



TGT - LAB
REGISTROS GEOLOGICOS

FINAL WELL REPORT

WELL: LO6-32D

OCTOBER - NOVEMBER 2013

SAVIA PERU S.A.

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INTRODUCTION

TGT – LAB S.A.C. started Mud Logging Operations on the Well LO6-32D on October 09th, 2013 at 455 feet depth, and finished on November 21st, at the depth of 8209.0 feet TD(RT), with 5 ½” Casing cementation; Casing Shoe at 8209 feet.

Origin:	
Surface Northing	9'508,658.67 m.
Surface Easting	459,048.46 m.
Main objective:	Rio Bravo Formation
Objective Northing	9'507,552.89 m
Objective Easting	458,084.13 m
Kelly Bushing	50 ft.
Water depth	-335 ft.
Total Depth	8209 ft.
Reference	DATUM-WGS -84 UTM

It is proposed to drill a development well LO6-32D to produce oil of Rio Bravo reservoir in Lobitos oil field.

The well LO6-32D was drilled from platform Lobitos 6 and reached a final depth of 4120.08 feet (TVD).

The geological control for Rio Bravo reservoir is based on stratigraphic and structural data from neighbors wells drilled in field.

This report includes the geological, rig activity from the Mud Logging Unit of the Well LO6-32D from 455 feet measured depth (Rotary Table) from October 09th, 2013; to the Final Total Depth at 8209 feet that was reached on November 15th, 2013.

To drill this Well, the company SAVIA PERÚ, used a “BASIC ON LINE UNIT” of Mud Logging, with the capture of On-Line Data using equipment belonging to T.G.T. LAB S.A.C.

This Unit was endowed with the following equipment:

Hook height measurement:

Draw work sensor

Drilling parameters:

Stand pipe pressure
Weight on bit
Depth (Measure Depth and True Vertical Depth)
MMRPM (Down Hole Motor RPM)
ROP (Rate of Penetration)

Mud system:

Pit Suction level # 1 (Sonic sensor)
Pit Pre-suction level # 2 (Sonic sensor)
Pit Desander level # 3 (Sonic sensor)
Pit Desilter level # 4 (Sonic sensor)

Mud pumps:

Pump # 1 (Triplex)
Pump # 2 (Triplex)
Pump # 3 (Triplex)

Gas chain specification:

Gas trap pneumatic shaker box
Gas Chromatograph FID SRI 8610C gas cycle 40"

Data acquisition system:

1 computer DRILL VIEW ADQ for Real time acquisition.
1 computer Windows 2003 Server for data bases.
1 computer Windows 7, for Geology Data control.
1 computer Windows 7, for Chromatograph control.
1 computer Windows 7, for Online transmission to Savia office.
1 computer Windows 7, for Repetition screen on CoMan office and Driller.

- The monitoring Unit is composed of a cabin equipped by T.G.T. LAB.
- The system is designed for the acquisition and storage of Geologic Information and the continuous monitoring of the perforation process.
- The analysis of the gathered information is a tool of great help for the personnel in charge of the taking of immediate decisions or of the optimization of the different variables.
- The continuous monitoring of the process allows detecting complications and mishaps in advance, as well as it helps in the prevention of situations of risk for the personnel and drilling teams.

The geologic interpretation was carried out as a continuous analysis of the drilling cuttings with the purpose of defining parameters such the content of Hydrocarbons and Lithology. For the definition of an area of interest, a good indicator is the concentration of gassy hydrocarbons extracted directly from the perforation mud. The Gas Chromatography provides a qualitative and quantitative analysis of the gas content in the sample co relatable to the composition of the hydrocarbons present.

By means of the use of different sensors installed in strategic points of the Rig, it becomes possible the record and calculate of a wide range of parameters like:

Measured Depth, Lag Depth, Bit Depth.

Rate of Penetration

Hook Load

Weight on Bit

Bit Position

RPM on Down Hole Motor

Total Bit Hours on Bottom

SPM and Total SPM

Pit Volume Totalizer

Flow in GPM

Pump Pressure

Chromatographic Analysis

In addition to the parameters measured in the different points of the drilling, inside the geology cabin and thanks to the accessories of geologic support, it was also possible to carry out the analysis of such auxiliary parameters as: complete Lithological and Show descriptions, Fluorescence Data and Drilling Operations which are included accordingly.

The On-line applications allowed in different occasions to "review" and "replay" drilling events in diverse graphic and numeric formats during the monitoring of the perforation activities. With the help of a second computer the data in On-line form it was transfered toward the database Off-Line Computer where the information was processed to allow the elaboration of different graphic registrations such as: Formation Evaluation Log.

The information obtained from the different equipment and the analysis of samples each 30 feet from 455 to 5500 feet; and each 10 feet from 5500 feet to 8209 feet; in two (2) Graphic Logs: The Formation Evaluation Log at scale 1:500 (Measured Depth and True Vertical Depth.)

In this one the penetration rate each ½ feet is included, the lithology in percentage and interpreted form, lithological description, oil and gas shows present with its corresponding evaluation; utilized bits, mud information, drilling parameters, casing, as well as those activities that were considered of interest.

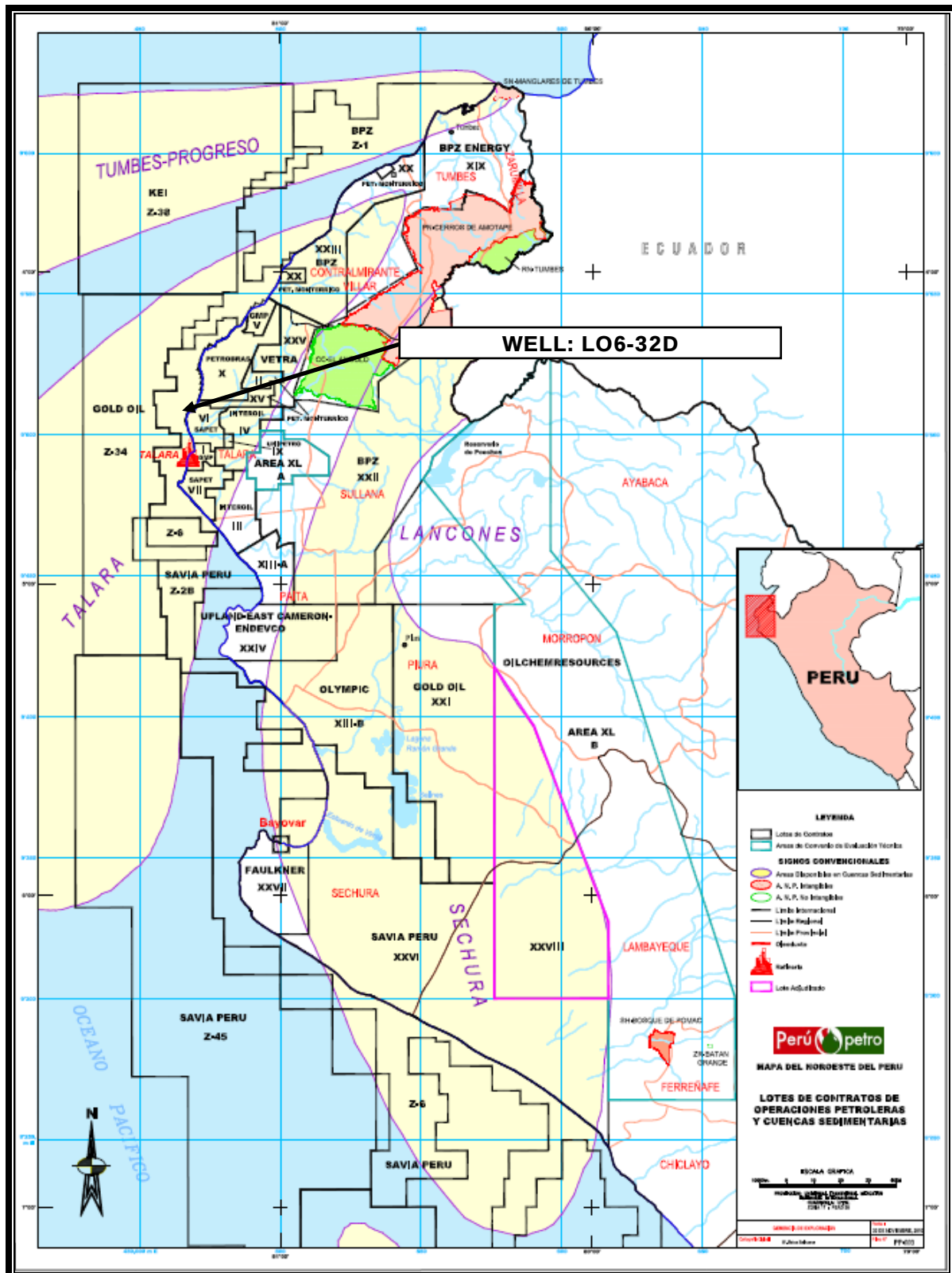


GEOLOGICAL REPORT



WELL AND RIG DATA

Company:	SAVIA PERU	
Well Name:	LO6-32D	
Well Type:	DEVELOPMENT	
Field:	LOBITOS OFFSHORE	
Basin:	TALARA	
State:	PIURA	
Country:	PERU	
Coordinates (WGS-84 UTM):	North	East
Origin:		
Main Objective: (RIO BRAVO FM)	9'507,552.89 m	458,084.13 m
Rotary table:	50 ft.	
Water Depth:	-335 ft.	
Spud Date:	OCTOBER 07 th 2013	
End Date:	NOVEMBER 15 th 2013	
Total Depth:	8209.0 ft. MD (RT); 4120.08 ft. TVD (RT)	
Drilling Contractor / Rig:	PEPESA / P-40	
Drilling Fluids:	HALLIBURTON	
Logging Contractor:	WEATHERFORD	
Mud logging / Unit:	TGT LAB SAC	
Well site Geologist:	A. ORTEGA	
TGT-LAB Geologist:	L. AGURTO / R. OTOYA / G. CARDOZA / E. SANTISTEBAN / H. MONASTERIO.	





FORMATION TOPS



WELL LO6-32D

Elevación RKB: 50 ft

SEA DEPTH: 335 ft

ROTARY TABLE: 50 ft.	PREDICTED TOPS			LITHOLOGIC TOPS BY SAMPLES		
FORMATION/ZONE	MD (ft)	DEPTH TVD (ft)	DEPTH	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)
	RT (ft)		SSTVD (ft)	RT (ft)		
TALARA SANDSTONE	-	-	-	-	-	-
LOBITOS	-	-	-	810.0	809.00	-759.00
TEREBRATULA	-	-	-	2300.0	1992.00	-1942.00
CHACRA	3131.0	2150.0	-2100.0	2855.0	2195.00	-2145.00
RIO BRAVO	6432.0	3500.0	-3450.0	6154.0	3338.00	-3288.00
FINAL T.D	8000.0	4327.0	-4277.0	8209.0	4120.00	-4070.00

Note: No took electrical logs due to hole conditons

STRATIGRAPHIC COLUMN

AGE			FORMATION/MEMBER	THICKNESS (ft)	LITHOLOGY	DESCRIPTION
CENOZOIC	TERTIARY	Eocene	TALARA SANDSTONE	809.0		SANDSTONE: med dk gry, loc med gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, scs arg mtrx, calc cmt, mod consol-mod fri, loc ti, w/dk & gnsh mnrls incl, p vis por. N.O.S. SAND: wh, vf-f, tr m qtz gr, hyal, trns, sbang-sbrnd, wl srtld. SAND: wh, 60% m, 30% f, 10% crs qtz gr, hyal, trns, sbang-sbrnd, p srtld. SANDSTONE: med dk gry, loc med gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, scs arg mtrx, calc cmt, mod consol-mod fri, loc ti, w/dk & gnsh mnrls incl, p vis por. N.O.S.
			LOBITOS	1183.0		CLAYSTONE: olv gry, olv blk, loc med dk gry, ea, bily-sbbily, occ sbtab, mod frm-frm, loc mod sft, micmic, miccarb, sli calc. CLAYSTONE: olv blk, loc olv gry, occ med dk gry, ea, bily-sbbily, loc sbtab, frm-mod frm, slty i/p, micmic, miccarb, sli calc. SAND: wh, 50% f, 40% m, 10% crs qtz gr, hyal, trns, sbang-sbrnd, p srtld. SANDSTONE: med gry, loc med dk gry, occ med dk gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, arg mtrx, calc cmt, mod fri-mod consol, w/dk & gnsh mnrls incl, p vis por. N.O.S. CLAYSTONE: med dk gry, loc olv blk, occ olv gry, dk gry, ea, bily-sbbily, loc sbtab-sblam, frm-mod frm, micmic, miccarb, v sli calc.
			TELEBRATULA	203.0		SANDSTONE: med lt gry, loc lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, arg mtrx, calc cmt, mod fri-mod consol, w/dk mnrls & glau incl, p vis por. SAND: wh, 80% vf-f, 20% m qtz gr, hyal, trns, sbang-sbrnd, wl srtld. Fluorescence: 2700'-2730'; NVOS, 10% pin point pl yelsh nat fluor, slw, wk, frnt, even, yelsh wh cut fluor, mky wh res ring under U. V. It, n res ring at nat lt. POS. SAND: wh, 60% vf-f, 40% m, tr crs qtz gr, hyal, trns, sbang-sbrnd, occ ang, wl srtld.
			CHACRA	1143.0		CLAYSTONE: med dk gry, dk gry, occ olv blk, ea, bily-sbbily, loc sbtab, occ sblam, frm, loc mod frm, slty i/p, micmic, miccarb, n calc. CLAYSTONE: med dk gry, dk gry, occ olv blk, ea, bily-sbbily, loc sbtab, occ sblam, frm-mod frm, slty i/p, micmic, loc miccarb, n calc-v sli calc. SILTSTONE: med gry, med dk gry, ea, bily-sbbily, occ sbtab, mod frm-frm, micmic, miccarb, grad vf sst, sli calc. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, bily-sbbily, loc sbtab, occ sblam, frm-mod frm, loc slty, micmic, miccarb, n calc-v sli calc. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, bily-sbbily, loc sbtab-sblam, mod frm-frm, loc mod sft, slty i/p, occ w/coal incl, micmic, miccarb, n calc. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, bily-sbbily, loc sbtab-sblam, mod frm-frm, loc mod sft, slty i/p, occ w/coal incl, micmic, miccarb, n calc. DOLOMITE: dk yelsh bm, loc olv gry, mass, bily-sbbily, hd-mod hd, irr frac. CLAYSTONE: med dk gry, med gry, occ olv gry, ea, bily-sbbily, loc sbtab, occ sblam, mod frm-frm, loc mod sft, slty, micmic, miccarb, n calc. SILTSTONE: med gry, loc med dk gry, ea, bily-sbbily, mod frm-frm, micmic, miccarb, grad vf sst, sli calc. CLAYSTONE: med dk gry, loc med gry, occ dk gry, olv gry, ea, bily-sbbily, loc sbtab, mod frm-frm, loc mod sft, slty, micmic, miccarb, sli calc-n calc. SILTSTONE: med gry, loc med dk gry, ea, bily-sbbily, mod frm-frm, micmic, miccarb, grad vf sst, sli calc-calc. CLAYSTONE: med dk gry, loc dk gry, occ med gry, ea, bily-sbbily, loc sbtab, frm-mod frm, occ mod sft, slty, occ w/coal incl, micmic, miccarb, sli calc-n calc. SANDSTONE: med gry, med dk gry, loc olv gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, arg mtrx, scs calc cmt, mod consol-mod fri, loc consol, drty, w/dk mnrls & abd glauc incl, p vis por. N.O.S. CLAYSTONE: dk gry, med dk gry, occ med gry, ea, bily-sbbily, loc sbtab, mod frm-frm, slty, micmic, miccarb, sli calc-n calc. SILTSTONE: med gry, med dk gry, ea, bily-sbbily, mod frm-frm, micmic, miccarb, grad vf sst, sli calc. SANDSTONE: med gry, med lt gry, vf, loc f qtz gr, hyal, sbang-sbrnd, wl srtld, loc arg mtrx, calc cmt, mod consol, loc pyr, w dk mnrls incl, p vis por. N.O.S.
			RIO BRAVO	782.0		CLAYSTONE: med dk gry, occ dk gry, med lt gry, ea, bily-sbtab, mod frm-frm, slty i/p, micmic, miccarb, loc v sli calc. SANDSTONE: med lt gry, loc lt gry, vf-f qtz gr, hyal, sbang-sbrnd, wl srtld, calc cmt, mod fri-consol, loc pyr, w/ dk&gn mnrls incl, p-fr vis por. SAND: wh, 60% f, 40% m, tr crs qtz gr, hyal, trns, sbang-sbrnd, wl srtld. SILTSTONE: med gry, med dk gry, ea, bily-sbbily, mod frm, grad-vf sst, micmic, miccarb, v sli calc. SANDSTONE: lt gry, med lt gry, loc m gry, vf-f qtz gr, hyal, sbrnd, wl srtld, loc arg mtrx, calc cmt, mod consol, loc mod fri, loc w/ shell frag incl, w/dk mnrls incl, p vis por. N.O.S. SAND: wh, 80% f, 20% m qtz gr, hyal, trns, sbang-sbrnd, wl srtld. CLAYSTONE: med dk gry, loc med gry, occ dk gry, ea, bily-sbbily, loc sbtab, sblam i/part, mod frm, slty, occ w/ coal veins incl, micmic, miccarb, n-v sli calc. SANDSTONE: lt gry, med lt gry, loc med gry, vf, loc f qtz gr, hyal, sbrnd, wl srtld, calc cmt, mod fri-mod consol, w/ shell frag incl, loc w/ dk & gn mnrls incl, p vis por. SAND: wh, 50% f, 40% m, 10% crs qtz gr, hyal, trns, sbang-sbrnd, wl srtld. Fluorescence: Traces pin point dull yel nat fluor, crsh, wk, frnt, even, pal yel cut fluor, pal yel res ring under U. V. It, n res ring at nat lt. VPOS. CLAYSTONE: med dk gry, loc med gry, occ dk gry, ea, bily-sbbily, loc sbtab, mod frm-frm, loc mod sft, slty, micmic, miccarb, n-v sli calc. SANDSTONE: lt gry, loc v lt gry, f, tr m qtz gr, hyal, sbrnd, wl srtld, scs calc cmt, mod consol, loc w/ coal veins incl, w/ dk mnrls incl, fr vis por. SAND: wh, 70% f, 30% m qtz gr, hyal, trns, sbrnd-sbang, wl srtld. Fluorescence: 25%-60% spotty - mottled pal yel nat fluor, slw, wk, pal-brght, even, yelsh wh cut fluor, pal yel res ring under U. V. It, n res ring at nat lt. FOS-GOS. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, bily-sbbily, loc sbtab, mod frm, slty i/p, micmic, miccarb, n calc. SANDSTONE: lt gry, v lt gry, loc med lt gry, vf-f qtz gr, hyal, sbrnd, wl srtld, calc cmt, mod consol, w/dk & gn mnrls incl, p vis por. SAND: wh, 70% f, 30% m, qtz gr, hyal, trns, sbang-sbrnd, wl srtld. Fluorescence: Traces - 15% spotty pal yel nat fluor, slw, wk, pal, even, yelsh wh cut fluor, pal yel res ring under U. V. It, n res ring at nat lt. POS. CLAYSTONE: med dk gry, loc dk gry, occ brnsh gry, ea, bily-sbtab, loc sblam, mod frm-frm, slty i/p, micmic, miccarb, non calc. SANDSTONE: lt gry, loc v lt gry, vf-f qtz gr, hyal, sbrnd, wl srtld, calc cmt, mod consol, occ pyr, w/ dk mnrls incl, p-fr vis por. Fluorescence: 30% - 50% patchy-mottled pal yel nat fluor, slw, wk, brght, even, yelsh wh cut fluor, pal yel res ring under U. V. It, n res ring at nat lt. FOS. SAND: wh, 80% f, 20% m qtz gr, hyal, trns, sbrnd, mnr sbang, wl srtld. SANDSTONE: lt gry, v lt gry, vf-f qtz gr, hyal, sbrnd, wl srtld, calc cmt, mod fri, loc consol, occ pyr, w/ dk mnrls incl, loc w/ coal incl, p-fr vis por. CLAYSTONE: med dk gry, loc dk gry, ea, bily-sbbily, loc sbtab, mod frm, slty i/p, occ w/ coal veins incl, micmic, miccarb, n calc.

TOTAL DEPTH: 8209.0 ft. MD (RT), 4120.08 ft. TVD (RT)

STRATIGRAPHIC SEQUENCE

WELL: LO6-32D

The Stratigraphy Column expected in this well was the same according to correlations with the original prognosis, consists of the following Formations and Members: Talara Sandstone, Lobitos, Terebratula, Chacra, Rio Bravo of Tertiary age.

TGT LAB started logging into Talara Formation at 455 feet to the total depth on Rio Bravo at 8209 feet MD.

CENOZOIC

TERTIARY

TALARA FORMATION

TALARA SANDSTONE MEMBER

Interval: 0 to 810 feet

The lithology at the upper section was conformed predominantly by Claystone, Sandstone and Sand.

Claystone: olive gray, olive black, locally medium dark gray, earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.

Sandstone: medium dark gray, locally medium gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

In the lower section the lithology was conformed mainly by Sand, Sandstone intercalated with Claystone.

Sand: white, 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.

Sandstone: medium dark gray, locally medium gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.

Claystone: olive gray, olive black, locally medium dark gray, earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.

Accessories: calcite, coal, pyrite.

LOBITOS MEMBER

Interval: 810 to 2300 feet

The lithology in this member was conformed mainly by Claystone with small intercalations Sandstone, Sand and Dolomite.

At the upper section:

Claystone: olive black, occasionally olive gray, earthy, blocky to subblocky, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous.

Sandstone: medium dark gray, locally medium gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

At the middle section:

Claystone: olive black, locally olive gray, occasionally medium dark gray, earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous.

Sandstone: medium gray, locally medium light gray, occasionally medium dark gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, with dark lithic, poor sorted.

At the lower section:

Claystone: medium dark gray, locally olive black, occasionally olive gray, dark gray, earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous.

Dolomite: dark yellowish brown, occasionally brownish gray, massive, subblocky, hard to moderately hard, irregular fracture.

Accessories: calcite, coal, pyrite, microfossils, glauconite.

TEREBRATULA MEMBER

Interval: 2300 to 2885 feet

The lithology at the upper section was conformed predominantly by Sand, Claystone with intercalations of Sandstone.

Sand: white, 30% very coarse to conglomeratic, 30% coarse, 20% medium, 20% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.

Sandstone: medium light gray, locally light gray, very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show.

Claystone: medium dark gray, locally olive black, dark gray, occasionally olive gray, earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.

In the lower section the lithology was conformed mainly by Claystone, Sandstone and small lents of Sand.

Claystone: medium dark gray, olive black, locally dark gray, occasionally brownish gray, earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous.

Sandstone: medium light gray, locally light gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity.

Fluorescence: NVOS, traces to 10% pin point pale yellowish natural fluorescence, crush, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.

Sand: white, 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

Accessories: calcite, pyrite, coal, dolomite, glauconite.

CHACRA FORMATION

Interval: 2885 to 6154 feet

The lithology in this formation was conformed mainly by Claystone with some intercalations Siltstone, Sandstone and small lens Sand and Dolomite.

At the upper section:

Claystone: medium dark gray, dark gray, occasionally olive black, earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, non to very slightly calcareous.

Siltstone: medium gray, medium dark gray, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

At the middle section:

Claystone: medium dark gray, locally dark gray, occasionally olive black, earthy, blocky to subblocky, locally subtabular to sublaminar, amorphous in part, moderately firm to firm, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.

Sandstone: medium light gray, very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately hard, with dark minerals inclusion, poor visual porosity. No Oil Show.

Siltstone: medium gray, medium dark gray, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Dolomite: dark yellowish brown, locally olive gray, massive, blocky to subblocky, hard to moderately hard, irregular fracture.

At the lower section:

Claystone: medium dark gray, locally dark gray, locally medium gray, earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.

Siltstone: medium dark gray, locally medium gray, earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Sandstone: medium gray, medium dark gray, locally olive gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally consolidated, dirty, with dark minerals and abundant glauconite inclusions, poor visual porosity. No Oil Show.

Sand: white, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

Accessories: calcite, coal, glauconite, pyrite, microfossils, limestone, calcareous fragments.

RIO BRAVO FORMATION

Interval: 6154 to 8209 feet

The lithology in this formation was conformed predominantly by Sand, Sandstone with some intercalations of Claystone and Siltstone.

At the upper section the lithology was conformed mainly by Sandstone, Sand, intercalated with Claystone and Siltstone.

Sandstone: medium light gray, locally light gray, occasionally very light gray, very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity.

Fluorescence: Traces-10% pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.

Sand: white, 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted.

Siltstone: medium gray, medium dark gray, earthy, blocky to subblocky, moderately firm, occasionally with coal veins inclusions, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Claystone: medium dark gray, locally medium gray, occasionally dark gray, earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous.

In the middle section the lithology was conformed mainly by Sandstone, Sand intercalated with Claystone and Siltstone.

Sandstone: light gray, very light gray, locally medium light gray, fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally with coal veins inclusion, with dark minerals inclusions, fair visual porosity. No Oil Show.

Fluorescence: NVOS, 25%-60% spotty-mottled pale yellow natural fluorescence, slow, weak, pale-bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS-GOS.

Sand: white, 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.

Claystone: medium dark gray, locally dark gray, earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty in part, micromicaceous, microcarbonaceous, non calcareous.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

In the lower section the lithology was conformed mainly by Claystone intercalated with Sandstone, Sand and small lens of Siltstone.

Claystone: medium dark gray, locally dark gray, earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately firm, locally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.

Sandstone: light gray, very light gray, occasionally medium light gray, olive gray, very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable, locally consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusion, poor to fair visual porosity.

Fluorescence: NVOS, 30-50% patchy-mottled pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.

Sand: white, 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.

Siltstone: medium dark gray, medium gray, earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.

Accessories: calcite, pyrite, calcareous fragments, slickenside, shell fragments, dolomite, glauconite, coal.

LITHOLOGICAL DESCRIPTION

WELL: LO6-32D

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
Started logging & Monitoring Data from 455 feet on October 09 th , 2013 In Talara Sandstone Mbr. (Talara Fm.)			
455 – 465	50	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 20% CEMENT.	
465 – 480	40	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
480 – 510	40	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
510 – 540	40	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
540 – 570	40	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), 70% fine, 20% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	
570 – 600	50	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
600 – 630	50	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
630 – 660	50	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 20	greenish minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal.	
660 – 690	40 30 30	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 10% CEMENT.	
690 – 720	50 30 20	SAND: white (N9), 70% very fine to fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, locally with dark lithic, fair sorted. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 5% CEMENT.	
720 – 750	60 30 10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 50% very fine to fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
750 - 780	40	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	40	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
780 – 810	70	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
LOBITOS Mbr. (TALARA FM.) TOP. AT 810.00 ft. MD (RT); 809.44 ft. TVD (RT)			
810 – 820	80	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
810 – 840	100	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite.	
840 – 870	100	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), locally medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, microfossils.	
870 – 900	100 Tr	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, microfossils.	
900 – 930	100 Tr	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
930 – 960	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
960 – 990	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
990 – 1020	90 10	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		consolidated to moderately friable, occasionally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1020 – 1050	80	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, microfossils, glauconite.	
1050 – 1080	80	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1080 – 1110	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, microfossils, glauconite.	
1110 – 1140	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, microfossils, glauconite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1140 – 1170	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1170 – 1200	90 10	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1200 – 1230	100 Tr	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1230 – 1260	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1260 – 1290	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal.	
1290 – 1320	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal.	
1320 – 1350	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal, microfossils.	
1350 – 1380	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, pyrite, microfossils.	
1380 – 1410	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite, microfossils.	
1410 – 1440	80 10 10	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), light olive gray (5Y 6/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, pyrite, glauconite.	
1440 – 1470	90 10	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), light olive gray (5Y 6/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, microfossils.	
1470 – 1500	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
1500 – 1530	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, coal.	
1530 – 1560	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: abundant dolomite, calcite, coal, pyrite.	
1560 – 1590	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: abundant dolomite, calcite, coal, pyrite.	
1590 – 1620	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
1620 – 1650	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
1650 – 1680	50 40 10	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, with dark lithic, poor sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH TRACES CEMENT.	
1680 – 1710	50 30 20	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, with dark lithic, poor sorted. Accessories: dolomite, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH TRACES CEMENT.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1710 – 1740	60	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	30	SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, with dark lithic, fair sorted. Accessories: dolomite, calcite, pyrite, coal.	
1740 – 1770	70	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, with dark lithic, fair sorted. Accessories: dolomite, calcite, pyrite.	
1770 – 1800	80	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
1800 – 1830	100 Tr	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite, pyrite.	
1830 – 1860	100 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, micromicaceous, locally microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal.	
1860 – 1890	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
1890 – 1920	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
1920 – 1950	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
1950 – 1980	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
1980 – 2010	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
2010 – 2040	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
2040 – 2070	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, coal.	
2070 – 2100	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, locally subtabular to sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
2100 – 2130	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: abundant dolomite, calcite, coal.	
2130 – 2160	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), occasionally brownish gray (5YR 4/1), massive, subblocky, hard to moderately hard, irregular fracture. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
2160 – 2190	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), occasionally brownish gray (5YR 4/1), massive, subblocky, hard to moderately hard, irregular fracture. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
2190 – 2220	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), occasionally brownish gray (5YR 4/1), massive, subblocky, hard to moderately hard, irregular fracture. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
2220 – 2250	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: abundant dolomite, calcite, coal.	
2250 – 2280	90 10	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), occasionally brownish gray (5YR 4/1), massive, subblocky, hard to moderately hard, irregular fracture. Accessories: calcite, coal.	
TEREBRATULA Mbr. (TALARA FM.) TOP. AT 2300.00 ft. MD (RT); 1991.98 ft. TVD (RT)			
2280 – 2310	80 10 10	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 30% very coarse to conglomeratic, 30% coarse, 20% medium, 20% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2310 – 2340	50 30 20	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 30% very coarse to conglomeratic, 30% coarse, 20% medium, 20% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2340 – 2370	40 30 30	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 40% coarse to very coarse, 30% medium, 30% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2370 – 2400	70	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2400 – 2430	60	SAND: white (N9), 80% very fine to fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
2430 – 2460	60	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SAND: white (N9), 80% very fine to fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
2460 – 2490	90	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 90% very fine to fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, coal.	
2490 – 2520	100 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
2520 – 2550	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: abundant dolomite, calcite, pyrite.	
2550 – 2580	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
2580 – 2610	60 30 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, crush, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain,	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2610 – 2640	50	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous.	5
	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellowish natural fluorescence, crush, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2640 – 2670	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous.	TR
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, crush, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2670 – 2700	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
2700 – 2730	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2730 – 2760	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2760 – 2790	80	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity.	
		Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
2790 – 2820	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	5
		Accessories: dolomite, calcite, pyrite.	
	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: dolomite, calcite, pyrite.	
2820 – 2850	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
CHACRA FM. TOP. AT 2855.00 ft. MD (RT); 2195.43 ft. TVD (RT)			
2850 – 2880	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
2880 – 2910	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
2910 – 2940	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally sublaminae, firm, locally moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, locally moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
2940 – 2970	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
2970 – 3000	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils.	
3000 – 3030	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, glauconite.	
3030 – 3060	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
3060 – 3090	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
3090 – 3120	80 20	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3120 – 3150	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, microfossils.	
3150 – 3180	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3180 – 3210	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3210 – 3240	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3240 – 3270	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3270 – 3300	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
3300 – 3330	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
3330 – 3360	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
3360 – 3390	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3390 – 3420	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
3420 – 3450	100 Tr	CLAYSTONE: medium dark gray (N4), occasionally olive black (5Y 2/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, locally micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3450 – 3480	100	CLAYSTONE: medium dark gray (N4), occasionally olive black (5Y 2/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
3480 – 3510	100	CLAYSTONE: medium dark gray (N4), occasionally olive black (5Y 2/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, locally micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
3510 – 3540	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, occasionally micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3540 – 3570	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, occasionally micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3570 – 3600	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3600 – 3630	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, pyrite.	
3630 – 3660	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
3660 – 3690	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3690 – 3720	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal.	
3720 – 3750	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite.	
3750 – 3780	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite.	
3780 – 3810	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite, microfossils.	
3810 – 3840	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite.	
3840 – 3870	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, microfossils, pyrite.	
3870 – 3900	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, microfossils, pyrite.	
3900 – 3930	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, coal, microfossils, pyrite.	
3930 – 3960	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, microfossils, pyrite.	
3960 – 3990	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
3990 – 4020	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4020 – 4050	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH TRACES CEMENT AND SHAVING METALS.	
4050 – 4080	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), locally olive gray (5Y 4/1), massive, blocky to subblocky, hard to moderately hard, irregular fracture. Accessories: calcite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.	
4080 – 4110	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), locally olive gray (5Y 4/1), massive, blocky to subblocky, hard to moderately hard, irregular fracture. Accessories: calcite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.	
4110 – 4140	80 10 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: dark yellowish brown (10YR 4/2), locally olive gray (5Y 4/1), massive, blocky to subblocky, hard to moderately hard, irregular fracture. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite. NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.	
4140 – 4170	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, pyrite, microfossils.	
4170 – 4200	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, microfossils, dolomite.	
4200 – 4230	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, limestone, dolomite.	
4230 – 4260	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, microfossils, dolomite, coal.	
4260 – 4290	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, microfossils, dolomite, coal.	
4290 – 4320	80	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, microfossils, dolomite, coal.	
4320 – 4350	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite, coal.	
4350 – 4380	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite, coal.	
4380 – 4410	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	calcareous. SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite, coal.	
4410 – 4440	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
4440 – 4470	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
4470 – 4500	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite, microfossils.	
4500 – 4530	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4530 – 4560	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal.	
4560 – 4590	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, very micromicaceous, microcarbonaceous, slightly calcareous in part. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, coal.	
4590 – 4620	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, dolomite, microfossils.	
4620 – 4650	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, coal.	
4650 – 4680	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, coal.	
4680 – 4710	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, coal, dolomite.	
4710 – 4740	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, dolomite.	
4740 – 4770	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, dolomite.	
4770 – 4800	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, dolomite.	
4800 – 4830	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, coal, dolomite.	
4830 – 4860	90 10	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: calcite, coal, dolomite.	
4860 – 4890	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: calcite, coal, dolomite.	
4890 – 4920	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: calcite, coal, dolomite.	
4920 – 4950	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, dolomite.	
4950 – 4980	90 10	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: calcite, coal, dolomite.	
4980 – 5010	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: calcite, coal, dolomite, limestone.	
5010 – 5040	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, dolomite, limestone.	
5040 – 5070	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, dolomite.	
5070 – 5100	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm, locally moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: limestone, dolomite, calcite.	
5100 – 5130	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm, locally moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: limestone, calcite, microfossils, glauconite, pyrite.	
5130 – 5160	100 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous to calcareous. Accessories: limestone, calcite, microfossils, pyrite, dolomite.	
5160 – 5190	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, microfossils, dolomite, pyrite.	
5190 – 5220	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, slightly soluble in part, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, microfossils, dolomite, pyrite.	
5220 – 5250	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal and glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, microfossils, dolomite, pyrite.	
5250 – 5280	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal and glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, glauconite, dolomite.	
5280 – 5310	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal and glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, glauconite, dolomite, coal, limestone, microfossils.	
5310 – 5340	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, limestone, dolomite, microfossils, coal.	
5340 – 5370	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally moderately soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, limestone, dolomite, microfossils, glauconite.	
5370 – 5400	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, limestone, dolomite, microfossils.	
5400 – 5430	100	CLAYSTONE: medium dark gray (N4), occasionally medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous. Accessories: calcite, dolomite, microfossils.	
5430 – 5460	100	CLAYSTONE: medium dark gray (N4), occasionally medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
5460 – 5490	100	CLAYSTONE: medium dark gray (N4), occasionally medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
5490 – 5500	100	CLAYSTONE: medium dark gray (N4), occasionally medium gray (N5), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
5500 – 5510	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, microfossils.	
5510 – 5520	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, microfossils.	
5520 – 5530	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, microfossils.	
5530 – 5540	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, occasionally with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, calcite, microfossils.	
5540 – 5550	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, locally silty, occasionally with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, calcite, microfossils.	
5550 – 5560	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr Tr	sublaminar, firm to moderately firm, silty in part, with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), locally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally consolidated, dirty, with dark minerals and abundant glauconite inclusion, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: abundant glauconite, calcite.	
5560 – 5570	50 30 10 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminar, firm to moderately firm, silty in part, with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), locally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally consolidated, dirty, with dark minerals and abundant glauconite inclusion, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: abundant glauconite, calcite.	
5570 – 5580	70 20 10 Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminar, firm to moderately firm, silty in part, with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), locally olive gray (5Y 4/1), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally consolidated, dirty, with dark minerals and glauconite inclusion, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: abundant glauconite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5580 – 5590	80	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty in part, with glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, calcite.	
5590 – 5600	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty in part, with occasionally glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, calcite.	
5600 – 5610	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty in part, with occasionally glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5610 – 5620	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty in part, with occasionally glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5620 – 5630	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty in part, with occasionally glauconite inclusion micromicaceous, microcarbonaceous, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5630 – 5640	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, to sublaminae, firm to moderately firm, silty, with occasionally glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, glauconite.	
5640 – 5650	90	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, with glauconite inclusion, grading to very fine sandstone, slightly calcareous. Accessories: abundant glauconite, dolomite, calcite.	
5650 – 5660	90	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	firm to moderately firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, with glauconite inclusion, grading to very fine sandstone, slightly calcareous. Accessories: abundant glauconite, dolomite, calcite, coal, pyrite.	
5660 – 5670	90 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, with glauconite inclusion, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite, pyrite.	
5670 – 5680	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, with glauconite inclusion, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, calcite, coal.	
5680 – 5690	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, with glauconite inclusion, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, calcite, coal.	
5690 – 5700	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: glauconite, calcite, dolomite.	
5700 – 5710	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: glauconite, calcite, dolomite, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5710 – 5720	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: glauconite, calcite, dolomite, microfossils.	
5720 – 5730	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: glauconite, calcite, dolomite, microfossils.	
5730 – 5740	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: glauconite, calcite, dolomite, microfossils.	
5740 – 5750	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, limestone.	
5750 – 5760	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, limestone.	
5760 – 5770	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
5770 – 5780	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	
5780 – 5790	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5790 – 5800	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils.	
5800 – 5810	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	
5810 – 5820	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	
5820 – 5830	100	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	
5830 – 5840	90 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. LIMESTONE: olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), massive, subblocky, locally sublaminae, moderately hard to hard. Accessories: calcite, pyrite, dolomite, microfossils.	
5840 – 5850	100 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous to non calcareous. LIMESTONE: olive gray (5Y 4/1), occasionally brownish gray (5YR 4/1), massive, subblocky, locally sublaminae, moderately hard to hard. Accessories: calcite, pyrite, dolomite, microfossils.	
5850 – 5860	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, glauconite.	
5860 – 5870	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, glauconite.	
5870 – 5880	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, glauconite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5880 – 5890	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, glauconite, pyrite.	
5890 – 5900	100 Tr	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, locally tight, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, glauconite, pyrite.	
5900 – 5910	90 10 Tr	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, locally tight, dirty, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, glauconite, pyrite, dolomite.	
5910 – 5920	90 10	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, glauconite, pyrite, dolomite.	
5920 – 5930	90 10	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, glauconite, pyrite, dolomite.	
5930 – 5940	100 Tr	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, glauconite, pyrite, dolomite.	
5940 – 5950	100 Tr	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, glauconite, pyrite, dolomite.	
5950 – 5960	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, glauconite, pyrite, dolomite, microfossils.	
5960 – 5970	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, glauconite, pyrite, dolomite, microfossils.	
5970 – 5980	100	CLAYSTONE: dark gray (N3), locally medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, locally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, glauconite, dolomite, microfossils.	
5980 – 5990	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm, silty in part, occasionally with glauconite inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline, subangular, well sorted, calcareous cement, friable, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, glauconite, <i>Valvulineria sp.</i>	
5990 – 6000	90	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular, well sorted, calcareous cement, moderately consolidated, locally friable, locally pyritized, occasionally glauconitic, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, glauconite, pyrite, <i>Bathysiphon</i> .	
6000 – 6010	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular, well sorted, calcareous cement, moderately consolidated, locally friable, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, pyrite.	
6010 – 6020	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline, subangular, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, pyrite.	
6020 – 6030	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), earthy, blocky to subblocky, moderately firm, occasionally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite, <i>Bathysiphon sp.</i> Note: Sample with Cement and Shaving metal traces.	
6030 – 6040	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subangular, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, pyrite.	
6040 – 6050	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, occasionally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), very fine, occasionally fine quartz grain, hyaline, subangular, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, pyrite.	
6050 – 6060	80	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	Tr	SAND: white (N9), 100% fine, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
6060 – 6070	70	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, occasionally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal, pyrite.	
6070 – 6080	60	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	40	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		earthy, blocky to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: calcite, dolomite, coal, pyrite, glauconite.	
6080 – 6090	90	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, pyrite.	
6090 – 6100	80	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subtabular, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, pyrite.	
6100 – 6110	80	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subtabular, locally subplaty, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, pyrite.	
6110 – 6120	70	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		show. Accessories: calcite, coal, pyrite.	
6120 – 6130	70	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal, pyrite, dolomite.	
6130 – 6140	80	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal, pyrite.	
6140 – 6150	70	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), medium light gray (N6), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, locally pyritized, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, pyrite, dolomite.	
POSS RIO BRAVO FM. TOP. AT 6154.00 ft. MD (RT); 3337.54 ft. TVD (RT)			
6150 – 6160	60	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: medium light gray (N6), fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. No oil show.	
	20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite, shell fragments.	
6160 – 6170	50	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. No oil show.	
	40	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: calcite, coal, pyrite, shell fragments.	
6170 – 6180	50	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. VPOS.	TR
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	20	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite, shell fragments.	
6180 – 6190	80	SANDSTONE: medium light gray (N6), locally light gray (N7), fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately friable to consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. VPOS.	TR
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite.	
6190 – 6200	60	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	sorted, calcareous cement, moderately friable to consolidated, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. VPOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite.	
6200 – 6210	70 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal, pyrite.	
6210 – 6220	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal, pyrite, dolomite.	
6220 – 6230	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, calcareous cement, moderately consolidated, locally pyritized, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite.	
6230 – 6240	60 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite, slickenside.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6240 – 6250	50	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite.	
6250 – 6260	60	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite, coal.	
6260 – 6270	60	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm to firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, locally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite, coal, shell fragments.	
6270 – 6280	70	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	30	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite, coal, shell fragments.	
6280 – 6290	90	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, very slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, coal.	
6290 – 6300	100 Tr	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
6300 – 6310	90 10 Tr	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal, slickenside.	
6310 – 6320	80 20 Tr	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, coal.	
6320 – 6330	60 20 10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium dark gray (N4), locally medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), fine, occasionally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, slickenside.	
6330 – 6340	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No oil show.	
	30	SAND: white (N9), fine, locally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, coal, shell fragments.	
6340 – 6350	50	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with dark minerals inclusions, poor visual porosity. No oil show.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to sublaminae, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal, slickenside, shell fragments.	
6350 – 6360	60	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), brownish gray (5YR 4/1), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. No oil show.	
	30	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm, silty in part, locally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, pyrite, coal, <i>Bathysiphon</i> .	
6360 – 6370	70	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, locally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal.	
6370 – 6380	70	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, locally with glauconite inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SAND: white (N9), fine, occasionally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
6380 – 6390	80	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subplaty, locally subtabular, moderately firm, silty, with glauconite inclusion, locally with inclusion of coal veins, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, coal.	
6390 – 6400	80	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, silty, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal.	
6400 – 6410	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, silty, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal.	
6410 – 6420	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, sublaminae in part, moderately firm, locally moderately soft, silty in part, occasionally with inclusion of coal veins, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal.	
6420 – 6430	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6430 – 6440	60	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally moderately soft, silty in part, occasionally with inclusion of coal veins, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, slickenside, dolomite.	
6440 – 6450	40	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. No oil show.	
	30	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, slickenside, dolomite.	
6450 – 6460	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, silty in part, occasionally with glauconite inclusion, micromicaceous, locally microcarbonaceous, non to very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark and green minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, dolomite.	
6460 – 6470	80	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, locally microcarbonaceous, non to very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: medium gray (N5), medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and green minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, dolomite.	
6470 – 6480	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, locally microcarbonaceous, non to very slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal.	
	60	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous.	
6480 – 6490	20	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, slickenside, dolomite.	
6490 – 6500	50	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	TR
	30	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally moderately soft, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non to very slightly calcareous. Accessories: calcite, coal, slickenside, shell fragments.	
6500 – 6510	80 10 10	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, coal, slickenside, shell fragments.	TR
6510 – 6520	70 20 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, moderately firm, locally moderately soft, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, coal, slickenside, shell fragments, pyrite.	TR
6520 – 6530	50 30 20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, sublaminae in part, moderately firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, locally with dark and green minerals inclusions,	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal, slickenside, shell fragments, pyrite.	
6530 – 6540	40 40 20	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally moderately friable, with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. No oil show. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous. SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, pyrite.	
6540 – 6550	80 20 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty in part, occasionally with glauconite inclusions, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine, minor very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally moderately friable, with shell fragments inclusion, locally with dark and green minerals inclusions, poor visual porosity. No oil show. SAND: white (N9), fine to medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, dolomite, slickenside.	
6550 – 6560	90 10	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, occasionally smooth, blocky to subtabular, locally sublaminal, subplaty in part, moderately firm to firm, locally moderately soft, silty in part, occasionally with glauconite inclusions, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, shell fragments, dolomite.	
6560 – 6570	90	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, occasionally smooth, blocky to subtabular, locally sublaminal, subplaty in part, moderately firm to firm, locally moderately soft, silty in part, occasionally with glauconite inclusions, micromicaceous, microcarbonaceous, very slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally with shell fragments inclusion, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, shell fragments, dolomite.	
6570 – 6580	90	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated, locally moderately friable, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal.	
6580 – 6590	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
6590 – 6600	90	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, coal.	
6600 – 6610	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
6610 – 6620	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, silty, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	microcarbonaceous, very slightly calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
6620 – 6630	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subplaty, minor subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, pyrite, coal.	
6630 – 6640	80 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity. No oil show. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, pyrite, coal, shell fragments.	
6640 – 6650	70 20 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to consolidated, with dark and green minerals inclusions, poor to fair visual porosity. No oil show. SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, pyrite, coal, shell fragments.	
6650 – 6660	50 30 20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated to friable, with dark and green minerals inclusions, poor to fair visual porosity. No oil show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, coal, shell fragments.	
6660 – 6670	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, coal, dolomite, shell fragments.	
6670 – 6680	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, coal, dolomite.	
6680 – 6690	50 30 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity. No oil show. Accessories: calcite, coal, pyrite, shell fragments.	
6690 – 6700	40 40 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated to friable, locally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, pyrite, shell fragments.	10
6700 – 6710	40 40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, minor subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence,	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, pyrite, calcite.	
6710 – 6720	50	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated to friable, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	5
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, pyrite, calcite, abundant shell fragments.	
6720 – 6730	60	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	5
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	20	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, pyrite, abundant shell fragments.	
6730 – 6740	50	SAND: white (N9), 30% fine, 70% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	20
	30	SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity.	
	20	Fluorescence: NVOS, 20% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: coal, pyrite, shell fragments.	
6740 – 6750	70	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	calcareous. SAND: white (N9), 40% fine, 60% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, calcite, pyrite, shell fragments.	
6750 – 6760	60 30 10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: coal, calcite, pyrite.	
6760 – 6770	40 20 20 20	SANDSTONE: medium light gray (N6), minor medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, pyrite, shell fragments.	
6770 – 6780	80 20	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, shell fragments.	5
6780 – 6790	50	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10 10	argillaceous matrix, scarce calcareous cement, consolidated, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, shell fragments.	
6790 – 6800	40 40 10 10	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, consolidated, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, shell fragments.	10
6800 – 6810	50 40 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, locally angular dark lithics, subrounded, minor subangular, well sorted. SANDSTONE: light gray (N7), medium light gray (N6), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: coal, pyrite, calcite, shell fragments.	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6810 – 6820	50	SANDSTONE: light gray (N7), minor medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable, occasionally pyritized, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	20
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: coal, pyrite, calcite.	
6820 – 6830	40	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	5
	30	SANDSTONE: medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, scarce calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: coal, pyrite, calcite, shell fragments.	
6830 – 6840	40	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	15
	30	SANDSTONE: medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, calcite, shell fragments.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6840 – 6850	40	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	5
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, with dark lithics, subrounded to subangular, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	20	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, calcite, abundant shell fragments.	
6850 – 6860	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	5
	30	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, with dark lithics, subrounded to subangular, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous. Accessories: coal, pyrite, abundant shell fragments.	
6860 – 6870	40	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, with dark lithics, subrounded to subangular, well sorted.	10
	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, calcite, shell fragments.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6870 – 6880	40	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	5
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity.	
	20	Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: coal, pyrite, calcite, shell fragments.	
6880 – 6890	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity.	
	20	Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. Accessories: coal, pyrite, calcite.	
6890 – 6900	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity. No oil show.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite, <i>Valvulineria sp.</i>	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6900 – 6910	40	SANDSTONE: medium light gray (N6), minor light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	20
	40	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite, dolomite, shell fragments.	
6910 – 6920	50	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% patchy pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	30
	30	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	
6920 – 6930	50	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% patchy pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	30
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	
6930 – 6940	40	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	15
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, calcite.	
6940 – 6950	60 30 10	SANDSTONE: light gray (N7), locally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, with dark minerals inclusions, fair visual porosity. Fluorescence: NVOS, 60% mottled pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. GOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	60
6950 – 6960	60 30 10	SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, fair visual porosity. Fluorescence: NVOS, 60% mottled pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. GOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite.	60
6960 – 6970	60 30 10	SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, fair visual porosity. Fluorescence: NVOS, 60% mottled pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. GOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite.	60
6970 – 6980	60	SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, fair visual porosity.	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite.	
6980 – 6990	50 40 10	SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, with dark minerals inclusions, fair visual porosity. Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	40
6990 – 7000	50 40 10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, with dark minerals inclusions, fair visual porosity. Fluorescence: NVOS, 30% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	30
7000 – 7010	60 30 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, with dark minerals inclusions, fair visual porosity. Fluorescence: NVOS, 25% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite.	25

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7010 – 7020	60 30 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 25% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	25
7020 – 7023	60 30 10	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine, traces medium quartz grain, hyaline, subrounded, well sorted, scarce calcareous cement, moderately consolidated, locally with coal veins inclusions, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 25% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	25
7023 – 7030	60 20 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	10
7030 – 7040	50 40 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity.	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Fluorescence: NVOS, 20% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	
7040 – 7050	50 30 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	15
7050 – 7060	60 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, calcite.	5
7060 – 7070	30 30 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, calcite.	5
7070 – 7080	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	
7080 – 7090	60 20 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	TR
7090 – 7100	50 30 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), occasionally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	
7100 – 7110	50 30 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7110 – 7120	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7120 – 7130	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7130 – 7140	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	
7140 – 7150	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7150 – 7160	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7160 – 7170	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7170 – 7180	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: coal, pyrite, calcite, dolomite.	
7180 – 7190	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, dolomite.	
7190 – 7200	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite.	
7200 – 7210	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated to consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, pyrite, dolomite.	
7210 – 7220	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, locally consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7220 – 7230	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7230 – 7240	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, minor consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7240 – 7250	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7250 – 7260	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7260 – 7270	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7270 – 7280	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), locally light	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
7280 – 7290	80 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to consolidated, with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7290 – 7300	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7300 – 7310	50 30 20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, locally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 7% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite, shell fragments.	7

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7310 – 7320	40 30 30	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with shell fragments inclusion, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: pyrite, calcite, shell fragments.	10
7320 – 7330	60 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), fine to medium, traces coarse quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with shell fragments inclusion, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: pyrite, calcite, shell fragments.	5
7330 – 7340	60 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), fine to medium, traces coarse quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. SANDSTONE: light gray (N7), locally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally with shell fragments inclusion, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, calcite, shell fragments.	TR
7340 – 7350	60 20	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally consolidated, with dark minerals inclusions, poor visual porosity. No oil show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SAND: white (N9), fine, minor medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, dolomite, calcite.	
7350 – 7360	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	20	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, dolomite, calcite.	
7360 – 7370	50	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, dolomite, calcite.	
7370 – 7380	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SAND: white (N9), fine to medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, dolomite, calcite, pyrite.	
7380 – 7390	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, subplaty in part, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SAND: white (N9), fine to medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite, glauconite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7390 – 7400	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally sublamellar, subplaty in part, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SAND: white (N9), fine to medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, pyrite.	
7400 – 7410	50	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	TR
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, Traces pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally sublamellar, subplaty in part, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
7410 – 7420	50	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	15
	30	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally sublamellar, subplaty in part, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
7420 – 7430	40	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	15
	30	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	Fluorescence: NVOS, 15% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally sublaminar, moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
7430 – 7440	40 40 20	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 7% spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), fine, locally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite.	7
7440 – 7450	60 40 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, occasionally pyritized, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), fine, locally medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal.	5
7450 – 7460	70 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark and green minerals inclusions, occasionally pyritized, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, dolomite, coal.	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7460 – 7470	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	40	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark and green minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, Traces pin point pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, pyrite.	
7470 – 7480	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7480 – 7490	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, minor consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7490 – 7500	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm to firm, , locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), very light gray (N8), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7500 – 7510	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally medium	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, locally consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7510 – 7520	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7520 – 7530	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, shell fragments.	
7530 – 7540	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7540 – 7550	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7550 – 7560	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7560 – 7570	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non to slightly calcareous in part.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7570 – 7580	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
		Accessories: calcite, dolomite, pyrite.	
7580 – 7590	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, minor firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7590 – 7600	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subtabular, locally sublamina, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite, glauconite.	
7600 – 7610	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublamina, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7610 – 7620	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublamina, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7620 – 7630	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7630 – 7640	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
7640 – 7650	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite.	
7650 – 7660	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7660 – 7670	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7670 – 7680	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
7680 – 7690	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
7690 – 7700	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), blocky to subplaty, locally subtabular, moderately hard. Accessories: calcite.	
7700 – 7710	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite.	
7710 – 7720	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), blocky to subplaty, locally subtabular, moderately hard. Accessories: calcite.	
7720 – 7730	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, slightly calcareous in part.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7730 – 7740	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, pyrite.	
7740 – 7750	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, minor subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, pyrite.	
7750 – 7760	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7760 – 7770	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7770 – 7780	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
7780 – 7790	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite, glauconite, pyrite.	
7790 – 7800	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal.	
7800 – 7810	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm, silty in part, occasionally glauconitic, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, calcite, pyrite, glauconite.	
7810 – 7820	60 20 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, pyrite, <i>Bathysiphon black</i> .	
7820 – 7830	50 40 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, Traces pin point dull yellow natural fluorescence, slow, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, coal, pyrite.	TR
7830 – 7840	50 40 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% pin point dull yellow natural fluorescence, slow, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. Accessories: dolomite, coal, pyrite.	15
7840 – 7850	50 40 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 25% spotty pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. Accessories: dolomite, coal, pyrite.	25
7850 – 7860	70 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Accessories: dolomite, coal, pyrite.	
7860 – 7870	80 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. No oil show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, coal, pyrite, calcite.	
7870 – 7880	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, calcite.	
7880 – 7890	70 20 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, calcite.	
7890 – 7900	70 20 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		visual porosity. No oil show. Accessories: dolomite, coal, calcite.	
7900 – 7910	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, calcite.	
7910 – 7920	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, pyrite.	
7920 – 7930	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, locally soft, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: dolomite, coal, pyrite.	
7930 – 7940	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	30	SANDSTONE: medium light gray (N6), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point dull yellow natural fluorescence, slow, weak, faint, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	translucent, subrounded, minor subangular, well sorted. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, coal, pyrite, calcite.	
7940 – 7950	50	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 25% patchy dull yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS.	25
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, occasionally very slightly calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. Accessories: dolomite, coal, pyrite.	
7950 – 7960	50	SANDSTONE: light gray (N7), very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable, locally consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 15% spotty dull yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	15
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. Accessories: dolomite, coal, pyrite, calcite.	
7960 – 7970	60	SANDSTONE: light gray (N7), very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable, locally consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 20% spotty dull yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	20
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: coal, pyrite, calcite.	
7970 – 7980	50 40 10	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	30
7980 – 7990	50 40 10	SANDSTONE: light gray (N7), very light gray (N8), locally yellowish gray (5Y 8/1), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 25% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded, minor subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, shell fragments.	25
7990 – 8000	60 30 10	SANDSTONE: light gray (N7), very light gray (N8), locally yellowish gray (5Y 8/1), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 30% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded, locally subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, shell fragments.	30
8000 – 8010	70	SANDSTONE: light gray (N7), very light gray (N8), occasionally yellowish gray (5Y 8/1), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity.	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded, locally subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	
8010 – 8020	50 40 10	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor to fair visual porosity. Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	40
8020 – 8030	60 40	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, fair visual porosity. Fluorescence: NVOS, 50% mottled pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, calcite.	50
8030 – 8040	70 30	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, occasionally with coal inclusions, fair visual porosity. Fluorescence: NVOS, 40% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. FOS. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, shell fragments.	40
8040 – 8050	70	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, occasionally with coal inclusions, fair visual porosity. Fluorescence: NVOS, 30% patchy pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. FOS.	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, pyrite, calcite.	
8050 – 8060	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty to subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, occasionally very slightly calcareous.	10
	20	SANDSTONE: light gray (N7), very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor to fair visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, bright, even, yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, pyrite, calcite.	
8060 – 8070	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, with dark minerals inclusions, poor to fair visual porosity. Accessories: coal, pyrite, calcite, <i>Bathysiphon black</i> .	
8070 – 8080	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, occasionally subplaty, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. Accessories: coal, pyrite, calcite, dolomite.	
8080 – 8090	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, minor subplaty to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	
8090 – 8100	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), very fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, consolidated, with dark minerals inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
8100 – 8110	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately consolidated, occasionally pyritized, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: coal, pyrite, calcite, dolomite.	
8110 – 8120	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	
8120 – 8130	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. Accessories: coal, pyrite, calcite, dolomite.	
8130 – 8140	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), minor light gray (N7), locally medium gray (N5), occasionally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show.	
	10	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: pyrite, calcite, dolomite, glauconite.	
8140 – 8150	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	50	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subrounded to subangular, well sorted. Accessories: pyrite, calcite, dolomite, coal.	
8150 – 8160	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), fine, locally very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. Accessories: pyrite, calcite, dolomite, glauconite.	
8160 – 8170	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, locally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), fine, locally very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. Accessories: pyrite, calcite, dolomite, coal, shell fragment.	
8170 – 8180	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. Accessories: calcite, dolomite.	
8180 – 8190	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, pyrite.	
8190 – 8200	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
8200 – 8209	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated, with dark minerals inclusions, locally with coal inclusions, poor visual porosity. No oil show.	
	Tr	SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, locally grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
FINAL TOTAL DEPTH 8209.0 ft. MD(RT); 4120.08 ft. TVD(RT)			

WELL: LO6-32D

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
TALARA SANDSTONE Mbr.							
455	18	0	0	0	0	0	0
456	23	0	0	0	0	0	0
457	19.5	0	0	0	0	0	0
458	20.5	0	0	0	0	0	0
459	33.3	0	0	0	0	0	0
460	18.8	0	0	0	0	0	0
461	16.8	0	0	0	0	0	0
462	18.7	0	0	0	0	0	0
463	17.4	0	11	5	0	0	0
464	18	0	10	5	0	0	0
465	15	0	9	5	0	0	0
466	39.2	0	7	0	0	0	0
467	58.6	0	6	0	0	0	0
468	58.1	0	6	0	0	0	0
469	60.1	0	9	0	0	0	0
470	63.2	0	7	0	0	0	0
471	48.9	0	8	0	0	0	0
472	57	0	10	0	0	0	0
473	51.2	0	10	0	0	0	0
474	53.2	0	9	0	0	0	0
475	58.9	0	12	0	0	0	0
476	48.4	0	26	0	0	0	0
477	58.7	0	25	0	0	0	0
478	60	0	22	0	0	0	0
479	45	0	15	0	0	0	0
480	38.8	0	14	0	0	0	0
481	42.8	0	15	0	0	0	0
482	43.3	0	21	0	0	0	0
483	43.3	0	18	0	0	0	0
484	27.5	0	15	0	0	0	0
485	38.5	0	20	0	0	0	0
486	45	0	30	0	0	0	0
487	40.9	1	53	0	0	0	0
488	41	1	62	0	0	0	0
489	49.4	1	52	0	0	0	0
490	45.9	0	49	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
491	47	0	48	0	0	0	0
492	41.3	0	47	0	0	0	0
493	30	1	52	0	0	0	0
494	32.3	0	47	0	0	0	0
495	44.9	0	44	0	0	0	0
496	46	1	53	0	0	0	0
497	40.1	1	61	0	0	0	0
498	40.9	1	53	0	0	0	0
499	25.5	1	52	0	0	0	0
500	48.4	1	52	0	0	0	0
501	46.8	1	50	0	0	0	0
502	46.7	1	50	0	0	0	0
503	36.2	1	57	0	0	0	0
504	42.6	1	58	0	0	0	0
505	44.8	1	62	0	0	0	0
506	39.7	1	55	0	0	0	0
507	28.5	1	60	3	0	0	0
508	33.1	1	69	0	0	0	0
509	36.9	1	82	0	0	0	0
510	45.6	1	78	0	0	0	0
511	38.1	1	82	0	0	0	0
512	52.1	1	85	0	0	0	0
513	49.8	1	86	0	0	0	0
514	41.5	1	86	0	0	0	0
515	39.2	1	84	0	0	0	0
516	55.1	1	89	0	0	0	0
517	45.4	1	89	0	0	0	0
518	46.6	1	85	0	0	0	0
519	28.4	1	85	0	0	0	0
520	51.3	1	87	0	0	0	0
521	54.3	1	94	0	0	0	0
522	45.2	1	101	0	0	0	0
523	43.3	1	101	0	0	0	0
524	25.1	1	67	0	0	0	0
525	52.2	1	84	0	0	0	0
526	54	1	108	0	0	0	0
527	67.8	1	127	4	0	0	0
528	79.9	1	82	0	0	0	0
529	45.2	1	96	0	0	0	0
530	49.8	1	96	0	0	0	0
531	55.4	1	83	3	0	0	0
532	42.2	1	110	0	0	0	0
533	38	1	110	0	0	0	0
534	40	1	110	0	0	0	0
535	52	1	110	0	0	0	0
536	37	1	110	0	0	0	0
537	51	1	120	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
538	52	1	131	0	0	0	0
539	46	1	142	0	0	0	0
540	48	2	153	0	0	0	0
541	50	2	192	0	0	0	0
542	47	2	192	0	0	0	0
543	51	1	71	0	0	0	0
544	49.2	1	72	0	0	0	0
545	59.1	1	68	0	0	0	0
546	45.8	1	69	0	0	0	0
547	48.3	1	59	0	0	0	0
548	18.1	1	54	0	0	0	0
549	42	0	49	0	0	0	0
550	42.5	1	58	0	0	0	0
551	40.8	1	64	0	0	0	0
552	42.2	1	57	0	0	0	0
553	43.9	1	52	0	0	0	0
554	49	1	63	0	0	0	0
555	37.3	1	65	0	0	0	0
556	42.3	1	65	0	0	0	0
557	49.9	1	63	0	0	0	0
558	48.7	1	86	0	0	0	0
559	59.9	1	75	0	0	0	0
560	81.3	1	102	4	0	0	0
561	70.5	2	140	6	0	0	0
562	61.6	1	125	4	0	0	0
563	59.6	1	126	4	0	0	0
564	55.1	1	126	4	0	0	0
565	39.7	1	73	0	0	0	0
566	42.8	1	100	0	0	0	0
567	54.4	1	115	0	0	0	0
568	52.5	1	112	0	0	0	0
569	44.6	1	104	0	0	0	0
570	47.4	1	108	0	0	0	0
571	47.6	1	123	0	0	0	0
572	47.9	1	131	5	0	0	0
573	44.1	0	18	0	0	0	0
574	36.7	0	36	0	0	0	0
575	39.4	1	51	0	0	0	0
576	56.3	1	56	0	0	0	0
577	40.9	0	44	0	0	0	0
578	37.9	0	49	0	0	0	0
579	45	0	49	0	0	0	0
580	38.1	0	46	0	0	0	0
581	41	0	41	0	0	0	0
582	20.1	0	31	0	0	0	0
583	42.3	0	39	0	0	0	0
584	50.7	0	42	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
585	63	1	65	0	0	0	0
586	54.1	1	91	0	0	0	0
587	64.5	1	140	0	0	0	0
588	59.4	2	184	0	0	0	0
589	50.7	2	186	0	0	0	0
590	49.8	2	158	4	0	0	0
591	45.7	2	181	3	0	0	0
592	55.7	2	167	0	0	0	0
593	58.5	2	167	0	0	0	0
594	49.8	1	121	0	0	0	0
595	56.4	1	137	2	0	0	0
596	47.4	1	142	0	0	0	0
597	46.8	1	137	0	0	0	0
598	53.8	1	136	0	0	0	0
599	65.4	1	143	0	0	0	0
600	54.6	1	147	0	0	0	0
601	54.7	2	157	4	0	0	0
602	46	1	125	0	0	0	0
603	39.5	1	112	0	0	0	0
604	43	1	118	0	0	0	0
605	51.5	1	131	0	0	0	0
606	53.9	1	138	0	0	0	0
607	52.4	1	148	0	0	0	0
608	52.6	1	142	0	0	0	0
609	45.8	1	138	0	0	0	0
610	66.2	1	142	0	0	0	0
611	49.4	2	204	0	0	0	0
612	67.5	2	204	0	0	0	0
613	62.6	2	171	0	0	0	0
614	61.9	2	167	3	0	0	0
615	65.4	2	167	3	0	0	0
616	66.7	2	172	0	0	0	0
617	61.5	2	152	0	0	0	0
618	56.6	1	144	0	0	0	0
619	54	1	148	0	0	0	0
620	47	2	157	0	0	0	0
621	43.7	1	104	3	0	0	0
622	80	1	145	0	0	0	0
623	81.3	2	218	0	0	0	0
624	71.2	2	227	0	0	0	0
625	32.5	1	76	0	0	0	0
626	9.1	1	60	0	0	0	0
627	7.4	1	55	0	0	0	0
628	7.4	1	51	0	0	0	0
629	15	0	16	0	0	0	0
630	14	0	14	0	0	0	0
631	15.2	0	14	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
632	1.4	0	13	0	0	0	0
633	4.1	0	32	0	0	0	0
634	40	1	56	0	0	0	0
635	37.1	1	64	0	0	0	0
636	44.4	1	75	0	0	0	0
637	45.7	1	80	0	0	0	0
638	51	1	82	0	0	0	0
639	52.5	1	100	0	0	0	0
640	53.4	1	100	0	0	0	0
641	47.4	1	100	0	0	0	0
642	46.6	1	98	0	0	0	0
643	51.4	1	101	0	0	0	0
644	53.3	1	94	0	0	0	0
645	28.9	1	86	0	0	0	0
646	60.8	1	96	0	0	0	0
647	59.8	1	123	0	0	0	0
648	52.5	1	126	0	0	0	0
649	48.5	1	111	3	0	0	0
650	48.8	1	111	3	0	0	0
651	44.6	1	111	0	0	0	0
652	44.8	1	103	0	0	0	0
653	29.7	1	98	0	0	0	0
654	42.1	1	93	0	0	0	0
655	47.4	1	99	0	0	0	0
656	26.9	0	33	0	0	0	0
657	4	0	33	0	0	0	0
658	3.1	0	21	0	0	0	0
659	6.7	0	25	0	0	0	0
660	13.9	0	28	0	0	0	0
661	90.5	0	39	0	0	0	0
662	83.6	0	39	0	0	0	0
663	45	1	50	0	0	0	0
664	36.9	1	68	0	0	0	0
665	32.7	1	66	0	0	0	0
666	33.2	1	72	0	0	0	0
667	69.3	1	87	0	0	0	0
668	28	1	92	0	0	0	0
669	28.7	1	80	0	0	0	0
670	6.1	1	75	0	0	0	0
671	12	0	29	0	0	0	0
672	10	0	12	0	0	0	0
673	15	0	12	0	0	0	0
674	8	0	14	0	0	0	0
675	7.6	0	19	0	0	0	0
676	10.2	0	24	0	0	0	0
677	15.1	0	20	0	0	0	0
678	8.8	0	18	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
679	8.6	0	23	0	0	0	0
680	11.5	0	30	0	0	0	0
681	12.8	0	29	0	0	0	0
682	11.8	0	33	0	0	0	0
683	8.8	0	18	0	0	0	0
684	21.8	0	25	2	0	0	0
685	35.7	0	36	0	0	0	0
686	33.2	0	45	0	0	0	0
687	37.6	1	52	0	0	0	0
688	21.1	1	52	0	0	0	0
689	24.9	1	52	0	0	0	0
690	18.9	1	53	0	0	0	0
691	12.7	1	56	2	0	0	0
692	14.7	0	45	0	0	0	0
693	16.2	0	48	0	0	0	0
694	14.5	0	42	0	0	0	0
695	11.1	0	32	0	0	0	0
696	8.7	1	43	0	0	0	0
697	8.8	1	69	0	0	0	0
698	20	1	49	2	0	0	0
699	6.4	1	52	2	1	0	0
700	9.9	0	42	0	0	0	0
701	16.4	1	52	0	0	0	0
702	15.6	1	59	2	0	0	0
703	28	1	64	3	0	0	0
704	31.9	1	73	0	0	0	0
705	28.8	1	78	0	0	0	0
706	19.2	1	75	2	0	0	0
707	30.6	1	69	0	0	0	0
708	18.3	0	38	0	0	0	0
709	6.9	0	27	0	0	0	0
710	6.8	0	36	0	0	0	0
711	14	0	45	0	0	0	0
712	28	0	48	0	0	0	0
713	18.9	1	61	0	0	0	0
714	28	1	59	0	0	0	0
715	25.7	1	65	2	0	0	0
716	28.9	1	84	0	0	0	0
717	36.2	1	91	3	0	0	0
718	41.2	1	102	0	0	0	0
719	21.4	1	66	0	0	0	0
720	14.5	1	53	0	0	0	0
721	19.4	1	66	0	0	0	0
722	21.6	1	65	0	0	0	0
723	15.9	0	36	0	0	0	0
724	5.2	0	36	0	0	0	0
725	3.1	0	18	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
726	10.4	0	22	0	0	0	0
727	9	1	61	2	0	0	0
728	46.2	1	77	0	0	0	0
729	58.2	1	77	0	0	0	0
730	60	1	89	0	0	0	0
731	52.1	1	99	0	0	0	0
732	50.6	1	113	0	0	0	0
733	53.5	0	36	0	0	0	0
734	40.2	0	45	0	0	0	0
735	33.7	0	48	0	0	0	0
736	40.6	1	61	0	0	0	0
737	36.2	1	59	0	0	0	0
738	49.7	1	65	0	0	0	0
739	15	1	84	0	0	0	0
740	13.7	1	91	0	0	0	0
741	40.9	1	102	0	0	0	0
742	37.8	1	66	0	0	0	0
743	32.3	1	53	0	0	0	0
744	21.6	1	66	0	0	0	0
745	19.8	1	65	0	0	0	0
746	24.9	0	36	0	0	0	0
747	18.5	0	36	0	0	0	0
748	24.1	0	40	0	0	0	0
749	17.6	1	55	1	0	0	0
750	23.8	1	72	2	0	0	0
751	1.5	0	33	0	0	0	0
752	1	0	27	0	0	0	0
753	1.2	0	20	2	0	0	0
754	0.8	0	13	2	0	0	0
755	1	0	19	2	0	0	0
756	1.1	0	38	2	0	0	0
757	1.6	0	44	3	0	0	0
758	1.6	0	43	2	0	0	0
759	3	0	30	0	0	0	0
760	3.2	2	168	6	4	0	0
761	3.1	0	37	0	0	0	0
762	5.9	1	120	3	2	0	0
763	18.8	0	37	0	0	0	0
764	33.1	0	37	0	0	0	0
765	37.9	1	72	0	0	0	0
766	27	1	140	0	0	0	0
767	31.3	2	152	3	0	0	0
768	23.8	1	104	0	0	0	0
769	25.7	1	74	0	0	0	0
770	6.1	0	33	0	0	0	0
771	25.1	0	25	0	0	0	0
772	26.6	1	58	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
773	31.6	1	74	0	0	0	0
774	30	1	74	0	0	0	0
775	23.7	1	99	0	0	0	0
776	21.7	1	99	0	0	0	0
777	31.7	1	84	0	0	0	0
778	21	1	76	2	0	0	0
779	22.6	1	77	3	1	0	0
780	23.6	1	78	4	1	0	0
781	20.2	1	69	3	0	0	0
782	11.8	1	51	3	0	0	0
783	11.6	1	56	0	0	0	0
784	12.9	0	44	0	0	0	0
785	9.8	0	38	2	0	0	0
786	11.6	0	42	0	0	0	0
787	8.1	0	12	0	0	0	0
788	2.7	0	16	0	0	0	0
789	35	0	13	0	0	0	0
790	23.9	0	18	0	0	0	0
791	28.2	0	29	0	0	0	0
792	19.6	0	32	0	0	0	0
793	7.1	0	32	0	0	0	0
794	12.9	0	18	0	0	0	0
795	63.7	0	16	0	0	0	0
796	46.7	0	16	0	0	0	0
797	55.2	0	19	0	0	0	0
798	66.4	0	19	0	0	0	0
799	62.4	0	25	0	0	0	0
800	82.4	0	37	0	0	0	0
801	41.2	0	48	0	0	0	0
802	53.6	1	57	2	0	0	0
803	49	1	73	0	0	0	0
804	52.7	1	141	0	0	0	0
805	39.9	2	175	0	0	0	0
806	38	1	138	2	0	0	0
807	29.5	1	108	0	0	0	0
808	36.5	1	81	0	0	0	0
809	25	1	62	0	0	0	0
LOBITOS Mbr.							
810	50.4	1	57	0	0	0	0
811	52.5	1	50	0	0	0	0
812	34.9	0	45	0	0	0	0
813	75.6	0	45	0	0	0	0
814	62.1	0	32	0	0	0	0
815	77.9	0	48	0	0	0	0
816	54.9	0	20	0	0	0	0
817	70.8	0	46	0	0	0	0
818	90.6	1	119	5	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
819	49.9	0	25	0	0	0	0
820	35	0	10	0	0	0	0
821	49.9	1	99	1	0	0	0
822	98	1	99	1	0	0	0
823	85	1	84	1	0	0	0
824	80	1	76	0	0	0	0
825	100	1	77	0	0	0	0
826	116	1	78	0	0	0	0
827	114	1	69	0	0	0	0
828	98	1	51	0	0	0	0
829	79	1	56	0	0	0	0
830	85	0	28	0	0	0	0
831	110	0	25	0	0	0	0
832	95	0	20	0	0	0	0
833	36.4	0	23	0	0	0	0
834	28	0	18	0	0	0	0
835	33	0	16	0	0	0	0
836	37	0	21	0	0	0	0
837	45	0	32	0	0	0	0
838	37	0	27	0	0	0	0
839	22	0	28	0	0	0	0
840	35	0	20	0	0	0	0
841	16	0	22	0	0	0	0
842	28	0	18	0	0	0	0
843	27.1	0	23	0	0	0	0
844	69.9	0	19	0	0	0	0
845	84.8	0	28	0	0	0	0
846	89.5	0	32	0	0	0	0
847	84.3	0	47	0	0	0	0
848	78.6	1	52	0	0	0	0
849	110	0	48	0	0	0	0
850	117	0	40	0	0	0	0
851	114	1	82	0	0	0	0
852	75	1	64	0	0	0	0
853	42	0	49	0	0	0	0
854	80	1	76	0	0	0	0
855	110	0	46	0	0	0	0
856	95	1	52	0	0	0	0
857	90	0	45	0	0	0	0
858	116.4	0	40	0	0	0	0
859	110	0	38	0	0	0	0
860	45	0	32	0	0	0	0
861	80	0	48	0	0	0	0
862	95	0	20	0	0	0	0
863	55	0	46	0	0	0	0
864	85	0	26	0	0	0	0
865	89	0	23	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
866	70	0	29	2	0	0	0
867	90.3	0	33	2	0	0	0
868	83	0	38	2	0	0	0
869	32.7	1	51	2	1	0	0
870	32.7	1	64	4	2	0	0
871	16.9	1	120	5	4	0	0
872	47.2	1	129	3	2	0	0
873	45.7	1	129	1	2	0	0
874	45.7	1	105	1	1	0	0
875	19.9	1	86	2	1	0	0
876	33.8	1	76	1	0	0	0
877	34.1	1	81	1	0	0	0
878	43.7	1	71	1	0	0	0
879	53.8	1	75	1	1	0	0
880	44.8	1	76	1	1	0	0
881	51.2	1	76	1	1	0	0
882	31.7	1	71	1	1	0	0
883	59.8	1	70	0	0	0	0
884	81.8	1	86	0	0	0	0
885	40.3	1	87	0	0	0	0
886	34.7	1	99	0	0	0	0
887	37.8	1	117	1	0	0	0
888	37.2	1	115	0	0	0	0
889	27.2	1	91	1	1	0	0
890	55	1	100	1	0	0	0
891	47.3	1	100	2	0	0	0
892	44	1	99	2	0	0	0
893	38.1	1	137	3	0	0	0
894	20	1	137	3	1	0	0
895	52.2	1	117	3	1	0	0
896	73.7	1	112	1	1	0	0
897	60.2	1	104	0	0	0	0
898	71.2	1	94	0	0	0	0
899	85.7	1	136	2	0	0	0
900	39.7	1	136	2	0	0	0
901	50.1	2	159	2	0	0	0
902	56.5	1	142	1	0	0	0
903	27.9	1	127	1	0	0	0
904	50.8	1	127	1	1	0	0
905	46.2	1	127	1	1	0	0
906	40.7	1	127	2	1	0	0
907	35.2	1	127	2	1	0	0
908	88.6	1	125	2	1	0	0
909	74.7	1	125	1	0	0	0
910	67.6	1	108	1	0	0	0
911	52	1	106	0	0	0	0
912	56.6	1	138	1	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
913	49	1	94	1	0	0	0
914	58.5	1	50	0	0	0	0
915	58.5	0	45	0	0	0	0
916	111.9	0	10	0	0	0	0
917	111.9	0	15	0	0	0	0
918	112	0	8	0	0	0	0
919	153.6	0	8	0	0	0	0
920	158.8	0	8	0	0	0	0
921	188	0	11	0	0	0	0
922	127	0	11	0	0	0	0
923	189.3	0	11	0	0	0	0
924	160	0	15	0	0	0	0
925	137.9	0	15	0	0	0	0
926	149.8	0	15	0	0	0	0
927	97.2	1	69	0	0	0	0
928	89.1	1	69	0	0	0	0
929	85.7	0	46	0	0	0	0
930	58.8	0	39	0	0	0	0
931	61.4	0	31	0	0	0	0
932	101	0	27	0	0	0	0
933	87.8	0	27	0	0	0	0
934	94.1	0	31	0	0	0	0
935	130	0	31	0	0	0	0
936	142.7	0	39	0	0	0	0
937	105.1	0	39	0	0	0	0
938	177.6	0	39	0	0	0	0
939	152.8	0	42	0	0	0	0
940	204.4	0	42	0	0	0	0
941	206.3	0	42	0	0	0	0
942	111.6	0	45	0	0	0	0
943	65	1	56	0	0	0	0
944	86.7	0	34	0	0	0	0
945	118.2	1	56	0	0	0	0
946	200	1	79	0	0	0	0
947	152.2	1	79	0	0	0	0
948	194.6	1	79	0	0	0	0
949	198	1	100	2	1	0	0
950	175	1	100	2	1	0	0
951	180	1	59	0	0	0	0
952	190	1	52	0	0	0	0
953	90	1	52	1	0	0	0
954	163	1	52	1	0	0	0
955	148.3	3	260	5	2	0	0
956	39.2	2	206	0	0	0	0
957	34.4	1	93	0	0	0	0
958	35	1	82	0	0	0	0
959	60.5	1	69	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
960	56.6	1	55	0	0	0	0
961	51.3	1	69	0	0	0	0
962	57.5	1	69	0	0	0	0
963	64.8	1	60	0	0	0	0
964	71.3	0	46	0	0	0	0
965	56.4	0	38	0	0	0	0
966	47.4	0	32	0	0	0	0
967	30.9	0	33	0	0	0	0
968	42.5	1	56	0	0	0	0
969	55.5	1	68	0	0	0	0
970	50.5	1	81	0	0	0	0
971	64.5	1	89	0	0	0	0
972	50.5	1	104	0	0	0	0
973	61.5	1	104	0	0	0	0
974	65.2	1	110	0	0	0	0
975	71	1	97	0	0	0	0
976	63.7	1	74	0	0	0	0
977	61.1	1	67	0	0	0	0
978	63.2	1	72	0	0	0	0
979	66.5	1	73	0	0	0	0
980	64.5	1	73	0	0	0	0
981	63.7	1	81	0	0	0	0
982	69.3	1	81	2	0	0	0
983	65.2	1	90	2	0	0	0
984	54.8	1	111	0	0	0	0
985	59.4	1	111	0	0	0	0
986	61.3	1	110	0	0	0	0
987	67.4	2	171	0	0	0	0
988	56.4	2	165	0	0	0	0
989	50	0	24.4	0	0	0	0
990	65.1	0	24.4	0	0	0	0
991	68.6	0	15.8	0	0	0	0
992	78	0	21.5	0	0	0	0
993	56.8	0	46.5	0	0	0	0
994	50.3	1	91.1	0	0	0	0
995	50.1	1	95.2	0	0	0	0
996	39.2	1	95.2	0	0	0	0
997	52.8	1	123.2	2.3	0	0	0
998	66.9	1	123.2	2.3	0	0	0
999	50.9	1	120.3	0	0	0	0
1000	52.7	1	116.5	0	0	0	0
1001	55.2	1	117.7	0	0	0	0
1002	69	1	116.5	0	0	0	0
1003	61.1	1	111.8	0	0	0	0
1004	74	1	128.3	0	0	0	0
1005	60.8	1	128.3	0	0	0	0
1006	39.5	2	170.3	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1007	59.7	2	170.3	0	0	0	0
1008	49.3	2	182.9	0	0	0	0
1009	67	2	182.9	0	0	0	0
1010	78.2	2	182.9	0	0	0	0
1011	84.1	2	182	0	0	0	0
1012	71.4	2	173	0	0	0	0
1013	68.1	2	151.6	0	0	0	0
1014	91.8	2	151.6	0	0	0	0
1015	117.5	1	140.6	0	0	0	0
1016	100.1	2	165.5	0	0	0	0
1017	64.9	2	192.3	0	0	0	0
1018	49.7	2	192.3	0	0	0	0
1019	119.2	2	200.3	0	0	0	0
1020	73.6	2	200.3	0	0	0	0
1021	145.3	2	200.3	0	0	0	0
1022	127.7	2	212.4	0	0	0	0
1023	102.6	2	212.4	0	0	0	0
1024	175.8	2	239.3	0	0	0	0
1025	189.5	2	239.3	0	0	0	0
1026	161	2	239.3	0	0	0	0
1027	134.7	2	230	0	0	0	0
1028	142.2	2	230	0	0	0	0
1029	136.8	2	230	0	0	0	0
1030	138.2	2	206.7	0	0	0	0
1031	170.3	2	206.7	0	0	0	0
1032	127.2	2	173.5	0	0	0	0
1033	97.2	2	173.5	0	0	0	0
1034	99	2	158.6	0	0	0	0
1035	118.7	2	170	0	0	0	0
1036	62	2	170	0	0	0	0
1037	122.9	2	189.6	0	0	0	0
1038	152.8	2	189.6	0	0	0	0
1039	114	2	228.8	0	0	0	0
1040	116.3	2	228.8	0	0	0	0
1041	116.9	3	270.8	0	0	0	0
1042	117.7	3	299.7	0	0	0	0
1043	109	3	328.6	0	0	0	0
1044	115.8	4	392.9	0	0	0	0
1045	107.8	4	392.9	0	0	0	0
1046	85.3	4	444.9	0	0	0	0
1047	88.3	5	517.8	0	0	0	0
1048	51.9	6	552.3	0	0	0	0
1049	88.1	6	552.3	0	0	0	0
1050	51.1	4	421.7	0	0	0	0
1051	75.6	4	421.7	0	0	0	0
1052	83	3	332.3	0	0	0	0
1053	84.3	3	293.9	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1054	81.5	3	293.9	0	0	0	0
1055	69.1	3	266.8	0	0	0	0
1056	55.2	2	244.8	0	0	0	0
1057	52.2	2	230.3	0	0	0	0
1058	35.5	2	195.3	0	0	0	0
1059	75.5	2	176.8	0	0	0	0
1060	72.5	2	176.8	0	0	0	0
1061	69.9	2	170.2	0	0	0	0
1062	81.1	2	170.2	0	0	0	0
1063	75.4	2	178.8	0	0	0	0
1064	81.7	2	178.8	0	0	0	0
1065	64.2	2	168.4	0	0	0	0
1066	65.9	2	156	0	0	0	0
1067	60.3	2	156	0	0	0	0
1068	74.6	1	143.3	0	0	0	0
1069	69	1	136.7	0	0	0	0
1070	66.1	1	121.9	0	0	0	0
1071	80.4	1	124.2	2.1	0	0	0
1072	74.4	1	130.8	2.1	0	0	0
1073	63.9	1	133.8	0	0	0	0
1074	57.8	2	155.9	0	0	0	0
1075	46.6	2	169.4	0	0	0	0
1076	37.7	2	174.8	0	0	0	0
1077	47.3	2	176.7	0	0	0	0
1078	55.1	2	166.6	0	0	0	0
1079	47.4	2	150.1	0	0	0	0
1080	59	1	149.5	0	0	0	0
1081	42.2	2	180.1	0	0	0	0
1082	48.5	0	48.7	0	0	0	0
1083	55.4	0	41.5	0	0	0	0
1084	42.7	0	37.6	0	0	0	0
1085	110	0	37.6	0	0	0	0
1086	84	0	33.3	0	0	0	0
1087	114.5	0	28.9	0	0	0	0
1088	42.4	0	31.6	0	0	0	0
1089	76.9	0	31.6	0	0	0	0
1090	75.5	0	41.2	0	0	0	0
1091	76.7	0	41.2	0	0	0	0
1092	114.1	0	47.5	0	0	0	0
1093	82	1	54.3	0	0	0	0
1094	96.6	1	54.3	0	0	0	0
1095	87.7	1	59.9	0	0	0	0
1096	96.3	1	71.4	0	0	0	0
1097	61.4	1	79.7	0	0	0	0
1098	108.2	1	80.3	0	0	0	0
1099	100.7	1	80.8	0	0	0	0
1100	78.2	1	87.9	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1101	70.9	1	87.9	0	0	0	0
1102	95.9	1	87.9	0	0	0	0
1103	136.3	1	96.1	0	0	0	0
1104	94.4	1	113	2.3	0	0	0
1105	92	1	125.2	2.3	0	0	0
1106	61.5	1	125.2	0	0	0	0
1107	79.5	1	126.4	0	0	0	0
1108	79.3	1	130.5	0	0	0	0
1109	88.8	1	144.2	0	0	0	0
1110	72.4	2	166.3	0	0	0	0
1111	65.8	2	166.3	0	0	0	0
1112	68.1	2	201.5	0	0	0	0
1113	81	2	210.1	0	0	0	0
1114	89.2	2	210.1	0	0	0	0
1115	71.6	2	210.3	0	0	0	0
1116	69.3	2	210.3	0	0	0	0
1117	67.2	2	187.9	0	0	0	0
1118	96.1	2	183.8	0	0	0	0
1119	64.9	2	183.8	0	0	0	0
1120	87.6	2	177.8	0	0	0	0
1121	62.1	2	170.5	0	0	0	0
1122	58.9	2	173.6	0	0	0	0
1123	56.4	2	173.6	0	0	0	0
1124	64.1	2	196.2	0	0	0	0
1125	68	2	196.2	0	0	0	0
1126	69.6	2	195.6	2.2	0	0	0
1127	110.5	2	195.6	2.2	0	0	0
1128	104.1	2	185.8	0	0	0	0
1129	92.6	2	185.8	0	0	0	0
1130	58.6	2	155.6	0	0	0	0
1131	72.5	2	155.6	0	0	0	0
1132	77.2	2	190.6	0	0	0	0
1133	89.5	2	190.6	0	0	0	0
1134	73.7	2	236	0	0	0	0
1135	99.3	2	236	0	0	0	0
1136	98.5	2	204.3	0	0	0	0
1137	87.5	2	204.3	0	0	0	0
1138	79.5	2	179.7	0	0	0	0
1139	88.6	2	159.4	0	0	0	0
1140	103.1	2	159.4	0	0	0	0
1141	128.7	2	159.4	2.8	0	0	0
1142	114	2	152.1	2.8	0	0	0
1143	115	1	144.5	0	0	0	0
1144	107.6	1	144.5	0	0	0	0
1145	132.6	1	147.2	0	0	0	0
1146	122.1	1	147.2	0	0	0	0
1147	131.9	2	154	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1148	130.3	2	169.7	0	0	0	0
1149	90.5	2	169.7	0	0	0	0
1150	75	2	182.9	0	0	0	0
1151	119.4	2	196	0	0	0	0
1152	95.5	2	209.6	0	0	0	0
1153	91.6	2	223.5	0	0	0	0
1154	86.7	2	223.5	0	0	0	0
1155	125.9	2	223.5	0	0	0	0
1156	115.3	3	274.7	0	0	0	0
1157	88.9	3	333.4	0	0	0	0
1158	69.3	3	348	0	0	0	0
1159	58.9	3	348	0	0	0	0
1160	117.6	4	383.3	0	0	0	0
1161	131.1	4	383.3	0	0	0	0
1162	89.6	4	389	0	0	0	0
1163	71.6	4	389	0	0	0	0
1164	83	3	348	0	0	0	0
1165	86.9	3	325.5	3.6	0	0	0
1166	73.4	3	286.5	3.6	0	0	0
1167	68.4	3	277.3	0	0	0	0
1168	84.4	3	277.3	0	0	0	0
1169	76.4	3	264.8	3.3	0	0	0
1170	70.6	2	237.6	3.3	0	0	0
1171	67.1	2	219.4	0	0	0	0
1172	64.1	2	216.9	0	0	0	0
1173	62.6	2	216.9	0	0	0	0
1174	60.3	1	73	0	0	0	0
1175	57.5	1	55.6	0	0	0	0
1176	59.1	0	49.6	0	0	0	0
1177	60.3	0	43.6	0	0	0	0
1178	68.4	0	36.1	0	0	0	0
1179	65.5	0	28.4	0	0	0	0
1180	69.2	0	28.4	0	0	0	0
1181	77.9	0	28.4	0	0	0	0
1182	79.8	0	25.2	0	0	0	0
1183	66.2	0	22.4	0	0	0	0
1184	74.4	0	18.5	0	0	0	0
1185	74.1	0	25.9	0	0	0	0
1186	83.8	0	36.3	0	0	0	0
1187	65.7	1	51	0	0	0	0
1188	65.9	1	51	0	0	0	0
1189	68.7	1	65.7	0	0	0	0
1190	85.4	1	78.8	0	0	0	0
1191	85.4	1	78.8	0	0	0	0
1192	98.7	1	110.8	0	0	0	0
1193	68.5	1	110.8	0	0	0	0
1194	59.8	1	138.1	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1195	63.9	2	156.6	0	0	0	0
1196	71	2	163.6	0	0	0	0
1197	71.3	2	163.6	0	0	0	0
1198	90.3	2	185.7	0	0	0	0
1199	76.9	2	207.3	0	0	0	0
1200	64.5	2	219.3	0	0	0	0
1201	67.8	2	223.2	0	0	0	0
1202	65.5	2	223.2	0	0	0	0
1203	76.7	2	218.7	2.6	0	0	0
1204	66.7	2	210.1	2.6	0	0	0
1205	60.6	2	182.3	2.3	1.5	0	0
1206	58.7	2	173.4	0	0	0	0
1207	60	2	162.5	0	0	0	0
1208	60.1	2	161.6	0	0	0	0
1209	53.5	2	153.7	2.2	0	0	0
1210	69.1	2	153.7	2.3	0	0	0
1211	74	2	150.5	2.3	0	0	0
1212	86.8	2	155.2	1.2	0	0	0
1213	39.5	2	159.8	0	0	0	0
1214	36.2	2	159.8	2.1	0	0	0
1215	45.2	2	154.1	2.1	0	0	0
1216	74.4	2	150.8	0	0	0	0
1217	80.1	1	138.5	0	0	0	0
1218	76.8	1	146	0	0	0	0
1219	89.5	1	146	0	0	0	0
1220	109.5	2	153.6	0	0	0	0
1221	78.4	2	153.6	0	0	0	0
1222	109.5	2	161.1	0	0	0	0
1223	97.8	2	165.1	1.7	0	0	0
1224	121.9	2	169	3.3	0	0	0
1225	111.9	2	169	3.3	0	0	0
1226	125.8	2	187.6	3.3	0	0	0
1227	133.8	2	187.6	0	0	0	0
1228	126.3	2	187.6	0	0	0	0
1229	122.1	2	180	3.4	0	0	0
1230	141.4	2	180	3.4	0	0	0
1231	179.6	2	180	3.4	0	0	0
1232	134.8	2	177.3	0	0	0	0
1233	154.2	2	177.3	0	0	0	0
1234	104.6	2	164	0	0	0	0
1235	105.9	2	164	0	0	0	0
1236	95	2	163.1	0	0	0	0
1237	95	2	162.1	0	0	0	0
1238	86.2	2	169.5	4.4	0	0	0
1239	104.4	2	169.5	4.4	0	0	0
1240	109.3	2	191.8	4.4	0	0	0
1241	117.8	2	191.8	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1242	80.4	2	191.8	2.4	0	0	0
1243	95.2	2	195.3	0	0	0	0
1244	83.4	2	224.9	0	0	0	0
1245	93.9	2	224.9	0	0	0	0
1246	110.8	2	224.9	0	0	0	0
1247	120.6	2	228.1	2.4	0	0	0
1248	119.4	2	228.1	2.4	0	0	0
1249	119.7	2	249.9	2.4	0	0	0
1250	135.4	2	249.9	0	0	0	0
1251	155.1	3	297	0	0	0	0
1252	126.8	3	297	0	0	0	0
1253	135.3	3	297	0	0	0	0
1254	150.5	3	287.4	2.9	1.4	0	0
1255	147.7	3	287.4	2.9	1.4	0	0
1256	139.4	3	299.9	2.9	1.4	0	0
1257	115.9	3	299.9	0	0	0	0
1258	110.8	3	292.3	0	0	0	0
1259	70.3	3	294.3	0	0	0	0
1260	144	3	294.3	0	0	0	0
1261	140.1	3	267.7	5.7	0	0	0
1262	150.2	3	267.7	5.7	0	0	0
1263	121	3	268.3	5.7	0	0	0
1264	114	3	268.3	0	0	0	0
1265	115	3	277.1	0	0	0	0
1266	122.4	3	277.1	0	0	0	0
1267	127.5	3	268.3	4.9	0	0	0
1268	143.9	3	268.3	4.9	0	0	0
1269	119.8	3	294.2	5.7	1.4	0	0
1270	131.5	1	91.4	4.2	1.4	0	0
1271	125.4	1	65.5	0	0	0	0
1272	101	1	56.7	0	0	0	0
1273	93	1	54.7	0	0	0	0
1274	90.1	0	45.2	0	0	0	0
1275	92.7	3	280.3	0	0	0	0
1276	112.1	3	280.3	0	0	0	0
1277	91.5	2	167.3	2.3	1.8	0	0
1278	102	2	167.3	2.3	1.8	0	0
1279	115.8	2	174.5	2.3	1.8	0	0
1280	86.9	2	174.5	0	0	0	0
1281	119.1	2	166.6	4.4	1.3	0	0
1282	91.1	2	168.6	5.7	2	0	0
1283	107.3	2	168.6	5.7	2	0	0
1284	114	2	168.6	5.7	2	0	0
1285	85.3	2	154.7	3.7	0	0	0
1286	115.2	2	173.6	3.7	0	0	0
1287	122.4	2	173.6	0	0	0	0
1288	96.5	2	159.2	2.3	1.5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1289	102.9	2	159.2	2.3	1.5	0	0
1290	116.7	2	158.1	0	0	0	0
1291	98.6	2	158.1	0	0	0	0
1292	92.9	2	192.1	3.7	0	0	0
1293	106.9	2	224.9	5.1	2.1	0	0
1294	115.7	2	224.9	5.1	2.1	0	0
1295	136.3	3	268	5.1	2.1	0	0
1296	138.7	3	268	3.6	0	0	0
1297	127.1	3	268	3.6	0	0	0
1298	145.8	3	268	3.6	0	0	0
1299	151.5	3	302.2	6.7	0	0	0
1300	166.5	3	302.2	6.7	0	0	0
1301	179.1	3	311.9	6.9	1.1	0.9	0
1302	187.3	3	321.6	7	2.2	1.7	0
1303	173	3	321.6	7	2.2	1.7	0
1304	213.2	3	321.6	7.1	2.2	1.7	0
1305	161.5	3	312.4	7.1	2.2	0.9	0
1306	168.3	3	303.2	7.1	2.1	0	0
1307	182	2	221.4	6.5	1.7	0	0
1308	115	2	221.4	6.5	0	0	0
1309	123.5	2	221.4	6.5	0	0	0
1310	179.1	2	221.4	6.5	1.3	0	0
1311	207.5	2	221.4	6.5	2.5	0	0
1312	219.9	2	214.8	6.2	2.5	0	0
1313	238.3	2	208.1	5.8	2.5	0	0
1314	200.1	2	204.8	5.8	1.3	0	0
1315	239.3	2	201.4	5.7	0	0	0
1316	209	2	201.4	5.7	0.9	0	0
1317	238.5	2	201.4	5.7	1.8	0	0
1318	217.7	2	200.9	5.2	1.8	0	0
1319	264.1	2	200.3	4.6	1.8	0	0
1320	294.6	2	204.7	4.6	1.8	0	0
1321	279.2	2	209	4.6	1.8	0	0
1322	195.9	2	209	3.2	0	0	0
1323	211.9	2	209	3.2	0	0	0
1324	174.1	2	209	3.2	0	0	0
1325	200.6	2	218.5	5.2	0	0	0
1326	200	2	228	7.2	0	0	0
1327	235.8	2	237.7	7.2	0	0	0
1328	195.4	3	247.3	7.2	0	0	0
1329	276	3	247.3	5.4	0	0	0
1330	200.5	3	256.1	6.5	0	0	0
1331	189.6	3	256.1	6.5	0	0	0
1332	206.2	3	256.1	6.5	0	0	0
1333	210.4	3	256.1	6.5	0	0	0
1334	200	3	241.9	6.2	2.1	0	0
1335	190	3	241.9	6.2	2.1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1336	247.2	3	241.9	6.2	2.1	0	0
1337	226.4	3	244.1	6.4	2.1	0	0
1338	254.7	3	246.3	6.5	2.1	0	0
1339	174.3	3	246.3	6.5	0	0	0
1340	176.5	3	259.9	6.4	1.8	0	0
1341	183.6	3	273.4	6.3	3.6	0	0
1342	195.5	3	273.4	6.3	3.6	0	0
1343	202.3	3	273.4	6.3	3.6	0	0
1344	229.7	3	297.2	8.3	2.2	0	0
1345	197.4	3	297.2	8.3	2.2	0	0
1346	222.1	3	297.2	8.3	2.2	0	0
1347	228.2	3	325.1	5	0	0	0
1348	182.5	3	325.1	5	0	0	0
1349	194.6	3	325.1	5	0	0	0
1350	220.1	4	343.7	8.4	2.6	0	0
1351	196.7	4	343.7	8.4	2.6	0	0
1352	239	4	343.7	8.4	2.6	0	0
1353	210.9	4	366.3	9.2	2.6	0	0
1354	261	4	388.9	9.9	2.6	0	0
1355	238.6	4	388.9	9.9	2.1	0	0
1356	215.2	4	388.9	9.9	2.1	0	0
1357	280	4	388.9	9.9	2.1	0	0
1358	230.5	4	392.8	10.1	3.3	0	0
1359	223	4	396.7	10.2	4.5	0	0
1360	244	4	396.7	10.2	4.5	0	0
1361	222.1	4	396.7	10.2	4.5	0	0
1362	203.1	4	393.2	6.5	1.7	0	0
1363	159.9	1	73.8	4.2	1.4	0	0
1364	76.8	1	81.8	2.3	0	0	0
1365	77.8	1	64.7	0	0	0	0
1366	78.6	1	64.7	0	0	0	0
1367	84	1	53.7	0	0	0	0
1368	109.2	1	53.7	0	0	0	0
1369	145.4	0	43.9	0	0	0	0
1370	99.2	0	43.9	0	0	0	0
1371	92.9	0	46.5	0	0	0	0
1372	89.6	0	49.2	0	0	0	0
1373	87.8	1	51.8	0	0	0	0
1374	94.6	1	51.8	0	0	0	0
1375	84.5	1	53.5	0	0	0	0
1376	106.5	1	53.5	0	0	0	0
1377	95	1	50	0	0	0	0
1378	112.4	1	103.7	3.9	1.4	0	0
1379	136.4	1	103.7	3.9	0	0	0
1380	93.2	2	162.7	3.3	0	0	0
1381	90	3	287.5	7.6	2.4	0	0
1382	91.3	3	287.5	7.9	2.4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1383	78.8	3	287.5	8.2	2.4	0	0
1384	103.3	3	284	8.2	2.8	1.9	1.9
1385	104.5	3	236.8	7.6	2.8	1.9	1.9
1386	95.6	3	236.8	7.6	2.8	1.9	1.9
1387	101.3	2	207.5	4.7	1.8	0	0
1388	88.1	2	191.7	5	1.4	0	0
1389	91	2	191.7	5	1.4	0	0
1390	87.7	2	165.8	5.2	0	0	0
1391	86.2	1	108.1	3.8	1.9	0	0
1392	100.9	1	108.1	3.8	1.9	0	0
1393	81.6	1	109.7	4	0	0	0
1394	75.8	1	109.7	4	0	0	0
1395	72	1	108.3	3.9	1.4	0	0
1396	92.4	1	108.3	3.9	1.4	0	0
1397	125.9	1	108.3	3.9	1.4	0	0
1398	122.8	1	108.3	3.9	1.4	0	0
1399	127.1	1	108.3	2.2	0	0	0
1400	110.2	1	108.3	3.6	0	0	0
1401	106.8	1	83.3	2.3	0	0	0
1402	110	1	83.3	2.3	0	0	0
1403	163.3	1	83.3	2.3	0	0	0
1404	145.9	1	82.6	0	0	0	0
1405	156.4	1	82.6	0	0	0	0
1406	171.1	1	80.8	0	0	0	0
1407	184.2	1	80.8	0	0	0	0
1408	139	1	80.8	0	0	0	0
1409	135.9	1	89.6	0	0	0	0
1410	136.2	1	95	0	0	0	0
1411	174.6	1	100.3	0	0	0	0
1412	149.3	1	100.3	0	0	0	0
1413	160.8	1	106.9	1.3	0.7	0.7	0
1414	181.3	1	113.4	2.6	1.4	1.4	0
1415	146.1	1	113.4	2.6	1.4	1.4	0
1416	164.3	1	121.4	3	1.4	1.4	0
1417	176.6	1	129.3	3.4	1.4	1.4	0
1418	174.3	1	129.3	3.4	0	0	0
1419	156	1	134.3	3.8	0	0	0
1420	162.6	1	139.3	4.2	0	0	0
1421	146.3	1	139.3	4.2	0	0	0
1422	142.1	2	143.2	4.2	2.1	0	0
1423	141	2	143.2	3.5	2.1	0	0
1424	152.3	2	143.2	3.5	2.1	0	0
1425	158.1	1	140.9	3.1	0	0	0
1426	144.1	1	140.9	3.1	0	0	0
1427	155.6	2	144.6	3.3	0	0	0
1428	111.8	2	144.6	3.3	0	0	0
1429	124.9	2	177.9	3.3	2.6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1430	156.7	2	177.9	2.2	2.6	0	0
1431	134.4	2	200.8	4.9	2.6	0	0
1432	134.1	2	200.8	4.9	1.5	0	0
1433	144.2	2	200.8	4.9	1.5	0	0
1434	139.1	2	232	6.7	0	0	0
1435	140.1	2	232	6.7	0	0	0
1436	160.1	3	258.1	6.7	0.7	0	0
1437	163.7	3	284.2	6.7	1.4	0	0
1438	133.7	3	284.2	5.3	1.4	0	0
1439	162.8	5	458.4	5.3	1.4	0	0
1440	190.1	6	632.5	5.3	1.4	0	0
1441	169.2	6	632.5	0	0	0	0
1442	148.1	8	784.9	0	0	0	0
1443	166.5	8	784.9	0	0	0	0
1444	193.6	8	784.9	0	0	0	0
1445	163.7	7	666.9	8.8	1.4	0	0
1446	178.2	7	666.9	8.8	1.4	0	0
1447	185.1	7	666.9	8.8	1.4	0	0
1448	169.4	6	568.7	0	0	0	0
1449	158.1	6	568.7	0	0	0	0
1450	125.6	5	523.9	0	0	0	0
1451	160.9	5	479	0	0	0	0
1452	190.1	5	479	2.4	0	0	0
1453	198.3	5	479	4.7	0	0	0
1454	182.8	4	430.6	4.7	0	0	0
1455	203.6	4	382.1	4.7	0	0	0
1456	181.2	3	323.7	5.4	1.6	1.7	0
1457	157.1	3	323.7	5.4	1.6	1.7	0
1458	163.2	2	215.5	4.6	0.8	0.9	0
1459	163.2	1	107.3	3.8	0	0	0
1460	126.1	1	85.3	3.4	0	0	0
1461	90.3	1	70.5	3.4	0	0	0
1462	94.5	1	70.5	3.4	0	0	0
1463	104.5	1	61.3	0	0	0	0
1464	127.7	1	61.3	0	0	0	0
1465	122.1	1	59.3	0	0	0	0
1466	123.9	1	59.3	0	0	0	0
1467	128.3	1	58.3	0	0	0	0
1468	129	1	58.3	3.2	0	0	0
1469	83.1	1	57.3	3.2	0	0	0
1470	130.5	1	57.3	3.2	0	0	0
1471	138.5	1	57.3	3.2	0	0	0
1472	148.3	0	45.7	0	0	0	0
1473	133.4	1	51.6	2.4	0	0	0
1474	126.6	1	51.6	2.4	0	0	0
1475	114.6	1	51.6	2.4	0	0	0
1476	134.1	0	44.9	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1477	121.3	0	44.9	0	0	0	0
1478	146.9	1	51.4	0	0	0	0
1479	147.5	1	51.4	0	0	0	0
1480	117.8	1	63.6	0	0	0	0
1481	107.7	1	63.6	0	0	0	0
1482	99.3	1	79.1	0	0	0	0
1483	109.3	1	79.1	0	0	0	0
1484	128.7	1	103.3	3.2	0	0	0
1485	137.1	1	103.3	3.2	0	0	0
1486	120.9	1	118.5	2.8	0	0	0
1487	112.8	1	118.5	2.8	0	0	0
1488	121.6	2	154.1	2.8	0	0	0
1489	124.2	2	154.1	0	0	0	0
1490	125.5	2	176.3	5	1.5	0	0
1491	150	2	199.8	5.6	1.7	0	0
1492	172	2	199.8	5.6	1.7	0	0
1493	204.5	2	199.8	5.6	1.7	0	0
1494	181.5	2	206.6	5.9	1.7	0	0
1495	192.2	2	213.4	6.1	1.6	0	0
1496	206.2	2	213.4	6.1	1.6	0	0
1497	211	2	213.4	6.1	1.6	0	0
1498	214.5	2	225.5	8.4	1.5	0	0
1499	226	2	225.5	8.4	1.5	0	0
1500	193.4	2	225.5	8.4	1.5	0	0
1501	212.1	2	234.9	6.1	0	0	0
1502	176.7	2	234.9	6.1	0	0	0
1503	179.5	2	234.9	6.1	0	0	0
1504	197.6	2	232.2	6.7	0	0	0
1505	173.1	2	232.2	6.9	0	0	0
1506	192.4	2	232.2	7.1	0	0	0
1507	182.6	2	232.1	7.1	0	0	0
1508	200.5	2	232	7.1	0	0	0
1509	175.7	3	238.6	7.1	0.8	0	0
1510	209.7	3	245.2	7.1	1.6	0	0
1511	176	3	245.2	6.7	1.6	0	0
1512	203.1	3	245.2	6.3	1.6	0	0
1513	229	3	251.9	6.3	1.6	0	0
1514	160.3	3	251.9	5.6	0	0	0
1515	186.7	3	260	7.1	0	0	0
1516	142.6	3	268.1	8.6	0	0	0
1517	208.9	3	268.1	8.6	0	0	0
1518	149.7	3	268.1	8.6	0	0	0
1519	155.6	3	268.1	9.1	0	0	0
1520	143.3	3	261.9	9.1	0	0	0
1521	132.2	3	261.9	9.1	0	0	0
1522	165.1	3	255.9	6.1	0	0	0
1523	191.4	3	255.9	6.1	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1524	190.6	3	255.9	6.1	0	0	0
1525	211.9	3	260.8	7.4	2.4	0	0
1526	196.9	3	260.8	7.4	2.4	0	0
1527	199.3	3	260.8	7.4	2.4	0	0
1528	200.3	3	268.3	7.5	2.4	0	0
1529	182.1	3	268.3	7.5	1.2	0	0
1530	179.5	3	268.3	7.5	0	0	0
1531	197.6	3	288.4	8.1	0	0	0
1532	208.6	3	288.4	8.1	0	0	0
1533	221.9	3	288.4	8.1	0	0	0
1534	187.6	3	292.3	8.9	0.9	0	0
1535	224	3	296.2	9.6	1.8	0	0
1536	175.4	3	299.5	9.6	1.8	0	0
1537	197	3	302.7	9.6	1.8	0	0
1538	187.3	3	302.7	8.4	0.9	0	0
1539	194.4	3	302.7	7.1	0	0	0
1540	217.7	3	316.3	9.2	0	0	0
1541	178	3	316.3	9.2	0	0	0
1542	185.4	3	316.3	9.2	0	0	0
1543	215.1	3	316.3	9.2	0	0	0
1544	226.7	3	316.3	9.2	0	0	0
1545	211.3	3	303.7	9.3	0	0	0
1546	165.9	3	291	9.3	0	0	0
1547	189.2	3	291	9.3	0	0	0
1548	204.4	3	291	9.3	0	0	0
1549	194.7	3	261	8.1	0	0	0
1550	202.5	2	231	6.8	0	0	0
1551	182.9	2	231	6.8	0	0	0
1552	190.4	1	143.2	3.4	0	0	0
1553	150.9	1	55.3	0	0	0	0
1554	120	1	86.9	3.4	0	0	0
1555	105.4	1	70.8	0	0	0	0
1556	100	0	45.2	0	0	0	0
1557	112.1	0	36.9	0	0	0	0
1558	83.9	0	36.9	0	0	0	0
1559	116.8	0	35.3	0	0	0	0
1560	132.1	0	42	0	0	0	0
1561	132.8	0	42	0	0	0	0
1562	103.7	0	42	0	0	0	0
1563	112.5	0	46.3	0	0	0	0
1564	118.5	0	46.3	0	0	0	0
1565	122.4	1	46.5	2.1	0	0	0
1566	142	1	46.5	2.1	0	0	0
1567	136.5	0	41.7	0	0	0	0
1568	123.5	0	41.7	0	0	0	0
1569	108.3	0	41.7	0	0	0	0
1570	112.3	1	50.9	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1571	101.1	1	50.9	0	0	0	0
1572	97.8	1	73.1	0	0	0	0
1573	87.9	1	92.2	2.8	0	0	0
1574	98.6	1	121.6	3.7	0	0	0
1575	101.5	2	169.6	5.4	0	0	0
1576	125	2	169.6	3.8	0	0	0
1577	185.7	2	183.4	5.3	0	0	0
1578	203.7	2	197.1	6.7	0	0	0
1579	196.4	2	197.1	6.7	0	0	0
1580	188.1	2	197.1	6.7	0	0	0
1581	180.9	2	219.4	5.2	1.6	0	0
1582	180.1	2	219.4	5.2	1.6	0	0
1583	175.9	2	219.4	5.2	1.6	0	0
1584	222.2	3	248.1	6.1	1.6	0	0
1585	182.1	3	248.1	6.1	1.5	0	0
1586	187.8	3	248.1	6.1	1.3	0	0
1587	180.8	3	254.3	7.3	1.3	0	0
1588	191.9	3	254.3	7.3	0.7	0	0
1589	199.3	3	254.3	7.3	0	0	0
1590	170.3	3	263	7.3	0	0	0
1591	188.2	3	263	7.3	0	0	0
1592	168.4	3	263	7.3	0	0	0
1593	172.1	3	276.9	8.5	0	0	0
1594	198.1	3	290.8	9.7	0	0	0
1595	176.1	3	290.8	9.7	0	0	0
1596	226.2	3	290.8	9.7	0	0	0
1597	200.9	3	303.4	9.3	0	0	0
1598	190.1	3	315.9	8.9	0	0	0
1599	206.2	3	329.8	9.2	0	0	0
1600	212.3	4	343.7	9.5	0	0	0
1601	190.2	4	343.7	9.5	0	0	0
1602	192.7	4	343.7	9.5	0	0	0
1603	215.4	4	339.6	10	0	0	0
1604	210.9	4	335.4	10.5	0	0	0
1605	185.9	4	335.4	10.5	0	0	0
1606	169.2	4	335.4	10.5	0	0	0
1607	190.8	4	335.4	10.5	0	0	0
1608	238.9	3	320.2	8.1	0	0	0
1609	211.5	4	333	10.1	0	0	0
1610	210.4	4	345.7	12	0	0	0
1611	211.7	4	345.7	12	0	0	0
1612	212.5	4	345.7	12	0	0	0
1613	191.2	4	346.5	12	1.1	0	0
1614	231.2	4	347.2	12	2.1	0	0
1615	198.1	4	347.2	11.7	2.1	0	0
1616	151	4	347.2	11.7	2.1	0	0
1617	173.4	4	344.5	11.3	1.1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1618	175.6	4	341.7	10.8	0	0	0
1619	215.1	4	342.3	10.9	0	0	0
1620	212.4	4	342.8	10.9	0	0	0
1621	225	4	342.8	10.9	0	0	0
1622	225.1	4	342.8	10.9	0	0	0
1623	254.8	4	354.7	11.5	0	0	0
1624	202.4	4	366.6	12	0	0	0
1625	222.3	4	366.6	12	0	0	0
1626	230.9	4	366.6	12	0	0	0
1627	235.1	4	388.2	12.4	0	0	0
1628	246.9	4	409.8	12.7	0	0	0
1629	236.9	4	409.8	12.7	0	0	0
1630	194.2	4	409.8	12.7	0	0	0
1631	254.3	4	409.8	12.7	0.9	0	0
1632	156.4	4	409.8	12.7	1.8	0	0
1633	201.5	4	387.2	11.9	1.8	0	0
1634	176.7	4	387.2	11.9	1.8	0	0
1635	183.8	4	387.2	11.9	1.8	0	0
1636	163.2	4	373.5	11.2	0	0	0
1637	157.3	4	373.5	11.2	0	0	0
1638	161.1	4	364	9.2	0	0	0
1639	155.1	4	364	9.2	0	0	0
1640	149.4	4	389.8	11.1	0	0	0
1641	137.4	4	389.8	11.1	0	0	0
1642	174.3	4	389.8	11.1	0	0	0
1643	184.6	4	417.9	12.2	0	0	0
1644	144.7	4	417.9	12.2	0	0	0
1645	145.4	4	417.9	12.6	0	0	0
1646	102.7	4	410.3	12.6	0	0	0
1647	113.9	4	410.3	12.6	0	0	0
1648	127.4	3	282.3	11.1	3	0	0
1649	120	1	100.3	4.5	0	0	0
1650	134.1	1	100.3	4.5	0	0	0
1651	147.8	1	102.7	5	1.5	0	0
1652	144	1	102.7	5	1.5	0	0
1653	124.5	2	191.6	11.4	3.6	0	0
1654	97.4	2	191.6	11.4	3.6	0	0
1655	123.7	12	1066.9	38.8	18.3	6.4	0
1656	147.4	12	1066.9	38.8	18.3	6.4	0
1657	140.2	35	3147.7	95.7	53.8	20.3	2.4
1658	121.6	35	3147.7	95.7	53.8	20.3	2.4
1659	114.1	76	6804	199.7	114.9	40.2	2.4
1660	123.7	694	57657.3	3792.3	1472.4	250.7	19
1661	80.2	956	76752	5707	2378.8	565.1	23.8
1662	47.8	956	76752	5707	2378.8	565.1	23.8
1663	59.8	1308	102392.1	8193.5	3650.7	1010.8	40.5
1664	50.6	1696	130149.4	11045.2	5026.5	1606.8	55.3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1665	54.7	1986	150025.6	14136.7	6221.4	1674.3	71
1666	72.9	2175	165728.5	15195.7	6717.6	1674.3	79.1
1667	73.7	2316	174603	16650.4	7342.9	1897.9	87.5
1668	60.7	2435	183099.3	17533.9	7826.4	2008.5	98.3
1669	76.5	2436	183099.3	17706.9	7957.3	2065.7	102.6
1670	72.1	2285	171954.9	16364.4	7445.4	1834.9	88.3
1671	63.9	2230	167666.3	16034.2	7301.8	1778.4	85.5
1672	78.9	2074	156957.2	14754.9	6634.1	1559.6	71.8
1673	60.4	1070	84561.2	6936.4	2935.9	532.2	30.9
1674	68.3	888	71104	5592.7	2265.6	395.4	23.4
1675	80.6	134	12010.2	411.1	162.1	54	5.5
1676	86	98	8801.5	279.4	115.4	39.1	0
1677	71.7	494	40741.9	2635	1074.2	246.2	26.1
1678	80	382	31819.3	1933.3	794.8	194.8	21.1
1679	85	271	22896.6	1231.7	515.4	143.4	16
1680	90	159	13974	530	236	92	11
1681	147.1	157	13741	530	236	88	11
1682	138.2	169	14781	578	255	88	11
1683	115.1	168	14781	578	255	77	10
1684	115.4	168	14781	578	255	66	10
1685	123.4	179	15696	637	276	72	10
1686	125.8	179	15696	637	276	72	10
1687	118.7	180	15814	634	279	72	12
1688	127.2	180	15814	634	279	72	12
1689	140.7	187	16439	669	292	73	12
1690	133.5	187	16439	669	292	73	11
1691	141	187	16439	669	292	73	12
1692	152.6	198	17288	729	315	79	11
1693	133.1	198	17288	729	315	79	11
1694	132.4	198	17320	729	316	79	11
1695	135.9	198	17320	727	316	78	9
1696	144.2	206	17984	771	335	84	9
1697	147	206	17984	771	335	84	0
1698	133.8	206	17984	771	335	84	0
1699	141.5	184	16238	647	281	71	0
1700	116.6	184	16238	647	281	71	0
1701	139.4	183	16173	638	279	71	0
1702	107.2	183	16173	638	279	71	0
1703	140.1	185	16344	632	277	70	10
1704	163.9	185	16344	632	277	70	10
1705	140.4	192	16839	679	290	76	11
1706	140.2	192	16839	679	290	76	11
1707	148.2	192	16839	679	290	76	11
1708	145.4	194	16961	660	293	112	12
1709	148.9	194	16961	660	293	112	12
1710	132	198	17294	685	299	112	14
1711	140	198	17294	685	299	111	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1712	92	205	17907	720	314	117	14
1713	120.5	205	17907	720	314	117	14
1714	125.3	206	17907	730	316	117	14
1715	120	204	17824	730	316	112	11
1716	123.6	208	18143	748	322	112	13
1717	122.4	207	18143	748	322	82	13
1718	120.5	212	18534	772	333	84	13
1719	116.5	212	18534	772	333	84	12
1720	121.9	212	18534	772	333	84	12
1721	139.1	212	18534	772	333	84	14
1722	129.9	209	18253	757	328	85	14
1723	140.2	205	17946	752	326	85	14
1724	85.9	206	18024	758	328	86	14
1725	122.1	206	18024	758	328	86	12
1726	153	206	18024	758	328	86	12
1727	167.1	207	18122	758	332	86	12
1728	156.3	207	18122	758	332	86	11
1729	155.6	207	18122	760	333	86	11
1730	142.7	207	18080	760	333	85	9
1731	140.9	207	18080	760	333	85	10
1732	137	207	18084	755	330	83	12
1733	138.2	207	18084	755	330	83	12
1734	129.7	209	18280	759	334	83	12
1735	134.6	209	18280	759	334	83	11
1736	137.6	209	18280	759	334	83	11
1737	129.5	208	18193	761	335	85	14
1738	136.8	208	18193	761	335	85	14
1739	141.9	211	18374	777	341	88	14
1740	142.1	211	18374	777	341	88	10
1741	128.3	217	18864	816	358	94	13
1742	152.6	217	18864	816	358	94	13
1743	140.6	59	5282	148	69	30	4
1744	42.2	44	3911	130	63	28	4
1745	41.8	42	3705	123	60	19	4
1746	44.3	42	3714	125	60	19	2
1747	47.6	42	3714	125	60	19	2
1748	66.5	41	3616	120	58	18	4
1749	64.1	40	3533	117	56	18	4
1750	85.5	40	3556	119	58	19	5
1751	71.5	40	3556	119	58	19	5
1752	69	39	3501	117	56	18	2
1753	63.5	38	3379	112	54	17	2
1754	83.7	38	3371	114	54	17	3
1755	77.9	38	3405	119	56	18	2
1756	65.8	39	3405	119	56	25	5
1757	99.1	38	3382	110	56	25	5
1758	84.9	39	3397	110	56	26	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1759	76.5	40	3579	114	56	27	2
1760	84.4	41	3579	118	59	27	7
1761	59.7	41	3557	118	59	27	7
1762	83.9	40	3536	118	59	27	7
1763	73.6	38	3343	112	54	19	4
1764	69.9	36	3192	109	53	18	4
1765	65	35	3062	106	52	18	3
1766	67.5	34	2964	104	50	18	2
1767	77.3	34	2970	103	50	18	4
1768	77.7	34	2976	102	50	18	3
1769	73.4	34	2976	102	51	18	4
1770	68.4	34	2966	102	51	17	4
1771	76	34	2971	102	52	18	4
1772	101.9	35	3086	108	53	19	4
1773	87.7	37	3256	112	56	19	4
1774	95.7	37	3256	112	56	18	3
1775	71.9	38	3371	114	56	20	2
1776	82.7	40	3472	118	59	29	5
1777	68.5	40	3472	118	59	29	5
1778	79.2	40	3472	118	59	29	5
1779	85.7	39	3456	110	57	28	4
1780	93	39	3456	110	57	30	6
1781	94.2	39	3375	110	55	30	6
1782	106.9	39	3354	116	58	30	6
1783	103.5	39	3416	116	60	30	6
1784	97.2	39	3416	112	60	26	5
1785	80.7	39	3411	111	58	22	4
1786	86.5	40	3574	115	59	22	4
1787	76.1	40	3574	115	59	22	3
1788	88.5	43	3804	122	62	22	6
1789	79.4	44	3873	123	62	22	6
1790	86.5	44	3873	123	62	22	4
1791	58.3	42	3754	120	59	21	4
1792	32.1	39	3444	114	56	19	3
1793	66.6	38	3403	113	55	20	2
1794	63.2	38	3386	111	55	19	3
1795	85.5	38	3369	109	55	18	4
1796	84.7	37	3273	109	54	18	4
1797	97.8	37	3273	109	54	18	4
1798	100.6	36	3209	99	51	24	2
1799	91.2	37	3230	103	52	24	2
1800	97.6	37	3251	108	53	24	2
1801	97.4	37	3251	108	53	24	2
1802	67.2	38	3369	104	53	25	4
1803	59.6	39	3407	109	54	25	4
1804	59.6	39	3446	113	56	26	5
1805	59.6	40	3484	118	57	26	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1806	40.9	41	3583	118	59	26	5
1807	73	40	3583	118	59	19	3
1808	86.6	41	3646	119	60	20	4
1809	81	42	3696	130	62	21	4
1810	89.8	42	3696	130	62	21	3
1811	89.2	42	3735	129	62	21	4
1812	96.2	42	3735	129	63	22	6
1813	95.4	39	3402	120	58	22	3
1814	85	39	3399	113	60	22	4
1815	77.2	41	3604	118	60	22	2
1816	85.6	41	3604	118	60	22	2
1817	92.1	41	3604	118	61	22	4
1818	97.8	40	3551	117	61	22	4
1819	77.5	40	3551	121	61	22	7
1820	85.3	39	3399	121	58	23	7
1821	81.8	39	3387	111	58	27	3
1822	49.3	37	3290	108	55	27	3
1823	88.6	36	3166	107	53	27	5
1824	69.5	36	3152	104	53	27	5
1825	62.5	36	3152	108	54	27	5
1826	55.3	36	3146	108	54	24	4
1827	86.6	35	3056	105	52	18	4
1828	70	34	3001	102	52	17	2
1829	93.3	34	3001	102	52	17	6
1830	87.9	33	2939	101	49	17	6
1831	93.9	33	2893	100	49	17	5
1832	84	32	2847	99	49	17	4
1833	73.9	32	2791	97	47	17	2
1834	81.5	31	2765	99	49	16	2
1835	72.8	31	2765	99	49	16	2
1836	68.2	32	2812	99	49	17	2
1837	75.3	32	2812	97	49	17	2
1838	74.9	32	2789	97	48	17	2
1839	80.1	32	2789	97	48	17	2
1840	95.6	3	224	8	4	2	0
1841	114.2	3	240	7	4	1	0
1842	113.2	3	238	7	3	2	0
1843	124.5	3	238	7	3	2	0
1844	121.1	3	235	8	4	2	1
1845	119.6	3	229	8	4	3	1
1846	53.5	2	216	5	3	1	1
1847	79.4	2	214	7	4	1	2
1848	64.1	2	209	8	4	1	0
1849	78.6	2	209	8	4	1	0
1850	167.7	2	195	7	3	0	0
1851	210.2	2	195	7	3	0	0
1852	162.8	2	195	7	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1853	194.3	2	194	7	2	0	1
1854	208.3	2	193	7	2	1	1
1855	181.9	2	193	7	2	1	1
1856	206.6	2	189	6	2	1	1
1857	132.7	2	186	5	2	1	0
1858	186.2	2	186	5	2	1	0
1859	169.6	2	186	5	2	1	0
1860	212.7	2	176	5	1	1	0
1861	193.4	2	176	5	1	1	0
1862	207.8	2	171	5	1	1	0
1863	168.1	2	165	6	2	1	0
1864	193.8	2	165	6	2	1	0
1865	165.3	2	165	6	2	1	0
1866	181.7	2	155	5	3	1	0
1867	176.6	2	155	5	3	1	0
1868	203.6	2	155	5	3	1	0
1869	226.3	2	150	5	2	1	0
1870	251.6	2	146	5	1	2	0
1871	215.2	2	146	5	1	2	0
1872	155.7	2	146	5	1	2	0
1873	164.7	2	148	4	1	1	1
1874	196	2	148	4	1	1	1
1875	166	2	142	5	2	1	0
1876	193.6	2	136	6	2	0	0
1877	172.4	2	136	6	2	0	0
1878	167.8	1	130	5	1	0	0
1879	190.8	1	124	4	0	0	0
1880	189.4	1	124	4	0	0	0
1881	172	1	124	4	0	0	0
1882	180.3	1	115	4	1	1	0
1883	129.6	1	115	4	1	1	0
1884	193.4	1	110	4	2	2	1
1885	227.3	1	110	4	2	2	1
1886	171	1	110	4	2	2	1
1887	208.5	1	110	4	2	2	1
1888	129.1	1	113	3	1	1	2
1889	154.5	1	113	3	1	1	2
1890	82	1	117	4	1	0	0
1891	111	1	113	4	2	2	0
1892	168	1	113	4	2	2	0
1893	107.6	1	118	4	0	0	0
1894	178.6	1	118	3	0	0	0
1895	153.2	1	118	3	0	0	0
1896	112.5	1	118	4	2	2	0
1897	133.4	1	117	3	1	2	0
1898	134.5	1	117	3	1	2	0
1899	271.4	1	118	3	1	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1900	245.3	1	118	4	1	2	0
1901	169.4	1	119	4	1	1	0
1902	168.5	1	120	4	1	1	0
1903	160.1	1	120	3	1	1	0
1904	162.2	1	122	3	1	1	1
1905	136.1	1	122	3	1	1	1
1906	110.2	1	125	3	0	0	0
1907	207.6	1	125	3	0	0	0
1908	105.8	1	126	4	0	0	0
1909	125.4	1	112	4	0	0	0
1910	131.2	1	111	4	0	0	0
1911	159.6	1	127	3	0	0	0
1912	135.8	1	129	3	0	0	0
1913	134.4	1	129	3	0	0	0
1914	144.6	1	129	3	0	0	0
1915	137.5	1	131	3	0	0	0
1916	126.1	1	131	4	0	0	0
1917	123.5	1	133	4	0	0	0
1918	158.3	1	135	4	0	0	0
1919	145	1	136	4	0	0	0
1920	152.4	1	137	4	0	0	0
1921	145.4	1	137	4	0	0	0
1922	125.3	1	139	3	0	0	0
1923	132.7	1	141	3	0	0	0
1924	124.6	1	143	3	0	0	0
1925	104.3	1	143	3	0	0	0
1926	117.2	2	145	4	0	0	0
1927	138.9	2	149	4	0	0	0
1928	189.3	1	140	3	0	0	0
1929	177.7	1	142	3	0	0	0
1930	184.5	2	158	4	0	0	0
1931	180.3	2	161	4	0	0	0
1932	183.8	2	165	5	0	0	0
1933	115.2	2	175	5	0	0	0
1934	184.5	2	176	5	0	0	0
1935	198.8	2	166	5	0	0	0
1936	175.6	2	165	4	0	0	0
1937	191.1	2	199	5	0	0	0
1938	182.7	2	204	5	0	0	0
1939	163.7	2	206	7	0	0	0
1940	188.6	2	221	7	0	0	0
1941	186.5	2	235	7	0	0	0
1942	170.6	3	285	5	0	0	0
1943	151.5	3	301	8	0	0	0
1944	174.7	3	304	11	0	0	0
1945	177.3	4	407	17	0	0	0
1946	133.4	5	504	20	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1947	128.7	13	1221	21	0	0	0
1948	178.8	14	1356	26	0	0	0
1949	210.4	14	1356	26	0	0	0
1950	221.5	15	1455	28	0	0	0
1951	268.8	15	1455	28	0	0	0
1952	247.7	15	1455	28	0	0	0
1953	205.9	15	1455	28	0	0	0
1954	183.9	16	1570	31	0	0	0
1955	180.2	16	1570	31	0	0	0
1956	205.2	16	1570	31	0	0	0
1957	205.8	17	1647	33	0	0	0
1958	214.9	17	1647	33	0	0	0
1959	254.5	17	1647	33	0	0	0
1960	250.6	17	1647	33	0	0	0
1961	258.8	18	1741	31	0	0	0
1962	226.9	18	1741	31	0	0	0
1963	202.9	18	1741	31	0	0	0
1964	278.2	18	1741	31	0	0	0
1965	252.7	18	1788	34	0	0	0
1966	248.7	18	1788	34	0	0	0
1967	219.6	18	1788	34	0	0	0
1968	212.6	18	1788	34	0	0	0
1969	192.3	19	1821	37	2	0	0
1970	204.7	19	1821	37	2	0	0
1971	235.4	19	1821	37	2	0	0
1972	257.9	19	1821	37	2	0	0
1973	230.3	19	1822	36	0	0	0
1974	232.6	19	1825	36	0	0	0
1975	191.3	19	1821	34	0	0	0
1976	183.6	18	1705	33	0	0	0
1977	194.9	18	1706	35	0	0	0
1978	245	16	1501	28	0	0	0
1979	256.9	13	1247	25	0	0	0
1980	259.7	18	1752	35	0	0	0
1981	197.9	18	1752	35	0	0	0
1982	184.5	18	1752	35	0	0	0
1983	187.7	12	1156	25	0	0	0
1984	235.7	6	560	15	0	0	0
1985	247	6	560	15	0	0	0
1986	252	6	560	15	0	0	0
1987	245.4	6	556	15	1	0	0
1988	237.9	6	552	16	2	0	0
1989	146.1	6	563	16	2	0	0
1990	126.7	6	563	14	1	0	0
1991	129.9	6	563	14	1	0	0
1992	229.7	6	563	14	1	0	0
1993	228.6	6	564	16	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1994	226.2	6	564	16	0	0	0
1995	199.2	6	564	16	0	0	0
1996	152.6	6	564	16	0	0	0
1997	150.2	6	559	14	0	0	0
1998	168.6	6	560	14	0	0	0
1999	267.2	6	561	14	0	0	0
2000	184.9	6	561	14	0	0	0
2001	143.3	6	554	14	0	0	0
2002	115	5	475	13	2	1	0
2003	194.3	4	425	10	1	0	0
2004	177.9	4	425	10	1	0	0
2005	210.7	4	380	12	0	0	0
2006	140.4	4	380	12	0	0	0
2007	135.3	4	334	9	0	0	0
2008	127.2	3	308	10	0	0	0
2009	169	3	308	10	0	0	0
2010	175.6	3	308	10	0	0	0
2011	197.2	3	309	9	0	0	0
2012	148.8	3	309	9	0	0	0
2013	174.7	3	310	9	0	0	0
2014	181.2	3	310	8	0	0	0
2015	175.9	3	305	8	0	0	0
2016	146.6	3	305	8	0	0	0
2017	186.2	3	312	9	0	0	0
2018	176.7	3	313	9	0	0	0
2019	186.5	3	313	10	0	0	0
2020	179.3	3	316	10	0	0	0
2021	184.3	3	322	9	0	0	0
2022	182.4	3	322	9	0	0	0
2023	191.3	3	300	9	0	0	0
2024	220.2	3	300	9	0	0	0
2025	199.3	3	285	8	0	0	0
2026	248.5	3	285	8	0	0	0
2027	194.9	3	254	8	0	0	0
2028	233.6	3	254	8	0	0	0
2029	190.4	2	201	8	0	0	0
2030	209.1	2	190	7	0	0	0
2031	199.7	2	182	7	0	0	0
2032	186.6	2	182	7	0	0	0
2033	212.1	2	182	7	0	0	0
2034	189	2	182	7	0	0	0
2035	173.6	2	178	6	0	0	0
2036	158.1	2	178	6	0	0	0
2037	162.3	2	178	6	0	0	0
2038	189.6	2	183	6	1	0	0
2039	253.6	2	183	7	1	0	0
2040	260.8	2	196	7	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2041	241.6	2	209	7	1	0	0
2042	200.5	2	209	8	1	0	0
2043	211.2	2	209	8	1	0	0
2044	159.4	3	237	9	1	0	0
2045	184	3	237	9	1	0	0
2046	222.2	3	237	9	1	0	0
2047	228	3	264	9	1	0	0
2048	220.3	3	292	9	1	0	0
2049	176.7	3	292	8	0	0	0
2050	96.7	3	292	8	0	0	0
2051	169.7	4	411	12	0	0	0
2052	204.3	4	411	12	0	0	0
2053	239.9	4	411	12	0	0	0
2054	254	6	528	15	1	0	0
2055	218.7	6	528	15	1	0	0
2056	182.9	6	528	15	1	0	0
2057	192.7	6	528	15	1	0	0
2058	193.6	6	568	17	2	0	0
2059	204.8	6	609	18	2	0	0
2060	216.2	7	628	19	2	0	0
2061	215.5	7	647	20	2	0	0
2062	170.7	7	647	20	2	0	0
2063	171.3	7	647	20	2	0	0
2064	148.2	7	638	18	2	0	0
2065	165.1	7	638	18	2	0	0
2066	175.4	7	638	18	2	0	0
2067	204.7	6	614	17	1	0	0
2068	183.1	6	590	15	1	0	0
2069	133.7	6	590	15	3	0	0
2070	155.8	5	494	14	3	0	0
2071	135.7	5	494	14	3	0	0
2072	98.9	5	448	14	1	0	0
2073	112	5	448	14	1	0	0
2074	179.3	5	438	14	2	0	0
2075	165	5	428	14	2	0	0
2076	189	5	429	14	2	0	0
2077	155.7	5	429	14	0	0	0
2078	142.1	5	442	14	1	0	0
2079	139.2	5	456	14	2	1	0
2080	131.2	5	480	14	2	1	0
2081	157.2	5	503	15	2	1	0
2082	148.9	5	503	15	2	0	0
2083	148.1	6	532	15	2	0	0
2084	131.5	6	562	16	2	0	0
2085	160	6	562	16	2	0	0
2086	168.3	6	596	16	2	0	0
2087	142.8	7	630	17	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2088	154.1	7	630	17	1	0	0
2089	158.7	7	679	18	3	1	0
2090	145.4	8	727	18	3	0	0
2091	135.4	8	750	23	3	0	0
2092	127.2	8	750	23	3	0	0
2093	97.6	9	840	24	4	2	0
2094	145.3	4	390	14	3	1	0
2095	145.3	4	390	14	3	1	0
2096	145.3	4	390	14	3	1	0
2097	145.3	4	390	14	3	1	0
2098	136.8	3	302	11	2	0	0
2099	89	3	292	11	1	0	0
2100	111.7	3	282	10	0	0	0
2101	92.5	3	263	9	2	0	0
2102	81.9	3	263	9	2	0	0
2103	93	3	253	10	2	0	0
2104	70.1	3	238	10	3	0	0
2105	115.3	3	237	8	1	0	0
2106	99.9	2	223	8	2	0	0
2107	112.5	2	223	8	2	0	0
2108	121.3	2	202	7	3	0	0
2109	140.6	2	202	7	3	0	0
2110	146.5	2	191	6	2	0	0
2111	137.1	2	191	6	2	0	0
2112	124.1	2	174	5	2	0	0
2113	91.3	2	174	5	2	0	0
2114	95.5	2	162	6	2	0	0
2115	74.6	2	151	7	0	0	0
2116	117	2	151	7	0	0	0
2117	185.4	2	151	7	0	0	0
2118	116.5	2	146	5	0	0	0
2119	71.3	1	126	4	0	0	0
2120	40.3	1	114	6	1	0	0
2121	49.2	1	106	6	0	0	0
2122	50	2	147	6	0	0	0
2123	55.2	2	147	6	0	0	0
2124	77.2	1	128	5	2	0	0
2125	222.2	1	128	5	2	0	0
2126	199.8	2	140	6	0	0	0
2127	199.8	2	140	6	0	0	0
2128	199.8	2	140	6	0	0	0
2129	139.7	2	140	6	0	0	0
2130	157.5	2	172	7	1	0	0
2131	160.7	2	172	7	1	0	0
2132	192.8	2	172	7	1	0	0
2133	186	2	184	7	2	0	0
2134	149	2	184	7	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2135	178.8	2	184	7	2	0	0
2136	208.4	2	183	5	1	0	0
2137	200	2	183	5	1	0	0
2138	225.7	2	183	5	1	0	0
2139	234.6	2	183	5	1	0	0
2140	209.6	2	199	7	3	0	0
2141	142.2	2	199	7	3	0	0
2142	179.9	2	199	7	3	0	0
2143	125.7	3	260	9	2	0	0
2144	151.5	3	260	9	2	0	0
2145	171.2	3	250	11	2	0	0
2146	192.8	3	250	11	2	0	0
2147	174	3	250	11	2	0	0
2148	180	3	240	10	2	0	0
2149	194.9	3	231	10	2	0	0
2150	207.2	3	231	10	2	0	0
2151	176.4	7	644	20	4	0	0
2152	179.2	11	1057	29	6	0	0
2153	92.9	11	1057	29	6	0	0
2154	86.4	11	1057	29	6	0	0
2155	129.5	11	1081	29	6	0	0
2156	129.5	12	1105	29	6	0	0
2157	129.5	12	1128	29	6	0	0
2158	129.5	12	1152	29	6	0	0
2159	129.5	12	1176	30	6	0	0
2160	59.5	12	1176	30	6	0	0
2161	185.6	13	1210	31	6	0	0
2162	97.8	13	1244	33	6	0	0
2163	137	13	1244	33	6	0	0
2164	170.4	13	1244	33	6	0	0
2165	139.2	13	1232	31	7	0	0
2166	177	13	1232	31	7	0	0
2167	178.8	13	1232	31	7	0	0
2168	144.2	12	1160	30	5	2	0
2169	103.9	13	1232	34	6	0	0
2170	102	13	1232	34	6	0	0
2171	114.9	10	921	26	5	0	0
2172	121.5	10	921	26	5	0	0
2173	80.8	9	883	24	5	2	0
2174	104.2	9	883	24	5	2	0
2175	152.6	13	1211	31	8	0	0
2176	167.9	13	1211	31	8	0	0
2177	137.9	13	1211	31	8	0	0
2178	163.3	13	1211	31	8	0	0
2179	168.3	16	1534	38	8	0	0
2180	148.2	16	1534	38	8	0	0
2181	132.6	16	1534	38	8	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2182	145.6	13	1206	34	7	0	0
2183	163.9	12	1104	28	6	1	0
2184	159.4	12	1104	28	6	1	0
2185	185.4	12	1104	28	6	1	0
2186	180.8	12	1104	28	6	1	0
2187	135.5	19	1838	42	9	2	0
2188	113.6	19	1838	42	9	2	0
2189	130.7	17	1606	40	10	2	0
2190	151.8	17	1606	40	10	2	0
2191	132.5	14	1273	31	8	1	0
2192	146.5	29	2775	56	12	1	0
2193	131.6	27	2549	53	10	2	0
2194	126.3	27	2549	53	10	2	0
2195	152.9	3	314	9	4	0	0
2196	86.1	4	386	15	3	0	0
2197	68.6	4	395	14	3	0	0
2198	62.2	4	358	15	4	1	0
2199	26.9	4	412	15	3	0	0
2200	69.2	4	412	15	3	0	0
2201	70.2	5	424	16	4	0	0
2202	57.8	4	405	16	2	0	0
2203	35.4	5	408	16	4	2	0
2204	53.9	4	412	15	3	0	0
2205	58.8	4	412	15	3	0	0
2206	77.1	5	424	16	4	0	0
2207	75.8	4	405	16	2	0	0
2208	48.7	4	408	16	4	0	0
2209	61.5	6	508	18	4	0	0
2210	44.5	7	663	20	5	0	0
2211	47.5	8	771	23	5	2	0
2212	54.8	10	918	26	6	2	0
2213	50.9	16	1496	36	8	1	0
2214	27.9	19	1755	43	9	2	0
2215	30	4	392	17	4	0	0
2216	56.8	4	398	15	4	1	0
2217	81.3	5	499	19	5	0	0
2218	61.9	5	423	15	3	0	0
2219	99.9	5	423	15	3	0	0
2220	99	6	555	18	5	0	0
2221	92.7	7	622	23	4	0	0
2222	38	6	567	21	6	0	0
2223	29.5	6	532	19	5	0	0
2224	62.6	6	532	19	5	0	0
2225	104.3	8	770	27	5	0	0
2226	100.5	9	854	30	6	1	0
2227	76.6	10	956	32	6	0	0
2228	86.6	10	971	32	7	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2229	32.7	14	1270	37	9	2	0
2230	38.6	14	1324	38	8	0	0
2231	34.4	17	1578	40	8	2	0
2232	52.5	15	1404	36	7	2	0
2233	27.5	19	1738	46	10	3	0
2234	61.9	17	1572	47	10	3	0
2235	50.3	14	1277	36	8	1	0
2236	43	11	988	29	7	1	0
2237	48.4	12	1072	34	7	0	0
2238	80.2	16	1446	40	9	2	0
2239	119.7	22	2002	65	15	2	0
2240	117.1	22	2002	65	15	2	0
2241	225.9	18	1674	55	13	1	0
2242	174.6	15	1345	44	12	1	0
2243	206.6	15	1345	44	12	1	0
2244	184.3	15	1345	44	12	1	0
2245	211.1	14	1276	43	11	3	0
2246	273.2	14	1276	43	11	3	0
2247	242.5	14	1276	43	11	3	0
2248	250.6	14	1276	43	11	3	0
2249	204.1	10	908	33	8	1	0
2250	250.5	10	908	33	8	1	0
2251	200.4	10	908	33	8	1	0
2252	278.2	10	908	33	8	1	0
2253	261	13	1237	43	9	0	0
2254	250.9	13	1237	43	9	0	0
2255	248.8	13	1237	43	9	0	0
2256	231.7	13	1237	43	9	0	0
2257	234.6	15	1359	39	10	1	2
2258	242	15	1359	39	10	1	2
2259	263.5	15	1359	39	10	1	2
2260	216	15	1359	39	10	1	2
2261	205.8	15	1414	44	10	0	0
2262	173.4	15	1414	44	10	0	0
2263	209.7	15	1414	44	10	0	0
2264	235.1	15	1414	44	10	0	0
2265	170.9	19	1720	44	11	2	0
2266	211.3	19	1720	44	11	2	0
2267	254.7	22	2015	48	11	2	0
2268	230.1	25	2309	53	12	2	0
2269	137.4	25	2309	53	12	2	0
2270	179.7	35	3362	72	14	0	0
2271	225.7	35	3362	72	14	0	0
2272	225.5	35	3362	72	14	0	0
2273	279.9	36	3362	72	14	0	0
2274	241	40	3792	76	16	3	2
2275	237.3	40	3792	76	16	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2276	210.4	40	3792	76	16	3	2
2277	189.7	40	3792	76	16	3	2
2278	131.6	33	3094	68	14	3	0
2279	118.2	33	3094	68	14	3	0
2280	79.8	31	2933	64	14	2	1
2281	111.3	33	3093	69	15	3	0
2282	133.5	33	3093	69	15	3	0
2283	224.8	33	3093	69	15	3	0
2284	224.6	46	4361	92	19	3	0
2285	121.2	52	4940	101	23	4	0
2286	130	13	1237	43	9	0	0
2287	35.4	13	1237	43	9	0	0
2288	65.8	13	1237	43	9	0	0
2289	82.5	15	1359	39	10	1	2
2290	75	15	1359	39	10	1	2
2291	93.2	15	1359	39	10	1	2
2292	122.9	15	1359	39	10	1	2
2293	112.1	15	1414	44	10	0	0
2294	90.9	15	1414	44	10	0	0
2295	75.6	15	1414	44	10	0	0
2296	95.5	15	1414	44	10	0	0
2297	77.6	18	1720	44	11	2	0
2298	52.7	13	1237	43	9	0	0
2299	82.9	13	1237	43	9	0	0
TEREBRATULA Mbr.							
2300	81.4	13	1237	43	9	0	0
2301	73.1	15	1359	39	10	1	2
2302	38.2	116	11072	188	34	5	0
2303	59	116	11072	188	34	5	0
2304	58.5	128	12216	212	34	6	0
2305	74.9	128	12216	212	34	6	0
2306	87.7	126	12103	205	33	4	0
2307	86.5	153	14657	258	40	6	0
2308	107.6	153	14657	258	40	6	0
2309	84.3	211	20144	386	58	8	0
2310	87.9	211	20144	386	58	8	0
2311	116.5	194	18527	348	54	8	0
2312	130.1	194	18527	348	54	8	0
2313	114.6	172	16458	304	48	8	0
2314	113.2	172	16458	304	48	8	0
2315	124	152	14510	262	44	6	0
2316	135.7	183	17276	387	77	16	0
2317	131	142	13397	287	59	12	2
2318	183.8	142	13397	287	59	12	2
2319	141.1	142	13397	287	59	12	2
2320	113.7	102	9724	178	39	10	0
2321	122.7	102	9724	178	39	10	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2322	155.7	122	11655	205	42	9	0
2323	227.5	122	11655	205	42	9	0
2324	253.4	122	11655	205	42	9	0
2325	217.8	151	14402	255	49	9	0
2326	154.8	151	14402	255	49	9	0
2327	115.2	132	12626	217	43	9	0
2328	120.9	42	3978	71	17	5	0
2329	148	42	3978	71	17	5	0
2330	194.1	42	3978	71	17	5	0
2331	137.7	77	7366	124	27	6	1
2332	130.3	77	7366	124	27	6	1
2333	227.3	102	9763	167	35	6	0
2334	216.2	77	7366	124	27	6	1
2335	219.1	77	7366	124	27	6	1
2336	229.9	102	9763	167	35	6	0
2337	154.4	102	9763	167	35	6	0
2338	150.2	102	9763	167	35	6	0
2339	206.3	98	9360	161	34	6	0
2340	254.7	94	8956	155	33	6	0
2341	263.6	94	8956	155	33	6	0
2342	208	94	8956	155	33	6	0
2343	236.9	99	9482	166	34	7	0
2344	218.8	105	10007	176	36	7	0
2345	257.6	105	10007	176	36	7	0
2346	129.7	105	10007	176	36	7	0
2347	135.3	89	8490	148	30	6	0
2348	156.1	89	8490	148	30	6	0
2349	170.2	272	25373	663	128	29	3
2350	55	49	4581	93	24	6	0
2351	74.3	65	6159	115	27	8	0
2352	75.1	107	10214	169	36	7	0
2353	35.1	114	10894	187	37	8	0
2354	82.4	107	10209	176	34	9	0
2355	71.4	107	10209	176	34	9	0
2356	138.1	112	10666	189	36	9	0
2357	138.3	112	10666	189	36	9	0
2358	138.6	112	10666	189	36	9	0
2359	164	97	9253	150	33	8	0
2360	194.7	97	9253	150	33	8	0
2361	191.8	97	9253	150	33	8	0
2362	114.9	87	8300	140	27	6	0
2363	84	111	10553	188	34	7	0
2364	135.1	111	10553	188	34	7	0
2365	144.3	111	10553	188	34	7	0
2366	200.6	112	10630	198	39	8	0
2367	99.3	112	10630	198	39	8	0
2368	200.9	112	10630	198	39	8	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2369	267	103	9731	189	39	9	0
2370	282.3	103	9731	189	39	9	0
2371	249.4	103	9731	189	39	9	0
2372	243.9	103	9731	189	39	9	0
2373	195.8	20	1791	41	12	3	0
2374	247.5	19	1791	41	12	3	0
2375	238.7	20	1791	41	12	3	0
2376	240.3	71	6687	122	29	7	0
2377	267.5	71	6687	122	29	7	0
2378	183.6	30	2838	61	15	4	0
2379	95.7	30	2838	61	15	4	0
2380	97.1	34	3209	64	17	5	0
2381	90.3	34	3209	64	17	5	0
2382	90.3	34	3209	64	17	5	0
2383	111.5	40	3795	75	18	5	0
2384	139.3	40	3795	75	18	5	0
2385	135.1	39	3693	69	17	4	2
2386	115.8	39	3693	69	17	4	2
2387	99.4	45	4258	79	19	6	0
2388	74.9	49	4590	86	20	6	0
2389	86.1	49	4590	86	20	6	0
2390	132.6	56	5304	87	23	7	0
2391	141.3	56	5304	87	23	7	0
2392	110.1	56	5304	87	23	7	0
2393	94.1	40	3775	71	18	6	0
2394	91.5	50	4705	86	22	5	0
2395	157.3	50	4705	86	22	5	0
2396	160.6	50	4705	86	22	5	0
2397	90.6	69	6489	125	27	7	0
2398	152.8	69	6489	125	27	7	0
2399	161.6	69	6489	125	27	7	0
2400	164	84	7942	136	31	8	0
2401	145.1	84	7942	136	31	8	0
2402	166.6	73	6914	134	31	9	0
2403	180.7	73	6914	134	31	9	0
2404	197.7	74	6914	134	31	9	0
2405	162.2	74	6914	134	31	9	0
2406	174.7	98	9036	204	67	21	2
2407	161.1	100	9036	204	67	21	2
2408	139.7	102	9036	204	67	21	2
2409	133.7	166	14590	424	178	62	5
2410	150.8	180	15648	488	214	76	7
2411	170.3	195	16706	551	250	90	8
2412	158.9	195	16706	551	250	90	8
2413	154.2	196	16706	551	250	90	8
2414	166.1	227	19530	630	290	102	10
2415	162.6	227	19530	630	290	102	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2416	176.4	217	18761	588	256	90	8
2417	190	216	18761	588	256	90	8
2418	186.5	216	18761	588	256	90	8
2419	208.3	202	17602	541	229	83	8
2420	120	188	16442	494	203	76	8
2421	166.4	188	16442	494	203	76	8
2422	144.8	207	18205	555	208	78	9
2423	111.8	289	25304	810	308	113	10
2424	90.8	289	25304	810	308	113	10
2425	85.4	319	27729	950	363	134	13
2426	93.4	319	27729	950	363	134	13
2427	122.1	337	28954	1088	405	144	14
2428	105.1	337	28954	1088	405	144	14
2429	117.4	320	27581	975	383	118	10
2430	141.3	320	27581	975	383	118	10
2431	125.4	304	26231	913	369	113	10
2432	124.4	304	26231	913	369	113	10
2433	87.2	293	25709	822	302	90	7
2434	80.5	293	25709	822	302	90	7
2435	96.8	284	25186	766	262	77	6
2436	120.6	284	25186	766	262	77	6
2437	152.8	239	21452	585	199	57	5
2438	68	239	21452	585	199	57	5
2439	137.1	197	17814	451	155	46	4
2440	119.7	178	16197	404	132	40	3
2441	107.8	169	15320	380	123	37	2
2442	86	169	15320	380	123	37	2
2443	89.9	169	15320	380	123	37	2
2444	98.2	169	15320	380	123	37	2
2445	86.5	155	14154	352	112	36	2
2446	115.1	155	14154	352	112	36	2
2447	135.8	143	13029	297	102	34	4
2448	144.9	134	12283	278	96	32	3
2449	143.4	126	11537	259	90	30	2
2450	132.2	126	11537	259	90	30	2
2451	110.1	101	9268	204	71	25	3
2452	146.6	101	9268	204	71	25	3
2453	161.9	103	9162	203	69	25	2
2454	154.3	104	9057	202	66	24	2
2455	99	65	5790	144	58	24	2
2456	95.9	65	5760	146	57	25	4
2457	97.9	61	5466	125	52	23	3
2458	96.4	61	5466	125	52	23	3
2459	102.4	61	5466	125	52	23	3
2460	97.4	61	5411	128	52	23	4
2461	81.2	49	4350	106	42	21	4
2462	94.5	46	4005	99	42	20	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2463	102.6	46	4005	99	42	20	4
2464	122.5	46	4005	99	42	20	4
2465	83.5	46	4005	99	42	20	4
2466	160.7	59	5229	118	47	22	4
2467	172.5	59	5229	118	47	22	4
2468	134.8	59	5229	118	47	22	4
2469	177.7	60	5364	123	48	22	2
2470	87.7	43	3812	94	38	16	2
2471	52.3	40	3541	87	34	14	1
2472	87.8	40	3541	87	34	14	1
2473	19	33	3000	75	29	11	2
2474	102.2	31	2723	66	25	9	2
2475	60.8	58	5213	123	47	20	2
2476	20	69	6169.7	150.5	57.7	22	3
2477	18.4	19	1634.5	45.4	20.2	9.6	1.6
2478	53.9	19	1634.5	45.4	20.2	9.6	1.6
2479	58.7	21	1813.4	51.1	22.3	9.5	0
2480	62.3	21	1813.4	52.9	22.3	9.5	0
2481	54.8	24	2086.9	61.5	21.9	11.7	0
2482	36.8	25	2183.7	61.5	23.2	12	2.4
2483	41.5	31	2687.3	67.7	27.9	12.2	2.4
2484	46.1	31	2687.3	67.7	27.9	12.2	1.8
2485	56.2	30	2628	67.6	28.2	13	2.5
2486	95.1	29	2568.7	67.5	28.4	13.7	3.1
2487	50.4	33	2935.3	73.6	29.5	13.7	3.1
2488	74.7	33	2935.3	73.6	29.5	11.9	2
2489	82.4	33	2935.3	73.6	29.5	12	2.2
2490	68.9	30	2652.6	69.1	28.2	12	2.2
2491	78.7	27	2375.1	63	25.1	10.2	2.6
2492	57.1	30	2647.5	66.7	25.3	10.1	2.6
2493	64.2	47	4264.8	101.8	35.5	13	2.9
2494	93.2	65	5882	136.9	45.6	15.8	3.2
2495	56.9	39	3478.5	89.9	29.7	11.9	1.5
2496	71	33	2965.4	78.6	26.2	9.8	0.8
2497	195	27	2452.3	67.2	22.7	7.7	0
2498	177.1	27	2452.3	67.2	22.7	7.7	0
2499	236.8	27	2452.3	67.2	22.7	7.7	0
2500	167.4	23	2060	55	21	8	0
2501	142.8	21	1912	52	20	8	0
2502	111.3	20	1764	49	19	8	0
2503	176.7	18	1617	46	18	8	0
2504	236	18	1617	46	18	8	0
2505	236	18	1569	46	18	8	0
2506	199.6	17	1522	46	18	9	0
2507	80	18	1578	46	18	9	0
2508	128.7	18	1578	46	17	7	0
2509	194.8	22	1948	52	19	8	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2510	207.3	26	2317	58	21	9	2
2511	181.2	26	2317	58	21	9	2
2512	162.6	26	2317	58	21	9	2
2513	141.9	21	1828	49	18	7	1
2514	141.9	15	1338	40	15	6	0
2515	166.4	15	1338	40	15	6	0
2516	147.7	14	1213	37	14	5	0
2517	239.6	12	1088	35	12	5	0
2518	172.2	12	1088	35	12	5	0
2519	152.9	12	1029	34	13	5	0
2520	170	12	1076	34	13	5	0
2521	173.3	13	1124	34	13	5	0
2522	128.2	13	1124	34	12	4	0
2523	133.4	13	1124	34	12	4	0
2524	152.1	13	1146	35	12	4	0
2525	133.8	13	1146	35	12	4	0
2526	130.8	13	1146	35	12	4	0
2527	83.4	12	1103	34	12	4	0
2528	169.5	12	1061	34	11	4	0
2529	186.8	13	1124	35	12	4	1
2530	129.9	13	1188	36	13	4	2
2531	130.5	11	998	31	12	3	1
2532	80.4	11	998	31	12	3	1
2533	113.1	14	1196	34	13	5	0
2534	106.1	16	1385	40	15	6	0
2535	58.5	16	1385	40	15	6	0
2536	70.5	16	1385	41	15	6	0
2537	64.9	16	1377	41	16	6	0
2538	59.3	16	1377	41	16	6	0
2539	120.9	16	1430	46	16	6	2
2540	105.2	18	1585	48	18	7	2
2541	107.5	18	1585	48	18	7	0
2542	119.8	16	1406	42	19	8	1
2543	133.7	16	1406	42	19	8	1
2544	138.7	12	1040	35	16	7	0
2545	49.9	9	802	27	12	4	0
2546	70	30	2719	71	27	8	0
2547	65.9	30	2719	71	27	8	0
2548	108.2	72	6621	155	48	16	2
2549	83.5	56	5085	120	37	12	2
2550	182.3	39	3550	84	26	9	2
2551	139.4	30	2727	68	24	8	2
2552	129.1	30	2727	68	24	8	2
2553	173.5	30	2727	68	24	8	2
2554	169.5	11	988	32	12	5	0
2555	146.6	11	988	32	12	5	0
2556	141.6	11	988	32	12	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2557	135.2	8	662	23	9	2	0
2558	133.1	4	336	15	6	0	0
2559	141.9	7	572	22	8	5	2
2560	137.6	7	572	22	8	5	2
2561	176	7	572	22	8	5	2
2562	175.4	26	2323	58	19	8	2
2563	121.7	26	2323	58	19	8	2
2564	119	46	4209	94	30	12	2
2565	89.4	64	5954	130	37	12	2
2566	63.2	26	2336	64	23	6	0
2567	96.2	32	2879	73	26	6	0
2568	104.4	32	2879	73	26	6	0
2569	121.2	32	2879	73	26	7	0
2570	96.2	25	2287	59	21	7	0
2571	108.3	14	1209	37	14	4	0
2572	153.4	32	2926	74	24	9	2
2573	93.1	16	1423	42	16	6	2
2574	154.6	19	1700	48	16	8	2
2575	120.1	19	1700	48	16	8	0
2576	149.4	84	7667	159	62	24	4
2577	148.5	45	4151	81	30	10	2
2578	190.2	40	3595	77	31	10	2
2579	30.5	47	4185	109	47	15	2
2580	54.9	49	4185	116	58	20	2
2581	62	57	4856	147	76	26	2
2582	84.9	57	4856	147	76	26	2
2583	75.3	68	5846	166	89	31	4
2584	92.5	85	7249	212	113	39	4
2585	90.9	86	7354	219	114	41	4
2586	41.6	100	8602	256	123	45	5
2587	61.4	103	8942	256	123	45	5
2588	44.3	102	8942	236	116	44	4
2589	75.6	103	9018	236	106	40	5
2590	109.1	104	9130	239	106	40	5
2591	101.8	178	15464	481	205	62	5
2592	48.2	178	15464	481	205	62	5
2593	116	186	16018	517	229	70	5
2594	138.1	186	16018	517	229	70	5
2595	158.4	186	16018	517	229	70	5
2596	152.1	157	13552	422	188	58	5
2597	117.2	157	13552	422	188	58	5
2598	40.2	132	11445	336	150	49	4
2599	96.4	127	11074	316	140	45	4
2600	79.7	127	11074	316	140	45	4
2601	90.5	108	9402	268	125	41	3
2602	83.6	134	11511	360	170	57	5
2603	92.7	134	11511	360	170	57	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2604	114.1	134	11460	341	175	61	7
2605	125.7	134	11460	341	175	61	7
2606	97.8	141	11917	370	190	68	7
2607	108.4	141	11917	370	190	68	7
2608	137.3	147	12463	389	194	69	7
2609	62.2	147	12463	389	194	69	7
2610	119.2	135	11628	355	166	61	6
2611	111.4	143	12320	355	174	65	6
2612	80.5	143	12320	350	174	65	6
2613	111	145	12577	355	170	64	7
2614	138.7	145	12577	355	170	64	7
2615	157.1	141	12210	345	163	64	7
2616	216.4	137	11844	334	155	63	7
2617	176.2	150	12963	385	178	72	8
2618	165.5	164	14082	436	201	81	8
2619	171.4	164	14082	436	201	81	8
2620	178.5	164	14082	436	201	81	8
2621	225.9	269	21469	982	539	182	14
2622	130.2	269	21469	982	539	182	14
2623	90.3	532	37608	2668	1641	553	31
2624	87.3	681	45776	3567	2304	810	45
2625	67.6	681	45776	3567	2304	810	45
2626	89.6	712	47087	3752	2431	903	52
2627	147.1	712	47087	3752	2431	903	52
2628	134.8	712	47087	3752	2431	903	52
2629	113.3	522	35780	2579	1645	585	36
2630	115.8	522	35780	2579	1645	585	36
2631	110.5	455	32614	2024	1308	453	28
2632	91.6	455	32614	2024	1308	453	28
2633	58.3	291	22118	1124	690	238	16
2634	92.6	178	14121	597	344	118	9
2635	74	145	11518	475	280	112	11
2636	85.8	145	11518	475	280	112	11
2637	106.9	105	8363	314	184	82	9
2638	128.3	105	8363	314	184	82	9
2639	99.8	90	7406	238	137	62	7
2640	82.8	93	7837	244	127	58	7
2641	62.1	93	7837	244	127	58	7
2642	67.9	73	6178	182	91	42	5
2643	75	72	6178	164	88	40	4
2644	91	73	6254	165	86	42	6
2645	134.4	80	6846	184	93	42	7
2646	128.7	87	7439	204	101	42	8
2647	117.4	87	7439	204	101	42	8
2648	92.6	72	6194	168	84	35	6
2649	153.1	58	4948	132	66	27	3
2650	132	74	6400	165	82	34	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2651	113.6	74	6400	165	82	34	4
2652	65.7	94	8147	211	100	41	4
2653	86.3	94	8147	211	100	41	5
2654	58.3	84	7274	183	88	41	5
2655	84.8	84	7274	183	88	41	4
2656	120.1	84	7274	183	88	41	4
2657	84.7	83	7187	180	86	38	4
2658	92.7	84	7266	181	86	38	6
2659	90.9	86	7481	192	88	41	6
2660	60.7	87	7481	192	88	41	6
2661	52.4	89	7475	195	107	58	11
2662	61.8	89	7475	195	107	58	11
2663	48.7	150	12512	374	202	98	15
2664	49.4	61	5249	138	65	29	4
2665	117.4	65	5585	149	68	34	7
2666	113.6	65	5585	149	68	34	7
2667	116.2	66	5585	149	68	34	7
2668	138.3	61	5209	133	67	33	5
2669	107.3	61	5209	133	67	33	5
2670	73	53	4442	118	61	33	5
2671	75.8	60	5044	138	73	39	6
2672	160.2	67	5647	158	85	44	6
2673	138.6	67	5647	158	85	44	6
2674	133.4	67	5647	158	85	44	6
2675	95.7	98	8082	252	142	72	9
2676	176.8	98	8082	252	142	72	9
2677	161.8	106	8658	285	163	79	10
2678	163.4	114	9233	319	184	85	12
2679	142.1	114	9233	319	184	85	12
2680	129.8	164	13096	482	302	120	12
2681	121.1	164	13096	482	302	120	12
2682	119.8	218	16852	735	481	186	19
2683	53.3	233	17779	816	542	209	19
2684	123.2	249	18705	896	604	232	20
2685	151.7	249	18705	896	604	232	20
2686	149.8	230	17265	834	549	213	19
2687	123.3	211	15825	772	494	193	18
2688	122.8	195	14920	650	431	168	15
2689	115.1	195	14920	650	431	168	15
2690	100	271	20668	989	636	232	20
2691	82.9	234	17721	841	551	212	19
2692	63.7	241	18184	893	574	227	22
2693	77.8	248	18646	944	596	242	24
2694	65.4	248	18646	944	596	242	24
2695	71.9	247	18608	895	595	245	23
2696	72.1	247	18608	895	595	245	23
2697	60	224	17001	797	522	223	22

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2698	64.5	202	15395	698	448	200	21
2699	89.8	179	13776	596	370	169	20
2700	88.2	198	15306	682	403	188	20
2701	90	198	15306	682	403	188	20
2702	132.8	235	18356	806	490	205	20
2703	84.3	277	21609	1002	601	213	20
2704	86.2	133	10752	384	233	93	11
2705	29	120	9646	342	201	91	15
2706	42.6	76	5970	188	122	75	15
2707	42.6	61	4709	157	105	50	6
2708	44.4	61	4709	157	105	53	8
2709	77.8	61	4680	155	104	53	8
2710	65.6	59	4632	149	96	50	7
2711	45.6	72	5653	181	113	57	8
2712	49.4	72	5653	181	113	57	8
2713	48	69	5427	161	104	56	8
2714	43	78	6196	204	124	64	10
2715	48.9	78	6196	204	124	64	10
2716	47.5	98	7823	253	159	85	11
2717	34.9	100	7909	264	164	90	14
2718	57	100	7909	264	164	90	14
2719	45.7	96	7555	267	159	83	13
2720	37.3	123	9765	342	209	91	10
2721	67.2	142	11134	416	255	108	11
2722	75.8	160	12502	490	302	125	13
2723	75.8	175	13532	558	344	141	14
2724	53.8	175	13532	558	344	141	14
2725	50.7	190	15214	537	322	136	13
2726	31.7	144	11783	414	220	98	11
2727	152.9	92	7463	228	136	65	9
2728	128.9	92	7463	228	136	65	9
2729	132.8	72	5880	181	106	57	9
2730	109.5	72	5880	181	106	57	9
2731	114	70	5700	174	96	52	8
2732	99.9	70	5700	174	96	52	8
2733	125.9	72	5897	181	96	54	10
2734	129.9	73	6018	181	96	54	10
2735	60.5	73	6018	170	96	52	10
2736	110.9	46	3742	116	62	31	4
2737	122.4	46	3742	116	62	31	4
2738	199.8	50	4122	123	67	34	4
2739	279.9	55	4502	130	72	36	5
2740	244.9	59	4882	137	77	39	5
2741	263.3	59	4882	137	77	39	5
2742	184.7	69	5742	159	86	42	6
2743	191	78	6601	180	96	46	6
2744	192.8	78	6601	180	96	46	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2745	191.4	78	6601	180	96	46	6
2746	202.7	79	6601	180	96	46	6
2747	190.8	78	6547	175	93	45	6
2748	195.2	77	6494	170	90	43	6
2749	161.4	51	4276	111	59	30	5
2750	143	51	4276	111	59	30	5
2751	103.8	81	7015	175	85	40	5
2752	139.7	81	7015	175	85	40	5
2753	168.3	81	7015	175	85	40	5
2754	153.8	105	9056	236	110	52	8
2755	173.8	73	6228	166	80	39	7
2756	149.1	63	5500	95	75	25	6
2757	88	37	3201	85	40	23	5
2758	140.8	35	3101	75	40	22	4
2759	150.1	32	2800	74	40	21	4
2760	157.7	31	2710	74	41	21	4
2761	149.5	31	2674	70	41	22	4
2762	155.2	30	2600	71	39	19	5
2763	175.8	30	2589	71	38	19	5
2764	178	30	2564	72	38	21	5
2765	175.4	30	2574	72	39	21	5
2766	193.3	30	2555	69	41	20	4
2767	201.8	30	2564	69	41	20	4
2768	107.9	30	2560	68	40	18	4
2769	122.1	29	2540	68	40	18	4
2770	135.8	33	2500	101	42	21	6
2771	107.2	47	3774	144	69	21	6
2772	153.8	50	3774	144	72	50	6
2773	65.9	67	5070	186	145	60	7
2774	77.2	72	5476	202	165	67	7
2775	83.6	82	6157	232	187	75	9
2776	114.5	87	6662	252	187	82	8
2777	100	87	6662	252	187	82	8
2778	101.1	86	6596	249	185	80	8
2779	77.8	86	6550	250	187	84	8
2780	80.3	95	7234	274	206	87	9
2781	74.2	95	7234	274	206	87	9
2782	104.3	125	9203	379	278	114	10
2783	30.7	163	11700	552	406	167	14
2784	60.9	197	14161	724	553	238	23
2785	20.4	152	11120	526	401	172	16
2786	79.6	152	11120	526	401	172	16
2787	72.2	85	6072	263	183	88	9
2788	68	81	6072	263	183	88	9
2789	51.4	94	7454	281	186	87	10
2790	40.9	86	6864	261	165	74	9
2791	43	83	6659	228	150	61	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2792	69.1	83	6659	228	150	61	5
2793	83.2	73	5911	197	130	52	5
2794	98.3	74	5942	199	131	54	5
2795	130.1	74	5974	200	133	56	6
2796	117.8	74	5974	200	133	56	6
2797	117.8	66	5308	179	121	52	4
2798	122.2	67	5308	179	121	52	4
2799	138.8	70	5545	190	131	56	6
2800	137.5	70	5545	190	131	56	6
2801	117.6	68	5292	186	129	57	6
2802	116.4	49	3696	133	93	45	6
2803	111.6	48	3696	133	93	45	6
2804	111.6	28	2006	85	59	31	4
2805	111.6	28	2006	85	59	31	4
2806	42.6	21	1461	63	47	27	5
2807	50.8	20	1374	59	45	26	5
2808	50.8	19	1287	55	43	26	5
2809	30.1	22	1595	68	47	30	4
2810	57.2	23	1652	63	45	31	6
2811	53	21	1528	59	43	30	5
2812	66.1	22	1556	63	43	29	5
2813	41.6	26	1882	76	51	34	6
2814	75.9	25	1847	73	50	35	6
2815	66.3	22	1561	61	44	32	6
2816	85.9	22	1561	61	44	32	6
2817	91.1	17	1179	50	33	20	3
2818	85.3	22	1589	61	42	25	4
2819	69.4	22	1589	61	42	25	4
2820	98.9	22	1589	61	42	25	4
2821	87.1	25	1881	71	48	26	4
2822	122	26	1928	72	48	26	4
2823	103.1	28	2104	77	52	28	4
2824	89.4	29	2104	77	52	28	4
2825	149.5	32	2424	89	60	32	4
2826	119	34	2424	89	60	32	4
2827	92.6	54	4098	153	104	48	6
2828	103.1	55	4098	153	104	48	6
2829	103.9	78	5920	237	160	75	11
2830	72.1	85	6430	247	176	84	11
2831	81.4	79	6001	228	161	77	10
2832	126.7	73	5572	210	145	71	10
2833	128.8	65	4990	187	123	62	8
2834	139.2	65	4990	187	123	62	8
2835	141.4	65	4990	187	123	62	8
2836	121.6	60	4669	171	106	56	9
2837	101.7	60	4669	171	106	56	9
2838	125.4	56	4623	136	73	33	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2839	139.6	56	4623	136	73	33	4
2840	214.8	56	4623	136	73	33	4
2841	226.2	61	5134	149	78	36	5
2842	199	61	5134	149	78	36	5
2843	194.1	61	5134	149	78	36	5
2844	164.4	48	3974	121	64	30	4
2845	161.1	48	3974	121	64	30	4
2846	169.9	48	3974	121	64	30	4
2847	186.5	33	2720	79	45	23	4
2848	189.8	33	2720	79	45	23	4
2849	119.4	33	2720	79	45	23	4
2850	113.9	23	1860	60	34	17	3
2851	113.5	25	1860	60	51	24	5
2852	122.4	46	3916	100	49	22	5
2853	163.9	46	3916	100	49	22	5
2854	65.1	43	3900	95	45	19	4
CHACRA FM.							
2855	75.4	43	3851	90	41	15	4
2856	99.2	39	3501	85	35	13	2
2857	88.1	28	2506	75	29	9	2
2858	38.8	20	1740	48	22	11	3
2859	93.3	9	752	26	11	6	0
2860	103.7	7	575	22	10	5	0
2861	89	7	540	20	9	5	0
2862	94	7	540	20	9	5	0
2863	79.2	6	484	18	6	4	0
2864	62.4	6	527	18	7	4	0
2865	58.5	7	557	19	7	4	0
2866	57.1	7	574	19	7	3	0
2867	60.8	7	574	17	7	3	0
2868	54	8	668	19	8	4	0
2869	56.3	9	772	20	9	4	0
2870	73.4	10	875	22	9	4	0
2871	70.1	11	940	24	10	4	0
2872	78.9	11	940	24	10	5	0
2873	68.7	11	938	26	10	5	0
2874	65.8	11	981	27	10	4	0
2875	60.3	11	981	27	10	4	2
2876	66.8	11	965	27	10	4	2
2877	89.5	11	994	26	10	4	0
2878	68.3	13	1146	31	11	6	0
2879	48.8	13	1146	31	11	6	0
2880	43.7	13	1130	30	12	5	0
2881	48.1	12	1064	30	11	5	0
2882	61.7	19	1718	38	14	5	0
2883	72.3	20	1832	43	15	7	0
2884	64.1	22	1946	48	17	8	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2885	86.8	25	2202	57	21	8	0
2886	65.6	25	2201	57	21	7	0
2887	59.9	24	2139	55	21	7	0
2888	64.4	24	2138	55	21	8	0
2889	64	23	2039	54	21	8	0
2890	74.9	23	2039	54	21	9	2
2891	78.9	23	2059	54	22	9	2
2892	71.3	23	2059	54	22	9	2
2893	102.1	24	2149	54	22	9	2
2894	89.5	24	2149	51	21	8	3
2895	93.9	25	2214	53	21	9	3
2896	114.8	25	2214	53	20	10	2
2897	79.2	28	2470	61	22	10	2
2898	57.9	29	2625	61	22	11	2
2899	54.5	31	2780	61	22	12	2
2900	77.2	31	2814	65	22	12	3
2901	83.2	31	2814	65	22	10	3
2902	55.4	24	2179	51	18	6	0
2903	67.2	21	1887	48	16	7	0
2904	68.4	19	1757	45	15	6	0
2905	65.3	18	1627	41	15	5	0
2906	90.5	18	1627	41	15	5	0
2907	145.2	18	1627	41	15	5	0
2908	141.6	17	1520	38	14	5	0
2909	116	16	1413	35	14	5	0
2910	127.7	15	1367	38	13	5	0
2911	62.9	16	1369	38	13	5	2
2912	47.8	21	1815	48	18	7	2
2913	17.1	25	2261	57	22	9	2
2914	64.3	25	2261	57	22	9	2
2915	75.6	56	5063	119	47	19	2
2916	105.9	81	7234	181	71	31	3
2917	52.7	81	7234	181	71	31	3
2918	58.5	87	7750	201	80	33	5
2919	53.2	77	6870	163	71	28	4
2920	73.2	63	5674	137	56	23	4
2921	90.7	63	5674	137	56	23	4
2922	29.6	43	3882	93	36	13	3
2923	86.8	43	3882	93	36	13	3
2924	82	39	3490	83	31	10	3
2925	73.4	39	3472	83	31	10	3
2926	72.8	39	3472	83	31	10	2
2927	79.7	35	3146	76	27	9	2
2928	82	33	3009	73	27	9	2
2929	68.4	31	2809	69	26	8	2
2930	72.2	31	2738	69	27	8	2
2931	60.3	31	2738	69	27	8	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2932	67.1	27	2423	64	24	10	3
2933	75.8	26	2337	65	23	10	2
2934	81.6	26	2337	65	23	10	2
2935	96.3	29	2619	65	25	10	0
2936	87.7	25	2244	60	22	8	0
2937	77.9	26	2358	63	23	9	0
2938	65.7	18	1567	47	17	7	0
2939	63.3	18	1567	47	17	7	0
2940	40	12	1017	32	12	5	0
2941	40	12	1017	32	12	5	0
2942	28.3	24	2139	57	21	7	0
2943	25.6	20	1794	50	19	6	0
2944	75.9	16	1448	42	16	4	0
2945	72.6	28	2519	66	20	8	0
2946	50.9	22	1948	55	19	5	0
2947	36	4	295	11	6	2	0
2948	0	1	115	6	2	0	0
2949	46.2	3	209	11	5	0	0
2950	86.2	3	232	10	5	2	0
2951	93.6	3	232	10	5	2	0
2952	68	3	228	8	2	0	0
2953	80.9	3	228	8	2	0	0
2954	47.4	3	252	8	4	2	0
2955	122.1	3	252	8	4	2	0
2956	143.6	3	252	8	4	2	0
2957	123.1	4	327	10	3	2	0
2958	125.3	4	327	10	3	2	0
2959	138.2	4	327	10	3	2	0
2960	163.8	3	283	12	4	1	0
2961	122.1	3	283	12	4	1	0
2962	163.2	4	342	11	4	0	0
2963	137.6	4	342	11	4	0	0
2964	113.3	5	439	17	5	2	0
2965	129.4	5	439	17	5	2	0
2966	87.5	5	442	17	6	0	0
2967	100.7	5	442	17	6	0	0
2968	120.9	6	554	17	5	2	0
2969	88.6	6	554	17	5	2	0
2970	103.2	7	673	19	6	1	0
2971	108.9	7	673	19	6	1	0
2972	96.9	7	592	19	6	2	0
2973	102.8	7	592	19	6	2	0
2974	94.9	7	618	22	6	0	0
2975	81.8	6	579	17	5	1	0
2976	86.5	6	579	17	5	1	0
2977	84.3	7	599	20	5	0	0
2978	83.3	6	491	17	5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2979	83.2	6	491	17	5	0	0
2980	85.1	7	604	19	7	0	0
2981	100.2	5	456	14	4	0	0
2982	110.8	5	456	14	4	0	0
2983	152.8	5	456	14	4	0	0
2984	118.1	5	405	12	5	0	0
2985	90.9	5	405	12	5	0	0
2986	154.6	6	571	16	4	2	2
2987	127.8	6	571	16	4	2	2
2988	130.5	5	418	13	5	2	0
2989	158.9	5	418	13	5	2	0
2990	134	5	418	13	5	2	0
2991	201.3	3	310	10	2	0	0
2992	200.7	3	310	10	2	0	0
2993	151.5	3	310	10	2	0	0
2994	124.1	4	370	13	4	0	0
2995	74.9	5	460	14	5	0	0
2996	81	5	460	14	5	0	0
2997	80.1	6	525	16	5	0	0
2998	83.1	6	540	15	6	0	0
2999	134.1	6	540	15	6	0	0
3000	138.1	7	630	19	8	2	0
3001	104.5	7	630	19	8	2	0
3002	53.2	6	507	17	7	3	0
3003	64.2	5	478	15	5	2	0
3004	110.7	6	478	15	5	2	0
3005	148.6	5	446	15	8	2	0
3006	105.3	5	446	15	8	2	0
3007	72.7	5	423	16	4	0	0
3008	79.7	3	278	8	3	0	0
3009	125.7	3	278	8	3	0	0
3010	112.8	2	211	8	2	0	0
3011	150.3	2	212	8	2	0	0
3012	67.6	2	214	9	2	0	0
3013	83.6	2	214	9	2	0	0
3014	90.5	2	182	8	2	0	0
3015	111.7	4	368	11	3	1	0
3016	106.9	4	368	11	3	1	0
3017	111.2	6	547	17	6	3	0
3018	122.6	6	547	17	6	3	0
3019	100.3	8	733	21	7	2	0
3020	80.2	8	733	21	7	2	0
3021	40.6	7	577	21	8	2	0
3022	153	7	577	21	8	2	0
3023	114.9	7	567	20	8	3	0
3024	156.9	7	557	18	9	3	0
3025	147.1	7	557	18	9	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3026	169.6	5	414	16	6	3	0
3027	205.3	5	414	16	6	3	0
3028	142.3	3	290	12	4	2	0
3029	105.9	3	290	12	4	2	0
3030	98.2	4	368	15	5	2	0
3031	72.8	7	559	24	11	4	1
3032	70.3	14	1148	39	16	7	0
3033	43.3	14	1069	44	20	7	0
3034	117.2	8	673	19	6	1	0
3035	199.8	7	673	19	6	1	0
3036	182.3	6	592	19	6	2	0
3037	158.2	6	592	19	6	2	0
3038	153.5	7	618	22	6	0	0
3039	187.3	6	579	17	5	1	0
3040	171.1	18	1368	50	24	10	1
3041	105.4	4	327	16	9	3	0
3042	96.4	5	367	18	10	4	1
3043	134.8	6	522	21	11	4	0
3044	118.6	6	522	21	11	4	0
3045	212.5	6	522	21	11	4	0
3046	160.1	7	605	23	13	6	0
3047	166.4	7	605	23	13	6	0
3048	146.9	7	546	23	12	6	0
3049	220.7	7	546	23	12	6	0
3050	181.3	7	546	23	12	6	0
3051	178.1	7	570	24	12	6	0
3052	149.2	7	570	24	12	6	0
3053	88.8	7	524	23	11	5	0
3054	88.4	6	499	23	11	5	1
3055	216.1	6	473	22	10	5	1
3056	166.6	6	473	22	10	5	1
3057	195.4	6	473	22	10	5	1
3058	139.1	6	428	18	9	5	0
3059	178.9	6	428	18	9	5	0
3060	151	6	472	18	10	4	0
3061	152.5	6	460	19	9	5	0
3062	59.1	6	448	20	8	5	0
3063	64.9	4	332	15	7	3	0
3064	58.6	4	332	15	7	3	0
3065	58.6	4	332	15	7	3	0
3066	58.6	2	137	9	4	0	0
3067	39.4	2	138	7	4	0	0
3068	33.8	2	179	7	5	0	0
3069	9.1	6	525	21	5	3	2
3070	48.4	2	160	9	3	1	0
3071	30.3	2	110	7	3	0	0
3072	9.4	2	150	6	3	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3073	5.2	6	521	17	4	2	0
3074	27.2	1	118	7	3	0	0
3075	57.8	1	99	4	2	0	0
3076	11.4	2	162	8	5	2	0
3077	50.8	2	154	7	3	1	0
3078	48.7	2	119	6	2	0	0
3079	6.4	3	189	9	6	1	0
3080	90.8	2	192	10	4	2	0
3081	170.3	2	192	10	4	2	0
3082	179	2	129	7	3	1	0
3083	182.7	2	129	7	3	1	0
3084	163.5	2	129	7	3	1	0
3085	166.1	2	130	6	3	2	0
3086	184.3	2	132	5	3	2	0
3087	98.6	4	332	15	6	0	0
3088	132.7	4	332	15	6	0	0
3089	156.5	4	350	17	6	2	0
3090	103.6	4	350	17	6	2	0
3091	154	4	373	17	6	2	0
3092	150.6	5	396	16	6	2	0
3093	141.4	5	396	16	6	2	0
3094	164.5	5	405	16	6	2	0
3095	144.7	5	415	16	7	2	0
3096	126	5	415	16	7	2	0
3097	110.8	6	527	18	8	3	0
3098	109.5	7	584	21	7	2	0
3099	118.8	7	584	21	7	2	0
3100	81	7	642	22	8	3	0
3101	70.5	7	642	22	8	3	0
3102	67.4	5	403	15	6	4	0
3103	38.3	4	348	14	4	2	0
3104	34.1	2	115	6	2	1	1
3105	12.5	1	121	6	3	0	0
3106	15.1	2	127	5	2	1	0
3107	16.9	2	126	5	2	1	0
3108	4	2	131	6	2	2	0
3109	60	2	131	6	2	2	0
3110	88.6	2	164	7	4	0	0
3111	62.7	4	310	13	7	4	0
3112	27.9	8	655	24	12	5	0
3113	64	8	680	24	12	5	0
3114	85.5	8	626	22	11	5	2
3115	65.5	13	1125	36	18	8	0
3116	39.1	13	1125	36	18	8	0
3117	122.5	13	1125	36	18	8	0
3118	105.7	11	956	34	16	6	0
3119	79.9	11	956	34	16	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3120	79.1	7	605	24	10	5	0
3121	95.3	7	605	24	10	5	0
3122	134	7	603	24	11	5	0
3123	84.3	10	848	30	13	6	0
3124	91.1	10	848	30	13	6	0
3125	108.6	19	1669	54	23	8	2
3126	100.2	23	1987	62	27	12	1
3127	76.4	23	1987	62	27	12	1
3128	79.2	17	1438	50	22	9	0
3129	72.4	9	752	31	14	8	2
3130	73.7	9	752	31	14	8	2
3131	84.2	11	836	31	15	6	0
3132	87.6	8	670	25	15	7	0
3133	136.7	8	670	25	15	7	0
3134	117.9	9	670	30	15	6	0
3135	134.7	9	671	29	14	5	0
3136	128.1	8	666	27	13	5	0
3137	79.9	3	253	10	6	1	0
3138	173.2	3	253	10	6	1	0
3139	143.8	4	289	14	6	3	0
3140	94	3	240	10	6	3	0
3141	135.2	3	240	10	6	3	0
3142	148.7	3	244	11	6	3	0
3143	139.9	3	244	11	6	3	0
3144	96.8	4	286	13	6	3	0
3145	105.1	4	286	13	6	3	0
3146	91.4	4	311	12	6	4	0
3147	98.1	4	311	12	6	4	0
3148	99.3	4	364	12	6	4	0
3149	99.1	4	364	12	6	4	0
3150	92.1	4	357	15	6	2	0
3151	86.6	5	447	17	8	3	0
3152	89.2	6	494	18	8	5	0
3153	69.2	6	494	18	8	5	0
3154	126.3	6	494	18	8	5	0
3155	101.4	7	557	22	10	3	0
3156	111.5	6	507	19	8	5	1
3157	88.3	6	507	19	8	5	1
3158	100.3	6	519	20	9	5	0
3159	95.1	7	519	20	9	5	0
3160	93.5	7	533	20	11	5	0
3161	91.8	7	533	20	11	5	0
3162	73.2	7	611	23	9	6	0
3163	55.8	7	614	22	10	5	0
3164	61.2	7	614	22	10	5	0
3165	87.8	8	639	22	10	5	0
3166	82.6	7	593	22	9	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3167	79.8	7	593	22	9	6	0
3168	77.6	6	516	22	8	5	0
3169	89.4	6	516	22	8	5	0
3170	74.7	6	507	19	9	3	0
3171	72.7	7	621	26	10	4	0
3172	108.2	8	643	25	10	4	0
3173	147.9	8	665	24	11	5	0
3174	139.9	8	665	24	11	5	0
3175	134	8	665	24	11	5	0
3176	116.1	8	652	26	10	4	0
3177	103.1	7	588	22	10	4	0
3178	78.7	6	494	19	8	3	0
3179	72	6	494	19	8	3	0
3180	62.2	5	386	15	6	3	0
3181	79.3	5	395	16	7	4	0
3182	83.1	5	387	16	8	2	0
3183	84.7	5	387	16	8	2	0
3184	64.1	5	380	14	7	4	0
3185	59.9	4	322	13	7	3	1
3186	58.3	4	309	13	6	3	2
3187	75.4	4	309	13	6	3	2
3188	86.2	4	294	13	5	3	0
3189	72.7	3	282	11	6	2	0
3190	60.6	4	284	13	6	3	0
3191	71.9	4	309	13	6	2	0
3192	70.8	3	267	13	5	2	1
3193	62.3	3	267	13	5	2	1
3194	58.2	4	323	16	6	2	1
3195	77.4	3	272	12	6	2	2
3196	66.6	4	310	15	7	3	2
3197	48	4	306	12	6	3	1
3198	67.4	4	289	13	5	3	0
3199	57.9	3	276	8	5	3	1
3200	67.8	3	284	11	5	2	0
3201	63.5	4	309	14	6	2	0
3202	51.8	4	367	16	5	3	0
3203	40	5	457	18	7	2	0
3204	45	5	373	15	9	4	0
3205	59.9	5	373	15	9	4	0
3206	69.4	3	228	12	6	2	0
3207	77.1	4	302	15	6	3	0
3208	68.5	3	220	11	4	2	0
3209	57.9	3	218	12	4	3	0
3210	38.9	3	218	12	4	3	0
3211	102.2	3	218	12	4	2	0
3212	82.8	4	350	14	8	2	0
3213	87	4	365	15	7	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3214	109.5	4	365	15	7	3	0
3215	130.6	3	238	10	4	2	0
3216	125.3	3	238	10	4	2	0
3217	141.6	3	222	10	5	2	0
3218	183.6	3	207	10	6	3	0
3219	192.7	3	207	10	6	3	0
3220	155.9	3	217	10	5	2	0
3221	156.6	3	217	10	5	2	0
3222	137.9	5	380	17	8	4	0
3223	113.6	5	380	17	8	4	0
3224	104.3	7	561	23	11	6	0
3225	115.2	7	605	24	13	6	0
3226	95.8	4	335	16	8	3	0
3227	45.4	6	458	20	10	6	0
3228	61.6	6	498	22	11	5	0
3229	50.2	6	498	22	11	5	0
3230	53.5	5	385	17	8	5	0
3231	67	3	273	12	6	4	0
3232	89.4	3	263	11	6	4	0
3233	131.4	3	263	11	6	4	0
3234	135.8	3	249	9	5	4	0
3235	64.2	3	255	11	5	3	0
3236	106.8	3	255	11	5	3	0
3237	141.1	4	299	12	5	3	1
3238	154.3	4	342	14	5	3	2
3239	138.6	4	342	14	5	3	2
3240	131.1	5	421	18	6	3	0
3241	113.6	5	421	18	6	3	0
3242	127.4	6	478	18	7	2	0
3243	102.7	6	496	18	8	3	0
3244	96.8	6	496	18	8	3	0
3245	96.4	6	496	18	8	3	0
3246	80	7	578	22	9	2	0
3247	85.6	9	773	26	10	4	0
3248	99.2	9	773	26	10	4	0
3249	84.8	6	473	20	8	2	0
3250	100.7	5	399	17	7	5	0
3251	114.5	5	399	17	7	5	0
3252	92.9	6	465	18	8	5	2
3253	108.3	6	465	18	8	5	2
3254	94.3	7	579	22	10	5	0
3255	105.4	7	579	22	10	5	0
3256	139.3	8	692	26	12	6	0
3257	128.8	9	805	29	13	6	0
3258	127.3	9	754	28	12	4	2
3259	98.9	9	754	28	12	4	2
3260	84.8	9	750	27	11	5	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3261	88.1	9	745	26	11	6	1
3262	91.3	9	740	26	11	7	0
3263	140.8	14	1210	37	17	8	1
3264	102.3	14	1210	37	17	8	1
3265	91.7	10	871	33	12	6	1
3266	77.9	10	871	33	12	6	1
3267	108.2	10	886	33	12	6	0
3268	111.9	9	790	30	12	6	1
3269	138.6	8	694	28	11	5	2
3270	176.5	8	694	28	11	5	2
3271	196.2	9	712	28	12	5	0
3272	166.9	9	712	28	12	5	0
3273	169.7	9	712	28	12	5	0
3274	145.2	9	712	28	12	5	0
3275	79.7	6	499	21	9	6	2
3276	89.5	6	499	21	9	6	2
3277	103.2	6	499	21	9	6	2
3278	84.5	5	445	21	8	3	0
3279	131.3	5	398	16	8	3	2
3280	138.6	5	398	16	8	3	2
3281	125.9	5	428	16	8	4	0
3282	125	5	428	16	8	4	0
3283	80.2	6	477	19	8	4	0
3284	75	6	496	20	10	5	0
3285	91.6	6	496	20	10	5	0
3286	96.5	7	530	24	12	6	0
3287	120.3	7	530	24	12	6	0
3288	130.9	7	530	24	12	6	0
3289	96.9	6	456	20	10	4	0
3290	71.8	6	456	20	10	4	0
3291	65.5	5	411	16	7	4	0
3292	76	5	395	19	7	4	0
3293	84.2	5	395	19	7	4	0
3294	85.5	5	404	17	7	3	2
3295	84.7	5	404	17	7	3	2
3296	97.3	5	401	18	7	5	1
3297	117.1	5	401	18	7	5	1
3298	121.6	5	443	17	8	2	1
3299	129.7	5	443	17	8	2	1
3300	113.9	5	410	18	8	3	0
3301	114.1	4	284	15	6	2	1
3302	100.6	4	354	15	7	4	2
3303	79.7	2	131	8	4	3	0
3304	70.8	2	164	8	5	1	0
3305	83.3	2	149	9	5	3	2
3306	125.7	2	149	9	5	3	2
3307	107.1	2	154	8	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3308	127.4	2	149	7	4	2	0
3309	119.2	2	148	6	4	2	0
3310	113.3	2	148	6	4	2	0
3311	121.8	2	112	6	4	2	0
3312	108	2	114	6	3	3	0
3313	99.7	1	111	6	4	2	0
3314	93.9	2	142	6	3	2	0
3315	137.9	2	139	6	3	2	0
3316	116	2	146	6	3	2	0
3317	93.3	2	142	6	4	0	0
3318	76.5	2	147	7	4	2	0
3319	90.5	2	137	7	3	2	0
3320	67.4	2	123	6	3	2	0
3321	92.3	2	129	7	4	0	0
3322	112.6	2	159	7	4	2	0
3323	96.8	2	169	8	4	2	0
3324	68.8	2	175	10	4	2	0
3325	85.4	3	266	12	6	3	0
3326	104.1	4	350	16	6	2	0
3327	160.7	4	350	16	6	2	0
3328	140.3	4	350	16	6	2	0
3329	126.9	4	350	16	6	2	0
3330	172.9	4	345	17	7	4	0
3331	193.7	4	345	17	7	4	0
3332	164	3	279	14	6	1	2
3333	162.1	3	279	14	6	1	2
3334	145.9	3	275	13	6	2	1
3335	150.4	3	270	12	6	2	0
3336	153.4	3	270	12	6	2	0
3337	135	3	270	12	6	2	0
3338	130.7	4	323	16	6	5	0
3339	89.6	4	326	13	7	3	1
3340	104.7	4	326	13	7	3	1
3341	90.6	6	490	19	10	4	0
3342	83.8	7	597	23	11	6	2
3343	105.5	7	597	23	11	6	2
3344	116.4	7	572	23	10	5	0
3345	76	7	572	23	10	5	0
3346	97.8	6	537	22	10	4	0
3347	110.8	7	577	24	9	5	2
3348	120.2	7	577	24	9	5	2
3349	64.2	7	577	24	9	5	2
3350	125.8	6	566	22	7	0	0
3351	134.1	6	558	18	7	0	0
3352	99.3	6	545	18	7	0	0
3353	110.5	6	544	16	6	0	0
3354	111.6	6	525	16	6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3355	112.3	5	501	10	6	0	0
3356	119.7	3	301	13	4	0	0
3357	101.7	4	326	13	4	1	0
3358	110.8	2	204	9	4	1	0
3359	107.7	2	173	9	4	2	0
3360	118.1	2	173	8	4	2	0
3361	112.3	2	119	8	3	2	0
3362	111.6	1	119	6	3	2	0
3363	120.1	2	119	6	3	2	0
3364	114.9	1	86	5	2	0	0
3365	101.9	1	86	6	2	0	0
3366	126	1	94	6	3	0	0
3367	96.4	2	131	7	3	2	2
3368	96.7	2	154	7	4	2	0
3369	106.1	2	184	8	4	2	0
3370	100.9	2	175	8	3	0	0
3371	111.1	2	186	9	3	0	0
3372	95.2	2	181	9	3	0	0
3373	130.3	2	184	8	4	0	0
3374	107.7	2	186	8	4	1	0
3375	120.4	4	292	14	5	3	2
3376	109.5	4	292	14	5	3	2
3377	118.9	4	292	14	5	3	2
3378	129.8	4	357	15	6	3	2
3379	142.5	5	421	17	7	3	2
3380	121.3	5	392	15	7	2	0
3381	140.5	5	392	15	6	2	0
3382	145.2	11	949	34	15	7	2
3383	146.6	11	949	34	15	7	2
3384	158.3	17	1476	50	20	8	2
3385	148.9	17	1476	50	20	8	2
3386	165.4	17	1476	50	20	8	2
3387	167	13	1086	40	16	7	2
3388	159.8	13	1086	40	16	7	2
3389	147.8	4	328	15	8	3	2
3390	134.1	4	328	15	8	3	2
3391	126.2	4	328	15	8	3	2
3392	102.2	4	328	15	8	3	2
3393	141.6	4	328	15	8	2	1
3394	107.8	4	328	15	8	2	1
3395	116.4	7	580	22	11	5	2
3396	147.8	7	580	22	11	5	2
3397	139.1	7	580	22	11	5	2
3398	144.2	11	940	36	14	5	2
3399	136.5	8	662	24	10	5	1
3400	129.7	8	662	24	10	5	1
3401	127	2	183	9	4	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3402	137.7	2	183	9	4	1	0
3403	140.1	2	183	9	4	1	0
3404	145.2	2	124	7	4	1	0
3405	118.1	2	203	9	4	2	0
3406	139.5	2	203	9	4	2	0
3407	173.5	2	203	9	4	2	0
3408	198	3	247	9	4	2	0
3409	148.9	3	245	8	3	1	1
3410	163.7	3	240	7	3	1	1
3411	150.1	2	228	6	3	0	0
3412	159.4	3	244	7	3	0	0
3413	156	3	245	7	3	0	0
3414	146.5	3	247	7	3	0	0
3415	164.9	3	240	6	2	0	0
3416	196.1	3	235	6	2	0	0
3417	187.8	3	249	13	4	2	0
3418	153.5	3	247	12	4	2	1
3419	121.9	3	248	11	4	2	1
3420	121.2	3	246	12	5	3	2
3421	59.8	4	305	13	6	3	2
3422	39.4	5	378	15	8	5	2
3423	39.4	5	441	20	9	3	2
3424	53.7	6	485	23	10	5	2
3425	54.6	6	485	23	10	5	2
3426	77.4	6	467	23	10	5	2
3427	69.5	5	389	17	8	4	3
3428	68.1	4	321	14	7	4	3
3429	65.8	4	337	14	6	3	2
3430	66.5	4	337	14	6	3	2
3431	79.5	4	346	16	8	3	2
3432	67.7	4	308	13	7	4	2
3433	64.1	4	314	14	6	4	3
3434	69.5	4	328	15	7	3	3
3435	68.4	4	328	15	7	3	3
3436	77	4	331	16	7	3	3
3437	56.3	4	301	15	6	3	2
3438	59.1	5	385	17	7	3	2
3439	86.4	7	549	22	10	4	3
3440	168.9	8	645	25	10	4	2
3441	178.1	9	742	27	10	4	2
3442	186.8	9	742	27	10	4	2
3443	146.6	9	742	27	10	4	2
3444	183.5	10	833	32	12	6	3
3445	160.7	10	833	32	12	6	3
3446	177.1	10	840	33	13	5	2
3447	158.4	10	847	34	13	4	2
3448	119.2	9	731	29	12	6	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3449	127	9	731	29	12	6	4
3450	126.8	9	731	29	12	6	4
3451	104.9	8	700	26	12	6	3
3452	131.3	8	679	27	12	5	3
3453	125.8	8	658	27	12	5	3
3454	108.7	8	658	27	12	5	3
3455	98.6	9	783	31	13	6	2
3456	121.6	8	678	27	11	6	2
3457	111.1	8	678	27	11	6	2
3458	108.4	8	655	26	12	5	3
3459	107.2	8	655	26	12	5	3
3460	115.6	8	657	27	12	5	2
3461	128.2	8	658	28	11	6	2
3462	110.1	8	690	27	11	6	3
3463	90.4	8	676	28	11	5	3
3464	114.1	8	662	28	11	5	3
3465	92.2	8	662	28	11	5	2
3466	76.8	9	716	28	12	5	3
3467	74.8	10	866	35	13	7	2
3468	70.4	12	988	35	14	7	3
3469	62.5	12	1048	37	16	5	2
3470	70.7	12	995	36	14	7	2
3471	65.5	13	1079	39	18	7	3
3472	62.4	13	1079	39	18	7	3
3473	56.5	12	1051	36	15	8	2
3474	55.2	15	1314	41	19	9	3
3475	40.6	19	1656	57	21	10	2
3476	66.9	19	1656	57	21	10	2
3477	73.6	22	1938	61	22	8	3
3478	85.1	21	1870	58	22	7	3
3479	114.2	21	1870	58	22	7	3
3480	121.1	21	1870	58	22	7	3
3481	115.9	24	2135	65	24	8	2
3482	106.7	24	2127	63	23	8	4
3483	91.1	25	2194	67	24	8	4
3484	92.3	25	2194	67	24	8	4
3485	78.4	23	2082	58	23	9	4
3486	80.2	23	2082	58	23	9	4
3487	84.4	21	1867	55	21	9	3
3488	90.5	21	1867	55	21	9	3
3489	75.4	21	1894	58	21	10	2
3490	61.7	20	1768	56	20	8	4
3491	70.8	17	1529	45	17	8	3
3492	58.8	18	1579	51	21	9	3
3493	66.2	15	1279	42	18	8	4
3494	87.8	15	1279	42	18	8	4
3495	59.5	7	568	24	9	5	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3496	66.2	7	568	24	9	5	3
3497	89.3	6	478	18	8	5	3
3498	97.6	6	552	22	9	5	2
3499	66.2	9	759	29	12	6	3
3500	84.1	11	966	35	15	7	3
3501	68.4	10	818	32	12	4	4
3502	28.7	5	376	17	7	3	3
3503	56	5	376	17	7	3	3
3504	84.8	4	326	15	6	3	3
3505	83.9	3	267	13	5	3	2
3506	65.8	4	267	13	5	3	2
3507	60.4	3	257	12	6	3	2
3508	67.6	6	537	22	11	6	2
3509	40.1	4	323	16	8	5	4
3510	61	1	74	4	1	0	0
3511	97.2	1	74	4	1	0	0
3512	119.1	2	122	5	3	2	2
3513	125.5	2	122	5	3	2	2
3514	79.2	2	123	6	4	3	0
3515	79.2	4	310	14	7	3	2
3516	100.7	4	296	13	7	3	2
3517	90.3	4	296	13	7	3	2
3518	150.8	4	319	12	6	4	0
3519	118.7	5	367	15	6	4	3
3520	132.1	4	367	15	6	4	3
3521	122.6	4	367	15	6	4	3
3522	117.6	4	367	15	6	4	3
3523	121.4	4	367	15	6	4	3
3524	119.4	4	367	15	6	4	3
3525	115.5	4	367	15	6	4	3
3526	131.1	5	390	17	7	4	2
3527	154.4	5	413	18	8	4	1
3528	154.8	5	428	19	9	4	1
3529	145.2	5	443	19	9	5	0
3530	139.5	5	443	19	9	5	0
3531	138.9	8	678	29	13	7	3
3532	131.4	8	678	29	13	7	3
3533	130.5	8	678	29	13	7	3
3534	130.3	36	3295	88	33	10	3
3535	110.4	36	3295	88	33	10	1
3536	159.7	65	5968	145	50	16	3
3537	145.4	69	6305	153	53	16	4
3538	140.4	73	6642	161	56	17	5
3539	127.1	73	6642	161	56	17	5
3540	111.8	73	6717	162	56	17	5
3541	108.9	74	6791	163	56	17	5
3542	108.9	75	6866	164	56	17	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3543	106.3	76	6954	164	53	17	4
3544	103	75	6954	151	49	17	3
3545	116	75	6954	151	49	17	3
3546	116	75	6954	151	49	17	3
3547	89.5	75	6954	151	49	17	6
3548	86.2	70	6512	144	46	15	6
3549	78.9	37	3426	82	28	10	2
3550	90.1	20	1834	53	18	8	3
3551	72.8	21	1834	53	19	8	3
3552	79.3	18	1558	44	19	8	2
3553	77.8	14	1240	37	15	5	2
3554	96.4	14	1240	37	15	7	2
3555	95	13	1138	37	15	7	4
3556	99.1	13	1138	37	14	7	4
3557	125.8	13	1138	37	14	7	4
3558	99.1	13	1138	37	15	7	4
3559	88.8	12	1047	36	15	7	3
3560	95.3	12	1009	34	14	7	3
3561	106.1	11	971	32	14	6	3
3562	123.9	11	971	32	14	6	3
3563	138	11	971	32	14	6	3
3564	123	11	971	32	14	6	3
3565	138	12	983	34	14	8	3
3566	120.7	12	995	37	14	10	4
3567	124.2	12	995	37	14	10	4
3568	108	12	995	37	14	10	4
3569	146.3	9	776	29	12	4	1
3570	116.4	8	691	25	11	4	3
3571	124	8	691	25	11	4	3
3572	122.5	8	691	25	11	4	3
3573	115.8	8	699	27	11	4	2
3574	93.9	9	782	32	12	5	2
3575	82.2	9	782	32	12	5	2
3576	86.2	7	614	25	10	4	0
3577	66.3	7	598	23	9	4	2
3578	68.1	7	578	24	10	4	2
3579	67.2	6	546	21	9	4	3
3580	96	7	546	21	9	4	3
3581	77	7	576	24	10	5	1
3582	76.4	7	576	24	10	5	1
3583	96.4	10	805	30	13	6	3
3584	43.1	11	970	35	14	7	3
3585	56.8	11	970	35	14	7	3
3586	69.4	2	187	11	4	2	2
3587	81	2	187	11	4	2	2
3588	108.3	2	187	11	4	2	2
3589	127.1	2	183	10	3	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3590	106.9	4	328	16	6	3	2
3591	91.7	4	328	16	6	3	2
3592	111	6	464	22	9	2	2
3593	80.6	5	459	21	10	3	0
3594	112.9	5	459	21	10	3	0
3595	122.1	3	277	13	6	1	0
3596	122.6	3	277	13	6	1	0
3597	114.1	6	520	22	8	4	0
3598	127.9	6	520	22	8	4	0
3599	80.4	6	486	21	8	4	0
3600	62.2	7	622	25	11	4	2
3601	61.9	9	806	34	13	5	0
3602	106.2	9	806	34	13	5	0
3603	113	2	193	10	4	1	0
3604	109.7	2	193	10	4	1	0
3605	101.5	5	389	17	8	2	2
3606	117.9	5	389	17	8	2	2
3607	97.3	7	554	21	9	5	0
3608	97.3	5	460	21	9	5	0
3609	99.1	5	459	21	8	3	3
3610	194.8	6	459	21	8	3	3
3611	104.8	7	564	25	10	3	0
3612	139.8	7	564	25	10	3	0
3613	174.1	7	564	25	10	3	0
3614	190	7	556	21	9	5	1
3615	234.1	7	556	21	9	5	1
3616	217.8	7	556	21	9	5	1
3617	204.9	7	556	21	9	5	1
3618	198	7	615	26	10	2	0
3619	173.6	7	615	26	10	2	0
3620	155.7	7	615	26	10	2	0
3621	197.2	8	692	28	9	4	3
3622	178.9	8	692	28	9	4	3
3623	151.1	8	670	25	10	2	2
3624	136.1	8	670	25	10	2	2
3625	124.3	8	670	25	10	2	2
3626	128.5	7	580	24	8	2	0
3627	121.6	7	580	24	8	2	0
3628	130.7	6	549	22	9	3	2
3629	107.4	6	549	22	9	3	2
3630	105.1	8	696	28	10	5	2
3631	123.3	8	696	28	10	5	2
3632	128.8	8	696	28	10	5	2
3633	137	8	645	24	10	4	0
3634	96.4	8	645	24	10	4	0
3635	136.9	9	747	27	11	3	2
3636	153.4	9	747	27	11	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3637	178.3	8	654	25	10	5	2
3638	108.1	8	654	25	10	5	2
3639	135.6	8	666	24	10	4	2
3640	126.7	8	666	24	10	4	2
3641	96.4	8	684	27	12	4	3
3642	79	9	750	29	12	5	0
3643	77.8	9	750	29	12	5	0
3644	90	8	698	31	11	3	2
3645	87.4	8	698	31	11	3	2
3646	107.5	7	588	26	10	4	2
3647	99.3	7	588	26	10	4	2
3648	79.7	8	633	28	10	4	2
3649	72.1	9	720	30	11	3	4
3650	77.7	9	751	33	12	4	2
3651	113.1	9	751	33	12	4	2
3652	134.5	11	964	38	15	5	2
3653	100.5	11	964	38	15	5	2
3654	76.9	12	1066	44	15	6	2
3655	94.8	12	1066	44	15	6	2
3656	121.5	11	900	35	15	5	2
3657	123.8	9	782	32	13	6	1
3658	117.9	9	782	32	13	6	1
3659	133	9	782	32	13	6	1
3660	118.4	9	778	31	14	5	2
3661	120.4	9	778	31	14	5	2
3662	103.9	9	782	33	12	5	3
3663	119.1	9	760	34	14	5	3
3664	113.5	9	760	34	14	5	3
3665	100.9	7	588	24	11	4	2
3666	74.3	7	596	24	10	6	5
3667	65.1	7	597	26	11	5	2
3668	63.4	7	597	26	11	5	2
3669	61	6	504	22	11	4	2
3670	67.7	8	642	26	12	5	3
3671	78.5	6	529	23	9	2	2
3672	57.7	6	498	22	9	4	4
3673	35	6	472	21	9	4	2
3674	39.9	5	390	17	6	1	0
3675	43.2	5	384	17	7	2	4
3676	44.1	4	309	15	6	2	2
3677	49.8	4	308	14	6	0	2
3678	53.2	4	329	14	7	0	2
3679	41.5	4	293	15	7	4	0
3680	78.6	5	377	17	8	3	3
3681	85.7	4	269	14	6	4	2
3682	64.7	4	269	14	6	4	2
3683	67	4	272	15	7	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3684	59.7	6	467	21	8	4	2
3685	112.1	6	474	20	8	4	1
3686	75.8	6	474	20	8	4	1
3687	78.7	5	451	20	7	3	2
3688	69.6	3	243	13	6	1	2
3689	90.5	3	243	13	6	1	2
3690	108	8	646	26	11	3	0
3691	65.7	6	446	21	8	4	2
3692	63.4	6	458	20	9	6	2
3693	48.8	2	152	9	4	1	3
3694	37.8	3	206	9	5	1	2
3695	59.5	3	206	9	5	1	2
3696	69	4	293	15	7	4	0
3697	78.5	5	377	17	8	3	3
3698	108.6	3	269	14	6	4	2
3699	114.4	4	269	14	6	4	2
3700	87.4	4	283	15	6	3	1
3701	92.3	4	283	15	6	3	1
3702	97.1	12	1017	39	18	8	4
3703	119.8	6	506	20	10	5	3
3704	50	7	564	25	11	4	3
3705	64.6	7	564	25	11	5	5
3706	60.4	8	621	26	12	6	5
3707	66.6	8	621	26	12	6	2
3708	42.3	9	703	28	13	6	2
3709	55.9	9	735	30	14	7	3
3710	59.7	12	1055	37	17	7	2
3711	43.5	14	1191	44	21	10	4
3712	37.5	8	676	28	14	7	4
3713	46.5	10	803	30	14	7	4
3714	61.7	11	949	34	16	8	3
3715	76.4	11	960	36	17	8	3
3716	60.5	11	960	36	17	9	3
3717	77.6	11	950	35	15	9	3
3718	75.5	14	1163	44	18	9	4
3719	66.1	13	1104	40	18	8	3
3720	75.4	11	890	36	15	7	5
3721	36.4	5	399	17	9	4	4
3722	26.2	2	146	7	3	1	2
3723	1.2	5	372	18	10	5	5
3724	5.9	3	220	10	5	4	3
3725	7.1	3	237	12	5	2	4
3726	13.1	4	333	14	6	3	3
3727	31.8	5	444	17	8	4	3
3728	12.9	6	471	18	8	5	3
3729	10.8	7	557	22	8	4	4
3730	13	10	845	28	12	6	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3731	12.1	9	745	27	12	5	3
3732	91.9	8	646	24	11	3	3
3733	113.4	8	646	24	11	3	3
3734	107.1	7	600	24	11	4	5
3735	108.9	7	587	24	11	4	3
3736	150.8	7	587	24	11	4	3
3737	36.6	8	650	25	11	5	2
3738	18.3	9	767	28	11	5	3
3739	51.5	8	694	26	10	6	2
3740	114.4	8	694	26	10	6	2
3741	111.6	8	657	24	10	6	4
3742	90.6	8	657	24	10	6	4
3743	40.6	5	428	17	8	4	4
3744	76.5	11	933	32	13	6	2
3745	97.5	11	933	32	13	6	2
3746	80.1	13	1145	37	15	5	4
3747	90.6	6	524	20	8	2	3
3748	80.8	6	524	20	8	2	3
3749	96.6	6	524	20	8	2	3
3750	94	6	478	19	9	3	2
3751	68.1	6	478	19	9	3	2
3752	61.7	5	440	18	8	2	3
3753	78.2	5	466	18	8	4	0
3754	58.5	6	466	19	8	4	2
3755	55.1	5	430	19	8	4	3
3756	54.4	6	457	20	8	3	3
3757	74.3	6	458	20	9	4	2
3758	63.6	6	458	20	9	4	2
3759	57.1	6	463	19	8	4	3
3760	59.8	5	443	17	10	4	3
3761	51.8	6	515	23	10	4	2
3762	51.8	6	515	23	10	4	2
3763	51.8	6	515	23	10	4	2
3764	57	8	609	25	11	6	3
3765	64.9	17	1436	48	22	10	4
3766	29	20	1706	53	24	11	2
3767	21.9	18	1534	50	22	11	2
3768	56.5	20	1684	56	25	12	3
3769	96.8	19	1654	60	24	10	2
3770	91.7	13	1132	40	18	6	3
3771	36.2	6	536	23	10	5	0
3772	105.2	6	536	23	10	5	0
3773	126	5	394	15	7	4	3
3774	71.7	13	1128	40	17	7	4
3775	70.1	9	787	31	13	4	2
3776	80.9	9	787	31	13	4	2
3777	124.6	8	624	28	12	6	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3778	131	8	624	28	12	6	2
3779	120.9	3	258	14	8	3	1
3780	92.2	3	258	14	8	3	1
3781	85.1	4	368	14	7	3	1
3782	118.3	4	368	14	7	3	1
3783	97.7	5	420	18	10	4	2
3784	140	5	397	16	9	4	2
3785	135	5	375	15	8	5	2
3786	162.5	2	200	10	5	2	0
3787	148.5	2	200	10	5	2	0
3788	111.1	3	218	11	6	2	0
3789	161.7	3	218	11	6	2	0
3790	107.4	2	200	10	5	2	0
3791	117.8	3	218	11	6	2	0
3792	109.5	2	134	6	3	0	0
3793	133.6	2	134	6	3	0	0
3794	120.1	2	200	10	5	2	0
3795	99.3	2	200	10	5	2	0
3796	90.8	3	218	11	6	2	0
3797	66.5	4	317	14	7	4	0
3798	63.2	3	256	12	6	2	2
3799	51.8	3	256	12	6	2	2
3800	83	4	294	13	6	2	0
3801	116.4	4	326	14	8	3	2
3802	125.6	4	326	14	8	3	2
3803	133.4	4	294	13	8	3	0
3804	119	4	294	13	8	3	0
3805	87.9	3	234	11	5	2	2
3806	77	3	234	11	5	2	2
3807	97	3	270	12	7	2	0
3808	112.7	3	272	12	5	3	0
3809	105.9	3	272	12	5	3	0
3810	94.5	3	272	12	5	3	0
3811	96.1	3	244	11	6	2	1
3812	101.7	3	264	11	6	2	1
3813	95.9	3	264	11	6	2	1
3814	75.5	4	307	15	6	4	1
3815	72	4	325	15	7	2	2
3816	63.6	4	315	15	8	4	0
3817	102.4	4	359	16	8	4	1
3818	94.8	5	403	17	8	3	2
3819	54.2	5	379	18	9	4	2
3820	73.1	4	356	16	8	4	2
3821	110.9	5	356	16	8	4	2
3822	93.1	6	438	20	12	5	2
3823	98.4	6	438	20	12	5	2
3824	91.9	4	361	16	8	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3825	84.4	4	323	15	7	5	2
3826	94.4	4	323	15	7	5	2
3827	90.8	4	306	16	7	2	2
3828	85.1	4	306	16	7	2	2
3829	65.6	4	321	14	7	4	1
3830	93.5	4	369	17	8	4	0
3831	79.7	5	425	21	10	5	2
3832	81.2	5	425	21	10	5	2
3833	81.3	5	386	18	8	4	0
3834	94.9	5	407	20	9	5	1
3835	90.4	5	407	20	9	5	1
3836	77.9	5	396	16	8	4	0
3837	38.7	5	380	20	9	4	0
3838	64	5	389	18	10	5	0
3839	50.3	6	443	23	10	6	2
3840	40.5	6	530	23	11	6	0
3841	44.4	5	383	19	9	4	2
3842	65.4	5	383	19	9	4	2
3843	105.6	5	360	18	8	4	2
3844	104.2	5	360	18	8	4	2
3845	102.6	5	415	19	9	5	2
3846	84.8	6	436	21	9	6	2
3847	57	6	436	21	9	6	2
3848	60.2	6	489	24	10	4	1
3849	46.1	7	550	24	11	4	2
3850	45.3	7	555	25	11	5	0
3851	36.2	7	609	27	13	6	3
3852	44.9	7	609	27	13	6	3
3853	124.6	9	811	32	16	6	0
3854	116	10	811	32	16	6	0
3855	94.9	7	592	26	12	6	1
3856	74.4	4	321	16	7	3	1
3857	79.3	4	321	16	7	3	1
3858	80.2	5	430	21	9	5	0
3859	63	6	473	22	11	5	0
3860	57.4	4	342	16	7	2	2
3861	32.8	6	451	21	11	7	3
3862	40	5	384	20	8	5	2
3863	68.4	5	413	18	8	5	1
3864	79.1	5	394	19	10	4	0
3865	59.8	3	265	13	6	2	0
3866	73.1	3	236	11	5	1	0
3867	37.9	4	341	18	8	4	0
3868	60.1	4	341	18	8	4	0
3869	57.7	3	245	11	6	2	2
3870	94.6	2	154	8	5	1	2
3871	97.8	2	154	8	5	1	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3872	72.4	4	318	16	9	4	2
3873	47.6	7	513	24	13	6	2
3874	67	3	254	11	7	2	2
3875	65	3	273	12	7	4	1
3876	53.6	3	273	12	7	4	0
3877	89.3	4	339	18	8	5	0
3878	70.8	4	354	16	8	5	0
3879	84.5	4	354	16	8	5	0
3880	94.8	2	154	8	4	1	0
3881	82.6	3	273	12	7	4	0
3882	106.5	4	273	12	7	4	0
3883	102.5	4	339	18	8	5	0
3884	87.4	4	354	16	8	5	0
3885	107.7	4	354	16	8	5	0
3886	86.9	4	359	17	8	4	0
3887	92.3	4	359	17	8	4	0
3888	110.7	5	383	18	9	2	2
3889	93.4	14	1199	46	21	9	3
3890	70	6	453	19	8	3	2
3891	63.1	6	453	19	8	3	2
3892	86.6	6	498	20	10	4	0
3893	74.1	6	498	22	10	4	3
3894	71.4	6	466	22	10	4	3
3895	94.5	4	303	13	6	3	2
3896	79	4	299	15	6	4	2
3897	82.2	4	319	15	6	5	0
3898	71.2	4	338	17	7	2	0
3899	61.2	4	295	15	7	3	0
3900	70.7	4	292	15	6	3	0
3901	79.8	4	282	13	6	2	2
3902	84.6	4	282	13	6	2	2
3903	76.4	3	242	12	6	2	0
3904	74.9	3	244	12	6	2	2
3905	15.8	2	163	10	3	2	0
3906	94.1	3	245	14	5	2	0
3907	44.8	2	133	8	4	0	0
3908	9	3	226	10	5	3	0
3909	6.8	3	235	10	4	1	0
3910	5.1	3	235	10	4	1	0
3911	13	3	219	11	5	2	2
3912	20	2	169	8	3	2	0
3913	24	2	161	7	4	2	2
3914	11.2	3	216	10	4	0	0
3915	9.9	2	174	8	3	0	0
3916	16.4	4	332	14	6	2	0
3917	6.7	3	213	9	4	0	2
3918	10.6	2	163	8	4	2	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3919	30.6	3	289	14	5	1	0
3920	21.2	4	358	16	5	2	0
3921	20.3	5	384	16	6	2	2
3922	27.4	5	437	20	7	4	2
3923	33.3	3	284	14	4	0	0
3924	23.5	3	290	12	6	2	0
3925	34.5	8	683	26	10	3	0
3926	35.4	6	558	20	7	4	0
3927	44.5	10	842	31	12	3	2
3928	37.9	5	445	18	7	2	2
3929	43.2	7	577	23	10	4	0
3930	113.5	7	577	23	10	4	0
3931	37.9	7	585	24	10	4	1
3932	83.1	6	535	22	10	5	0
3933	85.6	7	572	23	10	3	0
3934	100	7	572	23	10	3	0
3935	44.8	7	570	24	10	3	0
3936	76.1	7	564	21	9	4	0
3937	78.2	7	638	25	10	5	0
3938	71.8	7	638	25	10	5	0
3939	85.8	9	763	27	12	5	0
3940	69.1	11	938	30	12	4	0
3941	75.8	12	1086	39	13	6	0
3942	41.3	11	933	31	11	6	0
3943	81.8	12	1019	35	13	6	0
3944	87.2	12	1019	35	13	6	0
3945	86.1	10	838	30	11	3	0
3946	90.9	10	838	30	11	3	0
3947	94.8	10	872	32	13	4	0
3948	41.8	17	1491	49	18	5	2
3949	36	14	1197	42	15	6	0
3950	47.2	13	1116	38	17	6	2
3951	84.1	11	957	36	14	4	0
3952	76.3	11	957	36	14	4	0
3953	58.8	11	914	34	12	7	1
3954	79.6	11	914	34	12	7	1
3955	136.8	10	881	32	13	4	0
3956	88.3	10	904	32	13	6	1
3957	71.2	14	1214	41	15	7	2
3958	42.6	16	1408	47	16	6	0
3959	68.5	16	1408	47	16	6	0
3960	89	6	520	22	9	4	0
3961	85.3	6	520	22	9	4	0
3962	76.3	8	677	26	10	4	1
3963	71	8	677	26	10	4	1
3964	81.5	15	1282	43	16	7	0
3965	92.2	12	1084	38	16	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3966	77.8	14	1197	43	17	7	1
3967	91.6	14	1197	43	17	7	1
3968	105.6	13	1153	42	16	8	0
3969	113.6	13	1153	42	16	8	0
3970	72.5	8	665	27	11	3	0
3971	77.5	9	779	26	13	4	0
3972	90.7	9	779	26	13	4	0
3973	139.3	3	271	14	6	3	1
3974	105.3	3	271	14	6	3	1
3975	124.4	2	185	10	5	3	2
3976	110.9	3	185	10	5	3	2
3977	97.4	5	428	19	7	3	0
3978	63.7	5	402	18	7	2	1
3979	81.2	7	577	23	10	4	0
3980	64.3	7	585	24	10	4	1
3981	67.2	6	535	22	10	5	0
3982	66.4	7	572	23	10	3	0
3983	64.3	4	310	15	6	3	1
3984	58.3	8	674	26	10	4	0
3985	56.4	29	2572	78	31	10	2
3986	56.8	6	481	20	9	4	0
3987	98.9	6	467	18	8	4	2
3988	100.2	6	479	19	8	4	2
3989	62.2	9	749	29	13	4	2
3990	94.7	9	749	29	13	4	0
3991	47	10	820	33	13	5	1
3992	91	10	820	33	12	5	1
3993	43.2	9	800	27	11	5	0
3994	63.8	4	383	18	7	2	0
3995	91.8	4	383	18	7	2	0
3996	90.1	3	289	12	6	2	0
3997	90.7	7	622	24	9	4	0
3998	99.4	7	622	25	9	4	0
3999	80	7	614	25	9	4	0
4000	91	7	614	25	9	4	0
4001	96.3	5	443	20	8	2	0
4002	115.8	10	881	31	12	5	0
4003	78	10	864	34	12	4	0
4004	62.7	8	696	28	11	3	0
4005	111.6	8	696	28	11	3	0
4006	107	2	157	10	4	1	0
4007	91	7	570	21	8	5	0
4008	62.3	8	685	25	10	5	1
4009	62.3	9	800	29	12	5	2
4010	50.4	10	867	31	12	6	2
4011	58.3	10	867	31	12	6	1
4012	67.9	10	867	31	12	6	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4013	81.1	10	888	31	11	5	0
4014	65.9	11	924	35	13	5	3
4015	80.7	11	924	35	13	4	3
4016	82.2	9	818	32	12	4	1
4017	82.2	8	712	28	11	4	0
4018	36.5	8	712	28	11	4	0
4019	142.5	15	1290	39	17	6	0
4020	68.1	15	1290	39	17	6	0
4021	143.6	15	1290	39	17	6	0
4022	46.8	9	725	27	12	4	0
4023	58.4	8	725	27	12	3	0
4024	92.5	15	1350	42	16	7	0
4025	98.4	15	1350	42	16	7	0
4026	61.4	15	1350	42	16	7	0
4027	83.2	11	915	33	15	5	2
4028	17.5	6	534	25	8	2	0
4029	16.9	2	146	4	2	0	0
4030	12.8	2	238	6	0	0	0
4031	18.7	2	238	6	0	0	0
4032	21.6	2	238	6	0	0	0
4033	59.5	3	311	8	2	0	0
4034	54.8	4	348	9	2	0	0
4035	52.3	4	347	10	2	0	0
4036	32.4	3	265	6	2	0	0
4037	33.1	3	236	7	2	0	0
4038	38.2	2	206	5	3	0	0
4039	35.2	2	167	6	1	0	0
4040	39	1	138	4	1	0	0
4041	39	1	85	3	1	0	0
4042	99.1	1	72	3	0	0	0
4043	125.1	1	72	3	0	0	0
4044	129.5	1	72	3	0	0	0
4045	109.9	1	67	2	1	0	0
4046	102.7	1	65	2	0	0	0
4047	98	1	65	2	0	0	0
4048	84.5	1	52	0	0	0	0
4049	83.5	1	52	2	0	0	0
4050	83.1	1	52	2	0	0	0
4051	88.9	0	41	0	0	0	0
4052	91.4	0	40	0	0	0	0
4053	99.2	0	40	0	0	0	0
4054	138.1	0	34	0	0	0	0
4055	119.1	0	34	0	0	0	0
4056	118.1	0	34	0	0	0	0
4057	83.4	0	34	0	0	0	0
4058	96.1	0	34	0	0	0	0
4059	114.7	0	31	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4060	126.3	0	28	0	0	0	0
4061	103.8	0	28	0	0	0	0
4062	119.6	0	22	2	0	0	0
4063	114	0	22	2	0	0	0
4064	97	0	22	2	0	0	0
4065	118.3	0	26	0	0	0	0
4066	110.5	0	26	0	0	0	0
4067	106.4	0	21	0	0	0	0
4068	106.3	0	21	0	0	0	0
4069	94.5	0	20	0	0	0	0
4070	84.1	0	26	0	0	0	0
4071	66.7	0	26	0	0	0	0
4072	71.8	0	33	0	0	0	0
4073	87.2	0	33	0	0	0	0
4074	73.4	1	47	4	2	0	0
4075	89.5	1	47	4	2	0	0
4076	91	1	61	3	0	0	0
4077	104.2	1	82	3	2	0	0
4078	79.1	1	82	3	2	0	0
4079	74.5	1	113	3	2	1	0
4080	84.2	1	113	3	2	1	0
4081	68.6	2	156	5	2	0	0
4082	68.8	2	156	5	2	0	0
4083	88.9	2	183	8	2	0	0
4084	87.5	2	199	7	4	0	0
4085	58.1	2	199	7	4	0	0
4086	75.7	2	220	8	2	0	0
4087	89.7	3	229	9	3	0	0
4088	87.2	3	234	10	3	1	2
4089	92.6	3	234	10	3	1	2
4090	89.2	2	213	8	3	1	0
4091	63.8	2	193	9	4	1	0
4092	56.7	2	178	8	2	0	0
4093	84.8	2	148	6	4	0	0
4094	80.4	2	145	7	2	0	0
4095	94.6	2	211	10	3	0	0
4096	100.2	2	148	7	2	1	0
4097	95.4	2	148	7	2	1	0
4098	86	2	174	11	3	1	0
4099	96.1	2	194	10	3	0	0
4100	94.1	2	194	10	3	0	0
4101	89.6	2	210	9	3	1	0
4102	84	3	212	10	5	2	0
4103	87.2	3	212	10	5	2	0
4104	97.7	2	226	8	3	0	0
4105	115	2	226	8	3	0	0
4106	89.6	3	230	11	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4107	97.5	3	230	11	4	2	0
4108	68.2	3	240	11	3	2	0
4109	85.4	3	227	8	3	1	0
4110	94.9	3	227	8	3	1	0
4111	102.5	2	218	9	3	1	0
4112	81.8	2	212	9	4	2	0
4113	51.9	2	198	9	4	2	0
4114	60.6	2	190	7	4	2	0
4115	76.2	2	183	6	4	2	0
4116	49.2	2	183	9	3	1	0
4117	62.9	2	181	8	3	1	0
4118	70.7	2	180	8	3	1	0
4119	72.8	2	180	8	3	1	0
4120	82.2	2	185	9	4	2	0
4121	83.9	2	186	9	5	2	0
4122	82.9	2	186	9	5	2	0
4123	63.2	3	207	11	4	2	0
4124	74.3	2	214	8	4	2	0
4125	64.6	3	226	11	4	3	0
4126	66	3	226	11	4	3	0
4127	68	3	230	12	5	2	0
4128	68.2	4	303	12	5	2	0
4129	68.2	4	314	13	5	3	0
4130	63.2	4	329	12	6	3	0
4131	60.4	4	356	14	6	2	0
4132	50.7	4	369	15	6	2	0
4133	63.6	4	378	16	5	2	0
4134	60.4	4	375	17	6	2	0
4135	55.4	4	370	16	6	2	0
4136	51	4	361	14	5	1	0
4137	65.3	4	366	16	6	2	0
4138	65.2	4	371	15	7	2	0
4139	62.9	4	378	15	5	2	0
4140	63.3	5	399	16	5	2	1
4141	54.5	5	417	17	6	1	0
4142	56.6	5	418	16	6	2	0
4143	63.8	5	425	16	6	2	0
4144	55.5	5	436	16	6	2	0
4145	52.3	5	432	15	6	2	0
4146	59.8	5	432	15	6	2	0
4147	56.1	5	417	15	6	3	0
4148	56.3	4	290	14	6	0	0
4149	66.9	4	297	14	7	2	1
4150	68	3	296	13	6	2	0
4151	94	3	292	14	6	2	0
4152	81.4	3	292	14	6	2	0
4153	84.9	3	295	15	5	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4154	79.9	4	295	15	5	3	0
4155	78.2	3	295	12	6	2	0
4156	83.1	3	294	14	5	2	0
4157	68.5	3	299	14	6	2	0
4158	65.1	4	304	14	7	3	0
4159	50.1	4	320	13	7	3	0
4160	40.9	4	330	15	6	2	0
4161	85.9	4	336	16	7	2	0
4162	79.5	4	351	17	8	3	0
4163	62.6	4	351	17	8	3	0
4164	62	4	364	19	7	2	0
4165	49.6	4	372	19	7	3	0
4166	69.9	4	377	17	7	2	0
4167	60.8	4	374	19	8	2	0
4168	61.7	5	374	19	8	2	0
4169	59	4	362	18	7	3	0
4170	67.4	4	362	18	7	3	0
4171	77.3	4	344.9	17.2	7.9	3.2	0
4172	72.7	4	324.8	15.2	5.6	3.2	0
4173	74.8	4	305	15.1	6.5	3	0
4174	81.2	4	288.7	13.3	6.3	2.7	0
4175	76.2	4	288.7	14.2	6.3	2.7	0
4176	74.5	3	279.7	14.5	5.7	2.1	0
4177	64.1	3	273.4	14.5	5.8	2.1	0
4178	63.3	3	273.4	12.9	5.8	2.1	0
4179	40.3	4	297.2	15.3	7.7	2.1	0
4180	50.5	4	305.2	15.6	7.7	3.3	0
4181	45.3	4	314.8	16	6.6	3.3	0
4182	49.9	4	326.3	16	6.6	3.3	0
4183	64.1	4	330.8	16.2	6.7	3.3	0
4184	48.5	4	333.5	17.2	6.7	3.3	0
4185	48.7	4	341	17.5	6.5	3.3	0
4186	50.9	4	341.9	18.1	6.9	1.6	0
4187	64.2	4	351.1	17.1	7.7	4.5	0
4188	61.5	4	312.2	16	7	4.1	1
4189	62.5	3	273.2	14.8	6.3	3.7	1.9
4190	72.4	1	91.1	6.7	3	1.5	0
4191	88.4	1	83.7	5.1	2.5	1.5	0
4192	43.1	1	93.4	6.1	2.2	1.2	0
4193	42.2	1	93.4	6.1	3.2	1.4	0
4194	74.1	1	97.9	5.6	3.2	1.4	0
4195	69.4	1	97.9	5.6	3.2	0.7	0
4196	97	1	97.9	5.5	3.1	0	0
4197	83.6	1	95.7	5.5	3.4	1.1	0
4198	88.3	1	93.4	5.5	3.7	2.1	0
4199	92.8	1	84.5	5	3.4	3	0
4200	101.3	1	85.5	5.1	3.3	2.9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4201	107.7	1	86.5	5.2	3.3	2.7	0
4202	108.3	1	87.4	5.3	3.2	2.6	0
4203	102.6	1	88.4	5.4	3.1	2.4	0
4204	94.6	1	89.4	5.5	3	2.3	0
4205	89.2	1	90.4	5.6	3	2.1	0
4206	96.8	1	91.3	5.6	2.9	2	0
4207	94.7	1	92.3	5.7	2.8	1.8	0
4208	69.7	1	93.3	5.8	2.7	1.7	0
4209	82.4	1	94.3	5.9	2.7	1.5	0
4210	89.4	1	95.2	6	2.6	1.4	0
4211	91.8	1	96.2	6.1	2.5	1.2	0
4212	69.7	1	117.7	8	3	1.2	0
4213	78.2	1	117.7	8	3	1.1	0
4214	90	2	138.3	8	4.2	1.1	0
4215	92.4	2	138.3	6.8	4.2	0	0
4216	112.2	2	149.8	9.4	4.6	2	0
4217	80.5	2	165	9.4	5.4	2	0
4218	76.9	2	165	7.9	5.4	1.9	0
4219	80.5	3	221.7	11.9	6.1	4.3	0
4220	68.9	3	227.8	12	6.1	2.5	0
4221	59.3	3	227.8	12	6	1.9	0
4222	96.5	3	227.8	12	6	2.2	2.4
4223	124	3	223.3	11.8	5.2	2.2	2.4
4224	105.3	3	229.2	12.6	5.6	1.2	0
4225	106.3	3	242.8	13	5.9	1.6	0
4226	75	3	256.3	13.3	6.2	2	0
4227	85.4	4	303.8	15.6	8	3.9	0
4228	86.6	4	303.8	15.6	8	3.9	0
4229	92.1	5	385.1	20.1	8.6	3.9	0
4230	80.7	5	385.1	20.1	8.6	3.7	0
4231	88	6	499.6	27.2	13.4	5.7	0
4232	92.4	8	608.2	33	16.5	7.2	0
4233	97.3	8	608.2	33	16.5	7.2	0
4234	97.2	9	695.2	36.4	18.1	8	0
4235	91	10	782.2	39.7	19.7	8.8	0
4236	82.3	10	782.2	39.7	19.7	8.8	0
4237	89.7	10	794.2	39.7	19.9	9.8	1.2
4238	92.6	10	800.5	39.5	20.2	9.8	2.3
4239	84.1	10	800.5	38.9	20.2	8.5	2.3
4240	95.8	10	801.3	39.3	20	8.6	1.2
4241	87.1	10	802.1	39.6	19.8	8.6	0
4242	81.2	6	519.5	24.6	11.4	6.2	1.7
4243	69.5	6	462.3	21	10.2	3.7	1.7
4244	64.9	5	435.3	21.9	9.9	3.7	0
4245	70.7	5	410.3	21.1	9.7	3.9	0
4246	52.3	5	410.3	21.1	9.7	4.3	0
4247	66.4	5	392.5	20	10.3	4.3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4248	66	5	394.4	21	10.3	3.8	0
4249	88	5	394.4	21	8.7	3.7	0
4250	80.2	5	402.7	21	8.7	4.2	0
4251	97.8	5	413.9	20.8	8.8	4.2	0
4252	77.8	5	413.9	20.8	8.8	4.1	0
4253	69.7	5	421.2	21.1	8.5	3.5	0
4254	81.1	5	435.5	21.1	8.5	4	0
4255	74.6	5	441.7	21.5	8.3	4.8	0
4256	69.5	5	441.7	21.5	8.1	4.8	0
4257	68.3	5	457.1	21.5	9.8	4.8	0
4258	73.3	6	473.6	22.3	9.8	3.9	0
4259	70	6	487	22.3	9.8	3.9	0
4260	81.8	6	516.3	21.5	10.5	5.4	0
4261	83	6	516.3	20.9	10.5	5.4	0
4262	65.3	6	550.6	22.8	11	4.4	0
4263	95.1	6	550.6	22.8	11	4.4	0
4264	91.1	7	592.2	25.4	11.5	3.6	0
4265	82.6	8	625.9	29.8	13	4.6	0
4266	80.4	8	651.8	32.2	13	4.8	0
4267	106.3	8	651.8	32.2	11.9	4.8	0
4268	86.6	8	673.7	29.6	12.5	4.4	0
4269	92.3	8	673.7	29.6	12.5	4.4	0
4270	98.9	8	692.7	29.7	13.9	3.1	0
4271	91.5	8	703.6	31.9	13.9	6.8	0
4272	80.4	8	703.6	31.9	13.1	6.8	0
4273	108.6	8	707.2	31.9	13.3	6.8	2.3
4274	102.7	8	707.2	31.3	13.3	4.3	2.3
4275	91.7	8	718.5	29.2	13.1	5.7	0
4276	87.8	9	723.8	30.8	13.3	5.7	0
4277	105.4	9	729.1	32.4	13.5	5.7	0
4278	88	9	729.1	32.4	14.3	7	1.7
4279	106.2	8	660.7	29.4	13.2	6.4	1.1
4280	107.9	7	592.4	26.4	12.2	5.9	0.6
4281	107.9	6	524	23.4	11.1	5.3	0
4282	120	6	487.5	22	10.1	4.3	1.5
4283	73.6	6	479.3	22	10.1	4.3	1.5
4284	110.7	6	479.3	22	10.1	4.7	1.5
4285	92.7	3	262.9	13.5	6.2	1.3	0
4286	95.6	3	262.9	13.9	6.9	4.2	1.3
4287	62.3	1	102.7	5.4	2.8	1.8	0
4288	71	1	83.6	3.6	2.4	0	0
4289	98.4	1	83.6	3.6	2.4	0	0
4290	67.1	1	76.5	3.6	1.8	0	0
4291	107.9	1	76.5	5	2.6	1.6	0
4292	98.7	1	85.6	5.9	3.1	1.6	0
4293	99.5	1	85.6	5.9	3.1	1.6	0
4294	97.9	1	91.2	5.9	3.1	1.6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4295	93.1	1	91.2	4.3	2.1	1.1	0
4296	99.9	1	97.1	5.8	3.5	1.5	0
4297	99.1	1	103	7.2	4.8	1.9	0
4298	94.9	1	102.6	7.2	4.8	1.9	0
4299	91.3	2	149	9.6	4.8	3.9	0
4300	79.6	2	149	9.6	3.7	3.9	0
4301	103.7	2	160.7	10.3	5.3	3.9	0
4302	101.9	2	177.8	10.3	6.5	4.5	0
4303	92.9	2	177.8	9.9	6.5	4.5	0
4304	90.9	2	183.2	9.7	5.9	4.2	0
4305	82.1	2	188.6	9.4	5.3	3.9	0
4306	87.3	3	202.4	11.5	6.8	3.9	0
4307	87.2	3	204.3	11.5	6.8	4.2	0
4308	90	3	204.3	11.2	6.3	4.2	0
4309	89.9	3	209.6	11.2	6.3	4.2	0
4310	96.2	3	209.6	10.6	6.3	3.7	0
4311	98.4	3	218.3	11.7	6.4	4.9	0
4312	97	3	218.3	12.8	6.9	6.1	0
4313	93	3	216.3	12.8	6.9	6.1	0
4314	69.7	3	221.3	12.8	6.9	6.1	0
4315	83.8	3	221.3	12	6.3	4.9	0
4316	90.8	4	313.1	16.2	8.8	4.9	0
4317	86.4	5	371	17.7	7.3	5.9	1.2
4318	72.2	5	423.5	19.2	9.7	5.9	1.2
4319	92.2	5	423.5	19.2	9.7	5.9	0
4320	74.1	6	483.9	25.7	10.6	5.9	0
4321	75.5	6	532.7	25.9	10.9	5.2	0
4322	83.5	7	577.6	28.2	10.9	5.7	0
4323	64	7	624.2	28.8	11.7	5.7	0
4324	87.3	7	624.2	28.8	11.7	5.7	0
4325	94.9	8	648.9	28.8	12.1	6.5	0
4326	86	8	680	30.6	13.3	6.5	0
4327	94.9	8	680	30.6	13.3	5.5	0
4328	101.1	8	706.3	33	13.3	5.7	1.7
4329	100.6	8	706.3	33	12.4	5.7	1.7
4330	86.2	9	740.2	33	13.5	5.7	1.7
4331	59	9	753.2	31.1	13.5	6	0
4332	50.5	9	753.2	31.1	13	6	0
4333	90.8	9	753.2	32	14.2	6.1	0
4334	103.4	9	743.3	32.1	14.2	6.1	0
4335	104.5	9	719.3	32.1	13.9	5.4	0
4336	106.8	9	719.3	32.1	13.9	5.8	0
4337	106	8	704.2	30.6	12.4	5.8	0
4338	104.8	8	687.9	27.5	11.7	5.7	0
4339	99.2	8	687.9	27.5	11.7	5.7	0
4340	92.8	8	651.1	26.1	11.3	5	0
4341	102	7	622.2	26.2	11.6	4.9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4342	101.1	7	622.2	28.6	11.6	4.9	0
4343	92.2	7	596.8	28.6	10	4.6	0
4344	98.5	7	596.8	28.6	10.5	4.7	0
4345	106.3	7	587.6	28.4	10.5	5.1	1.4
4346	92.1	7	639.5	27.9	9.6	5.1	0
4347	86.8	7	639.5	27.9	9.6	4.1	0
4348	89.8	8	684.7	30.3	10	4.6	0
4349	78	8	684.7	30.3	10	4.6	0
4350	97.7	8	716.3	30.2	10.2	3.9	0
4351	94.8	8	734.5	30.2	10.2	3.9	0
4352	97.6	8	734.5	30.1	10.2	2.6	0
4353	100.9	9	751.8	30.1	10.6	3.1	0
4354	87.2	9	751.8	29.9	10.6	3.1	0
4355	94.4	9	750.2	32.2	11.4	2.9	2.1
4356	83.7	9	750.2	34.2	11.4	4.9	2.1
4357	88.8	9	739	34.2	10.7	4.9	0
4358	103.1	8	720.3	31.9	10.6	3.2	0
4359	93.4	8	720.3	31.9	10.6	3.2	0
4360	109.4	8	720.3	32.5	10.6	3.2	0
4361	95.1	8	695.6	32.5	10.6	1.6	0
4362	92.3	8	680.7	31.7	10.2	4	0
4363	96.4	8	680.7	31.7	10.2	4	0
4364	108.8	8	661	32.7	10	2.5	0
4365	111.1	8	661	32.7	10	4.1	0
4366	112.8	7	627.8	29.2	9.4	4.1	0
4367	102.1	7	627.8	29.2	9.4	4.1	0
4368	101	6	558.9	25	8.3	2.8	0
4369	92.2	6	558.9	25	8.3	4	0
4370	90.5	6	502.1	24.5	8	4	0
4371	90.2	5	433.7	21.5	6.7	2.8	0
4372	101.2	5	433.7	21.5	6.7	4	0
4373	106.2	5	390.7	19	6.5	4	0
4374	72.6	5	390.7	19	6.7	4	0
4375	92.8	4	337	16.6	6.7	3.8	0
4376	70.1	4	307.9	16.6	6.7	3.8	0
4377	97.7	3	266.7	14.1	5.5	3.3	0
4378	69.2	3	266.7	14.1	5.5	1.8	0
4379	60.7	2	192.3	12	5.4	2.5	0
4380	77.7	2	151.9	9.3	5	1.8	0.6
4381	90.2	1	111.5	6.6	4.6	1.1	1.2
4382	74.6	1	108	6.1	3.5	1.1	1.2
4383	97.2	1	116.7	7	3.5	1.7	1.2
4384	109	1	116.7	7	2.8	3.5	0
4385	82	1	114.6	6.4	2.5	3.5	0
4386	92.4	2	113.7	8.1	2.8	1.7	0
4387	89.1	2	113.7	8.1	2.8	1.7	0
4388	80	2	111	6.8	3.2	2.4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4389	79.5	2	111	6.8	3.2	2.4	0
4390	76.8	1	106.3	7	2.1	1.1	0
4391	41.4	1	106.3	7	2.6	1.1	0
4392	59.9	1	99.5	8	2.6	2.7	0
4393	66	1	90.9	8	3.2	2.7	0
4394	56.1	1	100.4	6.8	3.2	1.8	0
4395	57.5	2	117.5	6	2.8	1.8	0
4396	65.5	2	126.1	7.5	3.4	2.2	0
4397	59.8	2	126.1	7.5	3.4	2.2	0
4398	53.5	2	134.9	8.5	3.4	2.2	0
4399	54.9	3	265.1	13.2	4.6	1.5	0
4400	23.7	4	301.8	14.5	5.4	1.1	0
4401	53	4	311.7	17.4	6.2	1.3	0
4402	31.6	4	312.3	18.5	5.1	0	0
4403	44.5	4	312.3	18.5	5.7	1.9	0
4404	35.8	4	302.4	16.1	5	1.9	0
4405	47.4	4	296.3	15.9	5	1.5	0
4406	34.5	3	291.2	19.2	4.5	2.5	0
4407	43.2	3	280.9	16.7	4	2.5	0
4408	42.3	3	270	15.2	4.7	0	0
4409	47.5	3	262.1	15.6	4.7	2.3	0
4410	50.9	3	260.6	15.6	4.3	2.3	0
4411	49.2	3	273.9	14.2	4.3	1.5	0
4412	45.2	3	286	16.5	4.4	1.5	0
4413	40.1	3	286	16.5	4.7	1.5	0
4414	43.7	4	290.9	17.3	6.1	2.2	1.5
4415	39	3	288.6	14.9	4.9	2.8	1.5
4416	55.4	3	288.6	14.3	4.9	2.8	0.8
4417	90	3	288.6	13.7	4.9	2.8	0
4418	103.5	3	294	14.5	4.6	2.8	0
4419	96.7	3	295.5	15.1	4.6	2.8	0
4420	109.8	4	298.3	15.1	4.9	1.8	0
4421	98.1	4	298.3	14.7	4.9	1.8	0
4422	81.3	4	305.4	15.7	4.1	2.4	0
4423	82.9	4	310.3	15.7	4.8	2.4	0
4424	78.4	4	318	15.2	4.8	1.7	1.4
4425	88.8	4	318	14.2	4.7	1.7	1.4
4426	86.3	4	331.4	15.4	5.3	1.7	1.4
4427	107.5	4	331.4	15.4	5.3	1.2	0
4428	112.3	4	343.9	15.8	5.4	2.1	0
4429	114.1	4	343.9	15.8	5.4	2.1	0
4430	112.7	4	355.9	16	6	1.2	0
4431	89.7	4	364.3	19.7	6	1.4	0
4432	97	4	364.3	19.7	5.6	1.4	0
4433	105.5	4	364.5	19.7	5.6	1.4	0
4434	128.8	4	364.5	19.7	5.6	1.4	0
4435	114.2	4	364.5	19.7	5.6	1.4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4436	114.1	4	368.2	21.3	6.3	1.4	0
4437	114.2	4	368.2	21.3	6.5	1.1	0
4438	102.3	4	366.5	20.5	6.7	0.6	0
4439	74.5	4	364.8	19.7	6.9	0	0
4440	121.5	4	363.6	18.2	6.9	0	0
4441	98.6	4	345.2	17.7	5.7	2.2	0
4442	94	4	345.2	17.7	5.7	2.2	0
4443	91.4	4	320.7	16.8	4.8	2.6	0
4444	53.6	4	292.9	16.3	4.5	2.6	0
4445	61.7	3	259.7	14.2	4.3	1.4	0
4446	94	3	248.1	12.5	4.3	2.1	0
4447	38.8	3	246.1	12.5	4.7	2.1	0.7
4448	94.4	3	244	12.5	5	2.1	1.3
4449	112.5	3	257.4	13.7	5	1.5	1.3
4450	91.9	3	257.4	13.7	3.6	1.5	0
4451	90.8	3	271.3	13.7	4.5	1.5	0
4452	124.6	3	271.3	12.3	4.5	0	0
4453	103.4	3	294.3	13.6	4.6	0	0
4454	111.5	3	294.3	13.6	4.6	0	0
4455	121	4	317.6	14.4	4.6	1.4	0
4456	111	4	317.6	14.4	4.4	1.4	0
4457	122.4	4	342.7	16.2	5.2	1.4	0
4458	103.3	4	342.7	16.2	5.2	0.7	0
4459	148.9	4	342.7	16.2	5.2	0	0
4460	119.1	4	378.1	20.3	5.2	0	0
4461	135.6	5	405.4	22.9	6	2.7	0
4462	123.9	5	405.4	22.9	6	2.7	0
4463	114.9	5	405.4	22.9	6	2.7	0
4464	114.7	5	432.1	22.5	6.3	1.4	0
4465	123.3	6	503.5	27.1	7.1	1.9	0
4466	77.1	6	507.7	27.1	7.1	1.9	0
4467	73.1	6	507.7	24	6.3	1.9	0
4468	120.2	6	507.7	24	6.3	1.9	0
4469	113.9	6	502.2	26.4	7.6	0	0
4470	102.4	6	504.2	26.4	7.6	3.2	0
4471	107.7	6	504.2	24.5	6.5	3.2	0
4472	79.6	4	340.8	20.4	6.3	2.5	1.9
4473	58	1	90	8.5	1.8	2.2	0
4474	83.8	1	95.9	6.9	3.1	0	0
4475	72.9	1	103.2	6.9	3.1	0	0
4476	78.6	1	103.2	6	3.1	0	0
4477	84.4	1	104.9	7.3	3.2	1.7	0
4478	84.3	2	107.4	7.3	3.2	1.9	0
4479	82.5	2	107.4	7.3	2.8	1.9	0
4480	84.9	2	109.2	5.8	3.5	1	0
4481	81.8	2	118.3	7	3.5	1	0
4482	56.5	2	134.1	9.5	4.1	1.3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4483	67.5	2	150	9.5	4.1	1.3	0
4484	70.4	2	150	8.9	3.4	1	0
4485	44.8	2	197.6	11.6	6	1.2	0
4486	57	2	197.6	11.6	6	2	0
4487	58.6	3	211.1	11.5	5	2	0
4488	55.8	3	250.1	12.5	5.1	1.7	0
4489	70	3	250.1	12.5	5.1	0	0
4490	74	3	250.1	14	5.1	0	0
4491	73.5	3	258	14	4.7	1.7	0
4492	68.2	3	258	13.2	4.4	1.7	0
4493	62	3	276.6	15.7	5.6	0	1.4
4494	78.4	3	289.4	15.7	5.6	1.1	1.4
4495	82.3	3	289.4	15.7	5.1	1.1	0
4496	86.2	4	349.4	15.7	6.4	1.7	0
4497	76.5	4	371.3	17.7	7	1.7	0
4498	70.7	5	388	19.1	7	3.2	0
4499	70.1	5	404.7	20.5	7	4.7	0
4500	79	5	404.7	20.5	6.5	4.7	0
4501	67.8	5	414.3	19	6.8	2.8	0
4502	77	7	585.3	24.1	8.3	2.9	0
4503	58.2	7	585.3	24.1	8.3	1.7	0
4504	69	7	633.8	26.6	8.5	1.7	0
4505	80.8	7	633.8	26.6	9.1	2.5	0
4506	73.7	7	652.6	26.1	9.2	2.5	0
4507	58.3	7	652.6	26.1	9.2	0	0
4508	83.7	7	652.6	26.1	9.2	1.8	0
4509	64.7	7	641.6	25.8	8.8	2.9	0
4510	68.3	7	604	25.8	8.3	2.9	0
4511	69.5	6	545.5	24.6	8.3	1.1	0
4512	77.5	6	545.5	24.6	8.7	1.8	0
4513	85.4	5	453.4	21.9	6.9	0	0
4514	45.5	5	397.7	16.8	6.2	2.6	0
4515	61.6	5	422.1	18.4	6.6	2.6	0
4516	53.6	5	454.9	20	6.6	1.9	0
4517	71.6	6	486.3	22	6.4	4.3	1.4
4518	61	6	486.3	22	6.4	4.3	1.4
4519	66.2	6	516.7	24.1	8.5	4.3	1.4
4520	67.9	6	533.4	24.2	7.5	3.1	0
4521	61.1	6	533.4	24.2	9.2	3.1	1.2
4522	76	6	518.3	22.3	9.2	2.7	1.2
4523	71.4	6	495.9	22.3	7.3	3	0
4524	59.8	6	473	20.9	7.3	3	0
4525	58.1	5	458.7	21	6.6	3.8	0
4526	56.1	5	442.4	20.4	6.4	3.8	0
4527	68.7	5	442.4	20.4	7.8	3.8	0
4528	67.1	5	431	17.6	7.8	2.6	0
4529	73.5	6	475.6	22.6	8.4	2.6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4530	67.9	6	496.3	23.7	8.4	2.6	0
4531	69	6	496.3	23.7	8.3	1.8	0
4532	62.2	6	490.4	21.8	7.7	3.4	0
4533	71.6	6	468.6	20	7.7	3.4	0
4534	71.3	6	468.6	21.1	8.3	3.4	0
4535	60.1	5	445.8	21.1	8.6	3.2	0
4536	64.9	5	410.7	19.6	8.6	3.2	1.9
4537	54.9	5	383.7	19.6	7.1	2.2	1.9
4538	58.1	4	361	16.5	6.4	2.1	0
4539	58.7	4	355.4	16.5	6.5	2.3	0
4540	64.7	4	346.9	16.2	6.5	2.3	0
4541	46.4	4	345.1	16.5	6.4	2.5	0
4542	67	4	344.4	16.5	6.1	2.5	0
4543	65.8	4	344.4	15.4	6.5	2.5	0
4544	45.8	4	343.5	16.1	6.5	2.1	0
4545	56.8	4	347.7	18.6	8.1	2.3	0
4546	72.8	4	353.2	18.6	8.1	2.3	0
4547	66.8	4	353.2	17.4	6.1	1.6	0
4548	63.4	5	376.9	18.9	8.4	2.4	0
4549	55.7	4	376.9	18.5	8.4	0	0
4550	64.2	4	379.9	18.5	8.4	2.7	0
4551	106.5	4	379.9	18.3	6.2	2.7	0
4552	119.4	4	379.9	18.3	6.2	2.7	0
4553	145.5	5	411.3	18.7	7.4	3	0
4554	110.7	5	411.3	18.7	7.4	3	0
4555	108.6	5	422.6	18.3	7.1	3.5	0
4556	107.5	5	422.6	20.5	8.4	3.5	0
4557	77.2	5	410.2	20.5	8.4	2.4	0
4558	90.3	5	410.2	20.5	8.4	2.4	0
4559	98.7	5	423.7	19.3	7.8	2.6	0
4560	95.1	5	423.7	17.8	7	2.6	0
4561	90.4	6	553.2	22.1	9	3.5	0
4562	81.2	5	428.1	18.5	9	3.2	0
4563	82.5	4	379.6	17.6	7.4	3.2	0
4564	82.5	4	331.1	16.6	5.8	3.2	0
4565	53.5	4	377.7	17.2	6.6	2.9	0
4566	88.9	5	424.2	17.8	7.4	2.5	0
4567	72.1	4	366.8	16.9	7.3	2.7	0
4568	72.1	4	309.4	16.1	7.2	3	0
4569	50.1	3	252	15.2	7.1	3.2	0
4570	65	2	162.6	10.1	4.1	2	0
4571	73.5	2	181	11.6	4.9	3.8	0
4572	97.4	2	181	11.6	4.9	3.8	0
4573	88.6	2	181	11.6	4.9	3.8	0
4574	92.8	3	197.7	11.6	5.2	3.8	0
4575	95.1	2	193.3	9.4	4.5	2.7	1.4
4576	85	3	200.7	10.4	5.3	2.7	1.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4577	110.5	3	228.8	10.8	6.1	3.3	0
4578	67.5	4	332.5	16.3	8	3.9	0
4579	57	4	332.5	16.3	8	3.9	0
4580	74	5	418	22	11	5	0
4581	81.3	5	418	22	11	5	0
4582	79.9	6	442	24	9	6	0
4583	82.4	6	442	24	9	6	0
4584	84.8	6	442	24	9	6	0
4585	78.8	6	442	24	10	6	0
4586	98.8	5	381	18	10	2	0
4587	91.8	4	336	16	8	4	2
4588	101	4	336	16	8	4	2
4589	90.9	4	329	16	8	4	1
4590	94.6	4	321	16	8	4	1
4591	91.3	4	313	16	8	4	0
4592	109.8	4	322	16	7	4	0
4593	98.7	5	374	17	7	4	0
4594	92.2	5	374	17	7	2	0
4595	105	5	420	19	8	4	0
4596	101.4	5	444	20	8	4	0
4597	98.1	5	464	20	8	4	0
4598	105.8	6	484	20	9	4	0
4599	56.5	6	484	20	9	3	0
4600	107.4	6	537	26	11	5	0
4601	97	6	537	26	11	5	0
4602	115.4	7	585	27	10	4	0
4603	108.1	8	642	28	12	6	0
4604	97.7	8	642	28	12	6	0
4605	92.9	9	739	33	12	6	0
4606	90.9	9	739	33	12	5	0
4607	95.9	9	793	36	14	7	0
4608	103.6	9	793	36	14	7	0
4609	89.6	9	841	34	12	4	0
4610	104.4	10	868	36	14	6	0
4611	111	10	868	36	14	6	0
4612	107.3	10	889	37	14	6	0
4613	111.3	10	889	37	14	3	0
4614	96.6	10	889	37	14	5	0
4615	93.7	9	814	34	13	5	0
4616	100.6	9	814	34	13	5	0
4617	100.3	9	728	29	12	5	2
4618	88.1	8	647	26	12	5	0
4619	102	7	591	25	11	5	0
4620	111.3	7	591	25	11	5	0
4621	99.2	6	536	25	9	4	0
4622	91.6	7	536	25	9	4	0
4623	79.8	6	500	21	9	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4624	79.9	6	500	21	9	4	0
4625	90.9	6	518	24	9	4	0
4626	99.4	6	518	24	10	3	0
4627	92.6	6	515	22	10	3	0
4628	113.2	6	526	25	10	3	1
4629	93.4	6	527	25	10	4	1
4630	45.8	6	527	24	9	4	0
4631	104.6	6	534	25	10	4	0
4632	91.2	6	534	25	10	4	0
4633	88.3	6	534	25	10	4	0
4634	84.8	7	568	27	10	4	0
4635	86.9	7	568	27	10	4	0
4636	90.4	7	595	26	12	3	0
4637	97.9	7	595	26	12	3	0
4638	86.7	7	606	27	12	5	0
4639	89.6	8	656	29	12	5	0
4640	54.9	8	693	32	11	5	0
4641	55.2	9	710	32	12	5	0
4642	80.2	8	710	30	12	6	0
4643	63.8	8	700	30	11	6	0
4644	82.8	8	687	29	11	5	1
4645	72.1	8	674	28	11	4	2
4646	83.5	7	628	27	10	4	2
4647	76.4	7	596	25	10	4	0
4648	93.4	7	596	25	10	6	0
4649	89.2	6	547	22	9	6	0
4650	83.7	6	520	23	9	5	0
4651	80.2	6	492	24	9	4	0
4652	90.4	6	454	24	9	4	1
4653	96.8	5	454	24	8	2	1
4654	87.8	6	466	24	9	4	1
4655	86	6	466	23	9	4	0
4656	92.2	6	475	24	8	2	0
4657	86.8	6	457	23	9	4	0
4658	60.7	6	517	23	10	5	0
4659	88.7	6	518	24	10	4	0
4660	83.5	6	518	24	10	4	0
4661	86.9	4	356	16	6	3	0
4662	84	4	340	16	6	2	0
4663	76.1	2	152	10	4	3	2
4664	80	1	93	5	4	0	0
4665	63.6	2	112	7	4	2	2
4666	119.9	2	112	7	4	2	2
4667	109	2	112	7	4	2	2
4668	104.6	1	112	7	4	2	0
4669	108.2	1	114	7	4	2	0
4670	113.6	1	114	5	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4671	130.2	1	114	5	4	2	0
4672	140.1	8	626	27	13	6	0
4673	95.2	3	231	12	5	2	0
4674	58.8	3	231	12	5	2	0
4675	71.8	2	181	9	4	3	1
4676	64.6	2	181	9	4	3	1
4677	65.5	2	160	8	3	2	1
4678	56.7	2	166	9	5	1	0
4679	71.5	2	166	9	5	1	0
4680	79.4	3	221	12	4	2	0
4681	70.4	3	286	13	5	3	0
4682	74	5	389	17	7	3	0
4683	69.8	5	454	18	8	3	0
4684	49.6	6	546	19	8	5	0
4685	71.1	6	546	19	8	5	0
4686	70.2	7	612	22	9	4	0
4687	70.2	7	612	22	9	4	0
4688	60.1	6	508	20	8	4	0
4689	77.9	4	393	16	7	2	0
4690	76.9	4	360	15	5	2	0
4691	69	4	360	15	6	2	2
4692	56.8	4	332	14	6	2	2
4693	55.3	4	297	12	6	3	0
4694	47.5	3	260	11	4	2	0
4695	56.5	3	260	11	5	3	0
4696	65.9	3	258	13	4	1	0
4697	66.1	3	261	12	5	2	0
4698	34.1	3	266	12	5	2	0
4699	55.5	3	272	14	6	2	1
4700	69.8	3	272	14	5	0	0
4701	60.7	3	284	14	5	2	0
4702	61.7	4	284	13	6	4	0
4703	73.9	3	274	13	6	4	0
4704	77.2	3	288	12	5	1	0
4705	58.5	4	292	13	5	3	0
4706	78.3	4	312	13	6	3	0
4707	62	4	312	12	6	4	0
4708	64.4	4	306	12	5	4	0
4709	96.1	4	318	14	6	2	0
4710	92.3	4	318	15	6	2	0
4711	93.3	4	318	15	6	2	0
4712	94.9	4	318	15	6	2	0
4713	99	4	298	17	6	2	0
4714	98.2	4	298	17	6	3	0
4715	80.9	3	281	14	5	3	0
4716	84	3	281	14	4	2	0
4717	97.6	3	281	14	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4718	92.1	3	272	14	4	1	0
4719	81.6	3	285	13	5	3	0
4720	91.3	4	334	16	7	3	2
4721	105.6	4	370	16	7	3	2
4722	80.3	4	370	16	7	2	2
4723	91.7	4	370	16	7	2	2
4724	63.7	5	407	15	6	1	0
4725	85.2	5	418	16	6	2	1
4726	62	5	421	16	7	3	1
4727	19.3	6	525	20	7	3	0
4728	23.6	7	562	20	8	4	1
4729	24.5	6	505	20	8	4	1
4730	34.8	6	467	20	8	4	0
4731	50.2	6	467	20	8	4	0
4732	46	5	461	19	8	4	0
4733	44.3	5	412	18	8	4	0
4734	46.5	5	392	17	7	4	1
4735	61.5	5	382	19	7	4	1
4736	57.7	5	382	19	7	4	1
4737	61.3	5	373	16	6	4	1
4738	47.2	4	352	16	6	4	1
4739	62.3	5	399	16	6	4	1
4740	65.6	5	435	16	6	4	1
4741	53.3	5	456	16	8	3	1
4742	55.8	5	456	16	8	2	0
4743	86.7	6	489	16	8	5	2
4744	77.7	6	557	18	8	4	0
4745	63.2	7	578	22	9	3	0
4746	86.7	7	578	22	9	3	1
4747	83.9	7	547	21	8	3	1
4748	43.9	6	525	21	9	4	0
4749	72.1	6	501	20	9	4	2
4750	73.5	5	445	20	8	5	2
4751	74.9	5	434	20	8	5	0
4752	67.5	6	476	22	8	5	2
4753	63.5	6	509	22	8	4	2
4754	49.2	7	541	23	8	5	2
4755	33	6	507	20	8	3	0
4756	63	6	477	19	8	4	0
4757	45.6	4	270	12	6	5	2
4758	104.2	3	209	9	5	3	1
4759	61.2	3	261	14	6	4	1
4760	101.1	3	265	14	6	4	1
4761	111.6	4	306	15	7	4	1
4762	107.7	4	347	17	8	4	0
4763	44.9	4	347	17	8	4	0
4764	87.7	5	382	19	8	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4765	112.7	5	390	20	8	4	0
4766	100.7	5	390	20	8	4	0
4767	101.4	5	390	20	8	4	0
4768	106.4	4	380	17	8	3	0
4769	108.9	5	380	18	8	3	0
4770	88.4	4	361	18	8	2	0
4771	107	5	363	18	8	5	0
4772	88.2	4	363	16	5	5	0
4773	93.1	5	383	18	6	5	0
4774	82.1	5	383	18	6	2	0
4775	84.5	5	409	17	8	3	0
4776	97.6	5	429	18	7	3	0
4777	104.3	5	429	18	7	3	0
4778	114.1	5	432	16	7	2	0
4779	111	5	432	16	7	2	0
4780	135.3	5	422	17	6	2	0
4781	116	5	422	17	6	2	0
4782	128.5	5	422	17	6	2	0
4783	134.5	5	436	15	6	3	0
4784	84	5	436	15	6	3	0
4785	98.4	6	472	17	8	3	1
4786	83.5	6	487	20	10	4	0
4787	77.6	7	551	22	11	5	0
4788	88.7	7	551	22	11	5	0
4789	96.4	7	610	27	12	3	0
4790	87.6	8	637	28	13	6	0
4791	55.1	8	637	28	13	6	0
4792	95.8	9	731	31	15	6	0
4793	95.6	11	947	40	17	3	0
4794	97.6	11	947	40	17	3	0
4795	96.7	13	1093	44	19	8	0
4796	88.9	13	1093	44	19	8	0
4797	90.6	14	1158	43	21	8	2
4798	91.2	13	1081	42	19	10	0
4799	99.3	13	1081	42	19	10	0
4800	93.9	12	1006	38	17	6	0
4801	109.9	12	1006	38	17	6	0
4802	87.6	11	948	38	16	8	0
4803	97.1	11	892	35	16	7	2
4804	61.1	11	892	35	16	7	2
4805	107.3	11	934	34	15	6	0
4806	129.3	12	1013	36	16	7	0
4807	88	12	1013	36	16	7	0
4808	80.3	12	1016	38	14	8	0
4809	70.7	11	976	35	14	3	0
4810	108.8	11	976	35	14	3	0
4811	88.2	12	1038	35	15	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4812	111.8	12	1038	35	15	6	0
4813	108.1	13	1095	36	14	8	2
4814	128.6	13	1095	36	14	8	2
4815	120.9	13	1093	40	16	8	0
4816	85.4	13	1093	40	16	8	0
4817	127.9	13	1149	42	16	6	1
4818	44.5	14	1201	42	18	7	0
4819	73.2	14	1214	43	17	8	0
4820	90.7	14	1214	43	17	8	0
4821	79.8	14	1210	44	18	8	0
4822	65.3	15	1264	47	19	8	0
4823	76.9	15	1332	46	21	8	0
4824	68.2	18	1523	52	24	10	2
4825	76.4	18	1523	52	24	10	2
4826	72.3	19	1670	57	25	10	2
4827	83.9	19	1691	58	27	10	2
4828	90.2	19	1637	58	27	11	0
4829	77.6	19	1637	58	27	11	0
4830	83.9	17	1466	48	23	9	1
4831	98.1	15	1325	45	22	10	0
4832	78.9	14	1250	43	20	9	0
4833	57.9	14	1250	43	20	9	0
4834	80	14	1205	42	19	8	0
4835	89.7	14	1205	42	19	8	0
4836	88.1	13	1130	45	18	8	0
4837	84.6	13	1144	45	19	9	0
4838	89.2	13	1142	45	19	7	0
4839	89.1	13	1142	45	19	7	0
4840	74.2	13	1090	44	20	9	0
4841	63.3	12	1019	43	18	8	0
4842	62.9	12	1019	43	18	8	0
4843	70.2	11	938	37	17	8	0
4844	78.4	10	821	35	16	8	0
4845	92.8	9	716	32	14	8	0
4846	63.1	8	720	32	14	6	0
4847	78.3	9	720	32	14	6	0
4848	60.8	8	690	29	13	6	0
4849	73.5	8	685	29	14	6	3
4850	68.2	8	685	29	14	6	3
4851	75.2	8	683	27	12	4	1
4852	95.9	7	575	24	10	3	0
4853	95.1	4	325	16	8	2	0
4854	81.3	3	245	14	6	2	0
4855	69.1	3	240	12	5	3	0
4856	90	3	210	12	4	1	0
4857	87.8	3	200	12	4	2	0
4858	80.6	2	195	11	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4859	84	2	192	11	5	3	0
4860	81.9	3	220	11	6	4	0
4861	71.4	3	220	11	6	4	0
4862	72.2	3	213	10	5	4	0
4863	63.9	3	210	10	5	2	0
4864	77.9	3	205	11	6	3	0
4865	55	3	211	12	5	4	0
4866	59.3	3	203	11	7	3	2
4867	61.5	3	209	13	6	4	0
4868	61.7	3	209	13	6	4	0
4869	56.5	3	212	12	8	4	0
4870	56.9	3	230	13	7	2	0
4871	59.5	3	235	12	8	3	0
4872	64.4	3	246	15	8	5	2
4873	67	3	248	13	8	4	0
4874	64.5	3	248	13	8	4	0
4875	57.3	4	272	14	8	5	0
4876	52	4	297	15	8	6	0
4877	49.6	4	297	14	8	2	0
4878	50.1	4	351	18	9	6	0
4879	66.3	5	374	19	10	6	2
4880	64.4	5	374	19	10	4	2
4881	66.6	5	392	19	10	6	2
4882	67.4	5	404	20	9	6	0
4883	70.4	5	404	20	9	6	0
4884	69.5	5	404	18	9	6	0
4885	74.6	5	408	19	9	6	0
4886	56.7	5	408	19	9	6	0
4887	66.9	5	418	21	10	5	0
4888	58.5	5	418	21	10	5	0
4889	53.1	5	428	24	10	4	0
4890	64.4	5	428	24	10	4	0
4891	72.7	6	437	22	10	7	0
4892	77	6	432	22	9	7	2
4893	57.8	5	420	20	9	6	0
4894	49.8	5	424	22	9	6	0
4895	57.5	5	416	19	9	5	0
4896	58.5	5	412	19	9	5	0
4897	62.2	5	415	19	9	5	0
4898	55.2	5	412	19	8	5	0
4899	52.2	5	424	18	10	6	0
4900	42.9	5	424	18	9	4	0
4901	59.7	5	430	19	8	4	0
4902	61.5	5	436	22	9	5	0
4903	55	5	450	22	10	5	0
4904	61.7	5	448	20	9	4	0
4905	55.7	5	450	21	9	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4906	63.7	5	450	21	9	4	0
4907	63.7	6	456	21	10	6	0
4908	66.7	6	472	24	10	5	1
4909	41.8	6	472	24	10	5	1
4910	59.4	6	484	23	9	4	1
4911	56.7	6	487	22	11	5	0
4912	55.3	6	488	23	8	5	0
4913	61.5	6	491	24	9	5	2
4914	54.7	6	494	21	10	4	0
4915	45.7	6	494	21	10	4	0
4916	52.4	6	498	22	9	6	0
4917	64.6	6	488	21	9	6	0
4918	63.1	6	482	22	9	5	1
4919	68	6	471	20	9	6	2
4920	53.5	5	463	19	9	3	0
4921	52.3	6	459	23	9	6	0
4922	54.8	6	461	23	9	4	0
4923	51.5	6	461	24	9	6	0
4924	60.4	6	458	22	9	6	0
4925	56	6	456	21	9	5	0
4926	66.7	5	448	22	10	4	0
4927	55.4	5	445	22	9	4	0
4928	64.3	5	445	22	9	4	0
4929	62.3	5	459	21	9	4	0
4930	65.8	5	459	21	9	4	0
4931	51.4	6	481	22	9	5	0
4932	68.3	6	481	22	9	5	0
4933	78.1	6	489	22	9	5	0
4934	72.5	6	500	22	9	3	2
4935	74.3	6	502	22	9	6	0
4936	81.6	6	502	22	9	6	0
4937	73.6	6	509	22	9	4	0
4938	61.6	6	520	24	10	5	0
4939	50.7	6	526	25	10	5	0
4940	65.8	6	529	26	10	4	2
4941	62.5	6	524	23	10	6	0
4942	68	6	516	24	10	6	0
4943	37.8	5	425	19	8	3	0
4944	42.4	5	410	19	8	4	2
4945	39.6	5	417	20	10	5	0
4946	88.8	5	417	20	10	5	0
4947	82.2	5	367	17	8	5	0
4948	79	4	329	18	7	3	0
4949	88.6	4	329	18	7	3	0
4950	87.8	5	375	19	10	4	2
4951	78.3	5	391	19	10	6	2
4952	68.7	5	403	20	9	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4953	67.6	5	402	20	9	5	0
4954	67.6	5	403	18	9	5	0
4955	67	5	409	19	9	4	0
4956	66.1	5	407	19	9	4	0
4957	64.2	5	416	21	10	4	0
4958	70.3	5	421	21	10	6	0
4959	52.4	5	431	24	10	6	0
4960	52.4	6	452	24	10	5	0
4961	75.8	5	438	22	10	5	0
4962	50	6	433	21	9	6	2
4963	63.9	5	421	21	9	6	0
4964	53.7	5	424	22	9	6	0
4965	52.2	5	416	18	9	5	0
4966	59.9	5	412	18	9	5	0
4967	66.2	4	330	17	10	4	0
4968	72.9	5	359	18	10	5	0
4969	73.2	5	390	22	10	4	1
4970	80.2	5	425	23	12	6	0
4971	63.8	5	425	23	12	6	0
4972	64.7	6	499	24	12	6	0
4973	65.7	6	532	25	13	5	1
4974	68	7	540	24	12	6	1
4975	80.9	7	540	24	12	6	1
4976	87.1	7	540	24	12	6	1
4977	85.3	6	514	22	11	8	0
4978	76.5	6	514	22	11	8	0
4979	77	6	494	25	12	5	0
4980	64.7	6	477	25	12	5	0
4981	70.4	6	448	24	11	4	1
4982	73.2	5	430	22	10	4	0
4983	76.8	5	430	22	10	4	0
4984	77.1	5	411	21	8	6	0
4985	76.7	5	391	19	9	4	0
4986	72.7	5	391	19	9	5	0
4987	78.7	5	375	19	8	5	0
4988	62.5	4	364	17	8	5	0
4989	65.9	4	354	17	9	4	0
4990	29.5	5	430	22	10	4	0
4991	47.9	5	430	22	10	4	0
4992	40.5	5	412	21	8	6	0
4993	37.7	5	390	18	9	4	0
4994	63.9	5	390	18	9	5	0
4995	62.2	5	390	18	9	4	1
4996	33.3	5	385	16	8	3	0
4997	63.8	4	380	15	8	3	0
4998	58.2	4	326	15	7	2	0
4999	51	3	286	14	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5000	58.2	4	338	18	7	3	0
5001	58.3	5	452	21	8	4	0
5002	61.9	6	462	22	8	5	0
5003	73	6	462	22	8	5	1
5004	61.1	5	441	20	7	3	1
5005	56.6	5	404	18	7	3	0
5006	61.3	5	391	17	7	3	0
5007	67.2	4	378	16	7	3	0
5008	67.2	4	364	15	7	3	0
5009	56.6	4	313	14	6	5	0
5010	56.9	4	292	12	6	5	0
5011	56.9	4	294	14	7	4	0
5012	63.4	4	294	13	7	4	0
5013	67.1	4	314	17	7	4	0
5014	70.7	4	338	17	7	3	0
5015	74	4	362	17	8	3	0
5016	61.4	5	383	20	8	3	0
5017	66.3	5	392	20	8	3	0
5018	100.4	5	401	20	8	4	0
5019	57.9	5	418	19	9	4	0
5020	77.3	5	433	21	9	4	0
5021	60.3	5	436	21	8	4	0
5022	77.1	5	444	22	8	4	0
5023	79.7	5	444	22	8	4	0
5024	67.2	5	449	22	8	4	0
5025	67.9	6	454	22	8	4	0
5026	78.1	5	454	18	8	4	0
5027	78	5	458	22	8	3	0
5028	81	6	465	22	9	3	2
5029	60	6	465	22	9	3	2
5030	72.3	6	462	19	9	5	0
5031	65.4	6	460	20	9	5	0
5032	65.8	6	453	22	9	4	0
5033	83.1	5	452	24	9	5	0
5034	54.9	5	452	24	9	5	2
5035	59.8	6	458	24	10	4	2
5036	56.8	6	460	24	10	4	2
5037	70.9	7	544	26	9	6	2
5038	72.6	6	532	26	9	4	0
5039	70.1	5	357	16	7	4	1
5040	71.3	2	180	11	5	3	0
5041	73.7	2	180	11	5	3	0
5042	92.8	3	198	10	5	1	0
5043	96.6	3	198	10	5	1	0
5044	89.9	3	198	10	5	1	0
5045	79.8	3	206	10	4	3	0
5046	91	3	210	9	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5047	80.9	3	266	13	6	4	2
5048	89.6	3	266	13	6	4	2
5049	76.2	3	223	10	6	1	0
5050	76.1	3	234	12	5	4	0
5051	76.8	3	225	12	5	2	0
5052	61.6	3	225	12	5	2	0
5053	68.4	3	217	11	6	3	0
5054	74.3	3	208	10	5	2	0
5055	51.1	3	202	10	6	4	0
5056	55.3	2	192	7	5	3	0
5057	74	2	185	12	5	2	0
5058	84.3	2	185	12	5	2	0
5059	75.2	2	179	10	4	2	0
5060	92	2	188	10	5	3	0
5061	71.6	2	214	10	5	0	0
5062	76.4	3	252	12	5	2	0
5063	81.1	3	252	12	5	2	0
5064	92	3	295	13	6	2	0
5065	77.5	3	296	14	5	1	0
5066	81.8	4	310	15	5	1	0
5067	85.3	5	394.8	17.1	7.3	3	0
5068	67.8	5	394.8	17.1	7.3	3.7	1.7
5069	71.3	6	511.1	22.1	10.3	3.6	0
5070	87.5	6	527.4	23.5	10.3	4.1	0
5071	87.3	6	527.4	23.5	9.4	4.1	0
5072	85.5	6	543.5	22.6	8.7	3.1	0
5073	61	6	543.5	22.6	8.7	2.5	0
5074	51.8	7	545.3	26.2	10.3	4.6	1.7
5075	65.4	7	540.8	26	10.6	4.9	1.7
5076	8.6	7	550.8	26.1	10.2	4.6	0.9
5077	8.6	7	560.7	26.2	9.7	4.2	0
5078	8.6	7	604.8	26.6	10.5	5.4	1.5
5079	6.9	7	619.6	30.1	11.6	6.3	0
5080	8.3	7	600	25	10	6	1
5081	9.3	6	451	22	9	5	0
5082	10.3	5	437	21	9	5	0
5083	9.8	6	436	22	10	7	2
5084	1.7	4	297	17	7	5	0
5085	12.3	4	315	17	8	4	1
5086	12.2	4	319	16	7	4	0
5087	12.7	5	356	18	8	5	2
5088	15.7	4	282	15	7	4	0
5089	29.8	4	297	14	7	3	0
5090	34.4	4	327	17	7	4	0
5091	31.4	4	332	17	7	4	0
5092	28.7	5	366	19	8	4	0
5093	23.8	5	372	19	8	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5094	31.2	5	393	20	8	4	0
5095	26	5	393	20	9	4	0
5096	3.8	5	396	21	9	4	0
5097	30.5	5	396	21	9	5	0
5098	33.1	5	382	20	9	4	0
5099	27.9	5	386	19	9	5	0
5100	31.7	5	391	19	8	4	1
5101	29.3	5	392	18	8	4	1
5102	4.7	5	392	18	8	4	2
5103	24.2	5	396	20	8	4	2
5104	2	5	399	21	8	4	2
5105	31.7	5	409	21	9	5	0
5106	28.3	5	409	20	9	4	0
5107	32.5	5	400	19	8	5	0
5108	34.5	5	403	18	8	5	0
5109	28.8	5	407	18	8	4	0
5110	32.9	5	408	17	7	5	0
5111	27.5	5	408	21	8	5	0
5112	37.2	5	408	21	8	5	0
5113	37.5	5	412	21	9	5	1
5114	45.7	5	416	22	9	5	0
5115	41.5	5	433	22	9	5	0
5116	20.1	5	433	20	9	4	0
5117	32.4	5	427	21	8	4	0
5118	26.1	5	424	21	9	4	2
5119	34	5	415	18	9	4	2
5120	35	5	413	18	8	4	2
5121	23.1	5	408	20	9	5	2
5122	39.6	5	410	20	8	5	0
5123	34.9	5	418	19	9	5	0
5124	37.8	5	426	21	9	4	0
5125	28.4	6	480	22	9	6	2
5126	12.1	6	507	22	9	5	2
5127	18.1	6	532	24	10	5	1
5128	23.7	6	532	25	10	4	1
5129	27.1	7	533	25	9	6	0
5130	24.3	6	536	23	8	6	0
5131	26.8	6	539	23	8	4	0
5132	25.4	6	532	24	9	5	0
5133	33.1	6	491	22	10	4	0
5134	28.3	6	479	21	10	4	0
5135	28.3	6	457	21	9	6	2
5136	29.3	4	289	14	6	4	0
5137	14.9	3	288	12	5	3	0
5138	13.5	4	324	18	7	4	0
5139	15.5	4	342	17	6	5	0
5140	28.5	4	340	18	7	4	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5141	22.5	4	338	18	7	4	2
5142	27.5	4	315	15	8	3	2
5143	27.9	4	300	13	6	4	0
5144	26.5	4	281	14	7	4	0
5145	25.4	4	291	15	6	4	0
5146	35.9	4	306	15	6	4	0
5147	29.5	4	332	17	7	4	0
5148	29.6	5	352	17	7	5	0
5149	24.9	4	352	16	8	3	1
5150	26.7	4	357	16	7	4	0
5151	25.9	5	362	16	7	5	0
5152	23.7	5	386	18	9	5	0
5153	25.7	5	397	20	8	4	1
5154	23.6	5	411	20	8	4	1
5155	25.5	5	410	20	8	5	1
5156	12	5	409	19	8	5	0
5157	22	5	406	17	8	4	0
5158	25.7	5	419	17	8	4	0
5159	27	5	429	21	8	5	0
5160	29.4	5	434	22	8	5	0
5161	19	5	426	20	8	4	0
5162	28.2	5	428	20	8	4	0
5163	21.1	5	428	19	8	4	0
5164	27.6	5	431	18	8	4	0
5165	24.9	6	448	22	9	5	2
5166	30.3	6	464	22	9	4	0
5167	32.5	6	462	22	8	5	0
5168	26.1	6	497	21	9	5	1
5169	30	6	494	21	8	4	0
5170	59.9	6	470	21	9	4	0
5171	27.8	6	451	21	9	4	0
5172	21.3	5	408	21	8	5	0
5173	40.4	5	382	19	6	5	0
5174	39	4	363	19	7	3	0
5175	44.6	4	338	16	6	3	2
5176	37.4	4	326	15	7	3	2
5177	36.2	4	321	15	7	3	0
5178	47.6	4	330	15	7	3	0
5179	42.3	4	332	14	7	5	2
5180	38.1	4	332	14	7	4	2
5181	40.3	4	342	17	6	4	2
5182	35.6	4	346	17	7	4	0
5183	42.1	4	346	17	7	3	0
5184	36.4	4	350	16	7	3	0
5185	38.2	4	362	16	7	3	0
5186	38.9	5	375	18	7	6	0
5187	47.3	5	393	17	8	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5188	39.1	5	400	19	8	5	0
5189	25.1	5	414	17	8	4	0
5190	35.3	5	438	18	8	4	0
5191	29.2	5	442	17	8	4	0
5192	42.9	5	452	19	8	4	0
5193	49.3	6	461	22	9	4	0
5194	48.4	6	497	22	9	5	1
5195	46.2	6	501	22	9	5	0
5196	50.1	6	515	24	7	5	0
5197	37.5	6	524	22	8	5	0
5198	38.6	6	526	22	8	5	0
5199	44.3	6	526	22	9	4	0
5200	33.2	6	510	22	9	4	1
5201	42.6	6	505	21	8	4	1
5202	45.2	6	505	21	9	5	0
5203	38.5	6	501	18	9	5	0
5204	32.1	6	489	19	9	4	0
5205	36.7	6	488	24	9	3	0
5206	33.8	6	488	24	9	3	0
5207	38.9	6	486	21	8	4	0
5208	36	6	499	20	9	4	0
5209	41.5	6	511	20	9	4	0
5210	43.3	6	516	22	9	3	0
5211	44.7	6	528	23	8	3	0
5212	49.5	6	536	22	8	4	0
5213	38.3	6	547	22	9	4	0
5214	49.5	7	570	23	9	3	0
5215	41.5	7	570	22	8	3	0
5216	69.4	7	590	23	9	3	0
5217	56.4	7	632	28	9	3	1
5218	40	8	643	28	9	4	0
5219	54.8	8	664	28	10	4	0
5220	52.3	8	681	31	10	4	0
5221	54.3	8	708	31	11	4	0
5222	47.9	8	712	30	11	6	0
5223	46.9	8	715	30	10	6	0
5224	47.5	8	715	30	10	5	0
5225	39.6	8	706	29	10	5	0
5226	39.7	8	708	29	10	4	0
5227	49	8	716	28	10	4	0
5228	36.4	8	707	26	9	3	0
5229	48.6	8	701	29	11	4	0
5230	41.3	8	656	28	9	3	1
5231	49	3	283	15	6	2	0
5232	59.6	3	278	15	5	0	0
5233	97	3	284	17	5	1	0
5234	91.2	4	287	17	5	1	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5235	101.1	3	287	15	5	0	2
5236	91.8	3	287	15	5	0	2
5237	110.1	3	283	14	6	2	0
5238	106.9	3	284	15	6	2	0
5239	96.5	3	284	15	4	2	0
5240	87.9	3	278	14	4	1	0
5241	97.5	3	278	14	4	1	0
5242	93.9	3	274	14	4	3	0
5243	99.5	3	274	14	5	3	0
5244	102.7	3	274	14	5	3	0
5245	77.3	3	272	13	5	2	0
5246	92.4	3	272	13	5	2	0
5247	95.1	3	285	14	4	0	0
5248	103.9	3	285	14	4	0	0
5249	93.5	4	294	12	6	2	0
5250	93.1	4	308	13	6	2	0
5251	90.5	4	310	13	6	2	0
5252	100.4	4	312	14	6	2	0
5253	103.6	4	312	14	6	0	0
5254	104.7	4	312	14	6	2	0
5255	113.6	4	312	14	5	2	0
5256	100	4	306	12	6	2	0
5257	90.6	4	306	12	6	2	0
5258	99.9	4	307	14	6	2	0
5259	62.7	4	304	14	4	1	0
5260	125.1	4	302	14	5	2	0
5261	82.9	4	301	13	6	3	0
5262	87.5	3	268	13	5	2	0
5263	89	3	268	13	5	2	0
5264	89.8	3	254	13	5	2	0
5265	82.2	3	247	10	5	1	0
5266	89.2	3	247	13	5	2	0
5267	110.6	3	247	13	4	2	0
5268	93.3	3	239	11	4	0	0
5269	110.5	3	239	11	4	3	0
5270	67.9	3	235	11	4	3	0
5271	90.4	3	240	11	4	3	0
5272	99.5	3	240	11	4	2	0
5273	101.1	3	252	11	4	2	0
5274	92.3	3	269	11	4	2	0
5275	91.2	3	279	11	4	2	1
5276	87.7	3	289	11	5	2	1
5277	76.6	4	315	12	5	1	1
5278	61.8	4	346	15	6	2	0
5279	87	4	346	15	6	2	0
5280	115.3	4	385	17	6	0	0
5281	91.9	5	410	19	6	3	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5282	90.1	5	410	19	6	3	1
5283	85.5	5	441	19	5	2	0
5284	140.9	5	441	19	5	2	0
5285	95.2	5	461	21	6	2	0
5286	75.1	6	479	21	7	2	0
5287	110.7	6	479	19	7	2	0
5288	102.2	6	509	19	7	3	0
5289	122.9	6	509	19	6	3	0
5290	100.3	6	529	21	5	1	0
5291	109.8	6	529	21	5	1	0
5292	107.3	6	546	21	6	1	0
5293	46.5	6	569	21	6	2	0
5294	77.1	6	585	21	6	1	0
5295	73.5	7	592	21	6	1	0
5296	58.1	7	608	20	5	2	0
5297	71	7	608	20	5	2	0
5298	45.6	7	635	20	5	2	0
5299	93.3	7	644	20	6	2	0
5300	87.3	7	644	20	6	2	0
5301	90.7	7	639	19	5	2	0
5302	96.6	7	639	20	5	2	0
5303	78.5	7	640	21	5	2	0
5304	105.1	7	640	21	5	0	0
5305	65	7	664	24	6	2	0
5306	101.2	7	664	24	6	2	0
5307	109.6	8	683	24	6	2	0
5308	111.2	8	709	25	6	2	0
5309	105	8	722	26	6	2	0
5310	111.5	8	722	26	6	1	0
5311	51.3	8	713	24	6	1	0
5312	118.9	8	704	22	6	1	0
5313	90.1	7	655	21	5	1	0
5314	107.3	7	655	21	5	2	1
5315	100.6	7	588	19	5	2	1
5316	117.6	7	588	19	5	2	1
5317	74.8	6	533	17	4	1	0
5318	74.4	5	472	16	4	3	0
5319	63.9	5	442	15	4	3	0
5320	53.4	5	411	14	3	3	0
5321	77	4	344	12	3	2	0
5322	99.7	3	276	10	3	0	0
5323	52.6	3	276	10	3	0	0
5324	82.1	3	246	8	3	1	0
5325	79.5	2	126	6	2	0	0
5326	40.8	0	33	0	0	0	0
5327	28.7	0	39	0	0	0	0
5328	40.4	0	36	2	1	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5329	44.6	0	35	0	0	0	0
5330	59.5	0	40	0	0	0	0
5331	55.1	0	26	0	0	0	0
5332	49.1	0	24	0	0	0	0
5333	45.1	0	24	0	0	0	0
5334	51.5	0	28	0	0	0	0
5335	47.5	0	37	2	1	0	0
5336	41.7	0	40	2	0	0	0
5337	49.7	1	46	3	2	0	0
5338	46.6	1	58	2	2	0	0
5339	50	1	68	3	1	0	0
5340	53.6	1	83	3	1	1	0
5341	45.7	1	100	5	2	2	0
5342	60.2	1	100	5	2	2	0
5343	54.5	1	104	4	1	2	1
5344	55	1	104	4	1	2	1
5345	37.1	1	114	4	0	0	0
5346	49.7	1	114	5	1	1	0
5347	44.5	2	133	6	2	0	0
5348	41.5	2	134	4	2	1	0
5349	44.3	2	141	6	2	2	0
5350	43.7	2	144	6	0	0	0
5351	47	2	145	6	1	0	0
5352	55.4	2	151	5	2	0	0
5353	41.8	2	160	5	2	1	2
5354	41.4	2	159	5	1	0	0
5355	52.6	2	156	6	1	1	0
5356	33.2	2	168	4	1	2	0
5357	60.2	2	170	5	1	2	0
5358	46.1	2	150	5	2	1	0
5359	44.2	1	122	5	1	0	0
5360	36.2	2	123	5	1	3	0
5361	49.9	1	125	4	0	0	0
5362	35.9	1	122	4	1	0	0
5363	52.2	2	148	6	1	0	0
5364	37.2	2	165	6	1	0	0
5365	54.5	2	155	5	2	0	0
5366	58.8	2	180	5	2	0	0
5367	57	2	145	4	1	0	0
5368	59.3	2	164	4	1	0	0
5369	53.7	2	166	5	1	0	0
5370	47.8	2	176	5	1	0	0
5371	42.3	2	155	4	0	0	0
5372	33.7	1	98	4	0	0	0
5373	31.5	1	92	3	1	1	0
5374	39.3	1	124.8	3.4	1	1	0
5375	42.8	2	146.8	6.3	1.3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5376	36.4	2	153.8	6.9	0	0	0
5377	41	2	163	6.9	1.5	0	0
5378	37.8	2	172.1	5.5	1.5	0	0
5379	33.2	2	178.8	5.9	2.3	0	0
5380	29.6	2	193.2	5.7	2.3	0	0
5381	33.7	2	193.8	6.9	1.5	0	0
5382	40	2	200.4	6.9	1.5	0	0
5383	34.2	2	207	7.6	1.3	0	0
5384	33.1	2	211.4	8.8	1.3	0	0
5385	40.1	2	202.8	6.1	1.3	1.2	0
5386	37.7	2	198.5	6.1	1.7	1.2	0
5387	30.2	2	196.8	6.8	2.2	1.1	0
5388	44.3	2	186.6	6.8	2.1	0	0
5389	43.9	2	186.6	6.2	0	0	0
5390	44.3	2	181.9	6.2	0	0	0
5391	42.3	2	168.2	5.5	1.1	0	0
5392	67.3	2	168.2	5.5	1.1	0	0
5393	84.4	2	165.7	6	1.7	0	0
5394	74.2	2	165.7	6	1.7	0	0
5395	69	2	162	5.1	0	0	0
5396	81.4	2	171	5.7	1.8	0	0
5397	94.7	2	171	8.5	2	0	0
5398	80.3	2	167.8	8.5	2	0	0
5399	90.6	2	166	7.5	1.2	0	0
5400	81.5	2	170.7	7.5	1.2	0	0
5401	81.6	2	170.7	6.8	0	0	0
5402	80.9	2	168.8	6	0	0	0
5403	78.5	2	168.8	6.7	0	0	0
5404	85.6	2	166.4	6.7	1.9	1.7	0
5405	67.7	2	164.4	6.8	1.9	1.7	0
5406	73.1	2	164.4	6.8	1.1	0	0
5407	75.1	2	156.2	4.9	0	0	0
5408	79.6	2	156.2	5.1	0	0	0
5409	80.6	1	136.6	7	0	0	0
5410	89.9	1	131	7	1.4	0	0
5411	61	1	118.4	4.6	1.4	0	0
5412	61.8	1	112.1	3.6	0	0	0
5413	69.1	1	112.1	3.6	0	0	0
5414	48.6	1	123.1	4.7	1.3	0	0
5415	51.3	2	140.1	5.8	1.3	0	0
5416	35.2	2	163.2	7	0	0	0
5417	57.3	2	211.1	7.3	1.6	0	0
5418	47.1	4	329.3	12	2.5	1.1	0
5419	42.6	5	447.5	16.7	3.4	2.2	0
5420	85.4	2	173.1	7.9	2.9	1.7	0
5421	130.4	2	199.6	6.9	2.7	1.4	0
5422	74.3	2	199.6	6.9	1.3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5423	95.2	3	236.1	8.5	3.7	0	0
5424	102.8	3	236.1	8.5	3.7	0	0
5425	97.8	3	270.9	10.6	3.7	1	0
5426	105.2	3	270.9	10.6	2.6	1	0
5427	105.2	3	310.8	11.6	3.7	1	0
5428	97.3	5	433.1	19	5	3	1.6
5429	93.7	5	433.1	19	5	3	0
5430	93.2	5	474.9	17.7	4.5	4	0
5431	128.2	6	540.3	20.4	4.7	4	0
5432	92.8	6	540.3	20.4	4.7	0	0
5433	62.5	7	656.6	23.8	5.3	2.5	0
5434	97.3	11	973.3	29.3	7	2.7	0
5435	101.6	14	1342.1	38.2	7	2.7	0
5436	90.8	14	1342.1	38.2	7	2	0
5437	84.6	16	1434.1	42.4	7.6	2	1.5
5438	74.6	16	1434.1	42.4	7.6	2	1.5
5439	83.1	12	1124.7	34.6	6.1	0	0
5440	92.3	12	1124.7	34.6	6.1	1.5	0
5441	73.4	8	750.7	25.4	4.5	1.5	0
5442	73.6	5	486.5	15.2	4.3	1.9	0
5443	64.6	4	362.1	12.6	2.8	1.9	0
5444	71.2	4	362.1	12.7	3.1	1.9	0
5445	78.6	5	429.3	14.6	3.1	0	0
5446	78.9	5	429.3	14.6	3.1	0	0
5447	80.4	6	526.6	21.8	3.5	0	0
5448	91.3	7	625.6	23.9	4.6	1.4	0
5449	68.9	8	717.3	24.9	4.6	1.4	0
5450	73	8	717.3	24.9	3.3	0	0
5451	85.2	9	760.5	26.7	5	3	0
5452	83.9	9	837.1	27.2	5.4	3	1.1
5453	73	10	913.7	27.7	5.8	3	2.2
5454	65.3	10	950.5	27.1	5.8	1.5	0
5455	51.3	11	994.7	32.4	6.9	2.3	0
5456	61.1	11	994.7	32.4	6.9	2.3	0
5457	69.9	11	1015.5	32.2	4.9	0	0
5458	82.4	11	1015.5	32.2	5.3	1.2	0
5459	67.4	11	994.8	31.7	5.3	1.2	0
5460	87.4	10	925.9	30.6	4.8	0	0
5461	91.9	9	833	29.8	5.2	1.1	0
5462	93	9	833	29.8	5.2	1.1	0
5463	91.1	8	730	23.6	4.4	2.5	0
5464	69.7	7	681.3	22.8	4.4	2.5	0
5465	75.2	7	632.6	22	4.4	2.5	0
5466	62	6	524.5	17.9	3.7	0	0
5467	68.5	5	448.3	17.6	3.4	0	0
5468	65.5	4	391.1	15.1	3.5	0	0
5469	82.2	4	391.1	15.1	4.1	1.4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5470	72.9	4	384.8	13.8	4.1	1.4	0
5471	89.7	4	410	13.4	3.4	0	0
5472	79.5	5	468.7	15.2	3.9	1.1	0.8
5473	78.2	6	527.4	17	4.3	2.2	1.5
5474	69.3	6	605.6	18.6	4.3	2.2	0
5475	79.6	6	605.6	18.6	3.5	0	0
5476	58.2	7	696	22.5	3.9	0	0
5477	63.3	8	766.9	28.8	5	1.4	0
5478	79.9	9	822.4	29.4	5	2.1	0
5479	77.1	9	822.4	29.4	5	2.1	0
5480	89	10	879.9	32.5	5.2	0	1.2
5481	81.6	10	921.3	32.5	5.5	0	1.2
5482	38.1	10	962.7	32.5	5.7	0	1.2
5483	56.6	11	1002.5	34.6	7.3	2.8	0
5484	64.4	11	1049.7	34.8	6.5	0	0
5485	71.6	12	1099.3	36.5	6.5	1.4	0
5486	86.8	12	1099.3	36.5	6	1.4	0
5487	78.3	12	1149.5	38.5	6.7	0	0
5488	79.9	13	1214	38.5	7.6	0	0
5489	80.8	14	1293.3	39.8	7.6	0	0
5490	79.1	14	1329.5	40	7.7	0	0
5491	81	15	1365.6	40.1	7.7	0	0
5492	87.7	16	1451	42.8	9	0	0
5493	88	16	1451	42.8	9	0	0
5494	93.9	17	1534	42.8	9	1.3	0
5495	100	17	1534	40.1	8.5	1.3	0
5496	105.5	17	1585.8	41.4	7.8	0	2
5497	93.9	18	1644.4	42.6	9.1	2	2
5498	103.4	18	1644.4	42.6	9.1	2	0
5499	96.7	18	1714.5	40	8	1.3	0
5500	118.9	18	1714.5	40	8	1.3	0
5501	96.6	19	1794.1	45	9.5	1.3	0
5502	107.2	19	1794.1	45	9.5	0	0
5503	129.5	20	1869.9	52.7	10.6	1.6	0
5504	85.1	21	1932.2	56.9	10.6	1.6	0
5505	99.9	21	1932.2	56.9	10	0	0
5506	101.6	23	2156.6	60.7	12.8	0	1.3
5507	101.7	24	2252	60.9	13.1	1.7	0
5508	103.7	24	2252	60.9	13.1	1.7	0
5509	79.1	25	2283.5	64.1	13.4	1.2	0
5510	111.7	25	2283.5	64.1	13.4	1.9	1.3
5511	92.5	24	2226.8	62.1	12.6	1.9	1.3
5512	68	23	2165.7	54.7	12.6	1.8	0
5513	84.2	19	1778.4	50.7	10.8	2.7	1.6
5514	61.6	11	998.2	34	9	2.7	0
5515	55.1	11	1015.8	34	9	2.7	0
5516	69.7	12	1029.7	33.9	9.6	3.4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5517	77.8	12	1029.7	33.5	9.6	3.4	0
5518	81.3	11	1039.3	32.2	8.9	2.2	0
5519	80.1	12	1059.1	32.2	8.9	2.2	2.9
5520	82.3	12	1059.1	31.6	8.7	1.3	2.9
5521	86.9	12	1138.5	33.3	9	2	0
5522	81.9	13	1208.9	33.3	9.7	2	1.6
5523	82.2	13	1231.5	35.6	10.3	2.5	1.6
5524	70	13	1231.5	35.6	10.3	2.5	0
5525	64.5	14	1240.9	42.7	11.5	2.5	0
5526	87.4	14	1277.7	45	11.5	2.5	0
5527	67.4	16	1469.4	49.5	12.4	1.7	0
5528	69.7	20	1870.9	55.5	14.2	2	0
5529	64.6	25	2268.1	63.3	15	2	0
5530	67.3	25	2268	63	15	1	0
5531	65	28	2564	70	15	3	3
5532	64.1	30	2764	75	18	3	3
5533	72.3	31	2918	75	18	3	0
5534	77.4	32	2989	72	17	4	0
5535	78.9	32	2989	72	16	4	0
5536	68.4	32	2989	72	16	4	0
5537	72.8	32	2988	72	15	2	0
5538	72.4	32	2965	71	15	2	0
5539	88.6	31	2943	70	14	2	0
5540	64.9	32	2967	70	14	2	0
5541	82.9	31	2967	65	14	2	0
5542	77.8	31	2929	64	13	2	0
5543	83.1	31	2891	63	13	1	0
5544	70.7	30	2860	56	12	0	0
5545	105.5	30	2800	56	12	2	0
5546	100.4	30	2800	69	12	2	1
5547	61.5	30	2779	70	12	2	2
5548	78	30	2759	72	12	2	2
5549	72.6	29	2735	72	12	2	1
5550	80.5	29	2711	73	11	2	0
5551	78.2	29	2694	73	12	2	0
5552	79.6	29	2676	73	13	1	0
5553	73.3	28	2647	66	13	1	0
5554	80.2	28	2607	66	11	0	0
5555	92.1	28	2607	68	12	1	0
5556	72	27	2508	59	11	1	0
5557	61.6	27	2508	59	11	1	0
5558	59.2	26	2420	61	11	0	0
5559	60.9	26	2449	61	11	2	0
5560	53.9	28	2612	62	12	2	0
5561	56.5	30	2811	62	12	2	0
5562	63.8	33	3095	63	11	2	0
5563	56.9	36	3426	67	12	2	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5564	60.9	37	3483	67	12	2	1
5565	44.5	37	3483	72	12	2	0
5566	63.4	36	3454	72	12	1	0
5567	87.9	36	3425	72	12	0	0
5568	65	36	3398	73	11	0	0
5569	73.1	36	3387	73	11	0	0
5570	72.9	35	3365	64	11	0	0
5571	75.2	34	3291	65	10	1	0
5572	72.3	35	3291	65	11	1	0
5573	82.5	33	3162	64	11	1	0
5574	75.1	33	3078	66	12	2	0
5575	72.1	32	3028	63	12	2	0
5576	32.3	32	3005	64	12	2	0
5577	77	32	3017	66	12	2	1
5578	67.3	32	3028	67	13	3	2
5579	60	33	3095	67	13	1	1
5580	79	33	3162	67	13	0	0
5581	60.2	33	3162	64	12	0	0
5582	69.7	35	3305	66	12	0	0
5583	83.3	35	3348	67	13	1	0
5584	80.3	36	3391	68	14	2	0
5585	90.8	36	3391	68	14	2	0
5586	101.9	37	3475	77	14	2	0
5587	84.5	36	3434	78	13	0	0
5588	79	36	3434	78	15	3	0
5589	86.2	35	3314	77	15	3	0
5590	83	34	3173	76	13	0	0
5591	81.5	34	3173	76	14	1	0
5592	123	32	3031	75	14	1	0
5593	84	32	3031	75	14	1	0
5594	95.6	31	2887	73	12	0	0
5595	81.2	29	2730	63	12	0	0
5596	100.8	29	2730	63	13	1	0
5597	89.5	27	2576	61	13	1	0
5598	112	27	2495	61	12	2	0
5599	93.8	27	2495	62	12	2	0
5600	90.1	26	2469	62	12	0	0
5601	85.8	26	2456	55	11	0	0
5602	81.7	26	2456	56	12	2	1
5603	91.5	27	2494	56	12	2	2
5604	88.6	29	2716	56	12	2	2
5605	87.6	29	2770	60	13	0	0
5606	96.8	18	1609	48	10	3	1
5607	89.3	8	710	23	5	2	0
5608	88.3	8	710	24	6	2	0
5609	68.1	8	727	24	6	0	0
5610	94.7	8	727	23	6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5611	83	8	744	23	8	2	0
5612	107.5	9	760	25	8	3	0
5613	65.4	8	760	25	6	3	0
5614	92.8	9	795	25	8	3	0
5615	89	9	795	25	8	2	0
5616	82.7	10	862	32	8	3	0
5617	87.4	10	921	30	8	0	0
5618	79.2	10	929	31	8	1	0
5619	84.6	10	929	31	7	1	0
5620	77.8	10	952	32	8	0	0
5621	64.5	12	1058	36	8	0	0
5622	67.6	12	1058	36	8	0	0
5623	73.4	14	1254	42	10	0	0
5624	67	18	1615	45	10	2	0
5625	65.9	22	2047	55	13	3	0
5626	68.7	25	2317	59	14	3	2
5627	91.1	25	2317	59	14	3	2
5628	116.2	26	2424	61	14	3	2
5629	99.9	26	2424	61	14	2	0
5630	78.6	27	2470	62	14	3	0
5631	91.3	26	2470	62	14	3	0
5632	93.9	27	2518	57	15	1	0
5633	92.3	27	2530	57	15	2	1
5634	83.2	27	2530	57	14	2	1
5635	96.2	27	2553	56	14	3	0
5636	76.6	27	2558	51	14	3	0
5637	121.8	27	2558	50	13	2	0
5638	111.7	27	2578	58	14	3	0
5639	118.1	27	2578	58	14	3	0
5640	66.7	28	2584	67	14	3	0
5641	96.6	29	2694	71	15	4	0
5642	104.8	29	2694	71	15	4	0
5643	58	33	3044	71	15	4	0
5644	90.2	32	3044	70	15	3	0
5645	110.6	35	3314	73	15	4	1
5646	92.3	45	4320	73	17	4	2
5647	9.3	69	6632	88	20	4	0
5648	6.3	73	6969	103	23	4	0
5649	6.3	76	7306	117	25	5	1
5650	6.3	80	7642	132	27	5	1
5651	5.2	80	7642	132	27	6	1
5652	9.8	80	7642	132	27	6	1
5653	3.7	25	2300	59	19	6	2
5654	8.7	24	2141	54	16	6	2
5655	7.8	23	2051	55	16	6	2
5656	2.7	25	2282	61	17	5	2
5657	28.2	27	2461	62	17	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5658	41.4	27	2461	62	17	7	0
5659	102.4	26	2329	62	17	7	3
5660	75.7	22	2032	50	15	5	3
5661	22.6	26	2388	54	16	6	0
5662	12	26	2420	63	17	6	0
5663	9	17	1485	46	14	5	0
5664	16.3	11	933	33	11	5	0
5665	37	11	933	34	11	5	0
5666	56.1	10	913	34	10	3	0
5667	44.2	10	891	33	10	4	0
5668	42.7	10	886	32	10	4	0
5669	48.3	10	851	30	10	4	0
5670	50.2	9	824	31	9	2	0
5671	48.5	9	796	27	9	4	0
5672	35.1	9	766	26	9	4	0
5673	34.5	8	737	25	9	4	0
5674	36.2	8	720	24	8	2	0
5675	43.5	8	707	24	8	3	0
5676	48.7	8	735	27	8	4	0
5677	38.7	9	761	27	9	4	0
5678	49.5	9	797	29	9	4	3
5679	50.6	11	961	33	10	4	3
5680	53.8	12	1120	36	11	4	0
5681	50.5	14	1277	39	12	4	0
5682	45.3	15	1402	43	12	3	0
5683	37.2	18	1632	45	15	4	0
5684	36.2	19	1750	46	15	4	1
5685	50.7	20	1830	48	14	4	1
5686	63	20	1834	48	14	5	0
5687	55.1	20	1834	47	14	5	0
5688	49.2	20	1832	47	15	5	0
5689	59.1	20	1851	57	16	3	0
5690	82.1	20	1851	57	16	3	0
5691	65.1	21	1851	58	16	5	1
5692	17.1	19	1741	56	14	5	0
5693	65.6	19	1672	52	15	2	2
5694	73.4	19	1672	52	15	5	2
5695	67.6	18	1632	52	15	5	0
5696	73.3	18	1584	51	14	5	0
5697	54.9	17	1509	44	14	4	0
5698	55.1	16	1458	43	14	3	2
5699	46	16	1446	43	14	4	2
5700	44.4	16	1448	44	14	4	0
5701	34.7	16	1437	39	12	4	0
5702	56.3	14	1221	42	14	4	2
5703	90.2	6	464	21	7	3	1
5704	54.9	6	464	19	7	3	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5705	80.3	6	498	22	8	3	1
5706	55.3	6	509	22	8	3	0
5707	87.3	6	521	24	7	2	1
5708	84.7	6	521	24	7	2	1
5709	66.4	6	529	23	9	3	0
5710	83.1	6	551	23	9	3	0
5711	78.7	7	559	23	9	3	0
5712	81.8	7	559	23	9	2	0
5713	84.6	7	575	23	9	4	0
5714	61.8	7	575	23	8	4	0
5715	66.3	7	570	20	7	3	1
5716	58.3	7	589	22	7	3	0
5717	74.2	7	613	20	8	3	2
5718	71.4	7	640	21	8	3	2
5719	70.1	8	670	21	7	4	0
5720	68.4	8	715	25	8	4	0
5721	48.4	9	761	29	9	3	0
5722	39.5	9	788	27	9	2	0
5723	76.5	9	804	28	9	2	0
5724	57	10	866	30	10	2	0
5725	39.6	12	1070	36	12	5	0
5726	51.2	16	1421	42	15	5	0
5727	60.1	20	1786	50	18	5	0
5728	47.6	22	2029	56	20	6	2
5729	66.3	23	2114	59	20	6	2
5730	50.8	23	2129	54	20	4	0
5731	60.2	23	2105	54	20	6	0
5732	70.4	23	2105	54	20	6	0
5733	65	23	2111	53	18	5	2
5734	83.6	23	2094	52	18	5	0
5735	73.2	23	2094	60	20	6	0
5736	23.1	22	1968	60	20	6	0
5737	62.6	21	1916	60	18	6	0
5738	57.5	21	1893	55	18	5	0
5739	34.9	20	1849	54	18	5	0
5740	48.6	20	1802	54	16	4	0
5741	81.1	19	1743	54	18	5	0
5742	52.5	19	1720	48	17	5	2
5743	58.6	19	1720	48	17	5	2
5744	36.8	19	1693	47	16	3	0
5745	58.9	18	1659	48	15	6	1
5746	25	18	1616	47	15	5	1
5747	75.9	18	1604	42	16	5	0
5748	56.8	17	1590	42	14	4	0
5749	90	17	1559	42	14	5	1
5750	70.4	17	1514	41	14	5	0
5751	96.8	15	1384	37	13	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5752	62.6	14	1240	32	12	4	0
5753	88.6	13	1177	34	12	4	0
5754	34	13	1186	41	13	4	0
5755	82.5	14	1223	42	13	3	0
5756	55.3	15	1355	37	13	5	0
5757	96	15	1351	44	13	5	0
5758	77	15	1346	48	14	4	0
5759	37	15	1346	48	14	4	0
5760	79.8	15	1355	43	14	4	0
5761	79.8	15	1358	44	14	4	0
5762	55	16	1400	43	15	5	0
5763	83	16	1456	48	15	3	0
5764	60.1	17	1484	44	15	5	0
5765	77.5	17	1482	46	15	5	1
5766	43.3	16	1474	45	15	4	0
5767	54.3	16	1463	43	14	4	0
5768	53.3	16	1452	41	13	4	0
5769	76.6	16	1452	41	13	4	0
5770	92.2	16	1443	41	14	4	0
5771	51.7	16	1457	42	14	4	0
5772	64.9	16	1457	42	14	4	0
5773	75.7	17	1505	43	14	4	2
5774	75.5	17	1597	42	15	4	0
5775	77.4	18	1674	43	15	6	0
5776	88.2	18	1674	43	15	6	0
5777	84.4	19	1748	45	16	5	0
5778	75.4	20	1822	51	16	6	0
5779	82.1	21	1853	57	18	6	0
5780	76.2	21	1853	57	18	6	0
5781	84.7	21	1885	53	18	5	0
5782	86	21	1878	53	18	7	0
5783	94.9	21	1859	53	17	6	0
5784	89.9	21	1862	54	18	7	1
5785	66.7	21	1926	51	18	6	0
5786	66.6	21	1926	51	18	6	0
5787	78.8	22	2064	54	18	6	0
5788	33.5	23	2064	54	18	6	0
5789	86.4	23	2125	55	19	7	0
5790	83.1	24	2200	52	20	8	0
5791	70.5	25	2266	53	19	6	0
5792	37.3	24	2194	52	19	8	0
5793	42	36	3360	65	25	10	0
5794	56.2	37	3425	85	29	10	0
5795	52.7	37	3347	89	27	9	0
5796	50.8	36	3340	88	26	8	0
5797	46.1	26	2365.4	69.1	24.5	9.6	2
5798	44	10	897.5	28.6	11.8	6.5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5799	36.8	11	957.6	29.1	11.7	6.5	1.4
5800	87.8	11	957.6	29.1	10.8	5	1.4
5801	73.1	11	982.3	35.3	12.5	5	1.4
5802	78.3	11	982.3	35.3	13	6.9	0
5803	68.2	11	962.2	32.4	13	7.5	0
5804	81.5	11	938.5	32.4	12.6	7.5	0
5805	81.3	11	914.8	32.4	12.1	7.5	0
5806	86.4	10	844.4	31.5	12.1	5.7	0
5807	84.8	11	948.6	32.6	13.7	6.6	0
5808	59	13	1102.8	36.3	15.2	7.2	0
5809	80.1	13	1102.8	36.3	15.2	7.2	0
5810	82.1	14	1202.3	40.7	16.4	7.3	4.7
5811	65.3	15	1272.5	42.5	17.5	7	0
5812	85.1	15	1272.5	42.5	17.5	7.9	0
5813	71.1	14	1269.3	39.5	17.2	7.9	0
5814	91.2	14	1226.2	37.8	16	7.1	0
5815	80	14	1226.2	37.8	16	8.5	0
5816	78.4	13	1158.4	35.2	14.7	8.5	0
5817	84.1	13	1150.1	35.2	14.7	7	0
5818	79.6	13	1190.4	31.5	14.6	6.8	0
5819	92.5	14	1282.4	37.1	15.5	6.8	0
5820	89.8	14	1282.4	37.1	15.5	6.5	0
5821	78.1	16	1450.8	47	17.3	6.5	0
5822	60	19	1706.4	56.7	19.7	8.7	0
5823	74.7	23	2046.3	60.4	23.7	8.7	0
5824	73.4	26	2323.1	66.2	25.6	11	0
5825	63.2	28	2495	70	26.7	11.3	2.1
5826	63.4	28	2538	72.7	27.1	11.3	2.1
5827	63.9	28	2538	73.3	27.1	11.7	0
5828	55	28	2492.9	73.3	27	11.7	0
5829	63.6	26	2380	64.4	25.9	9.9	0
5830	41.5	25	2227.7	62.8	24.5	9.1	0
5831	68.3	25	2227.7	62.8	24.5	9.1	0
5832	72.7	23	2099	61	22.6	9.1	0
5833	67.7	23	2050.8	58.8	22.2	9.1	0
5834	74.3	22	2002.6	56.5	21.8	9.1	0
5835	84.3	22	1958.6	50.3	19.6	8.2	1.6
5836	83.1	22	1958.6	50.3	19.6	8.2	1.6
5837	87.6	22	1994.6	51	19.3	7.8	0
5838	100.6	22	2050.7	52.2	19.6	7.8	0
5839	88.3	22	2050.7	52.2	19.6	6.8	0
5840	77.2	23	2137.7	52.6	19.8	8.1	0
5841	90.1	24	2230.9	48.2	19.9	7.4	0
5842	111.1	25	2302.8	61.1	22	8.9	1.6
5843	81.8	25	2302.8	61.1	22	8.9	1.6
5844	95.8	26	2346.8	68.6	23.1	10.1	1.6
5845	87.1	26	2346.8	68.6	23.1	10.1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5846	87.1	27	2377.8	72.4	24	8.7	0
5847	91.4	27	2377.8	72.4	24	8.7	0
5848	105	27	2416.9	66.2	23.3	8.8	0
5849	93	27	2495.3	68.8	24.5	9.3	0
5850	95.3	27	2495.3	68.8	24.5	9.3	0
5851	76.5	28	2530.6	71.2	25.1	9	2
5852	94.2	28	2548.4	72.3	25.1	9	2
5853	82.7	28	2581.6	72.3	24.1	8.2	1.7
5854	50.4	28	2581.6	69.8	24.4	8.7	1.7
5855	74.8	28	2581.6	67.2	24.6	9.1	1.7
5856	82.4	28	2505.1	65.4	24.4	8.5	0
5857	63.8	28	2505.1	66.7	24.4	8.9	0
5858	64.3	27	2462.8	66.7	23.2	8.9	1.8
5859	72.9	27	2471.7	64.4	22.3	8.7	1.8
5860	93.6	27	2471.7	59.5	22.3	8.7	0
5861	85.9	27	2471.7	59.5	22.3	8.7	0
5862	99.1	28	2572.3	60.9	22.5	9	1.6
5863	93.7	30	2740.9	64	22.7	9	1.6
5864	87.2	32	2918.4	77.6	25.6	8.9	1.7
5865	67	33	3017	80.3	28.6	9.6	1.7
5866	68.9	33	3039.9	81.1	28.6	9.6	0.9
5867	63.6	33	3062.8	81.9	28.6	9.6	0
5868	67.2	33	3062.8	84.1	28.9	10.6	0
5869	63.5	34	3055.2	86.5	29.4	10.6	1.6
5870	62.2	34	3103.1	86.5	29.5	10.4	1.6
5871	79.2	35	3210.2	84.7	29.9	11.7	2.8
5872	68.1	34	3142.5	82.6	29.4	11.4	2.3
5873	66.7	34	3074.9	80.4	28.8	11	1.9
5874	64.9	33	3007.2	78.3	28.3	10.7	1.4
5875	63.1	32	2939.5	76.1	27.8	10.4	0.9
5876	61.2	32	2871.9	74	27.2	10	0.5
5877	59.4	31	2804.2	71.8	26.7	9.7	0
5878	52.8	29	2660.4	69.4	25.5	9.4	0
5879	69.2	27	2509.9	66.4	24.6	8.9	0
5880	47.5	28	2510	66	25	9	0
5881	58.3	29	2626	64	24	8	1
5882	67.2	31	2775	73	27	11	1
5883	65.5	32	2931	78	28	11	0
5884	73.7	32	2931	78	28	11	0
5885	75.1	33	3016	82	30	8	2
5886	66.8	34	3079	85	30	11	2
5887	63	36	3251	90	33	11	3
5888	59.3	35	3216	85	32	10	1
5889	49.5	34	3113	87	32	11	2
5890	49	24	2172	58	23	8	0
5891	98	24	2172	58	23	8	0
5892	90.7	24	2124	61	24	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5893	84.6	23	2040	61	24	9	0
5894	96	23	2040	65	24	10	0
5895	87.8	22	1917	65	24	10	0
5896	90.5	22	1917	65	24	10	0
5897	88.4	20	1800	60	23	9	1
5898	91	19	1684	56	22	9	2
5899	88.5	19	1634	55	22	8	2
5900	82.5	18	1614	52	21	8	0
5901	87.1	36	3318	56	21	9	2
5902	68	54	5148	66	19	7	2
5903	52	54	5014	104	36	15	2
5904	13	29	2577	69	26	10	2
5905	14	19	1668	56	21	10	2
5906	16	13	1117	41	16	8	2
5907	13.2	12	1014	35	14	7	2
5908	9.8	12	1035	37	16	7	2
5909	15.7	12	1016	38	15	7	1
5910	16.2	12	1069	36	14	7	0
5911	30	12	1069	36	14	8	0
5912	25.8	12	1010	31	14	8	0
5913	27.9	11	987	30	13	6	2
5914	29.8	12	1012	35	15	8	2
5915	25.9	12	1012	38	15	8	0
5916	22.7	12	1004	37	14	8	0
5917	19.2	12	1032	37	14	8	2
5918	29	13	1138	37	15	7	1
5919	28.2	13	1144	35	15	7	0
5920	29	13	1142	33	14	7	0
5921	28.3	12	1095	37	14	6	2
5922	29.4	13	1094	40	14	7	0
5923	28.6	12	1010	36	13	6	0
5924	11.9	17	1496	50	18	9	2
5925	32.6	14	1245	40	16	8	1
5926	39.2	17	1520	42	16	7	0
5927	22.2	21	1882	45	18	9	1
5928	23.4	22	2016	45	20	9	1
5929	45.3	25	2219	63	26	10	0
5930	27.2	25	2219	63	26	11	1
5931	18.7	23	2052	61	23	10	1
5932	40.7	21	1890	54	24	8	0
5933	48.8	21	1890	54	24	10	0
5934	38.6	21	1891	55	23	10	0
5935	39.5	21	1893	55	23	10	0
5936	48.6	21	1901	51	22	10	0
5937	52.4	21	1892	51	21	10	2
5938	44.6	21	1882	54	21	10	2
5939	52.2	21	1872	57	21	10	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5940	52.2	21	1862	60	22	9	2
5941	41.7	20	1788	54	20	9	0
5942	38.8	20	1760	54	20	9	0
5943	38.8	19	1732	54	19	9	0
5944	22.8	19	1702	52	18	8	2
5945	31.4	19	1709	48	18	7	0
5946	37.3	19	1712	48	18	7	0
5947	37.3	19	1714	48	18	7	0
5948	32.4	19	1714	47	18	7	0
5949	33	19	1714	47	18	8	0
5950	22.8	16	1418	38	15	6	0
5951	36.3	14	1229	34	13	5	1
5952	42.8	12	1039	30	12	5	1
5953	38	11	1016	29	10	6	1
5954	44.9	15	1409	33	14	6	1
5955	45.8	15	1409	33	14	5	1
5956	38.9	17	1528	42	15	6	1
5957	38.9	18	1648	52	17	7	1
5958	27.7	19	1664	54	18	9	0
5959	33.9	19	1661	53	18	9	0
5960	33.9	19	1659	52	18	8	0
5961	35	19	1657	51	17	8	0
5962	38	19	1655	50	17	8	0
5963	33	19	1652	49	17	7	0
5964	39	19	1652	50	18	8	0
5965	30	19	1640	50	18	8	1
5966	31	18	1628	50	18	8	2
5967	47.8	18	1552	49	18	8	2
5968	48	18	1557	46	18	8	2
5969	32.5	38	3560	46	27	10	2
5970	34.9	38	3560	50	27	10	1
5971	37.4	99	9524	110	25	8	1
5972	40.1	141	13721	137	29	10	2
5973	26.3	131	12721	145	28	9	2
5974	31.4	70	6646	103	22	9	0
5975	53	59	5609	83	22	9	0
5976	44.4	48	4518	75	21	8	1
5977	45.3	28	2550	55	18	7	3
5978	47	28	2550	55	18	7	3
5979	43.2	22	2003	51	18	7	0
5980	44.3	20	1835	48	16	7	0
5981	48.9	19	1694	42	16	7	0
5982	29.9	16	1398	38	15	8	4
5983	55.4	8	707	19	8	4	2
5984	65.3	0	15	1	1	1	1
5985	17.1	0	8	1	0	1	0
5986	96.5	0	8	1	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5987	96.3	0	9	2	1	1	1
5988	85.5	0	9	2	1	1	1
5989	80.1	0	10	2	1	3	1
5990	97.2	0	10	1	0	3	0
5991	107.6	3	258	20	4	2	2
5992	99.7	33	2737	153	24	21	10
5993	10.7	35	2737	211	35	26	12
5994	10.9	24	1758	170	29	26	12
5995	8.8	22	1593	154	26	24	10
5996	8.8	19	1429	137	24	21	9
5997	7	16	1136	103	21	21	8
5998	16	17	1221	146	26	17	7
5999	20.1	24	1744	200	34	24	11
6000	9.3	14	1015	102	19	16	7
6001	9	16	1128	125	24	16	7
6002	9.8	21	1502	164	33	22	9
6003	10.8	18	1265	134	27	23	8
6004	13	15	1080	116	23	17	8
6005	19	15	1080	116	23	17	8
6006	22.6	15	1080	116	23	17	8
6007	27.2	15	1080	116	23	17	8
6008	23.5	15	1080	116	23	17	8
6009	32	15	1080	116	23	17	8
6010	34.5	15	1080	116	23	17	8
6011	43.5	15	1080	116	23	17	8
6012	27.3	15	1080	116	23	17	8
6013	16.2	15	1080	116	23	17	8
6014	26.4	15	1080	116	23	17	8
6015	22.6	15	1080	116	23	17	8
6016	45.5	24	1730	189	37	19	8
6017	28.1	23	1700	186	37	19	7
6018	49.3	24	1804	198	38	19	5
6019	36	26	1917	204	40	22	10
6020	27	24	1774	193	38	20	7
6021	24.4	24	1822	198	38	19	3
6022	49	19	1386	156	20	19	3
6023	50.6	9	650	77	12	12	1
6024	17.8	1	42	6	1	2	1
6025	40.5	0	2	4	0	0	1
6026	57.6	0	0	1	0	1	0
6027	37.4	9	644	78	14	6	1
6028	25.5	18	1330	170	30	14	4
6029	45.5	18	1337	146	19	16	1
6030	28.5	20	1417	172	31	20	4
6031	38.2	21	1472	180	33	19	6
6032	34.9	23	1675	202	37	22	5
6033	35.6	26	1871	228	42	21	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6034	39.5	26	1851	227	41	23	4
6035	22	26	1840	225	40	23	7
6036	32	22	1559	188	35	19	4
6037	36	13	939	114	21	12	2
6038	34.6	13	946	114	21	10	3
6039	28.1	14	1031	107	19	12	2
6040	27.6	14	1009	105	20	9	3
6041	41.9	16	1152	123	24	12	3
6042	48.1	13	870	96	18	9	4
6043	16.5	15	1134	107	19	20	1
6044	77.7	11	778	86	18	11	1
6045	21.2	11	744	84	18	10	3
6046	22	26	1814	233	46	31	5
6047	38.1	24	1609	207	44	30	10
6048	16.7	19	1241	162	35	26	9
6049	26.8	11	749	95	20	15	6
6050	22.7	10	667	86	18	10	3
6051	21.6	13	897	112	22	12	4
6052	24.1	21	1444	182	35	22	8
6053	25.3	13	871	109	22	16	5
6054	18.1	9	658	68	12	16	4
6055	32	9	661	74	15	11	2
6056	35.2	9	642	76	16	12	2
6057	60.8	11	750	88	18	13	4
6058	58.3	11	750	88	18	13	4
6059	58.2	12	870	100	20	14	4
6060	64.1	14	1000	118	24	13	4
6061	70.8	16	1127	131	27	14	5
6062	57.4	18	1295	150	31	20	3
6063	58.9	23	1649	186	38	22	9
6064	58.2	28	2033	227	47	28	12
6065	67.8	18	1288	144	30	22	8
6066	52.2	9	630	69	14	14	2
6067	60.5	18	1320	144	27	17	5
6068	61.1	18	1320	144	27	17	5
6069	61.1	18	1286	130	19	29	0
6070	55.8	11	778	85	16	16	3
6071	58.2	18	1343	149	28	16	1
6072	52.9	12	846	94	18	12	3
6073	50.2	12	846	94	18	12	3
6074	55.6	3	228	28	6	5	1
6075	55.6	4	228	28	6	5	1
6076	61.3	10	764	84	16	9	3
6077	57.7	11	764	84	16	9	3
6078	81.2	25	1688	227	49	33	12
6079	55	26	1824	199	38	39	9
6080	43.3	26	1774	194	36	45	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6081	46.3	25	1706	197	47	35	6
6082	55.6	22	1507	181	40	34	9
6083	50	19	1307	142	31	26	7
6084	54.7	21	1522	160	34	24	8
6085	53.8	26	1910	202	40	25	8
6086	47.2	32	2308	243	47	24	10
6087	50.2	48	3564	382	75	37	15
6088	58.9	48	3564	382	75	37	15
6089	55.1	49	3610	388	78	43	16
6090	60.7	45	3295	354	72	42	19
6091	54.8	42	3053	322	66	39	15
6092	63.2	39	2866	313	62	36	15
6093	58.9	38	2764	308	58	33	15
6094	60.4	38	2764	308	58	33	15
6095	50.4	38	2847	294	47	49	8
6096	40.5	36	2682	281	46	27	10
6097	39.4	19	1439	142	25	17	4
6098	48.2	6	459	44	8	9	2
6099	53.7	6	459	44	8	9	2
6100	48.8	10	794	82	16	8	2
6101	50.7	10	794	82	16	8	2
6102	50.4	9	667	70	14	9	3
6103	45.4	9	680	74	14	8	3
6104	47.2	16	1170	127	23	12	3
6105	55.1	28	2099	220	39	22	6
6106	58	28	2099	220	39	22	6
6107	42.7	33	2548	241	42	28	6
6108	44	38	3127	202	27	28	6
6109	39.1	43	3567	258	38	24	8
6110	38	44	3721	260	40	25	10
6111	36.3	47	3889	279	61	28	14
6112	47.7	49	4001	297	73	33	19
6113	39.8	47	3892	281	62	29	15
6114	42	45	3656	279	51	26	12
6115	33.7	39	3215	252	48	27	11
6116	52.9	37	2996	222	45	26	9
6117	38	31	2370	220	44	29	10
6118	40.4	28	2190	183	30	29	4
6119	52.5	28	2084	196	38	26	7
6120	47.1	27	2045	196	39	24	8
6121	48.9	27	2015	196	39	23	8
6122	46.9	27	2001	194	39	23	7
6123	42.3	28	2054	244	42	24	9
6124	44.8	28	2092	207	44	24	11
6125	58.1	27	2045	205	42	21	6
6126	44	29	2139	212	45	24	7
6127	37.7	30	2217	219	46	26	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6128	35.3	30	2260	227	48	26	10
6129	35	30	2267	232	48	23	6
6130	42.4	31	2304	234	49	26	8
6131	50.3	31	2303	234	48	26	10
6132	55.6	30	2252	229	34	28	5
6133	55.6	30	2252	229	34	28	5
6134	55.6	30	2252	229	34	28	5
6135	44.7	30	2252	229	34	28	5
6136	48.5	31	2285	247	42	32	4
6137	48.5	31	2285	247	42	32	4
6138	48.5	31	2285	247	42	32	4
6139	56.6	31	2276	260	49	24	8
6140	53.1	31	2287	254	49	25	6
6141	58.4	32	2325	270	50	26	8
6142	58.5	32	2325	270	50	26	5
6143	67.6	31	2306	261	49	26	10
6144	60.1	30	2190	250	47	24	10
6145	60.5	30	2204	251	47	24	9
6146	44.6	34	2549	276	49	24	7
6147	50.4	39	3007	322	53	22	7
6148	43.3	41	3140	328	55	23	8
6149	41.8	37	2855	312	50	22	4
6150	46.8	37	2899	263	48	23	6
6151	58.3	33	2621	249	30	25	4
6152	40.2	29	2225	220	32	24	4
6153	58.3	25	1946	195	30	20	4
RIO BRAVO FM.							
6154	70.3	34	2751	225	38	21	6
6155	54.9	40	3192	245	44	24	9
6156	61.8	39	3141	241	43	24	5
6157	72.9	36	2887	234	40	21	7
6158	63.7	34	2680	230	35	19	3
6159	77.3	33	2630	237	37	20	4
6160	58.3	36	2822	285	41	21	6
6161	70.8	39	2908	301	54	28	10
6162	68.6	39	2908	301	54	28	10
6163	47.2	53	3772	429	87	40	13
6164	40.1	89	6240	764	177	95	24
6165	39.2	85	5871	732	168	95	25
6166	53.3	70	4916	600	139	71	22
6167	43	58	4037	508	108	59	18
6168	46.6	48	3575	357	80	46	14
6169	41	45	3419	326	71	39	14
6170	44.7	42	3119	304	65	36	12
6171	43.7	27	1980	200	43	26	4
6172	45.7	40	3026	242	53	41	10
6173	44	24	1689	183	45	29	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6174	71.7	24	1690	188	47	30	12
6175	80	25	1690	188	47	33	12
6176	39.3	24	1656	182	49	33	12
6177	69.1	27	1858	208	55	37	13
6178	55.1	31	2112	233	64	44	17
6179	70.6	31	2112	233	64	44	17
6180	76.1	35	2396	269	71	47	16
6181	57.2	42	2908	327	82	50	19
6182	67.6	49	3430	387	89	54	19
6183	62.3	49	3430	387	89	67	19
6184	89.6	65	4735	468	90	85	17
6185	50.9	65	4735	468	90	85	17
6186	60.5	82	5829	648	155	88	27
6187	50.4	69	4920	524	131	81	26
6188	28.2	58	4126	444	112	65	20
6189	56	70	4952	539	133	72	23
6190	53.4	81	5749	639	157	84	25
6191	52.1	91	6421	727	180	95	29
6192	19.2	92	6504	734	189	98	29
6193	30.6	85	5957	703	173	92	26
6194	41.2	78	5508	640	158	85	26
6195	68.7	74	5245	592	148	80	24
6196	54.9	79	5520	648	157	82	24
6197	31.5	81	5646	679	163	85	25
6198	38.6	73	5062	636	149	80	22
6199	23.6	66	4603	567	132	78	12
6200	27.9	66	4603	567	132	78	12
6201	25.2	63	4510	518	122	60	11
6202	36.9	59	4259	476	111	53	10
6203	67.4	59	4259	476	111	53	10
6204	55.9	56	4104	442	103	50	11
6205	46.1	56	4104	442	103	50	11
6206	61.1	55	3987	425	97	48	10
6207	62.1	51	3719	399	90	52	12
6208	59.1	46	3369	368	80	40	10
6209	76.1	42	3043	345	73	38	8
6210	56.4	42	3043	345	73	38	8
6211	58.7	38	2806	293	64	37	7
6212	57.7	39	2869	305	68	36	10
6213	52.6	41	2975	316	72	37	12
6214	49.6	42	3036	322	73	39	9
6215	63.3	52	3732	403	94	52	13
6216	67.7	55	3973	428	102	59	14
6217	6.6	37	2466	305	76	56	12
6218	6.2	34	2149	359	71	48	12
6219	14.8	36	2274	368	70	47	12
6220	3.6	35	2399	276	69	47	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6221	3.6	43	3088	349	70	37	10
6222	12.3	40	2904	325	66	38	9
6223	14.5	34	2386	290	62	35	9
6224	23.1	32	2206	269	58	34	10
6225	23.5	28	1930	207	53	34	10
6226	16.3	28	1870	243	54	36	9
6227	36.6	28	1842	243	54	36	10
6228	40.8	28	1897	241	55	37	11
6229	27.5	22	1461	162	44	31	9
6230	41.9	20	1259	177	43	30	7
6231	52.9	22	1434	167	47	32	8
6232	53.3	25	1648	203	34	38	6
6233	24.9	30	2024	224	58	40	12
6234	39.2	30	2179	231	52	31	9
6235	48.8	30	2150	244	48	33	8
6236	39.2	30	2061	246	55	35	10
6237	61.1	28	1944	225	52	34	9
6238	70.6	27	1848	223	51	33	10
6239	70.6	27	1848	223	51	33	10
6240	59.6	26	1764	216	48	32	8
6241	60.2	24	1657	197	46	32	9
6242	68.9	23	1541	186	43	30	9
6243	57.5	21	1428	173	39	30	8
6244	64.6	20	1337	163	38	28	8
6245	64.4	19	1249	153	36	29	7
6246	48.2	18	1212	150	34	25	7
6247	68.2	18	1212	150	34	25	7
6248	68.1	19	1266	158	35	26	9
6249	64.7	21	1389	165	37	27	8
6250	103	23	1560	183	39	27	8
6251	79.2	23	1560	183	39	27	8
6252	63.2	25	1738	208	42	26	8
6253	53.3	24	1694	194	24	29	5
6254	55.2	29	2096	225	40	25	7
6255	64.1	33	2386	273	51	30	9
6256	42	34	2479	278	52	30	8
6257	57.4	34	2525	287	52	28	4
6258	60.3	36	2615	293	53	28	8
6259	46.6	37	2714	310	56	30	7
6260	57.4	39	2809	326	60	31	8
6261	51.1	41	3023	354	64	31	7
6262	50.4	44	3195	382	69	34	10
6263	57.9	44	3195	382	69	34	10
6264	56.6	45	3234	387	71	34	10
6265	57.9	45	3246	387	72	35	10
6266	52.4	45	3227	391	73	37	8
6267	57.8	28	1952	212	48	28	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6268	52.5	28	1952	212	48	28	8
6269	92.9	0	5	1	1	0	2
6270	76.5	0	5	1	1	0	2
6271	82.5	0	5	0	1	1	3
6272	39.5	0	5	0	1	1	3
6273	61.3	7	537	57	13	7	1
6274	70.4	8	539	57	14	8	2
6275	82.3	11	821	86	15	12	3
6276	85.4	12	821	86	15	12	3
6277	74.9	16	1140	132	26	15	4
6278	84.7	18	1260	146	31	17	6
6279	59.8	21	1494	174	35	20	5
6280	75.7	17	1245	146	28	18	4
6281	87.4	17	1245	146	28	18	4
6282	75.4	10	745	73	16	10	1
6283	68	23	1656	191	35	16	6
6284	61.5	23	1656	191	35	16	6
6285	81.7	38	2716	322	59	32	7
6286	80	47	3388	407	78	41	10
6287	70.5	45	3219	390	75	42	10
6288	64.5	45	3219	390	75	42	10
6289	63.3	41	2930	359	68	42	8
6290	66.9	38	2726	335	62	33	7
6291	47.6	37	2629	324	60	30	7
6292	44.2	34	2534	271	54	25	5
6293	26.4	35	2517	312	56	26	6
6294	20	24	1742	187	42	21	7
6295	17.1	10	731	77	18	9	2
6296	23.6	0	1	6	2	1	1
6297	30.1	0	15	0	1	0	2
6298	30.1	0	15	0	1	0	2
6299	30.1	0	15	0	1	0	2
6300	28.5	0	4	0	3	1	2
6301	34.1	1	8	0	2	0	4
6302	29.9	7	493	60	12	6	1
6303	32.3	25	1841	218	41	17	4
6304	30.7	23	1655	196	37	18	3
6305	30.7	22	1624	194	36	17	5
6306	4.3	10	679	81	16	9	1
6307	13.8	11	747	91	20	11	2
6308	42.7	9	654	71	17	9	2
6309	10.6	7	458	53	12	7	3
6310	31.6	6	378	41	10	5	1
6311	9.1	18	1304	138	29	15	4
6312	13	21	1469	163	36	18	7
6313	14.5	22	1552	171	37	20	6
6314	22.2	22	1525	173	36	21	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6315	13.2	19	1367	146	30	18	3
6316	12.1	18	1310	143	30	18	5
6317	12.1	18	1253	140	30	17	6
6318	16.6	18	1326	138	31	18	4
6319	9.9	23	1671	175	35	19	4
6320	11.1	17	1265	127	28	16	4
6321	15.3	17	1265	127	28	16	4
6322	33.1	15	1006	115	25	19	6
6323	27.2	14	943	109	25	15	2
6324	28.6	15	1030	116	26	16	5
6325	20.1	16	1118	124	25	14	6
6326	21.9	18	1280	136	28	16	3
6327	21.5	19	1406	152	29	18	6
6328	30.4	19	1445	137	22	15	4
6329	50.5	19	1415	148	29	16	5
6330	63.3	19	1415	148	29	16	5
6331	56.3	19	1388	145	29	17	6
6332	59.7	19	1384	146	28	16	5
6333	55.3	20	1442	152	28	15	6
6334	39.1	21	1565	155	28	15	3
6335	42.3	22	1619	165	30	15	6
6336	48.4	22	1665	166	30	16	4
6337	49	24	1788	182	31	17	3
6338	45	30	2336	226	36	16	7
6339	46.6	31	2396	234	35	16	4
6340	53.4	31	2486	240	35	14	2
6341	38.9	33	2606	253	37	15	5
6342	49.1	33	2740	212	22	14	2
6343	45.6	34	2823	220	22	12	1
6344	48	36	3205	127	28	16	4
6345	55.8	35	3164	127	28	16	4
6346	45.5	36	3164	115	25	19	6
6347	55.2	21	1706	109	25	15	2
6348	49.8	28	2528	60	27	13	2
6349	59	25	2282	53	25	12	3
6350	60.5	17	1533	36	18	10	3
6351	32.3	14	1233	30	15	7	4
6352	42.4	13	1191	29	15	7	1
6353	42.2	13	1119	24	14	7	2
6354	24.9	14	1212	29	15	8	2
6355	22.9	10	874	23	12	9	2
6356	44.9	12	1052	27	14	8	2
6357	56.2	16	1392	35	18	10	4
6358	56.6	15	1297	31	17	11	4
6359	66.8	10	895	22	12	6	2
6360	58.7	11	982	24	13	7	2
6361	50.5	16	1392	29	18	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6362	50.9	11	865	18	12	6	2
6363	35	20	1546	54	34	27	4
6364	41.6	21	1631	57	37	29	3
6365	42.4	24	1825	68	46	34	5
6366	35	23	1825	68	46	34	5
6367	43.2	19	1444	57	33	27	5
6368	41.8	15	1116	42	28	27	5
6369	46.8	16	1187	43	29	25	6
6370	53.1	20	1478	52	35	33	4
6371	60.9	22	1732	38	38	37	9
6372	58.1	24	1954	38	39	35	8
6373	58.8	23	1913	37	34	34	4
6374	52	30	2758	35	28	23	1
6375	67.4	34	3124	33	28	22	2
6376	61.6	29	2578	42	35	25	3
6377	70.8	31	2813	38	32	24	2
6378	44	22	1904	35	28	23	1
6379	53.6	21	1820	33	28	22	2
6380	37.9	27	2274	42	35	25	3
6381	37.6	35	3000	61	45	28	6
6382	25	29	2482	50	38	28	6
6383	40.3	21	1831	37	27	19	2
6384	32	21	1815	36	26	21	1
6385	29.9	18	1554	32	23	20	1
6386	44.5	17	1461	30	23	18	1
6387	63.9	16	1401	29	23	16	2
6388	58.2	16	1355	29	22	16	1
6389	66.7	16	1356	37	23	14	2
6390	44.6	16	1373	30	23	16	2
6391	33.8	17	1486	44	26	15	2
6392	41.5	17	1461	30	25	18	3
6393	35.1	20	1738	39	31	20	2
6394	56.8	22	1868	42	34	17	2
6395	69.4	24	2031	58	36	20	2
6396	55.6	27	2241	68	41	25	3
6397	60.1	27	2302	53	42	26	6
6398	24.4	26	2252	52	42	25	3
6399	51.7	27	2256	52	42	26	3
6400	55.8	27	2328	53	42	26	4
6401	66.6	27	2305	53	43	28	5
6402	64.5	27	2305	53	43	28	5
6403	76	29	2501	56	45	28	2
6404	53.4	29	2501	56	45	28	2
6405	73.4	30	2602	58	44	24	3
6406	88.7	31	2643	85	38	22	2
6407	55.5	31	2643	85	38	22	2
6408	79.4	29	2512	52	43	21	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6409	79.8	26	2231	73	40	22	1
6410	49.7	23	1969	43	35	20	1
6411	67.1	21	1794	39	32	17	2
6412	75	19	1674	36	30	18	1
6413	47.3	19	1674	36	30	18	1
6414	68.3	18	1566	52	28	16	0
6415	83.8	18	1566	52	28	16	0
6416	80.3	18	1501	50	28	17	2
6417	99.1	17	1450	49	26	17	2
6418	85.8	17	1450	49	26	17	2
6419	66.8	17	1407	48	26	14	1
6420	88.9	17	1389	47	26	15	3
6421	41.3	16	1350	46	26	19	1
6422	93.7	16	1350	46	26	19	1
6423	98.7	16	1342	46	26	15	3
6424	102.6	16	1389	31	26	14	1
6425	93.7	18	1522	36	28	15	2
6426	76.9	18	1522	36	28	15	2
6427	84.9	18	1553	50	28	14	1
6428	84.4	18	1570	52	28	13	2
6429	35	19	1591	53	30	16	3
6430	39	19	1591	53	30	16	3
6431	65.9	19	1656	56	32	14	2
6432	47.2	20	1680	58	33	16	1
6433	26.2	21	1733	61	34	17	3
6434	21.4	22	1876	66	37	16	2
6435	47.6	23	1970	72	39	15	2
6436	49.1	26	2172	79	44	20	4
6437	55.7	27	2314	83	47	18	3
6438	78.6	28	2314	83	47	18	3
6439	67.8	30	2571	64	47	19	2
6440	32.3	29	2534	63	50	19	4
6441	25.3	28	2397	60	50	21	4
6442	86.4	26	2256	56	47	19	2
6443	67.6	25	2115	53	44	20	4
6444	65.4	21	1831	44	36	19	2
6445	71.4	21	1786	43	34	20	2
6446	78.4	21	1786	43	34	20	2
6447	69.5	25	2099	49	40	20	2
6448	85.6	30	2566	60	48	21	3
6449	37.3	20	1703	42	34	16	2
6450	34.2	19	1587	39	29	13	3
6451	71.1	19	1587	39	29	13	3
6452	83.2	16	1398	34	29	13	2
6453	43.1	18	1496	36	30	18	2
6454	76	18	1531	37	31	14	1
6455	97.6	16	1308	34	29	11	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6456	98	17	1308	34	29	11	1
6457	34.7	30	2350	95	63	38	7
6458	75.1	29	2252	91	59	39	6
6459	84.5	27	2161	82	55	35	5
6460	56.4	26	2084	80	51	34	6
6461	81.4	26	2084	80	51	34	6
6462	92.5	26	2048	77	49	34	6
6463	88.7	26	2022	77	50	31	4
6464	87.4	20	1522	61	41	30	3
6465	10.7	36	2949	81	71	25	4
6466	15	55	4705	124	100	29	5
6467	16.8	36	3033	82	68	29	4
6468	24.9	35	2916	80	68	27	5
6469	34	38	3148	86	74	32	4
6470	34.7	38	3185	88	68	35	5
6471	27.1	37	3058	85	75	32	5
6472	23.9	40	3359	86	74	34	4
6473	4	39	3324	87	73	30	5
6474	32.3	37	3142	84	72	30	3
6475	36.5	31	2601	98	57	22	5
6476	21.7	27	2177	82	52	25	4
6477	27	29	2328	87	54	30	6
6478	23.9	31	2520	93	58	31	2
6479	30.1	22	1794	46	43	25	2
6480	25.9	20	1600	62	41	20	0
6481	27.3	20	1650	65	36	16	1
6482	16.8	18	1513	40	38	20	2
6483	16.2	18	1405	55	36	19	3
6484	17.9	29	2336	90	61	28	4
6485	34	35	2813	74	71	35	7
6486	14.5	35	2855	75	75	38	9
6487	44.9	35	2847	74	74	40	7
6488	63.3	35	2852	75	75	44	6
6489	38.7	35	2852	75	75	44	6
6490	37.9	35	2804	74	74	43	7
6491	44.2	35	2837	74	73	41	8
6492	41.4	34	2754	71	69	44	5
6493	58.5	34	2791	72	70	39	6
6494	56	36	2959	76	73	43	3
6495	57.2	39	3163	79	75	44	7
6496	37.2	42	3556	87	71	42	5
6497	43.8	48	4094	95	81	42	6
6498	39.4	49	4277	98	79	35	2
6499	43.7	49	4255	96	75	36	4
6500	36.4	49	4220	95	75	34	3
6501	58.5	49	4250	93	73	38	3
6502	65	49	4250	93	73	38	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6503	59.8	48	4194	92	71	33	3
6504	53.3	47	4061	89	70	36	6
6505	85.4	43	3722	112	59	26	6
6506	30.6	38	3269	96	54	28	5
6507	34.2	12	989	29	18	17	1
6508	29.7	47	4172	92	71	33	3
6509	9.6	47	4113	89	70	36	6
6510	21.2	38	3264	88	68	35	5
6511	18.1	38	3216	85	75	32	5
6512	26.5	32	2822	47	37	20	4
6513	39.4	35	2700	225	42	27	2
6514	2.2	54	3930	354	75	39	6
6515	46.2	106	7711	785	196	102	22
6516	35.6	68	4776	425	117	120	15
6517	19.6	47	3224	375	90	75	11
6518	14.5	34	2301	244	61	59	6
6519	37	30	1982	232	51	56	7
6520	20.9	22	1576	157	35	28	2
6521	45.3	21	1552	151	32	25	2
6522	70.3	21	1537	147	31	26	3
6523	37.8	21	1555	145	30	24	3
6524	20.1	21	1555	145	30	24	3
6525	23.4	31	2368	218	39	23	4
6526	40.8	33	2531	226	41	29	4
6527	29.8	36	2868	254	43	23	4
6528	18.6	33	2600	236	40	27	4
6529	19.4	31	2373	218	37	27	5
6530	15.1	31	2441	191	40	25	2
6531	13.8	32	2317	250	52	39	8
6532	15.4	32	2317	250	52	39	8
6533	16.7	33	2322	255	53	40	8
6534	15.4	33	2328	259	55	42	8
6535	17.4	33	2328	259	55	42	8
6536	16.7	33	2328	259	55	42	8
6537	6.1	35	2442	267	60	52	10
6538	33.9	34	2563	227	44	38	9
6539	9.7	36	2708	219	50	41	8
6540	15.7	33	2446	249	43	37	4
6541	17.5	32	2448	198	42	33	5
6542	29.9	30	2308	185	37	28	5
6543	18	29	2223	223	36	27	3
6544	15	30	2274	205	37	28	6
6545	13.1	30	2278	204	37	29	4
6546	17.7	30	2268	213	37	29	3
6547	11.2	30	2268	213	37	30	7
6548	14.5	28	2097	197	35	30	8
6549	13.3	29	2227	197	36	29	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6550	35.9	29	2227	196	36	29	6
6551	53.7	373	26050	3217	703	410	80
6552	28.4	236	16376	1969	441	291	50
6553	19.4	100	6702	722	179	173	21
6554	17.4	81	5336	574	140	157	16
6555	39.6	56	3834	403	93	110	11
6556	49.1	53	3686	374	86	86	10
6557	50.2	97	6908	751	179	119	22
6558	20.3	97	6908	751	179	119	22
6559	16.5	96	6908	751	179	119	22
6560	20	49	3441	350	78	75	12
6561	34.3	42	3033	285	58	53	9
6562	25.4	39	2930	267	47	47	6
6563	17.5	33	2551	228	41	34	6
6564	47.3	30	2242	203	36	34	3
6565	36.3	24	1824	164	29	30	4
6566	55.3	23	1755	155	28	24	4
6567	69.1	30	2246	198	39	34	7
6568	55.7	30	2246	198	39	34	7
6569	23.8	45	3395	291	54	38	9
6570	66.6	57	4208	426	79	50	14
6571	55.1	61	4475	464	88	60	16
6572	55.5	69	4933	526	108	78	19
6573	47.1	74	5170	561	122	92	21
6574	23.6	82	5590	621	153	119	28
6575	14.9	85	5707	648	164	135	30
6576	17.5	84	5544	640	164	144	33
6577	57.7	82	5446	637	160	143	32
6578	57.6	80	5496	521	154	140	31
6579	60.6	83	5544	640	164	144	33
6580	54.3	79	5398	581	144	123	28
6581	54.7	78	5358	592	142	120	28
6582	28.6	79	5460	598	139	120	26
6583	63	81	5602	612	138	123	26
6584	92.5	81	5602	612	138	123	26
6585	102.1	80	5567	614	132	117	27
6586	82.2	80	5567	614	132	117	27
6587	93.8	80	5576	614	130	116	25
6588	92.5	80	5576	614	130	116	25
6589	118.4	79	5543	600	129	109	25
6590	125.3	79	5543	600	129	109	25
6591	58.1	77	5586	590	117	93	20
6592	24.5	75	5438	600	111	92	17
6593	40.9	69	5255	389	83	88	14
6594	43.8	67	5032	450	98	66	14
6595	36.6	64	4732	463	94	70	15
6596	30.1	64	4745	456	91	70	15

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6597	38	66	4956	471	93	71	13
6598	31	66	5010	475	94	68	12
6599	32.3	66	5010	475	94	68	12
6600	32.3	66	5010	475	94	68	12
6601	32.3	66	4949	473	94	72	12
6602	32.3	66	4949	473	94	72	12
6603	32.3	65	4855	467	93	66	12
6604	47.7	63	4725	456	92	65	14
6605	90.6	63	4688	452	94	68	13
6606	54.6	64	4712	468	97	74	14
6607	79.6	64	4726	487	101	73	15
6608	37.6	65	4754	487	101	73	15
6609	47.4	65	4754	453	102	78	17
6610	41.4	65	4723	455	103	79	18
6611	85	65	4697	455	103	80	18
6612	45.7	64	4666	451	102	80	18
6613	75.8	66	4774	472	106	89	19
6614	41.1	66	4774	472	106	89	19
6615	67.9	66	4774	472	107	89	19
6616	68.1	66	4770	473	108	92	19
6617	44.9	67	4813	473	109	93	20
6618	70.2	68	4846	489	109	93	20
6619	66	69	4928	491	111	98	20
6620	50.8	70	5027	499	112	98	22
6621	58.6	71	5060	504	113	94	22
6622	33.1	71	5101	504	113	93	19
6623	49.3	71	5101	495	113	92	20
6624	49	70	4977	512	110	99	20
6625	56.4	68	4927	493	101	99	17
6626	71.3	69	4962	542	107	84	18
6627	59.5	69	4962	542	107	82	19
6628	36.4	70	5027	553	105	83	18
6629	31.9	70	5045	560	105	84	18
6630	34.2	70	5045	560	105	84	17
6631	37.4	69	5015	547	104	82	17
6632	54.9	86	6682	569	101	77	17
6633	43.5	72	5462	556	88	58	12
6634	56.2	65	4916	507	85	57	11
6635	97.9	64	4790	510	85	56	12
6636	56.8	66	4956	519	87	57	12
6637	87.1	69	5178	560	91	55	12
6638	100.4	67	5031	531	89	57	11
6639	74.8	60	4651	399	80	50	10
6640	80.5	60	4651	399	80	50	10
6641	94.8	56	4156	448	75	49	9
6642	94.5	53	3994	352	72	54	12
6643	49.4	52	3949	368	66	50	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6644	52.5	61	4696	420	73	55	12
6645	108.7	68	5288	469	78	63	13
6646	92.3	68	5377	474	76	52	11
6647	86.3	69	5377	474	76	52	11
6648	67.6	51	3689	387	78	57	13
6649	81.8	53	3798	415	84	69	16
6650	120.3	53	3798	415	84	69	16
6651	101.9	54	3798	415	84	69	16
6652	94.7	56	3952	442	90	71	17
6653	103.3	56	3952	442	90	71	17
6654	96	57	3990	451	93	75	18
6655	94.4	58	4051	445	94	81	17
6656	105.7	72	5076	570	128	91	21
6657	110.6	72	5076	570	128	91	21
6658	71.7	133	9241	1121	268	154	37
6659	107.7	138	9241	1121	268	154	37
6660	77.8	234	15678	1993	491	264	63
6661	103.4	301	20172	2592	651	364	86
6662	91.3	315	21076	2735	687	416	90
6663	93.8	288	19168	2448	624	409	83
6664	58.7	241	15946	2045	507	371	70
6665	59.3	192	12638	1591	390	320	51
6666	85.5	153	9930	1255	296	270	39
6667	75	119	8125	678	154	288	24
6668	75.4	119	8125	678	154	288	24
6669	100.4	93	6231	700	146	135	26
6670	70.2	83	5665	602	122	115	20
6671	88.9	68	4909	498	91	94	12
6672	63.2	63	4856	376	79	82	9
6673	60.4	68	5356	382	77	80	12
6674	56.2	68	5340	374	75	80	12
6675	46.4	68	5340	374	75	80	12
6676	50.9	67	5375	379	74	67	9
6677	36	67	5375	379	74	67	9
6678	42.2	68	5413	389	73	64	11
6679	30.1	69	5492	410	73	60	10
6680	30.1	66	5070	473	73	65	11
6681	42.6	74	5897	486	75	56	10
6682	48.4	78	6209	503	78	59	11
6683	76.1	73	5903	448	79	54	10
6684	70.1	68	5517	386	61	60	9
6685	58.2	74	6010	431	75	52	11
6686	67.3	76	5971	498	83	64	12
6687	61.1	74	5874	491	82	56	12
6688	60.9	72	5700	482	82	54	12
6689	67.5	66	5153	448	78	59	11
6690	55.6	64	4931	432	76	57	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6691	63.7	64	4931	432	76	57	12
6692	32.2	64	4931	432	76	57	12
6693	50.9	64	4931	432	76	57	12
6694	71	64	4931	432	76	57	12
6695	60.5	64	4931	432	76	59	12
6696	58.7	63	4824	425	75	59	13
6697	63.2	76	5918	528	93	67	14
6698	49.2	83	6288	610	108	77	17
6699	64.2	94	7002	660	145	100	21
6700	44.5	112	8240	800	184	120	26
6701	81.7	112	8240	800	184	120	26
6702	61.9	135	9825	990	237	149	33
6703	60.4	183	13109	1388	346	208	44
6704	42.1	192	13680	1447	364	226	48
6705	56.1	192	13680	1447	364	226	48
6706	128.7	191	13634	1453	357	228	48
6707	51.4	191	13634	1453	357	228	48
6708	87.3	185	13325	1339	332	214	45
6709	60.2	174	12632	1268	301	203	40
6710	42	152	11242	1085	244	168	35
6711	6.9	109	8166	840	152	99	21
6712	6.9	127	9773	840	188	115	21
6713	16.5	135	10041	1076	203	122	24
6714	21.2	22	1584	150	31	27	5
6715	74.9	20	1427	150	29	25	6
6716	44.4	18	1294	141	28	26	5
6717	54.7	18	1269	138	28	27	4
6718	62.5	18	1278	141	30	28	5
6719	52.8	19	1313	147	32	28	7
6720	81.8	19	1313	147	32	28	7
6721	67.1	20	1333	147	33	28	6
6722	26.1	24	1555	181	46	41	8
6723	57.5	29	1850	219	57	49	15
6724	90	32	2076	250	67	58	16
6725	82	32	2076	250	67	58	16
6726	98.6	35	2297	229	73	72	17
6727	76.7	37	2406	255	79	73	18
6728	98	37	2406	255	79	73	18
6729	157.5	39	2563	271	84	76	19
6730	122.4	40	2563	271	84	76	19
6731	68.6	43	2715	297	90	93	22
6732	92.6	42	2685	290	85	88	21
6733	68.7	38	2454	262	74	78	18
6734	39.7	32	2109	226	61	68	15
6735	53	31	2061	216	58	62	13
6736	50.4	33	2276	238	62	58	10
6737	54.8	39	2659	280	73	61	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6738	80.1	53	3605	405	102	70	14
6739	74.6	70	4885	542	142	90	18
6740	30.5	79	5485	618	162	103	21
6741	86	67	4635	512	134	93	19
6742	48.9	54	3459	429	128	92	21
6743	36.8	44	2968	349	96	78	16
6744	35.4	20	1423	143	34	28	6
6745	54.7	28	2036	188	49	34	9
6746	82.2	28	2036	188	49	34	9
6747	93.1	30	2172	205	54	39	8
6748	72.3	29	2105	200	52	41	8
6749	80.2	29	2105	200	52	41	8
6750	72.6	29	2063	192	50	39	9
6751	55.2	15	1049	97	24	28	4
6752	81.9	14	973	110	23	24	3
6753	64.3	14	973	110	23	24	3
6754	58	8	490	90	9	12	2
6755	64.2	7	471	85	9	9	1
6756	60.4	7	456	83	8	12	1
6757	79	7	438	80	9	8	2
6758	55.4	6	423	75	8	5	1
6759	67.3	6	431	71	8	6	0
6760	60.3	6	412	65	7	7	1
6761	54.8	182	12839	1557	335	181	42
6762	63.2	182	12839	1557	335	181	42
6763	67.5	36	2500	207	58	69	13
6764	64.6	31	2128	187	47	58	11
6765	72.5	28	1931	182	42	46	10
6766	70.9	25	1842	150	33	40	8
6767	71.9	25	1842	150	33	40	8
6768	92.4	25	1778	172	35	37	9
6769	68.5	19	1359	125	26	34	5
6770	61.2	20	1423	143	34	28	6
6771	60.5	19	1423	143	34	28	6
6772	57.7	14	1049	97	24	28	4
6773	55.9	14	1049	97	24	28	4
6774	49.3	13	973	110	23	24	3
6775	49.4	13	973	110	23	24	3
6776	65.1	20	1512	146	34	28	6
6777	49.1	20	1512	146	34	28	6
6778	42.4	42	2968	349	96	78	16
6779	56.8	42	2968	349	96	78	16
6780	50	42	3070	312	79	50	12
6781	38.1	43	3070	312	79	50	12
6782	37.1	47	3373	360	89	58	6
6783	75.4	43	3067	320	79	54	13
6784	75.6	37	2653	274	67	48	11

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6785	75.4	37	2653	274	67	48	11
6786	63.8	33	2358	236	57	44	9
6787	81.9	36	2518	259	62	46	12
6788	68.4	37	2581	263	62	49	13
6789	60.3	37	2581	263	62	49	13
6790	75.1	33	2308	232	53	46	11
6791	111.7	30	2105	207	49	42	11
6792	26.2	17	1208	118	27	28	5
6793	55.7	41	2726	302	83	65	17
6794	45.1	58	3857	436	120	91	24
6795	41.5	88	5795	709	187	142	32
6796	49.2	93	6109	709	187	169	32
6797	38.9	93	6109	700	184	177	32
6798	51	92	5863	767	203	177	35
6799	55.3	90	5740	767	203	155	37
6800	63.8	91	5740	764	205	156	37
6801	56.3	88	5475	768	207	163	37
6802	61.6	88	5453	768	207	163	36
6803	75.2	85	5240	730	199	163	36
6804	86	85	5240	730	199	163	36
6805	67.1	81	5183	598	193	161	35
6806	173.8	84	5183	745	204	161	35
6807	117.6	93	5610	866	242	176	39
6808	80.6	107	6377	1024	292	202	45
6809	70.5	107	6377	1024	292	202	45
6810	72.2	97	5673	916	268	196	42
6811	60.9	78	4457	737	219	173	34
6812	67.2	78	4457	737	219	173	34
6813	67.6	63	3544	578	175	150	30
6814	58.7	50	2956	401	140	122	25
6815	70.5	43	2522	343	112	109	21
6816	64	37	2210	267	74	104	15
6817	87.3	35	2123	262	74	88	14
6818	46.7	32	1925	262	72	76	14
6819	70.9	30	1869	203	66	71	16
6820	71.2	31	1869	226	66	71	16
6821	75.1	29	1745	226	62	67	12
6822	70.4	29	1773	226	62	67	13
6823	81.4	28	1773	189	61	64	13
6824	71	28	1725	185	60	69	14
6825	61.5	27	1650	178	59	69	14
6826	44.9	26	1568	189	56	65	14
6827	64.5	26	1618	204	54	61	12
6828	11	26	1618	204	54	60	12
6829	25.9	24	1484	178	48	54	12
6830	32.9	24	1456	178	48	54	13
6831	52.4	20	1235	152	42	48	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6832	57.5	13	781	97	31	39	6
6833	51.1	16	935	122	41	42	10
6834	63.3	23	1355	186	61	61	13
6835	36.9	22	1355	186	61	61	13
6836	60.7	15	935	122	41	42	10
6837	39.1	17	822	106	39	57	15
6838	39.3	15	802	85	30	51	10
6839	101.9	14	796	82	28	43	10
6840	80.4	14	796	82	28	43	10
6841	72	12	711	75	24	34	8
6842	59.3	10	563	57	20	36	7
6843	81.5	9	459	45	16	34	8
6844	68.2	8	411	44	15	33	6
6845	66.6	8	402	41	15	31	6
6846	101	8	402	41	15	31	6
6847	115.9	8	402	41	15	31	6
6848	111.9	8	422	42	14	29	6
6849	71.9	14	896	80	22	32	8
6850	101.6	20	1369	118	30	39	10
6851	120.5	26	1843	155	38	46	12
6852	116.2	27	1843	155	38	46	12
6853	111.9	35	2524	210	48	53	15
6854	106.4	35	2524	210	48	53	15
6855	66.5	43	3143	259	56	65	17
6856	80.3	46	3331	275	58	68	18
6857	112.2	46	3331	275	58	68	18
6858	111.1	46	3331	275	58	68	18
6859	46.4	53	4025	295	43	80	16
6860	37	59	4563	310	64	74	19
6861	115.2	59	4563	310	64	74	19
6862	139.6	59	4485	325	64	75	20
6863	47.7	69	5105	496	75	83	22
6864	57.8	69	5105	496	75	83	22
6865	53.3	69	4921	461	84	85	23
6866	20.7	116	8119	924	193	136	34
6867	31.8	135	9443	1104	238	162	41
6868	38.8	127	8854	1029	228	166	38
6869	39.9	114	7865	919	204	158	36
6870	39.8	85	5940	564	151	133	30
6871	32.6	64	4308	479	112	118	26
6872	31.4	57	3824	413	101	108	25
6873	34.1	56	3703	402	95	108	25
6874	47.5	56	3656	392	93	116	27
6875	44.8	52	3460	371	88	106	24
6876	50.6	52	3386	373	85	109	25
6877	63.4	52	3386	373	85	109	25
6878	53.6	50	3312	358	80	100	24

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6879	23.9	58	4118	375	86	87	22
6880	13.4	49	3495	320	74	80	18
6881	18.4	38	2589	241	54	68	17
6882	14.4	34	2320	196	49	73	17
6883	17.5	34	2257	208	58	77	20
6884	28.2	35	2219	224	62	81	20
6885	29.2	35	2215	217	62	81	21
6886	17.5	32	2088	195	51	76	18
6887	12.5	32	2097	204	51	72	18
6888	18.5	35	2312	194	51	79	20
6889	18.5	35	2312	194	51	79	20
6890	18.5	35	2312	194	51	79	20
6891	13.7	34	2235	235	50	82	18
6892	12.8	32	2126	180	45	76	16
6893	15	33	2205	206	46	73	16
6894	30	26	1734	166	34	66	15
6895	39	13	768	77	19	36	9
6896	42	23	1542	150	30	40	11
6897	42.9	27	1876	180	35	48	13
6898	44.8	37	2599	253	40	55	15
6899	22.1	52	3970	297	51	67	16
6900	19.6	49	3620	282	56	70	18
6901	33.2	51	3730	305	62	78	19
6902	48.3	56	4132	342	69	76	19
6903	46.3	60	4441	364	74	79	19
6904	51.6	63	4760	395	78	75	19
6905	42.8	71	5318	426	86	80	19
6906	72.3	124	9976	638	122	102	21
6907	71.6	150	11686	930	182	130	26
6908	77.3	175	13400	1159	228	150	32
6909	90.4	217	16103	1476	307	188	38
6910	54.3	315	23247	2309	531	327	64
6911	90	318	23214	2298	548	355	67
6912	36.6	282	20455	2025	493	346	62
6913	51.8	230	16639	1664	410	265	55
6914	22.9	57	3720	426	112	120	18
6915	66.9	32	2011	233	59	78	11
6916	81.5	18	1072	127	34	58	5
6917	90.1	17	943	117	38	48	10
6918	64.2	18	943	117	38	48	10
6919	99.6	44	2882	346	91	72	16
6920	76.7	46	2882	346	91	72	16
6921	88.8	117	8339	955	205	132	26
6922	121.3	117	8339	955	205	132	26
6923	103.9	153	11200	1234	250	138	31
6924	84.5	153	11200	1234	250	138	31
6925	72.2	156	11491	1243	243	140	31

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6926	87.1	142	10561	1127	216	130	28
6927	64.1	142	10561	1127	216	130	28
6928	83.5	124	9201	974	180	114	24
6929	87.8	127	9201	974	180	114	24
6930	86.3	68	4748	471	124	96	24
6931	63.8	69	4748	471	124	96	24
6932	87	106	7238	900	196	133	32
6933	79.9	115	7905	977	211	152	34
6934	67.1	99	6956	684	176	156	31
6935	71.5	99	6956	684	176	156	31
6936	86	82	5811	544	138	129	25
6937	77	80	5819	486	120	128	22
6938	79.7	104	7834	642	146	128	22
6939	92.7	105	7834	642	146	128	22
6940	82.4	157	12030	1000	230	156	30
6941	79.8	245	18431	1643	390	255	46
6942	68.4	245	18431	1643	390	255	46
6943	60.5	728	50979	5944	1551	831	170
6944	68.8	36	2550	244	61	60	11
6945	105.7	38	2637	263	63	65	11
6946	71.9	40	2810	266	65	63	13
6947	38.8	41	2930	272	67	64	15
6948	72.6	41	2930	272	67	64	15
6949	85.2	54	3837	363	86	64	16
6950	71	88	6408	607	137	96	21
6951	63.8	146	10890	1065	236	134	29
6952	92.7	205	15373	1524	335	172	37
6953	63.7	260	19965	1524	466	240	52
6954	85.9	260	19965	1524	466	240	52
6955	81.3	343	25120	2718	588	331	64
6956	114.2	345	25120	2718	588	331	64
6957	87.1	395	28789	3192	692	388	71
6958	81.6	398	28789	3192	692	388	71
6959	87	455	32702	3700	812	460	85
6960	81	513	36933	4159	937	529	98
6961	84.7	536	38421	4430	990	569	103
6962	72.1	536	38421	4430	990	569	103
6963	80.2	553	39793	4602	1034	530	107
6964	79.5	566	40892	4613	1062	554	109
6965	57.6	577	41330	4860	1097	573	112
6966	86.7	647	45970	5478	1268	657	136
6967	53.9	648	45970	5478	1268	657	136
6968	58.2	652	46406	5414	1273	685	137
6969	72.1	583	41617	4822	1107	627	118
6970	84.7	491	35142	3977	915	544	100
6971	95.1	409	29183	3271	750	464	86
6972	99	408	29183	3271	750	464	86

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6973	95.6	341	24292	2760	607	407	72
6974	92.6	341	24292	2760	607	407	72
6975	86.9	297	20973	2460	520	357	62
6976	72.5	272	19921	1766	426	395	52
6977	85.1	278	20091	2129	485	325	60
6978	81.2	279	20091	2129	485	325	60
6979	58.8	298	21514	2252	524	336	68
6980	50.4	328	23660	2522	590	360	72
6981	60.7	354	25469	2755	647	383	80
6982	86.7	364	26224	2847	667	400	79
6983	92.6	366	26384	2856	673	402	80
6984	60.6	366	26384	2856	673	402	80
6985	72.2	361	26016	2799	660	398	78
6986	80.1	327	23524	2534	592	371	74
6987	72.3	284	20454	2160	508	330	65
6988	92.8	284	20454	2160	508	330	65
6989	88	251	18012	1900	448	299	59
6990	92.7	238	17072	1805	421	289	55
6991	87.3	238	17072	1805	421	289	55
6992	71	237	17144	1794	417	273	55
6993	61.5	242	17547	1837	424	273	55
6994	64	255	18603	1910	442	278	56
6995	60.5	271	19715	2125	471	285	60
6996	72.1	288	20823	2298	487	297	60
6997	81.3	287	20745	2247	474	341	56
6998	63.3	287	20745	2247	474	341	56
6999	70.4	275	20072	2125	466	290	58
7000	63.3	253	18304	2103	415	257	51
7001	71.4	229	16589	1892	370	236	45
7002	55.7	218	15884	1745	347	226	44
7003	70.9	211	15409	1655	328	229	43
7004	64.6	201	15268	1283	305	214	42
7005	58.1	203	15683	1302	271	198	38
7006	66.5	189	14568	1247	241	177	35
7007	81.3	189	14568	1247	241	177	37
7008	86.4	185	14303	1201	229	175	37
7009	96.1	195	15173	1219	237	182	39
7010	102.2	195	15173	1219	237	182	39
7011	99.1	195	15173	1219	237	190	39
7012	112.9	193	15030	1201	234	190	39
7013	108.9	193	15030	1201	234	190	39
7014	133.6	149	10829	1087	225	189	39
7015	123.2	171	12925	1118	226	194	40
7016	122.1	171	12925	1118	226	194	40
7017	122.5	171	12925	1118	234	194	41
7018	117.4	161	11618	1066	279	224	47
7019	145.3	190	13411	1466	336	247	56

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7020	130	190	13411	1466	336	247	56
7021	147.1	190	13411	1466	336	247	56
7022	130.4	203	14151	1582	379	279	61
7023	103.9	205	14151	1582	379	306	69
7024	45	113	8784	624	201	74	33
7025	43.1	67	5019	464	116	52	21
7026	43.3	51	3593	415	90	45	20
7027	37.9	39	2797	264	73	41	20
7028	49.3	25	1708	172	51	34	12
7029	51.2	22	1432	155	45	31	13
7030	50.5	21	1355	152	41	31	14
7031	51	24	1693	154	45	30	14
7032	47.2	24	1693	154	45	30	13
7033	47.2	24	1693	154	45	30	12
7034	27.6	31	2188	205	52	32	13
7035	51.5	39	2857	282	59	31	15
7036	57.1	49	3606	341	71	35	20
7037	54.4	57	4264	406	82	36	20
7038	53.1	63	4735	454	87	40	19
7039	67.9	69	5290	491	95	42	20
7040	76.8	76	5886	540	104	43	20
7041	77	76	5886	540	104	43	20
7042	72	85	6551	600	114	46	23
7043	82.1	90	6945	631	119	48	24
7044	82.4	88	6822	628	115	48	21
7045	84.3	88	6822	628	115	48	21
7046	65.3	91	7140	647	109	47	19
7047	58.3	76	5969	473	102	45	20
7048	83.6	72	5625	476	98	45	18
7049	62	71	5520	476	94	43	20
7050	68.5	75	5874	489	88	43	19
7051	64.8	72	5643	480	82	41	16
7052	55.3	61	4769	376	77	39	17
7053	59.1	57	4363	383	70	34	20
7054	62.4	57	4363	383	70	34	20
7055	56.1	55	4228	372	70	34	17
7056	53.1	56	4254	385	73	37	16
7057	31.1	58	4488	402	74	38	16
7058	37.2	61	4709	412	78	38	17
7059	68.8	61	4709	412	78	38	17
7060	56.4	62	4798	420	76	37	18
7061	65	63	4895	406	77	38	18
7062	77	68	5368	425	74	38	18
7063	65.8	67	5336	425	75	39	19
7064	66	65	5132	405	74	39	17
7065	62.3	65	5132	405	74	39	17
7066	52.9	55	4218	342	73	38	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7067	40.4	56	4317	357	69	38	16
7068	50	47	3555	276	68	38	16
7069	31.9	45	3386	265	67	34	23
7070	35.8	47	3564	278	67	36	18
7071	43.6	52	4030	304	68	38	16
7072	37	45	3458	284	62	35	18
7073	51.5	46	3536	297	59	35	19
7074	49.4	39	2982	214	55	32	17
7075	45.1	39	2982	214	55	32	17
7076	65.7	36	2770	198	51	31	14
7077	53.9	32	2436	186	47	31	14
7078	41.1	31	2340	178	44	32	16
7079	49.7	31	2301	187	45	30	16
7080	38.8	31	2227	199	45	30	15
7081	32.1	27	1877	185	46	33	15
7082	68	33	2462	208	48	29	19
7083	77.5	37	2774	204	53	30	19
7084	65.4	40	3052	238	58	33	20
7085	98.1	41	3055	238	59	34	20
7086	95.9	41	3055	255	59	35	19
7087	51.1	40	2972	255	58	35	19
7088	50.4	40	2985	261	58	34	19
7089	59.5	40	2985	261	55	34	18
7090	65.7	39	2903	231	53	34	18
7091	56.2	35	2606	198	50	34	17
7092	59	51	3822	357	77	40	18
7093	55.5	54	4035	413	83	34	18
7094	106.6	29	2078	169	43	29	16
7095	79.2	32	2320	206	49	30	16
7096	68.8	38	2815	265	60	33	16
7097	73.1	43	3141	309	65	34	15
7098	77	42	3067	313	64	35	13
7099	51.1	39	2882	255	60	33	13
7100	58.2	45	3410	285	73	33	18
7101	49.1	55	4155	324	92	38	21
7102	74.4	55	4155	324	92	38	21
7103	59.1	56	4226	362	92	40	21
7104	61.2	49	3824	245	82	38	21
7105	50.4	44	3396	223	68	35	21
7106	45.3	38	2934	201	56	31	19
7107	58.2	33	2474	212	43	27	17
7108	70.3	33	2474	212	43	27	17
7109	61.3	34	2528	224	43	29	16
7110	49.3	38	2931	224	43	30	18
7111	53.7	37	2820	220	38	29	16
7112	45.1	35	2722	204	36	27	14
7113	39.5	34	2670	195	33	26	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7114	50.8	28	2122	175	33	27	13
7115	52.7	38	2956	286	32	24	14
7116	61.9	40	3104	304	33	24	12
7117	57.4	42	3213	322	35	27	12
7118	45.5	42	3238	328	35	25	11
7119	59.1	41	3138	304	36	24	12
7120	56.2	39	3000	295	36	25	14
7121	61.3	35	2671	245	34	25	13
7122	40.4	34	2555	231	35	25	13
7123	39.7	30	2280	194	36	27	12
7124	46.8	34	2619	194	38	27	12
7125	44.5	34	2619	191	39	26	13
7126	53.6	33	2529	204	40	27	13
7127	53	33	2529	204	40	27	12
7128	77.8	37	2801	267	40	27	12
7129	59	37	2801	267	40	27	16
7130	54.7	32	2383	211	38	24	14
7131	56.2	30	2304	195	35	25	13
7132	57.2	30	2220	194	35	25	14
7133	58.3	29	2193	185	35	24	13
7134	36.9	29	2152	190	34	24	14
7135	73.7	29	2165	196	34	25	15
7136	69.6	29	2201	198	34	24	12
7137	62.2	30	2244	208	34	23	14
7138	99.1	30	2244	208	34	23	14
7139	48.7	31	2376	182	36	24	12
7140	49.3	32	2465	204	38	26	14
7141	41.9	32	2439	208	38	26	13
7142	27.3	36	2760	238	39	26	13
7143	32.5	33	2538	201	40	25	12
7144	31.2	39	3004	260	44	26	13
7145	26.4	50	3970	297	50	28	16
7146	26.7	48	3858	290	48	27	14
7147	56.2	36	2794	204	45	26	12
7148	72.4	34	2663	195	41	25	14
7149	83.3	31	2396	182	38	25	12
7150	83.9	29	2160	178	35	24	12
7151	61.7	29	2160	178	35	24	12
7152	77.6	27	1978	165	32	24	13
7153	72.1	25	1845	160	31	23	12
7154	83.3	24	1758	155	32	24	13
7155	84.8	24	1758	155	32	24	13
7156	91.9	23	1693	148	29	23	4
7157	97.2	23	1693	148	29	23	4
7158	69.6	22	1584	142	28	21	10
7159	97.4	22	1584	142	28	21	10
7160	87.4	21	1516	132	26	20	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7161	61.3	21	1562	138	26	19	9
7162	69.1	21	1572	139	26	21	9
7163	77.9	22	1655	147	25	18	11
7164	54.3	22	1660	149	26	20	11
7165	63.9	23	1662	153	26	20	11
7166	52.8	23	1734	167	27	19	12
7167	58.4	23	1734	167	27	18	12
7168	68.4	24	1780	172	28	20	12
7169	57.2	30	2349	198	28	20	12
7170	56.3	30	2349	198	28	19	13
7171	68.9	24	1783	158	28	19	13
7172	82.7	24	1783	158	26	19	11
7173	78.4	23	1769	154	26	18	8
7174	79.3	24	1795	159	27	18	10
7175	85.1	24	1795	159	28	21	10
7176	79.1	24	1789	157	28	21	9
7177	77	24	1789	157	28	22	10
7178	87.5	24	1772	152	28	22	10
7179	89.5	23	1717	149	26	19	8
7180	92.7	23	1728	151	26	19	9
7181	91	23	1728	151	26	18	9
7182	113	23	1728	151	26	17	9
7183	94.9	26	2068	163	26	17	11
7184	78.1	16	1190	106	16	15	2
7185	84.4	16	1190	106	16	15	4
7186	66.3	8	572	56	9	10	4
7187	74.6	4	265	26	4	7	2
7188	73.1	3	200	22	3	6	2
7189	79.5	32	2367	234	34	21	11
7190	0.8	3	195	19	4	2	1
7191	42.4	2	168	17	4	1	1
7192	50.5	2	166	19	3	2	1
7193	43.1	9	666	77	14	5	2
7194	56.8	15	1084	104	23	8	4
7195	49.3	29	2120	206	45	17	12
7196	49	35	2654	188	52	27	14
7197	39.3	34	2465	233	48	28	15
7198	58.5	36	2545	298	44	26	17
7199	40.7	36	2676	237	43	26	18
7200	47	34	2560	224	38	26	17
7201	34.2	35	2640	230	34	25	15
7202	44.5	31	2349	203	32	24	14
7203	54.3	28	2200	193	29	22	11
7204	58.1	29	2200	193	29	22	11
7205	56.9	28	2152	196	28	21	13
7206	54.7	28	2106	205	28	23	10
7207	61.7	30	2311	214	28	22	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7208	48.1	28	2138	179	30	21	10
7209	54.5	27	2138	179	30	20	5
7210	48	31	2336	228	29	21	10
7211	58	30	2336	225	28	20	10
7212	49.5	26	1909	195	28	20	9
7213	50.1	30	2353	198	28	19	13
7214	47.2	25	1889	158	28	19	13
7215	42.8	26	2008	158	26	19	11
7216	41.1	28	2194	154	26	18	8
7217	37.3	29	2331	159	27	18	10
7218	37.3	29	2331	159	28	21	10
7219	31.1	30	2413	152	28	22	10
7220	31.4	30	2407	149	26	19	8
7221	7.3	30	2391	151	26	19	9
7222	44.7	30	2453	151	26	18	9
7223	44.1	29	2457	89	35	21	6
7224	44.7	29	2406	92	35	23	9
7225	34.8	29	2386	77	36	23	12
7226	23.3	32	2392	231	37	23	11
7227	20.8	32	2410	231	38	24	11
7228	35.3	32	2410	235	39	24	11
7229	54.6	32	2393	238	40	24	11
7230	56.8	32	2370	241	40	23	11
7231	44.7	30	2293	190	39	24	11
7232	32.6	29	2186	186	38	22	11
7233	43.3	27	2006	180	34	22	9
7234	43.8	24	1840	124	33	22	8
7235	45.2	24	1826	156	32	22	8
7236	65.5	24	1826	156	32	22	8
7237	54.6	25	1860	182	30	19	9
7238	39.4	26	1928	182	30	20	8
7239	59.6	27	2027	193	29	18	9
7240	69.2	28	2157	208	31	20	10
7241	65.1	30	2254	214	32	20	9
7242	91.4	30	2332	215	33	21	9
7243	113.5	30	2332	215	33	21	9
7244	87.3	31	2375	218	32	19	8
7245	99.8	31	2375	218	32	19	3
7246	90.7	31	2380	216	32	21	9
7247	76.5	31	2390	222	30	20	10
7248	91.8	33	2595	218	32	19	3
7249	104.7	33	2595	216	32	21	9
7250	76.8	33	2593	211	30	21	9
7251	62.1	30	2386	187	31	20	8
7252	100.4	30	2367	192	30	20	8
7253	95.8	32	2556	198	30	20	7
7254	76.6	32	2556	193	29	22	11

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7255	88.7	32	2556	196	28	21	13
7256	93.8	31	2495	193	32	17	8
7257	99.5	33	2541	230	30	19	12
7258	64.6	35	2742	230	31	19	12
7259	71.6	35	2742	228	31	17	10
7260	86.9	30	2319	217	26	17	6
7261	90.1	21	1690	143	21	16	6
7262	75.5	21	1690	143	21	16	6
7263	44.9	17	1351	116	17	14	5
7264	40	18	1448	114	17	12	3
7265	49.8	17	1314	113	17	10	5
7266	68.4	16	1267	111	16	12	2
7267	54.3	16	1228	113	15	11	3
7268	53.6	15	1190	111	14	10	4
7269	50.1	15	1154	89	16	10	2
7270	56.7	15	1154	89	16	10	2
7271	63	14	1142	93	15	8	2
7272	82.4	14	1107	92	15	9	2
7273	66.9	12	938	88	15	10	3
7274	60	15	1179	107	16	10	3
7275	77.2	16	1296	112	16	4	2
7276	78.3	16	1296	112	16	4	2
7277	70.8	19	1530	104	18	9	3
7278	64.1	11	875	57	19	11	4
7279	65.4	11	875	58	19	11	4
7280	57.7	10	785	47	20	10	5
7281	60.5	22	1698	150	22	12	6
7282	57	16	1178	122	17	12	4
7283	66	14	1154	89	16	10	4
7284	68.9	14	1154	89	16	10	4
7285	57.2	17	1289	124	27	12	5
7286	71.3	18	1289	124	27	13	6
7287	61.9	26	1902	184	38	15	8
7288	53.1	39	2820	277	56	22	15
7289	45.8	66	4820	494	104	35	21
7290	68	103	7319	978	171	53	28
7291	67.8	125	8920	1204	213	67	32
7292	50.1	120	8850	968	206	68	32
7293	46.3	88	6375	747	142	55	23
7294	48.9	62	4692	429	100	44	15
7295	51.8	40	2995	274	59	31	9
7296	53.1	28	2176	199	40	20	4
7297	53.1	23	1718	183	30	15	4
7298	50	19	1496	137	24	13	4
7299	53.1	18	1371	123	21	13	4
7300	44.7	18	1414	125	18	10	3
7301	44.9	16	1301	111	17	9	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7302	39.1	16	1301	102	14	8	2
7303	39.4	15	1259	98	14	8	2
7304	35.2	16	1259	98	14	8	5
7305	25.2	14	1140	100	14	8	3
7306	30.4	14	1107	106	13	7	2
7307	31.4	14	1101	84	13	6	3
7308	32.3	14	1132	90	13	6	3
7309	24.3	28	2464	98	23	8	2
7310	13.5	34	2824	200	32	11	4
7311	12.6	40	3183	303	42	14	6
7312	12.6	40	3220	311	45	13	3
7313	12.6	40	3220	311	45	13	4
7314	4.3	40	3189	310	44	14	4
7315	34.4	40	3157	309	43	14	4
7316	34.4	39	3100	309	46	15	6
7317	34.1	39	3100	257	47	16	6
7318	42.6	37	2945	257	47	16	6
7319	35.5	29	2291	212	39	14	5
7320	29.9	27	2033	214	37	12	5
7321	31.1	34	2596	275	47	15	4
7322	38.7	40	3060	320	54	18	4
7323	38.6	40	3088	320	54	18	4
7324	44.6	40	3088	319	53	17	6
7325	53	34	2685	273	44	16	4
7326	46.7	35	2685	273	44	16	4
7327	52.5	29	2276	186	36	14	5
7328	49.1	27	2138	178	34	13	5
7329	59.7	27	2112	182	33	13	4
7330	57.2	28	2215	192	32	13	4
7331	48	30	2386	192	33	13	4
7332	48.6	31	2498	214	33	13	4
7333	59.6	33	2678	214	33	13	3
7334	47.4	33	2678	212	39	14	5
7335	56.9	32	2606	214	37	12	5
7336	49.2	31	2489	215	29	13	4
7337	41.6	29	2323	206	26	11	4
7338	35.2	19	1392	188	25	10	4
7339	25.7	25	1935	195	24	9	5
7340	22.7	24	1895	183	23	6	3
7341	15.9	23	1851	180	21	6	4
7342	13.9	18	1425	147	20	6	4
7343	13.1	16	1235	140	21	7	3
7344	16.4	16	1253	127	22	7	2
7345	31.7	16	1251	127	22	7	1
7346	29.8	16	1269	105	22	7	2
7347	28.1	16	1272	117	23	7	2
7348	35.2	17	1237	145	24	7	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7349	36.5	16	1259	118	24	8	3
7350	32	18	1355	121	24	8	4
7351	31.5	19	1480	131	23	8	4
7352	30.4	20	1533	138	23	8	4
7353	30.1	20	1558	154	22	8	3
7354	21.6	19	1538	124	22	7	4
7355	30.8	19	1477	155	21	7	4
7356	32.9	19	1447	155	21	7	4
7357	33.5	16	1321	116	18	5	4
7358	43.1	17	1363	120	18	6	3
7359	50.6	18	1431	132	19	6	3
7360	45.1	20	1538	149	21	6	3
7361	48.2	20	1550	155	20	6	3
7362	48.6	20	1566	155	20	6	2
7363	58.6	19	1566	126	20	6	2
7364	41.3	19	1554	127	20	6	2
7365	46.8	19	1480	149	19	6	2
7366	35.6	20	1581	166	21	6	2
7367	33.6	21	1634	166	21	5	3
7368	47.1	21	1639	169	21	6	4
7369	60.6	20	1587	160	21	5	1
7370	50.3	19	1531	155	20	6	3
7371	55.2	20	1556	170	20	6	3
7372	63.9	20	1613	170	20	6	3
7373	58.3	20	1613	148	20	6	3
7374	46.5	21	1661	162	22	6	4
7375	38.8	16	1252	126	17	4	2
7376	38.5	8	649	66	9	3	2
7377	30.5	9	649	66	9	3	2
7378	81.7	20	1557	143	27	9	0
7379	68.3	19	1461	161	26	7	2
7380	87.2	19	1461	161	26	7	2
7381	79.7	18	1377	130	24	7	2
7382	72	17	1304	157	23	6	4
7383	102.8	20	1551	150	28	8	4
7384	119.6	20	1551	150	28	8	4
7385	96.3	26	1922	233	35	9	5
7386	112	26	1922	233	35	9	5
7387	98.7	28	2189	212	39	10	5
7388	97.9	28	2189	212	39	10	5
7389	111.7	27	2109	202	36	10	4
7390	105.5	27	2109	202	36	10	4
7391	95.8	24	1900	184	32	9	4
7392	87.2	23	1785	170	29	8	4
7393	71.4	22	1774	163	26	7	2
7394	82.1	22	1774	163	26	7	2
7395	101.4	22	1780	165	25	7	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7396	84.4	22	1780	165	25	7	3
7397	93.4	23	1799	170	24	7	3
7398	94	24	1908	193	26	7	3
7399	65.9	28	2155	227	32	8	2
7400	35.9	29	2326	201	34	8	3
7401	34.9	28	2248	192	30	7	3
7402	49.3	27	2248	189	26	7	2
7403	59.4	31	2521	246	27	6	1
7404	39	36	3044	252	24	4	3
7405	40.6	33	2703	248	21	5	1
7406	43.7	30	2441	225	20	4	2
7407	45.3	25	2088	195	19	4	0
7408	60.3	25	2031	183	18	4	4
7409	53.9	26	2184	186	18	5	3
7410	92.6	24	1984	156	18	5	2
7411	79.7	24	1984	156	18	5	2
7412	70.3	23	1940	161	18	5	2
7413	71.4	23	1877	164	19	5	2
7414	70.5	22	1819	164	19	5	2
7415	81.8	22	1823	164	19	6	2
7416	58.9	22	1861	138	19	5	3
7417	75.7	26	2097	186	22	6	3
7418	80.5	31	2477	241	26	6	3
7419	75.8	31	2477	241	26	6	2
7420	79.5	36	2923	287	32	8	2
7421	85.2	40	3212	325	34	8	4
7422	80.2	40	3212	325	34	8	4
7423	82.1	41	3271	316	35	8	4
7424	93.4	41	3271	317	35	8	4
7425	129.8	41	3271	319	35	8	4
7426	109.4	40	3173	319	34	8	4
7427	99	37	2999	299	32	8	3
7428	106.4	37	2999	299	32	8	3
7429	96.6	36	2856	287	31	7	3
7430	116.8	36	2856	287	31	7	3
7431	99.1	34	2773	279	30	7	3
7432	104	34	2740	269	30	7	3
7433	105.5	33	2707	260	30	7	3
7434	117.6	34	2707	265	30	7	4
7435	116.2	33	2650	265	28	7	4
7436	116.1	33	2674	265	28	7	4
7437	107.9	32	2674	217	26	7	1
7438	96.3	31	2592	221	25	7	3
7439	99.7	31	2592	221	25	7	3
7440	85.6	30	2485	217	25	7	2
7441	88.7	30	2485	217	25	7	2
7442	98.1	29	2359	215	24	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7443	122.4	27	2206	211	24	7	0
7444	117.1	27	2206	211	24	7	0
7445	95.6	25	2105	160	21	6	1
7446	102.1	26	2105	180	21	6	2
7447	102.1	25	2053	180	21	6	3
7448	95.8	25	2001	180	21	6	4
7449	95.7	27	2231	194	22	7	4
7450	97.9	27	2231	194	22	7	3
7451	76.6	30	2490	211	25	7	4
7452	75.9	30	2490	211	25	7	4
7453	81.9	29	2380	202	23	7	2
7454	87	29	2380	202	23	7	3
7455	109.5	28	2284	196	23	6	3
7456	113.1	28	2298	196	23	7	4
7457	104.7	29	2410	207	24	6	4
7458	120.3	29	2410	207	24	6	4
7459	117.1	32	2614	219	24	6	4
7460	99.5	32	2614	219	24	6	4
7461	114.9	32	2674	233	25	7	2
7462	89.2	32	2674	233	25	7	2
7463	100.2	33	2737	235	23	7	3
7464	106	33	2737	236	23	7	3
7465	96	23	1924	139	18	5	4
7466	105	23	1919	142	18	5	2
7467	103.1	23	1915	146	19	6	1
7468	111.2	27	2297	157	20	5	1
7469	58.9	22	1799	142	18	4	1
7470	47.2	24	1894	196	28	8	1
7471	76	24	1894	196	28	8	1
7472	87	22	1725	185	26	7	0
7473	118.5	19	1558	133	23	6	2
7474	111.2	18	1410	142	22	6	2
7475	100.3	18	1410	142	22	6	2
7476	102.1	18	1378	147	22	6	3
7477	101.5	18	1346	152	21	6	3
7478	101.7	19	1481	166	25	8	3
7479	94.1	22	1705	192	30	8	3
7480	95.4	22	1705	192	30	8	3
7481	92.4	23	1776	200	31	8	3
7482	95.1	23	1776	200	31	8	3
7483	109.8	23	1776	200	31	8	3
7484	112.5	22	1682	189	29	8	3
7485	121.2	22	1682	189	29	8	3
7486	114.5	20	1524	166	26	7	2
7487	108.2	20	1524	166	26	7	2
7488	85	19	1418	156	24	6	3
7489	86.1	17	1348	142	21	6	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7490	93.2	17	1363	143	18	6	3
7491	80.3	17	1363	143	18	6	3
7492	65.8	17	1363	143	18	6	3
7493	65.8	17	1363	143	18	6	3
7494	65.8	17	1369	142	18	6	2
7495	65.8	18	1376	141	18	6	2
7496	87.1	18	1376	141	18	6	2
7497	85.8	18	1464	126	17	6	2
7498	100.6	19	1559	138	18	6	2
7499	92	19	1559	138	18	6	2
7500	92.1	20	1603	148	18	5	2
7501	103.3	20	1603	148	18	5	2
7502	85.5	21	1646	155	17	6	3
7503	89.3	20	1714	126	16	5	2
7504	86.7	20	1714	126	16	5	2
7505	101.4	21	1754	131	16	5	2
7506	68.1	22	1812	157	16	5	0
7507	81.2	22	1812	157	16	5	0
7508	52.5	23	1908	156	17	5	2
7509	79.8	24	2005	164	17	5	0
7510	63.6	25	2067	165	16	5	2
7511	80.8	25	2113	168	17	5	1
7512	67.3	27	2327	173	16	4	3
7513	49.5	28	2353	176	15	5	3
7514	70.2	27	2327	172	16	4	3
7515	62.6	27	2279	168	14	4	2
7516	58.7	26	2250	164	15	4	2
7517	60.5	26	2214	158	14	4	1
7518	71.1	26	2214	157	14	4	1
7519	50.3	25	2192	147	14	4	0
7520	56.6	25	2169	145	14	4	1
7521	51.7	25	2171	145	13	4	2
7522	45.5	25	2168	144	13	4	2
7523	47.2	23	1925	138	13	5	1
7524	53.2	25	2156	142	13	4	0
7525	43.5	25	2156	142	13	4	0
7526	43.5	25	2160	144	13	4	2
7527	53.3	25	2115	141	13	4	1
7528	45	24	2039	140	13	4	2
7529	55.9	23	1969	139	12	4	2
7530	63.9	23	1915	138	12	3	3
7531	61.6	22	1867	137	12	3	2
7532	84.9	22	1867	136	12	3	2
7533	56	21	1802	134	12	4	2
7534	85	21	1745	132	13	4	1
7535	81.2	20	1735	131	12	4	2
7536	72.4	21	1735	132	12	4	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7537	74.6	21	1811	133	12	4	2
7538	61.1	23	1958	135	14	4	0
7539	63.7	24	2029	137	14	4	2
7540	58.3	24	2078	139	15	5	1
7541	70.3	24	2079	140	15	5	1
7542	64.7	24	2081	139	15	5	1
7543	74.8	24	2078	141	15	5	1
7544	61.3	27	2383	136	12	5	1
7545	67	26	2304	134	12	4	0
7546	62.7	26	2220	132	13	4	0
7547	72.5	25	2193	131	12	4	2
7548	70.9	25	2152	132	12	4	1
7549	64.7	25	2165	133	12	4	2
7550	77.4	26	2201	135	14	4	2
7551	81.7	26	2244	137	14	3	3
7552	72.7	26	2244	139	15	3	2
7553	87.6	27	2376	136	12	3	2
7554	94.4	28	2465	134	12	4	2
7555	92.6	27	2383	132	13	4	1
7556	106.1	26	2304	131	12	4	2
7557	72.6	26	2220	132	12	4	2
7558	116.2	25	2193	133	12	4	2
7559	71.6	25	2152	135	14	4	0
7560	86.8	25	2165	137	14	4	2
7561	75.8	26	2201	139	15	5	1
7562	80.8	30	2700	141	16	4	3
7563	63.5	24	2093	139	14	4	0
7564	87.2	18	1501	128	12	4	0
7565	87	28	2446	149	17	4	3
7566	60.8	27	2284	134	16	4	3
7567	57.7	26	2336	52	30	6	2
7568	95.4	26	2336	52	30	6	2
7569	95.2	24	2100	40	27	5	2
7570	79.5	24	2100	40	27	5	3
7571	121.7	22	1983	48	26	5	2
7572	103.6	22	1983	48	26	5	2
7573	119.5	25	2170	64	31	6	2
7574	115.4	25	2170	64	31	6	1
7575	132.3	24	2074	48	30	6	4
7576	128.6	24	2075	48	30	6	4
7577	137.4	25	2244	56	39	7	2
7578	117.5	25	2244	57	39	7	2
7579	116.6	26	2244	58	39	7	3
7580	120.7	30	2666	58	43	8	3
7581	117.9	30	2666	56	43	8	3
7582	103.2	28	2442	48	37	7	3
7583	100.5	28	2442	48	37	7	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7584	129.5	25	2233	41	33	6	2
7585	99.9	23	2091	42	27	6	3
7586	106.3	23	2091	42	27	6	3
7587	98.3	23	2091	42	27	6	2
7588	116.1	23	2120	38	22	4	3
7589	109.8	23	2120	38	22	4	3
7590	102.2	24	2237	32	20	5	4
7591	86.9	24	2237	32	20	5	4
7592	87.1	27	2492	35	22	8	4
7593	67.7	31	2791	49	23	8	4
7594	81.8	31	2791	49	23	8	3
7595	74.5	31	2823	50	22	8	3
7596	81.7	29	2643	45	20	9	4
7597	93.7	29	2643	45	20	9	4
7598	126.7	28	2511	49	22	8	3
7599	104	27	2511	49	19	8	3
7600	94	27	2470	54	18	8	2
7601	92.1	26	2432	48	16	6	1
7602	83.7	26	2432	48	16	6	1
7603	88.8	26	2376	41	16	7	2
7604	85	15	1413	18	14	6	1
7605	85.2	15	1413	18	14	6	1
7606	84.1	15	1406	18	13	6	2
7607	86.6	26	2286	76	15	6	3
7608	87.3	26	2286	76	15	6	3
7609	93.2	26	2361	87	16	5	4
7610	95.9	26	2361	87	16	5	4
7611	79.8	28	2492	88	16	5	2
7612	99.9	29	2617	98	17	6	2
7613	72.6	30	2703	90	17	6	3
7614	93.5	31	2788	83	17	6	3
7615	85.7	33	2995	100	18	6	3
7616	94	33	2995	100	18	6	3
7617	110.7	36	3216	117	19	6	4
7618	92.3	36	3216	117	19	6	2
7619	94.9	37	3365	109	21	8	2
7620	99.5	37	3362	118	20	7	3
7621	88.9	37	3362	118	20	7	3
7622	103.1	37	3362	118	20	7	3
7623	103.5	37	3341	115	20	7	3
7624	109.4	37	3320	111	20	7	3
7625	116.8	37	3320	111	20	7	3
7626	116.6	37	3361	109	20	7	2
7627	95.9	37	3366	112	21	7	1
7628	103.1	37	3366	112	21	7	1
7629	111.7	35	3216	117	19	6	2
7630	116.1	37	3365	109	21	8	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7631	76.2	37	3362	118	20	7	3
7632	84.2	36	3216	117	19	6	2
7633	81.1	37	3365	109	21	8	2
7634	81.1	34	3036	108	19	6	2
7635	60.4	32	2882	105	19	6	3
7636	64.2	31	2773	94	17	6	3
7637	70.8	31	2773	94	17	6	3
7638	64.2	29	2660	90	17	5	2
7639	77.2	29	2608	91	18	6	2
7640	67.4	29	2636	83	18	7	2
7641	72.8	30	2650	83	19	7	3
7642	58.1	29	2582	90	19	7	2
7643	51.1	30	2639	90	19	7	2
7644	70.4	30	2674	93	19	7	3
7645	54.7	30	2714	84	20	7	3
7646	64.6	30	2714	84	20	7	3
7647	72.3	29	2600	85	20	7	2
7648	72.3	28	2482	86	20	8	2
7649	68.1	27	2412	86	20	7	2
7650	79.9	30	2623	108	22	9	2
7651	79.8	28	2482	86	20	8	2
7652	72.5	35	3008	118	24	10	3
7653	72	35	3008	118	24	10	3
7654	72.3	33	2933	118	25	11	2
7655	67.3	33	2877	115	24	11	2
7656	71.9	35	3118	118	25	10	3
7657	74.9	36	3211	119	25	11	3
7658	60.6	36	3181	117	25	11	2
7659	71.4	33	2940	116	23	9	2
7660	92.1	24	2083	114	18	7	2
7661	68.3	34	2976	115	22	9	2
7662	64.6	39	3463	115	32	11	2
7663	57	39	3463	115	32	11	2
7664	56.6	24	2050	88	32	13	3
7665	87.1	36	3108	118	43	15	3
7666	89.7	36	3108	118	43	15	3
7667	92.2	39	3398	118	50	18	4
7668	87.5	39	3398	118	50	18	4
7669	118.1	39	3398	119	50	18	4
7670	100.4	43	3765	121	52	18	4
7671	89	40	3438	123	47	17	3
7672	98.4	40	3438	124	47	17	3
7673	103.3	35	3046	122	41	14	2
7674	105.6	33	2728	173	33	13	3
7675	94.2	33	2728	173	33	13	3
7676	88.3	30	2548	159	29	11	3
7677	70.5	31	2607	159	28	10	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7678	70.7	31	2607	159	28	10	4
7679	82.1	34	2870	173	28	10	3
7680	84.6	38	3200	194	28	10	3
7681	77.3	38	3200	194	28	10	3
7682	64.4	42	3542	212	29	12	4
7683	79.7	45	3860	230	31	12	4
7684	75.9	47	4053	240	33	12	4
7685	77.5	47	4053	240	33	12	4
7686	74.4	49	4188	244	32	13	4
7687	75	49	4202	241	30	12	4
7688	67.1	49	4240	256	31	12	4
7689	61.1	45	3948	219	24	11	2
7690	68.2	47	4113	227	28	10	3
7691	71.3	47	4113	227	28	10	3
7692	71.4	47	4076	255	28	10	4
7693	77.4	47	4056	260	27	10	5
7694	70.7	46	3987	248	27	9	5
7695	87.2	46	3987	248	27	9	5
7696	51.1	47	4023	271	26	9	4
7697	57.8	47	3987	248	27	9	5
7698	47.4	47	4015	261	26	9	6
7699	57.4	47	4010	265	25	9	4
7700	70.6	46	3936	260	25	9	3
7701	59.4	46	3898	258	25	9	3
7702	64.2	46	3926	255	27	9	4
7703	94	46	3926	255	27	9	4
7704	93.1	47	3955	272	26	9	3
7705	101.7	46	3928	257	27	9	4
7706	89.9	46	3928	257	27	9	3
7707	81.7	44	3785	248	22	10	2
7708	84.4	43	3734	239	22	10	2
7709	72	44	3830	218	26	10	3
7710	87	45	3830	259	26	11	3
7711	70.6	44	3744	259	25	11	4
7712	64.2	42	3554	244	25	9	4
7713	64.2	41	3468	244	24	8	4
7714	85.4	41	3468	244	24	8	4
7715	94.4	42	3599	247	25	9	5
7716	87.1	46	3869	269	27	10	5
7717	70.7	46	3869	269	27	10	6
7718	86.9	48	4105	280	30	9	4
7719	92	50	4241	290	29	10	4
7720	98.9	50	4265	297	31	10	5
7721	86.8	50	4265	297	31	10	5
7722	98.8	50	4241	290	29	10	5
7723	105.5	49	4167	280	29	11	5
7724	43.7	48	4112	282	28	10	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7725	54.8	48	4082	283	29	10	4
7726	64.1	48	4039	287	29	10	4
7727	55	48	4059	277	30	11	3
7728	67.3	47	3995	269	30	10	4
7729	63.1	47	3924	289	29	11	4
7730	49.1	42	3745	158	26	11	2
7731	55.5	43	3800	163	28	10	2
7732	74.6	45	3877	233	29	9	2
7733	64.6	45	3877	233	29	9	3
7734	70.4	46	3926	241	29	9	3
7735	67.8	46	3985	236	29	10	4
7736	92	46	3985	236	29	10	4
7737	68	45	3895	231	28	9	4
7738	84.6	44	3774	223	27	10	4
7739	75.7	42	3626	210	26	10	2
7740	63	39	3364	204	25	8	3
7741	58	40	3364	204	25	8	15
7742	76.5	39	3274	196	23	8	15
7743	124.4	38	3192	189	23	8	14
7744	82.2	38	3192	192	23	8	19
7745	106.5	38	3175	192	22	7	19
7746	91.4	38	3175	192	22	8	19
7747	88.2	36	3081	186	22	8	14
7748	105.6	36	3081	186	22	8	14
7749	101.7	27	2262	139	17	6	12
7750	100.4	27	2262	139	17	8	12
7751	86.6	47	3891	296	29	10	11
7752	107.2	44	3738	228	26	8	10
7753	76	44	3738	228	26	8	13
7754	79.9	28	2357	141	18	5	14
7755	67.3	21	1748	105	14	4	14
7756	67.3	14	1139	69	9	3	15
7757	67.3	7	530	33	5	2	15
7758	75.7	49	4065	293	36	11	18
7759	76.6	38	3186	217	34	10	11
7760	95.1	40	3312	228	38	11	14
7761	81.8	40	3312	228	38	11	14
7762	92.3	44	3606	249	43	14	17
7763	96.6	46	3740	257	45	14	17
7764	96.3	45	3740	257	45	14	15
7765	80.9	44	3618	260	42	13	10
7766	86.8	44	3618	260	42	13	10
7767	81.2	39	3236	239	37	10	10
7768	98.9	35	2905	205	31	10	13
7769	85.8	35	2905	205	31	10	13
7770	85.4	32	2676	189	27	8	12
7771	75.8	32	2719	188	26	8	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7772	86.6	33	2810	196	25	8	2
7773	66.6	35	2978	196	25	8	2
7774	87	36	3202	117	26	8	1
7775	80.6	44	3550	289	32	9	14
7776	76.2	45	3628	297	33	9	14
7777	60.3	46	3788	297	34	9	11
7778	80	45	3809	247	34	8	11
7779	82.2	46	3809	302	33	10	12
7780	92.3	46	3805	308	33	10	12
7781	76.8	46	3805	308	33	8	11
7782	88.4	47	3906	314	33	8	16
7783	92.5	48	3934	314	33	8	16
7784	72.1	47	3934	313	33	8	13
7785	3.7	48	3934	313	33	8	17
7786	53.1	50	4095	310	36	9	17
7787	75.1	53	4465	294	44	12	17
7788	70.2	66	5517	363	62	17	18
7789	72	82	6642	557	85	25	18
7790	92.9	81	6642	557	85	25	3
7791	75.9	85	6963	557	85	29	3
7792	87.1	83	6963	396	78	29	21
7793	21.6	77	6324	469	78	24	21
7794	61.1	59	4926	360	57	16	7
7795	54.8	52	4280	360	48	14	8
7796	50.1	49	3948	333	43	12	16
7797	47.1	45	3655	303	37	10	20
7798	34.7	44	3672	250	38	10	20
7799	44.8	45	3672	250	38	11	20
7800	60.9	44	3594	243	38	11	20
7801	56.1	42	3447	274	36	10	18
7802	35.7	38	3098	260	32	9	18
7803	39.3	34	2907	192	29	8	2
7804	28.5	29	2530	106	24	8	1
7805	22.7	32	2620	187	27	8	8
7806	23.5	36	2928	221	32	8	20
7807	27.8	37	2984	217	34	10	20
7808	29.7	37	2990	231	34	10	21
7809	28.5	34	2724	209	33	10	16
7810	25.9	31	2565	202	29	9	2
7811	31.9	15	1320	56	16	5	0
7812	41.8	24	1980	150	24	7	10
7813	64.2	27	2221	170	26	8	6
7814	56.3	27	2221	170	26	8	6
7815	60.4	28	2303	174	27	8	10
7816	58.3	28	2303	174	27	8	10
7817	56.3	29	2334	180	27	8	14
7818	64.2	29	2334	180	27	8	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7819	54.3	32	2553	196	29	8	17
7820	60.6	32	2588	194	30	10	16
7821	48.6	25	2071	163	25	8	2
7822	45.5	16	1263	96	18	7	0
7823	46.7	9	751	63	11	5	1
7824	46.5	7	621	21	10	4	1
7825	36.7	17	1392	67	20	6	1
7826	36.9	30	2434	163	32	10	10
7827	47.9	40	3319	220	42	13	9
7828	51.2	50	4085	268	51	16	11
7829	52.5	58	4738	315	59	18	17
7830	49.9	80	6614	447	88	27	23
7831	40.5	82	6764	453	90	27	20
7832	39.3	88	7289	500	103	32	5
7833	63.2	93	7672	550	85	38	12
7834	68.3	122	9755	732	167	50	22
7835	86.9	108	8676	671	148	45	24
7836	44	138	11117	889	200	60	7
7837	47.2	136	10906	888	199	58	8
7838	64.5	117	9284	810	145	56	8
7839	58.3	116	9127	786	173	50	29
7840	63.8	102	8028	715	156	46	17
7841	62.9	92	7148	669	141	42	15
7842	68.1	125	9715	900	180	53	33
7843	76.1	137	10787	969	196	56	33
7844	54.1	148	11646	1045	212	61	30
7845	68	148	11646	1045	212	61	30
7846	71.2	147	11561	1032	211	61	29
7847	72.8	129	9523	907	182	56	82
7848	58.2	100	8025	578	147	46	35
7849	72.3	68	5173	466	100	32	35
7850	34.1	34	2541	227	52	18	17
7851	63.4	15	1143	104	23	10	4
7852	64.9	10	720	71	18	8	3
7853	64.3	42	3215	262	70	26	15
7854	67.1	74	5710	454	123	45	27
7855	67.1	98	7645	602	167	59	31
7856	54.1	105	8189	638	183	64	36
7857	42	105	8189	638	183	64	36
7858	46.5	94	7336	579	164	57	32
7859	58.2	80	6196	493	138	53	32
7860	48.1	66	5105	402	119	43	27
7861	58.1	59	4452	365	107	40	27
7862	61.4	55	4113	344	102	40	24
7863	47.1	52	3924	343	96	36	23
7864	57.2	53	3984	350	96	38	23
7865	35.8	52	3924	348	82	40	25

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7866	36.6	54	4070	336	97	41	27
7867	29.7	51	3881	321	92	38	23
7868	30.1	51	3856	315	90	36	20
7869	28	55	4263	339	94	37	20
7870	36.6	53	4063	320	88	35	20
7871	23.8	52	4002	316	85	36	19
7872	51.2	52	4020	315	85	36	22
7873	33.7	55	4252	341	92	36	24
7874	30	56	4287	348	93	38	24
7875	60.4	55	4261	340	92	37	25
7876	72.1	54	4157	337	89	36	22
7877	87.2	54	4157	337	89	36	22
7878	86.2	53	4058	327	86	34	26
7879	92.1	52	4041	322	84	34	21
7880	80.1	52	4041	322	84	34	21
7881	57.5	51	3929	319	82	34	23
7882	55.7	50	3866	310	79	32	21
7883	60.4	48	3720	307	76	31	19
7884	45.5	44	3456	242	65	32	17
7885	48.9	44	3473	275	66	31	14
7886	48.9	43	3489	209	68	30	13
7887	48.9	45	3506	242	69	28	20
7888	53.9	46	3498	317	71	27	17
7889	79.8	46	3494	313	70	28	19
7890	53.5	46	3494	313	70	28	19
7891	55.6	46	3501	313	69	27	19
7892	64.6	44	3358	296	66	26	18
7893	71.2	42	3210	286	62	25	18
7894	61.2	40	3090	278	60	25	18
7895	58.2	40	3090	278	60	25	18
7896	67.7	39	3000	267	58	24	17
7897	56.8	40	3079	278	60	24	17
7898	53.6	40	3080	274	60	25	18
7899	70.1	40	3083	274	60	25	18
7900	87	40	3083	273	60	25	14
7901	71.2	41	3129	280	63	26	20
7902	86.8	41	3133	281	63	26	20
7903	70.4	41	3133	281	63	26	20
7904	57.5	41	3119	278	64	27	20
7905	61.2	41	3119	278	64	27	17
7906	46.9	42	3212	290	66	29	18
7907	48.2	43	3307	248	67	29	22
7908	51.3	39	3007	244	49	31	21
7909	63.2	39	3007	244	49	31	18
7910	70.9	40	3134	228	59	33	12
7911	87	43	3318	275	67	31	17
7912	86.4	44	3375	302	68	30	18

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7913	81.1	44	3375	302	68	30	18
7914	70.5	45	3435	300	69	30	21
7915	75.7	45	3447	309	70	31	22
7916	60.4	45	3439	306	69	31	20
7917	79.9	45	3431	304	68	30	18
7918	117.1	45	3413	303	68	32	21
7919	57.6	45	3413	303	68	32	21
7920	74.4	45	3441	306	69	32	20
7921	72.2	46	3455	314	70	31	18
7922	71.6	45	3449	305	68	31	20
7923	38.3	46	3472	309	70	32	24
7924	57.3	46	3502	310	70	32	20
7925	51.6	47	3580	318	70	31	21
7926	63.4	47	3580	318	70	31	21
7927	46.8	47	3604	314	70	32	22
7928	38.9	47	3585	319	68	31	21
7929	36.6	47	3607	320	69	31	21
7930	29.5	41	3143	301	50	29	16
7931	42.7	40	3086	294	48	30	10
7932	66.4	42	3158	312	53	31	13
7933	54.1	41	3254	237	56	28	14
7934	59.5	43	3398	244	57	28	16
7935	46.9	46	3621	263	60	29	20
7936	57.5	49	3876	278	62	28	24
7937	52.4	58	4702	333	72	31	20
7938	54.9	59	4702	333	72	31	20
7939	31.4	92	7403	544	119	42	23
7940	28	111	8925	678	152	52	27
7941	19.8	111	8925	678	152	52	27
7942	34.7	122	9747	752	168	58	28
7943	27.1	120	9644	748	166	57	28
7944	29.1	106	8592	559	185	62	24
7945	28.2	87	7072	462	112	47	23
7946	29.6	76	6096	449	102	39	19
7947	32.2	64	5086	375	90	36	20
7948	35.7	32	2531	185	46	22	13
7949	43.3	21	1634	127	32	15	10
7950	32.5	21	1634	127	32	15	10
7951	49.9	86	6602	589	133	51	24
7952	49.9	150	11570	1051	234	86	39
7953	57	119	9712	752	168	58	28
7954	56.5	57	4695	333	72	31	20
7955	39.2	41	3158	312	53	31	13
7956	26.2	20	1514	137	31	13	4
7957	32.2	21	1599	139	32	14	9
7958	22.6	32	2541	227	52	18	17
7959	27.4	33	2627	211	41	16	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7960	57.4	58	4756	293	70	28	14
7961	32.9	65	5336	335	76	33	9
7962	76.3	60	4812	364	72	30	18
7963	53.3	51	4114	315	62	25	16
7964	40.5	107	8656	637	145	53	26
7965	10.9	66	5208	380	97	39	22
7966	10	42	3229	245	67	30	19
7967	23.3	36	2789	213	60	28	18
7968	45.6	34	2574	199	58	27	18
7969	37.4	32	2412	185	54	26	17
7970	47	29	2191	172	50	26	15
7971	36.6	25	2098	47	41	28	11
7972	35.7	31	2356	175	50	28	12
7973	39.1	33	2576	188	52	25	9
7974	38.9	38	2968	215	57	28	17
7975	48	46	3642	266	67	30	20
7976	51.2	103	8148	639	158	58	27
7977	43.3	169	13101	1128	286	100	44
7978	21.7	169	13101	1128	286	97	44
7979	30.6	55	4231	350	87	44	18
7980	30.6	63	4820	388	109	50	22
7981	30.6	71	5408	425	131	56	26
7982	30.6	79	5997	463	153	62	30
7983	51.2	79	5997	463	153	62	30
7984	63.9	62	4523	453	119	48	28
7985	37.1	63	4677	467	116	45	23
7986	38.2	68	5136	496	116	45	23
7987	52	70	5291	496	116	44	23
7988	40.7	77	5949	534	119	44	23
7989	87.1	77	5949	534	119	44	22
7990	67.6	112	8680	795	171	60	31
7991	75.4	133	10247	951	209	72	34
7992	36.9	154	11872	1116	248	87	35
7993	38	178	13583	1304	294	99	44
7994	54.4	208	15829	1549	355	120	53
7995	52.3	246	18591	1882	428	144	59
7996	58.1	275	20693	2138	484	162	67
7997	57.3	279	21064	2143	493	163	70
7998	53.8	279	21064	2143	493	163	70
7999	24.9	222	17114	1504	357	144	58
8000	33.8	213	16346	1536	357	119	49
8001	39.1	227	15825	1536	349	116	49
8002	34.9	297	22749	2142	495	169	87
8003	42.2	217	16579	1562	361	126	69
8004	71.6	172	13070	1247	292	104	60
8005	55.6	172	13070	1247	292	104	60
8006	39.3	129	9707	934	225	82	46

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8007	76.2	75	5598	532	118	58	27
8008	48.1	68	5222	389	129	56	22
8009	87	73	5514	468	139	55	28
8010	64.6	59	4456	373	112	48	29
8011	63.3	34	2506	210	68	30	22
8012	60.4	34	2506	210	68	30	22
8013	51.6	64	4868	413	117	47	26
8014	44.2	84	6484	540	144	55	26
8015	63.3	97	7523	609	161	59	29
8016	71.5	110	8630	682	184	66	29
8017	57.4	131	10252	844	215	76	36
8018	44.9	158	12348	1030	260	92	39
8019	54.8	187	14600	1215	309	108	49
8020	64.6	231	17885	1525	395	137	60
8021	63.8	238	18304	1609	419	145	63
8022	19.5	239	18304	1645	422	146	63
8023	35.7	236	18157	1547	422	152	62
8024	41	224	17444	1322	395	152	60
8025	48.2	225	17444	1424	395	145	60
8026	34.6	198	15182	1296	357	129	59
8027	36.1	184	13884	1225	352	134	60
8028	0.7	159	12138	1040	293	112	52
8029	65.1	160	12138	1040	293	112	52
8030	93.5	168	12775	1092	316	121	53
8031	72.7	169	12775	1092	316	121	53
8032	28.5	164	12105	1088	346	138	62
8033	74.9	164	12105	1088	346	138	62
8034	92.3	152	11020	1019	331	137	68
8035	95.9	144	10354	963	319	135	65
8036	91.2	135	9688	907	306	132	62
8037	67.6	90	6401	630	169	110	50
8038	92.6	88	6251	620	165	107	44
8039	79.6	88	6251	620	165	107	44
8040	98.2	101	7186	754	211	108	39
8041	100.5	124	9016	861	262	115	54
8042	68.1	150	10931	1122	300	124	53
8043	55.5	146	10675	1065	283	117	53
8044	64	39	2506	290	105	52	30
8045	0.2	39	2506	290	105	56	32
8046	22.1	26	1536	192	81	47	28
8047	92.3	26	1536	192	81	48	29
8048	52.9	27	1597	190	81	48	31
8049	67.7	27	1597	165	80	49	31
8050	57.6	25	1547	160	53	49	28
8051	55.4	32	2057	210	88	51	26
8052	94.5	35	2303	210	88	53	27
8053	81.3	39	2622	265	100	55	28

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8054	46.8	42	2755	311	104	56	30
8055	47.2	43	2797	314	105	56	31
8056	61.5	43	2797	314	105	55	31
8057	64.3	42	2719	311	105	54	31
8058	46.4	41	2664	301	104	55	28
8059	45.1	40	2600	300	103	55	31
8060	33.8	40	2585	297	103	54	31
8061	42.6	42	2684	306	108	61	33
8062	45.1	43	2707	306	111	65	38
8063	46.7	43	2707	305	112	65	38
8064	70.5	42	2648	301	112	65	38
8065	61.4	41	2616	279	107	64	39
8066	60.3	40	2486	279	103	62	39
8067	70.7	38	2476	229	99	60	35
8068	54.8	37	2447	225	95	56	34
8069	75.9	37	2421	219	92	54	34
8070	71.4	37	2421	219	92	54	34
8071	70.4	36	2389	217	89	52	30
8072	70.9	35	2349	213	88	52	32
8073	47	34	2278	211	85	50	27
8074	67	34	2278	211	85	53	27
8075	59.1	33	2219	173	81	53	26
8076	50.7	31	2160	135	77	53	24
8077	50.7	30	2101	97	73	53	22
8078	50.7	34	2223	215	84	53	28
8079	45.1	35	2267	229	86	52	32
8080	45.2	35	2267	226	86	52	32
8081	56.3	35	2273	231	86	54	34
8082	61.6	35	2278	231	86	54	34
8083	54.4	35	2274	229	84	52	31
8084	50.4	35	2287	229	84	52	34
8085	42	35	2281	226	81	50	34
8086	50.3	34	2244	218	80	49	34
8087	41.7	34	2218	217	78	49	36
8088	54.8	33	2191	210	75	47	36
8089	76.9	33	2169	210	75	46	31
8090	76.2	33	2169	210	75	46	31
8091	60.8	32	2130	201	72	46	29
8092	64.7	32	2115	198	70	46	31
8093	59.1	32	2150	199	70	45	31
8094	57.6	32	2161	204	69	45	31
8095	25.4	31	2115	152	64	46	28
8096	19.8	32	2189	200	68	44	28
8097	17.5	33	2238	205	70	46	30
8098	11.5	35	2361	215	73	48	30
8099	18.9	35	2375	213	73	48	36
8100	16.4	35	2341	210	71	47	36

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8101	35.8	34	2272	206	68	46	31
8102	32.9	32	2200	198	66	45	28
8103	24.5	30	2031	183	62	43	29
8104	38.2	28	1980	104	56	43	24
8105	32.8	29	2020	159	61	41	27
8106	34.5	29	1972	156	60	41	29
8107	29.3	29	1878	184	60	41	29
8108	39	28	1913	151	60	41	31
8109	28.4	29	1970	154	60	42	28
8110	24.9	29	2018	155	59	40	26
8111	48.5	29	2029	157	58	40	29
8112	74.8	30	2025	158	59	41	32
8113	50	32	2182	169	62	41	31
8114	64.7	33	2254	215	64	42	32
8115	30.2	35	2386	225	65	44	30
8116	27.3	35	2467	189	64	43	36
8117	25.1	35	2435	193	63	42	30
8118	35.8	30	2193	118	43	42	29
8119	43.3	31	2257	121	50	44	25
8120	29.1	35	2519	197	60	41	29
8121	46.7	36	2630	200	62	41	26
8122	47.7	38	2769	207	64	41	26
8123	39	39	2853	213	65	43	29
8124	50.3	39	2853	212	64	43	31
8125	58	39	2814	211	64	42	32
8126	60.9	38	2717	209	62	42	32
8127	57.6	36	2624	200	61	41	30
8128	68.4	36	2531	234	60	41	28
8129	53.8	34	2429	184	58	39	30
8130	43.1	33	2355	180	56	40	31
8131	55.5	37	2614	200	60	43	34
8132	41.4	38	2696	206	62	44	33
8133	40.7	37	2623	201	61	42	31
8134	32	36	2553	205	58	41	36
8135	55.1	36	2558	197	46	45	27
8136	59.1	40	2844	247	62	48	29
8137	46.8	40	2833	248	62	43	33
8138	15.1	39	2751	243	60	41	33
8139	46.2	65	4555	404	105	79	56
8140	57.4	60	4209	337	98	78	55
8141	63.2	55	3863	271	91	76	55
8142	83.8	51	3538	271	88	66	55
8143	74.5	46	3134	240	80	60	54
8144	74.5	41	2801	217	73	55	50
8145	81.2	38	2603	200	69	53	48
8146	53.4	41	2801	215	73	54	48
8147	30.5	40	2801	215	73	53	46

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8148	50.6	46	3213	248	82	56	46
8149	47.5	50	3534	271	89	59	46
8150	68.3	54	3877	295	95	61	48
8151	71.3	54	3877	295	95	61	48
8152	70.7	55	3948	299	96	62	52
8153	61.7	55	3948	299	96	62	52
8154	78	53	3826	292	93	60	49
8155	76.2	54	3826	292	93	60	51
8156	70.9	51	3667	277	87	58	51
8157	75.1	59	4326	316	87	60	52
8158	76.5	61	4468	336	87	60	52
8159	56.3	67	4972	369	90	64	54
8160	50.1	67	4972	365	90	63	53
8161	50.2	66	4904	365	88	61	50
8162	68.2	65	4896	358	88	61	50
8163	67.6	59	4394	322	79	58	50
8164	70.8	44	3221	236	57	42	45
8165	71.6	28	2023	150	39	30	30
8166	67.4	10	674	62	14	12	13
8167	55.4	19	1352	103	26	19	18
8168	64.1	19	1352	103	26	19	18
8169	76	33	2451	179	42	31	24
8170	95.8	47	3524	256	59	41	34
8171	47.7	76	5585	502	96	66	58
8172	35.2	77	5718	496	102	64	58
8173	36.2	70	5071	437	99	64	58
8174	38.9	70	5063	433	99	64	58
8175	66.5	70	5069	449	100	65	60
8176	60.9	70	5069	449	100	65	60
8177	45.6	69	4975	434	98	63	58
8178	51	69	5013	428	100	64	61
8179	55.5	72	5218	455	104	65	59
8180	64.5	59	4300	360	85	52	50
8181	70.4	40	2895	244	57	36	43
8182	72.6	24	1748	154	34	21	20
8183	64.2	24	1748	154	34	21	20
8184	64.2	33	2281	226	81	50	34
8185	63.2	32	2244	218	80	49	34
8186	70.5	32	2218	217	78	49	36
8187	50.5	31	2191	210	75	47	36
8188	49.1	31	2169	210	75	46	31
8189	47.2	32	2169	210	75	46	31
8190	48.2	32	2130	201	72	46	29
8191	61.3	58	4275	363	88	48	39
8192	51.2	58	4275	363	88	48	39
8193	42.4	66	4863	401	103	58	44
8194	71.8	68	4927	417	106	63	47

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8195	76	68	4927	417	106	63	47
8196	79.2	68	4927	417	106	64	51
8197	70.8	67	4852	407	102	64	52
8198	82.1	64	4645	398	93	59	52
8199	64.8	64	4645	398	93	59	52
8200	62.5	51	3685	310	71	46	43
8201	70.9	41	3007	252	54	36	37
8202	66.4	41	3007	252	54	36	31
8203	63.7	61	4417	388	81	54	48
8204	27.8	68	4907	416	92	64	57
8205	42.4	68	4907	416	92	64	57
8206	61.6	73	5289	452	101	69	67
8207	50.2	78	5597	492	106	74	73
8208	53.9	25	1859	151	37	17	19
8209	52.1	22	1748	142	34	15	13

FLUORESCENCE DATA RECORD

WELL: LO6-32D

INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
2580 - 2610	TEREBRATULA		X					PAL YELSH	X					X			X			X			YELSH WH	MKY WH	NIL
2610 - 2640	TEREBRATULA						5	PAL YELSH	X					X			X			X			YELSH WH	MKY WH	NIL
2640 - 2670	TEREBRATULA		X					PAL YELSH	X					X			X			X			YELSH WH	MKY WH	NIL
2700 - 2730	TEREBRATULA						10	PAL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
2760 - 2790	TEREBRATULA		X					PAL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
2790 - 2820	TEREBRATULA						5	PAL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6170 - 6180	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6180 - 6190	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6190 - 6200	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6490 - 6500	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6500 - 6510	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6510 - 6520	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6520 - 6530	RIO BRAVO		X					DULL YEL	X					X			X			X			PAL YEL	PAL YEL	NIL
6690 - 6700	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6700 - 6710	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6710 - 6720	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6720 - 6730	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6730 - 6740	RIO BRAVO						20	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6740 - 6750	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6770 - 6780	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-32D

INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6780 - 6790	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6790 - 6800	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6800 - 6810	RIO BRAVO						40	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6810 - 6820	RIO BRAVO						20	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6820 - 6830	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6830 - 6840	RIO BRAVO						15	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6840 - 6850	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6850 - 6860	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6860 - 6870	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6870 - 6880	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6880 - 6890	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6900 - 6910	RIO BRAVO						20	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6910 - 6920	RIO BRAVO						30	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6920 - 6930	RIO BRAVO						30	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6930 - 6940	RIO BRAVO						15	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6940 - 6950	RIO BRAVO						60	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
6950 - 6960	RIO BRAVO						60	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
6960 - 6970	RIO BRAVO						60	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
6970 - 6980	RIO BRAVO						40	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
6980 - 6990	RIO BRAVO						40	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-32D

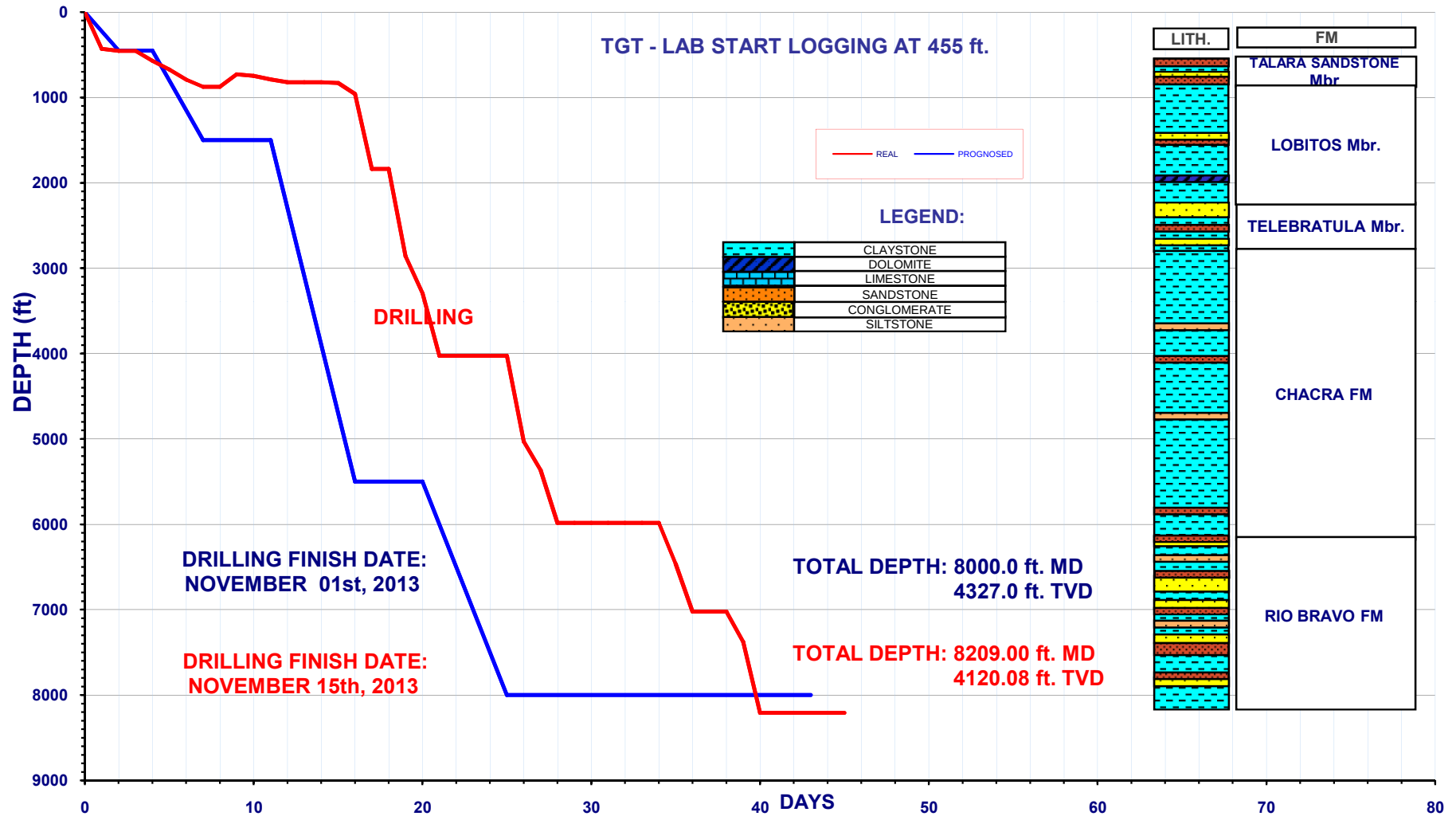
INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6990 - 7000	RIO BRAVO						30	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7000 - 7010	RIO BRAVO						25	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7010 - 7020	RIO BRAVO						25	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7020 - 7023	RIO BRAVO						25	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7023 - 7030	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7030 - 7040	RIO BRAVO						20	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7040 - 7050	RIO BRAVO						15	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7050 - 7060	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7060 - 7070	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7070 - 7080	RIO BRAVO						TR	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7080 - 7090	RIO BRAVO						TR	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7300 - 7310	RIO BRAVO						7	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7310 - 7320	RIO BRAVO						10	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7320 - 7330	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7400 - 7410	RIO BRAVO						TR	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7410 - 7420	RIO BRAVO						15	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7420 - 7430	RIO BRAVO						15	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7430 - 7440	RIO BRAVO						7	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7440 - 7450	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7450 - 7460	RIO BRAVO						5	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-32D

INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
7460 - 7470	RIO BRAVO						TR	PAL YEL		X				X				X		X			YELSH WH	PAL YEL	NIL
7820 - 7830	RIO BRAVO						TR	DULL YEL		X				X			X			X			PAL YEL	PAL YEL	NIL
7830 - 7840	RIO BRAVO						15	DULL YEL		X				X			X			X			PAL YEL	PAL YEL	NIL
7840 - 7850	RIO BRAVO						25	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7930 - 7940	RIO BRAVO						5	DULL YEL		X				X			X			X			PAL YEL	PAL YEL	NIL
7940 - 7950	RIO BRAVO						25	DULL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7950 - 7960	RIO BRAVO						15	DULL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7960 - 7970	RIO BRAVO						20	DULL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7970 - 7980	RIO BRAVO						30	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7980 - 7990	RIO BRAVO						25	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
7990 - 8000	RIO BRAVO						30	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
8000 - 8010	RIO BRAVO						40	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
8010 - 8020	RIO BRAVO						40	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
8020 - 8030	RIO BRAVO						50	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL
8030 - 8040	RIO BRAVO						40	PAL YEL		X				X					X	X			YELSH WH	MKY WH	NIL
8040 - 8050	RIO BRAVO						10	PAL YEL		X				X					X	X			YELSH WH	PAL YEL	NIL

DRILLING PROGRESS CURVE WELL : LO6-32D





BIT RECORD



WELL: LO6-32D

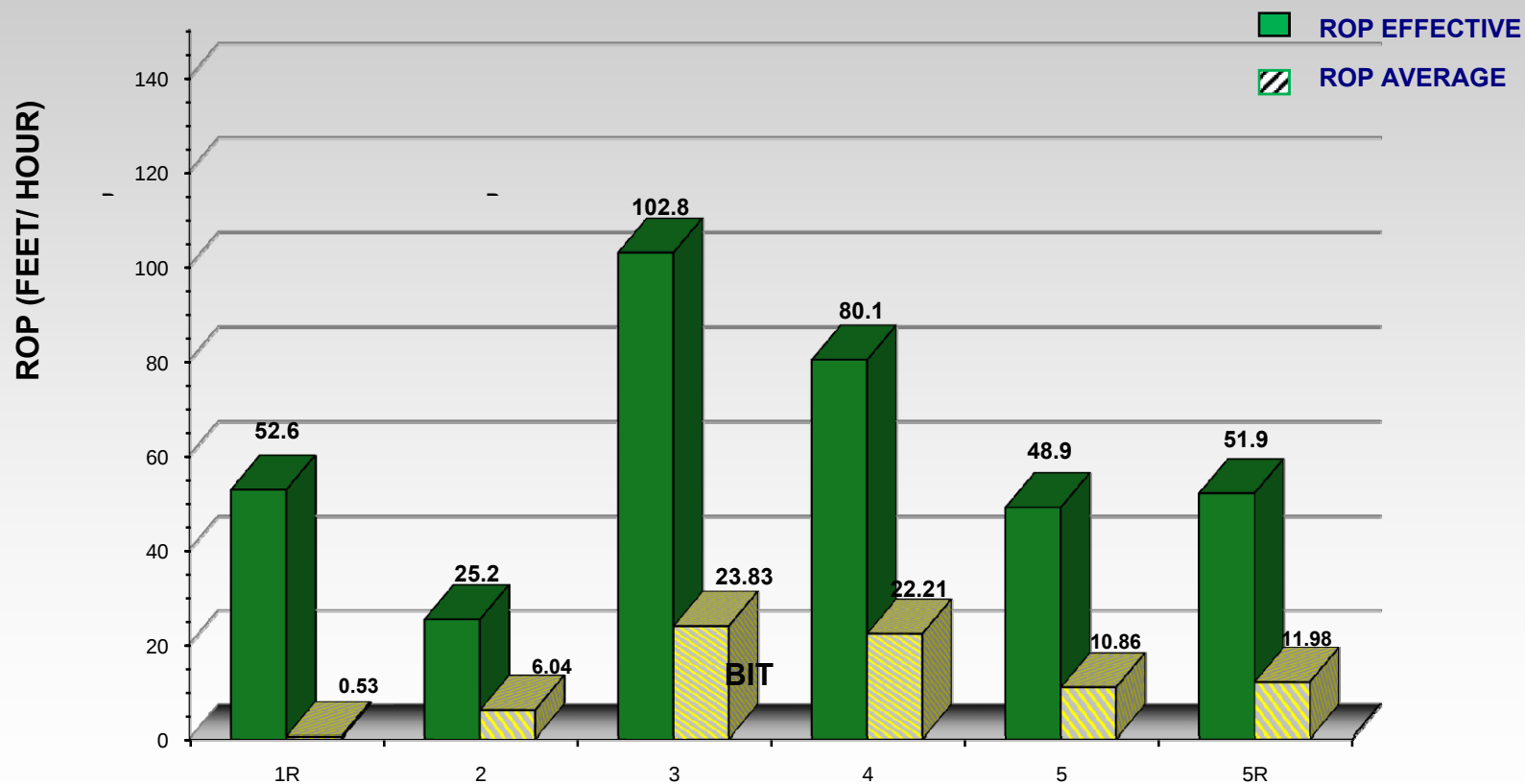
* STARTED MUD LOGGING @ 455 ft.

BIT	SIZE	MAKE	TYPE	SERIAL	DEPTH		HOLE	ROP Effective	HOURS		JETS	GPM/PSI	WOB/RPM Klbs / rpm	IADC
	IN				IN	OUT	Made	M/HR	Total	Drilling				
1R	17	SMITH	T11	D140911	455	465	10	52.6	19.0	0.2	4X15	630/700	-	-
2	17	HALLIBURTON	T1RC	1217373	465	876	411	25.2	68.0	16.3	4X16	620/1180	20/40	0-0-NO-A-1-I-NO-TD
3	12 1/4	SMITH	FDS+C	PX9904	748	1838	1090	102.8	45.8	10.6	4X16	725/2150	12/50	0-0-NO-A-E-I-NO-BHA
4	12 1/4	SMITH	SDi419	JF5119	1838	4026	2188	80.1	98.5	27.3	6X14	780/2880	15/80	1-1-WT-A-X-I-NO-TD
5	8 1/2	NOV	SKH519M	A183409	4026	7023	2997	48.9	276.0	61.3	5X13; 2X14	580/2850	25/130	0-0-NO-A-X-I-NO-BHA
5R	8 1/2	NOV	SKH519M	A183409	7023	8209	1186	51.9	99.0	22.9	5X13; 2X14	590/2750	25/130	0-0-NO-A-X-I-NO-TD

FORMATIONS:	MD (ft)	TVD (ft)
TALARA SANDSTONE	0	0.0
LOBITOS	810	809.0
TEREBRATULA	2300	1992.0
CHACRA	2855	2195.0
RIO BRAVO	6154	3338.0
TD	8209	4120.0

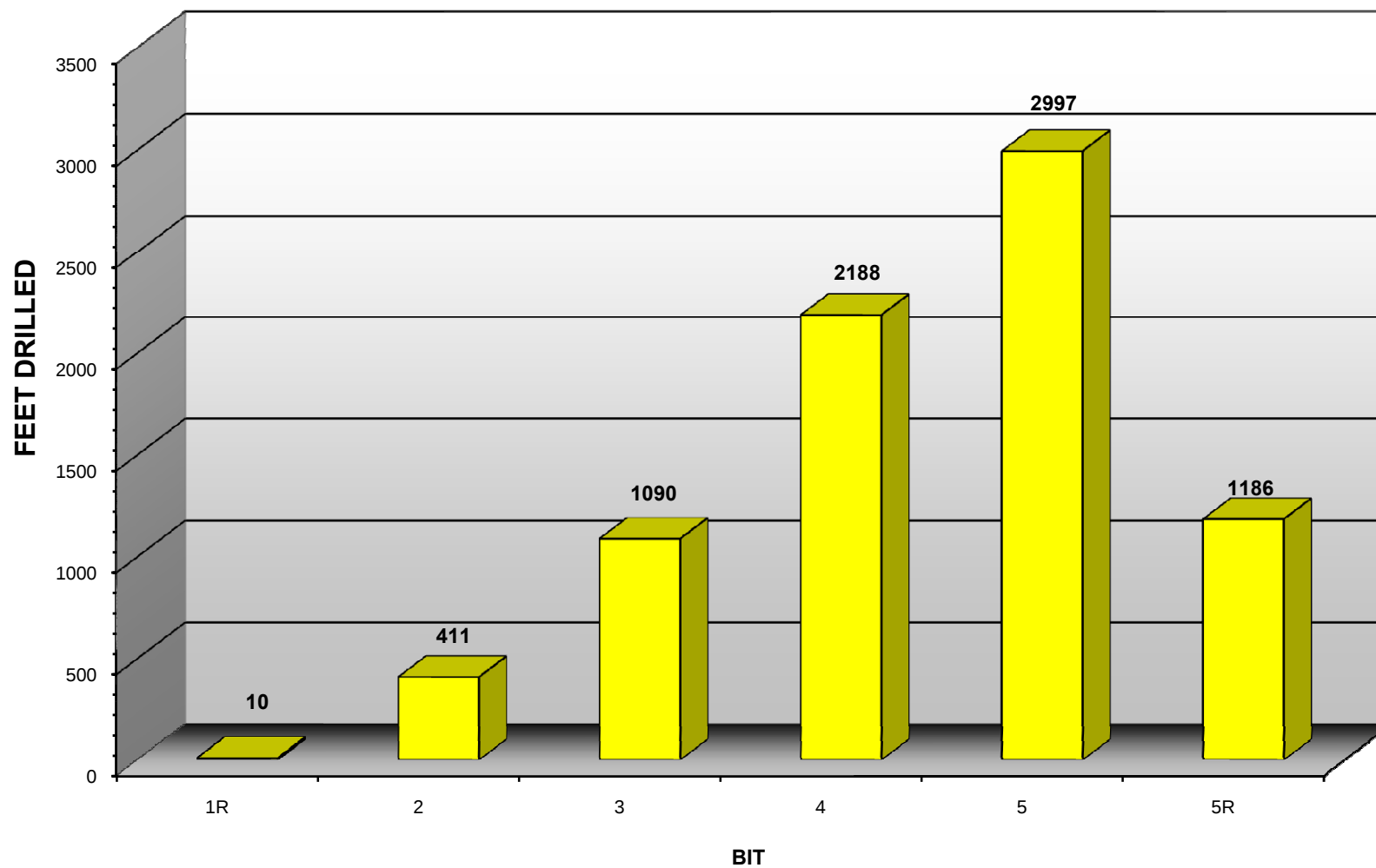
WELL : LO6-32D
EFFECTIVE AND AVERAGE RATE OF
PENETRATION BY BIT (ft/hr)

STARTED MUD LOGGING @ 455 ft.

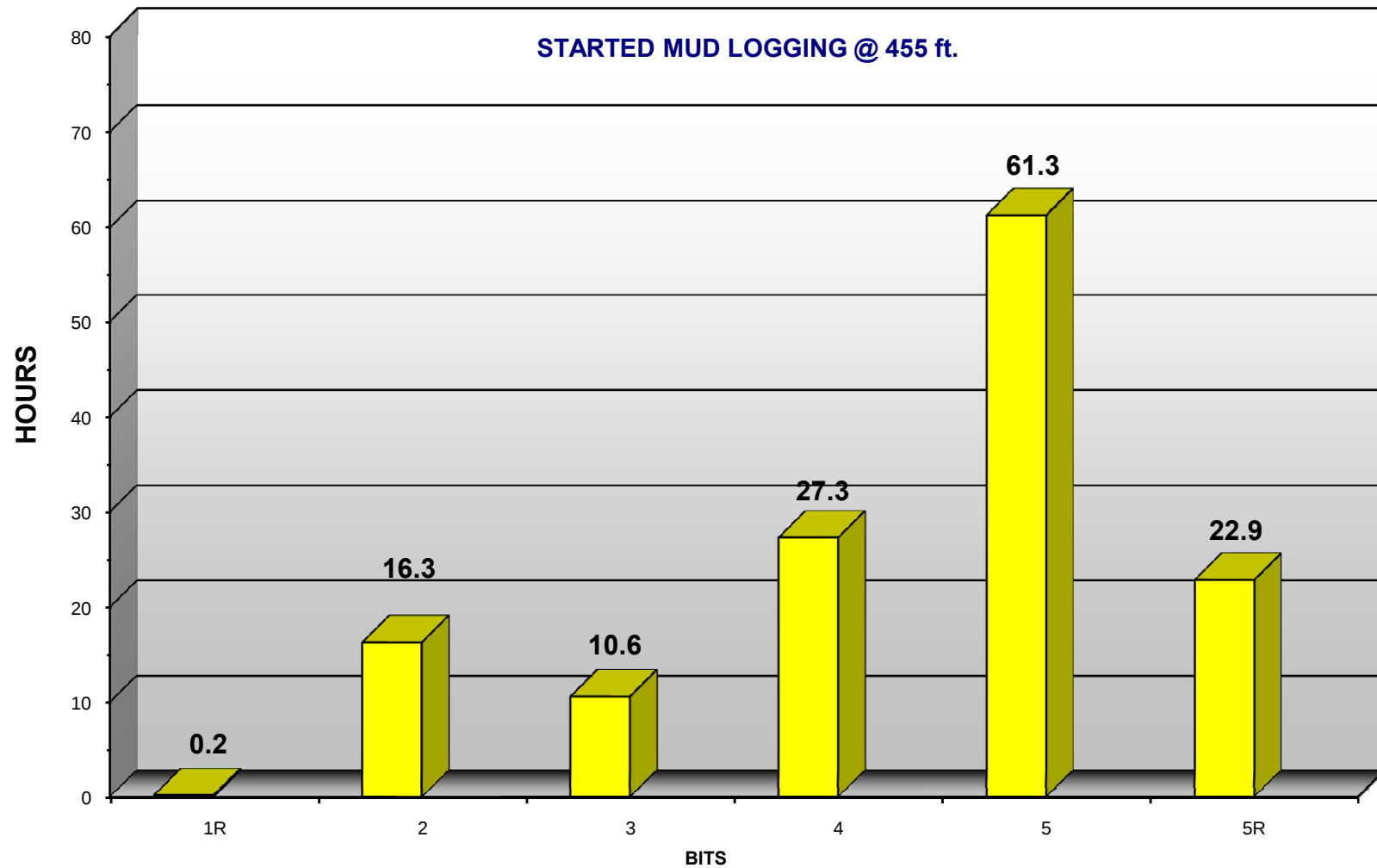


WELL : LO6-32D
FEET DRILLING BY BIT

STARTED MUD LOGGING @ 455 ft.



WELL : LO6-32D
EFFECTIVE DRILLING HOURS



DAILY OPERATIONS REPORTS

WELL: LO6-32D

October 09th, 2013

00:00 – 05:00 P/U and M/U 21 1/4" drilling spool and 21 1/4" BOP diverter, Pepesa crew tight bolts. Install Bell Nipple, lateral valves and drilling spool lateral lines.

05:00 – 06:00 M/U and RIH 5" DP cements.

06:00 – 08:30 R/U Halliburton cement lines, connections & components. While circulate hole w/ Diverter close with 750gpm and 350psi at 455ft drill pipe point.

08:30 – 09:00 Safety meeting prior cement 18" conductor.

09:00 – 11:30 P/T lines w/1300psi. Circ. hole w/diverter close, pump 30bbls of tail Halcem 15.6ppg, 4bpm. Open diverter, pump 20bbls of tail Halcem 15.6ppg, 2bpm. Clean lines w/7bbls. POOH 3each 5" DP's. stand connect Halliburton lines & circulate to clean Diverter-drilling spool. Close Diverter to displace cement w/7bbls, 2bpm. Final press=23psi close cement head valve.

11:30 – 13:30 Halliburton rig down cement lines and connections.

13:30 – 17:00 Wait on cement while install flow line on 2th level.

17:00 – 18:30 Brake out 03ea stand's cement 5" Dp's.

18:30 – 00:00 P/U from Perla barge, drifting, measure and make up 5" Dp's in stand's, Total: 30 stand.

October 10th, 2013

00:00 – 01:00 P/U and M/U 06 stands of HWDP 5".

01:00 – 02:00 M/U and RIH slick BHA with 17" tricone bit to 380 ft (TOC).

02:00 – 05:30 Drill out hard cement from 380 ft to 455 ft.

05:30 – 06:30 Drill rotate with slick BHA from 455 ft to 465 ft, circulate, 100% formation in geology sample.

06:30 – 08:30 POOH and L/D slick BHA with tricone 17" bit from 465 ft to surface.

08:30 – 10:30 Run #1 16" fishing magnet, no junk. Prepare rig floor area prior Rig up SLB.

10:30 – 11:00 Safety meeting prior Make up and RIH directional BHA.

11:00 – 16:00 M/U & RIH 17" triconic bit XT1RC 115M, MM BH=1.5° - 0.11rev/gal, Float sub, UBHO for Gyro, 8" short flex NMDC, 1x7-3/4" SDC, XO and 12x5" HWDP. Positionate UBHO w/bend housing & calibrate depth sensor.

16:00 – 17:00 Pump and displaced water x mud.

17:00 – 17:30 Drill rotate from 465 ft to 480 ft with 580 gpm, SPP: 700 psi, 40 RPM, TQ: 3-4 Klbs-ft, WOB: 10-12 Klbs.

17:30 – 19:00 North service take gyro data, MD: 458 ft, Incl: 0.65°, Az: 328.09°.

19:00 – 20:30 Drill slide from 480 ft to 540 ft with 580 gpm, SPP: 800 psi.

20:30 – 21:00 POOH and M/U Jar 6 1/2" to stand HWDP 5".

21:00 – 21:30 Drill rotate mode from 540 ft to 568 ft, 590 gpm, SPP: 780 psi, 40 RPM, TQ: 3-4 Klbs-ft.

21:30 – 22:00 Drill slide mode from 560 ft to 569 ft with 590 gpm, SPP: 740 psi.

22:00 – 22:30 Accum. ream and circulate.

22:30 – 00:00 North service 5th take gyro data, MD: 513 ft, Incl: 3.28°, Az: 8.63°. Tool face: 19.89°, take 6th gyro data, MD: 513 ft, Incl: 3.86°, Az: 0.58°. Tool face: 173.98°.

October 11th, 2013

00:00 – 01:30	North service take survey data again to check before data, MD: 513 ft, Incl: 3.81°, Az: 3.53°. Tool face: 165.93°.
01:30 – 03:30	Drill in slide mode from 569 ft to 626 ft, 650 gpm, SPP: 970 psi, WOB: 15-17 klbs.
03:30 – 04:00	Drill in rotate mode from 626 ft to 632 ft, 650 gpm, SPP: 946 psi, RPM: 40, TQ: 3-4 Klb-ft, WOB: 12-15 Klbs.
04:00 – 05:00	North service take survey data, MD: 576 ft, Incl: 3.95 °, Az: 354.6°. Tool face: 218.78°.
05:00 – 07:00	Drill in slide mode from 632 ft to 659ft, 650 gpm, SPP: 996 psi, WOB: 15-18 Klbs.
07:00 – 09:00	North services take Gyro #9 MD: 606ft, Incl: 3.29°, Az: 344.29°, Tool face: 250.40° and Take Gyro 10th MD: 606ft, Incl: 3.28°, Az: 344.06°, Tool face: 249.25°.
09:00 – 09:30	Drill in slide mode from 659ft to 670ft low ROP w/650gpm, SPP: 1020psi & WOB 15-19Klbs. Show 50% of cement & small steel debrits on shakers.
09:30 – 10:00	Rotate from 670ft to 672ft confirm noise on well LO6-18D, with 40rpm, Torq 3000ft-lbs.
10:00 – 12:30	Decided stop drill and POOH directional BHA to surface, risk collision at MD 606ft LO6-32D Ct-Ct with LO6-18D = 1.6 ft.
12:30 – 14:30	Make up and RIH slick BHA to 670ft.
14:30 – 16:00	SLB office depth decide take gyro every 15ft from 670-570ft, gyro every 30ft from 550-450ft & gyro every 50 from 450ft to surface.
16:00 – 17:30	POOH slick BHA from 670ft to surface, wait on directional plan orders.
17:30 – 21:30	Wait on directional plan orders.
21:30 – 00:00	MU & RIH 17" triconic bit XT1RC 115M, MM BH=1.5° - 0.11rev/gal, Float sub, 8" short flex NMDC, Slimpulse MWD w/rigid mount, UBHO for Gyro. Positionate UBHO w/bend housing & calibrate depth sensor.

October 12th, 2013

00:00 – 02:30	Continue to M/U directional BHA with 1x7-3/4" SDC, XO, 12x5" HWDP, 01 Jar 6 1/2" and 02 HWDP 5" to 673 ft, circulate.
02:30 – 03:30	North Service take gyro data to orientate, MD: 572 ft, Incl: 4.11°, 355.56°, Tool face: 242.33°.
03:30 – 09:30	Drill in slide mode from 672 ft to 731ft, with 650 gpm, SPP: 1360 psi, WOB: 15-17 Klbs. Observed 10% of cement in geology sample.
09:30 – 11:00	POOH directional BHA to surface.
11:00 – 12:00	RIH slick BHA from surface to 731ft to take Gyro.
12:00 – 13:00	North Service take multishot gyro data from 713ft to 653ft, MD: 713 ft, Incl: 3.57°, 290.78°.
13:00 – 14:00	POOH slick BHA from 731ft to surface.
14:00 – 15:30	RIH directional BHA from surface to 731ft.
15:30 – 16:00	Circulate hole and take survey tool face with MWD.
16:00 – 19:00	Drill in slide mode from 731 ft to 790 ft, with 650 gpm, SPP: 1360 psi, WOB: 15-17 Klbs.
19:00 – 20:30	POOH BHA directional with 17" tricone bit from 790 ft to surface.
20:30 – 21:30	RIH slick BHA with 17" tricone bit from surface to 790 ft.
21:30 – 22:30	North service take multishot gyro data from 772 ft to 713 ft, MD: 772 ft, Incl: 4.68°, Az: 259.8°.
22:30 – 23:30	POOH slick BHA with 17" Tricone bit from 790 ft to surface.

23:30 – 00:00 RIH directional BHA with 17" tricone bit from surface to 120 ft.

October 13th, 2013

00:00 – 01:00 Continue to RIH directional BHA with 17" tricone bit from 120 ft to 790 ft.
01:00 – 01:30 Circulate hole and take survey tool face with MWD.
01:30 – 04:00 Drill in slide mode from 790 ft to 832 ft, 654 gpm, SPP: 1450 psi, WOB: 15-18Klbs.
Not observed cement in geology sample.
04:00 – 05:00 Drill in rotate mode from 832 ft to 862 ft, 690 gpm, SPP: 1620 psi, RPM: 40, TQ: 3-4 Klbs-ft, WOB: 13-15Klbs.
05:00 – 06:30 Drill in slide mode from 862 ft to 876 ft, 690 gpm, SPP: 1630 psi, WOB: 15-18Klbs.
Last sample geology at 869 ft MD, 100% claystone, Lobitos Fm.
06:30 – 07:00 Observed total lost circulation perform flow check not observed fluid level in annular. POOH from 878ft to 733ft with restriction Max over pull 45Klbs.
07:00 – 09:00 Gas kick close 21-1/4" Diverter and open lateral valve to field, vent gas through diverter. Fill annular with 150gpm 40bbbls of mud, venting gas while prepared LCM pill. Open 21-1/4" Diverter flow check.
09:00 – 10:00 Gas Kick close 21-1/4" Diverter and open lateral valve to field, Spotted 40bbbls of LCM pill of 50ppb, wait on LCM pill time, vent gas through lateral valve.
10:00 – 11:30 Open 21-1/4" Diverter and close lateral valve and fill annular with 50bbbls, partial lost circulation in annular. While prepared 2th LCM pill.
11:30 – 13:00 Spotted 40bbbls of LCM pill of 50ppb, flow check observed partial loss.
13:00 – 14:30 Spotted 40bbbls of LCM pill of 50ppb, flow check, not partial loss. Well not flow, total mud loss: 120 bbls.
14:30 – 17:00 POOH and L/D BHA directional with 17" Tricone bit.
17:00 – 19:00 M/U and RIH slick BHA from surface to 873 ft.
19:00 – 20:00 North service take gyro data from 855 ft to 639 ft.
20:00 – 00:00 Wait on gyro equipment, while monitoring lost circulation.

October 14th, 2013

00:00 – 01:30 Wait gyro equipment.
01:30 – 02:00 Rig up gyro data equipment.
02:00 – 03:00 Gyro data service take gyro survey from 867 ft to surface.
03:00 – 04:30 POOH slick BHA with 17" Tricone from 876 ft to surface.
04:30 – 06:30 P/U from Perla barge to platform DP5" to job cement.
06:30 – 09:30 Make up and RIH 5" Dp's to 876 ft.
09:30 – 11:00 Wait on Cement Barge.
11:00 – 13:30 Rig up Baker cement lines and chicksan.
13:30 – 14:00 Safety meeting with all companies prior cement job.
14:00 – 16:00 Perform plug cement job as follows: test lines with 2090 psi, Ok, pump 12bbbls of spacer 10ppg x 4bpm, 60 bbls of tail slurry of 15.6ppg x 4bpm and 0.5bbbls of spacer 10 ppg. Displaced with 11bbbls of mud 9.2ppg. Used 295 Sx of cement.
16:00 – 16:30 POOH DP5" to 450 ft, circulate and clean string.
16:30 – 17:00 Baker uninstall cement lines.
17:00 – 00:00 Wait on cement, Baker advice 24 hrs WOC.

October 15th, 2013

00:00 – 07:30 Wait on cement, Baker advice 24 hrs. WOC. While Laid down slim pulse.
07:30 – 09:00 WOC, RIH slick BHA and tag cement at 691ft. While work on LO6-22 to take

multishot survey.
09:00 – 10:00 WOC, POOH an L/D slick BHA to surface.
10:00 – 15:30 WOC.
15:30 – 17:00 RIH slick BHA with tricone 17" bit from surface to 691 ft (TOC).
17:00 – 21:00 Drill out cement from 691 ft to 730 ft, with 610 gpm, 50 rpm, WOB: 5-7Klbs, TQ: 2.5 Klbs, confirm hard cement.
21:00 – 22:30 POOH and L/D slick BHA with 17" tricone bit from 730 ft to surface.
22:30 – 00:00 Wait directional plan from SLB.

October 16th, 2013

00:00 – 00:30 Prepare rig floor to M/U BHA directional.
00:30 – 04:00 M/U and RIH BHA directional with 17" tricone bit, Mud motor BH: 1.5, 0.11 rev/gal, 16 3/4" Sleeve stab, 8" Float sub, 8" Flex monel, MWD Slimpulse w/rigid mount, UBHO, 8" SNMDC, 8" NMDC, 01 DC 8", 12 HWDP 5", 01 jar 6 1/2", 06 HWDP 5" to 730 ft.
04:00 – 05:00 Drill out cement from 730 ft. to 732 ft. with 650 gpm, 50 RPM, circulate and take survey with MWD.
05:00 – 06:00 Gyro Data service take gyro to orient Toolface, MD: 636 ft, Incl: 2.87°, 317.76°, Tool face: 245.50°.
06:00 – 17:00 Time drilling from 732 ft to 748 ft with 650 gpm, 1300 psi, 1-2 klb WOB. Sample depths: 736ft: 100% cement, 737ft: 50% cement, 739 ft: 40% cement, 744 ft: 60% cement, 745 ft: 80% cement. 746 ft: 80% cement, 747 ft-748 ft: 90% cement. Use magnetic toolface with interference, toolface not change to gravity, D&I sensor at 65.3 ft from bit.
17:00 – 18:00 Gyro data take survey to confirm toolface according advice of SLB, MD: 653 ft, Incl: 2.93°, Az: 314.76°, Toolface: 298.95°.
18:00 – 20:00 Received order to stop perform time drilling, POOH and L/D BHA directional from 747 ft to surface.
20:00 – 23:30 Wait on directional tools 12 1/4".
23:30 – 00:00 P/U directional tools from Perla barge to Platform.

October 17th, 2013

00:00 – 00:30 Take measurement directional tool, condition rig floor.
00:30 – 04:30 M/U and RIH BHA directional with 12 1/4" Tricone bit Smith Jets: 4x16, TFA: 0.785 in², FDS+ S/N: PX9902, Mud motor BH: 1.5, 12 1/8" Sleeve stab, 8" Float sub, MWD slimpulse, UBHO, 8" NMDC, 01 DC 8", 12 HWDP 5", 01 jar 6 1/2", 06 HWDP 5" to 708 ft, perform aligns. D&I sensor at 47.4 ft from bit, Gyro sensor at 75 ft from bit.
04:30 – 05:00 Circulate at MD 730 ft and SLB take survey data with MWD Slimpulse. at MD 692 ft, Incl 2.78°, Az: 294°, continue with magnetic toolface with interference.
05:00 – 06:00 Gyro data take gyro survey to orient toolface according advice SLB directional, MD: 670 ft, Incl 3.06°, Az 306.46°, Tool face: 272°.
06:00 – 16:30 Time drilling from 748 ft to 788 ft with 640 gpm, 1500 psi, 1-2 klb WOB. Sample depths: 748ft: 50% cement, 749ft: 30% cement, 750 ft: 10% cement, 751 ft: Trz cement. From 752 ft to 788 ft showed: 100% formation. Drill with ROP of 1 ft/hr to 755ft. Next increase ROP slowly to reach at 30 ft/hr.
16:30 – 17:30 Circulate and take survey at bottom.
17:30 – 20:00 POOH and L/D 12 1/4" directional BHA.
20:00 – 22:00 M/U & RIH 17" slick BHA to 748 ft.
22:00 – 00:00 Enlarge hole with 17" BHA from 748 ft to 765 ft with 765 GPM, 1200 psi, 30

rpm. Last geology sample 90 % formation, 10% cement.

October 18th, 2013

00:00 – 02:00	Continue enlarge hole with 17" BHA from 765 ft to 773 ft with 760 GPM, 1200 psi, 35 rpm. observed vibration on string and low ROP.
02:00 – 03:00	Gyro data take multishot gyro survey according advice SLB directional, MD: 762 ft, Incl 3.75°, Az 295.24°.
03:00 – 05:00	Decided POOH & L/D 17" slick BHA from 773 ft to surface.
05:00 – 08:30	M/U directional BHA: 12 1/4" milltooth Bit, Motor (with 12 1/8" stb, 1.5 BH, 0.16 Rev/gal), 8" Float sub, Lower saver sub, Rigid Mount w/Slimpulse, Dc and HWDP from surface to 788 ft.
08:30 – 09:30	Directional drill slide mode from 788 ft to 820 ft with 650 gpm, 800 psi & 4-6 WOB.
09:30 – 10:00	Circ. A bottom up with 650 gpm & 800 psi.
10:00 – 11:30	POOH directional BHA and L/D directional tool from 820 ft to surface.
11:30 – 14:00	M/U slick BHA with 12 1/42 milltooth bit, Bit sub, DC and HWDP from surface to 820 ft.
14:00 – 15:00	Gyro data take multishot gyro survey, MD: 809 ft, Incl 4.97°, Az 271.15°.
15:00 – 15:30	Spot high viscous pill 15 bbl, and displace out of string.
15:30 – 16:30	POOH slick BHA with 12 1/4" milltooth Bit from 820 ft to surface.
16:30 – 18:00	M/U slick BHA with 17" tooth tricone bit, bit sub, DC & HWDP from surface to 773 ft.
18:00 – 18:30	Circ. a bottom up with 600 gpm and 716 psi.
18:30 – 21:00	POOH slick BHA with 17" tooth tricone bit from 773 ft to surface. while move Sertong power units and tongs, 13 3/8" csg from Perla barge to platform.
21:00 – 22:30	Condition rig floor and L/D Hawk Jawk, 5" hyd elevator and 5" links. Install Sertong power unit and tong, 18" links, csg spiders.
22:30 – 23:00	Perform safety and operative meeting w/ Pepesa, Halliburton, Sertong, Tramarsa, TGT Lab and Savia personnel.
23:00 – 00:00	Install w/weld on 13 3/8" drillable guide shoe, 1 jt 13 3/8" csg, 13 3/8" drillable float collar, perform float valve test, ok. Continue run 5 jt 13 3/8" csg 54.5 #/ft, K-55, BTC, run csg to 250 ft.

October 19th, 2013

00:00 – 00:30	Sertong power unit failed, move back up power unit from Perla barge to platform and install.
00:30 – 02:30	Continue run 16 jt (21 jt total) 13 3/8" csg 54.5 #/ft, K-55, BTC, from 250 ft to 773 ft. Install 7ea x 17" SR centralizer as program.
02:30 – 03:00	Continue wash down last two 13 3/8" csg with 150 gpm, 100 psi from 700 ft to 773 ft.
03:00 – 06:00	R/U Halliburton cement lines from Medomack to Platform and install cementing head (bottom & top plugs). while circulate.
06:00 – 06:30	Perform safety meeting with personnel from Halliburton, Pepesa and Savia.
06:30 – 08:30	Start cmt job: pump 15 bbl of 8.4 ppg Mud Flush w/ 5 bpm, 270 psi. and 15 bbl of 10.5 ppg Tuned Spacer w/5 bpm, 330 psi. Drop bottom plug. Pump 140 bbl of Halcem I 15.2 ppg (644 sxs Pacasmayo I cmt) with 5.0 bpm, 650/750 psi. Release top plug & displacement with 113 bbl of mud 9.2 ppg, 7-2 bpm, 630/310 psi, top plug perform bump plug on landing valve with 1,0 bpm, 310 psi and pressure with 1000 psi by 5 min, ok. Observed full return by shakers & return Mud Flush and Spacer contaminated &

	33 bbl cement 13-14.5 ppg during displacement. Perform flow back test and return 1 bbl, ok.
08:30 – 12:30	L/D cmt lines. Pepesa welder open window on 18" csg, maneuver to center 13 3/8" csg, cut and weld ring between 18" conductor and 13 3/8" csg.
12:30 – 16:00	Welder cut 13 3/8" csg and P/U. N/D bell nipple, 21 1/4" diverter, drilling spool, 21 1/4" flange with 18" extension.
16:00 – 18:00	Fepco technician bevel on 13 3/8" csg & condition to install 13 3/8" x 13 5/8" x 3M casing head type slick lock. Install 13 3/8" x 13 5/8" x 3M Fepco Casing Head type slick lock.
	Perform slick lock test w/1200 psi by 5 min - Ok
18:00 – 20:30	Install 13 3/8" x 11" x 3M extension, 13 3/8" x 5M drilling spool, secure bolts. N/U 13 5/8" x 5M BOP
20:30 – 21:00	Perform BOP drill and injured personnel.
21:00 – 00:00	Continue N/U 13 5/8" BOP.

October 20th, 2013

00:00 – 01:30	Install a 5" DP stand on TD to center BOP with rotary table, perform maneuver to center BOP and weld pads on second level.
01:30 – 04:30	Install hyd hoses from Koomey to BOP, choke and kill line. change to 5" pipe rams. Prepare hydrostatic pump to 13 5/8" BOP test. operative test open/close rams BOP ok.
04:30 – 05:00	M/U and install plug tester with 5" DP. while receive 8 1/2" directional tools and move from barge to platform.
05:00 – 14:00	P/T close rams with 400 psi ok, Attempt to pressure test close rams with high pressure, failed. observed leak and repair. Cont. Pressure test pipe rams with 3000 psi - Ok, annular with 300/1500 psi Ok, Blind rams, lateral valves, kill line, stand pipe, chock manifold with 300 psi / 3000 psi Ok, change check valve from kill line. HCR failed. Waiting spare parts from Pepesa 44 to change.
14:00 – 15:00	Pull out plug tester and install wear bushing. Check that the Drilling rig is level with a stand of 8" DC; The personnel of Pepesa, tool Pusher and Company Man certifies that the drilling equipment is level. No need to do any leveling work.
15:00 – 20:30	Move 39 joints of 5" DP from barge to platform and MU stands of 5" DP on set back.
20:30 – 23:00	M/U & RIH 12 1/4" tricone bit with conventional BHA from bottom to tag cement at 714 ft.
23:00 – 00:00	Tag cement at 714 ft and start drill out soft cement and two plugs from 714 ft to 731 ft.

October 21st, 2013

00:00 – 03:30	Continue drilling without advance (Only 2 inches in 3.5 hours), appears on surface trace of metal. parameter: WOB 25-30 klbs, RPM 50, GPM 680, PP 1100 psi, TQ 3 kft-lbs.
03:30 – 04:30	POOH 12 1/4" tooth tricone bit to surface to check bit, the 12 1/4" tooth tricone bit shows no apparent damage.
04:30 – 07:30	MU 8 1/2" tooth tricone bit + 6 joints of 6 1/2" DC + 5" HWDP to 731 ft.
07:30 – 11:00	DOC: drill out float collar cement and shoe with 5-10-20 lb WOB, 450-550 GPM. Continue drill out from 774 ft to 793 ft with soft cement. Last geology sample show 30% cement, 70% formation.

11:00 – 12:30	Circulate POOH 8 1/2" tooth tricone bit to surface. Prepare to M/U dir. BHA.
12:30 – 16:30	M/U & RIH 12 1/4" tricone bit with directional BHA. Align tool face, Shallow test mud motor, MWD. RIH to 731 ft.
16:30 – 18:00	DOC, enlarge inside csg from 8 1/2" to 12 1/4", enlarge hole to 12 1/4" ream to 820 ft.
18:00 – 20:30	POOH & L/D 12 1/4" directional BHA from 820 ft to surface.
20:30 – 23:30	M/U & RIH 8 1/2" tricone bit with directional BHA. Align Tool face, Shallow test mud motor, MWD. RIH to 820 ft.
23:30 – 00:00	Drill in slide mode with 8 1/2" bit from 820 ft to 830 ft with 460 gpm, 1400 psi.

October 22nd, 2013

00:00 – 01:00	Continue Drilling in slide mode with 8 1/2" tricone bit from 830 ft to 865 ft with 460 gpm, 1400 psi.
01:00 – 02:30	POOH & L/D 8 1/2" directional BHA from 865 ft to surface.
02:30 – 04:00	M/U & RIH slick BHA to bottom (865 ft) to take gyro survey.
04:00 – 05:00	Run & take gyro survey at 859 ft: inc 4.67 deg, azm: 217 deg.
05:00 – 06:00	POOH slick BHA from bottom to surface.
06:00 – 08:00	MU 8 1/2" tooth tricone bit (TFA: 0.746) + MM + Float Sub./ Valve + LSS + MWD/Slimpulse + USS + 6 3/4" UBHO + 6 x 5" HWDP + 6 1/2" JAR + 21x 5" HWDP (216 joints) + 5" 19.50 DPS to 865 ft.
08:00 – 08:30	Drilling in slide mode w/8 1/2" tricone bit from/865' to 895' with 460 gpm, 1400 psi.
08:30 – 09:00	Drilling in rotate mode w/895 ft to 915 ft
09:00 – 09:30	Displacement contaminated mud (cement) by new mud (9.2 ppg).
09:30 – 10:00	Drilling in rotate mode from/ 915 ft to 925 ft.
10:00 – 10:30	Drilling in slide mode from/ 925 ft to 955 ft.
10:30 – 11:00	Circulate hole with 450 gpm-1170 psi.
11:00 – 12:00	Run & take gyro survey at 882 ft: incl. 6.37 deg, azm: 230.48 deg.
12:00 – 13:00	Wiper trip to 820 ft, POOH & TIH to bottom with 600 gpm - 1500 psi - 50 rpm.
13:00 – 15:30	POOH 8.5 " DIRECTIONAL BHA. L/D BHA.
15:30 – 18:30	M/U & RIH 12 1/4" tricone bit with directional BHA to 300 ft.
18:30 – 20:00	Cut off 120 ft and slip drilling line.
20:00 – 20:30	Continue RIH dir. BHA from 300 ft to 700 ft
20:30 – 21:00	SLB calibrate depth sensor.
21:00 – 21:30	Continue RIH dir. BHA from 700 ft to bottom (820 ft). take survey and orientate tool face.
21:30 – 00:00	Enlarge hole (8 1/2" to 12 1/4") ,drill from 820 ft to 955 ft. enlarge hole sliding and rotating as 8 1/2" hole was drilled.

October 23rd, 2013

00:00 – 00:30	Drill in slide mode from 955 ft to 974 ft with 740 gpm, 1830 psi.
00:30 – 01:00	Drill in rotate mode from 974 ft to 986 ft with 740 gpm, 1860 psi, 40rpm, 3 kft-lb TQ.
01:00 – 01:30	Drill in slide mode from 986 ft to 1019 ft with 740 gpm, 1885psi, 8-10 klb WOB.
01:30 – 02:30	Drill in rotate mode from 1019 ft to 1081 ft with 740 gpm, 1860 psi, 40rpm, 3 kft/lb TQ.
02:30 – 03:00	Ream and take survey.
03:00 – 04:00	Drill in slide mode from 1081ft to 1135 ft with 740 gpm, 1865 psi, 8-10 klb WOB.
04:00 – 04:30	Drill in rotate mode from 1135 ft to 1175 ft with 740 gpm, 1860 psi, 40rpm, 3 kft lb TQ.
04:30 – 05:00	Ream connection and take survey.

05:00 – 05:30	Drill in slide mode from 1179 ft to 1221 ft with 740 gpm, 1930 psi, 10 -12 klb WOB, 70 ft /hr ROP.
05:30 – 06:00	Drill in rotate mode from 1221 ft to 1269 ft with 740 gpm, 1960 psi, 40rpm, 10-12 klb WOB, 3 kft-lb TQ. 90 ft/hr.
06:00 – 12:30	Continue drilling in rotate & slide mode from 1269 ft to 1682 ft with 760 gpm, 2230 psi, 40rpm, 20/22 klb WOB, 3/5 kft-lb.
12:30 – 14:00	Stop drilling due gas (max. gas unit: 2436) and mud in 9.7 & out 9.3ppg . Circulate 300 gpm - 520 psi and increase mud weight to 9.8 ppg in & out and reduce gas unit. Stop gas injection on LO6-22D w
14:00 – 16:30	Drilling in rotate mode from/ 1682 ft to 1838 with WOB: 22/25 klbs, 750 gpm – 2426 psi, 40 rpm, tq 3/5 klb-ft. MW: 9.8 ppg - Gas background: 200 unit
16:30 – 17:30	Circulate and pump 30 bbls HVP and continue circulate until shaker clean.
17:30 – 18:30	Run and take gyro survey at bottom.
18:30 – 19:30	Continue circulating at bottom with 750 gpm, 2380 psi.
19:30 – 00:00	POOH & L/D directional BHA from bottom to surface. (from 1300 ft to shoe pull out with backreaming (20 klb overpull), performed flow check at shoe, observed bubbles).

October 24th, 2013

00:00 – 04:30	M/U dir BHA w/ 12 1/4" PDC bit (SDi419, s/n:JF5119, jets:6x14)+mud Motor (BH:1.5 and 0.16 rev/gal)+8" float sub with float valve + 8" NMSDC+ 11 3/4" STB+ LSS+RM w/slim pulse MWD+USS+8"NMD+ 1x8" DC+ 2x5"HWDP+ JAR+ 24x 5" HWDP. shallow test MWD, motor with 400 gpm Ok. Continue RIH with 5" DP to 1100 ft. circulate bottom up. POOH to shoe. flow check x 10 min ok.
04:30 – 13:00	Wait with 12 1/4" directional BHA at shoe while PEPESA mechanicals pull out motor # 2 of drawwork and change.
13:00 – 14:30	M/U 30x5" DP (950 ft) in stands on setback and PEPESA continue working on motor # 2 of drawwork.
14:30 – 00:00	Continue waiting with 12 1/4" directional BHA at shoe while PEPESA mechanicals pull out motor # 2 of drawwork and replace. Operative test motor ok.

October 25th, 2013

00:00 – 02:00	RIH directional BHA with 12 1/4" PDC bit from shoe (773 ft) to bottom (1838 ft) without problems. While RIH, SLB took 3 MWD surveys at different depths. Circulate bottom up at 1838 ft.
02:00 – 03:00	Drill rotate from 1838 ft to 1845ft with 770 gpm, 2650 psi, 5 kft-lb. TQ. Drill slide from 1845 ft to 1896 ft. drill rotate from 1896 ft to 1907 ft.
03:00 – 03:30	SLB took survey (has interference and retake 3 times).
03:30 – 04:00	Drill slide from 1907 ft to 1951 ft with 765 gpm, 2700 psi, 12-14 klb wob. 100 ft/hr.
04:00 – 06:00	Drill rotate and slide mode from 1951 ft to 2096 ft with 770 gpm, 2715 psi, 12-14 klb WOB, 45 RPM, 6-7 KFT-LB TQ. Avg ROP: 150 ft/hr. Last geology sample at 2070 ft: 100% claystone in Lobitos formation. Last survey at 2024 ft: inc 52.52 deg, azm. 216.32 deg.
06:00 – 23:30	Drill rotate and slide mode from 2096 ft to 2858 ft with 770 gpm, 2900 psi, 12-14 klb WOB, 80 RPM, 6-7 KFT-LB TQ. Pump High viscosity pill every 3 stands
23:30 – 00:00	Stop drilling due to pumps # 1 & 2 failed, L/D 1 stand to reciprocate string, circulate with pump # 3 while repair pumps.

October 26th, 2013

00:00 – 01:00	Continue repairing pumps while circulate with pump # 1 & 3, pressure drop with pump # 1, need continued repairing.
01:00 – 02:30	Connect stand and RIH to bottom. Continue drilling with pump # 2 & 3 from 2858 ft. to 2946 ft while repair pump # 1. Drill with 700 GPM, 2320 psi, 70 rpm, 6-7 kft-lb TQ. 70 ft/hr ROP.
02:30 – 03:00	Ream, take survey.
03:00 – 04:30	Circulate, Pump high vis. pill and continue circulate 3 bottoms up until shacker clean. With 780 gpm, 2950 psi.
04:30 – 06:30	Short trip: POOH from bottom (2946 ft) to 1750 ft with circulation. Max overpull = 30 klb, MW: 10.3 ppg.
06:30 – 07:00	Circulate at 1750 ft. until clean shacker.
07:00 – 10:30	POOH backreaming from 1750 ft. to 773 ft. due high over pull. Circulate at 1563 ft & 1150 ft. and return excessive cutting.
10:30 – 11:00	Circulate with 500 gpm-1030 psi & observed abundant cutting. Circulate to shaker clean.
11:00 – 16:00	TIH 12 1/4" direct BHA from 773 ft to bottom (2946 ft). Washing down (work to pass due string set with 30 klbs) at 1505 ft, 1634 ft, 1780 ft, 2138 ft, 2299 ft and 2482 ft. with 700 gpm-2300 psi.
16:00 – 00:00	Directional drill in rotate and slide mode from 2946 ft to 3294 ft. with 780 gpm. 3000 psi, 80 rpm, 10-12 klb WOB, 6-8 kft-lb TQ.

October 27th, 2013

00:00 – 02:30	Drilling in rotate mode from/ 3294' to 3418' with 780 gpm, 3130 psi, 85 rpm, 12-15 klb WOB, 7-8.5 kft-lb TQ. Pump high vis. pills each 3 stands.
02:30 – 03:00	Ream, conex & survey.
03:00 – 03:30	Drilling in slide mode from/ 3418' to 3439' with 780 gpm - 3000 psi, wob 14klbs.
03:30 – 09:00	Drilling in rotate mode from/ 3439' to 3725' with 780 gpm, 2900 psi, 85 rpm, 12-15 klb WOB, 7/9 kft-lb TQ. Pump high vis. pills each 3 stands.
09:00 – 10:00	Drilling in slide mode from/ 3725' to 3735' with 735 gpm - 3000 psi, wob 14klbs.
10:00 – 14:00	Drilling in rotate mode from/ 3735' to 3910' with 780 gpm, 2900 psi, 85 rpm, 12-15 klb WOB, 7/9 kft-lb TQ.
14:00 – 14:30	Circ, ream, take survey & conex.
14:30 – 15:30	Drilling in slide mode from/ 3910' to 3918' with 725 gpm - 2900 psi, wob 15klbs.
15:30 – 16:00	Rig service.
16:00 – 16:30	Drilling in slide mode from/ 3918' to 3930' with 725 gpm - 2900 psi, wob 15klbs.
16:30 – 18:30	Drilling in rotate mode from/ 3930' to 4026' with 780 gpm, 3100 psi, 85 rpm, 12-15 klb WOB, 7/9.5 kft-lb TQ. Pump high vis. pills each 3 stands.
18:30 – 19:00	Ream, take survey at bottom.
19:00 – 21:00	Circulate, pump High viscosity pills until shacker clean.
21:00 – 00:00	POOH 12 1/4" directional BHA with backreaming from bottom to 2400 ft. max over pull= 30 klb. Circulated bottom up at 2800 ft.

October 28th, 2013

00:00 – 07:30	Continue POOH directional BHA from 2400 ft to surface, with backreaming to shoe, L/D directional BHA. Circulated at 1650 with 780 gpm until shacker clean. observed cavings.
07:30 – 14:30	TIH 12 1/4" tricone bit with 11 3/4 stb from/ surface to bottom (4026 ft). Washing down (work to pass due string set with 35 klbs) from/ 1490' to 1900', and at 2270 ft, 3200 with 600 gpm-1500 psi.

14:30 – 17:00	Circulate, pump disp. & vis. pill to shacker clean, increase mud weight fr/10.6 to 10.8 ppg and add lubrication to 1 % and condition mud to RIH 9 5/8" Csg.
17:00 – 22:30	POOH 12 1/4" conventional BHA with backreaming from bottom to shoe. Max over pull= 30 klb. Circulated bottom up at 1900 ft and at shoe.
22:30 – 00:00	TIH conventional BHA from shoe (773 ft) to 1650 ft. washing down, work to pass due string set with 35 klbs) fr/ 1490.

October 29th, 2013

00:00 – 05:00	Continue TIH from 1650 ft. to bottom. Washing down (work to pass due string set with 35 klb) fr/ 1650' to 1920', and at 2300 ft, 3180,3400, 3600 ft with 780 gpm - 2000 psi.
05:00 – 07:00	Circulate, pump disp. & high vis. pill and continue circulate until shacker clean. MW: 10.8ppg
07:00 – 09:30	POOH string from 4026 ft from 2800 ft with backreaming with 600 gpm - 1750 due overpull 35 klbs.
09:30 – 12:00	Continue POOH from 2800 to surface without pump and rotation.
12:00 – 13:00	Retrieve wear bushing.
13:00 – 14:00	Condition rig floor to RIH 9 5/8" Casing & Rig up ITS casing running tools.
14:00 – 14:30	Safety meeting with all crew.
14:30 – 15:00	ITS replace hydraulic tong due 1 hyd hose leak.
15:00 – 16:00	Run casing 9 5/8", N-80, 43.5 lb/ft, 9 5/8" shoe, 2 joint casing, float collar to 76 ft.
16:00 – 00:00	Continue running casing 9 5/8", N-80, 43.5 lb/ft, from 76' to 3390', (90 joints). Casing set at 1630 ft, work string with circulation to pass. Circulate at 3000' w/ 400 gpm, 289 psi, ok.

October 30th, 2013

00:00 – 02:00	Continue running casing 9 5/8", N-80, 43.5 lb/ft, from 3390' to 4026', (107 joints). Install 33 centralizers according program.
02:00 – 02:30	Circulate bottom up with 9 5/8" Csg w/417 gpm, 275 psi.
02:30 – 03:30	Medomack barge arrived at location and alongside to Perla barge to start to R/U cementing lines. while circulate at bottom.
03:30 – 05:30	Halliburton R/U cementing lines from Medomack to platform. while circulate with 417 gpm, 275 psi. R/D ITS fill up tool and install cementing head.
05:30 – 06:00	Perform safety meeting with Halliburton, Savia and Pepesa crew.
06:00 – 10:00	Test cement lines with 3000 psi, Ok. Perform cement job: Pump 50 bbls of low reology mud, Halliburton mix and pump 35 bbls of spacer 11.5 ppg. Drop bottom plug, pump 269 bbls extend Cement V 13.5 ppg (282 xs)x 6.6 bpm and 62 bbls cement tail slurry 15.2 ppg x 6 bpm. Drop top plug, displace with Mud 10.8 ppg- 292 bbls.
10:00 – 11:30	Plug arrived with 370 psi & applied to 1000 psi-ok. Back flow 1 bbls - ok. Return 20 bbls of spacer contaminated with cement 11.0 ppg. Lay down cementing lines. When it was pump tail slurry (25bbls) had problem in mixer and stop operation by 40 min. Prepare cement in batch mixer and continue with operation.
11:30 – 13:30	WOC, Halliburton open cement head and discharge. R/D cementing lines and Pepesa crew L/D flow line, kill line, HCR and clean BOP. Lift 13 5/8" BOP w/raiser, center 9 5/8" Csg, set slips 150 klbs. Cut and L/D bell nipple
13:30 – 14:30	L/D spider and elevators, Cut and retrieve 9 5/8" csg landing joint on first level.
14:30 – 15:30	WOC. Cut and bevel 9 5/8" csg on first level. Install casing spool 13 5/8 x 3M -

	11 x3M, tight bolts.
15:30 – 16:00	Perform pressure test csg head w/1500psi by 10 min, ok.
16:00 – 23:00	Install double flange drill extension 13 5/8x3M; 11x3M. Install 13 5/8" x 5M drilling spool, BOP stack and tighten bolts. Connect chock line and kill lines from drilling spool to manifold. Install bell nipple and flow line. Center 13 5/8" BOP and weld pads.
23:00 – 00:00	Test BOP operativity, 8 sec pipe rams, 9 sec blind rams, 2 sec HCR, 30 sec annular, open/close, ok. Install 9 5/8" plug tester.

October 31st, 2013

00:00 – 03:00	Perform BOP test. Pipe rams, 500 & 3000 psi, by 10 min, ok. Annular w/ 300 & 1500 psi, by 10 min, ok. Pepesa P/U 5"DP from barge to platform. Remove 5" DP and continue BOP test: Blind ram w/ 300 & 3000 psi, by 10 min, ok. Blind ram w/ external, medium, internal of manifold w/ 300 & 3000 psi, by 10 min, ok. Test TDS, ok.
03:00 – 04:00	P/U stand and retrieve plug tester. M/U & install wear bushing secure stops, ok. received SLB tools and upload from barge to platform.
04:00 – 08:00	M/U 8 1/2" PDC bit (SKH519M, s/n: A183409, jets 5x13-2x14) w/power drive + 8 3/8" Stb+ 6 3/4" Float Sub+ 6 3/4" Pony Monel+ LSS+ MWD w/ slim pulse+ USS+6 3/4" spiral Monel + 3x5 HWDP+ 6 1/2" jar+01x5" HWDP. Operative test power drive ok, continue TIH with 250 ft.
08:00 – 11:00	Attempt to perform shallow test to MWD tools, but no success due to problem with pump N°1 - can't get pressure. At same time change liner to pump °2 (can't use) and pump n°3 can't get caudal to test MWD (its auxiliary pump). Test MWD.
11:00 – 19:30	Continue TIH with 21 HWDP and 5" DP in joint x joint from 886 ft to 3941 ft. (RIH 3000 ft of 5"DP in single). SLB calibrate depth sensor.
19:30 – 20:00	Wash down and tag cement at 3941 ft.
20:00 – 23:00	Drill out cement, plugs and float collars from 3941 ft to 4014 ft. with 450 gpm, 1590 psi.
23:00 – 23:30	Perform casing integrity test with 1000 psi x 10 min ok.
23:30 – 00:00	Continue drill out cement and shoe from 4014 ft. to 4026 ft.

November 01st, 2013

00:00 – 00:30	Drill rotate formation from 4026 ft to 4037 ft with 450 gpm, 1590 psi. Circulate and geology sample confirm 100% formation.
00:30 – 01:30	Circulate and displace contaminate mud with cement by 10.8 ppg new mud.
01:30 – 02:00	Perform formation integrity test with 430 psi. EMW: 14 ppg and MW: 10.8ppg, during FIT pressure drop from 430 psi to 360 psi in 10 min.
02:00 – 02:30	SLB programmed RSS to start directional drill.
02:30 – 06:00	Directional drill rotate 8 1/2" hole from 4037 ft to 4215 ft with 530 gpm, 2180 psi, 120 rpm, 10 Klb WOB, 13-15 k ft-lb TQ.
06:00 – 12:00	Continue drilling with RSS (SLB) in rotate mode 8 1/2" hole from 4215 ft to 4470 ft with 550 gpm, 2200 psi, 120 rpm, 15 Klb WOB, 9 k ft-lb TQ. Pump and circ. at 4380 ft disp. & vis. heavy pill.
12:00 – 12:30	SLB calibrate depth sensor.
12:30 – 00:00	Continue drilling with RSS (SLB) in rotate mode 8 1/2" hole from 4470 ft. to 5030 Ft. with 550 gpm, 2200/2350 psi, 120/100 rpm, 12/14 Klb WOB, 9-10 k ft-lb TQ. Pump HVP each 3 stands.

November 02nd, 2013

00:00 – 00:30	Ream, take survey and connect stand.
00:30 – 01:30	Continue drilling with RSS (SLB) in rotate mode 8 1/2" hole from 5030 ft to 5078 ft with 550 gpm, 2420 psi, 100 rpm, 12-14 Klb WOB, 9-11 k ft-lb TQ. Avg ROP 60 ft/hr.
01:30 – 04:30	Continue drilling with RSS in rotate mode from 5078 ft to 5131 ft with 550 gpm, 2420 psi, 100 rpm, 14-15-18-20 klb WOB, 9-12 kft-lb TQ.ROP drop from Avg 60 ft/hr to 12 ft/hr. Apply weight to 20 klb and pump fluid pill with AKtaflow-s to bit balling. ROP increase from 12 ft/hr to 30 ft/hr. Last geology sample: at 5070 ft: 100% claystone.
04:30 – 05:00	Ream, take survey and connect stand.
05:00 – 06:00	Continue drilling from 5131 ft to 5160 ft with 550 gpm, 2380 psi, 100 rpm, 18-20 Klb WOB, 11-12 kft-lb TQ, 30-35 ft/hr ROP.
06:00 – 09:00	Continue drilling from 5160 ft. to 5229 ft. with 550 gpm, 2380 psi, 100 rpm, 18-20-23 Klb WOB, 11-12 kft-lb TQ,120 rpm, 30-35 ft/hr.
09:00 – 10:30	Drilling from 5229 ft. to 5324 ft. with 550 gpm, 2500 psi, 100 rpm, 15Klb WOB,11-12 kft-lb TQ,120 rpm , ROP: 70 ft/hr. Last geology sample with 100 % claystone. Last survey point 5324ft - 69.9° incl. 221.34° azm.
10:30 – 12:00	Circulate pump 30 bbls disper. & 30 bbls vis. heavy pill and circulate to shaker clean.
12:00 – 16:00	Wiper trip: POOH string with rotation and circulation from 5324 ft to shoe (4023 ft) due over pull 35 klbs.
16:00 – 16:30	At 4020 ft, Circulate 1 bottom up with 550 gpm-2200 psi. PU: 120klbs, SO: 65 klbs, HL: 87 Klbs.
16:30 – 18:00	Cut & slip 1 1/4" drilling line.
18:00 – 18:30	SLB calibrate depth sensor.
18:30 – 19:00	Rig services (PEPESA repair drawwork).
19:00 – 22:00	TIH without pump to 4150ft and washing down from 4150 ft to bottom , due string set with 30 klbs.
22:00 – 22:30	Circulate bottom up at bottom.
22:30 – 23:00	Connect stand, SLB send down link tool to start drilling.
23:00 – 00:00	Directional drill rotate 8 1/2" hole from 5324 ft to 5366 ft. with 550 gpm, 2400 psi,120 rpm- 11 kft-lb TQ.

November 03rd, 2013

00:00 - 06:00	Continue drilling rotate 8 1/2" hole from 5366 ft to 5650 ft. with 550 gpm, 2530 psi,120 rpm-12-16 k lb WOB, 11 kft-lb TQ. avg ROP 60 ft/hr. Last geology sample at 5630 ft:100% claystone.
06:00 - 08:30	Continue drilling rotate 8 1/2" hole from 5650 ft to 5700 ft. with 550 gpm, 2530 psi,120 rpm-12-16 k lb WOB, 11 kft-lb TQ. avg ROP 10 ft/hr.
08:30 - 13:00	Continue drilling rotate 8 1/2" hole from 5700 ft to 5887 ft. with 550 gpm, 2530 psi,120 rpm-8-12 k lb WOB, 11 kft-lb TQ. avg ROP 75ft/hr.
13:00 - 15:00	Continue drilling rotate 8 1/2" hole from 5887ft to 5928 ft. with 550 gpm, 2530 psi,120 rpm-8-12-16 k lb WOB, 11 kft-lb TQ. Avg ROP 20ft/hr.
15:00 - 17:00	Continue drilling rotate 8 1/2" hole from 5928ft to 5984ft. with 550 gpm, 2530 psi, 120 rpm- 15/20 k lb WOB, 11 kft-lb TQ. Avg ROP 30ft/hr.
17:00 - 17:30	Ream, take survey and circulate bottom up.
17:30 - 20:00	POOH directional BHA from bottom to shoe, due to bad weather (need separate Perla barge).
20:00 - 20:30	Circulate at shoe bottom up.

20:30 - 22:00 Disconnect mud lines, water lines and electric line from platform to barge and Perla barge separate from platform.
22:00 - 00:00 Waiting on weather conditions (rough seas).

November 04th, 2013

00:00 - 00:00 Waiting on bad weather conditions (rough sea).
PEPESA personnel relocate materials and clean on platform.

November 05th, 2013

00:00 - 00:00 Continue waiting on bad weather conditions (rough sea).

November 06th, 2013

00:00 - 00:00 Waiting on weather conditions (rough seas).
PEPESA personnel relocate materials and clean platform.
Tramarsa personnel change cable in winch of proa-babor.

November 07th, 2013

00:00 - 00:00 Waiting on weather conditions (rough seas).
PEPESA personnel relocate materials and clean platform.
Tramarsa personnel change cable in winch of proa-babor.

November 08th, 2013

00:00 - 06:00 Waiting on weather conditions (rough seas).
Tramarsa personnel continue installing cable in winch of proa -babor.
06:00 - 10:30 Waiting on bad weather conditions (rough sea). Coordinate Tere to install anchor.
10:30 - 13:00 Installed anchor due replace line (was broken by rough sea - Proa -babor), with Tere taug.
13:00 - 00:00 Perla barge (tramarsa) have problem with winche is not 100%operative, problem with one piston (encroche).
Waiting on weather conditions (rough seas).

November 09th, 2013

00:00 - 06:30 Continue waiting mechanical of tramarsa to repair winche of perla barge.
Waiting on weather condition (rough seas).
06:30 - 08:30 Tramarsa personnel move barge close to Platform and mechanical repair winche.
08:30 - 10:30 Pepesa connect mud, electrical and paison lines from barge to platform.
10:30 - 11:30 Circulate with 570 gpm - 2230 psi. PU: 130, HL 80, SO 65 klbs.
11:30 - 00:00 TIH washing down from 4023 ft to 5380 ft with 570 gpm - 2530 psi, 100 rpm, torq 9/12 klbs.

November 10th, 2013

00:00 - 05:00 TIH washing down from 5380 ft to 5984 ft w/ 570 gpm - 2580 psi, 100 rpm, torq 9/12 klbs.

05:00 - 06:00 At 5984 ft circulate hole to shaker clean with 570 gpm - 2570 psi. Take survey and program downlinks to Power drive (SLB).

06:00 - 00:00 Drilling in rotate mode w/ Power drive (SLB) fr/ 5984' - 6463' w/ wob 8/12 klbs, 120 rpm ,570 gpm ,2650 psi, torq 14 klbs. Rop avg 30 ft/hr.

November 11th, 2013

00:00 - 05:00 Drilling in rotate mode w/ Power drive (SLB) fr/ 6463' - 6550' w/ wob 10/25 klbs, 120 rpm ,570 gpm ,2650 psi, torq 14 klbs. Rop avg 17 ft/hr.

05:00 - 06:00 Drilling in rotate mode w/ Power drive (SLB) fr/ 6550' - 6595' w/ wob 10 klbs, 120 rpm ,570 gpm ,2650 psi, torq 14 klbs. Rop avg 45 ft/hr.

06:00 - 15:30 Drilling in rotate mode fr/ 6595' - 6929' w/ wob 10 klbs, 120 rpm, 570 gpm, 2650 psi, torq 14 klbs. Rop avg 40 ft/hr.

15:30 - 16:00 Rig service.

16:00 - 18:30 Drilling in rotate mode fr/ 6929' - 7023' w/ wob 8/10 klbs, 120 rpm, 570 gpm , 2800 psi, torq 14 klbs. Rop avg 40 ft/hr.

Last survey point 6958.48', 65.38°, 224.12°. Last geology sample at 7023 ft, 10% clyst, 60% sand, 30% sandstone, 25% flu. Form: Rio Bravo.

18:30 - 20:30 Circulate & pump disperse pill (30bbls, 12.5ppg, 40 visc) & visc pill (30bbls, 11, 1 ppg, 120 visc) & circulate to shaker clean to POOH to surface to change battery of MWD sensors. MW: 11.2 ppg.

20:30 - 22:00 POOH 8.5 "BHA with Power drive (SLB) fr/ 7023' to 6163' w/ 550 gpm & 2550 psi. PU: 180, SO: 50, HL: 97 (with pump & without rot).

22:00 - 00:00 Continue POOH with backreaming with 570 gpm from 6163 ft to 5415 ft, due over pull 35 klbs, work string to pass at 5482 ft (increase torq 26 000 klbs stop rotation).

November 12th, 2013

00:00 - 04:30 Continue POOH with backreaming with 550 gpm from 6163 ft to 4023 ft (9 5/8 "csg shoe). Work to 2 stands's before to enter 9 5/8" csg.

04:30 - 05:00 Circulate 01 bottom up with 570 gpm - 2470 psi.

05:00 - 13:00 Continue POOH fr/ 4026 ft to surface with normal. Lay down PD & 8.5" PDC bit.

13:00 - 16:00 M/U same 8 1/2" PDC bit (SKH519M, s/n: A183409, jets 5x13-2x14) w/ rotary BHA: 8 3/8" Near bit + 6 3/4" Float Sub+LSS+MWD (Slimpulse 300-600 gpm) + USS + 6 3/4" spiral Monel + 3x5" HWDP to 165 ft.

16:00 - 00:00 Repair Rig - Broke electrical line (36 pines - control sensor) of top drive when they were doing maneuvers. Replace and configure system.

November 13th, 2013

00:00 - 01:00 Repair Rig - Replace and configure system of top drive.

01:00 - 04:30 Continue TIH with 01x 6 1/2" jar + 22x5" HWDP + dp from 165 to 4023 ft.

04:30 - 05:00 Circulate at 4023 ft (csg shoe) 570 gpm - 2000 psi.

05:00 - 00:00 Cont TIH washing down 4023 ft to 5790 ft with 100 rpm , 570 gpm - 2200 psi. MW: 11.4 ppg.

November 14th, 2013

00:00 - 13:00 Cont TIH washing down 5790 ft to 7023 ft with 100 rpm , 570 gpm - 2200 psi. MW: 11.4 ppg



13:00 - 14:00 Circulate at 7023ft with 570 gpm, 2460 psi.
 14:00 - 00:00 Drilling with rotate string with MWD from 7023 ft to 7378 ft with 8/10 klbs wob, 570 gpm - 2570 psi, 100 rpm, and torq: 10/13 klbs-ft. Avg ROP: 35 ft/hr. Mw: 11.4ppg.

November 15th, 2013

00:00 - 06:00 Drilling with rotate string with MWD from 7378 ft to 7707 t with 10/20 klbs wob, 570 gpm - 2650 psi, 120 rpm, torq: 11/15 klbs-ft. Avg ROP: 55 ft/hr. Mw: 11.4ppg,
 06:00 - 14:30 Drilling with rotate string with MWD from 7707 ft to 8005 ft with 10/20 klbs wob, 570 gpm - 2700 psi, 120 rpm, torq: 11/15 klbs-ft. Avg ROP: 35 ft/hr. Mw: 11.4ppg,
 14:30 - 15:00 Rig service.
 15:00 - 22:00 Drilling with rotate string with MWD from 8005 ft to 8209 ft with 10/20 klbs wob, 530 gpm - 2500 psi, 100 rpm, torq: 15/18 klbs-ft. Avg ROP: 30 ft/hr. Mw: 11.4ppg. Final TD: 8209'.
 Projection to FINAL TD at 8209 ft, 69.79° incl, 222.50° azm.
 22:00 - 22:30 Circulate 01 bottom up to get geology sample at 8209 ft with 570 gpm - 2750 psi: 90% clst, 10% sandstone, trz siltstone.
 22:30 - 00:00 Circulate hole at 8209 ft with 570 gpm - 2750 psi and pump disp (40 bls - 12ppg) & visc (40 bbls - 120 sec) pill to POOH and RIH conventional BHA.

November 16th, 2013

00:00 - 01:00 Circulate to shaker clean and increase mud weight fr/ 11.4 to 11.6 ppg.
 01:00 - 10:00 POOH 8.5" rotaty BHA from 8209 ft to 4023 ft with backreaming (580 gpm - 2400 psi).
 10:00 - 10:30 Circulate at 4023 ft with 560 gpm - 2000 psi. Shaker clean.
 10:30 - 00:00 TIH washing down from 4023 ft to 7853 ft with 580 gpm - 2500 psi. Set string with 40 klbs.

November 17th, 2013

00:00 - 01:30 TIH washing down from 7853 ft to 8209 ft with 580 gpm - 2500 psi. Set string with 40 klbs.
 01:30 - 03:30 Circulate hole at 8209 ft with 570 gpm - 2750 psi and pump disp (40 bls-12ppg) & visc (40 bbls - 120 sec) pill to shaker clean
 03:30 - 12:00 POOH 8.5" rotaty BHA from 8209 ft to 4023 ft with backreaming (580 gpm-2400 psi).
 12:00 - 12:30 Circulate hole at 4023 ft with 570 gpm - 2000 psi.
 12:30 - 13:30 Cutt off 100 ft & 105 slip drilling line.
 13:30 - 17:00 Continue POOH from 4023 ft to surface. Lay down Rotaty BHA and bit.
 17:00 - 19:00 Weatherford rig up Compact Well Shuttle (well logging tool), BHA: 209 ft.
 19:00 - 19:30 Safety meeting with all crew. Prepare to RIH WTF logging tool with dp's in stand's.
 19:30 - 00:00 M/U & TIH weatherford compact well shuttle tool w/ drill pipe to 2560 ft.

November 18th, 2013

00:00 - 02:30 Continue TIH WTF compact well shuttle with dp from 2560 ft to 4200 ft.

02:30 - 04:30 Cont TIH WTF compact well shuttle with dp from 4200 ft to 5074 ft, using rot & cir. Decided POOH Compact due string set with 15 klbs and torq 7000 lb-ft, can't RIH free.

04:30 - 11:00 POOH WTF C.W.S. from 5074 ft to surface (don't have damage with tools) PU:130 klbs, SO: 55 , HL: 78 klbs.

11:00 - 14:30 M/U conventional BHA, 8.5" tricone bit + near bit + 2 dc + xo + 3HW + jar + 22hw + dp to 4210 ft.

14:30 - 15:30 Work string with rot & circ from 4210 ft to 4216 ft, due can't pass.

15:30 - 22:30 Continue RIH washing down fr/ 4216 ft to 6850 ft. Work to pass at 6600 ft.

22:30 - 00:00 Continue RIH washing down slowly fr/ 6850 ft to 7032 ft due erratic torq. No caving on shaker.

November 19th, 2013

00:00 - 07:30 Cont RIH washing down slowly fr/ 7032 ft to 8209 ft, erratic torq.

07:30 - 09:30 Pump sweep pill, circ. And increase mud weight fr/11.6 to 11.8 ppg.

09:30 - 19:00 POOH conventional BHA with back reaming from 8209 ft to surface, parameters: TQ 14-16 kft-lb, PP 1500 psi, Q 570 gpm, 100 rpm, The BHA doesn't sit after reaming.

19:00 - 19:30 Pull out wear bushing.

19:30 - 20:30 Cia. ITS Rig up hyd. tong, spider, elevator and casing board.

20:30 - 21:00 Perform safety meeting with all personnel.

21:00 - 00:00 RIH 5.5" casing (weight 17 ppf, BTC), CSG shoe, 2 joints, float collar, cont. RIH with casing from surface to 1500 ft.

November 20th, 2013

00:00 - 03:00 Cont. RIH 5.5" casing (weight 17 lb/ft, BTC) from 1500 ft to 3991 ft.

03:00 - 04:00 Cia. ITS Rig up fill up tool.

04:00 - 23:30 Cont. RIH 5.5 in casing (weight 17 lb/ft, BTC) from 3991 ft to 8209 ft, RIH with circulation 300 gpm and 560 psi.

23:30 - 00:00 Circ. on bottom with 350 gpm and PP 660 psi.

November 21st, 2013

00:00 - 02:00 Circ. on bottom with 350 gpm and PP 660 psi. Reciprocate CSG 15 ft. meanwhile Halliburton RU cementing lines from barge to platform.

02:00 - 03:00 RU CSG head with two plugs on 5.5" CSG.

03:00 - 03:30 Perform safety meeting with all personnel.

03:30 - 04:30 Circ. on bottom with 350 gpm and PP 660 psi. reciprocate CSG 7 ft.

04:30 - 07:00 Halliburton test cement lines w/ 3000 psi by 5 min, ok. Pump 20 bbl mud flushand 30 bbl tuned spacer. Drop bottom plug, mixs cement and pump 139 bbl of cmt Lead extendaCem V 13.5 ppg & pump 185 bbl of cmt ExpandaCem V 15.2 ppg. Observed by shakers full return.

Drop top plug and displace with 188 bbl of mud 11.8 ppg ,perform bump plug from 570 psi to 1200 psi by 5 min and perform integrity test 5.5" csg Ok.

Perform back flow 1.0 bbl, ok.Csg shoe: 8209 ft, Float Collar: 8132 ft. Total cement used 1326 sxs (Pacasmayo V).

07:00 - 08:00 WOC while Halliburton L/D cement lines and Pepesa untight riser bolts.

CONCLUSIONS AND RECOMMENDATIONS

- The **LO6-32D**, is an Development well, and was drilled in four phases for 5 ½" Casing from 445 feet to 8209 feet.
- During 8.5" phase, it was used mud BARADRIL-N type with mud weight between 10.8 ppg and 11.4 ppg.
- The last survey took was at 8173.73 feet MD, 4107.85 feet TVD with 69.62° of inclination and 222.63 degrees azimuth.
- The reservoir Rio Bravo top structurally was found at 6154.00 ft MD (RT), 3337.54 ft. TVD (RT), at 162.46 ft. more upper structurally.
- During trip, as is usual in petroleum industry, in order to a best control is recommended used Trip Tank, checking displacement or filling hole.
- It is necessary send lubricated pill in the finished run casing for cleaning hole before of the cementing operation.
- Due to high ROP's reached with the PDC bit, was pumped heavy pills for clean hole.
- It is necessary to take care over all in sands in inclined wells due to the difficulty to maintain the pressure differential for controlling overpulls and then stuck pipes.