80	17281	89	101	1.1	1.1	36.2	38.3	43.1	9.00	1.04	150.0	2	1675
1676.0	18:19	10.9	16.6	2	87	195	80	17333	89	95	1.1	1.1	36.4	38.3	43.5	9.09	0.94	151.0	2	1676
1677.0	18:25	11.0	16.6	7	88	172	80	17253	89	95	1.1	1.1	36.5	38.3	44.0	9.18	1.27	152.0	2	1677
1678.0	18:27	28.1	16.6	7	89	87	79	17113	89	95	1.1	1.1	36.6	38.3	44.2	9.22	1.02	153.0	2	1678
1679.0	18:29	35.3	16.7	7	88	114	79	17163	89	94	1.1	1.1	36.7	38.3	44.3	9.24	0.94	154.0	2	1679
1680.0	18:30	36.0	16.7	7	88	150	80	17258	89	94	1.1	1.1	36.7	38.3	44.4	9.27	0.94	155.0	2	1680
1681.0	18:42	23.4	16.7	5	79	91	78	16757	89	94	1.1	1.1	36.9	38.3	44.7	9.32	0.97	156.0	2	1681
1682.0	18:44	31.6	16.8	6	89	153	79	17250	89	94	1.1	1.1	36.9	38.3	44.9	9.35	0.93	157.0	1	1682
1683.0	18:46	27.5	16.8	6	89	136	79	17209	89	93	1.1	1.1	36.9	38.3	45.0	9.38	0.99	158.0	1	1683
1684.0	18:49	21.1	16.9	6	90	88	79	17184	89	93	1.1	1.1	36.9	38.3	45.3	9.43	1.06	159.0	2	1684
1685.0	18:53	14.2	16.8	6	88	153	80	17245	89	93	1.1	1.1	37.0	38.5	45.7	9.50	1.11	160.0	1	1685
1686.0	19:57	17.3	16.8	7	83	108	80	17330	89	92	1.1	1.0	38.0	39.7	45.9	9.56	1.13	161.0	0	1686
1687.0	20:01	15.0	16.8	9	87	186	80	17530	89	92	1.1	1.1	38.4	39.7	46.3	9.63	1.21	162.0	1	1687
1688.0	20:04	21.6	16.9	8	88	88	80	17382	89	93	1.1	1.1	38.5	39.7	46.5	9.67	1.13	163.0	1	1688
1689.0	20:06	25.0	16.9	7	88	105	80	17455	89	93	1.1	1.1	38.6	39.7	46.7	9.71	1.04	164.0	1	1689
1690.0	20:21	22.0	16.9	8	88	98	80	17341	89	93	1.1	1.0	38.7	39.7	47.0	9.76	1.09	165.0	0	1690
1691.0	20:22	54.5	17.0	11	89	117	80	17571	90	93	1.1	1.1	39.0	39.8	47.0	9.78	0.95	166.0	0	1691
1692.0	20:24	26.9	17.0	8	89	83	80	17566	89	93	1.1	1.1	39.0	39.8	47.2	9.81	1.04	167.0	1	1692
1693.0	20:29	12.9	17.0	4	89	109	80	17597	89	93	1.1	1.1	39.0	39.8	47.7	9.89	1.04	168.0	1	1693
1694.0	20:35	9.6	16.9	6	89	90	80	17607	89	93	1.1	1.1	39.1	39.7	48.2	10.00	1.21	169.0	2	1694
1695.0	20:40	10.9	16.9	6	88	155	80	17688	89	93	1.1	1.1	39.2	39.7	48.7	10.09	1.20	170.0	2	1695
1696.0	20:46	10.7	16.8	6	89	111	80	17557	89	92	1.1	1.1	39.2	39.7	49.2	10.18	1.21	171.0	2	1696
1697.0	20:49	20.1	16.8	6	88	136	80	17621	88	92	1.1	1.1	39.2	39.5	49.5	10.23	1.05	172.0	2	1697
1698.0	20:52	23.1	16.8	6	88	166	80	17690	88	92	1.1	1.1	39.2	39.6	49.7	10.27	1.00	173.0	1	1698
1699.0	20:54	27.5	16.9	6	88	165	80	17683	88	92	1.1	1.1	39.2	39.6	49.8	10.31	0.97	174.0	2	1699
1700.0	20:57	22.0	16.9	6	88	162	80	17700	88	92	1.1	1.1	39.2	39.7	50.1	10.36	1.00	175.0	1	1700
1701.0	21:05	23.8	16.9	5	84	178	75	16656	89	93	1.1	1.1	39.2	39.6	50.4	10.40	0.93	176.0	1	1701
1702.0	21:10	14.7	16.9	4	85	258	80	17584	89	92	1.1	1.1	39.2	39.6	50.7	10.47	1.01	177.0	1	1702
1703.0	21:13	15.9	16.9	3	86	194	80	17506	88	92	1.1	1.1	39.2	39.7	51.0	10.53	0.94	178.0	1	1703
1704.0	21:16	23.8	16.9	6	88	145	80	17480	88	92	1.1	1.1	39.1	39.7	51.2	10.57	1.00	179.0	1	1704
1705.0	21:19	20.5	17.0	6	88	90	79	17406	88	91	1.1	1.1	39.1	39.7	51.4	10.62	1.02	180.0	1	1705
1706.0	21:21	25.5	17.0	6	88	102	79	17439	88	91	1.1	1.1	39.1	39.7	51.7	10.66	0.99	181.0	1	1706
1707.0	21:23	36.0	17.0	5	88	78	80	17432	88	91	1.1	1.1	39.1	39.6	51.8	10.69	0.85	182.0	1	1707
1708.0	21:26	21.3	17.0	6	88	96	80	17428	88	91	1.1	0.9	39.1	39.7	52.1	10.73	1.00	183.0	0	1708
1709.0	21:28	23.7	17.1	5	88	89	79	17461	87	91	1.1	1.1	39.1	39.6	52.2	10.78	0.97	184.0	0	1709
1710.0	21:30	29.8	17.1	5	88	94	79	17479	87	91	1.1	1.1	39.1	39.6	52.4	10.81	0.90	185.0	0	1710
1711.0	21:33	19.4	17.1	5	88	91	79	17432	86	90	1.1	1.1	39.1	39.6	52.7	10.86	1.01	186.0	1	1711
1712.0	21:36	22.0	17.1	4	88	90	79	17442	86	90	1.1	1.1	39.1	39.7	53.0	10.91	0.93	187.0	1	1712
1713.0	21:39	19.7	17.2	4	89	103	79	17484	86	90	1.1	1.1	39.1	39.7	53.2	10.96	0.94	188.0	0	1713
1714.0	21:43	13.6	17.1	3	88	91	79	17436	86	90	1.1	1.1	39.1	39.7	53.6	11.03	0.97	189.0	1	1714
1715.0	21:48	12.9	17.1	4	88	104	79	17426	86	90	1.1	1.1	39.1	39.7	54.1	11.11	1.04	190.0	1	1715
1716.0	21:52	16.3	17.1	4	87	118	79	17378	86	90	1.1	1.1	39.2	39.6	54.3	11.17	1.02	191.0	1	1716
1717.0	21:56	13.7	17.1	3	88	155	80	17465	87	90	1.1	0.9	39.2	39.4	54.8	11.24	0.99	192.0	0	1717
1718.0	22:14	12.3	17.0	3	88	115	80	17461	87	91	1.1	1.1	39.3	39.6	55.2	11.32	0.98	193.0	1	1718
1719.0	22:16	31.9	17.1	3	87	146	81	18135	88	91	1.1	1.1	39.3	39.6	55.3	11.35	0.80	194.0	1	1719
1720.0	22:19	17.7	17.1	3	87	193	81	18167	87	91	1.1	1.1	39.3	39.6	55.6	11.41	0.90	195.0	1	1720
1721.0	22:21	30.5	17.1	3	87	212	81	18200	87	90	1.1	1.1	39.4	39.5	55.8	11.44	0.81	196.0	1	1721
1722.0	22:23	31.3	17.2	3	88	160	81	18124	86	90	1.1	1.1	39.4	41.0	56.0	11.48	0.82	197.0	1	1722

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1722.0	22:23	31.3	17.2	3	88	160	81	18124	86	90	1.1	1.1	39.4	41.0	56.0	11.48	0.82	197.0	1	1722
1723.0	22:26	19.9	17.2	1	87	192	81	18132	86	90	1.1	1.1	39.4	39.5	56.2	11.53	0.77	198.0	1	1723
1724.0	22:36	10.1	17.1	0	72	341	82	18365	86	90	1.1	1.1	39.5	39.4	56.7	11.63	0.64	199.0	1	1724
1725.0	22:47	15.6	17.1	0	83	148	80	17414	86	90	1.1	1.1	39.5	39.5	56.9	11.69	0.61	200.0	1	1725
1726.0	22:50	18.3	17.1	3	87	130	80	17296	86	89	1.1	1.1	39.5	39.5	57.3	11.74	0.91	201.0	1	1726
1727.0	22:55	10.7	17.1	4	87	130	80	17287	86	89	1.1	1.1	39.5	39.6	57.7	11.84	1.10	202.0	1	1727
1728.0	23:01	10.6	17.0	5	88	201	80	17411	86	89	1.1	1.1	39.6	39.7	58.3	11.93	1.12	203.0	1	1728
1729.0	23:08	9.3	16.9	2	87	89	80	17326	84	87	1.0	1.1	39.6	39.6	58.8	12.04	1.02	204.0	1	1729
1730.0	23:10	21.6	17.0	4	89	210	80	17400	85	89	1.1	1.1	39.7	39.7	59.1	12.09	0.94	205.0	1	1730
1731.0	23:21	5.8	16.8	6	90	147	80	17327	85	89	1.1	1.1	39.8	40.6	60.0	12.26	1.31	206.0	1	1731
1732.0	23:53	1.9	16.2	6	97	97	79	17296	85	89	1.1	1.1	40.0	41.1	63.0	12.79	1.63	207.0	0	1732
1733.0	00:09	3.7	15.9	7	83	89	79	17267	84	88	1.1	1.1	40.4	41.1	64.4	13.06	1.45	208.0	1	1733
1734.0	00:11	36.0	16.0	5	113	157	79	17423	84	88	1.1	1.1	40.5	41.1	64.5	13.09	0.90	209.0	9	1734
1735.0	00:12	45.0	16.0	5	114	148	79	17408	84	88	1.1	1.1	40.5	41.1	64.7	13.11	0.87	210.0	13	1735
1736.0	00:16	14.3	16.0	4	114	167	80	17434	84	88	1.1	1.1	40.5	41.1	65.2	13.18	1.09	211.0	12	1736
1737.0	00:19	19.6	16.0	6	117	217	80	17553	84	88	1.1	1.1	40.6	41.1	65.5	13.24	1.11	212.0	9	1737
1738.0	00:22	19.8	16.0	6	120	95	79	17466	84	88	1.1	1.1	40.6	41.1	65.9	13.29	1.10	213.0	9	1738
1739.0	00:37	4.1	15.8	7	95	77	79	17330	85	89	1.1	1.0	40.7	41.1	67.3	13.53	1.48	214.0	2	1739
1740.0	00:49	5.0	15.7	7	117	82	79	17414	85	89	1.1	1.1	40.8	41.1	68.7	13.73	1.48	215.0	1	1740
1741.0	00:51	25.4	15.7	6	116	121	79	17445	84	88	1.1	1.1	40.7	41.0	68.9	13.77	1.02	216.0	4	1741
1742.0	00:54	22.9	15.7	7	116	152	79	17406	84	88	1.1	1.1	40.7	41.1	69.3	13.81	1.09	217.0	4	1742
1743.0	00:57	22.5	15.7	6	112	94	79	17400	84	88	1.1	1.1	40.7	41.1	69.5	13.86	1.05	218.0	2	1743
1744.0	01:00	16.0	15.7	6	104	79	79	17338	85	89	1.1	1.1	40.6	41.1	69.9	13.92	1.13	219.0	3	1744
1745.0	01:04	17.6	15.7	6	103	113	79	17424	85	89	1.1	1.1	40.6	41.0	70.2	13.97	1.09	220.0	8	1745
1746.0	01:25	9.7	15.7	6	101	111	79	17375	85	89	1.1	1.1	40.6	41.0	70.8	14.08	1.24	221.0	6	1746
1747.0	01:29	13.9	15.7	9	88	162	78	17085	85	89	1.1	1.1	40.5	41.1	71.3	14.15	1.22	222.0	9	1747
1748.0	01:40	5.5	15.6	8	100	140	79	17385	84	88	1.1	1.1	40.6	41.1	72.3	14.33	1.43	223.0	4	1748
1749.0	01:53	4.5	15.4	9	100	107	79	17434	84	88	1.1	1.1	40.7	41.1	73.6	14.56	1.53	224.0	2	1749
1750.0	02:04	5.6	15.3	8	114	85	79	17518	84	88	1.1	1.1	40.8	41.1	74.9	14.74	1.48	225.0	2	1750
1751.0	02:10	10.6	15.2	8	114	93	79	17565	84	88	1.1	1.1	40.9	41.1	75.5	14.83	1.32	226.0	3	1751
1752.0	02:20	6.0	15.1	8	113	131	80	17617	84	88	1.1	1.1	41.0	41.1	76.7	15.00	1.46	227.0	2	1752
1753.0	02:32	5.0	15.0	8	113	133	79	17524	84	89	1.1	1.0	41.1	41.1	77.9	15.20	1.49	228.0	1	1753
1754.0	02:43	5.3	14.9	7	113	156	80	17571	84	88	1.1	1.1	41.2	41.1	79.2	15.38	1.45	229.0	2	1754
1755.0	02:55	5.0	14.8	8	110	119	79	17571	84	88	1.1	1.0	41.3	41.0	80.5	15.58	1.49	230.0	1	1755
1756.0	03:01	10.4	14.7	8	113	134	79	17601	84	88	1.1	1.1	41.6	41.0	81.2	15.68	1.31	231.0	2	1756
1757.0	03:03	33.6	14.8	5	112	208	80	17630	84	88	1.1	1.1	41.7	41.0	81.3	15.71	0.90	232.0	2	1757
1758.0	03:15	26.1	14.8	4	110	173	80	17527	84	88	1.1	1.1	41.7	41.1	81.7	15.75	0.90	233.0	2	1758
1759.0	03:16	34.0	14.8	5	113	138	79	17159	84	88	1.1	1.1	41.7	41.1	81.8	15.78	0.89	234.0	2	1759
1760.0	03:18	47.4	14.9	5	115	89	79	17390	84	88	1.1	1.1	41.7	41.0	82.0	15.80	0.82	235.0	2	1760
1761.0	03:19	45.0	14.9	5	116	91	79	17430	84	88	1.1	1.1	41.7	41.0	82.1	15.82	0.84	236.0	2	1761
1762.0	03:20	44.4	15.0	4	115	99	79	17455	84	88	1.1	1.1	41.7	41.0	82.3	15.84	0.83	237.0	2	1762
1763.0	03:21	46.8	15.0	3	116	84	79	17433	84	88	1.1	1.1	41.7	40.9	82.4	15.87	0.77	238.0	2	1763
1764.0	03:23	45.6	15.0	3	116	77	79	17438	84	88	1.1	1.1	41.7	41.0	82.5	15.89	0.76	239.0	2	1764
1765.0	03:47	4.4	14.9	6	114	80	78	16817	84	88	1.1	1.1	41.7	41.0	84.1	16.12	1.46	240.0	2	1765
1766.0	04:04	3.6	14.7	7	114	83	79	17392	83	87	1.1	1.1	41.7	41.1	86.0	16.40	1.57	241.0	1	1766
1767.0	04:24	3.1	14.5	7	102	98	79	17288	82	86	1.1	1.1	41.7	41.3	88.0	16.73	1.57	242.0	1	1767
1768.0	04:35	5.1	14.4	7	97	125	79	17278	82	86	1.1	1.1	41.8	43.1	89.2	16.92	1.45	243.0	1	1768
1769.0	04:45	6.0	14.3	7	97	119	79	17304	82	86	1.1	1.1	42.0	43.1	90.1	17.09	1.37	244.0	1	1769
1770.0	04:48	22.9	14.3	7	97	100	79	17313	82	86	1.1	1.1	42.1	43.1	90.4	17.13	1.06	245.0	2	1770
1771.0	04:56	7.1	14.2	7	98	88	79	17323	82	86	1.1	1.1	42.1	43.1	91.2	17.27	1.34	246.0	2	1771

292118

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1771.0	04:56	7.1	14.2	7	98	88	79	17323	82	86	1.1	1.1	42.1	43.1	91.2	17.27	1.34	246.0	2	1771
1772.0	05:09	4.9	14.1	7	98	116	79	17418	82	86	1.1	1.1	42.3	43.1	92.4	17.48	1.47	247.0	2	1772
1773.0	05:10	34.6	14.2	6	98	188	79	17630	81	85	1.1	1.1	42.4	43.1	92.6	17.50	0.93	248.0	1	1773
1774.0	05:15	13.2	14.2	6	99	105	79	17499	81	85	1.1	1.1	42.4	43.1	93.0	17.58	1.18	249.0	1	1774
1775.0	05:21	10.6	14.1	7	99	111	79	17492	81	85	1.1	1.1	42.5	43.1	93.6	17.67	1.25	250.0	1	1775

BR4 NB2 DRILLED 250m in 17.8 RHOB, AVE ROP 14.1 m/hr, KREVS 94.1

NB2 SMITH FDGH (JETS 2X11,1X10) 216mm, POH TO CHANGE BIT.

292119

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 5

DATE 10-DEC-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	1520.000	CASING SIZE	244.000
BIT SIZE	216.000	BIT NUMBER & TYPE	BR5 NB3 SMITH F2
RIG COST/HR	5254.000	INITIAL COST	49089.000
TRIP TIME	8.500	PUMP CAP LITS.STK	18.988
BIT COST	4430.000	JET SIZES	11 11 10 0
START DRILLING	1775.000		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.08	49	13	19	5/ 10	9.4	8.60	1.00	2.80	0.50

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1776.0	14:57	10.6	10.6	5	78	81	75	16473	65	83	1.1	1.1	29.7	34.0	0.4	0.09	1.12	1.0	2	1776
1777.0	15:02	12.0	11.3	6	83	79	79	17576	65	83	1.1	1.1	29.1	34.1	0.8	0.18	1.16	2.0	1	1777
1778.0	15:05	19.7	13.1	5	83	83	79	17609	64	83	1.1	1.1	28.6	34.2	1.1	0.23	1.02	3.0	1	1778
1779.0	15:08	20.1	14.4	6	83	81	79	17524	65	83	1.1	1.1	28.3	34.0	1.3	0.28	1.05	4.0	1	1779
1780.0	15:12	16.7	14.8	6	83	104	79	17541	67	84	1.0	1.1	28.1	34.4	1.6	0.34	1.09	5.0	1	1780
1781.0	15:15	17.2	15.2	5	83	111	79	17553	69	87	1.0	1.1	28.0	37.7	1.9	0.40	1.05	6.0	1	1781
1782.0	15:19	18.2	15.5	5	84	71	79	17469	71	89	1.0	1.1	28.0	37.9	2.2	0.45	1.04	7.0	1	1782
1783.0	15:22	19.9	16.0	5	83	78	79	17501	72	90	1.0	1.1	28.1	37.9	2.4	0.50	1.03	8.0	0	1783
1784.0	15:25	18.3	16.2	5	84	72	79	17492	73	91	1.0	0.9	28.4	33.9	2.7	0.56	1.02	9.0	0	1784
1785.0	15:29	14.0	15.9	5	88	74	79	17477	74	92	1.0	1.1	28.7	36.5	3.0	0.63	1.12	10.0	0	1785
1786.0	15:33	14.1	15.7	6	94	78	79	17541	75	93	1.0	1.1	29.1	37.6	3.4	0.70	1.16	11.0	1	1786
1787.0	15:36	23.8	16.2	7	94	81	79	17555	76	94	1.0	1.1	29.5	37.5	3.7	0.74	1.07	12.0	1	1787
1788.0	15:39	21.7	16.5	7	94	80	79	17580	76	95	1.0	1.1	29.8	37.6	4.0	0.79	1.08	13.0	1	1788
1789.0	15:42	19.6	16.7	7	94	83	79	17561	76	95	1.0	1.1	30.2	37.8	4.3	0.84	1.14	14.0	1	1789
1790.0	15:45	21.6	17.0	7	94	84	79	17577	77	96	1.0	1.1	30.5	38.0	4.5	0.88	1.12	15.0	1	1790
1791.0	15:47	21.3	17.2	7	94	84	79	17580	77	96	1.0	1.1	30.9	37.9	4.8	0.93	1.10	16.0	1	1791
1792.0	15:50	20.9	17.4	8	94	91	79	17601	78	97	1.0	1.1	31.3	37.9	5.0	0.98	1.13	17.0	1	1792
1793.0	15:53	20.0	17.5	8	94	86	79	17589	78	97	1.0	0.8	31.6	37.0	5.3	1.03	1.14	18.0	0	1793
1794.0	15:56	22.5	17.7	8	94	84	79	17580	79	98	1.1	1.1	32.0	37.0	5.5	1.07	1.11	19.0	0	1794
1795.0	15:58	27.1	18.0	7	93	91	79	17599	80	98	1.1	1.1	32.2	37.7	5.7	1.11	1.06	20.0	0	1795
1796.0	16:00	26.5	18.3	7	93	100	79	17603	80	99	1.1	1.1	32.5	37.8	6.0	1.15	1.06	21.0	1	1796
1797.0	16:02	41.9	18.8	7	94	87	79	17615	81	100	1.1	1.1	32.7	37.6	6.1	1.17	0.94	22.0	1	1797
1798.0	16:03	35.0	19.2	7	94	88	79	17609	81	100	1.1	1.1	32.8	37.2	6.3	1.20	0.98	23.0	1	1798
1799.0	16:05	35.0	19.5	8	94	89	79	17612	81	100	1.1	1.1	33.0	37.4	6.4	1.23	0.99	24.0	1	1799
1800.0	16:17	18.9	19.5	5	90	74	78	17119	83	102	1.1	1.1	33.6	38.1	6.8	1.28	1.05	25.0	0	1800
1801.0	16:19	23.1	19.6	6	94	77	79	17458	83	103	1.1	1.1	33.9	38.5	6.9	1.33	1.01	26.0	0	1801
1802.0	16:22	22.2	19.7	6	94	87	79	17464	84	103	1.1	1.1	34.1	38.5	7.2	1.37	1.01	27.0	0	1802
1803.0	16:24	25.4	19.9	6	94	79	79	17443	84	104	1.1	1.1	34.2	38.5	7.4	1.41	0.98	28.0	0	1803
1804.0	16:27	23.1	20.0	5	93	76	78	17242	84	104	1.1	1.1	34.3	38.5	7.7	1.45	0.98	29.0	0	1804
1805.0	16:46	19.0	19.9	5	94	76	78	17141	86	106	1.1	1.1	34.9	38.8	7.9	1.51	1.00	30.0	0	1805
1806.0	16:48	25.0	20.1	6	94	85	79	17690	87	106	1.1	1.0	35.2	38.7	8.1	1.55	0.99	31.0	0	1806
1807.0	16:54	10.0	19.5	7	94	85	79	17675	87	107	1.1	1.1	35.3	38.8	8.7	1.65	1.26	32.0	0	1807
1808.0	17:01	9.2	18.8	10	93	98	79	17631	87	107	1.1	1.1	35.5	38.7	9.3	1.75	1.41	33.0	0	1808
1809.0	17:05	13.5	18.6	12	93	102	79	17618	87	107	1.1	0.9	35.7	38.0	9.8	1.83	1.37	34.0	0	1809
1810.0	17:07	37.9	18.9	11	93	168	79	17690	87	107	1.1	1.1	35.8	36.4	9.9	1.85	1.05	35.0	0	1810
1811.0	17:08	55.4	19.2	9	93	117	79	17662	87	107	1.1	1.1	35.9	38.3	10.0	1.87	0.90	36.0	0	1811
1812.0	17:09	51.4	19.6	8	93	113	79	17651	87	107	1.1	1.1	36.0	38.7	10.1	1.89	0.89	37.0	0	1812
1813.0	17:11	41.4	19.8	6	93	118	79	17647	87	107	1.1	1.1	36.0	38.7	10.3	1.92	0.89	38.0	0	1813
1814.0	17:12	47.4	20.1	5	92	145	79	17614	87	107	1.1	1.1	36.1	38.7	10.4	1.94	0.82	39.0	0	1814
1815.0	17:14	35.0	20.3	5	94	88	79	17623	87	107	1.1	1.1	36.1	38.7	10.5	1.97	0.89	40.0	0	1815
1816.0	17:15	40.4	20.6	5	93	109	79	17663	87	107	1.1	1.1	36.2	38.5	10.6	1.99	0.85	41.0	0	1816
1817.0	17:17	40.4	20.8	5	94	83	79	17655	87	107	1.1	1.1	36.2	38.5	10.7	2.02	0.86	42.0	0	1817
1818.0	17:18	44.4	21.1	6	93	89	79	17665	87	107	1.1	1.1	36.3	38.5	10.9	2.04	0.85	43.0	0	1818
1819.0	17:20	30.5	21.2	6	93	86	79	17619	86	106	1.1	1.1	36.4	38.7	11.1	2.07	0.96	44.0	0	1819
1820.0	17:22	29.8	21.4	7	93	97	79	17645	86	106	1.1	1.1	36.4	38.9	11.3	2.10	0.97	45.0	0	1820
1821.0	17:24	31.9	21.5	7	93	105	79	17687	86	107	1.1	1.1	36.5	39.0	11.4	2.14	0.98	46.0	0	1821
1822.0	17:25	38.3	21.7	7	93	139	79	17730	86	106	1.1	1.1	36.6	38.9	11.6	2.16	0.92	47.0	0	1822
1823.0	17:27	30.5	21.9	7	93	88	79	17734	86	106	1.1	1.1	36.6	39.2	11.8	2.19	0.99	48.0	0	1823
1824.0	17:29	28.8	22.0	7	93	139	79	17796	86	106	1.1	1.1	36.7	38.9	12.0	2.23	1.00	49.0	0	1824
1825.0	17:31	43.9	22.2	8	93	125	79	17839	86	106	1.1	1.1	36.7	39.1	12.1	2.25	0.93	50.0	0	1825

292120

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1825.0	17:31	43.9	22.2	8	93	125	79	17839	86	106	1.1	1.1	36.7	39.1	12.1	2.25	0.93	50.0	0	1825
1826.0	17:32	48.0	22.4	9	93	108	79	17846	86	106	1.1	1.1	36.8	39.0	12.2	2.27	0.93	51.0	0	1826
1827.0	17:34	40.0	22.6	9	93	107	79	17865	86	106	1.1	1.1	36.8	39.1	12.4	2.30	0.96	52.0	0	1827
1828.0	17:35	45.0	22.8	9	93	147	80	17946	86	106	1.1	1.1	36.9	39.1	12.5	2.32	0.93	53.0	0	1828
1829.0	17:36	40.4	23.0	8	94	101	80	17895	86	106	1.1	1.1	36.9	39.1	12.6	2.34	0.95	54.0	0	1829
1830.0	17:38	40.4	23.2	9	93	110	79	17918	86	106	1.1	1.1	37.0	39.1	12.7	2.37	0.97	55.0	0	1830
1831.0	17:39	43.4	23.4	9	93	118	80	17911	86	106	1.1	1.1	37.0	39.2	12.8	2.39	0.96	56.0	0	1831
1832.0	17:41	42.9	23.6	9	93	104	79	17930	86	106	1.1	1.1	37.1	39.3	13.0	2.42	0.96	57.0	0	1832
1833.0	17:42	38.3	23.7	9	94	101	79	17932	86	106	1.1	1.1	37.1	39.3	13.1	2.44	0.97	58.0	0	1833
1834.0	17:53	27.5	23.8	6	94	85	80	17929	86	106	1.1	1.1	37.2	39.6	13.4	2.48	0.98	59.0	0	1834
1835.0	17:55	27.5	23.9	8	95	114	81	18638	88	106	1.1	1.1	37.4	39.7	13.6	2.51	1.05	60.0	0	1835
1836.0	17:58	21.8	23.8	7	95	102	80	18226	87	106	1.1	1.1	37.5	39.7	13.8	2.56	1.08	61.0	0	1836
1837.0	17:59	44.4	24.0	9	95	116	80	18270	86	106	1.1	1.1	37.5	39.5	14.0	2.58	0.95	62.0	0	1837
1838.0	18:00	63.2	24.2	9	95	115	80	18270	86	106	1.1	1.1	37.5	39.4	14.1	2.60	0.87	63.0	0	1838
1839.0	18:01	52.2	24.4	9	95	117	80	18306	86	106	1.1	1.1	37.5	39.4	14.2	2.62	0.92	64.0	0	1839
1840.0	18:03	36.0	24.6	11	95	120	80	18274	86	105	1.1	1.1	37.6	39.4	14.3	2.65	1.06	65.0	0	1840
1841.0	18:05	35.6	24.7	8	95	109	80	18215	86	105	1.1	1.1	37.6	39.5	14.5	2.67	0.98	66.0	0	1841
1842.0	18:07	34.0	24.8	6	95	99	80	18203	86	105	1.1	1.1	37.7	39.5	14.6	2.70	0.91	67.0	0	1842
1843.0	18:10	19.8	24.7	9	95	95	80	18170	85	105	1.1	1.1	37.7	39.5	14.9	2.75	1.15	68.0	0	1843
1844.0	18:11	34.0	24.8	8	95	106	80	18182	85	105	1.1	1.1	37.7	39.6	15.0	2.78	0.97	69.0	0	1844
1845.0	18:13	42.4	24.9	6	95	160	80	18239	85	105	1.1	1.1	37.7	39.6	15.2	2.81	0.87	70.0	0	1845
1846.0	18:15	23.1	24.9	9	95	120	80	18185	85	105	1.1	1.1	37.8	39.7	15.4	2.85	1.10	71.0	0	1846
1847.0	18:18	22.6	24.9	8	95	134	80	18205	85	105	1.1	1.1	37.8	39.6	15.7	2.89	1.10	72.0	0	1847
1848.0	18:22	16.1	24.7	9	95	108	80	18175	85	105	1.1	0.9	37.9	39.6	16.0	2.96	1.22	73.0	0	1848
1849.0	18:25	16.8	24.5	9	95	87	80	18153	85	105	1.1	1.2	37.9	38.8	16.4	3.02	1.19	74.0	0	1849
1850.0	18:31	10.2	24.1	10	95	95	80	18158	85	104	1.1	1.2	38.0	39.6	17.0	3.11	1.35	75.0	1	1850
1851.0	18:34	20.7	24.0	7	95	125	80	18184	85	104	1.1	1.2	38.1	39.3	17.2	3.16	1.09	76.0	1	1851
1852.0	18:37	20.3	24.0	7	95	106	80	18126	84	104	1.1	1.2	38.1	39.4	17.5	3.21	1.08	77.0	1	1852
1853.0	18:39	25.2	24.0	8	95	105	80	18136	84	104	1.1	1.2	38.2	39.5	17.8	3.25	1.06	78.0	1	1853
1854.0	18:42	23.2	24.0	9	95	130	81	18185	84	104	1.1	1.2	38.2	39.7	18.0	3.29	1.12	79.0	1	1854
1855.0	18:45	21.6	23.9	8	95	133	80	18155	85	104	1.1	1.2	38.2	39.7	18.2	3.34	1.08	80.0	1	1855
1856.0	18:48	22.2	23.9	9	94	191	81	18233	85	104	1.1	1.2	38.3	39.9	18.4	3.39	1.10	81.0	0	1856
1857.0	18:49	31.9	24.0	9	95	177	80	18236	85	104	1.1	1.2	38.3	39.9	18.6	3.42	1.01	82.0	0	1857
1858.0	18:51	31.9	24.1	9	94	164	81	18215	85	104	1.1	1.2	38.4	39.9	18.8	3.45	1.02	83.0	0	1858
1859.0	18:53	34.0	24.2	8	95	111	80	18158	85	104	1.1	1.2	38.4	40.0	19.0	3.48	1.00	84.0	1	1859
1860.0	18:55	27.3	24.2	9	95	127	80	18206	84	104	1.1	1.2	38.4	40.0	19.2	3.51	1.08	85.0	1	1860
1861.0	18:57	35.3	24.3	10	95	118	80	18196	84	104	1.1	1.2	38.5	40.1	19.4	3.54	1.03	86.0	1	1861
1862.0	19:09	27.9	24.3	9	95	102	80	18009	84	104	1.1	1.2	38.5	40.4	19.6	3.58	1.06	87.0	1	1862
1863.0	19:12	26.1	24.3	8	96	99	80	18244	86	104	1.1	1.2	38.7	40.4	19.8	3.62	1.06	88.0	3	1863
1864.0	19:14	30.3	24.4	9	96	91	80	18270	84	103	1.1	1.1	38.8	40.5	20.0	3.65	1.06	89.0	3	1864
1865.0	19:21	8.5	23.9	10	96	99	80	18287	84	103	1.1	1.2	38.8	40.6	20.7	3.77	1.41	90.0	1	1865
1866.0	19:29	7.3	23.3	11	95	99	80	18190	84	103	1.1	1.2	38.9	40.5	21.5	3.91	1.49	91.0	1	1866
1867.0	19:35	10.1	23.0	9	89	87	80	18125	84	103	1.1	1.2	39.2	40.4	21.9	4.00	1.30	92.0	1	1867
1868.0	19:38	16.7	22.9	9	89	97	80	18116	84	103	1.1	1.0	39.2	40.0	22.3	4.06	1.16	93.0	1	1868
1869.0	19:41	25.5	22.9	9	95	110	80	18127	84	103	1.1	1.2	39.3	39.7	22.5	4.10	1.08	94.0	0	1869
1870.0	19:47	9.4	22.6	10	95	104	80	18155	84	103	1.1	1.2	39.4	40.2	23.0	4.21	1.38	95.0	1	1870
1871.0	19:53	10.9	22.3	9	95	100	80	18119	83	103	1.1	1.2	39.4	40.3	23.6	4.30	1.32	96.0	1	1871
1872.0	19:59	9.8	22.0	11	95	107	80	18114	83	102	1.1	1.2	39.5	40.4	24.2	4.40	1.41	97.0	1	1872
1873.0	20:07	7.0	21.6	8	101	91	80	18163	83	102	1.1	1.1	39.6	40.6	25.0	4.55	1.40	98.0	0	1873
1874.0	20:13	11.6	21.4	7	106	103	80	18252	84	102	1.1	1.0	39.7	35.1	25.6	4.63	1.24	99.0	0	1874

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1874.0	20:13	11.6	21.4	7	106	103	80	18252	84	102	1.1	1.0	39.7	35.1	25.6	4.63	1.24	99.0	0	1874
1875.0	20:15	29.3	21.4	7	104	184	80	18350	84	102	1.1	1.1	39.8	40.2	25.8	4.67	0.99	100.0	0	1875
1876.0	20:16	33.3	21.5	7	105	110	80	18270	84	102	1.1	1.1	39.8	40.1	26.0	4.70	0.96	101.0	1	1876
1877.0	20:18	38.3	21.6	7	106	94	80	18252	84	102	1.1	1.1	39.9	40.0	26.1	4.72	0.93	102.0	1	1877
1878.0	20:20	32.1	21.7	7	105	104	80	18227	84	102	1.1	1.1	39.9	40.1	26.3	4.75	0.97	103.0	1	1878
1879.0	20:28	22.4	21.7	5	105	85	81	18515	85	102	1.1	1.1	40.0	40.4	26.6	4.80	1.00	104.0	0	1879
1880.0	20:30	25.0	21.7	5	105	83	80	18275	84	102	1.1	1.1	40.0	40.4	26.8	4.84	0.94	105.0	1	1880
1881.0	20:32	35.3	21.8	5	106	126	80	18331	84	102	1.1	1.1	40.0	40.3	27.0	4.87	0.91	106.0	1	1881
1882.0	20:34	29.8	21.8	6	105	129	80	18359	84	102	1.1	1.1	40.1	40.6	27.2	4.90	0.97	107.0	2	1882
1883.0	20:37	21.6	21.8	8	105	97	80	18322	84	102	1.1	1.1	40.1	40.7	27.5	4.95	1.11	108.0	2	1883
1884.0	20:39	26.9	21.9	8	105	101	80	18379	84	102	1.1	1.1	40.1	40.7	27.8	4.98	1.05	109.0	1	1884
1885.0	20:41	35.3	21.9	9	104	109	80	18413	83	102	1.1	1.1	40.1	40.6	27.9	5.01	1.01	110.0	1	1885
1886.0	20:42	34.3	22.0	9	104	108	80	18458	84	102	1.1	1.1	40.1	40.7	28.1	5.04	1.03	111.0	1	1886
1887.0	20:44	34.0	22.1	9	105	128	80	18477	83	102	1.1	1.1	40.1	40.6	28.3	5.07	1.03	112.0	1	1887
1888.0	20:47	24.8	22.1	10	104	114	80	18434	83	102	1.1	1.1	40.2	40.4	28.5	5.11	1.16	113.0	1	1888
1889.0	20:48	36.4	22.2	8	104	104	80	18433	83	102	1.1	1.1	40.2	40.4	28.7	5.14	0.98	114.0	1	1889
1890.0	20:50	33.3	22.2	7	104	115	80	18374	83	102	1.1	1.1	40.2	40.4	28.8	5.17	0.98	115.0	1	1890
1891.0	21:03	24.5	22.3	6	106	94	79	17670	84	102	1.1	1.1	40.2	40.8	29.1	5.21	0.99	116.0	1	1891
1892.0	21:04	43.4	22.4	7	106	174	78	17529	84	101	1.1	1.1	40.2	41.0	29.3	5.23	0.92	117.0	1	1892
1893.0	21:06	32.4	22.4	7	106	184	78	17650	83	101	1.1	1.1	40.2	40.9	29.5	5.26	0.96	118.0	1	1893
1894.0	21:08	38.3	22.5	6	107	139	78	17615	83	101	1.1	1.1	40.2	40.9	29.6	5.29	0.92	119.0	1	1894
1895.0	21:09	39.1	22.6	6	107	100	78	17609	83	101	1.1	1.1	40.2	40.9	29.9	5.32	0.90	120.0	1	1895
1896.0	21:11	37.9	22.7	6	107	107	78	17618	83	101	1.1	1.1	40.2	41.0	30.0	5.34	0.91	121.0	1	1896
1897.0	21:13	32.4	22.7	6	107	101	78	17634	83	101	1.1	1.1	40.2	60.4	30.2	5.37	0.94	122.0	1	1897
1898.0	21:19	9.7	22.5	7	107	102	78	17650	82	101	1.1	1.1	40.2	41.5	30.8	5.48	1.29	123.0	1	1898
1899.0	21:23	14.1	22.4	6	107	112	78	17594	82	101	1.1	1.1	40.2	41.5	31.3	5.55	1.15	124.0	1	1899
1900.0	21:25	25.5	22.4	6	107	94	78	17548	82	101	1.1	1.1	40.2	41.4	31.5	5.59	1.01	125.0	1	1900
1901.0	21:29	19.0	22.3	5	108	98	78	17523	82	101	1.1	1.1	40.2	41.3	31.9	5.64	1.04	126.0	1	1901
1902.0	21:31	28.8	22.4	6	107	93	78	17471	82	101	1.1	1.1	40.2	41.4	32.1	5.67	0.96	127.0	1	1902
1903.0	21:32	34.6	22.5	7	107	101	78	17501	82	101	1.1	1.1	40.2	41.4	32.2	5.70	0.95	128.0	1	1903
1904.0	21:34	28.6	22.5	8	107	124	78	17547	83	101	1.1	1.1	40.2	41.5	32.5	5.74	1.03	129.0	1	1904
1905.0	21:37	23.2	22.5	9	107	135	78	17567	83	101	1.1	1.1	40.2	41.6	32.8	5.78	1.15	130.0	2	1905
1906.0	21:40	23.2	22.5	8	107	93	78	17560	82	101	1.1	1.1	40.2	41.7	33.0	5.82	1.10	131.0	5	1906
1907.0	21:41	33.0	22.6	7	107	89	78	17499	82	101	1.1	1.1	40.2	41.6	33.2	5.85	0.97	132.0	7	1907
1908.0	21:43	30.3	22.6	6	107	95	78	17437	82	101	1.1	1.1	40.2	41.5	33.4	5.89	0.98	133.0	7	1908
1909.0	21:46	21.8	22.6	8	107	177	78	17550	82	100	1.1	1.1	40.2	41.7	33.8	5.93	1.10	134.0	6	1909
1910.0	21:49	23.7	22.6	8	107	102	78	17471	82	100	1.1	1.1	40.2	41.0	34.0	5.97	1.10	135.0	3	1910
1911.0	21:52	17.1	22.5	9	107	106	78	17590	82	101	1.1	0.8	40.3	23.6	34.4	6.03	1.23	136.0	0	1911
1912.0	21:56	15.0	22.5	9	107	103	78	17724	84	102	1.1	1.2	40.3	40.1	34.9	6.10	1.24	137.0	0	1912
1913.0	22:03	8.5	22.2	10	107	110	78	17723	84	102	1.1	1.1	40.4	41.0	35.5	6.22	1.44	138.0	1	1913
1914.0	22:07	16.3	22.1	8	107	96	78	17624	83	101	1.1	1.1	40.4	41.1	35.9	6.28	1.21	139.0	1	1914
1915.0	22:15	7.6	21.8	8	107	92	78	17580	83	101	1.1	1.1	40.5	41.2	36.8	6.41	1.39	140.0	1	1915
1916.0	22:22	8.7	21.6	10	107	100	78	17611	81	100	1.1	1.1	40.6	41.6	37.5	6.52	1.42	141.0	1	1916
1917.0	22:28	10.1	21.4	11	106	146	78	17558	80	99	1.1	1.1	40.6	41.5	38.1	6.62	1.41	142.0	1	1917
1918.0	22:53	7.4	21.2	9	106	175	80	18344	81	99	1.1	1.1	40.7	40.4	39.0	6.76	1.42	143.0	1	1918
1919.0	23:00	9.3	21.0	8	106	147	81	18699	80	99	1.1	1.1	40.6	41.5	39.6	6.87	1.36	144.0	1	1919
1920.0	23:07	8.3	20.8	10	106	185	81	18737	80	99	1.1	1.1	40.5	41.5	40.4	6.99	1.45	145.0	1	1920
1921.0	23:12	12.2	20.7	10	107	112	80	18459	80	98	1.1	1.1	40.4	41.5	40.9	7.07	1.35	146.0	1	1921
1922.0	23:14	23.5	20.7	9	106	115	79	18085	81	99	1.1	1.1	40.4	41.4	41.3	7.11	1.16	147.0	1	1922
1923.0	23:16	37.1	20.7	8	106	115	79	18150	81	99	1.1	1.1	40.4	40.6	41.4	7.14	0.99	148.0	1	1923

292122

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1923.0	23:16	37.1	20.7	8	106	115	79	18150	81	99	1.1	1.1	40.4	40.6	41.4	7.14	0.99	148.0	1	1923
1924.0	23:17	52.2	20.8	8	106	116	79	18168	81	99	1.1	1.1	40.4	40.5	41.5	7.16	0.91	149.0	1	1924
1925.0	23:18	58.1	20.9	8	106	119	79	18225	81	99	1.1	1.1	40.4	41.2	41.6	7.17	0.88	150.0	1	1925
1926.0	23:19	80.0	21.0	7	106	115	79	18214	81	99	1.1	1.1	40.4	41.3	41.7	7.19	0.79	151.0	1	1926
1927.0	23:20	69.2	21.1	7	106	114	79	18254	82	100	1.1	0.7	40.4	28.0	41.8	7.20	0.81	152.0	0	1927
1928.0	23:27	15.8	21.1	7	105	97	79	18246	82	99	1.1	1.1	40.4	38.3	42.2	7.26	1.15	153.0	0	1928
1929.0	23:31	15.8	21.0	10	109	115	80	18427	80	98	1.1	1.1	40.4	41.1	42.5	7.33	1.28	154.0	1	1929
1930.0	23:32	36.4	21.1	9	109	115	80	18437	80	98	1.1	1.1	40.4	40.8	42.8	7.35	1.05	155.0	1	1930
1931.0	23:36	17.8	21.0	9	109	110	80	18442	80	98	1.1	1.1	40.4	40.9	43.1	7.41	1.22	156.0	0	1931
1932.0	23:38	32.7	21.1	9	109	124	80	18497	80	98	1.1	1.1	40.4	40.9	43.3	7.44	1.07	157.0	0	1932
1933.0	23:39	45.0	21.2	7	109	142	80	18554	79	98	1.1	1.1	40.4	41.0	43.4	7.46	0.92	158.0	0	1933
1934.0	23:41	35.6	21.2	7	109	168	80	18596	79	98	1.1	1.1	40.4	41.1	43.7	7.49	0.99	159.0	0	1934
1935.0	23:42	38.3	21.3	9	109	138	80	18586	79	98	1.1	1.1	40.4	41.1	43.9	7.52	1.03	160.0	1	1935
1936.0	23:43	51.4	21.4	8	109	127	80	18625	79	98	1.1	1.1	40.4	41.2	44.0	7.54	0.91	161.0	0	1936
1937.0	23:44	54.5	21.4	7	109	138	80	18622	79	98	1.1	1.1	40.4	41.1	44.1	7.56	0.89	162.0	0	1937
1938.0	23:45	57.1	21.5	7	110	112	80	18607	79	98	1.1	1.1	40.4	41.1	44.2	7.57	0.85	163.0	0	1938
1939.0	23:48	24.2	21.5	8	110	107	80	18608	79	98	1.1	1.1	40.4	41.2	44.4	7.61	1.12	164.0	0	1939
1940.0	23:50	24.0	21.6	7	110	103	80	18603	79	98	1.1	1.1	40.4	41.3	44.8	7.66	1.09	165.0	0	1940
1941.0	23:52	49.3	21.6	9	109	112	80	18608	79	98	1.1	1.1	40.4	41.2	44.9	7.68	0.94	166.0	1	1941
1942.0	23:54	25.4	21.6	9	110	123	80	18623	79	98	1.1	1.1	40.4	41.3	45.1	7.72	1.12	167.0	2	1942
1943.0	23:56	32.1	21.7	9	109	141	80	18629	79	97	1.1	1.1	40.4	41.4	45.4	7.75	1.07	168.0	7	1943
1944.0	23:58	33.3	21.7	9	110	114	80	18603	79	97	1.1	1.1	40.4	41.5	45.6	7.78	1.06	169.0	9	1944
1945.0	23:59	37.5	21.8	8	109	132	80	18563	79	97	1.1	1.1	40.5	41.5	45.7	7.80	1.01	170.0	10	1945
1946.0	00:13	25.9	21.8	7	109	94	80	18526	80	98	1.1	1.1	40.5	41.6	46.0	7.84	1.05	171.0	6	1946
1947.0	00:15	37.5	21.9	8	116	106	82	19321	80	97	1.1	1.1	40.5	41.9	46.1	7.87	1.00	172.0	11	1947
1948.0	00:17	29.5	21.9	8	116	112	82	19368	79	96	1.1	1.1	40.4	41.8	46.3	7.90	1.05	173.0	12	1948
1949.0	00:18	33.6	21.9	9	116	110	82	19361	78	96	1.1	1.1	40.4	41.9	46.6	7.93	1.07	174.0	11	1949
1950.0	00:21	25.0	21.9	8	115	194	82	19339	78	96	1.1	1.1	40.4	41.9	46.8	7.97	1.12	175.0	9	1950
1951.0	00:23	32.1	22.0	6	116	113	79	18201	78	96	1.1	1.1	40.4	41.7	47.0	8.00	0.98	176.0	6	1951
1952.0	00:25	26.1	22.0	10	116	120	80	18806	78	96	1.1	1.1	40.4	41.6	47.3	8.04	1.16	177.0	3	1952
1953.0	00:28	20.5	22.0	8	116	111	80	18799	78	96	1.1	1.1	40.4	41.6	47.7	8.09	1.16	178.0	2	1953
1954.0	00:31	19.9	22.0	9	116	124	81	18816	78	96	1.1	1.1	40.4	41.7	48.0	8.14	1.20	179.0	1	1954
1955.0	00:32	42.4	22.0	10	115	182	81	18873	77	95	1.1	1.1	40.6	41.7	48.2	8.16	1.02	180.0	1	1955
1956.0	00:36	15.8	22.0	8	116	117	80	18793	78	95	1.1	1.1	40.6	41.8	48.6	8.23	1.23	181.0	1	1956
1957.0	00:39	22.5	22.0	8	116	125	80	18739	78	95	1.1	1.1	40.7	41.9	48.9	8.27	1.12	182.0	1	1957
1958.0	00:42	21.7	22.0	9	116	128	81	18858	77	95	1.1	1.1	40.7	42.0	49.2	8.32	1.18	183.0	1	1958
1959.0	00:46	14.8	21.9	8	116	128	81	18880	77	95	1.1	1.1	40.8	41.9	49.7	8.39	1.25	184.0	1	1959
1960.0	00:50	13.3	21.9	9	116	110	81	18870	77	94	1.1	1.1	40.9	41.8	50.2	8.46	1.29	185.0	1	1960
1961.0	00:56	10.5	21.7	9	116	122	81	18880	76	94	1.1	1.1	40.9	41.8	50.9	8.56	1.35	186.0	1	1961
1962.0	01:01	10.6	21.6	8	116	122	81	18883	76	94	1.1	1.1	41.0	42.0	51.5	8.65	1.30	187.0	1	1962
1963.0	01:05	18.7	21.6	8	116	106	80	18849	76	94	1.1	1.1	41.1	42.0	51.8	8.70	1.18	188.0	1	1963
1964.0	01:11	9.4	21.5	8	116	106	80	18797	76	94	1.1	1.1	41.0	41.6	52.7	8.81	1.36	189.0	1	1964
1965.0	01:16	13.3	21.4	8	116	108	81	18837	76	94	1.1	1.1	41.0	42.1	53.1	8.89	1.26	190.0	1	1965
1966.0	01:20	13.7	21.3	8	116	110	81	18887	76	94	1.1	1.1	41.0	42.1	53.6	8.96	1.26	191.0	1	1966
1967.0	01:23	18.9	21.3	8	116	108	81	18880	75	93	1.1	1.0	40.9	37.2	54.0	9.01	1.17	192.0	1	1967
1968.0	01:27	14.0	21.2	8	116	114	81	18892	75	93	1.1	1.2	40.9	37.9	54.5	9.08	1.24	193.0	0	1968
1969.0	01:31	16.4	21.2	8	116	105	81	18880	76	94	1.1	1.2	40.9	41.6	54.9	9.14	1.21	194.0	2	1969
1970.0	01:35	15.9	21.2	8	116	112	81	18950	76	94	1.1	1.1	40.9	41.1	55.4	9.21	1.21	195.0	2	1970
1971.0	01:38	18.7	21.2	8	116	114	81	18998	76	94	1.1	1.1	41.0	41.3	55.7	9.26	1.17	196.0	2	1971
1972.0	01:42	17.5	21.1	8	116	106	81	18967	76	94	1.1	1.1	41.0	42.0	56.1	9.32	1.19	197.0	2	1972

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
1972.0	01:42	17.5	21.1	8	116	106	81	18967	76	94	1.1	1.1	41.0	42.0	56.1	9.32	1.19	197.0	2	1972
1973.0	01:47	10.7	21.0	8	116	108	81	18918	76	93	1.1	1.1	41.0	42.0	56.8	9.41	1.32	198.0	2	1973
1974.0	01:53	11.2	20.9	8	116	104	80	18784	75	93	1.1	1.1	41.1	42.2	57.4	9.50	1.30	199.0	7	1974
1975.0	02:20	17.4	20.9	6	109	106	79	18023	76	93	1.1	1.1	41.3	42.3	57.7	9.56	1.09	200.0	4	1975
1976.0	02:22	29.3	21.0	7	116	121	78	17833	75	92	1.1	1.1	41.4	42.4	57.9	9.59	1.01	201.0	14	1976
1977.0	02:24	24.7	21.0	7	116	122	80	18704	75	93	1.1	1.1	41.5	42.4	58.3	9.63	1.05	202.0	16	1977
1978.0	02:27	26.1	21.0	7	117	109	81	19022	75	93	1.1	1.1	41.4	42.4	58.5	9.67	1.04	203.0	19	1978
1979.0	02:28	31.3	21.0	6	117	110	81	19017	75	93	1.1	1.1	41.4	42.5	58.8	9.70	0.98	204.0	20	1979
1980.0	02:31	25.5	21.0	6	117	107	81	19010	75	93	1.1	1.1	41.4	42.5	59.0	9.74	1.03	205.0	17	1980
1981.0	02:33	23.8	21.1	6	117	113	81	19050	75	93	1.1	1.1	41.4	42.5	59.4	9.79	1.05	206.0	11	1981
1982.0	02:38	13.5	21.0	7	117	112	81	19134	75	93	1.1	1.1	41.4	42.6	59.8	9.86	1.19	207.0	6	1982
1983.0	02:43	11.0	20.9	7	117	114	81	19152	75	93	1.1	1.1	41.3	42.5	60.4	9.95	1.25	208.0	3	1983
1984.0	02:48	13.4	20.8	6	117	109	81	19123	75	93	1.1	1.1	41.3	42.5	61.0	10.02	1.19	209.0	3	1984
1985.0	02:54	9.6	20.7	7	117	121	81	19148	75	93	1.1	1.1	41.3	42.6	61.7	10.13	1.28	210.0	2	1985
1986.0	03:00	9.7	20.6	6	117	107	81	19168	75	93	1.1	1.1	41.3	42.5	62.4	10.23	1.26	211.0	2	1986
1987.0	03:06	11.1	20.5	7	117	112	81	19223	75	92	1.1	1.1	41.3	42.5	63.0	10.32	1.23	212.0	2	1987
1988.0	03:10	12.9	20.5	7	117	115	81	19281	74	92	1.1	1.1	41.4	42.4	63.6	10.40	1.20	213.0	2	1988
1989.0	03:14	15.1	20.4	7	117	116	81	19268	74	92	1.1	1.1	41.4	42.5	64.0	10.47	1.18	214.0	2	1989
1990.0	03:19	13.2	20.4	6	117	120	81	19309	74	92	1.1	1.1	41.5	42.5	64.6	10.54	1.19	215.0	9	1990
1991.0	03:23	13.0	20.3	6	117	118	81	19316	74	92	1.1	1.1	41.5	42.6	65.1	10.62	1.18	216.0	4	1991
1992.0	03:28	14.0	20.3	6	117	110	81	19331	74	92	1.1	1.1	41.6	42.5	65.6	10.69	1.17	217.0	3	1992
1993.0	03:32	12.5	20.2	6	117	105	81	19329	74	91	1.1	1.1	41.6	42.5	66.1	10.77	1.20	218.0	2	1993
1994.0	03:37	11.8	20.2	6	117	107	81	19424	73	91	1.1	1.1	41.7	42.6	66.7	10.85	1.18	219.0	2	1994
1995.0	03:42	13.4	20.1	6	117	111	81	19267	72	91	1.1	1.1	41.7	42.5	67.2	10.93	1.19	220.0	2	1995
1996.0	03:46	15.6	20.1	6	117	113	80	19082	72	91	1.1	1.1	41.7	42.5	67.7	10.99	1.14	221.0	2	1996
1997.0	03:50	15.9	20.1	7	117	118	80	19028	72	91	1.1	1.1	41.8	42.5	68.2	11.06	1.17	222.0	2	1997
1998.0	03:54	15.2	20.1	7	117	115	80	18975	72	91	1.1	1.1	41.9	42.5	68.6	11.12	1.21	223.0	2	1998
1999.0	04:01	7.7	19.9	7	105	102	80	18795	72	90	1.1	1.1	42.0	42.4	69.4	11.25	1.34	224.0	3	1999
2000.0	04:04	22.2	19.9	7	115	136	80	18899	72	90	1.1	1.1	42.0	42.6	69.7	11.30	1.10	225.0	2	2000

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2001.0	04:06	26.7	19.9	7	114	119	80	18908	72	90	1.1	1.1	42.1	42.5	70.0	11.33	1.06	226.0	2	1
2002.0	04:09	21.4	19.9	7	115	112	80	18890	72	91	1.1	1.1	42.1	42.6	70.3	11.38	1.10	227.0	3	2
2003.0	04:11	30.8	20.0	6	115	111	80	18950	72	90	1.1	1.1	42.1	42.6	70.6	11.41	0.99	228.0	3	3
2004.0	04:29	18.5	20.0	6	114	120	80	18767	72	90	1.1	1.1	42.2	42.5	70.9	11.47	1.09	229.0	3	4
2005.0	04:31	46.2	20.0	3	115	120	79	18943	73	90	1.1	1.1	42.3	42.4	71.1	11.49	0.79	230.0	2	5
2006.0	04:32	42.9	20.1	4	115	119	78	18130	72	90	1.1	1.1	42.2	42.2	71.2	11.51	0.80	231.0	2	6
2007.0	04:33	40.9	20.1	4	115	123	78	18120	71	90	1.1	1.1	42.2	42.2	71.4	11.54	0.84	232.0	2	7
2008.0	04:35	40.0	20.2	5	115	139	78	18331	72	90	1.1	1.1	42.2	42.2	71.5	11.56	0.88	233.0	2	8
2009.0	04:37	32.1	20.2	4	115	114	79	18505	72	90	1.1	1.1	42.1	42.3	71.8	11.59	0.86	234.0	3	9
2010.0	04:38	37.1	20.2	5	115	135	79	18549	72	90	1.1	1.1	42.1	42.3	71.9	11.62	0.90	235.0	3	10
2011.0	04:40	37.1	20.3	3	115	118	79	18536	72	90	1.1	1.1	42.1	42.4	72.1	11.65	0.82	236.0	3	11
2012.0	04:45	12.8	20.2	6	116	110	79	18577	72	90	1.1	1.1	42.1	42.3	72.7	11.72	1.16	237.0	2	12
2013.0	04:48	19.7	20.2	6	115	127	79	18596	72	90	1.1	1.1	42.1	42.4	73.1	11.78	1.06	238.0	2	13
2014.0	04:51	19.8	20.2	6	115	123	79	18633	72	90	1.1	1.1	42.1	42.3	73.4	11.83	1.05	239.0	2	14
2015.0	04:55	13.6	20.2	6	115	123	79	18621	72	90	1.1	1.1	42.1	42.3	73.9	11.90	1.13	240.0	2	15
2016.0	05:01	10.7	20.1	5	116	111	79	18669	72	90	1.1	1.2	42.0	42.4	74.5	11.99	1.18	241.0	6	16
2017.0	05:05	15.6	20.1	4	116	113	80	18936	71	89	1.1	1.2	42.0	42.5	74.9	12.06	1.02	242.0	10	17

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2018.0	05:14	6.1	19.9	5	115	280	80	19263	71	89	1.1	1.1	41.8	42.3	76.1	12.22	1.27	243.0	4	18
2019.0	05:21	9.6	19.8	5	105	288	80	19273	71	89	1.1	1.1	41.7	42.4	76.8	12.32	1.16	244.0	2	19
2020.0	05:27	9.1	19.7	5	107	285	80	19225	70	88	1.1	1.1	41.6	42.2	77.4	12.43	1.17	245.0	2	20
2021.0	05:47	9.8	19.6	4	108	273	80	19181	70	88	1.1	1.1	41.6	42.5	78.1	12.54	1.10	246.0	2	21
2022.0	05:48	59.0	19.7	2	106	223	79	18465	70	88	1.1	1.1	41.3	42.9	78.2	12.55	0.63	247.0	2	22
2023.0	05:51	19.5	19.7	4	112	117	79	18455	71	88	1.1	1.2	41.3	42.4	78.5	12.61	0.99	248.0	2	23
2024.0	05:53	22.5	19.7	3	114	118	79	18458	71	88	1.1	1.2	41.3	42.1	78.8	12.65	0.91	249.0	2	24
2025.0	05:56	23.5	19.7	4	114	107	79	18630	71	88	1.1	1.1	41.3	42.2	79.1	12.69	0.93	250.0	2	25
2026.0	05:58	25.0	19.7	4	114	106	80	19252	71	89	1.1	1.1	41.3	42.3	79.4	12.73	0.92	251.0	2	26
2027.0	06:02	16.7	19.7	4	114	106	79	18386	71	89	1.1	1.1	41.3	42.3	79.8	12.79	1.03	252.0	1	27
2028.0	06:06	14.8	19.7	4	113	117	79	18391	71	89	1.1	1.1	41.3	42.0	80.3	12.86	1.06	253.0	2	28
2029.0	06:12	9.4	19.6	4	114	237	80	18825	71	89	1.1	1.1	41.4	42.5	81.0	12.97	1.13	254.0	2	29
2030.0	06:17	12.2	19.5	4	113	331	80	19046	71	89	1.1	1.1	41.5	43.0	81.6	13.05	1.08	255.0	2	30
2031.0	06:20	20.9	19.5	4	114	314	80	19058	71	89	1.1	1.1	41.5	42.9	81.8	13.10	0.97	256.0	4	31
2032.0	11:14	14.1	19.5	1	126	113	81	19501	71	88	1.1	1.1	35.0	38.1	82.5	13.21	0.90	257.0	4	32
2033.0	11:27	8.4	19.4	1	125	106	80	19213	70	87	1.1	1.1	34.7	41.3	83.4	13.33	1.01	258.0	3	33
2034.0	11:43	3.7	19.0	2	107	90	80	19112	71	88	1.1	1.1	33.7	41.1	85.1	13.60	1.24	259.0	1	34
2035.0	11:53	6.1	18.9	9	104	95	80	18761	71	89	1.1	1.1	33.8	41.1	86.2	13.76	1.51	260.0	1	35
2036.0	11:59	11.4	18.8	10	88	99	80	18629	72	90	1.1	1.1	34.3	41.1	86.6	13.85	1.34	261.0	1	36
2037.0	12:01	22.9	18.9	12	94	112	80	18657	73	90	1.1	1.1	34.6	41.0	86.8	13.89	1.20	262.0	1	37
2038.0	12:03	31.3	18.9	11	100	110	80	18671	73	90	1.1	1.1	34.8	40.9	87.0	13.92	1.12	263.0	2	38
2039.0	12:05	27.9	18.9	10	100	106	80	18679	73	91	1.1	1.1	35.0	40.8	87.2	13.96	1.11	264.0	1	39
2040.0	12:07	38.3	18.9	10	100	129	80	18694	73	91	1.1	1.1	35.1	40.9	87.4	13.99	1.03	265.0	1	40
2041.0	12:09	28.6	19.0	9	101	102	80	18706	73	91	1.1	1.1	35.2	41.1	87.6	14.02	1.08	266.0	1	41
2042.0	12:13	13.0	18.9	10	101	99	80	18700	74	92	1.1	1.1	35.5	41.2	88.2	14.10	1.32	267.0	1	42
2043.0	12:16	28.6	19.0	11	100	112	80	18725	74	92	1.1	1.1	35.8	41.2	88.4	14.13	1.14	268.0	2	43
2044.0	12:17	37.9	19.0	10	101	107	80	18742	74	92	1.1	1.1	35.9	41.1	88.5	14.16	1.03	269.0	2	44
2045.0	12:20	22.9	19.0	10	100	107	80	18654	74	92	1.1	1.1	36.1	41.1	88.8	14.20	1.16	270.0	2	45
2046.0	12:23	21.1	19.0	10	101	106	80	18765	74	92	1.1	1.1	36.3	41.1	89.1	14.25	1.19	271.0	1	46
2047.0	12:24	35.0	19.0	10	101	104	80	18884	74	93	1.1	1.1	36.4	41.1	89.2	14.28	1.04	272.0	2	47
2048.0	12:26	28.3	19.1	9	101	103	80	18829	74	93	1.1	1.1	36.5	41.1	89.4	14.31	1.08	273.0	3	48
2049.0	12:29	21.7	19.1	9	101	98	80	18805	75	94	1.1	1.1	36.8	41.0	89.7	14.36	1.16	274.0	1	49
2050.0	12:34	13.6	19.1	10	101	111	80	18805	75	94	1.1	1.1	36.9	41.1	90.2	14.43	1.31	275.0	1	50
2051.0	12:34	25.0	19.1	9	104	130	80	18884	76	94	1.1	1.1	37.1	41.0	90.2	14.43	1.12	276.0	1	51
2052.0	12:35	61.0	19.2	9	100	142	80	18878	76	94	1.1	1.1	37.2	41.1	90.3	14.45	0.87	277.0	1	52
2053.0	12:36	39.1	19.2	8	101	103	80	18878	76	95	1.1	1.1	37.2	40.9	90.4	14.48	0.95	278.0	1	53
2054.0	12:40	16.0	19.2	10	101	112	80	18912	76	95	1.1	1.1	37.4	41.0	90.8	14.54	1.26	279.0	1	54
2055.0	12:43	21.7	19.2	11	101	106	80	18994	76	95	1.1	1.1	37.3	41.2	91.1	14.59	1.19	280.0	1	55
2056.0	12:47	12.8	19.2	11	101	113	80	19012	76	95	1.1	1.1	37.3	41.1	91.5	14.66	1.36	281.0	1	56
2057.0	12:50	28.1	19.2	10	101	104	80	18938	76	95	1.1	1.1	37.6	41.0	91.7	14.70	1.10	282.0	1	57
2058.0	12:53	19.5	19.2	11	100	117	80	18895	77	96	1.1	1.1	37.9	40.9	92.0	14.75	1.24	283.0	1	58
2059.0	12:55	26.1	19.2	11	101	127	80	18967	77	96	1.1	1.1	38.1	40.8	92.3	14.79	1.15	284.0	1	59
2060.0	13:11	25.0	19.1	8	91	94	77	17767	80	97	1.1	1.1	38.6	41.1	93.1	14.93	1.15	285.0	1	60
2061.0	13:14	15.7	19.1	8	91	118	79	18485	79	97	1.1	1.1	38.6	41.7	93.5	14.99	1.19	286.0	1	61
2062.0	13:17	22.4	19.1	8	97	121	80	18708	79	97	1.1	1.1	38.6	41.3	93.7	15.04	1.11	287.0	3	62
2063.0	13:24	9.0	19.0	9	99	115	80	18698	79	97	1.1	1.1	38.6	41.4	94.4	15.15	1.39	288.0	3	63
2064.0	13:27	21.7	19.0	11	99	136	80	18682	79	98	1.1	1.1	38.7	41.4	94.6	15.19	1.22	289.0	1	64
2065.0	13:31	12.7	19.0	11	98	187	80	18669	79	98	1.1	1.1	38.8	41.4	95.1	15.27	1.37	290.0	1	65
2066.0	13:36	14.0	19.0	12	99	110	80	18592	80	98	1.1	1.1	38.8	41.3	95.5	15.34	1.36	291.0	1	66
2067.0	13:42	8.7	18.9	11	99	152	80	18575	81	99	1.1	1.1	38.9	41.3	96.2	15.46	1.48	292.0	1	67

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2067.0	13:42	8.7	18.9	11	99	152	80	18575	81	99	1.1	1.1	38.9	41.3	96.2	15.46	1.48	292.0	1	67
2068.0	13:50	7.7	18.8	11	95	106	80	18538	81	100	1.1	1.1	39.0	41.4	97.0	15.59	1.51	293.0	1	68
2069.0	13:57	8.3	18.7	6	112	90	80	18697	82	101	1.1	1.1	39.2	41.6	97.8	15.71	1.31	294.0	3	69
2070.0	14:02	13.9	18.7	7	117	93	80	18676	83	101	1.1	1.1	39.3	41.6	98.3	15.78	1.22	295.0	7	70
2071.0	14:04	32.4	18.7	7	116	100	80	18716	83	102	1.1	1.1	39.4	41.9	98.5	15.81	1.01	296.0	4	71
2072.0	14:06	29.0	18.7	5	117	93	80	18700	83	102	1.1	1.1	39.4	41.5	98.7	15.85	0.96	297.0	3	72
2073.0	14:09	17.7	18.7	7	117	96	80	18717	83	102	1.1	1.1	39.5	41.5	99.1	15.90	1.16	298.0	2	73
2074.0	14:11	25.2	18.8	7	117	96	80	18705	84	103	1.1	1.1	39.5	41.4	99.3	15.94	1.09	299.0	2	74
2075.0	14:19	8.2	18.7	9	108	98	80	18661	85	103	1.1	1.1	39.7	41.5	100.2	16.07	1.44	300.0	1	75
2076.0	14:27	7.7	18.6	11	98	103	80	18651	85	104	1.1	1.1	39.9	41.7	100.9	16.20	1.51	301.0	1	76
2077.0	14:33	9.6	18.5	10	86	96	80	18602	86	104	1.1	1.1	40.1	41.7	101.5	16.30	1.36	302.0	4	77
2078.0	14:37	15.5	18.5	8	85	94	80	18561	85	104	1.1	1.1	40.2	41.8	101.8	16.37	1.18	303.0	16	78
2079.0	14:41	13.2	18.5	8	89	106	80	18585	85	105	1.1	1.1	40.3	41.7	102.3	16.44	1.22	304.0	9	79
2080.0	14:47	10.5	18.4	9	92	102	80	18557	86	105	1.1	0.9	40.4	36.3	102.7	16.54	1.33	305.0	1	80
2081.0	14:48	45.0	18.5	8	92	108	80	18575	86	105	1.1	1.1	40.5	41.4	102.9	16.56	0.92	306.0	0	81
2082.0	14:53	12.5	18.5	7	92	88	80	18562	86	106	1.1	1.1	40.6	41.3	103.3	16.64	1.19	307.0	2	82
2083.0	14:59	10.7	18.4	9	99	98	80	18604	87	106	1.1	1.1	40.7	41.6	103.9	16.73	1.34	308.0	2	83
2084.0	15:02	16.0	18.4	9	99	96	80	18605	87	107	1.1	1.1	40.8	41.9	104.3	16.79	1.21	309.0	2	84
2085.0	15:05	24.5	18.4	8	99	96	80	18649	87	107	1.1	1.1	40.9	41.9	104.5	16.84	1.09	310.0	2	85
2086.0	15:09	13.4	18.4	9	99	132	80	18661	88	107	1.1	1.1	41.0	41.9	104.9	16.91	1.28	311.0	4	86
2087.0	15:17	7.5	18.3	8	99	96	80	18562	88	108	1.1	1.1	41.1	42.2	105.7	17.04	1.39	312.0	5	87
2088.0	15:21	18.0	18.3	7	99	118	80	18586	89	108	1.1	1.1	41.2	42.1	106.1	17.10	1.14	313.0	3	88
2089.0	15:24	20.5	18.3	7	99	122	80	18564	89	109	1.1	1.1	41.3	41.9	106.3	17.15	1.09	314.0	3	89
2090.0	15:37	18.1	18.3	7	98	93	80	18450	91	110	1.1	1.1	41.5	42.3	106.6	17.20	1.14	315.0	2	90
2091.0	15:39	21.6	18.3	7	97	98	80	18656	91	110	1.1	1.1	41.6	42.5	106.9	17.25	1.08	316.0	2	91
2092.0	15:42	22.0	18.3	8	98	102	80	18714	91	110	1.1	1.1	41.7	42.3	107.2	17.29	1.10	317.0	2	92
2093.0	15:46	16.3	18.3	9	102	112	80	18762	90	110	1.1	1.1	41.7	42.4	107.5	17.36	1.24	318.0	2	93
2094.0	15:48	33.6	18.3	9	102	120	80	18712	91	111	1.1	1.1	41.8	42.6	107.8	17.39	1.06	319.0	2	94
2095.0	15:51	20.5	18.4	9	102	121	80	18687	90	110	1.1	1.1	41.9	42.5	108.1	17.43	1.16	320.0	2	95
2096.0	15:54	19.7	18.4	9	102	110	80	18745	91	111	1.1	1.1	42.0	42.6	108.4	17.48	1.19	321.0	2	96
2097.0	15:56	27.7	18.4	8	102	133	80	18789	91	111	1.1	1.1	42.0	42.5	108.6	17.52	1.05	322.0	2	97
2098.0	15:58	26.7	18.4	7	103	119	80	18747	91	111	1.1	1.1	42.1	42.5	108.8	17.56	1.05	323.0	2	98
2099.0	16:01	18.6	18.4	7	103	107	80	18733	91	111	1.1	1.1	42.1	42.5	109.2	17.61	1.13	324.0	2	99
2100.0	16:02	52.9	18.4	8	102	124	80	18838	91	111	1.1	1.1	42.2	42.6	109.3	17.63	0.89	325.0	2	100
2101.0	16:04	35.3	18.5	6	103	98	80	18837	91	111	1.1	1.1	42.2	42.6	109.4	17.66	0.95	326.0	3	101
2102.0	16:06	33.3	18.5	7	103	102	80	18791	91	111	1.1	1.1	42.2	42.4	109.6	17.69	0.96	327.0	3	102
2103.0	16:08	27.1	18.5	8	102	103	80	18725	91	111	1.1	1.1	42.3	42.4	109.8	17.73	1.06	328.0	3	103
2104.0	16:11	20.3	18.5	7	102	100	80	18647	91	111	1.1	1.1	42.3	42.5	110.1	17.78	1.12	329.0	3	104
2105.0	16:13	31.3	18.5	7	102	108	80	18726	91	111	1.1	1.1	42.4	42.6	110.3	17.81	1.00	330.0	3	105
2106.0	16:15	31.3	18.6	7	102	107	80	18765	91	111	1.1	1.1	42.4	42.5	110.6	17.84	0.99	331.0	3	106
2107.0	16:16	45.0	18.6	7	102	108	80	18778	91	111	1.1	1.1	42.4	42.5	110.7	17.86	0.91	332.0	3	107
2108.0	16:18	27.7	18.6	8	102	109	80	18818	91	111	1.1	1.1	42.4	42.4	110.9	17.90	1.06	333.0	3	108
2109.0	16:21	26.7	18.6	8	103	108	81	19033	91	111	1.1	1.1	42.5	42.3	111.2	17.94	1.07	334.0	5	109
2110.0	16:23	27.7	18.6	8	104	108	81	19128	91	111	1.1	1.1	42.5	42.4	111.4	17.97	1.07	335.0	14	110
2111.0	16:26	17.6	18.6	10	103	121	81	19147	91	111	1.1	0.8	42.6	33.6	111.7	18.03	1.22	336.0	4	111
2112.0	16:37	5.8	18.5	9	103	109	81	19148	91	111	1.1	1.1	42.7	42.4	112.8	18.20	1.48	337.0	4	112
2113.0	16:40	16.4	18.5	12	103	114	81	19170	91	112	1.1	1.1	42.9	42.5	113.2	18.26	1.32	338.0	3	113
2114.0	16:45	13.8	18.5	12	103	120	81	19180	91	112	1.1	1.1	42.9	42.6	113.6	18.33	1.38	339.0	3	114
2115.0	16:49	12.8	18.5	12	103	120	81	19114	91	112	1.1	1.1	43.0	42.8	114.1	18.41	1.40	340.0	4	115
2116.0	16:53	15.9	18.5	12	103	113	81	19087	91	112	1.1	1.1	43.1	42.8	114.5	18.47	1.36	341.0	4	116

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2116.0	16:53	15.9	18.5	12	103	113	81	19087	91	112	1.1	1.1	43.1	42.8	114.5	18.47	1.36	341.0	4	116
2117.0	16:56	21.4	18.5	11	103	112	81	18993	91	112	1.1	1.1	43.2	42.6	114.7	18.52	1.24	342.0	3	117
2118.0	16:59	17.1	18.5	11	103	114	81	19028	91	112	1.1	1.1	43.2	42.7	115.2	18.58	1.28	343.0	3	118
2119.0	17:21	8.2	18.4	8	99	115	80	18625	92	112	1.1	1.1	43.4	43.0	115.9	18.70	1.36	344.0	3	119
2120.0	17:26	10.7	18.4	7	97	126	80	18628	92	113	1.1	1.1	43.6	42.8	116.4	18.79	1.23	345.0	2	120
2121.0	17:30	16.8	18.4	7	97	105	80	18841	92	113	1.1	1.1	43.6	42.6	116.7	18.85	1.12	346.0	3	121
2122.0	17:37	8.4	18.3	8	97	111	80	18801	92	113	1.1	1.1	43.6	42.7	117.4	18.97	1.33	347.0	3	122
2123.0	17:41	18.2	18.3	7	97	134	80	18885	93	114	1.1	1.1	43.7	43.1	117.7	19.03	1.10	348.0	3	123
2124.0	17:44	18.6	18.3	6	96	285	81	19284	93	114	1.1	1.1	43.7	42.9	118.0	19.08	1.07	349.0	3	124
2125.0	17:46	22.9	18.3	6	96	270	81	19303	93	114	1.1	1.1	43.7	42.7	118.3	19.13	1.00	350.0	3	125
2126.0	17:49	27.3	18.3	6	97	276	81	19334	93	114	1.1	1.1	43.7	42.9	118.5	19.16	0.98	351.0	3	126
2127.0	17:51	29.5	18.3	7	97	273	81	19268	93	114	1.1	1.1	43.7	43.0	118.7	19.20	0.98	352.0	3	127
2128.0	17:53	26.7	18.4	8	96	282	79	18463	93	114	1.1	1.1	43.8	43.0	118.9	19.23	1.04	353.0	3	128
2129.0	17:56	18.3	18.4	9	96	312	79	18427	93	114	1.1	1.1	43.8	43.2	119.2	19.29	1.18	354.0	4	129
2130.0	17:58	26.7	18.4	10	96	324	79	18391	93	114	1.1	1.1	43.8	43.2	119.5	19.33	1.10	355.0	4	130
2131.0	18:01	24.3	18.4	9	96	308	79	18227	93	114	1.1	1.1	43.5	43.2	119.7	19.37	1.12	356.0	4	131
2132.0	18:03	23.1	18.4	10	96	317	79	18268	93	114	1.1	1.1	43.6	43.1	120.0	19.41	1.16	357.0	4	132
2133.0	18:08	13.0	18.4	11	100	327	79	18327	93	114	1.1	1.1	43.7	43.3	120.4	19.49	1.33	358.0	5	133
2134.0	18:27	8.8	18.3	7	107	171	79	18317	94	115	1.1	1.1	44.1	44.2	121.1	19.60	1.30	359.0	4	134
2135.0	18:31	15.5	18.3	9	110	114	79	18164	94	115	1.1	0.8	44.3	36.6	121.5	19.67	1.24	360.0	1	135
2136.0	18:32	34.0	18.3	8	110	123	79	18049	95	115	1.1	1.1	44.4	45.2	121.8	19.70	1.02	361.0	0	136
2137.0	18:36	15.2	18.3	9	110	127	79	18028	94	115	1.1	1.1	44.4	45.2	122.2	19.76	1.28	362.0	11	137
2138.0	18:40	15.5	18.3	9	110	120	79	18011	94	115	1.1	1.1	44.5	44.5	122.5	19.83	1.26	363.0	11	138
2139.0	18:43	23.7	18.3	9	110	120	79	18068	95	116	1.1	1.1	44.5	44.6	122.9	19.87	1.13	364.0	17	139
2140.0	18:44	75.0	18.4	7	110	99	79	17995	95	116	1.1	1.1	44.5	44.8	123.0	19.88	0.78	365.0	24	140
2141.0	18:48	13.5	18.3	9	110	116	79	18031	95	116	1.1	1.1	44.6	45.1	123.4	19.96	1.31	366.0	23	141
2142.0	18:51	17.9	18.3	9	110	108	79	18047	95	116	1.1	1.1	44.7	45.2	123.8	20.01	1.22	367.0	15	142
2143.0	18:54	20.0	18.3	8	110	106	79	18019	95	117	1.1	1.1	44.7	45.2	124.1	20.06	1.17	368.0	9	143
2144.0	18:57	22.8	18.4	8	110	123	79	18084	95	116	1.1	1.1	44.8	45.2	124.4	20.10	1.13	369.0	6	144
2145.0	18:59	28.3	18.4	8	110	111	79	18146	95	117	1.1	1.1	44.8	45.2	124.7	20.14	1.09	370.0	5	145
2146.0	19:03	14.8	18.4	8	111	120	80	18510	95	117	1.1	1.1	44.9	45.4	125.1	20.21	1.24	371.0	4	146
2147.0	19:07	14.1	18.3	8	110	117	80	18451	95	117	1.1	1.1	44.9	45.4	125.6	20.28	1.25	372.0	5	147
2148.0	19:24	17.3	18.3	8	86	125	80	18650	96	117	1.1	1.1	45.1	45.7	125.8	20.34	1.14	373.0	5	148
2149.0	19:28	17.2	18.3	9	101	108	80	18823	96	117	1.1	1.1	45.3	45.8	126.3	20.39	1.22	374.0	3	149
2150.0	19:30	33.3	18.4	7	107	117	80	18885	96	117	1.1	1.1	45.3	45.6	126.4	20.42	0.99	375.0	6	150
2151.0	19:36	9.0	18.3	9	107	115	80	18863	96	117	1.1	1.1	45.4	45.7	127.1	20.54	1.40	376.0	6	151
2152.0	19:51	4.2	18.1	9	98	102	80	18735	96	117	1.1	1.1	45.6	46.3	128.5	20.77	1.58	377.0	2	152
2153.0	20:01	5.6	18.0	8	84	98	80	18581	96	117	1.1	1.1	45.8	42.1	129.4	20.95	1.41	378.0	0	153
2154.0	20:11	6.2	18.0	8	94	99	80	18743	96	117	1.1	1.1	45.9	42.1	130.3	21.11	1.41	379.0	1	154
2155.0	20:15	13.7	17.9	10	106	114	80	19020	94	115	1.1	1.1	46.0	42.1	130.7	21.19	1.30	380.0	1	155
2156.0	20:18	22.4	17.9	8	106	109	81	19062	94	115	1.1	1.1	46.1	42.2	131.0	21.23	1.13	381.0	1	156
2157.0	20:20	30.8	18.0	9	106	111	81	19057	94	115	1.1	1.1	46.1	43.1	131.2	21.26	1.07	382.0	1	157
2158.0	20:23	23.4	18.0	9	106	111	81	19006	94	114	1.1	1.1	46.2	43.9	131.5	21.31	1.12	383.0	2	158
2159.0	20:25	22.6	18.0	7	107	106	80	18984	94	114	1.1	1.1	46.2	44.2	131.8	21.35	1.08	384.0	4	159
2160.0	20:28	25.4	18.0	8	107	101	80	19021	94	114	1.1	1.1	46.3	44.6	132.0	21.39	1.06	385.0	5	160
2161.0	22:19	20.6	18.0	7	78	87	80	18873	94	115	1.1	1.1	45.5	45.8	132.3	21.44	1.01	386.0	4	161
2162.0	22:27	7.5	17.9	6	92	91	79	18615	95	116	1.1	1.1	44.7	46.0	133.0	21.57	1.28	387.0	4	162
2163.0	22:31	15.1	17.9	6	100	90	79	18608	94	115	1.1	1.1	44.8	46.6	133.3	21.64	1.14	388.0	3	163
2164.0	22:35	13.1	17.9	7	100	93	79	18609	94	114	1.1	1.0	44.8	38.2	133.9	21.71	1.22	389.0	1	164
2165.0	22:38	22.6	17.9	9	102	132	79	18690	94	114	1.1	1.2	44.8	30.9	134.1	21.76	1.13	390.0	0	165

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2165.0	22:38	22.6	17.9	9	102	132	79	18690	94	114	1.1	1.2	44.8	30.9	134.1	21.76	1.13	390.0	0	165
2166.0	22:41	19.3	17.9	8	100	98	79	18586	94	114	1.1	1.1	44.7	44.9	134.4	21.81	1.15	391.0	1	166
2167.0	22:46	13.6	17.9	8	100	99	79	18525	94	114	1.1	1.1	44.7	45.8	134.9	21.88	1.25	392.0	2	167
2168.0	22:47	35.0	17.9	8	100	106	79	18549	93	114	1.1	1.1	44.7	45.7	135.0	21.91	1.00	393.0	3	168
2169.0	22:50	24.8	17.9	9	99	175	79	18554	94	115	1.1	1.1	44.8	45.7	135.3	21.95	1.10	394.0	3	169
2170.0	22:51	37.1	18.0	8	100	124	79	18513	94	115	1.1	1.1	44.8	45.7	135.4	21.98	0.99	395.0	3	170
2171.0	22:58	8.6	17.9	9	100	98	79	18489	94	115	1.1	1.1	44.8	46.0	136.1	22.10	1.40	396.0	3	171
2172.0	23:06	8.3	17.9	8	100	95	79	18490	94	114	1.1	1.1	44.9	46.3	136.8	22.22	1.37	397.0	5	172
2173.0	23:14	6.9	17.8	9	100	100	79	18517	93	114	1.1	1.1	45.1	46.5	137.7	22.36	1.43	398.0	4	173
2174.0	23:16	28.3	17.8	10	100	105	79	18542	93	113	1.1	1.1	45.2	46.3	137.9	22.40	1.10	399.0	11	174
2175.0	23:34	28.3	17.8	8	100	95	79	18308	93	114	1.1	1.1	45.2	46.5	138.2	22.43	1.06	400.0	11	175
2176.0	23:37	24.2	17.8	7	106	101	79	18632	92	112	1.1	1.1	45.5	46.6	138.4	22.47	1.04	401.0	5	176
2177.0	23:39	24.3	17.9	8	106	110	79	18702	92	112	1.1	1.1	45.5	46.5	138.7	22.51	1.10	402.0	4	177
2178.0	23:45	10.2	17.8	7	105	143	79	18708	92	112	1.1	1.1	45.5	46.2	139.3	22.61	1.28	403.0	4	178
2179.0	23:45	18.2	17.9	8	101	218	80	18800	91	112	1.1	1.1	45.6	46.2	139.3	22.61	1.16	404.0	4	179
2180.0	00:00	30.1	17.9	8	103	303	80	18856	91	112	1.1	1.1	45.6	45.7	139.3	22.62	1.03	405.0	3	180
2181.0	23:50	25.3	17.9	10	106	236	80	18661	90	111	1.1	1.1	45.4	46.0	139.6	22.67	1.14	406.0	3	181
2182.0	23:54	14.8	17.9	8	106	113	79	18587	90	111	1.1	1.1	45.5	46.5	140.0	22.73	1.21	407.0	4	182
2183.0	23:56	22.9	17.9	8	106	118	79	18627	90	111	1.1	1.1	45.5	46.5	140.3	22.78	1.12	408.0	9	183
2184.0	00:02	9.7	17.9	9	106	108	79	18689	91	112	1.1	1.1	45.6	46.6	140.9	22.88	1.35	409.0	14	184
2185.0	00:08	10.5	17.8	9	106	118	79	18754	91	112	1.1	1.1	45.6	46.7	141.5	22.98	1.35	410.0	5	185
2186.0	00:14	9.8	17.8	8	106	112	79	18767	91	111	1.1	1.1	45.7	46.7	142.2	23.08	1.33	411.0	4	186
2187.0	00:31	3.6	17.6	9	107	105	79	18703	91	111	1.1	1.1	46.0	46.8	143.9	23.35	1.62	412.0	3	187
2188.0	00:38	8.5	17.6	10	118	105	79	18591	91	111	1.1	1.1	46.2	47.0	144.7	23.47	1.45	413.0	2	188
2189.0	00:45	8.4	17.6	10	118	109	79	18394	90	111	1.1	1.1	46.4	47.0	145.6	23.59	1.49	414.0	2	189
2190.0	00:50	13.2	17.5	10	118	109	79	18424	90	110	1.1	1.1	46.5	46.8	146.2	23.67	1.34	415.0	3	190
2191.0	00:54	14.7	17.5	10	118	110	79	18427	90	110	1.1	1.1	46.6	46.9	146.6	23.73	1.31	416.0	3	191
2192.0	01:02	7.1	17.5	10	118	111	79	18429	90	110	1.1	1.1	46.7	47.0	147.6	23.87	1.52	417.0	3	192
2193.0	01:11	6.8	17.4	10	118	130	80	18492	89	110	1.1	1.1	46.8	47.2	148.7	24.02	1.52	418.0	3	193
2194.0	01:20	6.9	17.3	10	118	117	80	18502	89	109	1.1	1.1	46.9	46.5	149.6	24.17	1.53	419.0	3	194
2195.0	01:25	11.3	17.3	11	118	108	79	18461	89	109	1.1	1.1	47.0	42.8	150.4	24.26	1.44	420.0	0	195
2196.0	01:34	6.8	17.3	11	118	104	79	18487	89	109	1.1	1.2	47.1	46.7	151.3	24.40	1.55	421.0	3	196
2197.0	01:44	6.0	17.2	10	119	101	80	18529	89	110	1.1	1.1	47.3	47.0	152.5	24.57	1.58	422.0	3	197
2198.0	01:53	6.9	17.1	11	118	102	79	18526	89	109	1.1	1.1	47.4	47.3	153.6	24.71	1.55	423.0	2	198
2199.0	01:58	11.4	17.1	11	118	105	79	18472	89	109	1.1	1.1	47.5	47.3	154.2	24.80	1.41	424.0	2	199
2200.0	02:00	32.7	17.1	9	118	114	79	18494	89	109	1.1	1.1	47.5	46.9	154.5	24.83	1.07	425.0	3	200
2201.0	02:01	45.0	17.1	9	118	116	79	18557	89	109	1.1	1.1	47.6	46.6	154.6	24.86	0.99	426.0	3	201
2202.0	02:02	73.5	17.2	9	118	111	79	18570	89	109	1.1	1.1	47.6	46.6	154.7	24.87	0.86	427.0	3	202
2203.0	02:14	45.0	17.2	7	120	109	79	18481	90	109	1.1	1.1	47.6	47.1	154.9	24.89	0.94	428.0	3	203
2204.0	02:16	28.3	17.2	9	118	112	78	18149	91	109	1.1	1.1	47.7	47.1	155.1	24.93	1.10	429.0	2	204
2205.0	02:30	4.3	17.1	13	118	111	79	18412	89	109	1.1	1.1	47.7	47.2	156.7	25.16	1.82	430.0	2	205
2206.0	02:41	5.6	17.0	12	118	119	80	18883	89	110	1.1	1.1	47.6	47.1	158.0	25.34	1.71	431.0	1	206
2207.0	02:51	6.1	16.9	12	118	118	80	18855	93	114	1.1	1.1	46.3	47.2	159.1	25.50	1.70	432.0	2	207
2208.0	02:59	7.5	16.9	12	118	116	80	18729	92	113	1.1	1.1	46.2	47.2	160.1	25.64	1.63	433.0	1	208
2209.0	03:11	5.0	16.8	12	114	112	80	18515	91	113	1.1	1.1	46.4	47.4	161.5	25.84	1.72	434.0	1	209
2210.0	03:19	7.0	16.7	13	118	116	80	18558	91	113	1.1	1.1	46.7	47.4	162.4	25.98	1.64	435.0	1	210
2211.0	03:27	7.8	16.7	13	118	132	80	18563	91	113	1.1	1.1	46.9	47.5	163.4	26.11	1.61	436.0	1	211
2212.0	03:33	9.8	16.7	12	117	170	80	18538	91	113	1.1	1.2	47.0	47.5	164.1	26.21	1.54	437.0	1	212
2213.0	03:37	15.5	16.7	12	117	141	80	18542	90	113	1.1	1.2	47.1	47.5	164.6	26.28	1.41	438.0	1	213
2214.0	03:44	9.0	16.6	12	118	126	80	18567	90	113	1.1	1.2	47.2	47.5	165.3	26.39	1.55	439.0	1	214

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2214.0	03:44	9.0	16.6	12	118	126	80	18567	90	113	1.1	1.2	47.2	47.5	165.3	26.39	1.55	439.0	1	214
2215.0	03:51	8.0	16.6	12	118	115	80	18562	91	113	1.1	1.1	47.3	47.7	166.2	26.51	1.59	440.0	1	215
2216.0	03:58	9.4	16.6	13	118	127	79	18668	91	113	1.1	1.1	47.4	47.7	167.0	26.62	1.57	441.0	1	216
2217.0	04:02	14.5	16.6	12	118	124	80	18696	91	113	1.1	1.1	47.5	47.7	167.4	26.69	1.43	442.0	1	217
2218.0	04:06	12.8	16.6	12	118	122	80	18715	91	113	1.1	1.1	47.6	47.7	168.0	26.76	1.45	443.0	1	218
2219.0	04:10	16.2	16.6	12	118	131	80	18705	91	113	1.1	1.1	47.6	47.7	168.4	26.83	1.39	444.0	1	219
2220.0	04:14	15.4	16.5	12	117	137	80	18731	90	112	1.1	1.1	47.7	47.7	168.9	26.89	1.39	445.0	1	220
2221.0	04:17	17.1	16.5	12	118	126	80	18769	90	112	1.1	1.1	47.7	47.8	169.4	26.95	1.36	446.0	1	221
2222.0	04:22	12.2	16.5	12	118	131	80	18756	90	112	1.1	1.1	47.8	47.9	169.8	27.03	1.46	447.0	1	222
2223.0	04:27	12.2	16.5	12	118	132	80	18802	91	112	1.1	1.0	47.8	43.9	170.4	27.11	1.48	448.0	1	223
2224.0	04:33	10.9	16.5	12	118	132	80	18789	91	112	1.1	1.1	47.9	46.9	171.1	27.21	1.51	449.0	0	224
2225.0	04:38	12.2	16.5	12	118	129	80	18790	91	112	1.1	1.1	47.9	47.3	171.6	27.29	1.46	450.0	1	225
2226.0	04:42	14.8	16.5	12	118	121	80	18784	91	113	1.1	1.1	47.9	47.2	172.1	27.35	1.40	451.0	1	226
2227.0	04:45	18.9	16.5	11	118	129	80	18803	91	112	1.1	1.1	48.0	47.4	172.6	27.41	1.30	452.0	1	227
2228.0	04:49	14.6	16.5	12	118	132	80	18796	91	112	1.1	1.1	48.0	47.6	173.1	27.48	1.42	453.0	1	228
2229.0	04:53	14.2	16.5	12	118	127	80	18779	90	112	1.1	1.1	48.0	47.8	173.5	27.55	1.43	454.0	1	229
2230.0	04:57	15.0	16.5	13	117	189	80	18774	90	112	1.1	1.1	48.1	47.8	174.0	27.61	1.42	455.0	1	230
2231.0	05:02	12.6	16.5	12	118	145	80	18747	90	112	1.1	1.1	48.1	47.8	174.5	27.69	1.47	456.0	1	231
2232.0	05:06	14.9	16.5	12	118	123	80	18737	89	111	1.1	1.1	48.1	47.8	175.0	27.76	1.40	457.0	1	232
2233.0	05:21	14.4	16.5	12	114	127	79	18464	90	111	1.1	1.1	48.2	48.0	175.5	27.83	1.40	458.0	1	233
2234.0	05:25	13.4	16.4	11	123	141	77	17620	91	111	1.1	1.1	48.2	48.0	176.0	27.90	1.42	459.0	1	234
2235.0	05:31	10.3	16.4	11	123	149	79	18266	91	112	1.1	1.1	48.3	48.0	176.7	28.00	1.51	460.0	1	235
2236.0	05:35	13.9	16.4	11	124	142	80	18649	91	111	1.1	1.1	48.3	47.8	177.3	28.07	1.40	461.0	1	236
2237.0	05:41	11.0	16.4	11	124	160	80	18668	90	111	1.1	1.1	48.3	48.0	177.9	28.16	1.47	462.0	1	237
2238.0	05:47	9.8	16.4	11	124	128	80	18644	90	111	1.1	1.1	48.3	48.1	178.6	28.26	1.50	463.0	1	238
2239.0	05:57	6.2	16.3	11	124	124	80	18653	90	110	1.1	1.1	48.3	48.2	179.9	28.42	1.63	464.0	1	239
2240.0	06:06	6.7	16.3	11	124	121	80	18656	89	109	1.1	1.1	48.3	48.2	181.0	28.57	1.61	465.0	0	240
2241.0	06:18	4.9	16.2	12	117	121	80	18692	89	109	1.1	1.1	48.3	48.1	182.5	28.78	1.69	466.0	1	241
2242.0	06:28	5.7	16.1	12	117	119	80	18636	88	108	1.1	1.1	48.3	48.2	183.7	28.95	1.64	467.0	1	242
2243.0	06:37	6.9	16.1	11	117	116	80	18594	87	107	1.1	1.1	48.3	48.3	184.6	29.10	1.58	468.0	1	243
2244.0	06:49	4.9	16.0	12	116	150	80	18624	87	106	1.1	1.0	48.3	48.2	186.0	29.30	1.70	469.0	0	244
2245.0	06:58	6.7	16.0	11	116	172	80	18732	86	106	1.1	1.0	48.4	47.8	187.1	29.45	1.59	470.0	0	245
2246.0	07:08	6.1	15.9	12	116	169	80	18759	86	106	1.1	1.1	48.3	47.8	188.3	29.61	1.65	471.0	0	246
2247.0	07:19	5.5	15.8	11	116	185	80	18842	86	106	1.1	1.1	48.3	47.8	189.5	29.80	1.65	472.0	1	247
2248.0	07:30	5.4	15.8	12	117	151	80	18727	86	105	1.1	1.1	48.2	47.8	190.8	29.98	1.68	473.0	1	248
2249.0	07:43	4.6	15.7	12	117	105	80	18639	87	106	1.1	1.1	48.1	47.8	192.3	30.20	1.72	474.0	0	249
2250.0	07:57	4.2	15.6	12	117	109	80	18662	87	106	1.1	1.1	47.9	47.7	194.0	30.43	1.74	475.0	0	250
2251.0	08:07	6.2	15.6	12	117	112	80	18582	86	105	1.1	1.1	47.8	47.6	195.0	30.60	1.64	476.0	0	251
2252.0	08:19	5.0	15.5	11	117	109	80	18519	85	104	1.1	1.1	47.6	47.6	196.5	30.80	1.69	477.0	0	252
2253.0	08:29	5.7	15.4	12	117	113	80	18564	85	104	1.1	1.1	47.5	47.4	197.7	30.97	1.66	478.0	0	253
2254.0	08:40	5.8	15.4	12	117	115	80	18616	85	104	1.1	1.2	47.4	47.3	199.0	31.14	1.67	479.0	1	254
2255.0	08:48	7.3	15.3	12	117	112	80	18598	85	103	1.1	1.2	47.3	47.2	199.9	31.28	1.59	480.0	1	255
2256.0	09:00	5.2	15.3	12	117	112	80	18666	84	103	1.1	1.2	47.1	47.0	201.2	31.47	1.70	481.0	0	256
2257.0	09:11	5.1	15.2	12	117	112	80	18663	84	103	1.1	1.1	47.0	46.8	202.5	31.67	1.70	482.0	0	257
2258.0	09:21	5.9	15.2	12	117	110	80	18693	84	103	1.1	1.1	46.9	46.8	203.7	31.84	1.66	483.0	0	258
2259.0	09:34	4.7	15.1	12	118	110	80	18718	84	103	1.1	1.2	46.7	47.2	205.3	32.05	1.73	484.0	1	259
2260.0	09:48	4.5	15.0	12	118	109	80	18710	83	102	1.1	1.2	46.5	47.0	206.8	32.28	1.75	485.0	0	260
2261.0	10:01	4.5	15.0	12	118	109	80	18628	83	102	1.1	1.1	46.2	46.8	208.4	32.50	1.74	486.0	0	261
2262.0	10:11	6.0	14.9	12	118	113	80	18589	82	101	1.1	1.1	46.2	46.8	209.6	32.66	1.68	487.0	0	262
2263.0	10:42	5.0	14.9	8	119	124	78	18411	82	101	1.1	1.1	45.5	45.5	210.6	32.82	1.56	488.0	0	263

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2263.0	10:42	5.0	14.9	8	119	124	78	18411	82	101	1.1	1.1	45.5	45.5	210.6	32.82	1.56	488.0	0	263
2264.0	10:50	7.8	14.8	9	119	126	79	18390	82	101	1.1	1.1	45.3	45.1	211.6	32.95	1.47	489.0	1	264
2265.0	10:59	7.0	14.8	9	119	125	80	18781	82	100	1.1	1.1	45.1	44.9	212.6	33.10	1.49	490.0	0	265
2266.0	11:06	9.0	14.8	10	119	125	79	18709	81	100	1.1	1.1	44.8	44.9	213.4	33.21	1.49	491.0	0	266
2267.0	11:15	6.2	14.7	10	119	119	79	18674	82	100	1.1	1.1	44.5	44.7	214.5	33.37	1.59	492.0	0	267
2268.0	11:28	4.6	14.7	10	119	117	79	18683	82	101	1.1	1.2	44.1	44.1	216.1	33.59	1.70	493.0	0	268
2269.0	11:39	5.4	14.6	8	119	123	80	18689	83	102	1.1	1.2	43.9	44.5	217.4	33.77	1.54	494.0	0	269
2270.0	11:47	8.4	14.6	8	119	127	79	18655	83	102	1.1	1.2	43.7	44.4	218.3	33.89	1.44	495.0	0	270
2271.0	11:56	6.5	14.6	11	112	128	79	18577	83	102	1.1	1.2	43.6	44.3	219.3	34.05	1.57	496.0	0	271
2272.0	11:58	27.7	14.6	10	91	135	79	18464	84	103	1.1	1.2	43.5	44.4	219.5	34.08	1.11	497.0	2	272
2273.0	12:00	35.3	14.6	7	91	122	79	18414	84	102	1.1	1.2	43.4	44.3	219.7	34.11	0.95	498.0	5	273
2274.0	12:02	26.1	14.6	4	91	108	79	18469	84	103	1.1	1.2	43.4	44.3	219.9	34.15	0.90	499.0	6	274
2275.0	12:14	22.9	14.6	3	87	102	79	18371	85	102	1.1	1.2	43.0	44.4	220.1	34.19	0.89	500.0	4	275
2276.0	12:17	22.4	14.6	4	92	108	79	18388	84	102	1.1	1.2	42.8	44.2	220.3	34.24	0.94	501.0	5	276
2277.0	12:20	22.0	14.6	6	92	119	79	18374	84	102	1.1	1.2	42.7	43.9	220.6	34.28	1.01	502.0	5	277
2278.0	12:22	22.8	14.7	7	92	124	78	18294	84	103	1.1	1.2	42.7	43.9	220.8	34.33	1.07	503.0	5	278
2279.0	12:26	17.4	14.7	8	92	137	78	18270	85	103	1.1	1.2	42.6	44.1	221.1	34.38	1.14	504.0	4	279
2280.0	12:30	15.9	14.7	7	92	125	78	18286	84	103	1.1	1.2	42.6	44.3	221.5	34.45	1.13	505.0	4	280
2281.0	12:33	18.7	14.7	7	92	120	78	18269	84	103	1.1	1.2	42.5	44.3	221.7	34.50	1.11	506.0	3	281
2282.0	12:36	18.3	14.7	8	92	122	78	18298	84	103	1.1	1.2	42.4	43.7	222.0	34.55	1.13	507.0	1	282
2283.0	12:41	13.1	14.7	8	92	117	78	18304	84	103	1.1	1.2	42.4	42.9	222.5	34.63	1.24	508.0	3	283
2284.0	12:46	10.7	14.7	8	92	117	79	18399	84	103	1.1	1.2	42.3	43.4	223.0	34.72	1.28	509.0	3	284
2285.0	12:52	11.5	14.7	8	100	115	79	18532	83	102	1.1	1.2	42.2	43.9	223.5	34.81	1.28	510.0	3	285
2286.0	12:57	11.5	14.6	8	104	122	79	18457	83	102	1.1	1.2	42.0	44.0	224.0	34.90	1.31	511.0	2	286
2287.0	13:04	8.4	14.6	9	104	116	79	18491	84	103	1.1	1.2	41.8	43.8	224.7	35.02	1.43	512.0	2	287
2288.0	13:10	10.1	14.6	10	104	118	79	18393	84	104	1.1	1.2	41.8	44.0	225.4	35.11	1.41	513.0	2	288
2289.0	13:34	10.0	14.6	8	97	108	78	18350	84	104	1.1	1.2	41.7	43.7	226.0	35.21	1.30	514.0	4	289
2290.0	13:38	13.1	14.6	7	93	120	78	18330	84	104	1.1	1.2	41.6	43.8	226.4	35.29	1.19	515.0	6	290
2291.0	13:45	8.9	14.6	8	93	118	78	18320	84	104	1.1	1.2	41.6	43.8	227.0	35.40	1.33	516.0	6	291
2292.0	13:52	9.3	14.6	7	93	117	78	18275	84	104	1.1	1.2	41.6	43.8	227.6	35.51	1.26	517.0	6	292
2293.0	13:56	12.2	14.6	6	93	111	78	18187	84	104	1.1	1.2	41.5	43.8	228.1	35.59	1.18	518.0	7	293
2294.0	14:01	12.1	14.5	8	93	120	78	18215	84	104	1.1	1.2	41.5	43.8	228.5	35.68	1.25	519.0	6	294
2295.0	14:07	10.3	14.5	8	93	123	78	18197	84	104	1.1	1.2	41.5	43.9	229.0	35.77	1.28	520.0	7	295
2296.0	14:13	11.3	14.5	8	93	122	78	18199	84	103	1.1	1.2	41.5	43.9	229.5	35.86	1.30	521.0	8	296
2297.0	14:18	10.9	14.5	9	93	124	78	18252	84	104	1.1	1.2	41.6	43.7	230.1	35.95	1.32	522.0	8	297
2298.0	14:23	11.7	14.5	9	93	125	78	18277	84	103	1.1	1.2	41.6	43.7	230.5	36.04	1.32	523.0	9	298
2299.0	14:28	11.5	14.5	10	93	128	78	18313	84	104	1.1	1.2	41.6	43.9	231.0	36.12	1.33	524.0	8	299
2300.0	14:34	10.9	14.5	10	93	129	78	18377	83	103	1.1	1.2	41.6	43.8	231.5	36.22	1.36	525.0	8	300
2301.0	14:37	16.8	14.5	10	93	132	78	18377	83	103	1.1	1.2	41.5	43.7	231.9	36.28	1.27	526.0	8	301
2302.0	14:42	14.1	14.5	10	93	128	78	18439	84	104	1.1	1.2	41.5	43.5	232.2	36.35	1.29	527.0	8	302
2303.0	14:51	6.2	14.5	11	93	120	78	18505	84	104	1.1	1.2	41.5	43.8	233.1	36.51	1.56	528.0	7	303
2304.0	14:54	21.4	14.5	8	93	121	79	18620	83	103	1.1	1.2	41.6	43.8	233.4	36.56	1.12	529.0	6	304
2305.0	15:00	10.1	14.5	7	93	114	78	18629	82	103	1.1	1.2	41.6	43.6	233.9	36.65	1.24	530.0	6	305
2306.0	15:02	30.8	14.5	7	93	140	79	18589	82	103	1.1	1.2	41.5	43.8	234.1	36.69	0.97	531.0	7	306
2307.0	15:05	24.2	14.5	6	93	119	78	18518	82	103	1.1	1.2	41.5	43.6	234.3	36.73	1.02	532.0	8	307
2308.0	15:07	24.7	14.5	7	93	128	78	18538	83	103	1.1	1.2	41.5	43.5	234.6	36.77	1.03	533.0	7	308
2309.0	15:10	21.1	14.5	8	94	139	79	18622	83	103	1.1	1.2	41.5	43.6	234.8	36.82	1.12	534.0	7	309
2310.0	15:13	19.6	14.5	9	93	122	78	18545	83	103	1.1	1.2	41.6	43.6	235.1	36.87	1.18	535.0	6	310
2311.0	15:19	10.1	14.5	9	93	112	78	18522	84	104	1.1	1.2	41.6	43.5	235.6	36.97	1.33	536.0	5	311
2312.0	15:29	6.0	14.5	10	93	112	78	18504	83	103	1.1	1.2	41.6	44.0	236.6	37.13	1.52	537.0	5	312

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2312.0	15:29	6.0	14.5	10	93	112	78	18504	83	103	1.1	1.2	41.6	44.0	236.6	37.13	1.52	537.0	5	312
2313.0	15:31	24.8	14.5	8	93	119	78	18532	84	103	1.1	1.2	41.7	44.7	236.8	37.17	1.09	538.0	6	313
2314.0	15:37	10.7	14.5	8	93	116	78	18574	84	103	1.1	1.2	41.7	44.3	237.3	37.27	1.30	539.0	6	314
2315.0	15:47	5.9	14.4	10	93	132	78	18566	84	104	1.1	1.2	41.7	44.4	238.3	37.44	1.53	540.0	4	315
2316.0	15:55	7.5	14.4	11	93	129	78	18542	84	103	1.1	1.2	41.7	35.9	239.0	37.57	1.51	541.0	4	316
2317.0	15:59	14.3	14.4	8	93	132	78	18519	84	103	1.1	1.2	41.7	39.1	239.4	37.64	1.19	542.0	4	317
2318.0	18:14	11.0	14.4	10	92	116	78	18644	83	102	1.1	1.1	40.4	41.5	239.9	37.73	1.35	543.0	7	318
2319.0	18:39	4.7	14.3	8	95	110	79	19037	81	100	1.1	1.1	37.9	42.4	241.1	37.94	1.53	544.0	4	319
2320.0	18:48	6.5	14.3	11	94	127	80	19156	81	100	1.1	1.1	36.8	42.6	241.9	38.10	1.55	545.0	4	320
2321.0	18:56	8.4	14.3	11	94	127	80	18979	81	99	1.1	1.1	36.6	42.3	242.6	38.22	1.51	546.0	4	321
2322.0	19:05	6.2	14.3	11	94	118	79	18750	80	99	1.1	1.1	36.6	42.3	243.6	38.38	1.57	547.0	4	322
2323.0	19:13	7.6	14.2	10	101	123	80	18783	81	99	1.1	1.1	36.9	42.7	244.3	38.51	1.51	548.0	4	323
2324.0	19:23	6.1	14.2	9	96	117	80	18978	81	99	1.1	1.1	37.2	42.9	245.3	38.67	1.52	549.0	4	324
2325.0	19:29	9.5	14.2	8	91	113	79	18829	80	99	1.1	1.1	37.5	42.9	245.8	38.78	1.34	550.0	4	325
2326.0	19:36	8.6	14.2	8	110	115	80	18959	80	98	1.1	1.1	37.8	42.7	246.6	38.89	1.39	551.0	4	326
2327.0	19:45	6.5	14.1	9	113	119	80	19100	80	98	1.1	1.1	38.1	42.9	247.6	39.05	1.50	552.0	5	327
2328.0	20:02	5.0	14.1	7	105	159	80	19128	80	98	1.1	1.1	38.6	42.8	248.9	39.25	1.49	553.0	4	328
2329.0	20:12	5.8	14.1	8	90	113	79	18994	81	99	1.1	1.1	38.9	42.7	249.8	39.42	1.45	554.0	4	329
2330.0	20:17	14.1	14.1	8	90	164	79	19074	81	99	1.1	1.1	39.0	43.0	250.2	39.49	1.21	555.0	25	330
2331.0	20:22	11.6	14.0	6	90	273	80	19366	81	99	1.1	1.1	39.0	42.8	250.6	39.58	1.19	556.0	18	331
2332.0	20:28	9.6	14.0	8	89	278	79	18866	81	99	1.1	1.1	39.1	42.6	251.3	39.68	1.29	557.0	6	332
2333.0	20:37	6.5	14.0	8	90	281	80	19366	81	100	1.1	1.1	39.2	42.7	252.0	39.84	1.41	558.0	5	333
2334.0	20:43	10.4	14.0	10	92	301	80	19311	82	100	1.1	1.1	39.3	42.6	252.6	39.93	1.37	559.0	4	334
2335.0	20:50	9.1	14.0	9	102	311	80	19212	82	100	1.1	1.1	39.4	42.7	253.3	40.04	1.42	560.0	4	335
2336.0	21:07	5.0	13.9	8	96	294	80	19083	82	101	1.1	1.1	39.7	42.8	254.4	40.24	1.51	561.0	4	336
2337.0	21:16	12.0	13.9	9	111	359	81	19336	83	102	1.1	1.1	39.9	42.9	254.9	40.32	1.35	562.0	7	337
2338.0	21:27	5.6	13.9	9	99	128	79	18699	84	102	1.1	1.1	39.9	42.9	256.0	40.50	1.51	563.0	5	338
2339.0	21:35	7.1	13.9	9	99	121	79	18593	84	103	1.1	1.1	39.9	42.8	256.8	40.65	1.46	564.0	7	339
2340.0	21:39	16.7	13.9	8	99	122	79	18680	84	103	1.1	1.1	39.9	42.8	257.1	40.71	1.21	565.0	14	340
2341.0	21:41	27.7	13.9	7	99	123	79	18686	84	103	1.1	1.1	39.9	42.8	257.4	40.74	1.04	566.0	10	341
2342.0	21:49	7.5	13.9	9	99	117	79	18676	84	103	1.1	1.1	39.9	42.6	258.2	40.87	1.44	567.0	6	342
2343.0	21:57	7.8	13.9	12	99	122	79	18791	85	104	1.1	1.1	39.8	42.6	258.9	41.00	1.55	568.0	5	343
2344.0	22:10	4.4	13.8	12	99	111	79	18718	86	105	1.1	1.2	39.8	41.7	260.2	41.23	1.70	569.0	3	344
2345.0	22:21	5.4	13.8	9	107	109	79	18862	87	105	1.1	1.2	40.0	42.1	261.4	41.41	1.56	570.0	5	345
2346.0	22:31	6.2	13.7	10	107	117	79	18912	87	106	1.1	1.2	40.0	42.4	262.5	41.57	1.57	571.0	8	346
2347.0	22:36	11.8	13.7	11	107	134	79	18876	88	107	1.1	1.2	40.1	42.3	263.0	41.66	1.44	572.0	13	347
2348.0	23:07	9.3	13.7	11	106	123	79	18769	88	107	1.1	1.2	40.1	42.2	263.7	41.77	1.48	573.0	10	348
2349.0	23:16	6.8	13.7	8	102	114	79	18604	89	108	1.1	1.2	39.7	42.0	264.5	41.91	1.44	574.0	5	349
2350.0	23:25	6.3	13.7	9	103	119	80	19153	89	108	1.1	1.2	39.5	42.1	265.5	42.07	1.51	575.0	5	350
2351.0	23:33	7.2	13.6	9	103	124	80	19158	89	109	1.1	1.2	39.4	42.1	266.3	42.21	1.49	576.0	7	351
2352.0	23:40	9.4	13.6	9	103	129	80	19179	89	109	1.1	1.2	39.3	42.2	267.0	42.32	1.41	577.0	24	352
2353.0	23:41	37.1	13.7	7	103	120	80	19202	90	109	1.1	1.2	39.2	42.1	267.1	42.34	0.97	578.0	48	353
2354.0	23:50	6.9	13.6	10	103	126	80	19203	90	110	1.1	1.2	39.2	42.1	268.1	42.49	1.53	579.0	28	354
2355.0	23:56	9.4	13.6	10	119	127	80	19014	90	110	1.1	1.1	39.2	41.9	268.8	42.59	1.47	580.0	8	355
2356.0	00:04	8.4	13.6	10	120	131	79	18858	91	111	1.1	1.1	39.2	41.9	269.7	42.71	1.52	581.0	6	356
2357.0	00:21	5.7	13.6	9	104	292	80	19210	92	112	1.1	1.1	39.3	41.7	270.8	42.89	1.53	582.0	6	357
2358.0	00:34	4.6	13.5	10	93	310	80	19116	92	112	1.1	1.1	39.3	41.8	272.0	43.11	1.61	583.0	5	358
2359.0	00:44	6.0	13.5	10	101	340	80	19026	93	113	1.1	1.1	39.4	41.6	273.0	43.27	1.50	584.0	5	359
2360.0	00:59	4.1	13.4	10	110	365	80	19095	93	114	1.1	1.1	39.4	41.5	274.6	43.52	1.64	585.0	5	360
2361.0	01:05	10.1	13.4	10	115	368	80	19129	93	114	1.1	1.1	39.4	41.5	275.3	43.62	1.41	586.0	11	361

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2361.0	01:05	10.1	13.4	10	115	368	80	19129	93	114	1.1	1.1	39.4	41.5	275.3	43.62	1.41	586.0	11	361
2362.0	01:07	28.1	13.4	8	115	345	80	19018	94	114	1.1	1.1	39.3	41.8	275.6	43.65	1.06	587.0	77	362
2363.0	01:15	7.5	13.4	9	115	360	80	19126	94	115	1.1	1.1	39.3	41.9	276.4	43.79	1.45	588.0	49	363
2364.0	01:24	6.5	13.4	10	115	344	80	19106	94	115	1.1	1.1	39.3	41.9	277.5	43.94	1.51	589.0	9	364
2365.0	01:34	6.2	13.4	10	116	411	80	19314	95	115	1.1	1.1	39.3	41.6	278.6	44.10	1.53	590.0	7	365
2366.0	01:43	6.3	13.4	9	116	408	80	19256	95	116	1.1	1.1	39.3	41.5	279.7	44.26	1.50	591.0	7	366
2367.0	01:53	6.0	13.3	10	116	380	80	19203	95	116	1.1	1.1	39.2	41.3	280.9	44.43	1.54	592.0	7	367
2368.0	02:02	7.1	13.3	10	116	380	80	19241	96	117	1.1	1.0	39.2	41.4	281.8	44.57	1.52	593.0	7	368
2369.0	02:10	7.3	13.3	10	115	383	79	19039	96	116	1.1	1.0	39.1	41.5	282.7	44.70	1.51	594.0	9	369
2370.0	02:12	33.6	13.3	9	115	423	80	19051	96	117	1.1	1.0	39.1	41.4	283.0	44.73	1.06	595.0	61	370
2371.0	02:21	6.4	13.3	10	115	438	80	19101	97	117	1.1	1.0	39.0	41.5	284.0	44.89	1.54	596.0	23	371
2372.0	02:31	6.2	13.3	10	115	439	80	19043	98	118	1.1	1.1	39.0	41.7	285.2	45.05	1.55	597.0	7	372
2373.0	02:44	4.6	13.2	10	115	435	80	19006	98	119	1.1	1.0	39.1	42.3	286.7	45.27	1.62	598.0	99	373
2374.0	02:53	6.7	13.2	10	116	435	80	18988	99	120	1.1	1.0	39.1	41.5	287.6	45.42	1.52	599.0	10	374
2375.0	03:46	4.2	13.1	8	111	339	79	18808	100	121	1.1	1.0	39.1	41.7	289.3	45.66	1.53	600.0	6	375
2376.0	03:55	6.6	13.1	8	115	246	80	19235	100	122	1.1	1.0	39.0	41.4	290.3	45.81	1.45	601.0	16	376
2377.0	04:10	4.1	13.1	11	116	456	80	19214	101	122	1.1	1.0	39.0	41.3	292.0	46.05	1.70	602.0	6	377
2378.0	04:26	3.6	13.0	11	110	435	80	19201	101	122	1.1	1.0	39.0	41.3	293.9	46.33	1.73	603.0	6	378
2379.0	04:39	4.7	13.0	12	109	447	80	19216	102	123	1.1	1.0	39.0	41.3	295.2	46.54	1.67	604.0	6	379
2380.0	04:49	5.9	13.0	11	109	449	80	19195	102	123	1.1	1.0	39.0	41.7	296.3	46.71	1.60	605.0	6	380
2381.0	05:01	5.3	12.9	11	109	452	80	19053	102	124	1.1	1.0	38.9	41.2	297.5	46.90	1.64	606.0	7	381
2382.0	05:08	8.1	8.1	11	109	450	80	19130	120	125	1.1	1.0	38.9	41.3	297.2	47.40	1.64	607.0	8	382

BR5 NB3 DRILLED 607m in 47.4 RHOB, AVE ROP 12.8 m/hr, KREVS 300.8

NB3 SMITH F2 (JETS 2x11,1x10) 216mm, POH TO CHANGE BIT.

HALLIBURTON GEODATA LTD

ENGINEERING DATA FOR BIT RUN 6

DATE 13-DEC-92

WELL NUMBER	FLINDERS 1	OPERATING COMPANY	SAGASCO RESOURCES
DEPTH TO SHOE	1520.000	CASING SIZE	244.000
BIT SIZE	216.000	BIT NUMBER & TYPE	BR6 NB4 SMITH F2
RIG COST/HR	5254.000	INITIAL COST	77986.000
TRIP TIME	14.000	PUMP CAP LITS.STK	18.988
BIT COST	4430.000	JET SIZES	11 11 10 0
START DRILLING	2382.000		

MUD DATA LISTING

WEIGHT SG	VISCOSITY SEC/L	PL VISC C.P.	YIELD PT LB/100FT2	GEL 0/10	pH	FILTRATE ML/30MIN	CAKE 32ND	SOLIDS %	SAND %
1.09	53	19	32	9/ 13	9.5	6.40	1.00	3.00	0.00

292134

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2383.0	20:51	3.6	6.8	3	85	91	79	18680	89	116	1.1	1.1	35.2	42.0	1.4	0.30	1.25	1.0	6	383
2384.0	21:15	2.5	4.3	6	103	101	80	19018	89	116	1.1	1.1	37.0	42.3	3.9	0.70	1.55	2.0	4	384
2385.0	21:24	6.5	4.7	9	107	120	79	18813	89	116	1.1	1.1	38.1	42.5	4.8	0.85	1.49	3.0	6	385
2386.0	21:30	10.0	5.3	10	107	126	80	18962	90	116	1.1	1.1	38.4	42.6	5.5	0.95	1.43	4.0	6	386
2387.0	21:39	7.2	5.5	10	107	127	80	19010	90	116	1.1	1.1	38.7	42.7	6.4	1.09	1.51	5.0	7	387
2388.0	21:47	7.1	5.7	11	107	127	80	19003	91	116	1.1	1.1	39.0	42.6	7.2	1.23	1.53	6.0	7	388
2389.0	21:54	9.4	6.0	8	107	124	80	19024	91	116	1.1	1.1	39.2	42.7	8.0	1.34	1.34	7.0	8	389
2390.0	22:02	7.4	6.1	9	107	123	80	19031	90	116	1.1	1.0	39.5	42.9	8.9	1.48	1.46	8.0	9	390
2391.0	22:11	6.2	6.1	9	107	120	80	19027	90	115	1.1	1.1	39.8	42.9	9.8	1.64	1.49	9.0	8	391
2392.0	22:18	9.3	6.3	8	107	116	80	19029	91	115	1.1	1.1	40.0	42.7	10.5	1.74	1.35	10.0	9	392
2393.0	22:19	40.4	6.8	5	107	115	80	19009	91	115	1.1	1.1	40.2	42.8	10.7	1.77	0.87	11.0	23	393
2394.0	22:21	28.1	7.2	7	107	122	80	19006	91	115	1.1	1.1	40.2	42.9	10.9	1.80	1.02	12.0	60	394
2395.0	22:25	16.0	7.5	8	106	174	80	19040	90	115	1.1	1.1	40.3	42.9	11.3	1.87	1.20	13.0	95	395
2396.0	22:30	13.5	7.7	8	107	127	80	19035	90	115	1.1	1.1	40.4	42.8	11.8	1.94	1.26	14.0	49	396
2397.0	22:35	10.9	7.9	9	107	116	80	19022	90	116	1.1	1.0	40.6	43.1	12.3	2.03	1.32	15.0	29	397
2398.0	22:44	6.7	7.8	9	107	113	80	18956	90	115	1.1	1.0	40.8	43.1	13.3	2.18	1.45	16.0	16	398
2399.0	22:51	8.3	7.8	10	107	117	80	18966	87	115	1.1	1.0	40.9	43.1	14.1	2.30	1.43	17.0	9	399
2400.0	22:58	8.7	7.9	9	107	105	79	18908	87	115	1.1	1.0	41.0	43.1	14.9	2.42	1.37	18.0	20	400
2401.0	23:08	6.0	7.7	9	107	110	79	18874	88	115	1.1	1.0	41.1	43.2	15.8	2.58	1.49	19.0	11	401
2402.0	23:18	6.4	7.7	9	107	105	79	18741	88	115	1.1	1.0	41.3	43.2	16.9	2.74	1.47	20.0	7	402
2403.0	23:29	5.4	7.5	9	107	106	79	18668	89	114	1.1	1.0	41.5	43.2	18.0	2.92	1.50	21.0	9	403
2404.0	23:35	9.8	7.6	10	106	113	79	18696	89	115	1.1	1.0	41.8	43.4	18.6	3.03	1.42	22.0	10	404
2405.0	23:42	7.9	7.6	10	107	111	79	18719	89	115	1.1	1.0	41.8	43.1	19.5	3.15	1.45	23.0	7	405
2406.0	23:51	7.1	7.6	10	107	115	79	18793	89	115	1.1	1.0	41.9	41.2	20.4	3.29	1.49	24.0	6	406
2407.0	00:03	4.9	7.4	11	107	111	79	18840	89	116	1.1	1.0	42.0	42.4	21.7	3.50	1.60	25.0	6	407
2408.0	00:15	5.3	7.3	12	107	116	79	18959	89	116	1.1	1.1	42.0	42.9	22.9	3.69	1.65	26.0	6	408
2409.0	00:47	5.6	7.2	11	107	115	79	18952	89	116	1.1	1.1	41.9	43.1	24.1	3.87	1.61	27.0	6	409
2410.0	00:51	15.9	7.4	9	118	130	79	18944	89	115	1.1	1.1	41.7	43.2	24.4	3.93	1.25	28.0	6	410
2411.0	00:58	8.6	7.4	9	118	123	79	18756	89	115	1.1	1.1	41.8	43.2	25.3	4.05	1.40	29.0	12	411
2412.0	01:07	6.8	7.4	10	118	122	79	18622	87	114	1.1	1.1	41.9	43.0	26.3	4.19	1.54	30.0	14	412
2413.0	01:14	8.4	7.4	10	118	123	79	18710	87	114	1.1	1.1	41.9	43.2	27.2	4.31	1.48	31.0	9	413
2414.0	01:22	7.8	7.4	10	118	122	79	18827	86	113	1.1	1.1	41.8	43.4	28.1	4.44	1.48	32.0	12	414
2415.0	01:30	7.1	7.4	10	119	123	80	18991	86	113	1.1	1.1	41.8	43.9	29.1	4.58	1.54	33.0	10	415
2416.0	01:41	5.8	7.4	10	119	120	80	19110	87	114	1.1	1.1	41.7	45.0	30.3	4.76	1.59	34.0	8	416
2417.0	01:49	7.8	7.4	10	119	120	80	19154	87	113	1.1	1.1	41.7	45.6	31.3	4.88	1.49	35.0	8	417
2418.0	01:56	7.7	7.4	10	119	124	80	19166	86	112	1.1	1.1	41.8	45.8	32.1	5.01	1.51	36.0	8	418
2419.0	02:02	10.7	7.4	9	119	120	80	19193	86	112	1.1	1.1	41.9	45.9	32.8	5.11	1.35	37.0	7	419
2420.0	02:06	15.3	7.5	10	119	129	80	19252	86	112	1.1	1.1	41.9	46.0	33.3	5.17	1.31	38.0	8	420
2421.0	02:08	27.9	7.7	10	119	134	80	19312	86	112	1.1	1.1	42.0	44.5	33.6	5.21	1.14	39.0	6	421
2422.0	03:28	2.8	7.4	10	119	127	79	18780	81	107	1.1	1.1	43.4	43.7	36.1	5.57	1.77	40.0	6	422
2423.0	03:37	6.9	7.4	11	104	126	79	18761	81	106	1.1	1.1	44.0	43.6	37.0	5.71	1.52	41.0	6	423
2424.0	03:41	13.5	7.4	11	120	130	79	18997	81	106	1.1	1.1	44.1	43.7	37.5	5.79	1.37	42.0	8	424
2425.0	03:49	7.9	7.4	11	121	130	79	19029	80	106	1.1	1.1	44.1	43.6	38.5	5.91	1.54	43.0	7	425
2426.0	03:58	6.5	7.4	11	121	133	79	19071	80	106	1.1	1.1	44.1	43.6	39.6	6.07	1.58	44.0	7	426
2427.0	04:07	6.5	7.4	11	121	129	79	19241	80	106	1.1	1.1	44.0	43.8	40.7	6.22	1.59	45.0	7	427
2428.0	04:17	6.4	7.4	12	121	130	79	19278	79	105	1.1	1.1	43.8	43.8	41.8	6.38	1.61	46.0	9	428
2429.0	04:29	5.1	7.3	10	121	125	79	19159	79	105	1.1	1.1	43.6	43.7	43.3	6.58	1.62	47.0	5	429
2430.0	04:39	6.0	7.3	10	121	122	79	19212	78	105	1.1	1.1	43.4	44.2	44.5	6.74	1.54	48.0	4	430
2431.0	04:50	5.5	7.2	11	121	123	79	19247	78	104	1.1	1.1	43.2	42.5	45.7	6.93	1.61	49.0	4	431
2432.0	05:00	6.0	7.2	11	121	123	79	19239	78	104	1.1	1.1	43.1	43.2	46.9	7.09	1.60	50.0	4	432

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2432.0	05:00	6.0	7.2	11	121	123	79	19239	78	104	1.1	1.1	43.1	43.2	46.9	7.09	1.60	50.0	4	432
2433.0	05:07	8.7	7.2	10	121	127	79	19138	78	104	1.1	1.1	43.0	43.5	47.8	7.21	1.47	51.0	5	433
2434.0	05:11	14.5	7.3	10	121	129	79	19206	78	104	1.1	1.1	43.0	43.7	48.3	7.28	1.34	52.0	6	434
2435.0	05:13	27.3	7.4	10	121	134	79	19241	77	104	1.1	1.1	43.0	43.6	48.5	7.32	1.16	53.0	8	435
2436.0	05:16	22.6	7.5	9	121	133	79	19256	77	104	1.1	1.1	43.0	43.3	48.9	7.36	1.18	54.0	8	436
2437.0	05:39	16.0	7.5	10	112	123	79	19015	78	104	1.1	1.1	42.9	43.5	49.4	7.42	1.27	55.0	6	437
2438.0	05:44	10.7	7.6	9	121	126	78	18893	78	104	1.1	1.1	42.8	43.7	50.0	7.52	1.37	56.0	7	438
2439.0	05:50	10.7	7.6	8	121	129	78	18925	77	104	1.1	1.1	42.8	43.6	50.7	7.61	1.34	57.0	6	439
2440.0	05:53	20.7	7.7	9	121	138	78	18965	77	103	1.1	1.1	42.8	43.6	51.1	7.66	1.19	58.0	9	440
2441.0	05:57	15.3	7.8	8	121	128	78	18951	77	103	1.1	1.1	42.8	43.8	51.5	7.72	1.25	59.0	10	441
2442.0	06:11	4.3	7.7	8	121	131	78	18951	77	103	1.1	1.1	42.7	44.0	53.2	7.95	1.57	60.0	8	442
2443.0	06:19	17.7	7.7	8	120	138	79	19397	79	103	1.1	1.1	42.6	44.0	53.6	8.01	1.20	61.0	9	443
2444.0	06:29	6.3	7.7	9	118	125	80	19701	78	103	1.1	1.1	42.5	44.2	54.7	8.17	1.48	62.0	6	444
2445.0	06:35	10.0	7.7	8	118	123	77	18506	78	103	1.1	1.1	42.5	44.3	55.4	8.27	1.33	63.0	6	445
2446.0	06:44	6.5	7.7	8	118	128	78	18847	77	103	1.1	1.1	42.5	44.3	56.5	8.42	1.47	64.0	6	446
2447.0	06:54	5.7	7.7	10	118	121	79	19085	77	103	1.1	1.1	42.6	44.4	57.8	8.60	1.57	65.0	6	447
2448.0	07:11	3.6	7.5	9	118	121	79	19058	78	102	1.1	1.1	42.7	44.4	59.7	8.88	1.65	66.0	4	448
2449.0	07:18	8.7	7.6	9	118	139	79	19122	78	102	1.1	1.1	42.8	44.5	60.6	8.99	1.41	67.0	5	449
2450.0	07:27	6.8	7.5	10	118	141	79	19252	77	102	1.1	1.1	42.9	44.5	61.5	9.14	1.51	68.0	6	450
2451.0	07:30	22.0	7.6	6	118	135	79	19165	77	102	1.1	1.1	43.0	44.6	61.9	9.19	1.07	69.0	29	451
2452.0	07:34	14.7	7.7	7	118	146	79	19189	77	101	1.1	1.1	43.1	44.6	62.4	9.25	1.19	70.0	48	452
2453.0	07:45	5.5	7.6	12	118	126	79	19197	76	101	1.1	1.1	43.2	44.5	63.7	9.44	1.66	71.0	16	453
2454.0	07:54	6.2	7.6	13	118	124	79	19253	76	101	1.1	1.1	43.3	44.6	64.8	9.60	1.66	72.0	7	454
2455.0	07:58	14.7	7.7	13	118	122	79	19280	76	101	1.1	1.1	43.4	44.3	65.3	9.67	1.43	73.0	8	455
2456.0	08:06	8.4	7.7	13	118	118	79	19248	76	101	1.1	1.1	43.5	44.6	66.1	9.79	1.58	74.0	6	456
2457.0	08:16	5.7	7.6	14	118	117	79	19288	76	100	1.1	1.1	43.6	44.5	67.4	9.96	1.70	75.0	5	457
2458.0	08:30	4.4	7.6	15	118	121	79	19248	76	100	1.1	1.1	43.6	44.5	69.0	10.19	1.83	76.0	5	458
2459.0	08:39	6.6	7.5	15	118	123	79	19102	76	100	1.1	1.1	43.7	44.7	70.1	10.34	1.70	77.0	5	459
2460.0	08:50	5.2	7.5	15	118	122	79	19058	76	100	1.1	1.1	43.7	44.5	71.4	10.53	1.77	78.0	5	460
2461.0	09:01	5.9	7.5	15	118	124	79	19111	76	100	1.1	1.1	43.8	44.8	72.6	10.70	1.73	79.0	6	461
2462.0	09:08	7.9	7.5	14	118	125	79	19081	76	100	1.1	1.1	43.8	45.1	73.6	10.83	1.63	80.0	9	462
2463.0	09:12	17.4	7.5	14	118	148	79	19139	76	100	1.1	1.1	43.8	45.7	73.9	10.89	1.37	81.0	40	463
2464.0	09:16	15.7	7.6	14	118	129	79	19162	76	100	1.1	1.1	43.8	45.3	74.4	10.95	1.41	82.0	15	464
2465.0	09:31	3.8	7.5	15	118	117	79	19150	76	100	1.1	1.1	43.8	44.1	76.2	11.21	1.83	83.0	8	465
2466.0	09:42	5.8	7.5	14	118	120	79	19137	76	100	1.1	1.1	43.8	44.6	77.4	11.38	1.72	84.0	7	466
2467.0	09:52	5.5	7.4	14	118	118	79	19003	75	100	1.1	1.0	43.8	44.6	78.7	11.57	1.76	85.0	7	467
2468.0	10:26	6.9	7.4	13	115	126	80	19623	76	99	1.1	1.0	43.7	44.5	79.8	11.71	1.64	86.0	7	468
2469.0	10:37	5.5	7.4	14	117	125	80	19704	76	99	1.1	1.1	43.7	44.6	81.1	11.89	1.72	87.0	7	469
2470.0	10:47	5.7	7.4	14	117	126	80	19765	75	99	1.1	1.1	43.7	44.6	82.3	12.07	1.71	88.0	6	470
2471.0	10:53	11.0	7.4	13	117	130	80	19757	74	98	1.1	1.1	43.7	44.5	82.9	12.16	1.51	89.0	12	471
2472.0	10:55	30.3	7.5	12	117	140	80	19798	74	98	1.1	1.1	43.7	44.4	83.1	12.19	1.19	90.0	15	472
2473.0	10:57	21.7	7.5	12	117	147	80	19790	75	98	1.1	1.1	43.8	44.4	83.5	12.24	1.30	91.0	14	473
2474.0	11:03	11.7	7.5	12	117	128	80	19842	75	98	1.1	1.1	43.8	44.7	84.1	12.33	1.46	92.0	11	474
2475.0	11:10	8.1	7.6	13	117	127	80	19833	74	98	1.1	1.0	43.8	44.7	84.9	12.45	1.59	93.0	9	475
2476.0	11:21	5.7	7.5	13	117	128	80	19886	74	98	1.1	1.0	43.8	44.8	86.2	12.63	1.73	94.0	8	476
2477.0	11:29	7.5	7.5	13	117	125	80	19857	75	98	1.1	1.0	43.7	44.8	87.1	12.76	1.62	95.0	9	477
2478.0	11:34	10.7	7.5	13	117	128	80	19795	74	98	1.1	1.0	43.7	45.0	87.7	12.85	1.50	96.0	11	478
2479.0	11:52	3.4	7.5	12	117	118	80	19744	74	98	1.1	1.0	43.7	45.0	89.8	13.15	1.77	97.0	7	479
2480.0	12:03	5.5	7.4	11	117	118	80	19753	74	97	1.1	1.0	43.8	42.5	91.1	13.33	1.60	98.0	2	480
2481.0	12:16	4.4	7.4	12	117	124	80	19866	73	97	1.1	1.0	43.9	43.0	92.6	13.56	1.73	99.0	5	481

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2481.0	12:16	4.4	7.4	12	117	124	80	19866	73	97	1.1	1.0	43.9	43.0	92.6	13.56	1.73	99.0	5	481
2482.0	13:57	3.9	7.3	11	116	139	80	19909	73	97	1.1	1.0	43.9	43.3	94.5	13.81	1.74	100.0	10	482
2483.0	14:08	5.5	7.3	12	118	128	79	19634	69	92	1.1	1.0	40.9	43.2	95.7	13.99	1.69	101.0	8	483
2484.0	14:20	5.2	7.3	13	118	131	78	19581	69	93	1.1	1.0	40.2	43.7	97.1	14.19	1.76	102.0	4	484
2485.0	14:29	6.4	7.3	12	118	127	78	19343	71	95	1.1	1.1	39.2	43.9	98.1	14.34	1.67	103.0	4	485
2486.0	14:40	5.4	7.2	13	117	127	78	19101	72	95	1.1	1.0	38.9	44.4	99.4	14.53	1.75	104.0	4	486
2487.0	14:47	8.9	7.2	12	117	124	78	19068	72	95	1.1	1.0	39.2	44.3	100.3	14.64	1.56	105.0	10	487
2488.0	14:59	5.1	7.2	12	118	116	78	18946	73	96	1.1	1.0	39.6	44.4	101.6	14.83	1.71	106.0	7	488
2489.0	15:14	4.0	7.2	13	117	119	78	18881	73	97	1.1	1.0	40.2	44.7	103.4	15.08	1.82	107.0	4	489
2490.0	15:27	4.4	7.1	12	92	112	77	18698	74	97	1.1	1.0	40.7	44.1	104.6	15.31	1.69	108.0	4	490
2491.0	15:42	4.2	7.1	11	90	105	77	18685	75	98	1.1	1.0	41.1	44.5	105.9	15.55	1.66	109.0	6	491
2492.0	15:59	3.4	7.0	11	89	111	78	18715	76	99	1.1	1.0	41.6	44.8	107.5	15.84	1.74	110.0	3	492
2493.0	16:26	4.6	7.0	10	88	127	77	18571	76	100	1.1	1.0	42.1	44.9	108.7	16.06	1.58	111.0	6	493
2494.0	16:37	5.3	7.0	10	89	131	78	19059	77	101	1.1	1.0	42.5	45.0	109.6	16.25	1.55	112.0	3	494
2495.0	16:48	5.6	6.9	11	88	139	78	19171	78	101	1.1	1.0	42.8	44.9	110.5	16.43	1.56	113.0	3	495
2496.0	16:54	9.4	7.0	11	88	140	78	19103	78	101	1.1	1.0	43.0	44.8	111.1	16.53	1.44	114.0	4	496
2497.0	17:02	8.0	7.0	12	88	126	78	19048	78	102	1.1	1.0	43.2	44.9	111.8	16.66	1.50	115.0	3	497
2498.0	17:13	5.2	6.9	11	88	115	78	19025	79	103	1.1	1.0	43.4	45.1	112.8	16.85	1.60	116.0	3	498
2499.0	17:22	7.2	6.9	9	88	114	78	19026	79	103	1.1	1.0	43.6	45.1	113.5	16.99	1.43	117.0	3	499
2500.0	17:32	5.7	6.9	10	88	119	78	19027	80	105	1.1	1.0	43.8	45.2	114.5	17.17	1.55	118.0	3	500
2501.0	17:41	7.2	6.9	13	88	135	78	19051	80	105	1.1	1.0	43.9	45.0	115.2	17.31	1.58	119.0	3	501
2502.0	17:50	6.3	6.9	13	88	154	78	19084	81	105	1.1	1.0	44.0	44.9	116.0	17.47	1.62	120.0	3	502
2503.0	18:00	6.4	6.9	13	88	151	78	19142	81	106	1.1	1.0	44.1	45.1	116.9	17.62	1.63	121.0	3	503
2504.0	18:14	4.2	6.9	12	88	141	78	19157	81	106	1.1	1.0	44.2	45.1	118.2	17.86	1.71	122.0	3	504
2505.0	18:23	7.0	6.9	12	89	133	78	19271	82	106	1.1	1.0	44.3	45.2	118.9	18.01	1.54	123.0	8	505
2506.0	18:29	9.9	6.9	10	99	129	78	19396	82	107	1.1	1.0	44.4	45.5	119.5	18.11	1.43	124.0	17	506
2507.0	18:33	13.0	6.9	13	99	132	79	19444	82	107	1.1	1.0	44.4	45.4	119.9	18.18	1.43	125.0	28	507
2508.0	18:46	4.7	6.9	11	99	122	79	19367	83	107	1.1	1.0	44.5	45.4	121.2	18.39	1.66	126.0	8	508
2509.0	18:55	6.2	6.9	12	99	130	79	19411	83	107	1.1	1.0	44.6	45.5	122.1	18.55	1.61	127.0	4	509
2510.0	19:08	5.0	6.9	12	99	133	79	19417	83	108	1.1	1.0	44.6	45.5	123.4	18.76	1.67	128.0	4	510
2511.0	19:20	4.8	6.9	12	99	126	79	19486	83	109	1.1	1.0	44.6	45.5	124.6	18.96	1.67	129.0	4	511
2512.0	19:28	7.9	6.9	13	99	128	79	19495	84	109	1.1	1.0	44.6	45.8	125.3	19.09	1.57	130.0	3	512
2513.0	19:36	6.9	6.9	14	99	134	79	19589	84	109	1.1	1.1	44.7	45.4	126.2	19.23	1.64	131.0	4	513
2514.0	19:39	18.7	6.9	11	99	153	79	19561	85	110	1.1	1.1	44.7	45.3	126.5	19.29	1.25	132.0	5	514
2515.0	19:43	18.3	6.9	13	99	144	79	19615	85	109	1.1	1.1	44.8	45.3	126.8	19.34	1.34	133.0	7	515
2516.0	19:50	8.5	6.9	14	99	133	79	19589	84	109	1.1	1.1	44.8	45.2	127.5	19.46	1.58	134.0	5	516
2517.0	19:59	6.5	6.9	14	99	125	79	19540	84	109	1.1	1.1	44.9	45.5	128.4	19.61	1.67	135.0	4	517
2518.0	20:07	7.6	6.9	12	99	146	79	19632	84	109	1.1	1.1	45.0	45.5	129.2	19.74	1.55	136.0	5	518
2519.0	20:19	5.0	6.9	14	99	131	79	19613	84	110	1.1	1.1	45.0	44.6	130.5	19.94	1.73	137.0	5	519
2520.0	20:32	4.5	6.9	13	100	128	79	19588	85	111	1.1	1.1	45.1	45.2	131.8	20.17	1.77	138.0	4	520
2521.0	20:34	35.0	6.9	12	109	145	79	19678	85	111	1.1	1.2	45.2	45.1	131.9	20.20	1.13	139.0	7	521
2522.0	20:41	8.1	6.9	14	110	136	79	19665	85	111	1.1	1.1	45.3	44.8	132.8	20.32	1.62	140.0	7	522
2523.0	20:47	11.5	7.0	14	110	137	79	19636	85	111	1.1	1.2	45.3	45.2	133.3	20.41	1.52	141.0	6	523
2524.0	21:13	7.3	7.0	12	105	125	78	19370	86	111	1.1	1.1	45.2	45.8	134.2	20.54	1.58	142.0	5	524
2525.0	21:22	6.9	7.0	12	111	135	78	19237	86	111	1.1	1.1	45.2	45.9	135.1	20.69	1.61	143.0	5	525
2526.0	21:23	53.7	7.0	10	110	173	78	19197	86	111	1.1	1.2	45.2	45.4	135.2	20.71	0.97	144.0	6	526
2527.0	21:25	41.9	7.0	9	109	233	78	19228	86	111	1.1	1.2	45.3	45.4	135.5	20.73	0.99	145.0	8	527
2528.0	21:28	17.7	7.1	10	110	207	78	19176	86	111	1.1	1.2	45.3	45.2	135.8	20.79	1.24	146.0	11	528
2529.0	21:37	26.5	7.1	10	108	190	78	19173	87	111	1.1	1.2	45.3	45.3	136.1	20.83	1.14	147.0	8	529
2530.0	21:39	24.5	7.1	11	106	224	78	19211	87	111	1.1	1.2	45.2	45.3	136.3	20.87	1.17	148.0	6	530

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2530.0	21:39	24.5	7.1	11	106	224	78	19211	87	111	1.1	1.2	45.2	45.3	136.3	20.87	1.17	148.0	6	530
2531.0	21:44	13.3	7.2	11	107	197	78	19087	86	111	1.1	1.2	45.2	44.7	136.7	20.94	1.38	149.0	8	531
2532.0	21:52	7.6	7.2	12	107	158	78	19074	86	111	1.1	1.1	45.1	43.0	137.6	21.07	1.57	150.0	4	532
2533.0	21:59	8.7	7.2	12	107	235	78	19285	85	110	1.1	1.1	45.1	42.5	138.4	21.19	1.52	151.0	4	533
2534.0	22:10	9.0	7.2	11	101	331	79	19541	85	111	1.1	1.1	45.1	44.1	139.0	21.30	1.46	152.0	4	534
2535.0	22:14	14.9	7.2	11	109	159	78	19170	85	111	1.1	1.1	45.0	44.8	139.5	21.37	1.32	153.0	4	535
2536.0	22:15	37.1	7.2	12	109	175	78	19265	85	111	1.1	1.1	45.0	45.1	139.6	21.39	1.12	154.0	2	536
2537.0	22:18	19.4	7.3	12	109	165	78	19331	85	111	1.1	1.1	45.0	44.8	139.9	21.45	1.33	155.0	9	537
2538.0	22:25	8.7	7.3	13	109	153	78	19196	86	111	1.1	1.2	45.1	44.9	140.7	21.56	1.56	156.0	7	538
2539.0	23:22	7.6	7.3	12	105	242	72	18131	87	112	1.1	1.2	45.2	45.2	141.6	21.69	1.57	157.0	5	539
2540.0	23:25	23.7	7.3	11	114	161	80	20108	85	111	1.1	1.2	44.2	45.0	141.8	21.73	1.21	158.0	5	540
2541.0	23:32	7.8	7.3	13	115	164	79	19799	85	111	1.1	1.1	44.2	45.3	142.7	21.86	1.58	159.0	5	541
2542.0	23:41	6.6	7.3	13	112	157	79	19790	85	110	1.1	1.1	44.0	45.7	143.8	22.01	1.63	160.0	5	542
2543.0	23:52	5.9	7.3	12	112	152	79	19737	84	110	1.1	1.1	43.6	45.9	144.9	22.18	1.64	161.0	4	543
2544.0	00:18	2.3	7.2	12	112	143	80	20097	84	110	1.1	1.1	43.3	45.7	147.7	22.62	1.91	162.0	4	544
2545.0	00:29	5.5	7.2	12	112	207	80	20437	84	109	1.1	1.1	43.6	46.5	149.0	22.80	1.66	163.0	5	545
2546.0	00:41	4.9	7.2	12	112	403	81	20906	83	109	1.1	1.1	44.1	46.5	150.3	23.00	1.69	164.0	4	546
2547.0	00:51	5.7	7.2	13	112	452	79	20209	83	108	1.1	1.1	44.6	47.0	151.4	23.18	1.68	165.0	4	547
2548.0	00:55	17.7	7.2	12	112	456	79	20016	83	109	1.1	1.1	44.9	46.2	151.9	23.23	1.31	166.0	5	548
2549.0	01:16	12.8	7.2	6	114	437	79	20159	83	108	1.1	1.1	45.3	46.6	152.4	23.31	1.16	167.0	6	549
2550.0	01:21	12.0	7.2	6	118	419	82	21249	83	108	1.1	1.1	45.7	46.6	153.0	23.40	1.19	168.0	5	550
2551.0	01:26	10.3	7.2	6	119	435	82	21298	82	108	1.1	1.1	45.8	46.7	153.7	23.49	1.22	169.0	7	551
2552.0	01:48	10.4	7.2	9	110	353	81	21120	83	108	1.1	1.1	46.1	46.8	154.4	23.59	1.37	170.0	4	552
2553.0	01:53	11.9	7.3	13	114	229	80	20475	83	107	1.1	1.1	46.7	47.1	154.9	23.67	1.49	171.0	4	553
2554.0	01:58	10.6	7.3	14	114	409	81	20931	83	107	1.1	1.1	46.9	46.9	155.5	23.77	1.53	172.0	3	554
2555.0	02:13	4.0	7.2	14	114	447	81	21025	83	107	1.1	1.1	47.1	47.0	157.2	24.02	1.78	173.0	4	555
2556.0	02:21	7.7	7.2	13	114	452	81	20992	83	107	1.1	1.1	47.3	47.2	158.2	24.15	1.58	174.0	3	556
2557.0	02:33	4.8	7.2	14	114	456	81	21045	83	107	1.1	1.1	47.1	47.2	159.5	24.35	1.72	175.0	4	557
2558.0	02:44	5.9	7.2	14	114	454	80	20903	83	107	1.1	1.1	47.2	47.3	160.7	24.52	1.66	176.0	4	558
2559.0	02:56	5.0	7.2	13	113	461	78	19982	83	108	1.1	1.1	47.3	47.3	162.1	24.73	1.70	177.0	3	559
2560.0	03:07	5.5	7.2	13	113	451	78	19931	83	108	1.1	1.1	47.4	47.3	163.3	24.91	1.67	178.0	4	560
2561.0	03:24	3.6	7.1	14	113	449	78	19953	84	108	1.1	1.1	47.5	47.1	165.2	25.19	1.82	179.0	4	561
2562.0	03:30	9.3	7.2	13	113	455	78	20003	84	109	1.1	1.1	47.6	47.1	165.9	25.30	1.51	180.0	5	562
2563.0	03:35	12.2	7.2	13	113	450	78	19971	84	109	1.1	1.1	47.6	47.1	166.4	25.38	1.44	181.0	10	563
2564.0	03:45	5.9	7.2	14	114	450	79	20126	84	109	1.1	1.1	47.7	46.9	167.6	25.55	1.65	182.0	4	564
2565.0	03:58	4.6	7.1	14	119	483	79	20270	85	110	1.1	1.1	47.7	46.9	169.2	25.77	1.75	183.0	4	565
2566.0	04:12	4.3	7.1	14	119	493	79	20213	86	111	1.1	1.1	47.6	46.9	170.9	26.00	1.78	184.0	4	566
2567.0	04:25	4.6	7.1	14	119	494	79	20305	88	113	1.1	1.1	47.5	46.7	172.4	26.21	1.79	185.0	4	567
2568.0	04:32	8.2	7.1	14	119	475	79	20291	88	113	1.1	1.1	47.4	46.7	173.3	26.34	1.60	186.0	3	568
2569.0	04:45	4.7	7.1	14	119	470	79	20272	89	113	1.1	1.1	47.3	46.7	174.8	26.55	1.77	187.0	6	569
2570.0	04:49	14.2	7.1	14	119	466	79	20211	89	114	1.1	1.1	47.2	46.7	175.2	26.62	1.45	188.0	3	570
2571.0	04:55	10.9	7.1	13	119	468	79	20167	89	114	1.1	1.1	47.2	46.3	176.0	26.71	1.52	189.0	7	571
2572.0	05:14	3.2	7.1	14	114	459	79	20110	89	114	1.1	1.1	47.1	45.8	178.0	27.02	1.87	190.0	4	572
2573.0	05:25	5.5	7.1	14	107	437	79	20071	89	114	1.1	1.1	46.9	46.0	179.2	27.21	1.68	191.0	4	573
2574.0	05:36	5.2	7.0	13	114	475	79	20176	90	115	1.1	1.1	46.7	45.4	180.5	27.40	1.71	192.0	4	574
2575.0	06:06	3.8	7.0	13	114	465	79	20129	94	115	1.1	1.1	46.4	45.9	182.4	27.66	1.77	193.0	3	575
2576.0	06:23	3.4	7.0	14	118	489	78	19985	91	116	1.1	1.1	45.6	45.9	184.4	27.95	1.87	194.0	3	576
2577.0	06:40	3.7	6.9	14	108	444	78	19841	91	116	1.1	1.1	45.3	44.4	186.2	28.23	1.82	195.0	3	577
2578.0	06:51	5.3	6.9	14	79	292	78	19506	91	116	1.1	1.1	44.9	45.5	187.1	28.41	1.63	196.0	3	578
2579.0	06:59	7.9	6.9	15	79	294	78	19761	91	116	1.1	1.1	44.5	45.7	187.6	28.54	1.54	197.0	4	579

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2579.0	06:59	7.9	6.9	15	79	294	78	19761	91	116	1.1	1.1	44.5	45.7	187.6	28.54	1.54	197.0	4	579
2580.0	07:36	4.8	6.9	14	81	229	79	20295	95	110	1.1	1.1	44.0	45.4	188.7	28.75	1.69	198.0	3	580
2581.0	07:50	5.3	6.9	14	86	129	79	20205	93	101	1.1	1.1	43.3	44.5	189.7	28.94	1.67	199.0	7	581
2582.0	07:56	10.0	6.9	14	80	138	79	20231	93	102	1.1	1.1	43.0	43.7	190.1	29.04	1.46	200.0	5	582
2583.0	08:05	6.6	6.9	14	82	128	79	20205	93	102	1.1	1.1	42.9	43.8	190.9	29.19	1.58	201.0	6	583
2584.0	08:24	3.3	6.9	14	93	215	80	20633	94	102	1.1	1.1	42.8	44.6	192.6	29.50	1.80	202.0	4	584
2585.0	08:28	14.3	6.9	14	117	467	80	20465	94	103	1.1	1.1	42.9	44.8	193.0	29.57	1.44	203.0	14	585
2586.0	08:41	4.7	6.9	14	117	468	79	19960	95	103	1.1	1.1	42.9	44.6	194.6	29.78	1.76	204.0	8	586
2587.0	08:56	3.9	6.9	14	108	424	78	19853	95	103	1.1	1.1	42.9	44.6	196.2	30.03	1.82	205.0	3	587
2588.0	09:02	9.2	6.9	14	90	330	78	19708	95	103	1.1	1.1	42.7	44.6	196.8	30.14	1.52	206.0	3	588
2589.0	09:11	7.1	6.9	14	90	334	78	19731	95	103	1.1	1.1	42.5	44.4	197.5	30.28	1.60	207.0	3	589
2590.0	09:19	7.8	6.9	14	90	333	78	19744	95	103	1.1	1.1	42.4	44.5	198.2	30.41	1.55	208.0	3	590
2591.0	09:24	10.9	6.9	13	90	334	78	19763	94	103	1.1	1.1	42.3	44.2	198.7	30.50	1.43	209.0	5	591
2592.0	09:28	14.7	6.9	14	90	331	78	19770	95	103	1.1	1.1	42.3	44.2	199.1	30.57	1.36	210.0	5	592
2593.0	09:31	25.0	6.9	12	90	320	78	19705	95	103	1.1	1.1	42.3	44.1	199.3	30.61	1.17	211.0	6	593
2594.0	09:33	25.4	6.9	12	90	299	78	19725	95	103	1.1	1.1	42.3	43.9	199.5	30.65	1.17	212.0	7	594
2595.0	09:38	11.8	7.0	13	90	300	78	19725	95	104	1.1	1.1	42.3	43.8	200.0	30.73	1.40	213.0	7	595
2596.0	09:48	6.3	7.0	15	90	315	78	19727	95	103	1.1	1.1	42.2	43.9	200.8	30.89	1.67	214.0	3	596
2597.0	09:56	7.5	7.0	11	90	299	78	19745	95	103	1.1	1.1	42.2	43.9	201.5	31.03	1.47	215.0	4	597
2598.0	10:06	5.9	7.0	15	90	314	78	19780	96	104	1.1	1.1	42.1	43.8	202.4	31.20	1.67	216.0	3	598
2599.0	10:12	9.4	7.0	13	90	323	79	20065	96	104	1.1	1.1	42.1	43.9	203.0	31.30	1.47	217.0	7	599
2600.0	10:17	11.1	7.0	12	90	325	79	20071	96	105	1.1	1.1	42.0	43.8	203.5	31.39	1.38	218.0	5	600
2601.0	10:27	6.3	7.0	14	90	335	79	20069	96	105	1.1	1.1	42.0	43.8	204.4	31.55	1.64	219.0	2	601
2602.0	10:41	4.2	7.0	14	90	334	79	20048	96	105	1.1	1.1	41.8	43.7	205.6	31.79	1.73	220.0	3	602
2603.0	10:58	3.6	6.9	14	88	325	79	20008	96	112	1.1	1.1	41.6	44.1	207.1	32.07	1.80	221.0	3	603
2604.0	11:13	3.9	6.9	14	89	335	79	19991	96	112	1.1	1.1	41.3	43.9	208.4	32.32	1.77	222.0	3	604
2605.0	11:28	4.1	6.9	14	89	325	79	20058	96	108	1.1	1.1	41.1	43.1	209.8	32.57	1.76	223.0	3	605
2606.0	11:39	5.2	6.9	13	89	305	79	19975	96	118	1.1	1.1	41.0	41.7	210.8	32.76	1.62	224.0	2	606
2607.0	11:46	9.1	6.9	12	89	292	79	19940	96	122	1.1	1.1	40.9	41.7	211.3	32.87	1.44	225.0	2	607
2608.0	12:01	3.8	6.9	13	91	313	79	19993	96	122	1.1	1.1	40.9	41.8	212.8	33.13	1.73	226.0	2	608
2609.0	12:18	3.6	6.8	12	99	382	79	20112	97	124	1.1	1.1	40.9	41.3	214.4	33.41	1.74	227.0	2	609
2610.0	14:01	11.7	6.8	10	89	329	78	19363	95	125	1.1	1.1	40.3	41.4	214.9	33.49	1.32	228.0	6	610
2611.0	14:08	5.5	6.8	12	99	141	79	20066	92	113	1.1	1.1	36.9	41.2	215.6	33.62	1.65	229.0	7	611
2612.0	14:34	2.7	6.8	12	100	349	79	20057	92	112	1.1	1.1	36.4	41.3	217.8	33.98	1.82	230.0	4	612
2613.0	14:43	7.0	6.8	11	96	365	78	19616	92	113	1.1	1.1	36.4	41.7	218.7	34.13	1.52	231.0	5	613
2614.0	14:51	6.9	6.8	12	96	376	78	19600	92	113	1.1	1.1	36.6	41.7	219.5	34.27	1.57	232.0	7	614
2615.0	15:03	5.1	6.8	13	96	378	78	19582	92	113	1.1	1.1	36.9	41.6	220.6	34.47	1.68	233.0	6	615
2616.0	15:14	5.8	6.8	11	96	367	78	19585	92	113	1.1	1.1	37.1	41.5	221.6	34.64	1.58	234.0	6	616
2617.0	15:18	13.7	6.8	12	96	347	78	19612	92	113	1.1	1.1	37.2	41.6	222.0	34.71	1.38	235.0	18	617
2618.0	15:28	5.7	6.8	11	96	349	78	19578	92	113	1.1	1.1	37.4	41.7	223.1	34.89	1.56	236.0	14	618
2619.0	15:35	9.8	6.8	12	96	373	78	19619	92	113	1.1	1.1	37.3	40.6	223.7	34.99	1.47	237.0	6	619
2620.0	15:38	20.2	6.8	12	96	363	78	19578	92	113	1.1	1.1	37.3	40.6	223.9	35.04	1.27	238.0	11	620
2621.0	15:43	11.3	6.8	12	96	375	78	19607	92	113	1.1	1.1	37.3	41.5	224.5	35.13	1.42	239.0	15	621
2622.0	15:56	4.7	6.8	11	96	367	78	19582	93	113	1.1	1.1	37.5	41.7	225.6	35.34	1.65	240.0	5	622
2623.0	16:05	6.1	6.8	13	96	385	78	19566	93	113	1.1	1.1	37.9	42.0	226.6	35.51	1.62	241.0	1	623
2624.0	16:18	4.8	6.8	12	96	367	78	19569	92	113	1.1	1.1	38.0	41.9	227.8	35.72	1.67	242.0	2	624
2625.0	16:32	4.3	6.8	11	96	368	78	19480	93	113	1.1	1.1	38.2	42.1	229.1	35.95	1.66	243.0	2	625
2626.0	16:41	7.1	6.8	11	96	363	78	19425	95	115	1.1	1.1	38.4	41.8	230.0	36.09	1.50	244.0	3	626
2627.0	16:48	8.5	6.8	12	96	374	78	19467	95	116	1.1	1.1	38.5	41.8	230.7	36.21	1.51	245.0	4	627
2628.0	16:51	20.6	6.8	9	96	352	78	19429	96	116	1.1	1.1	38.5	42.1	230.9	36.26	1.16	246.0	21	628

DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2628.0	16:51	20.6	6.8	9	96	352	78	19429	96	116	1.1	1.1	38.5	42.1	230.9	36.26	1.16	246.0	21	628
2629.0	16:53	28.8	6.8	7	96	354	78	19441	95	116	1.1	1.1	38.5	42.3	231.1	36.29	1.02	247.0	49	629
2630.0	16:58	12.1	6.8	10	96	372	78	19471	95	116	1.1	1.1	38.5	41.7	231.5	36.37	1.32	248.0	25	630
2631.0	17:03	10.5	6.9	12	96	371	78	19504	95	116	1.1	1.1	38.5	41.8	232.1	36.47	1.45	249.0	10	631
2632.0	17:10	9.3	6.9	12	96	364	78	19488	96	116	1.1	1.1	38.5	42.0	232.7	36.58	1.47	250.0	17	632
2633.0	17:20	5.9	6.9	12	96	370	78	19516	96	116	1.1	1.1	38.6	42.2	233.7	36.75	1.59	251.0	10	633
2634.0	17:30	6.2	6.9	12	96	369	78	19513	96	116	1.1	1.1	38.6	42.5	234.7	36.91	1.58	252.0	4	634
2635.0	17:44	4.2	6.8	12	96	376	78	19483	96	117	1.1	1.1	38.7	42.5	236.1	37.15	1.72	253.0	4	635
2636.0	18:00	3.7	6.8	11	96	369	78	19336	96	117	1.1	1.1	38.8	42.6	237.6	37.42	1.70	254.0	4	636
2637.0	18:37	6.0	6.8	10	94	268	78	19314	97	118	1.1	1.1	38.8	42.1	238.5	37.58	1.50	255.0	2	637
2638.0	18:44	8.7	6.8	10	96	355	80	19481	97	118	1.1	1.1	38.9	42.8	239.2	37.70	1.44	256.0	28	638
2639.0	18:52	7.9	6.8	12	96	382	78	19503	97	118	1.1	1.1	39.0	42.6	239.9	37.82	1.51	257.0	15	639
2640.0	19:04	4.8	6.8	12	96	378	78	19431	98	123	1.1	1.1	38.8	42.9	241.1	38.03	1.64	258.0	10	640
2641.0	19:14	6.4	6.8	11	96	381	78	19408	99	138	1.1	1.1	38.9	42.9	242.0	38.19	1.56	259.0	6	641
2642.0	19:20	8.9	6.8	10	96	339	78	19347	100	138	1.1	1.1	39.1	42.9	242.6	38.30	1.39	260.0	5	642
2643.0	19:24	17.3	6.8	10	96	337	78	19303	100	139	1.1	1.1	39.2	42.7	242.9	38.36	1.24	261.0	6	643
2644.0	19:30	10.6	6.8	8	96	331	78	19264	100	139	1.1	1.1	39.2	42.8	243.5	38.45	1.27	262.0	9	644
2645.0	19:34	12.9	6.9	9	96	344	78	19192	100	138	1.1	1.1	39.3	42.6	243.9	38.53	1.26	263.0	8	645
2646.0	19:40	9.6	6.9	12	96	344	78	19161	99	138	1.1	1.1	39.3	42.7	244.5	38.64	1.45	264.0	8	646
2647.0	19:53	4.7	6.8	11	96	353	78	19092	99	138	1.1	1.1	39.3	42.9	245.8	38.85	1.62	265.0	7	647
2648.0	20:06	4.6	6.8	11	96	369	78	19058	99	138	1.1	1.1	39.3	43.4	247.1	39.07	1.63	266.0	6	648
2649.0	20:19	4.6	6.8	10	96	375	78	19002	99	138	1.1	1.1	39.3	43.9	248.2	39.28	1.56	267.0	6	649
2650.0	20:36	3.7	6.8	10	98	393	78	18971	99	139	1.1	1.1	39.5	43.9	249.8	39.55	1.64	268.0	4	650
2651.0	20:47	5.1	6.8	10	94	347	78	18941	100	139	1.1	1.1	39.7	44.2	251.0	39.75	1.54	269.0	5	651
2652.0	21:02	4.1	6.8	11	95	333	78	18948	101	140	1.1	1.1	40.0	43.9	252.3	39.99	1.64	270.0	4	652
2653.0	21:16	4.3	6.8	13	95	341	79	19423	101	140	1.1	1.1	40.2	43.9	253.7	40.22	1.71	271.0	5	653
2654.0	21:22	9.6	6.8	11	95	332	79	19486	101	139	1.1	1.1	40.4	44.0	254.3	40.33	1.45	272.0	10	654
2655.0	21:26	14.3	6.8	4	83	310	79	19254	101	139	1.1	1.1	40.4	44.1	254.6	40.40	0.98	273.0	35	655
2656.0	21:37	5.7	6.8	9	95	348	79	19598	102	132	1.1	1.1	40.6	43.8	255.7	40.57	1.49	274.0	12	656
2657.0	21:56	3.2	6.8	10	95	374	79	19680	102	124	1.1	1.1	40.9	43.4	257.4	40.89	1.67	275.0	4	657
2658.0	22:05	6.1	6.7	11	96	373	79	19678	102	123	1.1	1.1	41.2	43.2	258.4	41.05	1.54	276.0	4	658
2659.0	22:17	5.0	6.7	11	95	388	79	19600	103	123	1.1	1.1	41.3	43.7	259.5	41.25	1.60	277.0	4	659
2660,0	22:30	5.0	6.7	12	98	394	79	19602	103	124	1.1	1.1	41.4	43.9	260.6	41.45	1.66	278.0	4	660
2661.0	22:40	5.5	6.7	10	110	459	80	19749	103	125	1.1	1.1	41.6	43.8	261.9	41.64	1.59	279.0	4	661
2662.0	23:04	4.6	6.7	9	99	395	80	18872	103	124	1.1	1.1	41.7	43.8	263.1	41.85	1.52	280.0	2	662
2663.0	23:23	3.1	6.7	11	98	413	79	19190	103	125	1.1	1.1	41.6	43.8	265.0	42.17	1.74	281.0	4	663
2664.0	23:44	2.8	6.7	9	96	396	78	18990	102	124	1.1	1.1	41.6	43.9	267.1	42.53	1.67	282.0	5	664
2665.0	00:02	3.3	6.6	11	99	418	78	19056	102	124	1.1	1.1	41.7	40.1	268.9	42.83	1.70	283.0	2	665
2666.0	00:17	4.0	6.6	12	98	425	78	19061	103	125	1.1	1.1	41.8	41.5	270.4	43.08	1.70	284.0	3	666
2667.0	00:32	4.1	6.6	13	98	424	78	19265	102	124	1.1	1.1	41.8	41.5	271.8	43.32	1.73	285.0	6	667
2668.0	02:40	11.0	6.6	11	96	197	80	20118	101	138	1.1	1.1	39.0	42.7	272.3	43.42	1.39	286.0	9	668
2669.0	02:42	29.3	6.6	11	101	174	79	20093	102	141	1.1	1.0	38.2	42.9	272.6	43.45	1.14	287.0	34	669
2670.0	02:53	5.5	6.6	13	93	151	79	19892	102	141	1.1	1.0	38.1	43.0	273.5	43.63	1.67	288.0	33	670
2671.0	03:04	5.5	6.6	13	114	154	79	19861	102	141	1.1	1.1	37.7	43.7	274.8	43.81	1.74	289.0	11	671
2672.0	03:13	6.2	6.6	11	120	150	79	19806	101	141	1.1	1.1	37.7	43.5	275.9	43.97	1.65	290.0	8	672
2673.0	03:16	20.7	6.6	11	120	153	79	19773	101	141	1.1	1.1	37.8	43.4	276.2	44.02	1.30	291.0	7	673
2674.0	03:29	4.7	6.6	11	118	143	79	19744	102	141	1.1	1.1	38.1	43.5	277.8	44.23	1.74	292.0	8	674
2675.0	03:42	4.7	6.6	11	112	256	80	20017	102	141	1.1	1.1	38.6	43.7	279.2	44.44	1.72	293.0	6	675
2676.0	03:47	10.6	6.6	13	97	350	80	20281	102	142	1.1	1.1	39.1	44.0	279.8	44.54	1.49	294.0	8	676
2677.0	03:51	14.9	6.6	13	97	345	80	20230	102	142	1.1	1.1	39.3	43.8	280.2	44.61	1.39	295.0	40	677

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DEPTH METRE	TIME HR:MN	ROP MT/H	AVE ROP	WOB TON	RPM	TORQ AMPS	SPM	SPP KPA	ACT PIT	TOT PIT	MWI SG	MWO SG	MTI DEG	MTO DEG	KREV BIT	HRS BIT	DCEXP	BIT METRE	TOTAL GAS	REC NOS
2677.0	03:51	14.9	6.6	13	97	345	80	20230	102	142	1.1	1.1	39.3	43.8	280.2	44.61	1.39	295.0	40	677
2678.0	04:00	6.7	6.6	13	97	353	80	20183	102	142	1.1	1.1	39.5	43.4	281.0	44.75	1.62	296.0	41	678
2679.0	04:10	6.0	6.6	13	98	342	80	20097	103	142	1.1	1.1	39.8	43.0	281.9	44.92	1.65	297.0	11	679
2680.0	04:17	8.3	6.6	13	98	346	79	20077	103	142	1.1	1.1	40.1	43.7	282.7	45.04	1.56	298.0	25	680
2681.0	04:26	6.8	6.6	14	98	347	80	20096	103	143	1.1	1.1	40.4	43.6	283.5	45.19	1.65	299.0	17	681
2682.0	04:31	13.1	6.6	12	98	314	80	20076	103	143	1.1	1.1	40.5	43.7	284.0	45.27	1.40	300.0	26	682
2683.0	04:41	5.9	6.6	13	98	348	80	20146	104	144	1.1	1.1	40.7	43.5	285.0	45.44	1.66	301.0	38	683
2684.0	04:53	4.9	6.6	14	98	359	80	20173	104	144	1.1	1.1	40.9	43.6	286.2	45.64	1.76	302.0	13	684
2685.0	05:06	4.9	6.6	14	98	385	80	20235	105	145	1.1	1.1	41.1	44.1	287.4	45.84	1.71	303.0	11	685
2686.0	05:22	3.6	6.6	13	96	378	80	20217	101	147	1.1	1.1	41.1	44.2	289.0	46.13	1.79	304.0	6	686
2687.0	05:32	6.0	6.6	13	98	392	80	20200	101	148	1.1	1.1	41.2	43.8	290.0	46.29	1.61	305.0	8	687
2688.0	05:39	9.7	6.6	13	98	371	80	20169	101	148	1.1	1.1	41.2	44.0	290.6	46.40	1.45	306.0	9	688
2689.0	05:43	13.8	6.6	13	98	352	80	20115	101	148	1.1	1.1	41.3	43.6	291.0	46.47	1.37	307.0	12	689
2690.0	05:53	6.2	6.6	13	98	348	80	20118	101	148	1.1	1.1	41.3	43.6	292.0	46.63	1.59	308.0	9	690
2691.0	05:58	11.3	6.6	13	98	347	80	20171	101	148	1.1	1.1	41.3	44.0	292.5	46.72	1.43	309.0	9	691
2692.0	06:16	13.9	6.6	11	92	308	80	20155	102	148	1.1	1.1	41.4	44.1	292.9	46.79	1.31	310.0	10	692
2693.0	06:25	6.8	6.6	11	105	238	80	20376	103	135	1.1	1.1	41.6	44.5	293.8	46.94	1.51	311.0	8	693
2694.0	06:36	5.1	6.6	11	105	438	81	20836	103	148	1.1	1.1	41.7	44.6	295.0	47.13	1.59	312.0	8	694
2695.0	06:49	4.7	6.6	11	100	410	81	20700	103	149	1.1	1.1	41.8	44.6	296.3	47.35	1.61	313.0	9	695
2696.0	06:59	5.9	6.6	12	93	363	81	20531	104	150	1.1	1.1	41.9	44.6	297.3	47.52	1.56	314.0	11	696
2697.0	07:03	16.2	6.6	13	93	392	81	20686	104	150	1.1	1.1	41.9	44.6	297.6	47.58	1.32	315.0	19	697
2698.0	07:10	8.7	6.6	13	93	366	81	20666	104	150	1.1	1.1	42.0	44.4	298.2	47.69	1.49	316.0	41	698
2699.0	07:13	20.3	6.7	12	93	350	81	20729	104	150	1.1	1.1	42.0	44.3	298.5	47.74	1.22	317.0	47	699
2700.0	07:22	6.9	6.7	13	93	351	81	20750	104	150	1.1	1.1	42.0	44.5	299.4	47.89	1.55	318.0	48	700
2701.0	07:30	6.7	6.7	13	93	343	81	20778	102	150	1.1	1.1	42.1	45.0	300.2	48.04	1.55	319.0	15	701
2702.0	07:38	8.6	6.7	13	93	346	81	20825	103	150	1.1	1.1	42.1	44.8	300.8	48.15	1.50	320.0	17	702
2703.0	07:45	8.0	6.7	13	93	345	80	20660	103	150	1.1	1.1	42.2	45.0	301.5	48.28	1.52	321.0	32	703
2704.0	07:52	8.9	6.7	13	93	345	80	20479	102	150	1.1	1.1	42.3	44.9	302.1	48.39	1.46	322.0	23	704
2705.0	07:55	17.5	6.7	13	93	344	80	20433	102	150	1.1	1.1	42.3	44.9	302.5	48.45	1.29	323.0	23	705
2706.0	07:56	47.4	6.7	13	93	352	80	20435	102	150	1.1	1.1	42.4	44.9	302.6	48.47	1.00	324.0	23	706
2707.0	08:07	16.2	6.7	13	88	329	80	20377	102	150	1.1	1.1	42.5	45.0	302.9	48.53	1.28	325.0	30	707
2708.0	08:19	5.2	6.7	14	91	333	80	20382	103	151	1.1	1.1	42.6	45.3	304.0	48.72	1.66	326.0	12	708
2709.0	08:32	4.5	6.7	14	94	383	80	20519	104	151	1.1	1.1	42.7	45.3	305.2	48.94	1.69	327.0	10	709
2710.0	08:46	4.4	6.7	14	91	349	80	20428	104	152	1.1	1.1	42.8	45.4	306.4	49.17	1.70	328.0	11	710
2711.0	08:56	5.8	6.7	14	91	348	80	20381	105	151	1.1	1.1	43.0	45.7	307.4	49.34	1.62	329.0	13	711
2712.0	09:09	4.7	6.7	14	91	343	80	20327	105	151	1.1	1.1	43.2	45.4	308.6	49.55	1.67	330.0	11	712
2713.0	09:14	10.8	6.7	14	91	338	80	20325	105	151	1.1	1.1	43.2	45.0	309.0	49.65	1.44	331.0	12	713
2714.0	09:16	33.6	6.7	10	91	312	80	20281	105	152	1.1	1.1	43.3	44.7	309.2	49.68	1.03	332.0	11	714
2715.0	09:24	7.1	6.7	14	91	420	80	20476	105	151	1.1	1.1	43.3	45.2	310.0	49.82	1.56	333.0	24	715
2716.0	09:38	4.6	6.7	13	91	427	80	20323	105	152	1.1	1.1	43.5	45.7	311.1	50.04	1.68	334.0	18	716
2717.0	09:57	3.1	6.7	13	91	440	80	20364	105	152	1.1	1.1	43.6	45.9	312.9	50.36	1.78	335.0	13	717
2718.0	10:12	3.9	6.7	13	91	461	79	19985	105	152	1.1	1.1	43.6	46.0	314.3	50.61	1.68	336.0	11	718
2719.0	10:22	6.2	6.7	13	91	436	79	19892	105	152	1.1	1.1	43.6	45.8	315.2	50.78	1.56	337.0	12	719
2720.0	10:36	4.4	6.6	12	91	424	79	19903	105	152	1.1	1.1	43.7	47.0	316.4	51.00	1.63	338.0	13	720
2721.0	10:49	4.6	6.6	13	91	429	79	19898	105	152	1.1	1.1	43.7	47.7	317.6	51.22	1.65	339.0	13	721
2722.0	11:03	4.2	6.6	12	91	432	79	19972	106	153	1.1	1.1	43.8	48.1	318.9	51.46	1.61	340.0	17	722
2723.0	11:07	13.8	6.6	10	91	405	79	19942	106	153	1.1	1.1	43.9	48.4	319.4	51.53	1.25	341.0	40	723

BR6 NB4 DRILLED 341m IN 51.53 RHOB, AVE ROP 6.6 m/hr, KREVS 319.4

NB4 SMITH F2 (JETS 2x11,1x10) 216mm, POH AT WELL TOTAL DEPTH 2723m.

292141

HALLIBURTON GEODATA LTD

DRILLING HYDRAULICS PROGRAM

DATE 04-DEC-92

BR3 NB1 SMITH FDS DRILLED DEPTH 1525. mt TRUE DEPTH 1525. mt

MUD PROPERTIES

Mud weight	1.13 SG	Actual standpipe pressure	18700 kpa
PV/YP	8./ 21.	Pump rate	120 spm
Theta 300/600	29./ 37.	Flow rate	2278.8 lit/mn
N	0.35	Hydrostatic head	16829.4 kpa
K	3.24	Pore pressure	15424.4 kpa
R Laminar	2988.76	Estimated overbalance	1404.9 kpa
R Turbulent	3788.76	M.A.A.S.P	2178.7 kpa
E.C.D.	1.14 SG	Equivalent B.H.P	19008.05 kpa
E.C.D. SHOE	1.14 SG		

BIT HYDRAULICS

		PRESSURE LOSSES	
Total flow area (Nozzles)	0.451 sq.ins	Total annular pressure loss	238.9 kpa
Nozzle velocity	137.5 m /sec	Drill string pressure loss	4589.4 kpa
Hydraulic Impact	598.5 kg.wt.	Surface equipment press. loss	273.5 kpa
Bit hydraulic power	403.2 KW	Bit pressure loss	10617.9 kpa
Total hydraulic horsepower	597.0 KW	Total system pressure loss	15719.7 kpa
Theor .% HHP at bit	67.5		
Actual % HHP at bit	56.8		

LAG TIME

		VELOCITIES	
Annular volume	110. mc	Max. annular velocity	52.3 m /min
Lag time of mud in mins.	48.2 mins	Min. annular velocity	9.8 m /min
Lag time of mud in strokes	5779. strks	Ave. annular velocity	31.7 m /min
Lag time of cuttings	54.3 mins	Ave. cuttings slip velocity	3.5 m /min

SECTIONAL VELOCITIES

Section	Size ins.	Ann.Vel m /min	Crit. Vel m /min	Pres. loss kpa	Modified Reynolds No.	Cuttings slip Vel. m /min	Flow type
BIT,SUB,203MM MONEL	200.00	51.2	139.3	7.0	726.0	5.2	Laminar
OPEN HOLE	311.00						
203MM DC,JARS	203.00	52.3	140.2	47.3	745.1	5.2	Laminar
OPEN HOLE	311.00						
HWDP	127.00	36.0	125.1	16.2	485.9	4.3	Laminar
OPEN HOLE	311.00						
DRILL PIPE	127.00	36.0	125.1	122.9	485.9	4.3	Laminar
OPEN HOLE	311.00						
DRILL PIPE	127.00	34.7	124.4	42.9	460.6	4.2	Laminar
CASING	316.00						
DRILL PIPE	127.00	9.8	104.3	2.6	76.2	0.9	Laminar
MARINE RISER	560.00						

292142

HALLIBURTON GEODATA LTD

DRILLING HYDRAULICS PROGRAM

BR4 NB2 SMITH FDGH DRILLED DEPTH 1775. mt TRUE DEPTH 1775. mt

MUD PROPERTIES

Mud weight	1.08 SG
PV/YP	13./ 19.
Theta 300/600	32./ 45.
N	0.49
K	1.49
R Laminar	2796.55
R Turbulent	3596.55
E.C.D.	1.13 SG
E.C.D. SHOE	1.12 SG

Actual standpipe pressure	17492 kpa
Pump rate	80 spm
Flow rate	1519.2 lit/mn
Hydrostatic head	18788.1 kpa
Pore pressure	18092.2 kpa
Estimated overbalance	695.9 kpa
M.A.A.S.P	8902.6 kpa
Equivalent B.H.P	27690.63 kpa

BIT HYDRAULICS

Total flow area (Nozzles)	0.262 sq.ins
Nozzle velocity	157.6 m /sec
Hydraulic Impact	438.6 kg.wt.
Bit hydraulic power	338.8 KW
Total hydraulic horsepower	405.6 KW
Theor .% HHP at bit	83.5
Actual % HHP at bit	76.5

PRESSURE LOSSES

Total annular pressure loss	805.1 kpa
Drill string pressure loss	1711.2 kpa
Surface equipment press. loss	123.4 kpa
Bit pressure loss	13379.6 kpa
Total system pressure loss	16019.4 kpa

LAG TIME

Annular volume	62. mc
Lag time of mud in mins.	40.9 mins
Lag time of mud in strokes	3272. strks
Lag time of cuttings	47.0 mins

VELOCITIES

Max. annular velocity	99.7 m /min
Min. annular velocity	6.5 m /min
Ave. annular velocity	43.4 m /min
Ave. cuttings slip velocity	4.9 m /min

SECTIONAL VELOCITIES

Section	Size ins.	Ann.Vel m /min	Crit. Vel m /min	Pres. loss kpa	Modified Reynolds No.	Cuttings slip Vel. m /min	Flow type
216MM BIT,STABS OPEN HOLE	165.10 216.00	99.7	175.6	14.6	1531.9	6.9	Laminar
165.1MM DC'S OPEN HOLE	165.10 216.00	99.7	175.6	204.5	1531.9	6.9	Laminar
HWDP OPEN HOLE	127.00 216.00	63.4	146.4	32.1	1017.3	5.8	Laminar
HWDP CASING	127.00 220.00	59.9	144.3	13.6	956.0	5.7	Laminar
DRILL PIPE CASING	127.00 220.00	59.9	144.3	539.1	956.0	5.7	Laminar
DRILL PIPE MARINE RISER	127.00 560.00	6.5	87.4	1.2	71.4	1.2	Laminar

HALLIBURTON GEODATA LTD

292143

DRILLING HYDRAULICS PROGRAM

DATE 13-DEC-92

BR5 NB3 SMITH F2 DRILLED DEPTH 2381. mt TRUE DEPTH 2381. mt

MUD PROPERTIES

Mud weight	1.09 SG	Actual standpipe pressure	19200 kpa
PV/YP	19./ 32.	Pump rate	80 spm
Theta 300/600	51./ 70.	Flow rate	1519.2 lit/mn
N	0.46	Hydrostatic head	25435.8 kpa
K	2.96	Pore pressure	24082.4 kpa
R Laminar	2844.47	Estimated overbalance	1353.5 kpa
R Turbulent	3644.47	M.A.A.S.P	8753.6 kpa
E.C.D.	1.17 SG	Equivalent B.H.P	34189.42 kpa
E.C.D. SHOE	1.15 SG		

BIT HYDRAULICS

Total flow area (Nozzles)	0.262 sq.ins	Total annular pressure loss	1773.7 kpa
Nozzle velocity	157.6 m /sec	Drill string pressure loss	2364.9 kpa
Hydraulic Impact	442.7 kg.wt.	Surface equipment press. loss	124.5 kpa
Bit hydraulic power	341.9 KW	Bit pressure loss	13503.5 kpa
Total hydraulic horsepower	449.8 KW	Total system pressure loss	17766.6 kpa
Theor .% HHP at bit	76.0		
Actual % HHP at bit	70.3		

PRESSURE LOSSES

LAG TIME

Annular volume	77. mc	Max. annular velocity	99.7 m /min
Lag time of mud in mins.	50.5 mins	Min. annular velocity	6.5 m /min
Lag time of mud in strokes	4037. strks	Ave. annular velocity	47.2 m /min
Lag time of cuttings	55.9 mins	Ave. cuttings slip velocity	4.5 m /min

VELOCITIES

SECTIONAL VELOCITIES

Section	Size ins.	Ann.Vel m /min	Crit. Vel m /min	Pres. loss kpa	Modified Reynolds No.	Cuttings slip Vel. m /min	Flow type
216MM BIT,STABS OPEN HOLE	165.10 216.00	99.7	237.6	23.7	954.5	6.6	Laminar
165.1MM DC'S OPEN HOLE	165.10 216.00	99.7	237.6	331.2	954.5	6.6	Laminar
HWDP OPEN HOLE	127.00 216.00	63.4	201.4	78.9	611.8	5.5	Laminar
DRILL PIPE OPEN HOLE	127.00 216.00	63.4	201.4	406.8	611.8	5.5	Laminar
DRILL PIPE CASING	127.00 220.00	59.9	198.8	930.8	572.9	5.4	Laminar
DRILL PIPE MARINE RISER	127.00 560.00	6.5	126.1	2.3	37.5	0.8	Laminar

HALLIBURTON GEODATA LTD

DRILLING HYDRAULICS PROGRAM

DATE 16-DEC-92

BR6 NB4 SMITH F2 DRILLED DEPTH 2723. mt TRUE DEPTH 2723. mt

MUD PROPERTIES

Mud weight	1.12 SG
PV/YP	21./ 31.
Theta 300/600	52./ 73.
N	0.49
K	2.46
R Laminar	2799.93
R Turbulent	3599.93
E.C.D.	1.20 SG
E.C.D. SHOE	1.18 SG

Actual standpipe pressure	19942 kpa
Pump rate	80 spm
Flow rate	1519.2 lit/mn
Hydrostatic head	29890.0 kpa
Pore pressure	27755.0 kpa
Estimated overbalance	2135.0 kpa
M.A.A.S.P	8306.7 kpa
Equivalent B.H.P	38196.66 kpa

BIT HYDRAULICS

Total flow area (Nozzles)	0.262 sq.ins
Nozzle velocity	157.6 m /sec
Hydraulic Impact	454.9 kg.wt.
Bit hydraulic power	351.3 KW
Total hydraulic horsepower	475.3 KW
Theor .% HHP at bit	73.9
Actual % HHP at bit	69.6

PRESSURE LOSSES

Total annular pressure loss	2011.5 kpa
Drill string pressure loss	2756.6 kpa
Surface equipment press. loss	128.0 kpa
Bit pressure loss	13875.2 kpa
Total system pressure loss	18771.3 kpa

LAG TIME

Annular volume	85. mc
Lag time of mud in mins.	55.7 mins
Lag time of mud in strokes	4454. strks
Lag time of cuttings	61.5 mins

VELOCITIES

Max. annular velocity	99.7 m /min
Min. annular velocity	6.5 m /min
Ave. annular velocity	48.9 m /min
Ave. cuttings slip velocity	4.4 m /min

SECTIONAL VELOCITIES

Section	Size ins.	Ann.Vel m /min	Crit. Vel m /min	Pres. loss kpa	Modified Reynolds No.	Cuttings slip Vel. m /min	Flow type
216MM BIT,STABS OPEN HOLE	165.10 216.00	99.7	236.5	34.0	976.5	6.1	Laminar
165.1MM DC'S OPEN HOLE	165.10 216.00	99.7	236.5	387.8	976.5	6.1	Laminar
HWDP OPEN HOLE	127.00 216.00	63.4	197.4	76.7	646.9	5.2	Laminar
DRILL PIPE OPEN HOLE	127.00 216.00	63.4	197.4	609.4	646.9	5.2	Laminar
DRILL PIPE CASING	127.00 220.00	59.9	194.6	901.7	607.7	5.1	Laminar
DRILL PIPE MARINE RISER	127.00 560.00	6.5	118.3	2.0	45.0	0.8	Laminar

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MUD DATA RECORD

MUD RECORD SHEET 1 - FLINDERS 1

OPERATOR : SAGASCO RESOURCES				WELL : FLINDERS 1				MUD COMPANY : IDF				MUD TYPE : SEAWATER/GEL/POLYMER				
DATE	30/11	01/12	02/12	03/12	04/12	05/12	06/12	07/12	08/12	09/12	10/12	11/12	12/12	13/12	14/12	15/12
TIME	23:30	22:00	23:00	23:00	17:00	23:30	23:00	23:45	21:00	23:30	23:00	24:00	24:00	24:00		
DEPTH	408	408	660	1208	1525	1525	1525	1525	1525	1730	1919	2184	2356	2407	2542	2664
WEIGHT	1.03	1.04	1.09	1.11	1.13	1.16	1.19	1.19	1.07	1.08	1.09	1.09	1.09	1.10	1.12	1.12
VIS (SEC/QT)	88	38	39	38	43	48	54	45	53	49	48	53	53	50	52	53
PV (cps)	16	7	6	7	11	13	10	14	8	13	13	19	19	19	21	20
YP LBS/100FT	62	15	16	18	20	26	20	14	18	19	22	28	32	26	31	27
GELS 0/10MIN	17/17	10/13	6/18	12/21	20/49	20/42	20/53	9/17	4/10	5/10	3/10	8/12	9/13	6/11	8/14	7/12
pH (METER)	-	8.9	9.3	9.3	9.3	9.7	9.4	9.3	9.4	9.4	9.4	9.0	9.5	9.0	9.0	10.0
FILTRATE API	-	25.0	17.4	20.6	11.4	8.6	9.2	9.6	9.4	8.6	6.6	6.8	6.4	6.0	5.8	6.4
FILTER CAKE	-	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1
CHLORIDES	-	15000	15000	19000	19000	19000	19000	19000	2800	2800	2800	3000	3300	3300	3000	3000
HARDNESS	-	1600	1040	1160	1240	1320	1040	960	260	240	240	200	160	160	160	120
SAND	-	-	0.5	0.5	0.5	0.5	TR	0.25	TR	0.5	0.5	TR	TR	TR	TR	TR
% SOLIDS	-	-	5.7	5.3	6.5	9.3	10.5	10.5	2.3	2.8	3.8	4.0	3.0	4.0	4.0	5.0
% WATER	-	97.6	94.3	94.7	93.5	90.7	89.0	89.5	97.7	97.2	96.2	96.0	97.0	96.0	96.0	95.0

DISPLACE HOLE TO FRESHWATER/PHPA MUD SYSTEM AT 1527m

MUD RECORD SHEET 2 - FLINDERS 1

OPERATOR : SAGASCO RESOURCES				WELL : FLINDERS 1				MUD COMPANY : IDF				MUD TYPE : FRESHWATER/PHPA				
DATE	16/12	17/12	18/12	19/12	20/12	21/12	22/12	23/12	24/12	25/12	26/12	27/12	28/12	29/12	30/12	31/12
TIME	24:00	24:00	24:00	-	-	-	-	-	-	-	-	-	-	-	-	-
DEPTH	2723	2723	2723	-	-	-	-	-	-	-	-	-	-	-	-	-
WEIGHT	1.12	1.12	1.12	-	-	-	-	-	-	-	-	-	-	-	-	-
VIS (SEC/QT)	52	52	52	-	-	-	-	-	-	-	-	-	-	-	-	-
PV (cps)	22	22	22	-	-	-	-	-	-	-	-	-	-	-	-	-
YP LBS/100FT	28	28	28	-	-	-	-	-	-	-	-	-	-	-	-	-
GELS 0/10MIN	5/12	5/7	5/7	-	-	-	-	-	-	-	-	-	-	-	-	-
pH (METER)	9.5	9.5	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-
FILTRATE API	6.0	6.0	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-
FILTER CAKE	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
CHLORIDES	3000	3000	3000	-	-	-	-	-	-	-	-	-	-	-	-	-
HARDNESS	80	80	80	-	-	-	-	-	-	-	-	-	-	-	-	-
SAND	TR	TR	TR	-	-	-	-	-	-	-	-	-	-	-	-	-
% SOLIDS	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
% WATER	95	95	95	-	-	-	-	-	-	-	-	-	-	-	-	-

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BIT DATA RECORD

BIT RECORD SHEET - FLINDERS 1

BIT RECORD SHEET 1					OPERATOR : SAGASCO RESOURCES						WELL NAME : FLINDERS 1					
BIT RUN	BIT No	MAKE	SERIAL No	TYPE	SIZE	JETS /TFA	DEPTH IN METERS	DEPTH OUT METERS	METERS ON BIT	HOURS ON BIT	KREVS	IADC GRADING	AVERAGE			
													WOB	RPM	LPM	PP
1	RR1	SMITH	KS 5832 2530	DSJ	660mm 914mm OH	3x24 3x20	91.55	127.6	36.05	2.0 2.0	4.2	11NO-11-TD 11NO-11-TD	0-.5	45	1234	2100
2	RR2	SMITH	KS 7976	DSJ	445mm	3x18	127.6	408.0	280.4	12.0	45.5	11NONO11NOTD	0-1	89	3247	12800
3	NB1	SMITH	NC 2238	FDS	311mm	3x14	408.0	1525.0	1117.0	45.0	226.2	22SSAE1/16NOTD	8-9	115	2317	17700
4	NB2	SMITH	NC 2923	FDGH	216mm	2x11 1x10	1525.0	1775.0	250.0	24.0	94.1	88ERWTAE2/16NOPR	5-7	100	1500	17500
5	NB3	SMITH	KS 6612	F2	216mm	2x11 1x10	1775.0	2382.0	607.0	47.4	300.8	33WTAEIPR	10	110	1519	18600
6	NB4	SMITH	KS 6746	F2	216mm	2X11 1X10	2382.0	2723.0	341.0	56.5	319.4	11NOA2EINOTD	13	108	1500	20200

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SECTION 5: SERVICES AND EQUIPMENT

The Logging Service
The Data Output Service
The Pore Pressure Evaluation Service

THE LOGGING SERVICE

Halliburton SDL was contracted to provide a mudlogging and data acquisition service for **Flinders-1**. The service commenced at 91 metres and continued for the remainder of the well. It was carried out in a purpose built pressurised laboratory located on the rig and connected to an array of external sensors. This unit was manned on a continuous basis by a crew of eight, four logging geologists and four data engineers, with four crew members being on the rig at any time. In addition to these personel 2 sample catchers were also used for the duration of the 216mm hole.

The sensors were connected to digital and analogue readouts, as well as to an online computer system The following parameters were monitored and recorded:

Depth/Rate of penetration
Mud Pump Speed
Stand Pipe Pressure
Hook Load/Weight on Bit
Top Drive RPM
Top Drive Torque
Active and Total Pit level
Casing Shut in Pressure

Travelling Block position height above the drill floor

Total Gas in returning mud
Chromatographic analysis
Hydrogen Sulphide
Trip Tank Level
Mud Weight In and Out
Mud Conductivity In and Out
Mud Flow In and Out

Environmental Hydrogen Sulphide at the shale shakers and rotary table

Audio-visual alarms were connected to the active pit, total gas, stand pipe pressure, mud flow out and hydrogen sulphide sensors

GAS DETECTION

Ditch Gas was continuously monitored for hydrocarbons and hydrogen sulphide using a Shimadzu GC-8A flame ionisation detector system with a SP4270 integrator for total Gas (% in air) and chromatographic analysis and a General Monitors type 2170 detector for H_2S Similar detectors were used to monitor environmental H_2S levels at the shale shakers and at the rotary table

THE DATA OUTPUT SERVICE

INTRODUCTION

Halliburton SDL provided the facility for monitoring relevant parameters during drilling and tripping operations, and for running off-line programs

The system on **Ocean Epoch** was based on the Dilog mini-computer linked to twin (shadowing) ESDI disk drives and two 3 1/2" floppy disc drives. System control was from a VT220 emulation console, with a repeating line printer for offline programs. Also linked to the system were a printer giving an on-line read-out of drilling, trip and circulation data, and a VT 220 terminal providing drilling depth, time based data, trip monitor data, and pit level information to the toolpusher's office and the rig floor. Two Samsung SD 820 PC Computers running a Smarterm 240 terminal emulation package were also provided, one in the logging unit and the other in the Co-Representatives office. The Smarterm 240 package allows the user to log on to the Dilog system on a remote PC in VT100 emulation.

A Hewlett Packard 7475A XY plotter was provided for graphics output

In addition to the mini-computer system, a Log Drawing System was used for compiling the Formation Evaluation Log, the Pressure Evaluation Log, and the Gas Ratio Log. The system consists of a Samsung SD 820 desktop computer, NEC VDU, Zeta 8-pen plotter and a slave printer. The system was linked to the Dilog computer for data transfer, and to a Maestro modem to facilitate transmittal of data (Formation Evaluation Log, Pressure Evaluation Log, Gas Ratio Log, Daily Drilling Report, and Daily Geological Report) to **SAGASCO** office in Adelaide.

DESCRIPTION OF ONLINE AND OFFLINE PROGRAMS

THE DRILL MONITOR

The drill monitor program is used during drilling and reaming operations. It is designed to relay drilling information to visual display units on a minute by minute basis and at specific depth intervals during drilling. Both instantaneous and depth based data are recorded on paper. The program also stores the averaged parameters which make up the depth based data on disc for use in data reprint and plotting programs.

The following parameters are measured or calculated by the program, and stored on disc:

Time	**Total Bit Revs**	**Standpipe Pressure**
Depth	**Bit Hours on Bottom**	**Pump Strokes per Minute**
ROP	**Metres Drilled**	**Mud Temperature in**
WOB	**Average ROP,**	**Mud Temperature out**
RPM	**Mud Flow in**	**Time since start of bit run**
Hook load	**Mud Weight in**	**Time in interval**
Min Torque	**Mud Weight out**	**Cost of Interval**
Max Torque	**d Exponent**	**Corrected d Exponent**
Ave Torque	**Total Pit Vol**	**Estimated Pore Pressure**
ECD	**Active Pit Vol**	**Cost of bit run so far**
Date	**Bit Pressure Loss**	**Record Number**

Average cost per drilled Interval

Any combination of these parameters may then be chosen for hard copy, either as a printed listing, plotted against depth.

The visual output of the program allows a choice of three formats to be selected by means of a four channel digital information link to remote terminals. Channel one displays a combination of the major drilling parameters on a minute by minute basis, as well as the averaged readings recorded over the previous five depth intervals separate section of the display gives a section of the parameters displayed on an instantaneous basis.

The second channel displays a broader section of instantaneous data, plus a section devoted to the Hydraulic Performance of the bit and bottom hole assembly. The data displayed here is again updated every few seconds.

The third channel displays a full selection of parameters recorded at the previous depth interval.

TRIP MONITOR

This program is run when tripping in or out of the hole with either the drill string or with casing. The program reads bottom hole assembly dimensions from a data file stored on disc to take into account the string displacement and weight as tripping progresses.

The program measures or calculates the following parameters:

Depth of bit
Maximum pipe speed
Maximum pull
Trip Tank Vol
Total Pit Volume
Calculated Hole Fill
Number of stands to pull/run
String Weight
Maximum Overpull
Active Pit Volume
Actual Hole Fill
Time
Estimated time at bottom/surface/shoe
Effective Mud Weight (from swab/surge calculations)
Travelling Block Height above Rig Floor

The program outputs data as a stand by stand listing on a printer, and as a choice of two displays on the VDUs. One displays the data collected while pulling/running the previous eleven stands. The bottom section of the screen also gives an instantaneous readout of key parameters such as Hook Load, Pit Levels, Trip Tank Level, Bit Depth and Pipe Speed and an estimate of the time when the bit will be on bottom or at surface is also computed from the average time taken to pull or run stands. Swab and surge calculations also give the estimated bottom hole effective mud weight, assuming closed pipe. The second choice gives a graphical representation of the depth of the drill string in the hole, thus giving the viewer a clear picture of the trip progress. This display also gives instantaneous readings of key parameters, such as Bit Depth, Maximum Overpull, Calculated Hole Fill, and Pit Levels.

THE PIT LEVEL MONITOR PROGRAM

This program is run at all times. The program measures the mud volume in the active pit, the trip tank, or the total pit system. Output is to one of four channels on visual output system and is primarily in the form of a bar graph for quick assessment of pit level stability. Pit volume and the rate of any volume change are also displayed. An additional feature of this program is its alarm facility. This highlights pit level changes which exceed certain limits, and can be adjusted to suit any requirements. For example, if mud was being added to the active pit at a certain rate, the alarm threshold could be set to mark any level changes in excess of the rate of addition. While tripping out of the hole the program is switched to monitor the trip tank level, an additional check on hole fill.

OFF-LINE PROGRAMS

Numerous offline programs are available. Most of these fall into four broad categories:
1) Drilling Data programs: These allow data stored on disc to be edited, reprinted, and plotted graphically in a variety of ways; as drilling parameter plots, cost plots, d exponent plots, and mud temperature plots
2) Wireline interpretation/pressure evaluation programs: These allow readings taken from wireline logs to be manually input and stored on a data disc. The data can then be used to calculate and plot a variety of parameters useful for pore pressure evaluation, such as resistivity, sonic or overburden gradients.
3) Directional Survey Programs: Directional survey data is input manually and stored on disc. The data can then be used to produce plan and vertical plots of the wellbore, and to calculate the bit position.
4) Engineering Programs: These include hydraulics programs for drilling, swab and surge programs, plus a number of others, for example casing weight and cementing volume calculations.

ENGINEERING PROGRAMS

Hydraulics Programs: To optimize drilling performance it is essential to consider the Hydraulic Performance of the Drilling Mud in relation to the bit , the Bottom Hole Assembly and the configuration of the hole. The basic Hydraulics Program is designed to asses hydraulic performance while drilling. Actual pump stroke rates, standpipe pressures, and mud properties are input into the program for the depth in question. The program then reads details of the Bottom hole assembly and hole configuration from data files stored on disc. Hydraulics calculations based on the Power Law model were frequently run to calculate the following: Mud Properties: Power Law n Factor; Power Law k Factor; Effective Circulating Density at bit and shoe; Pressure Regimes: Mud Flow Rate; Hydrostatic Pressure; Estimated Static Overbalance; Estimated Dynamic Overbalance; MAASP; Bit Hydraulics: Total Flow area; Nozzle Velocity; Bit Hydraulic Horsepower; Bit Hydraulic Impact; Annular Pressure Losses; Bit Pressure Loss; Drill String Pressure Loss; Lag Times: Lag time of Mud and cuttings; Cuttings Slip Velocity; Hole Volume; and a Sectional Velocities Table.
In addition to the basic hydraulics program, hydraulics optimisation programs could be used to plan out the hydraulics performance in advance, so that the most suitable bit jet sizes and flow rates could be selected. The swab/surge program calculates the pressure fluctuations caused by the motion of the drill string during trips or casing runs. The kinetic pressures caused due to the breaking of mud gel strength are also taken into account. The program then outputs the effective mud weight at the bottom of the hole, at the bit, or at any specific zone of interest, for a variety of pipe or casing running speeds. This enables any running speed restrictions to be made to avoid swabbing formation fluids while pulling out or fracturing the formation while running in.

The Well Kill Program is designed to rapidly produce information needed to control the well should a kick occur. For speed of operation much of the necessary data, including the most recent slow circulation pressures, are stored on disc. The outputs from the program are:

1) Hole volumes and circulation times based on slow circulation measurements
2) Formation Pressure, height and density of influx, kill mud density and surface pressure tolerance
3) table of fluid/fluid and fluid/gas interfaces and theoretical pressures while circulating out the influx graphical output of this can also be quickly provided The program caters for the use of both the "Driller´s method", and the "Weight and Wait" methods of Kick Control

THE PORE PRESSURE EVALUATION SERVICE

Plots maintained during drilling include corrected drilling exponent, interpreted lithology, shale density, flowline temperature, differential temperature, total gas and mud weight In addition, any information pertinent to pressure detection such as hole condition during trips, cavings, trip gas and connection gas is also noted on the pressure log This data is presented along with the estimated formation pressure gradient and leak off test results

DRILLING EXPONENT (Dxc)

If a well was drilled through a good thickness of uniform, normally pressured shales, holding the parameters of bit size, weight on bit (WOB), rotary speed (RPM) and mud weight constant, a gradual reduction in the rate of penetration would be expected, due to the increasingly compacted nature of the sediments encountered and to the increasing differential bottom hole pressure (overbalance) If subsequently an overpressured zone was encountered, a reversal of the normal rate of penetration trend would be seen This is a result of: a) the sediments being undercompacted and therefore more drillable; as pore pressure exerts forces which resist the compaction resulting from overburden stresses, and b) a decrease in the pressure difference (overbalance) between the drilling mud and the formation pore fluid, reducing the tendency for drill cuttings to be held down against the formation

In practice it is not feasible to hold the independent variables of WOB, RPM, bit size and mud weight constant through more than a very short section of hole Jordan and Shirley (1966) produced an equation aimed at normalising rate of penetration with respect to the variables of RPM, bit size and WOB The product is named the DC exponent, when "d" has been refined further by correcting it for the ECD of the drilling fluid

$$d = \frac{\log\left(\frac{Penetration\ Rate(Ft/Hr)}{N(rpm)\times 60}\right)}{\log\left(\frac{12\times Weight\ On\ Bit(lbs)}{Bit\ Diam(ins)\times 10^{6}}\right)}$$

The DC exponent (Dxc) is particularly effective in identifying long transition zones Bit wear can also be recognised through the analysis of Dxc trends One disadvantage is that not all the parameters affecting the penetration rate are included in the equation

The Dxc is to a large extent dependent upon lithology, and rarely works well as an overpressure indicator in formations

other than shales or mudstones Poorly consolidated sands or silty mudstones tend to reduce the Dxc value Tight carbonates and marls will tend to increase it .The Dxc can thus be used as correlation tool Normal shale compaction trend lines are usually established in a top hole mudstone section. Any departure from this trend may indicate abnormal pressure Quantitative evaluation of the Dxc is achieved by the use of an **Eaton overlay** series of increasing pressure trend lines are constructed using the following equation:

$$\textit{Formation Pressure} = S - [(S-Pn) \times \frac{DCo}{DCn}^{1.2}]$$

Where S = overburden gradient (psi/ft)
Pn = normal pore pressure (psi/ft)
Dco = observed DC exp
Dcn = normal DC exp

The overburden gradient is usually calculated using LDT values from an adjacent well If a density log has not been run density values may be estimated from BHC sonic transit time using the Agip formula:

$$\textit{Bulk Density (S.G.)} = 2.75 - [2.11 \times \frac{\Delta T - 47}{\Delta T + 200}]$$

For wildcat wells the overburden gradient may have to be estimated

Bit changes often cause shifts in the normal trend These must be allowed for when estimating pore pressure from the Dxc

BULK DENSITY

A normal compaction trend can be established by plotting bulk density versus depth departure from this trend to a lower density may indicate undercompacted formation (more porosity) and thus overpressure There are several disadvantages to this method; the sample has to be circulated up before any measurement can be made, this time lag may be critical in some situations; a number of readings have to be taken to allow for sample error; the density of the shale is decreased by prolonged exposure to water based muds; and small amounts of sand, carbonaceous material, and accessory minerals in the shale will affect its density, and this may mask changes related to overpressure This method is therefore most reliable in clean shale sections

FLOWLINE TEMPERATURE

The geothermal gradient may be estimated thus:

$$Geothermal\ Gradient = 100 \times \frac{T2-T1}{D2-D1}$$

Where : T1 and T2 are the flowline temperatures at depths D1 and D2 respectively

Undercompacted formations have an abnormally high water content The thermal conductivity of water is about one third that of most matrix minerals a result overpressured formations are comparatively poor thermal conductors This leads to abnormally high geothermal gradients existing over overpressured zones

Flowline temperature is the drilling parameter most affected by surface events and least affected by downhole conditions It is far easier to change the flowline temperature by adding water in the pits for example, than by a change in downhole temperature more meaningful measurement may be **Delta T** (difference between temperature in and out) **Delta T** will normally decrease with depth due to longer circulation times at lower rates of penetration increase in **Delta T** may indicate entry into a transitional zone **Delta T** is less affected by surface temperature changes and mud system additions than the raw temperature data

GAS LEVELS

The level of hydrocarbon gas in the drilling mud offers clear evidence of overpressuring. The following are the most common indicators:

a) **Background Gas**: During drilling gas enters the mud from drill cuttings and from the borehole wall via diffusion an increase in the average level of gas often occurs when drilling into overpressured zones This may be because overpressured sediments, with abnormally high porosity, contain more hydrocarbons per unit rock volume than normally compacted sediments with a similar pore fluid compositions The level of gas will also increase when drilling into source rocks It is also dependent on the rate of penetration, which is affected by changes in drilling parameters as well as by geological factors considerable degree of discrimination is therefore required when interpreting background gas.

b) **Connection Gases**: These indicate that the formation pore pressure is only slightly lower than the hydrostatic pressure of the drilling mud Connection gases can yield a close estimate of the pore pressure The influx of gas results from the decrease in effective mud density when circulation stops at connections However, connection gases may occur as a result of swabbing This is especially true in deviated holes, where swab pressures on the low side are much greater

c) **Trip gas** : This enters the mud via diffusion through the borehole wall during trips. An increase in the quantity of trip gas is sometimes noted in overpressured zones In situations where it is close to balance, large trip gases may be swabbed into the hole indicating that the pore pressure (in equivalent mud weight units) is only fractionally below the mud weight Increases in trip gas may also occur after reservoir units have been drilled.

WIRELINE LOGS

Two logs are of particular use in pressure evaluation:

a) **BHC Sonic**:-For a given lithology sonic transit time (Δt) is dependent on porosity (cf the Wyllie equation) In a normally compacted claystone sequence porosity decreases exponentially with depth Therefore delta t values for claystones should also decrease exponentially, and a lower logarithmic plot of delta t should yield a linear normal compaction trend any increase in this trend for claystone units indicates abnormally high porosity and hence overpressuring.

b) Formation **Resistivity** (ILD or LLD):- Resistivity values for normally compacted claystones show a linear trend when plotted on a logarithmic scale Increases from this trend indicate an overpressured zone, containing claystone with abnormally high water content.

Eaton overlays may be used for quantitative analysis of these plots The sonic log generally yields the more accurate pore pressure estimates These logs can be filtered using the gamma ray log so that only claystone readings are shown on the plots This may not be possible in areas where the non-argillaceous lithologies contain radioactive minerals (eg micas, glauconite)

Wireline logs from adjacent wells may help in anticipating overpressured zones before drilling a well Logs run during a well may be used to revise pore pressure estimates while drilling.

OTHER DATA

Additional data, such as cuttings size and shape, the size and shape of cavings, the amount of torque, overpull, hole fill in trips, pump pressure etc, may provide useful information for pressure estimation. However, great care should be exercised in using some of these parameters in high angle directional holes: overpull, torque, and the amount of cavings are all increased by the drag of the drill string in the hole

292161

ENCLOSURES: 1 FORMATION EVALUATION LOG
2 PRESSURE EVALUATION LOG
3 CHROMATOGRAPH GAS RATIO LOG

OR-0299 ENCLOSURE 1.

292162

HALLIBURTON GEODATA SDL

FORMATION EVALUATION LOG

WELL: FLINDERS 1

COMPANY : SAGASCO RESOURCES
RIG : OCEAN EPOCH
AREA : BASS BASIN
STATE : TASMANIA
LOCATION : 40° 22' 51.83"S 145° 40' 18.70"E
ELEVATION : Air Gap 22.30 m (RT-MSL)
Water Depth 69.25 m (MSL-SB)
DEPTH REF. : ROTARY TABLE

SPUD DATE : 29/11/1992
TD DATE : 16/12/1992
TD DRILLER : 2723 m (m TVD)
TD WIRELINE : 2719 m (m TVD)
LOGGED FROM : 29/11/1992 @ 92 m
LOGGED TO : 16/12/1992 @ 2723 m
STATUS : PLUGGED AND ABANDONED

WELL CONFIGURATION

BIT SIZE mm	HOLE DEPTH m	CASING SIZE mm	SHOE DEPTH m
914.0	128	762.0	125
445.0	408	340.0	403
311.0	1525	244.0	1520
216.0	2723		

LOGGING ENGINEERS
M. WOODMANSEE, P. CARTLEDGE
H. BROWN, M. SMITH
A. ORAEKWUOTU, R. BATES
LOGGING UNIT No.99

DEPTH SCALE 1:500

SYMBOLS: NEW BIT RUN; NEW CORE BIT RUN; CORED INTERVAL; CASING SHOE; LINER HANGER; WIRELINE LOGS RUN; Recovered / SIDEWALL CORES / Not Recovered; NO SHOW; WEAK SHOW; FAIR SHOW; GOOD SHOW

ABBREVIATIONS: NB NEW BIT; NCB NEW CORE BIT; RRB RE-RUN BIT; CS CASING SHOE; SWC SIDEWALL CORES; EL ELECTRIC LOG; WOB WEIGHT ON BIT; RPM REVS PER MINUTE; PP PUMP PRESSURE; SPM STROKES PER MINUTE; CR CIRCULATED RETURNS; PR POOR RETURNS; NR NO RETURNS; TG TRIP GAS; CG CONNECTION GAS; WTG WIPER TRIP GAS; DS DIRECTIONAL SURVEY; WT WIPER TRIP; POH PULL OUT OF HOLE; RIH RUN IN TO HOLE; WOW WAIT ON WEATHER; LAT LOGGED AFTER TRIP; LCM LOST CIRCULATION MATERIAL; DC DEPTH CORRECTION; DST DRILL STEM TEST; RMG REAMING; ML MUD LOSSES; FR FLOW RATE; FC FLOW CHECK; BR BIT RUN

MUD DATA: W WEIGHT kg/L; MG MUD GRADIENT psi/ft; V FUNNEL VISCOSITY s/qt; PV PLASTIC VISCOSITY cP; YP YIELD POINT lb/ft2; GEL GEL STRENGTH lb/ft2; pH ACIDITY; F FILTRATE cm3/30; CK CAKE THICKNESS /32; S SALINITY mg/L; SD SAND CONTENT %; O OIL CONTENT %; WL WATER LOSS cm3/30; SOL SOLIDS CONTENT %; Pf FILTRATE ALKALINITY %; GYP GYPSUM CONTENT kg/m3

LITHOLOGY: CLAY / CLAYSTONE SHALE; ARGILLACEOUS SILTSTONE; SILT; SILTSTONE; SAND SANDSTONE; CONGLOMERATE; BRECCIA; CHERT; MARL; LIMESTONE; DOLOM. LIMESTONE; CALC. DOLOMITE; DOLOMITE; ANHYDRITE; HALITE; COAL; CEMENT; VOLCANIC ROCK; INTRUSIVE IGNEOUS ROCK; METAMORPHICS; ARGILLACEOUS; SILTY; SANDY; ARKOSIC; CALCAREOUS; DOLOMITIC; CARBONACEOUS; TUFFACEOUS; GLAUCONITIC; MICACEOUS; PYRITIC; FOSSILS; MICROFOSSILS; PLANT REMAINS; CONCRETIONS NODULES; OOIDS

Columns: ROP min/m 30 / BITS; DEPTH MD m 1m = 500m; FLUORESCENCE; CUTTINGS 0 % 100 SFN; TOTAL GAS Units 100; CUT TG Units 100; CON GAS ppm 100000; TRIP GAS ppm 100000; C1 ppm 100000; C2 ppm 100000; C3 ppm 100000; C4 ppm 100000; C5 ppm 100000; CALCI % DOLOM %; CARB %; CUT; LITH; W/L RUNS COMMENTS

FLINDERS-1 SPUDDED 09:50 HRS 29-11-1992

BR1 RR1 660mm (914mm HO) JETS:3x24,3x20 IN: 91.55m 36m in 2 HRS COND:1-1-NO-1-1-TD

WOB 0.3 RPM 46 LPM 1216 PP 2135 — 29-11-92 30-11-92

BR2 RR2 445mm SMITH DSJ JETS:3 X18 IN: 127.6 240.8m in 12 HRS COND:1-1-NO-NO-1-1-NO-TD

762mm CSG SHOE SET AT 124.73m

WOB 0-1 RPM 87 LPM 3260 PP 12130

WOB 0-1 RPM 90 LPM 3247 PP 12610

WOB 0-1 RPM 89 LPM 3215 PP 13330

340mm CSG SHOE SET AT 403m — 30-11-92 02-12-92

BR3 NB1 311mm SMITH FDS JETS: 3x14 IN: 408M 1117m in 45 HRS COND:2-2-SS-AE-1/16-NO-TD

WOB 1-2 RPM 59 LPM 2525 PP 17176

WOB 1-2 RPM 100 LPM 2393 PP 16297

WOB 2 RPM 101 LPM 2317 PP 15310

02-12-92 03-12-92

WOB 2 RPM 105 LPM 2502 PP 13868

WOB 3 RPM 110 LPM 2316 PP 15975

WOB 10-15 RPM 122 LPM 2340 PP 16620

CARBIDE @ 989m RETURNS ON TIME 4.7u ABG

WOB 5-7 RPM 116 LPM 2272 PP 16250

WOB 10 RPM 119 LPM 2262 PP 16650

03-12-92 04-12-92

WOB 9 RPM 117 LPM 2298 PP 17823

244mm CSG SHOE SET AT 1520m — 04-12-92 09-12-92

BR4 NB2 216mm SMITH FDGH JETS:2x11,1x10. IN: 1525m 250m in 24 HRS COND:8-8-ER-WT-AE-2/16-NO-PR

WOB 13 RPM 80 LPM 2520 PP 9300

TR C1; 100% C1; WTG; 29 U; 99/1; 96/3/1; 96/4; 97/3

DRILL RISERLESS, RETURNS TO SEABED.

DRILL WITH SEAWATER AND HI VIS SWEEPS.

MUD DATA @ 127m
W 1.03, V 102, PV 19, YP 62 GEL 18/18, pH 7.5.

DRILL WITH SEAWATER AND HI VIS SWEEPS.

MUD DATA @ 408m
W 1.03, V 88, PV 16, YP 62, GEL 17/17

SEAWATER/GEL/POLYMER MUD SYSTEM

408-740m
LIMESTONE

LIMESTONE: wh-off wh, crm, gy, f-c gr, p srt, sbang, cln ip, loc abnt calc micritic mtx, occ gy Cly mtx ip, tr glau & pyr, pred bioc, calcarenite, tr calc cmt, fri, abnt Bry & Cor, tr-com Foram & Ech, p-fr intparticle por, tr-loc g intraparticle por, n show.

MUD DATA @ 660m
W 1.09, V 39, PV 6, YP 18, GEL 6/16, pH 9.3 F 17.4, CK 1, Cl 15K mg/l, Ca 1040 mg/l, SD 0.5, SOL 3.7%

740-790m
LIMESTONE

LIMESTONE: wh-lt gy, f-c gr, abnt gy Cly, rr glau & pyr, bioc calcilutite, cpct, abnt Cor, Bry & Foram, sft-fri, n por, n show.

790-900m
LIMESTONE

LIMESTONE: off wh-crm, occ lt gy, vf-vc gr, occ gy Cly mtx, pred wh rexlized calc & calc micrite mtx, tr glau, bioc calcarenite, cpct & rexlized ip w/ suc tex, abnt Bry & Cor frag, tr Foram, fri-hd, tr intgran por, n intgran por, n show.

900-1040m
LIMESTONE WITH INTERBEDDED MARL

LIMESTONE: a/a, loc w/ abnt lutitic mtx & Cly, loc grdg to bioc calcilutite.

MARL: lt-dk gy, mot crm, occ gnish, abnt vf shell frag & calc gr, tr pyr & glau, cpct, sft-frm, blky-sbfis, grd from calc Clyst to bioc calcilutite.

1040-1240m
CLAYSTONE WITH OCCASIONAL THIN SANDSTONE & DOLOMITE.

CLAYSTONE: lt-m gy, gnish & brnish ip, sl-v calc, tr pyr nod, rr-tr glau, tr Foram, Cor & Bry frags, sft-frm, blky-sbfis, grds to Mrl.

DOLOMITE: lt orng, brn-tan-brn, crpxl, v hd, brit.

SANDSTONE: col'less, trnsl, m gr, w srt, ang-occ sbrnd, uncons, lse qtz, g inf por n show.

MUD DATA @ 1208m
W 1.11, V 38, PV 7, YP 18, GEL 12/21, pH 8.3, F 20.6, CK 2, Cl 19K mg/l, Ca 1160 mg/l, SD 0.5, SOL 5.3%

1240-1330m
CLAYSTONE WITH OCCASIONAL THIN MARLY LIMESTONE STRINGERS.

CLAYSTONE: gen a/a, gy, gy brn, sl-mod calc, tr carb specs.

LIMESTONE: gy-gy brn, micxl, v arg, tr glau, tr carb specs, calcilutite, cpct, sft-fri, tr intgran por, n show, grds to Mrl.

1330m-1432m
CLAYSTONE WITH OCCASIONAL THIN INTERBEDS OF SILTSTONE AND DOLOMITE

CLAYSTONE: a/a.

SILTSTONE: brn, gy brn ip, arg, sl calc, tr dism pyr, frm-v sft, blky, disp ip.

DOLOMITE: lt orngy brn, crpxl, v hd, tr slt, tr dism pyr, v hd.

1432-1544m
INTERBEDDED SILTSTONE, CLAYSTONE, WITH OCCASIONAL THIN DOLOMITE STRINGERS

CLAYSTONE: dk gy-dk brn, sl-n calc, slty, abnt-tr pyr nods, carb specs, frm-sft,

SILTSTONE: brn-dk brn, v arg, n calc, carb specs, frm-sft, disp ip.

DOLOMITE: crm-tan-brn, crpxl, v hd, ang, tr dism pyr.

RUN 1: DLL-MSFL-LSS-GR-SP-DTD UNABLE TO PASS 1240m

FRESH WATER/PHPA MUD SYSTEM

MUD DATA AT 1527m
W 1.07, V 53, PV 8, YP 18, GEL 4/10, pH 9.4 F 9.4, CK 1, Cl 28K mg/L, Ca 260 mg/L, SD TR, SOL 2.3%

1544m-1578m
SANDSTONE WITH OCCASIONAL THIN INTERBEDS OF CLAYSTONE AND RARE DOLOMITE

SANDSTONE: lt-dk brn, vf-vc, vp srt, sbang rnd, sph-sbsph, wk-tr sil cmt ip, rr-tr pyr, tr intstl brn Cly w/ Cly recoating qtz grs, tr glau, pred lse uncons qtz, fr g por, n show.

CLAYSTONE: brn-lt brn, occ v dk brn, silty sl calc ip, abnt dism & nod pyr, sft, disp.

DOLOMITE: tan, crpxl, arg, v hd, tr qtz, blky-splty.

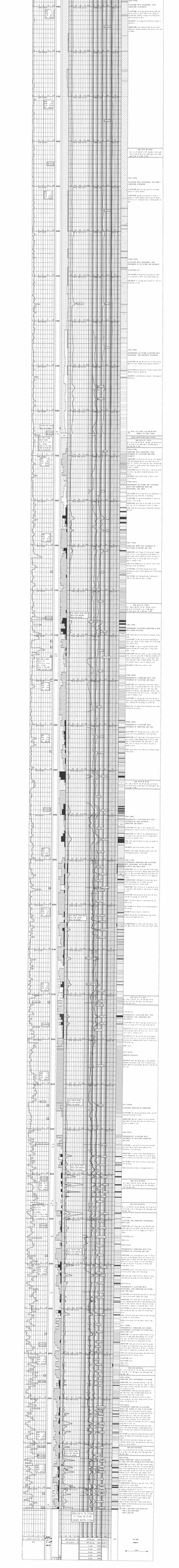
1578m-1631m
INTERBEDDED SILTSTONE AND CLAYSTONE WITH THIN SANDSTONE BEDS AND OCCASIONAL COAL BEDS

SILTSTONE: off-lt gy brn, sil, micmica, tr glau, arg ip, frm-loc v hd, blky.

CLAYSTONE: lt gy brn, micmica, n calc, sl slty, v sft, disp.

SANDSTONE: a/a, loc w srt, gen w srt but vor gr sz, fri-uncons, fr por, n show.

COAL: blk-brn blk, dull-rsns, hd-frm, pyr, sb bit.



OR-0299 ENCLOSURE 2.

292163

5 cm

HALLIBURTON GEODATA SDL — PRESSURE EVALUATION LOG

WELL: FLINDERS 1

COMPANY : SAGASCO RESOURCES
RIG : OCEAN EPOCH
AREA : BASS BASIN
STATE : TASMANIA
LOCATION : 40° 22' 51.83"S 145° 40' 18.70"E
ELEVATION : Air Gap 22.30 m (RT-MSL)
Water Depth 69.25 m (MSL-SB)
DEPTH REF. : ROTARY TABLE

SPUD DATE : 29/11/1992
TD DATE : 16/12/1992
TD DRILLER : 2723 m (m TVD)
TD WIRELINE : 2719 m (m TVD)
LOGGED FROM : 29/11/1992 @ 92 m
LOGGED TO : 16/12/1992 @ 2723 m
STATUS : PLUGGED AND ABANDONED

WELL CONFIGURATION

BIT SIZE mm	HOLE DEPTH m	CASING SIZE mm	SHOE DEPTH m
914.0	128	762.0	125
445.0	408	340.0	403
311.0	1525	244.0	1520
216.0	2723		

LOGGING ENGINEERS

M. WOODMANSEE, P. CARTLEDGE
N. BROWN, M. SMITH
A. ORAEKWUOTU, R. BATES

LOGGING UNIT No.99

DEPTH SCALE 1:2500

SYMBOLS

NEW BIT RUN; NEW CORE BIT RUN; CASING SHOE; LINER HANGER; Recovered SIDEWALL CORES Not Recovered; CORED INTERVAL; WIRELINE LOGS RUN; NO SHOW; WEAK SHOW; FAIR SHOW; GOOD SHOW

ABBREVIATIONS

NB	NEW BIT	DS	DIRECTIONAL SURVEY
NCB	NEW CORE BIT	WT	WIPER TRIP
RRB	RE-RUN BIT	POH	PULL OUT OF HOLE
CS	CASING SHOE	RIH	RUN IN TO HOLE
SWC	SIDEWALL CORES	WOW	WAIT ON WEATHER
EL	ELECTRIC LOG	LAT	LOGGED AFTER TRIP
WOB	WEIGHT ON BIT	LCM	LOST CIRCULATION MATERIAL
RPM	REVS PER MINUTE	DC	DEPTH CORRECTION
PP	PUMP PRESSURE	DST	DRILL STEM TEST
SPM	STROKES PER MINUTE	RMG	REAMING
CR	CIRCULATED RETURNS	ML	MUD LOSSES
PR	POOR RETURNS	FR	FLOW RATE
NR	NO RETURNS	FC	FLOW CHECK
TG	TRIP GAS	BR	BIT RUN
CG	CONNECTION GAS		
WTG	WIPER TRIP GAS		

MUD DATA

W	WEIGHT	kg/L
MG	MUD GRADIENT	psi/kft
V	FUNNEL VISCOSITY	s/qt
PV	PLASTIC VISCOSITY	cP
YP	YIELD POINT	lb/cf2
GEL	GEL STRENGTH	lb/cf2
pH	ACIDITY	
F	FILTRATE	cm3/30
CK	CAKE THICKNESS	in/32
S	SALINITY	mg/L
SD	SAND CONTENT	%
O	OIL CONTENT	%
WL	WATER LOSS	cm3/30
SOL	SOLIDS CONTENT	%
pF	FILTRATE ALKALINITY	%
GYP	GYPSUM CONTENT	kg/m3

CLAY / CLAYSTONE SHALE; ARGILLACEOUS SILTSTONE; SILT; SILTSTONE; SAND SANDSTONE; CONGLOMERATE; BRECCIA; CHERT; MARL; LIMESTONE; DOLOM. LIMESTONE; CALC. DOLOMITE; DOLOMITE; ANHYDRITE; HALITE; COAL; CEMENT; VOLCANIC ROCK; INTRUSIVE IGNEOUS ROCK; METAMORPHICS; ARGILLACEOUS; SILTY; SANDY; ARKOSIC; CALCAREOUS; DOLOMITIC; CARBONACEOUS; TUFFACEOUS; GLAUCONITIC; MICACEOUS; PYRITIC; FOSSILS; MICROFOSSILS; PLANT REMAINS; CONCRETIONS NODULES; OOIDS

OR-0299 ENCLOSURE 3.

292164

5 cm

HALLIBURTON GEODATA SDL — DRILLING EVALUATION LOG

WELL: FLINDERS 1

COMPANY : SAGASCO RESOURCES
RIG : OCEAN EPOCH
AREA : BASS BASIN
STATE : TASMANIA
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ELEVATION : Air Gap 22.30 m (RT-MSL)
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LOGGING ENGINEERS

M. WOODMANSEE
N. BROWN
A. ORAEKWUOTU
P. CARTLEDGE
M. SMITH
R. BATES

LOGGING UNIT No.99

DEPTH SCALE 1:500

SYMBOLS

NEW BIT RUN
NEW CORE BIT RUN
CASING SHOE
LINER HANGER
Recovered / SIDEWALL CORES / Not Recovered
CORED INTERVAL
WIRELINE LOGS RUN
NO SHOW
WEAK SHOW
FAIR SHOW
GOOD SHOW

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CK	CAKE THICKNESS	in/32
S	SALINITY	mg/L
SD	SAND CONTENT	%
O	OIL CONTENT	%
WL	WATER LOSS	cm3/30
SOL	SOLIDS CONTENT	%
pF	FILTRATE ALKALINITY	%
GYP	GYPSUM CONTENT	kg/m3

CLAY / SHALE / CLAYSTONE — ARGILLACEOUS SILTSTONE — SILT — SILTSTONE — SAND SANDSTONE — CONGLOMERATE — BRECCIA — CHERT — MARL — LIMESTONE — DOLOM. LIMESTONE — CALC. DOLOMITE — DOLOMITE — ANHYDRITE — HALITE — COAL — CEMENT — VOLCANIC ROCK — INTRUSIVE IGNEOUS ROCK — METAMORPHICS — ARGILLACEOUS — SILTY — SANDY — ARKOSIC — CALCAREOUS — DOLOMITIC — CARBONACEOUS — TUFFACEOUS — GLAUCONITIC — MICACEOUS — PYRITIC — FOSSILS — MICROFOSSILS — PLANT REMAINS — CONCRETIONS NODULES — OOIDS

0 ROP min/m 30 / COMMENTS	DEPTH MD m 1m = 500m / SHOES	CUTTINGS 0 % 100	OIL SHOWS G F W	LITH	1 TOTAL GAS ppm 100000 / 1 C1 ppm 100000 / 1 C2 ppm 100000 / 1 C3 ppm 100000 / 1 C4 ppm 100000 / 1 C5 ppm 100000 / 1 CO2 ppm 100000	0 Ch Ratio 3	1 Wh Ratio 100 / 1 Bh Ratio 100