



TGT - LAB
REGISTROS GEOLOGICOS

FINAL WELL REPORT

WELL: LO6-34D

DECEMBER 2013
FEBRUARY 2014

SAVIA PERU S.A.

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INTRODUCTION

TGT – LAB S.A.C. started Mud Logging Operations on the Well LO6-34D on January 04th, 2014 at 456 feet depth, and finished on February 12th, at the depth of 8180.0 feet TD(RT), with 5 1/2" Casing cementation; Casing Shoe at 8179 feet.

Origin:	
Surface Northing	9'508,654.42 m.
Surface Easting	459,050.91 m.
Main objective:	Mogollon Formation
Objective Northing	9'507,200.67 m
Objective Easting	458,949.29 m
Kelly Bushing	50 ft.
Water depth	-335 ft.
Total Depth	8180 ft.
Reference	DATUM-WGS -84 UTM

It is proposed to drill a development well LO6-34D to produce oil of Rio Bravo and Mogollon reservoir in Lobitos oil field.

The well LO6-34D was drilled from platform Lobitos 6 and reached a final depth of 5605.29 feet (TVD).

The geological control for Rio Bravo and Mogollon 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 LO6-34D from 456 feet measured depth (Rotary Table) from January 04th, 2014; to the Final Total Depth at 8180 feet that was reached on February 12th, 2014.

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 456 to 4500 feet; and each 10 feet from 4500 feet to 8180 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 $\frac{1}{2}$ 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.

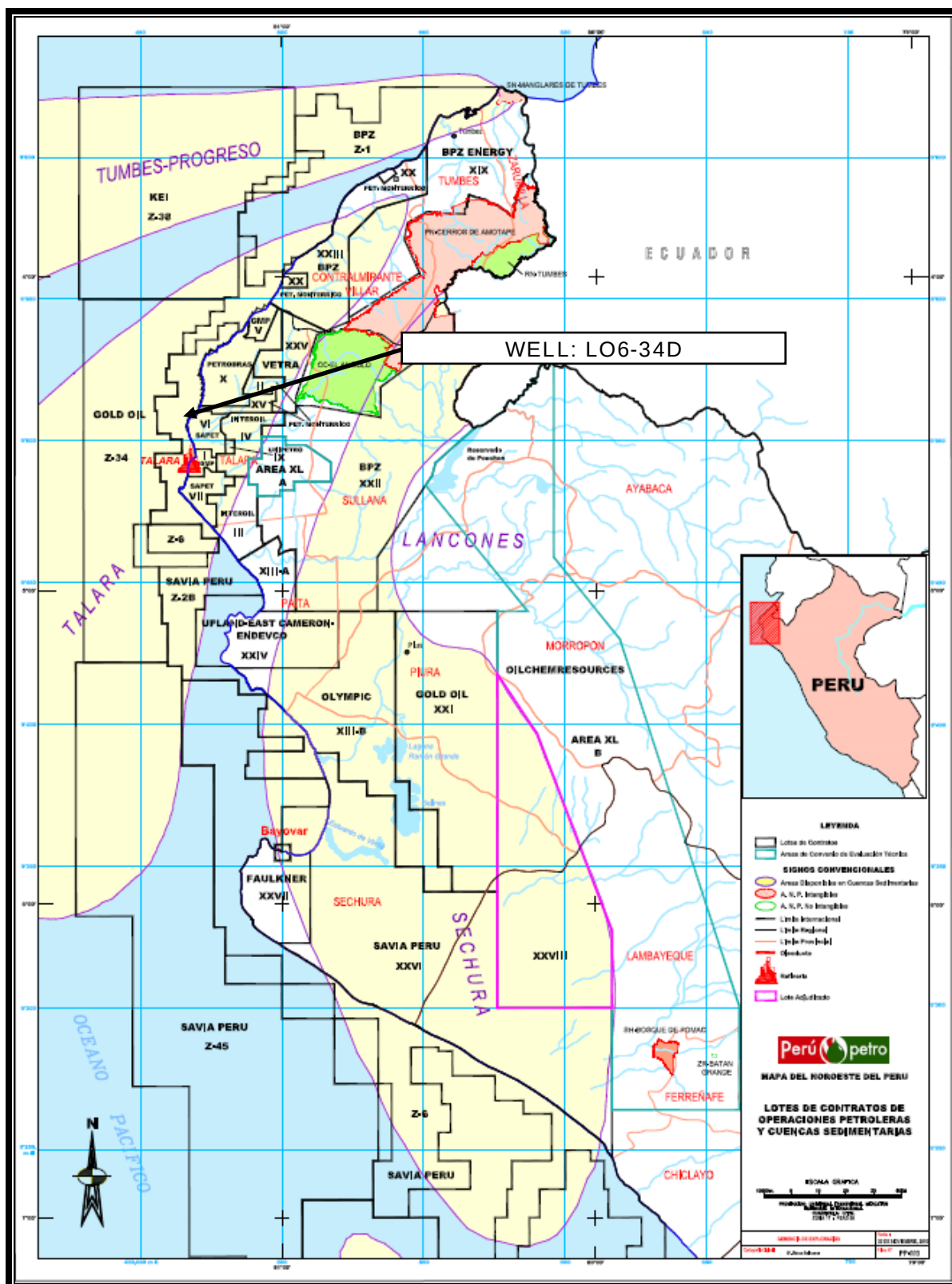


GEOLOGICAL REPORT



WELL AND RIG DATA

Company:	SAVIA PERU	
Well Name:	LO6-34D	
Well Type:	DEVELOPMENT	
Field:	LOBITOS OFFSHORE	
Basin:	TALARA	
State:	PIURA	
Country:	PERU	
Coordinates (WGS-84 UTM):	North	East
Origin:		
Main Objective: (MOGOLLÓN FM)	9'508,654.42 m	459,050.91 m
Rotary table:	50 ft.	
Water Depth:	-335 ft.	
Spud Date:	DECEMBER 29 th 2013	
End Date:	FEBRUARY 12 th 2013	
Total Depth:	8180.0 ft. MD (RT); 5605.29 ft. TVD (RT)	
Drilling Contractor / Rig:	PEPESA / P-40	
Drilling Fluids:	HALLIBURTON	
Logging Contractor:	WEATHERFORD	
Mud logging / Unit:	TGT LAB SAC	
Well site Geologist:	Augusto ORTEGA	
TGT-LAB Geologist:	Guillermo CARDOZA / Roger OTOYA / Martín ADRIANZEN	





FORMATION TOPS

WELL LO6-34D



Elevación RKB: 50 ft

SEA DEPTH: 335 ft

ROTARY TABLE: 50 ft.	PREDICTED TOPS			LITHOLOGIC TOPS BY SAMPLES			TOPS BY ELECTRICAL LOGS		
FORMATION/ZONE	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)
	RT (ft)			RT (ft)			RT (ft)		
TALARA SANDSTONE	-	-	-	-	-	-			
LOBITOS	-	-	-	807.0	805.25	-755.25	807.0	805.25	-755.25
TEREBRATULA	-	-	-	2117.0	1850.61	-1800.61	2117.0	1850.61	-1800.61
CHACRA	2317.0	1900.0	-1850.0	2585.0	2099.40	-2049.40	2585.0	2099.40	-2049.40
RIO BRAVO	4983.0	3230.0	-3180.0	5090.0	3264.43	-3214.43	5099.0	3268.71	-3218.71
RIO BRAVO SHALY	-	-	-	6052.0	3853.66	-3803.66	6049.0	3850.88	-3800.88
PALEGREDA	6647.0	4370.0	-4320.0	6510.0	4189.59	-4139.59	6503.0	4184.09	4134.09
MOGOLLON	7106.0	4740.0	-4690.0	6978.0	4568.76	-4518.76	6965.0	4557.84	-4507.84
FINAL T.D.	8400.0	5871.0	-5821.0	8180.0	5605.29	-5555.29	8180.0	5605.29	-5555.29



AGE		FORMATION/MEMBER	THICKNESS (ft)	LITHOLOGY	DESCRIPTION
CENOZOIC TERTIARY EOCENE		TALARA SANDSTONE	805.3		SANDSTONE: med dk gry, loc med gry, v-f t qtz gr, hyal, sbang-sbrnd, vl srt, scs arg mtrx, calc cnt, mod consol-mod fri, loc t, w/dk mmrsl incl, p vis por. N.O.S. SAND: wh, 50% f, 40% m, 10% crs qtz gr, hyal, trns, sbang-sbrnd, vl srt, w/dk&gn lts. CLAYSTONE: olv gry, loc olv blk, occ med dk gry, ea, biky-sbbiky, loc sbtab-sblam, occ sbply, mod frm-mod sft, micmic, miccarb, n-sil calc. SAND: wh, loc 50% v-f, 40% med, 10% crs qtz gr, hyal, trns, sbang-sbrnd, vl-fr srt. CLAYSTONE: olv gry, olv blk, loc med dk gry, ea, biky-sbbiky, occ sbtab, mod frm-firm, loc mod sft, micmic, miccarb, sil calc. CLAYSTONE: olv blk, brnsh blk, loc olv gry, ea, biky-sbbiky, loc sbply, amor i/p, mod frm-firm, loc mod sft, micmic, miccarb, n-sil calc i/p. SAND: wh, loc gnsh gry, 100% med, tr crs qtz gr, hyal, trns, sbrnd, loc sbang, vl srt. CLAYSTONE: olv blk, loc olv gry, occ med dk gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, miccarb, vsil calc. CLAYSTONE: olv blk, brnsh blk, loc olv gry, ea, biky-sbbiky, loc sbply, amor i/p, mod frm-firm, loc mod sft, micmic, miccarb, n-sil calc i/p. CLAYSTONE: olv blk, loc olv gry, occ med dk gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, miccarb, vsil calc. CLAYSTONE: olv blk, loc olv gry, ea, biky-sbbiky, frm-mod frm, micmic, miccarb, v sil calc. CLAYSTONE: olv blk, loc olv gry, occ med dk gry, ea, biky-sbbiky, frm-mod frm, sly i/p, micmic, loc miccarb, v sil calc. CLAYSTONE: olv blk, loc olv gry, ea, biky-sbbiky, loc sbply, mod frm-mod sft, micmic, miccarb, sil calc. CLAYSTONE: olv blk, olv gry, loc brnsh blk, ea, biky-sbbiky, loc sbtab-sbply, frm-mod frm, loc sly, micmic, loc miccarb, vsil calc. CLAYSTONE: olv blk, olv gry, loc med gry, ea, biky-sbbiky, loc sbtab, amor i/p, frm-mod frm, loc sly, micmic, loc miccarb, vsil calc. CLAYSTONE: olv blk, loc olv gry, ea, biky-sbbiky, loc sbply, mod frm-mod sft, micmic, miccarb, sil calc. DOLOMITE: mod yelsh brn, occ dk yelsh brn, mass, biky-sbbiky, loc sbply, hd-mod hd, irf frac. CLAYSTONE: olv blk, occ olv gry, ea, biky-sbbiky, occ tab, occ sbblam, mod frm-mod sft, micmic, miccarb, sil calc.
		LOBITOS	1045.4		SANDSTONE: olv blk, loc med lt gry, v-f t qtz gr, hyal, sbang-sbrnd, vl srt, arg mtrx, calc cnt, mod fri, w/dk mmrsl incl, p vis por. N.O.S. CLAYSTONE: olv blk, loc med gry, occ olv gry, ea, sbbiky-biky, mod frm-mod sft, micmic, miccarb, sil calc. DOLOMITE: dk yelsh brn, ea, biky-sbbiky, mod hd, mass, irf frac, w/dk mmrsl incl. CLAYSTONE: olv blk, loc med gry, occ olv gry, ea, sbbiky-biky, loc sbtab, mod frm, loc mod sft, micmic, miccarb, sil calc. SAND: wh, 60% m, 20% f, 20% crs qtz gr, hyal, trns, sbang-sbrnd, vl-fr srt. Fluor: NVOs, TR-5%
		TELEBRATULA	248.8		CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab-sblam, amor i/p, frm-mod frm, loc sly, micmic, loc miccarb, n-sil calc i/p. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab-sblam, amor i/p, mod frm-firm, loc mod sft, micmic, miccarb, n-sil calc i/p. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab-sblam, amor i/p, mod frm-firm, loc sly, micmic, miccarb, n-sil calc i/p. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab-sblam, amor i/p, mod frm-firm, loc sly, micmic, miccarb, n-sil calc i/p. DOLOMITE: mod yelsh brn, dk yelsh brn, ea, biky-sbbiky, loc sbply, mod hd, mass, irf frac, w/dk mmrsl incl. CLAYSTONE: med dk gry, loc dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab-sblam, amor i/p, mod frm-firm, loc sly, micmic, miccarb, n-sil calc i/p. CLAYSTONE: med dk gry, loc olv blk, occ olv gry, ea, biky, loc sbbiky, frm-mod frm, loc mod sft, sly i/p, micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, loc olv blk, dk gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, loc micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, olv blk, occ dk gry, ea, occ sm, biky-sbbiky, loc sbtab-sblam, mod frm-firm, sly i/p, micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, loc olv blk, dk gry, ea, sm i/p, biky-sbbiky, loc sbtab-sblam, amor i/p, mod frm-firm, loc mod sft, sly i/p, micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, loc olv gry, dk gry, occ olv blk, ea, biky-sbbiky, occ sbtab, mod frm-firm, loc sly, micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, loc olv gry, dk gry, occ olv blk, ea, biky-sbbiky, loc sbtab, mod frm-firm, loc sly, micmic, miccarb, n-sil calc. CLAYSTONE: med dk gry, loc olv gry, dk gry, ea, biky-sbbiky, loc sbtab, mod frm-firm, loc sly, micmic, miccarb, n-sil calc. CLAYSTONE: olv gry, loc med dk gry, occ dk gry, ea, biky-sbbiky, loc sbtab, frm-mod frm, sly, micmic, miccarb, v sil calc i/p. CLAYSTONE: med dk gry, loc med dk gry, occ olv gry, dk gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly, micmic, loc miccarb, n-sil calc. CLAYSTONE: med dk gry, loc med gry, olv gry, occ dk gry, ea, biky-sbbiky, loc sbtab, amor i/p, mod frm-firm, loc mod sft, sly, micmic, miccarb i/p, n-sil calc. CLAYSTONE: med dk gry, olv gry, occ med gry, ea, biky-sbbiky, occ sbtab, frm-mod frm, sly, occ w/glaucil incl, micmic, miccarb, v sil calc.
		CHACRA	1165.0		SANDSTONE: lt gry, loc med lt gry, v-f t qtz gr, hyal, sbang-sbrnd, vl srt, arg mtrx, calc cnt, mod consol-mod fri, w/dk & gn mmrsl incl, p vis por. SAND: wh, v-f t qtz gr, hyal, trns, sbang-sbrnd, vl srt. Fluor: NVOs, Tr-5% pin point dull yel nat fluor, crsh, wk, frt, even, p/ylt wh cut fluor, mky wh res ring under U. V. It, n res ring at nat lt. VPOS. CLAYSTONE: med dk gry, loc dk gry, occ olv gry, ea, biky-sbbiky, loc sbtab, frm-mod frm, sly, micmic, miccarb, n-sil calc. SANDSTONE: med lt gry, lt gry, loc med gry, v-f t qtz gr, hyal, sbrnd, vl srt, arg mtrx i/p, calc cnt, mod fri-fri, loc mod consol, miccarb, w/dk & gn mmrsl incl, p vis por. CLAYSTONE: med dk gry, dk gry, occ med gry, ea, occ sm, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, loc miccarb, n-sil calc. SANDSTONE: lt gry, v lt gry, loc med lt gry, v-f t qtz gr, hyal, sbrnd, vl srt, calc cnt, loc w/shell frag incl, mod fri-fri, loc mod consol, w/dk & gn mmrsl incl, p vis por. N.O.S.
		RIO BRAVO	589.2		SAND: wh, 50% m, 30% f, 20% crs, tr v crs qtz gr, hyal, trns, sbang-sbrnd, p srt. CLAYSTONE: dk gry, med dk gry, dk gry, occ gnsh bly, ea, biky-sbbiky, loc sbtab, frm-mod frm, loc sly, micmic, miccarb, n-sil calc. SAND: wh, 50% m, 40% f, 10% crs qtz gr, hyal, trns, sbang-sbrnd, p srt. SANDSTONE: lt gry, v lt gry, loc med lt gry, v-f, tr m qtz gr, hyal, sbrnd, vl srt, arg mtrx, abd calc cnt, fri-mod fri, w/dk & gn mmrsl incl, p vis por. Fluor: NVOs, Tr-15% pin point pl yel nat fluor, crsh, wk, pl, even, yelsh wh cut fluor, mky wh res ring under U. V. It, n res ring at nat lt. POS.
		RIO BRAVO SHALY	335.9		CLAYSTONE: med dk gry, loc dk gry, occ med gry, ea, biky-sbbiky, loc sbtab, frm-mod frm, sly, micmic, miccarb, n-sil calc i/p. SILTSTONE: med dk gry, med gry, ea, biky-sbbiky, mod frm-firm, micmic, miccarb, grad v sst, sil calc. SANDSTONE: lt gry, med lt gry, loc v lt gry, v-f, tr m qtz gr, hyal, sbrnd, vl srt, loc arg mtrx, calc cnt, mod fri-mod consol, w/dk & gn mmrsl incl, p vis por. SAND: wh, 50% f, 40% m, 10% crs qtz gr, hyal, trns, sbang-sbrnd, fr-p srt. Fluor: NVOs, 5-15% pin point-spotty pl yel nat fluor, crsh-slw, wk, pl, even, yelsh wh cut fluor, mky wh res ring under U. V. It, n res ring at nat lt. POS. CLAYSTONE: olv gry, med dk gry, dk gry, occ med gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, miccarb, n-sil calc. SANDSTONE: lt gry, med lt gry, loc v lt gry, v-f, tr m qtz gr, hyal, sbrnd, vl srt, loc arg mtrx, calc cnt, mod fri-mod consol, w/dk & gn mmrsl incl, p vis por. SAND: wh, 60% f, 40% m, tr crs qtz gr, hyal, trns, sbang-sbrnd, fr srt. Fluor: NVOs, Tr-5%.
		PALEGREDA	379.17		CLAYSTONE: med dk gry, dk gry, loc med gry, occ olv gry, ea, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, miccarb, n-sil calc. SANDSTONE: lt gry, med lt gry, occ v lt gry, v-f t qtz gr, hyal, sbrnd, vl srt, loc arg mtrx, calc cnt, mod fri-mod consol, loc dry, lt i/p, w/dk & gnsh mmrsl incl, p vis por. N.O.S. CLAYSTONE: med dk gry, loc dk gry, loc dk gry, olv gry, ea, occ sm, biky-sbbiky, loc sbtab-sblam, frm-mod frm, sly i/p, micmic, loc miccarb, n-sil calc. SANDSTONE: lt gry, med lt gry, loc v lt gry, v-f t qtz gr, hyal, sbrnd, vl srt, arg mtrx i/p, calc cnt, mod fri-mod consol, dry nat, w/dk & gnsh mmrsl incl, p vis por. Fluor: NVOs, Tr-5% pin point pl yel nat fluor, crsh, wk, pl, even, p/ylt wh cut fluor, p/ylt wh res ring under U. V. It, n res ring at nat lt. POS. CLAYSTONE: med dk gry, loc dk gry, ea, biky-sbbiky, loc sbply, mod frm-firm, sly i/p, micmic, miccarb, n-sil calc. SANDSTONE: lt gry, med lt gry, loc med gry, v-f t qtz gr, hyal, sbrnd, vl srt, scs arg mtrx, abd calc cnt, occ w/shell frags incl, mod fri-fri, loc mod consol, w/dk & gn mmrsl incl, p vis por. SAND: wh, 70% f, 30% m qtz gr, hyal, trns, sbang-sbrnd, vl srt.<

STRATIGRAPHIC SEQUENCE

WELL: LO6-34D

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, Palegreda, Mogollón of Tertiary age.

TGT LAB started logging into Talara Formation at 456 feet to the total depth on Mogollón at 8180 feet MD.

CENOZOIC

TERTIARY

TALARA FORMATION

TALARA SANDSTONE MEMBER

Interval: 0 to 807 feet

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

Sand: white, 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well 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, locally subtabular to sublaminae, occasionally amorphous, moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous in part.

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

Sand: white, 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to angular, locally subrounded, fair 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 green minerals inclusion, poor visual porosity. No Oil Show.

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

Accessories: calcite, pyrite, coal.

LOBITOS MEMBER

Interval: 807 to 2117 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, olive gray, occasionally brownish gray, earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, slightly microcarbonaceous, non to slightly calcareous in part.

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, microcarbonaceous, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.

Sand: white, 100% medium, traces coarse 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, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous.

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

At the lower section:

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

Dolomite: moderately yellowish brown, occasionally dark yellowish brown, earthy, blocky to subblocky, locally subplaty, moderately hard to hard, massive, locally with dark lithic minerals inclusion.

Accessories: calcite, coal, pyrite, dolomite, microfossils, bentonite.

TEREBRATULA MEMBER

Interval: 2117 to 2585 feet

The lithology at the upper and middle section was conformed predominantly by Sand, Claystone with intercalations of Sandstone and small lens of dolomite.

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

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

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

Dolomite: dark yellowish brown, earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion.

In the lower section the lithology was conformed mainly by Sand, intercalated with Claystone and some layers of Sandstone and Dolomite.

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

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

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

Fluorescence: NVOS, Traces-5% pin point pale yellowish natural fluorescence, very slow, weak, faint, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.

Dolomite: moderately yellowish brown, dark yellowish brown, earthy, subblocky, moderately hard, massive, irregular fracture, with dark lithic minerals inclusion.

Accessories: calcite, pyrite, coal, dolomite.

CHACRA FORMATION

Interval: 2585 to 5090 feet

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

At the upper section:

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

Dolomite: moderately yellowish brown, dark yellowish brown, earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion.

At the middle section:

Claystone: medium dark gray, olive black, locally dark gray, earthy to smooth in part, blocky to subplaty, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.

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

At the lower section:

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

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

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

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

RIO BRAVO FORMATION

Interval: 5090 to 6052 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 Claystone, Sandstone, intercalated with Sand and Siltstone.

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

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

Fluorescence: NVOS, Traces-5% pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.

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

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

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

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

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

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

Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.

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

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

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

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

Fluorescence: NVOS, traces-15% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.

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

Accessories: calcite, pyrite, glauconite, shell fragments, bentonite, coal.

RIO BRAVO SHALY

Interval: 6052 to 6510 feet

The lithology was conformed mainly by Claystone and Sandstone intercalations of Sand and Siltstone.

At the upper section:

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

Sandstone: very light gray, locally light gray, occasionally medium light gray, very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity.

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

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

At the lower section:

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

Fluorescence: NVOS, traces-15% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.

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

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

Accessories: calcite, pyrite, shell fragments, slickenside, coal.

PALEGREDA FORMATION

Interval: 6510 to 6978 feet

The lithology in this formation was conformed mainly by Claystone with small intercalations Sandstone.

At the upper section:

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

Sandstone: light gray, medium light gray, locally very light gray, very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity.

Fluorescence: NVOS, traces-5% pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.

At the lower section:

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

Sandstone: light gray, medium light gray, locally medium gray, 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, pyrite, dolomite, coal.

MOGOLLON FORMATION

Interval: 6978 to 8180 feet

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

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

Sand: white, 60% medium, 30% coarse, 10% fine quartz grain, hyaline, translucent, subangular to subrounded, fair to poor sorted.

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

Fluorescence: NVOS, traces-40% pin point to spotty pale yellow natural fluorescence, crush to slow, weak, faint, even to streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS.

Claystone: medium dark gray, dark gray, locally medium gray, occasionally grayish black, earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, firm to moderately firm, 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 middle section the lithology was conformed mainly by Claystone intercalated with Sandstone and some lens of Sand.

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

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

Fluorescence: NVOS, traces-20% 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.

Sand: white, 40% medium, 30% fine, 20% coarse, 10% very coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, poor sorted.

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

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

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

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

Fluorescence: NVOS, traces-25% pin point pale yellowish natural fluorescence, crush to slow, weak, faint, even to streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.

Accessories: calcite, pyrite, dolomite, shell fragments, dolomite, coal.

LITHOLOGICAL DESCRIPTION

WELL: LO6-34D

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
Started logging & Monitoring Data from 456 feet on January 04th, 2014 In Talara Sandstone Mbr. (Talara Fm.) Drilled cement from 456 to 467 feet with sea water.			
467 – 480	40	CLAYSTONE: olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally amorphous, moderately firm, 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 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.	
480 – 510	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, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	40	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
510 – 540	50	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally amorphous, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
540 – 570	40	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	medium dark gray (N4), earthy, blocky to subtabular, locally sublaminal, amorphous in part, moderately soft to moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine, locally fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
570 – 600	40 30 30	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subplaty, locally subtabular to sublaminal, moderately soft to moderately firm, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
600 – 630	80 10 10	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark and green lithics. 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, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. CLAYSTONE: olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately soft to moderately firm, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. Accessories: calcite, pyrite.	
630 – 660	70 20 10	CLAYSTONE: olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminal, occasionally subplaty, moderately firm to moderately soft, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous. SAND: white (N9), 90% fine, 10% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, well 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, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, coal.	
660 – 690	70 20 10	CLAYSTONE: olive gray (5Y 4/1), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous in part. SAND: white (N9), 80% fine, 20% medium, occasionally coarse quartz grain, hyaline, subangular to subrounded, well 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, tight in part, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
690 – 720	50 30 20	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately 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, scarce argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite.	
720 – 750	60 30 10	SAND: white (N9), locally green, 50% very fine to fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor 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.	
750 – 780	60 20 20	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. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well 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	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
780 – 810	90	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.	
	Tr	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 807.00 ft. MD (RT); 805.25 ft. TVD (RT)			
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	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.	
	Tr	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
840 – 870	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous	
	Tr	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
870 – 900	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, subblocky to subplaty, locally subtabular, amorphous in part, moderately firm to moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous Accessories: calcite, coal, microfossils.	
900 – 930	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.	
	Tr	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	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		consolidated to moderately friable, locally tight, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, microfossils.	
930 – 960	100	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
960 – 990	100	CLAYSTONE: olive black (5Y 2/1), locally brownish black (5YR 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminar, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
990 – 1020	100 Tr	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, amorphous in part, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, microfossils.	
1020 – 1050	100 Tr	CLAYSTONE: olive black (5Y 2/1), brownish black (5YR 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, amorphous in part, moderately firm to firm, locally moderately soft, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous in part. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, tight in part, locally with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1050 – 1080	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, amorphous in part, moderately firm to firm, locally moderately soft, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous in part. SANDSTONE: medium gray (N5), locally medium dark gray (N4), very fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, tight in part, locally with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1080 – 1110	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, locally 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, bentonite.	
1110 – 1140	90 10 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 in part. 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. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, microfossils, bentonite.	
1140 – 1170	50 40 10	SAND: white (N9), locally greenish gray (5GY 6/1), 100% medium, traces coarse quartz grain, hyaline, translucent, subrounded, well sorted. 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), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, pyrite, coal.	
1170 – 1200	60 30 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. SAND: white (N9), locally greenish gray (5GY 6/1), 80% medium, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium dark gray (N4), locally medium gray (N5), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1200 – 1230	80	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous.	
	10	SAND: white (N9), locally greenish gray (5GY 6/1), fine to medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium dark gray (N4), locally medium gray (N5), fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately consolidated to moderately friable, with dark and greenish minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite, coal.	
1230 – 1260	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, silty in part, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	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.	
	10	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, pyrite.	
1260 – 1290	90	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, microcarbonaceous, very slightly calcareous.	
	10	SANDSTONE: medium gray (N5), locally medium dark gray (N4), light olive gray (5Y 6/1), 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, dolomite, bentonite, coal.	
1290 – 1320	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, locally microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), light olive gray (5Y 6/1), 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, dolomite, coal, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1320 – 1350	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 sublaminar, 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. Accessories: dolomite, calcite.	
1350 – 1380	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 sublaminar, 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. Accessories: dolomite, calcite.	
1380 – 1410	80 10 10	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite.	
1410 – 1440	100	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
1440 – 1470	100 Tr	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. DOLOMITE: pale yellowish brown (10YR 6/2), earthy, subblocky, moderately hard to hard, massive, with dark lithic minerals inclusion. Accessories: calcite.	
1470 – 1500	100 Tr	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1500 – 1530	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite.	
1530 – 1560	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
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: dolomite, calcite, coal.	
1590 – 1620	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 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. Accessories: dolomite, calcite, pyrite.	
1620 – 1650	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subplaty, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1650 – 1680	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), medium dark gray (N4), earthy, blocky to subblocky, locally subplaty, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, pyrite.	
1680 – 1710	100	CLAYSTONE: olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
1710 – 1740	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
1740 – 1770	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), brownish gray (5YR 4/1), massive,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		blocky to subblocky, locally subplaty, hard to moderately hard, irregular fracture. Accessories: calcite, glauconite, bentonite, coal.	
1770 – 1800	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subplaty, locally subtabular, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), brownish gray (5YR 4/1), massive, blocky to subplaty, hard to moderately hard, irregular fracture. Accessories: calcite, bentonite.	
1800 – 1830	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous to slightly calcareous in part. Accessories: calcite, dolomite, coal.	
1830 – 1860	100 Tr Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, very slightly calcareous. SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), brownish gray (5YR 4/1), massive, blocky to subplaty, hard to moderately hard, irregular fracture. Accessories: calcite, bentonite, coal.	
1860 – 1890	80 10 10 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, sublaminae in part, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, very slightly calcareous. SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), brownish gray (5YR 4/1), massive, blocky to subblocky, locally subplaty, 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.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1890 – 1920	80	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally platy, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, very slightly calcareous.	
	20	DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), massive, blocky to subplaty, hard to moderately hard, irregular fracture.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
1920 – 1950	70	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous in part, non calcareous to very slightly calcareous.	
	20	DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), massive, blocky to subplaty, hard to moderately hard, irregular fracture.	
	10	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, bentonite.	
1950 – 1980	90	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous in part, non calcareous to very slightly calcareous.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), massive, blocky to subplaty, hard to moderately hard, irregular fracture.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
1980 – 2010	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous in part, non calcareous to very slightly calcareous.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), massive, blocky to subplaty, hard to moderately hard, irregular fracture. Accessories: calcite.	
2010 – 2024	90	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally olive black (5Y 2/1), locally earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, very slightly calcareous.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), occasionally dark yellowish brown (10YR 4/2), massive, blocky to subblocky, locally subplaty, hard to moderately hard, irregular fracture.	
	Tr	SANDSTONE: medium dark gray (N4), medium gray (N5), very fine to fine quartz grain, hyaline, subangular, well sorted, locally argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, with dark and green minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, limestone, microfossils, bentonite.	
2024 – 2040	100	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subplaty, very occasionally subtabular, moderately firm to moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 30% CEMENT AND TRACES OF SHEAVING METAL.	
2040 – 2070	100	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally tabular, occasionally sublaminal, moderately firm to moderately soft, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 30% CEMENT.	
2070 – 2100	90	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally tabular, occasionally sublaminal, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, subblocky, moderately hard to hard, massive, with dark lithic minerals inclusion. Accessories: calcite.	
TEREBRATULA Mbr. (TALARA FM.) TOP. AT 2117.00 ft. MD (RT); 1850.61 ft. TVD (RT)			
2100 – 2130	80	CLAYSTONE: olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, very occasionally tabular, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	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, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, subblocky, moderately hard to hard, massive, with dark lithic minerals inclusion. Accessories: calcite.	
2130 – 2160	60	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	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, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. Accessories: calcite, coal.	
2160 – 2190	50	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	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, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. Accessories: calcite, coal.	
2190 – 2220	70	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	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, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2220 – 2250	90	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	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, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. Accessories: calcite, coal.	
2250 – 2280	100	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	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, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
2280 – 2310	90	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, moderately firm to moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion.	
	Tr	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, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
2310 – 2340	70	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	Tr	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion.	
	Tr	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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2340 – 2370	50	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10 10	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, with dark lithic minerals inclusion. 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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite, microfossils.	
2370 – 2400	90 10 Tr	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, irregular fracture, with dark lithic minerals inclusion. 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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
2400 – 2430	80 10 10	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, 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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, irregular fracture, with dark lithic minerals inclusion. Accessories: calcite, coal, pyrite.	
2430 – 2460	80 10 10	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, 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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, dolomite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2460 – 2490	50	CLAYSTONE: olive black (5Y 2/1), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, subblocky to blocky, locally subtabular, moderately firm to firm, locally moderately soft, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	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 friable, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive, irregular fracture, with dark lithic minerals inclusion. Accessories: calcite, dolomite, coal, pyrite.	
2490 – 2520	70	SAND: white (N9), 60% medium, 20% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, poor sorted.	5
	20	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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. Fluorescence: NVOS, Traces-5% pin point pale yellowish natural fluorescence, very slow, weak, faint, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: dolomite, calcite, pyrite.	
2520 – 2550	60	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.	5
	30	SAND: white (N9), 70% medium to coarse, 30% fine quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	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 in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. Fluorescence: NVOS, Traces-5% pin point pale yellowish natural fluorescence, very slow, weak, faint, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, subblocky, moderately hard, massive,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		irregular fracture, with dark lithic minerals inclusion. Accessories: calcite, pyrite, coal.	
2550 – 2580	40	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	40	SAND: white (N9), 60% fine, 40% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, very slow, weak, faint, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, with dark lithic minerals inclusion. Accessories: calcite, pyrite, coal.	
CHACRA FM. TOP. AT 2585.00 ft. MD (RT); 2099.4 ft. TVD (RT)			
2580 – 2610	80	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, coal.	
2610 – 2640	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous in part.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, coal.	
2640 – 2670	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous in part.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, coal.	
2670 – 2700	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous in part, non calcareous to slightly calcareous in part.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, coal, limestone.	
2700 – 2730	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subtabular, locally subplaty, occasionally sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous to slightly calcareous in part. Accessories: calcite, coal, dolomite, pyrite.	
2730 – 2760	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous to slightly calcareous in part.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2760 – 2790	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: dolomite, calcite, pyrite.	
2790 – 2820	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subtabular, locally sublaminar, occasionally subplaty, moderately firm to firm, locally silty in part, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: dolomite, calcite, pyrite.	
2820 – 2850	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subtabular, locally sublaminar, occasionally subplaty, moderately firm to firm, locally silty in part, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: dolomite, calcite, pyrite.	
2850 – 2880	90 10	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, locally silty in part, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite.	
2880 – 2910	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, locally silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal, dolomite, pyrite.	
2910 – 2940	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, locally silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part. Accessories: calcite, glauconite, coal, dolomite, pyrite.	
2940 – 2970	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, locally silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part. Accessories: calcite, coal, dolomite, pyrite.	
2970 – 3000	100	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, moderately soft, silty in part, micromicaceous, microcarbonaceous, slightly calcareous in part. Accessories: calcite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3000 – 3030	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (N5), earthy, blocky, locally subblocky, very occasionally subtabular, moderately firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, slightly calcareous to very slightly calcareous in part. Accessories: calcite, coal, pyrite.	
3030 – 3060	100	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), occasionally medium gray (N5), earthy, blocky, locally subblocky, moderately firm, occasionally silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: dolomite, calcite, coal, microfossils.	
3060 – 3090	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (N5), earthy, blocky, locally subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
3090 – 3120	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive black (5Y 2/1), occasionally olive gray (N5), earthy, blocky, locally subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: dolomite, calcite, coal, pyrite.	
3120 – 3150	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally olive gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally silty, micromicaceous, microcarbonaceous, very slightly calcareous in part. Accessories: dolomite, calcite, coal.	
3150 – 3180	90	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite.	
3180 – 3210	90	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, very occasionally subtabular, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite.	
3210 – 3240	90	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), occasionally medium gray (N5), earthy, blocky to subblocky, very occasionally subtabular, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite, coal.	
3240 – 3270	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky, locally subblocky, firm to moderately firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: dolomite, calcite, pyrite.	
3270 – 3300	100 Tr	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky, locally subblocky, firm to moderately firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, non calcareous. DOLOMITE: moderately yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, locally subplaty, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite.	
3300 – 3330	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky, locally subblocky, firm to moderately firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: dolomite, calcite, pyrite.	
3330 – 3360	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, amorphous in part, moderately firm to firm, locally moderately soft, locally silty, micromicaceous, microcarbonaceous in part, non calcareous to slightly calcareous in part. Accessories: dolomite, calcite.	
3360 – 3390	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), olive black (5Y 2/1), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, locally silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: dolomite, calcite.	
3390 – 3420	100 Tr	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. 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.	
3420 – 3450	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	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, 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 micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
3480 – 3510	100 Tr 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. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: moderately yellowish brown (10YR 5/4), locally dark yellowish brown (10YR 4/2), earthy, blocky to subblocky, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite.	
3510 – 3540	90 10	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 in part, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
3540 – 3570	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, locally micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3570 – 3600	100	CLAYSTONE: medium dark gray (N4), occasionally olive black (5Y 2/1), dark gray (N3), earthy, locally smooth, blocky to subblocky, locally subtabular, occasionally subplaty, firm to moderately firm, silty in part, locally micromicaceous, microcarbonaceous in part, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, moderately hard, massive, irregular fracture, locally with dark lithic minerals inclusion. Accessories: calcite, pyrite, nodules calcareous.	
3600 – 3630	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally dark gray (N3), earthy to smooth in part, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty in part, locally micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite.	
3630 – 3660	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally dark gray (N3), earthy, occasionally smooth, subblocky to blocky, locally subtabular, occasionally sublaminal, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, subplaty in part, moderately hard, massive, irregular fracture. Accessories: calcite, coal.	
3660 – 3690	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally dark gray (N3), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, subplaty in part, moderately hard, massive, irregular fracture. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3690 – 3720	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), occasionally dark gray (N3), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal.	
3720 – 3750	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), earthy, occasionally smooth, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3750 – 3780	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, smooth in part, subblocky to blocky, locally subtabular to sublaminae, occasionally subplaty, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3780 – 3810	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy to smooth in part, blocky to subplaty, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3810 – 3840	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, amorphous in part, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous in part, very slightly calcareous. Accessories: calcite, dolomite.	
3840 – 3870	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), dark gray (N3), earthy, occasionally smooth, blocky to subtabular, locally sublaminae, subplaty in part, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous in part, very slightly calcareous. Accessories: calcite, dolomite, coal.	
3870 – 3900	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally dark gray (N3), earthy, locally smooth, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty in part, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
3900 – 3930	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subtabular to sublaminar, moderately firm to firm, locally moderately soft, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
3930 – 3960	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, microfossils, coal.	
3960 – 3990	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, microfossils.	
3990 – 4020	100	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), olive black (5Y 2/1), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite.	
4020 – 4050	100	CLAYSTONE: medium dark gray (N4), locally olive black (5Y 2/1), occasionally dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to amorphous, moderately firm to firm, silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite.	
4050 – 4080	100	CLAYSTONE: medium dark gray (N4), occasionally olive black (5Y 2/1), dark gray (N3), earthy, smooth in part, blocky to subtabular, locally subplaty, occasionally sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite.	
4080 – 4110	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
4110 – 4140	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite, microfossils.	
4140 – 4170	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4170 – 4200	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite, coal.	
4200 – 4230	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite, microfossils, coal.	
4230 – 4260	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	
4260 – 4290	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, pyrite, coal, microfossils.	
4290 – 4320	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, subtabular to sublaminar, very occasionally subplaty, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous in part. Accessories: calcite, pyrite, coal, microfossils.	
4320 – 4350	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular to sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, coal, pyrite.	
4350 – 4380	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular to sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, pyrite, microfossils.	
4380 – 4410	Tr	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, occasionally subtabular to sublaminar, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non 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, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4410 – 4440	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), earthy, smooth, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, occasionally soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, microfossils.	
4440 – 4470	100 Tr	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous matrix, calcareous cement, moderately friable to moderately hard, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
4470 – 4500	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, pyrite.	
4500 – 4510	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, occasionally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, microfossils.	
4510 – 4520	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
4520 – 4530	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
4530 – 4540	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
4540 – 4550	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, subblocky to blocky, locally sublaminae, occasionally subtabular to tabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, microfossils.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
4550 – 4560	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, subblocky to blocky, occasionally sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, pyrite.	
4560 – 4570	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally sublaminal, occasionally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, pyrite, dolomite.	
4570 – 4580	100 Tr	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous in part. SILTSTONE: medium gray (N5), locally olive gray (5Y 4/1), earthy, blocky to subblocky, firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: pyrite, dolomite, microfossils.	
4580 – 4590	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally sublaminal to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, occasionally very slightly calcareous. Accessories: calcite, pyrite, dolomite.	
4590 – 4600	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, locally sublaminal to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: pyrite, calcite, dolomite	
4600 – 4610	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, occasionally subtabular to tabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, pyrite, dolomite.	
4610 – 4620	100	CLAYSTONE: olive gray (5Y 4/1), locally medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: dolomite, pyrite.	
4620 – 4630	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, dolomite.	
4630 – 4640	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, amorphous in part, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous to very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		slightly calcareous. Accessories: calcite, dolomite, microfossils.	
4640 – 4650	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, subblocky, locally subtabular to subplaty, occasionally sublaminae, moderately firm to firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4650 – 4660	100 Tr	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, moderately firm to firm, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite, dolomite.	
4660 – 4670	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, microfossils, glauconite.	
4670 – 4680	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, subblocky to blocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal.	
4680 – 4690	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, microfossils.	
4690 – 4700	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4700 – 4710	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4710 – 4720	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subplaty, locally subtabular to sublaminae, amorphous in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, coal.	
4720 – 4730	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4730 – 4740	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite.	
4740 – 4750	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, occasionally with coal inclusions, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite, coal, glauconite, microfossils.	
4750 – 4760	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusions, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4760 – 4770	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to soft, locally moderately firm, silty, occasionally with coal inclusions, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4770 – 4780	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4780 – 4790	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subplaty, locally sublaminae, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. Accessories: calcite, dolomite.	
4790 – 4800	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	part, non calcareous. DOLOMITE: moderately yellowish brown (10YR 5/4), earthy, blocky to subblocky, subplaty in part, moderately hard, massive, irregular fracture. Accessories: calcite.	
4800 – 4810	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4810 – 4820	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subtabular, locally subplaty, amorphous in part, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, dolomite, glauconite.	
4820 – 4830	100	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, amorphous in part, moderately firm to firm, locally moderately soft, silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, dolomite, glauconite.	
4830 – 4840	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, moderately firm to firm, locally moderately soft, silty, micromicaceous, slightly microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4840 – 4850	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with glauconite inclusion, micromicaceous, slightly microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4850 – 4860	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, micromicaceous, slightly microcarbonaceous, non calcareous. Accessories: calcite, dolomite.	
4860 – 4870	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
4870 – 4880	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
4880 – 4890	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, subblocky to blocky, locally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite, glauconite.	
4890 – 4900	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, firm to moderately firm, silty, micromicaceous, slightly microcarbonaceous, non calcareous. Accessories: dolomite, calcite.	
4900 – 4910	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous to slightly calcareous. Accessories: dolomite, calcite.	
4910 – 4920	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, slightly microcarbonaceous, very slightly calcareous. Accessories: dolomite, calcite.	
4920 – 4930	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite, glauconite, dolomite.	
4930 – 4940	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very occasionally with glauconite inclusions, very slightly calcareous. Accessories: glauconite, calcite, dolomite.	
4940 – 4950	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally tabular to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very occasionally with glauconite inclusions, very slightly calcareous. Accessories: calcite, glauconite, dolomite.	
4950 – 4960	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
4960 – 4970	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very occasionally with	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		glauconite inclusions, very slightly calcareous. Accessories: calcite, glauconite, dolomite.	
4970 – 4980	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite, glauconite.	
4980 – 4990	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally tabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, glauconite.	
4990 – 5000	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. Accessories: calcite, dolomite.	
5000 – 5010	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite, dolomite.	
5010 – 5014	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally tabular to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, occasionally micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite, dolomite.	
5014 – 5020	60 20 20	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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally tabular to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, pyrite, slickenside.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5020 – 5030	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally tabular to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 70% CaCo3.	
5030 – 5040	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally tabular to subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 50% CaCo3.	
5040 – 5050	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5050 – 5060	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, 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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5060 – 5070	100 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, 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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCo3.	
5070 – 5080	100 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, 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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCo3.	
5080 – 5090	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	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 consolidated, dirty, microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
RIO BRAVO FM. TOP. AT 5090.00 ft. MD (RT); 3264.43 ft. TVD (RT)			
5090 – 5100	50	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	40	SANDSTONE: light gray (N7), locally 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 inclusions, 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, pyrite.	
5100 – 5110	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	TR
	40	SANDSTONE: light gray (N7), locally 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 inclusions, poor visual porosity. Fluorescence: NVOS, Traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.	
	Tr	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
5110 – 5120	50	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	5
	40	SANDSTONE: light gray (N7), locally 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 inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.	
	10	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
5120 – 5130	60	SANDSTONE: light gray (N7), locally 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 inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.	TR
	40	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
5130 – 5140	60	SANDSTONE: light gray (N7), locally 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, dirty, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.	TR
	20	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
5140 – 5150	40	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	SANDSTONE: light gray (N7), locally 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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
5150 – 5160	40 30 30	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly 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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5160 – 5170	50 30 20	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly 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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5170 – 5180	80 10 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly 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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5180 – 5190	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately 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, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5190 – 5200	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately 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, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5200 – 5210	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately 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, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5210 – 5220	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, glauconite.	
5220 – 5230	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, glauconite.	
5230 – 5240	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, glauconite.	
5240 – 5250	70	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sorted, argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5250 – 5260	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	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, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5260 – 5270	40	SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	5
	30	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	20	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: shell fragments, calcite, pyrite.	
5270 – 5280	30	SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	TR
	30	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, very slightly calcareous.	
	30	SANDSTONE: light gray (N7), locally medium light gray (N6), very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: shell fragments, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5280 – 5290	40 30 20 10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point dull yellow natural fluorescence, crush, weak, faint, even, pale yellow cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. VPOS. CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: shell fragments, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	TR
5290 – 5300	40 40 10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: shell fragments, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 50% CaCo3.	
5300 – 5310	40	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: shell fragments, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5310 – 5320	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
5320 – 5330	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5330 – 5340	80 10 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5340 – 5350	40 40 10 10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo₃.	
5350 – 5360	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5360 – 5370	60	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCo3.	
5370 – 5380	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish 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, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCo3.	
5380 – 5390	70	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCo3.	
5390 – 5400	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5400 – 5410	100	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5410 – 5420	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), earthy, blocky to subtabular, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, locally very slightly calcareous.	
	40	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 visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: pyrite, calcite, shell fragment.	
5420 – 5430	60	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	TR
	20	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.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidate, occasionally pyritized, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, Traces pin point pale yellow natural fluorescence, very slow, weak, pale, even, pale yellow cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: pyrite, calcite, shell fragment.	
5430 – 5440	80	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, occasionally pyritized, with dark and green minerals inclusions, poor visual porosity.	
	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. Accessories: pyrite, calcite.	
5440 – 5450	80	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	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. Accessories: pyrite, calcite.	
5450 – 5460	90	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	CLAYSTONE: medium dark gray (N4), occasionally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subtabular to sublaminar, moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
5460 – 5470	90 10 Tr	SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, tight in part, with dark and green minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), occasionally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, locally sublaminar, amorphous in part, moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite.	
5470 – 5480	40 40 20	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, locally silty, micromicaceous, microcarbonaceous in part, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. 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, tight in part, occasionally pyritized, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, shell fragments.	
5480 – 5490	80 10 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. 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, tight in part, occasionally microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. No Oil Show. 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. Accessories: pyrite, calcite.	
5490 – 5500	50	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, tight in part, occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10 10	microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. No Oil Show. 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 in part, non calcareous. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: pyrite, calcite, bentonite.	
5500 – 5510	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: pyrite, calcite, bentonite.	
5510 – 5520	70 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subtabular, locally sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite, shell fragment.	
5520 – 5530	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: pyrite, calcite, bentonite.	
5530 – 5540	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subplaty, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: pyrite, calcite.	
5540 – 5550	40	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,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, locally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: pyrite, calcite, shell fragments.	
5550 – 5560	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, amorphous in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments.	
5560 – 5570	60	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 friable to moderately consolidated, occasionally microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite.	
5570 – 5580	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, locally calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, shell fragments.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5580 – 5590	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal.	
5590 – 5600	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SILTSTONE: medium gray (N5), locally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal.	
5600 – 5610	60	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to friable, locally moderately consolidated, microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	5
	30	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	
5610 – 5620	70	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.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SANDSTONE: medium light gray (N6), medium gray (N5), light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to friable, locally moderately consolidated, occasionally microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
5620 – 5630	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subtabular, locally subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous.	
	40	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to friable, locally moderately consolidated, locally microcarbonaceous, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
5630 – 5640	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subtabular, locally subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous.	
	20	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5640 – 5650	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous in part, 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 friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5650 – 5660	80	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	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 friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5660 – 5670	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, occasionally subplaty, firm to moderately firm, silty in part, micromicaceous, locally 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 friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5670 – 5680	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to tabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5680 – 5690	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, coal.	
5690 – 5700	50	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, occasionally smooth, blocky to subblocky, locally subtabular, sublaminar in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments.	
5700 – 5710	80	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	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 friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5710 – 5720	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, micromicaceous, locally microcarbonaceous in part, 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, locally argillaceous matrix, locally calcareous cement, moderately consolidated, dirty, tight in part, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5720 – 5730	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, occasionally smooth, blocky to subtabular, locally subplaty to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	Tr	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, tight in part, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
5730 – 5740	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy to smooth in part, blocky to subplaty, locally subtabular to sublaminar, amorphous in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite.	
5740 – 5750	50	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 80% very fine to fine, 20% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments.	
5750 – 5760	60	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	40	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminar, firm to moderately firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
5760 – 5770	50	SAND: white (N9), 50% medium, 30% fine, 20% coarse, traces very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark and green lithics.	
	30	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally tabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, pyrite, shell fragments.	
5770 – 5780	40	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	40	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments.	
5780 – 5790	100	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5790 – 5800	50	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 70% fine, 30% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sorted. Accessories: calcite, pyrite, shell fragments.	
5800 – 5810	70 30 Tr	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 40% CaCO ₃ .	
5810 – 5820	70 30	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, shell fragments.	
5820 – 5830	70 20 10	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous. Accessories: calcite, coal, shell fragments.	
5830 – 5840	70 30	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	porosity. No Oil Show. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, shell fragments.	
5840 – 5850	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
5850 – 5860	60	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous in part, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, 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, pyrite, coal.	
5860 – 5870	40	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	
5870 – 5880	60	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 20	fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 30% CaCO₃.	
5880 – 5890	60 30 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO₃.	TR
5890 – 5900	70 30 Tr	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO₃.	TR
5900 – 5910	70 30	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO₃.	
5910 – 5920	80 20 Tr	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO₃.	TR
5920 – 5930	80 20 Tr	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	TR
5930 – 5940	60 30	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline,	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
5940 – 5950	70 20 10	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	10
5950 – 5953	60 30 10	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	15
5953 – 5960	60	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite.	
5960 – 5970	50 40 10	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white 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, fair sorted. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	TR
5970 – 5980	60 30 10	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	TR
5980 – 5990	40 30	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
5990 – 6000	80 20 Tr	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	TR
6000 – 6010	40 30 30	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% medium, 20% fine, 20% coarse, traces very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	TR
6010 – 6020	60 20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. Accessories: calcite, pyrite, shell fragments.	
6020 – 6030	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.	
	20	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. Accessories: calcite, pyrite.	
6030 – 6040	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.	
	20	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. Accessories: calcite, pyrite.	
6040 – 6050	50	SANDSTONE: medium light gray (N6), light gray (N7), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	
RIO BRAVO SHALY TOP. AT 6052.00 ft. MD (RT); 3853.66 ft. TVD (RT)			
6050 – 6060	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	microcarbonaceous, non calcareous to slightly calcareous. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% medium, 30% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted, with dark lithic. Accessories: calcite, pyrite.	
6060 – 6070	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. Accessories: calcite, pyrite.	
6070 – 6080	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6080 – 6090	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6090 – 6100	60	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3).	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite.	
6100 – 6110	70	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, pyrite.	
6110 – 6120	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	30	SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6120 – 6130	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	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.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6130 – 6140	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	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.	
	20	SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6140 – 6150	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	30	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.	
	20	SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6150 – 6160	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	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.	
	10	SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6160 – 6170	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part.	
	10	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.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
6170 – 6180	100 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. 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: calcite, pyrite.	
6180 – 6190	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. SANDSTONE: medium light gray (N6), light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, shell fragments.	TR
6190 – 6200	70 30	SANDSTONE: very light gray (N8), locally light gray (N6), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, shell fragments.	10
6200 – 6210	90	SANDSTONE: very light gray (N8), locally light gray (N6), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, with shell fragments inclusion, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence,	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, shell fragments.	
6210 – 6220	90 10	SANDSTONE: very light gray (N8), locally light gray (N6), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, with shell fragments inclusion, moderately friable to friable, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subtabular, locally subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, shell fragments.	5
6220 – 6230	90 10	SANDSTONE: very light gray (N8), light gray (N6), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to slightly calcareous in part. Accessories: calcite, shell fragments.	5
6230 – 6240	100 Tr	SANDSTONE: medium light gray (N6), locally light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	5
6240 – 6250	80	SANDSTONE: medium light gray (N6), locally light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
6250 – 6260	90 10	SANDSTONE: medium light gray (N6), locally light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, 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. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite.	
6260 – 6270	80 20	SANDSTONE: medium light gray (N6), locally light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, 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. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite.	
6270 – 6280	60 40	SANDSTONE: medium light gray (N6), light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, 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. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite.	
6280 – 6290	40 30	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable, locally moderately consolidated, with dark	15

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 15% pin point to spotty pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, slickenside.	
6290 – 6300	50 30 20	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, shell fragments.	5
6300 – 6310	60 30 10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH 40% CaCO ₃ & WALLNUT SHEL.	TR
6310 – 6320	60	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO₃ & WALLNUT SHEL.	
6320 – 6330	70 20 10	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO₃ & WALLNUT SHEL.	
6330 – 6340	60 40 Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO₃ & WALLNUT SHEL.	
6340 – 6350	40 30	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO₃ & WALLNUT SHEL.	
6350 – 6360	40 30 30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	5
6360 – 6370	60 30 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	TR
6370 – 6380	50 50	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite, coal.	
6380 – 6390	80 20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	5
6390 – 6400	80 20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	TR
6400 – 6410	70 20 10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
6410 – 6420	60 30 10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	5
6420 – 6430	60 20 20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white 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, subangular to subrounded, fair sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	5
6430 – 6440	50 30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, shell fragments, slickenside.	
6440 – 6450	70	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, shell fragments.	
6450 – 6460	70	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments, coal.	
6460 – 6470	80	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments, coal.	
6470 – 6480	70	CLAYSTONE: medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, shell fragments, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6480 – 6490	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6490 – 6500	60	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
6500 – 6510	50	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments.	
PALEGREDA FM. TOP. AT 6510.00 ft. MD (RT); 4189.59 ft. TVD (RT)			
6510 – 6520	60	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6520 – 6530	60	CLAYSTONE: dark gray (N3), medium dark gray (N4), locally grayish black (N2), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity.	
	Tr	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
6530 – 6540	90	CLAYSTONE: dark gray (N3), medium dark gray (N4), locally grayish black (N2), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT SHEL.	
6540 – 6550	90	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT SHEL.	
6550 – 6560	80	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT SHEL.	
6560 – 6570	90 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), 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. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO ₃ & WALLNUT SHEL.	
6570 – 6580	60 40	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), 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. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO ₃ & WALLNUT SHEL.	
6580 – 6590	80 20	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subtabular, locally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
6590 – 6600	90 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subtabular, locally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
6600 – 6610	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	subblocky, locally subtabular to sublaminae, firm to moderately 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, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
6610 – 6620	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT SHEL.	
6620 – 6630	70	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), occasionally dark gray (N3), medium gray (N5), earthy, locally smooth, blocky to subplaty, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with glauconite inclusion, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT SHEL.	
6630 – 6640	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ & WALLNUT	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		SHEL.	
6640 – 6650	80 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal. NOTE: SAMPLE CONTAMINATED WITH 10% CaCO₃ & WALLNUT SHEL.	
6650 – 6660	90 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
6660 – 6670	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
6670 – 6680	80 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, occasionally smooth, blocky to subtabular, locally sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), 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 friable to moderately consolidated, locally dirty, tight in part, with dark and greenish minerals inclusions, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		porosity. No Oil Show. Accessories: calcite, coal.	
6680 – 6690	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, occasionally smooth, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), 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 friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
6690 – 6700	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), 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 friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
6700 – 6710	70	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), occasionally dark gray (N3), earthy, locally smooth, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	5
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal.	
6710 – 6720	70	CLAYSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), occasionally dark gray (N3), earthy, locally smooth, blocky to subblocky, locally subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	5
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal.	
6720 – 6730	50 50	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), olive gray (5Y 4/1), occasionally dark gray (N3), earthy, locally smooth, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite.	TR
6730 – 6740	70 30	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), dark gray (N3), occasionally olive gray (5Y 4/1), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), 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 friable to moderately consolidated, dirty in part, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6740 – 6750	70 30	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite.	
6750 – 6760	80	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite.	
6760 – 6770	60 40	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally olive gray (5Y 4/1), dark gray (N3), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, locally moderately friable, locally dirty, tight in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, pyrite.	
6770 – 6780	80 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3) occasionally olive gray (5Y 4/1), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, locally dirty, tight in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite.	
6780 – 6790	70 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3) occasionally olive gray (5Y 4/1), earthy, smooth in part, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, locally dirty, tight in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6790 – 6800	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3) occasionally olive gray (5Y 4/1), earthy, smooth in part, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, locally dirty, tight in part, occasionally microcarbonaceous, with dark and greenish minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6800 – 6810	80	CLAYSTONE: medium dark gray (N4), occasionally dark gray (N3), earthy, blocky to subplaty, locally subtabular, moderately firm, silty, locally with inclusion of coal veins, micromicaceous, microcarbonaceous, non calcareous 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. Accessories: calcite, coal.	
6810 – 6820	70	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.	
	30	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.	
	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.	
6820 – 6830	60	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.	
	40	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: calcite, coal.	
6830 – 6840	60	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,	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 Tr	moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white 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 subblocky, locally subtabular, sublaminae in part, firm to moderately firm, silty in part, occasionally with inclusion of coal veins, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
6840 – 6850	60 40 Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, sublaminae in part, firm to moderately firm, silty in part, occasionally with inclusion of coal veins, micromicaceous, microcarbonaceous, non calcareous to 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, locally calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	5
6850 – 6860	60 40 Tr	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white 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 subblocky, locally subtabular, sublaminae in part, firm to moderately firm, silty in part, occasionally with inclusion of coal veins, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	5
6860 – 6870	60	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with inclusion of coal veins, micromicaceous, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6870 – 6880	50	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous.	TR
	50	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite.	
6880 – 6890	50	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous.	
	50	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6890 – 6900	60	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, amorphous in part, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, coal.	
6900 – 6910	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite.	
6910 – 6920	70	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.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), locally light gray (N7), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to 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. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ .	
6920 – 6930	70	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 friable to 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, coal.	
6930 – 6940	70	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, locally moderately friable, with dark minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, dolomite, coal.	
6940 – 6950	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, locally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	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, locally calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite, dolomite, shell fragments.	
6950 – 6960	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, locally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	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, locally calcareous cement, moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil show. Accessories: calcite.	
6960 – 6970	70	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite.	
MOGOLLON FM. TOP. AT 6978.00 ft. MD (RT); 4568.76 ft. TVD (RT)			
6970 – 6980	80	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subtabular, locally sublaminar, subplaty in part, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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, moderately firm, grading to very fine sandstone, micromicaceous, microcarbonaceous, very slightly calcareous. Accessories: calcite.	
6980 – 6990	50	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, sublaminar in part, moderately firm, occasionally firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments.	
6990 – 7000	60	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to 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.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments.	
7000 – 7010	70	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, abundant calcareous cement, moderately friable to moderately consolidated, occasionally with shell fragments inclusion, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS.	TR
	20	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subplaty, locally subtabular to amorphous, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, pyrite.	
7010 – 7020	70	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	fluorescence, crush, weak, pale, even, pale 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, fair sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
7020 – 7030	60 20 20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, moderately friable to friable, locally moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, pyrite.	TR
7030 – 7040	50 40 10	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, pale 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 medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, pyrite.	TR
7040 – 7050	60 30	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	moderately friable to moderately consolidated, with dark and green 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. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, pyrite.	
7050 – 7060	60 40 Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), 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. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subplaty, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous in part, 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. Accessories: calcite.	
7060 – 7070	80 20 Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), 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. CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subplaty, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. SAND: white (N9), very fine to fine quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7070 – 7080	60 40	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally 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, 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, pyrite, shell fragments.	
7080 – 7090	80 20	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally 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, subrounded,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		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, pyrite.	
7090 – 7100	40 30 30	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
7100 – 7110	50 30 20	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
7110 – 7120	60 30 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, shell fragments.	
7120 – 7130	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite.	
7130 – 7140	80 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, 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.	
7140 – 7150	40 40 20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments.	
7150 – 7160	60 40 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subtabular, locally sublaminae, amorphous in part, moderately firm to firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 90% fine, 10% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7160 – 7170	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subtabular, locally sublaminae, amorphous in part, moderately firm to firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 Tr	micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark and green minerals inclusions, 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, pyrite, shell fragments.	
7170 – 7180	40 30 30	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark and green minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments, coal.	
7180 – 7190	60 30 10	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite, shell fragments, coal.	5
7190 – 7200	70	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	residual ring at natural light. POS. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments, coal.	
7200 – 7210	60 20 20	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	10
7210 – 7220	60 40 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to friable, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	5
7220 – 7230	50	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white	5

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 10	cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	
7230 – 7240	50 30 20	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 15% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	15
7240 – 7250	60 30 10	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS. SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	25
7250 – 7260	50 40	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% pin point-spotty pale yellowish natural	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7260 – 7270	70	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS.	30
	20	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7270 – 7280	60	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS.	25
	30	SAND: white (N9), 70% medium, 20% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7280 – 7290	60	SAND: white (N9), 60% medium, 20% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	35
	30	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	poor visual porosity. Fluorescence: NVOS, 35% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7290 – 7300	70 30 Tr	SAND: white (N9), 60% medium, 30% coarse, 10% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 35% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	35
7300 – 7310	80 20 Tr	SAND: white (N9), 60% medium, 30% coarse, 10% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark lithic. SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. FOS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	40
7310 – 7320	70	SAND: white (N9), 50% medium, 30% coarse, 20% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, with dark	35

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	lithic. SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 35% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS.	
	Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7320 – 7330	70	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS.	25
	20	SAND: white (N9), 60% medium, 30% coarse, 10% fine quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7330 – 7340	70	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white 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 medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, shell fragments.	
7340 – 7350	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity.	
	Tr	Fluorescence: NVOS, 5% pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white 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, fair sorted. Accessories: calcite, pyrite, shell fragments.	
7350 – 7360	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity.	
	Tr	Fluorescence: NVOS, traces pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white 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, fair sorted. Accessories: calcite, pyrite, shell fragments.	
7360 – 7367	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	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 friable to moderately consolidated, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	Fluorescence: NVOS, traces pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white 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, fair sorted. Accessories: calcite, pyrite, shell fragments.	
7367 – 7380	70 30 Tr	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 friable to moderately consolidated, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, shell fragments.	
7380 – 7390	60 20 20	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, shell fragments.	
7390 – 7400	60 30	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. Fluorescence: NVOS, traces pin point-spotty pale yellowish natural fluorescence, slow-fast, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminal, subplaty in part, firm to moderately	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7400 – 7410	50	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	
7410 – 7420	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite.	
7420 – 7430	70	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7430 – 7440	60	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, coal.	
7440 – 7450	60	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. Fluorescence: NVOS, 15% pin point-spotty pale yellowish natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	15
	20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark lithic. Accessories: calcite, pyrite, coal.	
7450 – 7460	70	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, calcareous cement, moderately friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. Fluorescence: NVOS, 20% pin point-spotty pale yellowish natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	20
	20	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark lithic.	
	10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, coal.	
7460 – 7470	60 30 10	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, calcareous cement, moderately friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, occasionally shell fragments inclusion, poor visual porosity. Fluorescence: NVOS, 5% pin point-spotty pale yellowish natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark lithic. Accessories: calcite, pyrite, coal.	5
7470 – 7480	60 40 Tr	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments, coal.	
7480 – 7490	60 30 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to 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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		translucent, subangular to subrounded, well sorted. Accessories: calcite, coal.	
7490 – 7500	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, firm to 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 friable to moderately consolidated, dirty, locally microcarbonaceous, 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, micromicaceous, microcarbonaceous, grading to very fine sandstone. Accessories: calcite, coal.	
7500 – 7510	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	20	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 friable to moderately consolidated, dirty, locally microcarbonaceous, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
7510 – 7520	90	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subplaty, locally subtabular to sublaminae, firm to 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), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, occasionally microcarbonaceous, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
7520 – 7530	80	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subtabular, locally sublaminae, firm to moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	20	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, occasionally with shell fragments inclusion, moderately friable to moderately	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, shell fragments.	
7530 – 7540	60	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subtabular, locally sublaminal, firm to moderately firm, silty in part, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), light gray (N7), locally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, shell fragments.	
7540 – 7550	50	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, calcareous cement, occasionally shell fragments inclusion, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white 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, poor sorted, locally with dark lithic.	
	20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
7550 – 7560	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	5
	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, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point to spotty pale yellow natural fluorescence, crush to slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	30	SAND: white (N9), 50% fine, 30% medium, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark lithic.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, shell fragments, pyrite.	
7560 – 7570	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	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, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% fine, 30% medium, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark lithic. Accessories: calcite, pyrite.	
7570 – 7580	70	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, scarce argillaceous matrix, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments.	
7580 – 7590	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, amorphous in part, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	20	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, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments.	
7590 – 7600	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, sublaminar in part, firm to moderately firm, silty, occasionally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, calcareous cement, moderately friable to moderately consolidated, occasionally microcarbonaceous, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments, coal.	
7600 – 7610	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subplaty, subtabular in part, firm to moderately firm, silty, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	20	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, calcareous cement, moderately friable to moderately consolidated, occasionally microcarbonaceous, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments, coal.	
7610 – 7620	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, occasionally with coal veins inclusion, 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, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
7620 – 7630	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, occasionally with coal veins inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	20	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 friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
7630 – 7640	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminar to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments.	
7640 – 7650	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, sublaminae in part, moderately firm, occasionally firm, silty, 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, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7650 – 7660	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm, occasionally firm, silty, 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, argillaceous matrix in part, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7660 – 7670	50	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments.	
7670 – 7680	40	SAND: white (N9), 70% fine, 30% medium, occasionally coarse quartz grain, hyaline, translucent, subangular to subrounded, fair	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	sorted. 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, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, coal.	
7680 – 7690	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminae, occasionally subplaty, firm to 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, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7690 – 7700	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subplaty, locally subtabular to amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	20	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, 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.	
7700 – 7710	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	10	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, 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, dolomite, coal.	
7710 – 7720	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to amorphous, firm to moderately firm, silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, 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.	
7720 – 7730	60 40	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, 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.	
7730 – 7740	70 30 Tr	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7740 – 7750	70 30 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7750 – 7760	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 Tr	locally microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subrounded, well sorted. Accessories: calcite, shell fragments, coal.	
7760 – 7770	50 30 20	SAND: white (N9), 60% fine, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), occasionally medium gray (N5), fine, traces medium quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminae to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments. NOTE: SAMPLE CONTAMINATED WITH 20% CaCO ₃ .	
7770 – 7780	70 20 10	SAND: white (N9), 40% fine, 30% medium, 20% coarse, 10% very coarse to conglomerate quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, poor sorted. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush-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), medium gray (N5), locally dark gray (N3), earthy, blocky to subtabular, locally sublaminae to subplaty, firm to moderately firm, locally silty, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	5
7780 – 7790	60 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to sublaminae, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, abundant calcareous cement,	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	locally with shell fragments inclusion, moderately friable to moderately consolidated, occasionally pyritized, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush-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, 30% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, poor sorted. Accessories: calcite, pyrite, shell fragments.	
7790 – 7800	70 30 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush-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), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments.	TR
7800 – 7810	90 10 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. 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, calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, shell fragments.	
7810 – 7820	70 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous to very slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally medium gray (N5), occasionally very light gray (N8), very fine to fine quartz	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, shell fragments.	
7820 – 7830	90 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, occasionally subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous in part, non calcareous to very slightly 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, 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, pyrite, coal.	
7830 – 7840	90 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subplaty, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, shell fragments.	
7840 – 7850	90 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, occasionally smooth, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
7850 – 7860	80 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		calcareous cement, moderately friable to moderately consolidated, occasionally microcarbonaceous, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
7860 – 7870	80 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal.	
7870 – 7880	60 30 10	SANDSTONE: very light gray (N8), light gray (N7), occasionally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% pin point-spotty pale yellow natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. P-FOS. SAND: white (N9), 40% fine, 40% medium, 20% coarse, traces very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	25
7880 – 7890	60 30 10	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine, traces medium quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 15% pin point-Spotty pale yellow natural fluorescence, slow-fast, weak, pale, even-streaming, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminar, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	15

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7890 – 7900	70	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	5
	20	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, 5% pin point-spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7900 – 7910	50	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	5
	40	Fluorescence: NVOS, 5% pin point-spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments, coal.	
7910 – 7920	50	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	TR
	40	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, traces pin point-spotty pale yellow natural fluorescence, slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7920 – 7930	50	SANDSTONE: very light gray (N8), light gray (N7), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, shell fragments.	
7930 – 7940	50	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	50	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite.	
7940 – 7950	60	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, pyrite, coal.	
7950 – 7960	70	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7960 – 7970	50	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	TR
	30	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
7970 – 7980	70	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, abundant calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	5
	30	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	
7980 – 7990	60	SAND: white (N9), 50% fine, 50% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	20
	40	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		non calcareous. Accessories: calcite, pyrite, coal.	
7990 – 8000	70 30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	TR
8000 – 8010	60 40	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
8010 – 8020	70 30	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
8020 – 8024	90 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite.	
8024 – 8030	80 10 10	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, blocky to subplaty, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite, pyrite, dolomite.	
8030 – 8040	90 10 Tr	CLAYSTONE: medium dark gray (N4), locally dark gray (N3), occasionally medium gray (N5), brownish gray (5YR 4/1), earthy, smooth in part, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite.	
8040 – 8050	100 Tr Tr	CLAYSTONE: medium dark gray (N4), locally medium gray (N5), occasionally dark gray (N3), brownish gray (5YR 4/1), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine, locally fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm, micromicaceous, grading to very fine sandstone, slightly calcareous in part. Accessories: calcite, coal.	
8050 – 8060	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, locally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, shell fragments, pyrite.	
8060 – 8070	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), slightly earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: light gray (N7), medium light gray (N6), locally very light gray (N8), very fine to fine quartz grain, hyaline, subrounded, well sorted, locally argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, 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, shell fragments, pyrite.	
8070 – 8080	80	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy in part, blocky to subtabular, locally subplaty, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite.	
8080 – 8090	60	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	40	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix in part, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, crush-very slow, weak, pale, even, pale yellowish white cut fluorescence, pale yellow residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, shell fragments, pyrite.	
8090 – 8100	60	SAND: white (N9), 50% medium, 30% fine, 20% coarse, traces very coarse quartz grain, hyaline, translucent, subangular to subrounded, occasionally angular, poor sorted.	5
	20	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	argillaceous matrix in part, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subtabular, locally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, pyrite.	
8100 – 8110	50 30 20	SANDSTONE: light gray (N7), very light gray (N8), locally medium light gray (N6), fine quartz grain, hyaline, subrounded, well sorted, scarce argillaceous matrix, abundant calcareous cement, occasionally with shell fragments inclusion, moderately friable, moderately consolidated in part, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 5% pin point pale yellow natural fluorescence, crush-slow, weak, pale, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% medium, 40% fine, 10% coarse, traces very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, subplaty in part, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, shell fragments, pyrite, coal.	5
8110 – 8120	80 20 Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, pyrite.	
8120 – 8130	80 20	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, locally calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 100% fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, coal, abundant pyrite.	
8130 – 8140	70 30	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty in part, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, abundant pyrite.	
8140 – 8150	100 Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, 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, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
8150 – 8160	100 Tr	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, 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, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
8160 – 8170	90 10	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, 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, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
8170 – 8180	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), locally medium gray (N5), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally medium gray (N5), very fine to fine quartz grain, hyaline, subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, coal.	
FINAL TOTAL DEPTH 8180.0 ft. MD(RT); 5605.29 ft. TVD(RT)			

WELL: LO6-34D

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
TALARA SANDSTONE Mbr.							
456	2.8	0.0	0	0	0	0	0
457	3.2	0.0	0	0	0	0	0
458	4.8	0.0	0	0	0	0	0
459	7.5	0.0	0	0	0	0	0
460	7.5	0.0	0	0	0	0	0
461	7.5	0.0	0	0	0	0	0
462	6.4	0.0	0	0	0	0	0
463	11.4	0.0	0	0	0	0	0
464	9.2	0.0	0	0	0	0	0
465	10.1	0.0	0	0	0	0	0
466	9.4	0.0	0	0	0	0	0
467	4.5	0.0	0	0	0	0	0
468	9.2	0.0	0	0	0	0	0
469	10.1	0.0	0	0	0	0	0
470	9.4	0.0	0	0	0	0	0
471	4.5	0.0	0	0	0	0	0
472	5.4	0.0	0	0	0	0	0
473	16.6	0.0	0	0	0	0	0
474	19.3	0.0	0	0	0	0	0
475	13.9	0.0	0	0	0	0	0
476	0	0.0	0	0	0	0	0
477	7	0.0	0	0	0	0	0
478	6.5	0.0	0	0	0	0	0
479	6.3	0.0	0	0	0	0	0
480	5.2	0.0	0	0	0	0	0
481	4.7	0.0	0	0	0	0	0
482	5.2	0.0	0	0	0	0	0
483	4.2	0.0	0	0	0	0	0
484	3.6	0.0	0	0	0	0	0
485	3.6	0.0	0	0	0	0	0
486	7.6	0.0	0	0	0	0	0
487	4.6	0.0	0	0	0	0	0
488	2.9	0.0	0	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
489	3.2	0.0	0	0	0	0	0
490	3.4	0.0	0	0	0	0	0
491	6.1	0.1	6	1	0	0	0
492	19.4	0.2	6	4	4	0	0
493	24.4	0.1	6	1	0	0	0
494	17.3	0.1	5	2	0	0	0
495	19.1	0.1	4	1	0	0	0
496	15.1	0.1	4	1	0	0	0
497	18.8	0.1	4	3	0	0	0
498	20.9	0.1	8	2	0	0	0
499	13.5	0.1	5	2	0	0	0
500	27.1	0.1	10	2	0	0	0
501	11	0.0	2	1	0	0	0
502	9.9	0.1	9	3	0	0	0
503	5.6	0.1	5	1	0	0	0
504	4.6	0.1	10	1	0	0	0
505	7.7	0.1	9	1	0	0	0
506	9.3	0.1	9	1	0	0	0
507	9.3	0.1	9	1	0	0	0
508	8.4	0.0	4	0	0	0	0
509	7.8	0.0	4	0	0	0	0
510	8.5	0.1	5	1	0	0	0
511	9.3	0.2	11	3	0	0	0
512	19.3	0.3	27	1	0	0	0
513	22.7	0.3	32	1	0	0	0
514	26.9	0.3	26	1	0	0	0
515	17.6	0.3	30	0	0	0	0
516	10.1	0.3	31	1	0	0	0
517	31.3	0.4	40	1	0	0	0
518	30.2	0.6	52	2	0	0	0
519	29	0.7	65	2	0	0	0
520	23.9	0.6	60	1	0	0	0
521	27.2	0.6	60	1	0	0	0
522	24.4	0.6	60	1	0	0	0
523	23.7	0.6	60	1	0	0	0
524	22.7	0.6	62	1	0	0	0
525	21.9	0.7	65	1	0	0	0
526	25.8	0.7	69	2	0	0	0
527	34.3	0.7	69	2	0	0	0
528	21.7	0.7	69	1	0	0	0
529	26.8	0.9	80	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
530	33.5	0.9	83	3	0	0	0
531	27.6	0.9	86	3	0	0	0
532	17.8	0.9	90	1	0	0	0
533	31.5	1.0	94	1	0	0	0
534	35.6	0.9	84	2	0	0	0
535	34.2	1.0	94	2	0	0	0
536	10.9	1.0	94	1	0	0	0
537	49.6	0.8	83	1	0	0	0
538	56.7	0.9	88	1	0	0	0
539	72	0.9	88	2	0	0	0
540	56.8	0.9	88	2	0	0	0
541	50.6	0.9	88	1	0	0	0
542	49.3	0.9	89	2	0	0	0
543	34.8	1.1	111	2	0	0	0
544	27.1	1.1	111	1	0	0	0
545	37.4	1.1	104	1	0	0	0
546	23.7	0.9	93	1	0	0	0
547	20	1.0	99	1	0	0	0
548	31.6	1.2	116	1	0	0	0
549	22.6	1.3	126	2	0	0	0
550	53.5	1.4	132	3	0	0	0
551	17.3	1.3	121	3	0	0	0
552	13.5	1.2	122	0	0	0	0
553	31.1	1.2	122	0	0	0	0
554	54.5	1.3	125	4	0	0	0
555	36.6	1.3	118	4	0	0	0
556	50.9	1.2	118	1	0	0	0
557	69.9	1.4	134	2	0	0	0
558	67.6	1.6	156	2	0	0	0
559	55.6	1.6	158	2	0	0	0
560	67.6	1.6	155	4	0	0	0
561	33.3	1.2	115	4	0	0	0
562	49	1.0	99	2	0	0	0
563	10.7	0.3	31	1	0	0	0
564	12.4	0.5	42	4	0	0	0
565	11.8	0.4	39	2	0	0	0
566	12.6	0.7	65	2	0	0	0
567	9.8	0.6	60	2	0	0	0
568	9.8	0.6	55	1	0	0	0
569	5.8	0.6	52	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
570	17	0.4	41	1	0	0	0
571	33.7	0.5	46	1	0	0	0
572	16.8	0.5	48	3	0	0	0
573	39.9	0.5	48	1	0	0	0
574	36.6	0.5	44	1	0	0	0
575	31.1	0.5	50	1	0	0	0
576	31.1	0.5	50	2	0	0	0
577	37.8	0.5	47	1	0	0	0
578	42.7	0.5	52	1	0	0	0
579	16.2	0.6	63	1	0	0	0
580	28.9	0.8	78	2	0	0	0
581	33.9	1.0	91	4	0	0	0
582	20	1.1	110	1	0	0	0
583	10.4	1.2	113	2	0	0	0
584	28.6	1.1	107	2	0	0	0
585	39.8	1.1	113	1	0	0	0
586	24.2	1.3	130	2	0	0	0
587	25.3	1.5	149	3	0	0	0
588	21.5	1.8	165	6	0	0	0
589	22	1.7	160	4	0	0	0
590	22.5	1.8	169	5	0	0	0
591	29.5	2.1	198	4	0	0	0
592	20.8	2.3	223	5	0	0	0
593	41.6	3.1	301	5	0	0	0
594	38.8	3.1	301	5	0	0	0
595	20.9	3.2	313	6	0	0	0
596	33.8	3.1	298	6	0	0	0
597	26.9	3.0	286	8	0	0	0
598	14.5	2.8	262	11	0	0	0
599	30.9	2.6	247	6	0	0	0
600	27.3	3.7	351	9	0	0	0
601	22.7	4.8	438	22	0	0	0
602	13.4	4.1	371	21	0	0	0
603	8.2	2.4	231	5	0	0	0
604	6.6	2.4	231	5	0	0	0
605	21.7	2.0	189	7	0	0	0
606	21.7	1.8	175	4	0	0	0
607	22.1	2.6	242	11	0	0	0
608	17.2	1.7	155	6	0	0	0
609	12.7	1.7	155	6	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
610	3.9	1.2	109	6	0	0	0
611	43.6	1.4	126	5	0	0	0
612	53.8	1.4	134	6	0	0	0
613	44.3	1.4	134	6	0	0	0
614	47.3	1.3	120	3	0	0	0
615	85.9	1.2	118	2	0	0	0
616	84.1	1.3	117	5	0	0	0
617	104.6	1.4	132	3	0	0	0
618	120.7	1.4	132	3	0	0	0
619	67.2	1.3	126	4	0	0	0
620	49.2	1.2	115	2	0	0	0
621	41	1.2	115	2	0	0	0
622	59.1	1.2	109	4	0	0	0
623	62	1.0	96	4	0	0	0
624	100	0.9	86	3	0	0	0
625	79.9	0.9	83	2	0	0	0
626	41.1	0.9	81	4	0	0	0
627	52.3	1.3	120	4	0	0	0
628	18.9	2.1	196	6	0	0	0
629	52.1	2.5	243	6	0	0	0
630	22.6	4.2	394	13	0	0	0
631	38.7	4.4	415	14	0	0	0
632	39.9	4.0	374	12	0	0	0
633	49.1	3.6	340	12	0	0	0
634	38.7	3.4	324	10	0	0	0
635	38.6	3.2	311	7	0	0	0
636	18.9	2.8	270	4	0	0	0
637	33.5	2.4	230	7	0	0	0
638	62.1	2.4	230	7	0	0	0
639	133.7	2.3	223	2	0	0	0
640	96.3	2.3	223	2	0	0	0
641	95.4	2.3	218	4	0	0	0
642	97.6	2.3	213	7	0	0	0
643	75.7	2.1	214	0	0	0	0
644	41	2.1	204	4	0	0	0
645	49.3	2.0	198	2	0	0	0
646	29.1	2.1	202	3	0	0	0
647	51.5	2.3	226	2	0	0	0
648	84.2	2.5	251	1	0	0	0
649	88.5	2.4	239	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
650	81.2	2.4	233	4	0	0	0
651	91.9	2.3	221	3	0	0	0
652	84.6	2.2	219	2	0	0	0
653	27.1	2.2	220	2	0	0	0
654	29.4	2.8	272	6	0	0	0
655	15.6	0.5	46	1	0	0	0
656	30.6	1.5	150	1	0	0	0
657	26.5	1.3	126	4	0	0	0
658	26.5	1.5	146	2	0	0	0
659	14.8	0.9	88	1	0	0	0
660	11.6	1.2	119	1	0	0	0
661	14.1	1.7	166	3	0	0	0
662	24.8	1.9	194	0	0	0	0
663	5.6	2.4	242	1	0	0	0
664	14.6	2.5	242	3	0	0	0
665	13.2	2.4	236	1	0	0	0
666	15.9	2.1	200	3	0	0	0
667	18.8	1.6	156	1	0	0	0
668	25.2	1.5	152	0	0	0	0
669	26.8	1.7	168	2	0	0	0
670	19	1.6	155	4	0	0	0
671	9.2	0.5	46	3.1	0	0	0
672	8.6	0.3	23.3	3.7	0	0	0
673	3.6	0.2	13.7	2.1	0	0	0
674	8.4	0.2	14.7	2.1	0	0	0
675	2.5	0.2	17.2	3.7	0	0	0
676	6.1	0.2	14.2	3.1	0	0	0
677	6.6	0.2	15.2	1.5	0	0	0
678	9.7	0.2	14.7	2.1	0	0	0
679	8.6	0.2	12.7	1.8	0	0	0
680	11.7	0.2	13.7	1.8	0	0	0
681	7	0.2	16.2	2.1	0	0	0
682	8.4	0.2	16.7	2.1	0	0	0
683	8.5	0.2	18.7	2.1	0	0	0
684	15.6	0.2	19.7	1.5	0	0	0
685	19.1	0.3	25	3	0	0	0
686	8.6	0.3	29	2	0	0	0
687	4.7	0.3	29	0	0	0	0
688	6.1	0.4	37	2	0	0	0
689	4.2	0.5	45	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
690	7	0.9	88	2	0	0	0
691	5.9	1.0	97	2	0	0	0
692	9	1.0	99	2	0	0	0
693	6.6	1.0	97	3	0	0	0
694	10.3	1.0	95	3	0	0	0
695	1.4	0.8	70	5	0	0	0
696	1.7	0.7	63	3	0	0	0
697	4	0.6	58	3	0	0	0
698	7.3	0.6	55	4	0	0	0
699	6.1	0.5	47	4	0	0	0
700	44	0.5	41	4	0	0	0
701	36.3	0.4	39	3	0	0	0
702	10.9	0.4	37	2	0	0	0
703	11.5	0.4	37	3	0	0	0
704	20.9	0.4	37	2	0	0	0
705	32.9	0.3	28	2	0	0	0
706	37.3	0.4	33	3	0	0	0
707	19.3	0.4	30	3	0	0	0
708	13.5	0.4	35	3	0	0	0
709	10.8	0.5	44	3	0	0	0
710	6.6	0.6	53	3	0	0	0
711	27.8	0.6	58	3	0	0	0
712	26.2	0.7	62	3	0	0	0
713	42.2	0.8	73	4	0	0	0
714	42.2	1.0	92	6	0	0	0
715	42	1.0	92	2	0	0	0
716	42.2	1.3	122	5	0	0	0
717	2.6	1.2	117	4	0	0	0
718	50.6	1.2	116	3	0	0	0
719	27.2	1.2	114	3	0	0	0
720	26.8	1.2	112	4	0	0	0
721	27.1	1.1	109	3	0	0	0
722	45.1	1.1	102	4	0	0	0
723	8.2	1.0	99	2	0	0	0
724	22.9	1.1	101	3	0	0	0
725	27.4	1.1	101	4	0	0	0
726	29.3	1.0	92	2	0	0	0
727	31	1.0	92	4	0	0	0
728	28.6	0.9	88	3	0	0	0
729	29.5	0.9	84	3	0	0	0
730	35.1	0.9	84	3	0	0	0
731	39.6	0.9	82	3	0	0	0
732	37.3	0.9	84	2	0	0	0
733	4.5	0.9	84	3	0	0	0
734	3	0.9	82	5	0	0	0
735	7.4	0.9	82	5	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
736	17.7	0.9	80	4	0	0	0
737	17.2	0.8	78	3	0	0	0
738	15.9	0.8	79	3	0	0	0
739	29.5	0.8	79	2	0	0	0
740	32.2	0.9	79	4	0	0	0
741	10.5	0.8	76	4	0	0	0
742	9.7	0.8	76	3	0	0	0
743	21.1	0.7	72	1	0	0	0
744	18.4	0.7	69	2	0	0	0
745	16.9	0.7	69	2	0	0	0
746	12.9	0.7	69	1	0	0	0
747	17.5	0.7	69	2	0	0	0
748	14.4	0.7	67	3	0	0	0
749	16	0.8	70	3	0	0	0
750	18.5	0.8	70	4	0	0	0
751	2.9	0.7	67	4	0	0	0
752	18	0.7	64	2	0	0	0
753	27.6	0.7	67	2	0	0	0
754	17.5	0.7	67	2	0	0	0
755	21.5	0.8	72	2	0	0	0
756	29.5	0.8	72	2	0	0	0
757	20.7	0.8	75	2	0	0	0
758	38.5	0.8	76	2	0	0	0
759	23.3	0.8	79	2	0	0	0
760	21.1	0.9	83	3	0	0	0
761	40.1	0.9	83	3	0	0	0
762	30.1	0.9	83	3	0	0	0
763	17.5	0.9	82	2	0	0	0
764	33.7	0.9	86	2	0	0	0
765	17.9	0.9	90	2	0	0	0
766	23.8	1.0	96	2	0	0	0
767	17.8	1.0	96	2	0	0	0
768	23	1.0	96	3	0	0	0
769	39.4	1.0	97	3	0	0	0
770	10	1.0	97	3	0	0	0
771	16.6	1.2	110	3	0	0	0
772	15.5	1.2	114	4	0	0	0
773	28.7	1.2	114	4	0	0	0
774	22.1	1.2	117	4	0	0	0
775	18.8	1.3	120	3	0	0	0
776	36.3	1.3	128	3	0	0	0
777	19	1.3	129	3	0	0	0
778	17.5	0.1	7	2	0	0	0
779	3.9	0.8	79	2	0	0	0
780	41.8	0.9	91	2	0	0	0
781	30.2	0.9	86	4	0	0	0
782	37.4	1.1	108	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
783	27.4	0.7	64	3	0	0	0
784	38.6	0.9	82	2	0	0	0
785	44.1	1.2	118	3	0	0	0
786	25	1.8	178	2	0	0	0
787	30.1	2.0	194	3	0	0	0
788	30.3	2.2	212	3	0	0	0
789	25.8	3.5	338	4	0	0	0
790	25.5	3.0	296	3	0	0	0
791	23.4	2.6	258	3	0	0	0
792	25	2.5	244	3	0	0	0
793	29.2	2.4	230	4	0	0	0
794	29.2	2.3	224	3	0	0	0
795	11.3	1.9	186	1	0	0	0
796	28.7	1.6	155	0	0	0	0
797	26.2	1.5	143	2	0	0	0
798	25.6	1.5	146	2	0	0	0
799	31.1	1.6	153	2	0	0	0
800	22.5	1.7	162	2	0	0	0
801	22.2	1.6	154	1	0	0	0
802	22.2	1.6	154	1	0	0	0
803	22.2	1.6	156	1	0	0	0
804	22.2	1.9	186	1	0	0	0
805	22.2	2.5	246	3	0	0	0
806	22.2	2.6	257	2	0	0	0
LOBITOS Mbr.							
807	37.3	2.3	220	3	0	0	0
808	43	2.2	210	3	0	0	0
809	37.6	2.0	196	2	0	0	0
810	32.8	1.9	186	3	0	0	0
811	29.4	1.9	185	2	0	0	0
812	34.6	2.0	188	4	0	0	0
813	44.7	2.2	219	2	0	0	0
814	34.9	2.3	224	2	0	0	0
815	35.9	2.3	223	2	0	0	0
816	33.8	2.1	203	2	0	0	0
817	31.8	2.3	226	3	0	0	0
818	36	2.9	294	0	0	0	0
819	32	3.4	330	4	0	0	0
820	31.2	3.7	365	3	0	0	0
821	27.1	4.7	458	7	0	0	0
822	29.2	5.3	515	7	0	0	0
823	27.8	6.3	608	11	0	0	0
824	29	6.2	609	7	0	0	0
825	27.3	6.5	635	10	0	0	0
826	34.2	6.7	650	9	0	0	0
827	36	6.1	594	7	0	0	0
828	36.7	6.0	587	9	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
829	26.5	5.9	574	8	0	0	0
830	29	5.5	536	7	0	0	0
831	30.2	5.6	550	6	0	0	0
832	34.3	5.5	538	4	0	0	0
833	40.2	5.3	520	5	0	0	0
834	43.1	4.9	477	6	0	0	0
835	34.2	4.2	407	6	0	0	0
836	36.9	3.1	306	4	0	0	0
837	43.1	2.6	254	2	0	0	0
838	45.3	2.6	254	2	0	0	0
839	49.1	2.9	282	5	0	0	0
840	30.6	2.9	281	4	0	0	0
841	40.1	2.7	267	4	0	0	0
842	46.7	2.6	258	2	0	0	0
843	36.1	3.3	318	4	0	0	0
844	31.6	3.8	372	3	0	0	0
845	33	4.0	395	5	0	0	0
846	29.9	3.8	378	2	0	0	0
847	43.2	4.0	389	4	0	0	0
848	36.1	4.3	420	4	0	0	0
849	40.2	4.6	455	4	0	0	0
850	42.5	12.2	1170	25	0	0	0
851	42.8	15.6	1501	30	0	0	0
852	38.8	15.0	1441	31	0	0	0
853	44.9	9.4	910	18	0	0	0
854	42.2	7.6	733	16	0	0	0
855	41.8	6.3	614	9	0	0	0
856	36.8	5.3	517	8	0	0	0
857	36.3	5.0	489	6	0	0	0
858	33.6	4.9	481	6	0	0	0
859	37.6	4.0	391	3	0	0	0
860	33.6	2.9	289	3	0	0	0
861	32.9	2.7	263	2	0	0	0
862	32.6	2.6	254	3	0	0	0
863	34.5	2.5	246	2	0	0	0
864	34.7	2.5	254	0	0	0	0
865	27.6	2.6	256	2	0	0	0
866	38.6	2.7	260	5	0	0	0
867	29.1	3.8	371	3	0	0	0
868	61.7	3.6	354	5	0	0	0
869	80.4	3.2	314	5	0	0	0
870	87.5	0.7	65	1	0	0	0
871	87.5	0.6	54	1	0	0	0
872	95.3	0.5	44	1	0	0	0
873	100.5	0.8	75	1	0	0	0
874	41.3	5.2	508	7	0	0	0
875	46.1	5.2	508	7	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
876	76.1	3.2	313	3	0	0	0
877	47.7	1.5	145	1	0	0	0
878	24.3	1.2	117	3	0	0	0
879	50.4	1.2	113	3	0	0	0
880	47.7	1.2	120	1	0	0	0
881	47.4	1.4	133	3	0	0	0
882	41.2	1.5	152	0	0	0	0
883	55.3	1.7	163	3	0	0	0
884	50.5	1.8	181	0	0	0	0
885	48.7	2.0	199	1	0	0	0
886	54.9	2.2	220	2	0	0	0
887	77	2.5	240	3	0	0	0
888	45.9	2.9	281	5	0	0	0
889	59.7	3.0	298	3	0	0	0
890	47.7	3.1	310	2	0	0	0
891	44.8	3.3	327	1	0	0	0
892	51.5	3.3	329	2	0	0	0
893	54.1	3.4	340	2	0	0	0
894	42.4	3.5	344	3	0	0	0
895	48	3.5	342	3	0	0	0
896	41.9	3.5	348	3	0	0	0
897	29.8	3.5	344	3	0	0	0
898	44.9	3.4	334	2	0	0	0
899	19.6	3.3	330	2	0	0	0
900	13.3	3.3	330	2	0	0	0
901	10.2	3.3	332	0	0	0	0
902	9.7	3.3	332	0	0	0	0
903	15.9	3.3	329	2	0	0	0
904	15.9	3.3	329	2	0	0	0
905	11.8	3.3	330	0	0	0	0
906	48.7	3.4	332	3	0	0	0
907	54.7	3.4	336	0	0	0	0
908	49.9	3.5	351	0	0	0	0
909	65.9	3.7	365	0	0	0	0
910	44.2	3.8	377	2	0	0	0
911	57	4.0	395	1	0	0	0
912	62	4.2	418	2	0	0	0
913	56.2	4.4	436	1	0	0	0
914	59.7	4.7	465	0	0	0	0
915	65.6	4.7	471	1	0	0	0
916	48	4.8	484	0	0	0	0
917	45.6	4.9	487	2	0	0	0
918	50.5	4.9	487	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
919	48.8	5.0	493	3	0	0	0
920	53.2	5.0	501	2	0	0	0
921	49	5.0	498	2	0	0	0
922	50.8	4.9	490	2	0	0	0
923	53.6	4.8	479	1	0	0	0
924	44.4	4.6	459	0	0	0	0
925	36.4	4.6	460	0	0	0	0
926	42.2	4.7	463	2	0	0	0
927	50.1	4.7	463	2	0	0	0
928	49.5	4.7	465	1	0	0	0
929	57.2	4.7	466	0	0	0	0
930	68.6	4.7	466	0	0	0	0
931	57.3	4.7	464	2	0	0	0
932	63.9	4.5	454	0	0	0	0
933	58.8	4.6	464	0	0	0	0
934	54.1	4.7	467	0	0	0	0
935	72.7	4.6	464	0	0	0	0
936	79	4.7	470	0	0	0	0
937	81.7	4.7	470	0	0	0	0
938	74	4.6	462	0	0	0	0
939	65.3	4.6	457	0	0	0	0
940	73.8	4.5	446	0	0	0	0
941	46.1	4.3	430	1	0	0	0
942	52.5	4.2	419	0	0	0	0
943	40.1	4.2	420	1	0	0	0
944	47.3	4.2	421	2	0	0	0
945	39.3	4.3	426	2	0	0	0
946	44	4.4	434	2	0	0	0
947	51.3	4.4	437	0	0	0	0
948	50.5	4.5	443	2	0	0	0
949	71.5	4.5	446	0	0	0	0
950	43.8	4.5	450	0	0	0	0
951	47.4	4.6	457	0	0	0	0
952	43.9	4.5	449	1	0	0	0
953	55.9	4.4	444	0	0	0	0
954	12.9	3.5	351	1	0	0	0
955	52.6	3.3	331	0	0	0	0
956	100.7	3.2	322	1	0	0	0
957	27.3	3.0	302	0	0	0	0
958	45.2	3.0	300	1	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
959	54.3	3.1	304	2	0	0	0
960	67.5	2.9	292	1	0	0	0
961	58.9	2.9	287	2	0	0	0
962	57.1	2.9	287	2	0	0	0
963	56.7	2.9	287	2	0	0	0
964	48.8	2.9	287	2	0	0	0
965	37.5	2.9	287	2	0	0	0
966	40.1	2.9	287	2	0	0	0
967	34.6	0.6	56.2	2.4	0	0	0
968	34.6	1.7	163.4	3.1	0	0	0
969	53.2	1.6	150.8	2.8	0	0	0
970	82.4	1.5	143.7	2.1	0	0	0
971	82.1	1.3	132.6	0.9	0	0	0
972	88.5	1.3	125	1.5	0	0	0
973	96.7	1.3	125	1.8	0	0	0
974	81	1.2	116.9	1.8	0	0	0
975	80.1	1.0	100.7	0	0	0	0
976	74.9	0.9	92.1	1.5	0	0	0
977	82.6	0.9	92.1	1.5	0	0	0
978	86.9	0.8	83	2.1	0	0	0
979	89.5	0.7	65.8	1.8	0	0	0
980	24.4	0.7	65.8	1.7	0	0	0
981	18.6	0.7	65.8	1.5	0	0	0
982	33.8	0.8	71.3	2.4	0	0	0
983	37.8	0.8	76.9	2.4	0	0	0
984	37.8	0.8	76.4	1.8	0	0	0
985	28.2	0.8	76.4	1.5	0	0	0
986	33.9	0.8	76.9	2.1	0	0	0
987	32.9	0.9	86.5	3.1	0	0	0
988	38.7	1.0	102.2	3.1	0	0	0
989	28.6	1.2	122.4	1.8	0	0	0
990	32.5	1.4	137.1	2.1	0	0	0
991	31.3	1.5	149.8	2.1	0	0	0
992	15.1	1.5	148.2	2.1	0	0	0
993	15.6	1.5	145.7	1.5	0	0	0
994	32	1.4	139.1	4.3	0	0	0
995	31.5	1.4	138.6	1.2	0	0	0
996	22.4	1.4	138.6	1.2	0	0	0
997	22.4	1.4	138.6	1.2	0	0	0
998	21.4	1.4	138.6	0.3	0	0	0
999	42.2	1.5	144.2	1.2	0	0	0
1000	35	1.7	166	2.1	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1001	35	1.8	178.6	2.4	0	0	0
1002	24.1	1.9	187.2	2.4	0	0	0
1003	32.1	2.0	194.8	1.8	0	0	0
1004	34.5	2.0	195.3	0.6	0	0	0
1005	37.8	2.0	193.3	3.1	0	0	0
1006	26.9	2.0	195.3	1.8	0	0	0
1007	43.8	2.0	195.3	0.9	0	0	0
1008	43.5	1.6	163.9	0.9	0	0	0
1009	41.3	1.6	156.3	0.9	0	0	0
1010	39	1.5	150.9	1	0	0	0
1011	39	1.5	145.6	1.1	0	0	0
1012	39	1.4	140.2	1.2	0	0	0
1013	18.2	1.4	134.1	3.1	0	0	0
1014	19.5	1.4	134.1	3.1	0	0	0
1015	50.1	1.4	139.1	2.8	0	0	0
1016	40.1	1.4	140.7	2.8	0	0	0
1017	38.4	1.5	147.7	2.1	0	0	0
1018	35.2	1.7	166.5	1.5	0	0	0
1019	35.7	1.7	171.5	0.9	0	0	0
1020	39.1	1.8	179.1	2.1	0	0	0
1021	31	1.8	176.6	1.8	0	0	0
1022	36.8	1.8	177.6	1.8	0	0	0
1023	42.5	1.8	177.6	1.5	0	0	0
1024	43.1	1.7	172	0.9	0	0	0
1025	43.8	1.8	176.6	1.5	0	0	0
1026	38.8	1.8	176.6	1.5	0	0	0
1027	38.8	1.8	182.7	1.5	0	0	0
1028	34.6	1.9	188.2	1.5	0	0	0
1029	29.4	2.0	198.3	3.1	0	0	0
1030	40.6	2.0	199.3	1.2	0	0	0
1031	55.9	2.1	208.5	1.2	0	0	0
1032	60.8	2.1	209	1.2	0	0	0
1033	72.1	2.2	213.5	1.2	0	0	0
1034	58.9	2.2	218.6	1.2	0	0	0
1035	62	2.2	218.6	1.2	0	0	0
1036	56.6	2.3	232.2	2.1	0	0	0
1037	43.3	2.4	239.3	1.2	0	0	0
1038	47.4	2.5	242.9	1.5	0	0	0
1039	43.4	2.5	249.9	1.5	0	0	0
1040	35.1	2.6	263.6	0.6	0	0	0
1041	48.5	2.6	263.6	0.6	0	0	0
1042	64.5	2.7	269.2	1.8	0	0	0
1043	56.6	2.8	275.2	0.6	0	0	0
1044	60.4	2.8	278.3	1.2	0	0	0
1045	72.8	2.8	278.3	1.2	0	0	0
1046	38.6	2.8	281.8	1.2	0	0	0
1047	44.4	2.8	280.8	1.8	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1048	54	2.8	277.3	1.8	0	0	0
1049	43.7	2.8	277.3	0.9	0	0	0
1050	54.1	2.8	274.2	1.8	0	0	0
1051	56.7	2.8	276.8	2.1	0	0	0
1052	48.9	2.8	280.3	2.1	0	0	0
1053	67	2.9	285.4	1.5	0	0	0
1054	45.3	2.9	284.3	0.9	0	0	0
1055	87.9	2.9	292.9	0.9	0	0	0
1056	104.7	2.9	292.9	0.6	0	0	0
1057	110.4	3.0	294	0.9	0	0	0
1058	121	3.0	294	0.9	0	0	0
1059	100.4	3.0	298.5	1.8	0	0	0
1060	96.5	3.0	301	1.8	0	0	0
1061	92.1	3.0	301	0	0	0	0
1062	85.6	3.0	301	0	0	0	0
1063	74.6	3.3	325.3	2.4	0	0	0
1064	35.6	2.0	197.8	2.4	0	0	0
1065	33	1.7	162.9	1.5	0	0	0
1066	47.2	1.6	152.3	1.5	0	0	0
1067	59.5	1.5	151.3	1.2	0	0	0
1068	62.4	1.6	157.9	1.8	0	0	0
1069	44	1.6	157.9	1.8	0	0	0
1070	42.1	1.6	158.4	2.1	0	0	0
1071	53.5	1.6	158.4	2.1	0	0	0
1072	50.8	1.6	156.3	1.2	0	0	0
1073	54.4	1.6	156.3	1.4	0	0	0
1074	68.3	1.6	156.3	1.6	0	0	0
1075	61.1	1.6	156.3	1.8	0	0	0
1076	66.5	1.6	156.3	3.1	0	0	0
1077	63	1.6	156.3	3.1	0	0	0
1078	63	1.6	156.3	3.1	0	0	0
1079	63	1.6	156.3	3.1	0	0	0
1080	43	1.6	155	2	0	0	0
1081	43	1.6	154	1	0	0	0
1082	27.3	1.6	154	2	0	0	0
1083	39.3	1.5	149	1	0	0	0
1084	34.8	1.5	146	2	0	0	0
1085	70.2	1.4	139	2	0	0	0
1086	77.6	1.4	136	2	0	0	0
1087	55.5	1.4	136	2	0	0	0
1088	62.5	1.3	129	1	0	0	0
1089	48.1	1.5	148	2	0	0	0
1090	48.5	1.5	148	0	0	0	0
1091	64.6	1.7	163	2	0	0	0
1092	62.5	1.7	170	2	0	0	0
1093	60.3	1.8	177	2	0	0	0
1094	26.3	1.9	190	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1095	77.7	1.9	190	0	0	0	0
1096	68.5	2.0	203	0	0	0	0
1097	70.2	2.2	218	2	0	0	0
1098	71.9	2.4	237	2	0	0	0
1099	66.1	2.5	249	2	0	0	0
1100	47.8	2.7	266	3	0	0	0
1101	62.8	2.8	274	3	0	0	0
1102	57.2	3.0	300	1	0	0	0
1103	65.5	3.0	300	1	0	0	0
1104	67.6	3.1	311	1	0	0	0
1105	70.1	3.4	338	1	0	0	0
1106	51	3.5	343	2	0	0	0
1107	45.5	3.6	359	2	0	0	0
1108	40.5	3.6	362	1	0	0	0
1109	49.6	3.7	366	2	0	0	0
1110	65.2	3.7	368	2	0	0	0
1111	56.3	3.7	368	2	0	0	0
1112	58.5	3.7	365	1	0	0	0
1113	51	3.7	365	1	0	0	0
1114	48.1	3.6	361	0	0	0	0
1115	49.6	3.6	357	1	0	0	0
1116	48.8	3.6	353	2	0	0	0
1117	46.4	3.5	351	2	0	0	0
1118	51	3.5	348	2	0	0	0
1119	60.2	3.5	350	2	0	0	0
1120	52.8	3.4	340	2	0	0	0
1121	52.3	3.3	334	0	0	0	0
1122	76.1	3.3	334	0	0	0	0
1123	69.4	3.3	327	0	0	0	0
1124	70.9	3.2	323	0	0	0	0
1125	71.9	3.2	323	1	0	0	0
1126	32.9	3.1	308	2	0	0	0
1127	49.2	3.0	300	2	0	0	0
1128	48.4	3.1	302	3	0	0	0
1129	41.1	3.1	303	3	0	0	0
1130	53.5	3.2	316	2	0	0	0
1131	49.8	3.2	321	2	0	0	0
1132	39.6	3.8	381	2	0	0	0
1133	49.2	3.9	393	1	0	0	0
1134	41.2	3.9	393	1	0	0	0
1135	150.7	3.9	393	1	0	0	0
1136	146.5	4.0	402	1	0	0	0
1137	133.9	4.0	402	0	0	0	0
1138	120.6	4.2	417	1	0	0	0
1139	134.1	4.2	420	1	0	0	0
1140	126.3	4.2	420	1	0	0	0
1141	125.5	4.2	420	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1142	104.3	4.4	434	1	0	0	0
1143	96.3	4.4	440	1	0	0	0
1144	103.5	4.4	440	0	0	0	0
1145	110.9	4.5	451	1	0	0	0
1146	113.1	4.5	451	1	0	0	0
1147	81.3	4.7	463	2	0	0	0
1148	133.1	4.7	463	2	0	0	0
1149	151.3	4.7	463	2	0	0	0
1150	141.2	4.8	478	0	0	0	0
1151	126.9	5.1	506	2	0	0	0
1152	92.3	5.2	510	3	0	0	0
1153	92.2	5.4	530	3	0	0	0
1154	65.6	5.3	530	0	0	0	0
1155	107.7	5.3	532	0	0	0	0
1156	106.8	5.3	532	0	0	0	0
1157	92.9	5.3	532	0	0	0	0
1158	68.7	7.1	708	3	0	0	0
1159	45.9	5.9	586	0	0	0	0
1160	71.7	5.6	558	2	0	0	0
1161	55.7	5.2	512	3	0	0	0
1162	65.3	4.8	476	3	0	0	0
1163	63.1	4.5	446	2	0	0	0
1164	71	4.3	428	2	0	0	0
1165	63.5	4.3	424	2	0	0	0
1166	64.7	4.2	420	1	0	0	0
1167	64.5	4.2	420	2	0	0	0
1168	78.3	4.2	416	2	0	0	0
1169	74.3	4.2	416	2	0	0	0
1170	75.5	4.2	418	1	0	0	0
1171	76.8	4.2	418	2	0	0	0
1172	80.4	4.1	406	2	0	0	0
1173	61.6	4.1	403	2	0	0	0
1174	61	4.1	403	2	0	0	0
1175	95.4	3.9	391	2	0	0	0
1176	103.4	3.9	388	0	0	0	0
1177	60.9	3.8	380	1	0	0	0
1178	61.6	3.6	359	1	0	0	0
1179	64.9	3.5	350	2	0	0	0
1180	61.3	3.5	349	2	0	0	0
1181	55.9	3.5	349	2	0	0	0
1182	36.1	3.5	345	2	0	0	0
1183	77.1	3.5	345	2	0	0	0
1184	77.1	3.4	332	2	0	0	0
1185	111.4	3.4	332	2	0	0	0
1186	134.8	3.3	324	2	0	0	0
1187	127.9	3.3	324	2	0	0	0
1188	107.6	3.3	324	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1189	145.6	3.1	310	2	0	0	0
1190	112.6	3.0	296	2	0	0	0
1191	93.5	3.0	296	2	0	0	0
1192	104.3	2.9	284	2	0	0	0
1193	117.9	2.9	284	2	0	0	0
1194	131.4	2.8	274	1	0	0	0
1195	100.7	2.8	274	1	0	0	0
1196	117.7	2.7	265	0	0	0	0
1197	111.2	2.7	265	1	0	0	0
1198	110.8	2.6	257	1	0	0	0
1199	98.7	2.6	257	2	0	0	0
1200	105.3	2.6	257	2	0	0	0
1201	104.9	2.6	257	2	0	0	0
1202	113.5	2.6	255	0	0	0	0
1203	122.3	2.7	267	2	0	0	0
1204	126.5	2.7	267	2	0	0	0
1205	146	2.9	288	2	0	0	0
1206	114.4	3.2	312	2	0	0	0
1207	83.6	3.8	377	3	0	0	0
1208	100.3	4.3	424	1	0	0	0
1209	71	4.3	424	1	0	0	0
1210	147.3	4.5	444	1	0	0	0
1211	147.3	4.7	465	1	0	0	0
1212	114.9	4.7	465	1	0	0	0
1213	149.3	4.7	465	1	0	0	0
1214	145.2	5.1	512	0	0	0	0
1215	152.9	5.1	512	0	0	0	0
1216	166.3	5.6	561	0	0	0	0
1217	161.2	5.6	561	0	0	0	0
1218	144.8	5.6	561	0	0	0	0
1219	120.9	6.0	603	1	0	0	0
1220	158	6.0	603	1	0	0	0
1221	180.4	6.4	638	1	0	0	0
1222	148.2	6.4	638	1	0	0	0
1223	154.7	6.4	638	1	0	0	0
1224	156.8	6.9	684	2	0	0	0
1225	150	6.9	684	2	0	0	0
1226	129.2	7.1	707	2	0	0	0
1227	129.7	8.2	820	2	0	0	0
1228	124.6	8.2	820	0	0	0	0
1229	35.1	8.3	827	0	0	0	0
1230	51.6	8.3	827	0	0	0	0
1231	48	8.3	829	0	0	0	0
1232	47.9	8.4	837	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1233	45.6	8.6	856	0	0	0	0
1234	57.4	8.7	870	1	0	0	0
1235	49.6	8.9	890	0	0	0	0
1236	60	8.9	890	0	0	0	0
1237	69.3	9.0	898	1	0	0	0
1238	80	9.1	907	2	0	0	0
1239	80	9.1	907	2	0	0	0
1240	54.7	9.2	921	0	0	0	0
1241	73.9	9.3	925	0	0	0	0
1242	60.4	9.5	947	0	0	0	0
1243	54.1	9.5	954	0	0	0	0
1244	70.9	9.6	959	1	0	0	0
1245	72	9.7	964	2	0	0	0
1246	70.4	9.7	964	2	0	0	0
1247	71.7	9.8	981	2	0	0	0
1248	71.8	10.1	1011	2	0	0	0
1249	72.5	10.1	1005	0	0	0	0
1250	118	10.4	1036	0	0	0	0
1251	118.2	10.4	1036	0	0	0	0
1252	102.5	10.7	1066	1	0	0	0
1253	100.5	7.0	699	2	0	0	0
1254	65.9	7.5	740	3	0	0	0
1255	57.6	7.3	725	0	0	0	0
1256	111.4	7.3	725	0	0	0	0
1257	110.6	7.1	711	2	0	0	0
1258	145	7.1	711	2	0	0	0
1259	135.6	7.1	711	2	0	0	0
1260	154.3	6.9	691	0	0	0	0
1261	143.3	6.9	691	0	0	0	0
1262	121.2	6.6	660	0	0	0	0
1263	150.9	6.6	660	0	0	0	0
1264	137.1	6.6	660	2	0	0	0
1265	150.7	6.5	650	2	0	0	0
1266	129.8	6.5	650	2	0	0	0
1267	129.8	6.6	658	2	0	0	0
1268	109.7	5.1	513	1	0	0	0
1269	64.4	5.3	522	2	0	0	0
1270	52.3	5.3	522	2	0	0	0
1271	74.7	5.3	523	2	0	0	0
1272	74.7	5.3	524	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1273	82.2	5.4	537	2	0	0	0
1274	82.2	5.4	537	2	0	0	0
1275	38.2	5.4	537	2	0	0	0
1276	70.2	5.4	537	0	0	0	0
1277	41.4	5.3	527	1	0	0	0
1278	54.9	5.3	524	1	0	0	0
1279	63.1	5.2	519	0	0	0	0
1280	88.6	5.2	519	0	0	0	0
1281	101.7	5.2	514	1	0	0	0
1282	99.7	4.9	492	1	0	0	0
1283	104.8	4.9	484	1	0	0	0
1284	86.2	4.8	477	0	0	0	0
1285	86.2	4.8	477	0	0	0	0
1286	63.5	4.8	477	1	0	0	0
1287	59.2	4.8	477	2	0	0	0
1288	70.6	4.4	437	2	0	0	0
1289	88.4	4.4	437	2	0	0	0
1290	92.9	4.1	404	1	0	0	0
1291	75.1	4.1	404	1	0	0	0
1292	113.3	3.9	389	0	0	0	0
1293	89.7	3.9	389	1	0	0	0
1294	77.6	3.9	389	2	0	0	0
1295	70.7	3.9	382	2	0	0	0
1296	85.8	3.9	391	2	0	0	0
1297	86.5	4.0	398	2	0	0	0
1298	101.7	4.0	398	2	0	0	0
1299	108.5	4.2	413	2	0	0	0
1300	100	4.1	413	0	0	0	0
1301	113.8	4.2	416	0	0	0	0
1302	136.3	4.2	416	0	0	0	0
1303	119.5	4.4	435	2	0	0	0
1304	121.4	3.9	386	1	0	0	0
1305	121.4	3.7	372	1	0	0	0
1306	108	3.7	366	0	0	0	0
1307	53.1	3.8	373	2	0	0	0
1308	66	3.9	385	1	0	0	0
1309	55.9	3.9	386	2	0	0	0
1310	57.9	4.1	410	2	0	0	0
1311	60.5	4.1	410	0	0	0	0
1312	68.9	4.4	433	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1313	67.1	4.6	452	3	0	0	0
1314	69.9	4.8	478	3	0	0	0
1315	73.6	4.9	486	2	0	0	0
1316	73.6	5.0	495	2	0	0	0
1317	51.9	5.0	495	1	0	0	0
1318	67.6	5.3	523	2	0	0	0
1319	57.4	5.6	554	2	0	0	0
1320	66.9	5.8	580	2	0	0	0
1321	57.9	8.1	805	2	0	0	0
1322	35.6	8.3	827	2	0	0	0
1323	107.5	8.3	827	0	0	0	0
1324	116.3	8.6	858	0	0	0	0
1325	90.4	8.6	858	0	0	0	0
1326	130.4	8.6	858	0	0	0	0
1327	159.9	8.6	863	0	0	0	0
1328	144.1	8.6	863	0	0	0	0
1329	147.9	8.8	874	3	0	0	0
1330	122.7	8.8	874	3	0	0	0
1331	125.5	8.8	874	3	0	0	0
1332	156.5	8.8	881	2	0	0	0
1333	149.5	8.8	881	2	0	0	0
1334	165.7	8.7	871	2	0	0	0
1335	160.2	8.7	871	2	0	0	0
1336	132	8.8	878	2	0	0	0
1337	156.9	8.8	878	0	0	0	0
1338	144.8	8.8	878	0	0	0	0
1339	154.3	8.5	845	0	0	0	0
1340	120.9	8.5	845	0	0	0	0
1341	117.9	8.5	845	0	0	0	0
1342	150.1	8.3	829	0	0	0	0
1343	124.1	8.3	829	0	0	0	0
1344	157.7	8.3	829	0	0	0	0
1345	151.4	8.1	806	0	0	0	0
1346	156	8.1	806	2	0	0	0
1347	135.9	7.5	747	3	0	0	0
1348	145.1	7.3	722	3	0	0	0
1349	153	7.3	722	3	0	0	0
1350	66	6.7	657	3	2	0	0
1351	45.4	6.5	645	3	1	0	0
1352	74.6	6.6	645	3	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1353	77	6.6	645	2	3	0	0
1354	78.2	6.3	627	3	0	0	0
1355	70.9	6.0	588	3	1	0	0
1356	71.8	5.7	566	2	1	0	0
1357	59.1	5.6	551	2	1	0	0
1358	71.4	5.6	551	2	2	0	0
1359	58.6	5.7	562	3	2	0	0
1360	61.5	5.9	580	3	2	0	0
1361	55.8	6.1	598	3	1	0	0
1362	48.8	6.5	634	2	5	0	0
1363	52	6.9	662	6	5	0	0
1364	48.9	6.9	670	5	3	0	0
1365	43.6	6.8	670	4	2	0	0
1366	42.4	6.8	670	3	1	0	0
1367	45.4	6.7	670	2	0	0	0
1368	49.7	6.8	675	3	1	0	0
1369	41.3	6.9	680	4	2	0	0
1370	36	6.9	683	3	2	0	0
1371	60.5	6.9	683	3	2	0	0
1372	57.8	6.9	671	6	2	0	0
1373	57.8	6.9	675	6	2	0	0
1374	57.8	7.0	679	6	2	0	0
1375	49.5	6.8	671	5	1	0	0
1376	40.7	6.6	653	5	1	0	0
1377	55.4	6.4	630	5	2	0	0
1378	82.1	6.1	601	4	2	0	0
1379	87.6	6.2	601	4	3	0	0
1380	83.6	6.1	594	3	3	0	0
1381	104.4	5.9	577	3	1	0	0
1382	114.1	5.7	560	3	0	0	0
1383	104.8	5.6	545	3	3	0	0
1384	91.9	5.6	545	3	3	0	0
1385	112.5	5.4	517	4	4	0	0
1386	95.2	5.4	517	6	4	0	0
1387	97	5.3	511	6	3	0	0
1388	89.4	5.2	506	6	3	0	0
1389	85.2	5.1	493	5	3	0	0
1390	83	4.9	477	3	3	0	0
1391	95.4	4.9	477	3	3	0	0
1392	93.5	4.8	474	3	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1393	93.3	5.4	523	5	3	0	0
1394	98.2	5.9	571	6	4	0	0
1395	77.5	5.9	585	4	1	0	0
1396	72.6	5.9	585	4	1	0	0
1397	73.7	5.9	589	3	0	0	0
1398	73.7	6.1	602	4	1	0	0
1399	28.3	6.3	616	4	2	0	0
1400	46.9	6.3	617	4	2	0	0
1401	71.2	6.3	619	4	2	0	0
1402	71.2	6.4	621	5	2	0	0
1403	91.2	6.4	621	5	2	0	0
1404	90.8	6.5	636	5	2	0	0
1405	85.5	6.5	636	4	1	0	0
1406	87.2	6.4	636	4	0	0	0
1407	87.2	6.5	636	5	0	0	0
1408	82.6	6.5	634	5	1	0	0
1409	94.2	6.4	634	4	1	0	0
1410	94.2	6.4	634	2	1	0	0
1411	94.2	6.7	656	6	3	0	0
1412	82.9	7.4	719	6	4	0	0
1413	5.8	7.7	748	8	3	0	0
1414	99.4	7.7	748	8	3	0	0
1415	107.6	8.1	785	8	4	0	0
1416	127.5	8.1	785	6	4	0	0
1417	100.6	8.7	846	6	4	0	0
1418	106.3	8.6	846	5	1	0	0
1419	126.3	9.2	902	6	3	0	0
1420	112	9.7	940	6	6	0	0
1421	80.5	9.7	940	5	6	0	0
1422	68.7	10.3	1001	7	6	0	0
1423	79.6	10.1	1001	7	0	0	0
1424	96	10.8	1052	9	4	0	0
1425	94	11.1	1072	10	6	0	0
1426	83.2	12.2	1169	14	8	0	0
1427	73	8.0	778	7	3	0	0
1428	42.9	8.0	771	9	5	0	0
1429	58.6	7.8	750	9	5	0	0
1430	68.5	7.4	722	7	2	0	0
1431	58.6	7.3	716	6	2	0	0
1432	51.4	7.3	712	4	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1433	68.2	7.2	697	8	4	0	0
1434	68.3	7.0	680	8	1	0	0
1435	67.2	7.0	680	10	1	0	0
1436	62.2	6.7	647	10	3	0	0
1437	71	6.1	589	8	3	0	0
1438	68.2	5.9	572	8	2	0	0
1439	68.6	5.7	556	8	1	0	0
1440	70.6	5.9	561	9	3	0	0
1441	68.5	5.9	563	9	3	0	0
1442	69.2	5.7	563	5	0	0	0
1443	72.9	5.6	551	6	1	0	0
1444	68.5	5.8	562	8	1	0	0
1445	42.9	5.6	550	6	1	0	0
1446	73.7	5.6	531	8	4	0	0
1447	1.3	2.0	186	2	2	0	0
1448	13.2	1.3	125	4	1	0	0
1449	53.5	1.3	123	2	1	0	0
1450	37.4	1.3	120	3	1	0	0
1451	35.9	1.1	105	2	1	0	0
1452	34.3	1.1	97	4	3	0	0
1453	41.3	0.8	72	2	1	0	0
1454	26.9	0.7	65	2	0	0	0
1455	27.5	0.7	64	2	1	0	0
1456	15.6	0.8	77	3	0	0	0
1457	30.6	1.0	90	3	2	0	0
1458	55.1	1.0	93	1	2	0	0
1459	55.2	1.1	97	3	1	0	0
1460	69	1.0	93	1	1	0	0
1461	58.5	1.1	95	4	4	0	0
1462	61.2	1.1	97	4	3	0	0
1463	53.3	0.8	72	2	1	0	0
1464	50	0.7	65	2	0	0	0
1465	43.4	0.7	64	2	1	0	0
1466	50.6	0.8	77	3	0	0	0
1467	55.9	1.0	90	3	2	0	0
1468	43.6	1.0	93	1	2	0	0
1469	43.2	1.1	97	3	1	0	0
1470	60.8	1.0	93	1	1	0	0
1471	37.8	1.0	94	3	0	0	0
1472	71.2	1.0	92	3	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1473	60	1.0	95	2	0	0	0
1474	34.1	1.1	102	2	2	0	0
1475	34.1	1.2	108	1	2	0	0
1476	34.1	1.2	115	1	1	0	0
1477	34.1	1.2	120	1	1	0	0
1478	34.1	1.4	124	2	4	0	0
1479	34.1	1.4	124	2	3	0	0
1480	4.7	1.6	151	2	1	0	0
1481	51.7	1.7	170	1	0	0	0
1482	53	1.7	170	1	1	0	0
1483	55	1.9	185	4	0	0	0
1484	52.7	2.0	192	3	2	0	0
1485	39.2	2.2	207	3	2	0	0
1486	49.3	2.2	210	3	1	0	0
1487	60	2.2	212	3	1	0	0
1488	48.1	2.2	212	3	2	0	0
1489	50.7	2.4	227	3	1	0	0
1490	55.3	2.4	233	2	1	0	0
1491	55.5	2.5	242	3	2	0	0
1492	52	2.5	242	3	1	0	0
1493	67.3	2.5	248	2	1	0	0
1494	61.4	2.7	262	3	1	0	0
1495	71.4	2.8	270	3	2	0	0
1496	60.3	3.4	324	4	3	0	0
1497	6.4	3.3	324	2	1	0	0
1498	95.6	3.3	324	2	0	0	0
1499	107.6	3.3	324	2	1	0	0
1500	114.2	3.4	335	2	1	0	0
1501	123.8	3.4	335	2	1	0	0
1502	141	3.5	342	2	2	0	0
1503	95.5	3.6	351	3	2	0	0
1504	86.4	3.6	351	3	1	0	0
1505	85.7	3.7	355	3	2	0	0
1506	23.1	3.7	359	2	1	0	0
1507	25	3.9	378	4	3	0	0
1508	46	3.7	355	4	2	0	0
1509	33.9	3.6	346	4	1	0	0
1510	33.9	3.6	346	4	3	0	0
1511	16.1	3.6	345	5	2	0	0
1512	28.5	3.5	336	3	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1513	42.1	3.4	325	4	2	0	0
1514	31.4	3.4	323	7	2	0	0
1515	29.9	3.4	316	5	4	0	0
1516	26.2	3.3	316	3	2	0	0
1517	52.2	3.2	302	6	3	0	0
1518	40	3.1	291	6	4	0	0
1519	21.9	2.9	275	3	2	0	0
1520	29.9	2.8	275	3	1	0	0
1521	37.9	2.8	270	3	2	0	0
1522	56.3	2.7	263	3	1	0	0
1523	72.2	2.7	254	4	3	0	0
1524	61.7	2.6	253	4	1	0	0
1525	49.3	2.6	247	4	2	0	0
1526	81.7	2.5	235	4	3	0	0
1527	55.8	2.4	233	3	1	0	0
1528	64.6	2.3	226	3	1	0	0
1529	50.8	2.2	212	3	2	0	0
1530	36.3	2.1	202	3	1	0	0
1531	45.5	2.0	195	2	2	0	0
1532	41.3	1.9	180	2	1	0	0
1533	35.3	1.9	175	3	2	0	0
1534	39.8	1.8	168	3	1	0	0
1535	39.9	1.7	160	2	1	0	0
1536	42	1.7	159	2	2	0	0
1537	46.6	1.7	159	2	1	0	0
1538	51.4	1.7	159	4	2	0	0
1539	61.5	1.6	155	2	2	0	0
1540	48.6	1.6	152	3	2	0	0
1541	50	2.3	204	8	5	0	0
1542	0.5	2.1	197	3	2	0	0
1543	57.3	2.1	197	4	2	0	0
1544	44.2	1.8	170	2	2	0	0
1545	20.2	1.7	156	3	2	0	0
1546	16.3	1.6	148	3	2	0	0
1547	37.1	1.7	150	6	2	0	0
1548	24.8	1.6	144	7	3	0	0
1549	13.4	1.6	141	5	3	0	0
1550	14.5	1.4	129	4	3	0	0
1551	35.3	1.3	117	3	2	0	0
1552	11.5	1.2	110	4	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1553	36.8	1.3	110	5	3	0	0
1554	26.7	1.2	105	5	3	0	0
1555	23.5	1.2	109	4	3	0	0
1556	14	1.3	112	4	3	0	0
1557	20.2	1.3	118	4	2	0	0
1558	37.7	1.3	118	4	2	0	0
1559	19.5	1.4	119	5	3	0	0
1560	19.4	1.3	119	3	2	0	0
1561	21.8	1.3	116	3	3	0	0
1562	21.9	1.3	116	3	3	0	0
1563	21.9	1.3	117	3	3	0	0
1564	21.9	1.3	117	2	2	0	0
1565	21.9	1.3	117	2	2	0	0
1566	21.9	1.3	118	4	3	0	0
1567	21.9	1.4	118	5	3	0	0
1568	6.5	1.3	116	5	2	0	0
1569	36.9	1.3	119	3	2	0	0
1570	36.9	1.3	114	4	5	0	0
1571	28.6	1.3	114	4	5	0	0
1572	28.6	1.2	113	3	2	0	0
1573	42	1.3	121	3	2	0	0
1574	48	1.4	122	5	3	0	0
1575	22.6	1.5	132	5	3	0	0
1576	32.4	1.4	126	3	3	0	0
1577	39	1.4	126	4	2	0	0
1578	43.5	1.4	128	4	2	0	0
1579	49.2	1.4	128	3	2	0	0
1580	58.6	1.3	124	3	2	0	0
1581	48.9	1.4	130	3	2	0	0
1582	55.1	1.4	130	3	2	0	0
1583	72.6	1.4	128	3	2	0	0
1584	43.4	1.5	132	4	3	0	0
1585	53.1	1.4	127	4	3	0	0
1586	75	1.4	127	5	2	0	0
1587	100.7	1.4	123	5	2	0	0
1588	99.4	1.3	123	2	1	0	0
1589	87.6	1.3	123	3	1	0	0
1590	110.4	1.3	118	3	1	0	0
1591	97.2	1.3	118	3	2	0	0
1592	102.1	1.2	113	3	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1593	97.3	1.3	113	3	3	0	0
1594	76.6	1.2	107	3	3	0	0
1595	110.2	1.1	102	2	2	0	0
1596	30.4	1.1	99	2	2	0	0
1597	100.2	1.1	99	4	3	0	0
1598	1.4	1.1	96	4	3	0	0
1599	1.4	1.1	94	4	3	0	0
1600	1.4	1.1	94	4	3	0	0
1601	19.6	1.2	109	4	3	0	0
1602	19.6	1.2	109	3	3	0	0
1603	72.3	1.3	116	3	3	0	0
1604	113.2	1.4	123	3	3	0	0
1605	70.8	1.4	130	3	2	0	0
1606	18.2	1.4	130	1	2	0	0
1607	111.2	1.4	130	4	2	0	0
1608	131.3	1.4	130	4	2	0	0
1609	125.9	1.4	130	4	2	0	0
1610	96.6	1.4	130	4	2	0	0
1611	87.9	1.4	128	4	2	0	0
1612	97.9	1.4	128	4	2	0	0
1613	99.7	1.4	126	3	2	0	0
1614	111.9	1.3	124	2	2	0	0
1615	100	1.2	115	2	0	0	0
1616	132	1.1	107	2	0	0	0
1617	106.9	1.1	107	2	0	0	0
1618	100.7	1.1	103	2	0	0	0
1619	91.4	1.1	103	2	0	0	0
1620	155.8	1.0	91	2	2	0	0
1621	138.1	1.0	91	2	2	0	0
1622	142.9	1.0	91	2	2	0	0
1623	130.9	1.0	86	3	2	0	0
1624	106.8	1.0	86	3	3	0	0
1625	112.2	1.0	86	2	3	0	0
1626	117.7	1.0	86	2	3	0	0
1627	114.6	0.9	82	2	2	0	0
1628	144	0.9	82	2	2	0	0
1629	117.2	0.8	70	2	2	0	0
1630	126.5	0.8	70	2	2	0	0
1631	136.6	0.8	70	2	2	0	0
1632	155.5	0.8	68	3	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1633	46	0.7	64	3	2	0	0
1634	56.1	0.7	64	3	2	0	0
1635	104.2	0.6	52	3	2	0	0
1636	0.7	0.8	68	4	2	0	0
1637	50.7	0.8	65	3	3	0	0
1638	46.3	0.6	57	2	1	0	0
1639	43.4	0.6	55	1	0	0	0
1640	42	0.5	48	2	1	0	0
1641	43	0.5	44	1	1	0	0
1642	37.4	0.5	40	2	2	0	0
1643	35.1	0.5	36	2	2	0	0
1644	28.3	0.4	33	2	2	0	0
1645	31.6	0.4	30	2	2	0	0
1646	37.3	0.4	26	3	4	0	0
1647	35.1	2.0	190	4	2	0	0
1648	37.3	2.0	194	3	2	0	0
1649	26.3	2.1	205	1	2	0	0
1650	24.8	2.2	209	5	2	0	0
1651	27.8	2.3	212	5	2	0	0
1652	27.8	2.4	226	2	2	0	0
1653	27.8	2.4	218	5	4	0	0
1654	92.4	1.9	181	3	3	0	0
1655	19.8	1.6	149	3	2	0	0
1656	19.3	1.6	156	3	1	0	0
1657	64.9	2.0	179	6	2	0	0
1658	53.7	2.0	204	0	0	0	0
1659	49.6	2.5	237	3	2	0	0
1660	80.4	3.0	277	7	2	0	0
1661	75.6	3.3	319	4	1	0	0
1662	76.9	3.3	319	4	1	0	0
1663	80.8	3.6	349	5	2	0	0
1664	71.1	3.9	380	5	1	0	0
1665	91.8	3.9	380	5	1	0	0
1666	132.1	3.9	380	5	1	0	0
1667	109.3	4.1	397	4	3	0	0
1668	64.8	4.3	414	5	2	0	0
1669	67.8	4.2	404	6	2	0	0
1670	84.6	4.1	391	10	2	0	0
1671	74.9	4.1	391	10	2	0	0
1672	95.4	3.9	380	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1673	94.8	4.0	384	4	2	0	0
1674	95.2	4.2	395	8	3	0	0
1675	81.7	4.2	395	8	3	0	0
1676	104.2	4.0	389	3	3	0	0
1677	85.2	4.0	389	3	3	0	0
1678	63.7	3.9	374	6	3	0	0
1679	107.6	3.8	364	5	2	0	0
1680	76.8	3.8	364	5	2	0	0
1681	105.5	3.8	362	7	1	0	0
1682	22.8	3.7	347	6	4	0	0
1683	76	3.7	357	6	2	0	0
1684	73.6	3.6	351	6	0	0	0
1685	61	3.9	370	7	2	0	0
1686	76.3	4.1	399	4	3	0	0
1687	98.4	4.1	399	4	3	0	0
1688	92.5	4.4	419	5	3	0	0
1689	92.5	4.6	439	7	2	0	0
1690	92.5	4.6	439	7	2	0	0
1691	92.5	4.6	439	7	2	0	0
1692	4.6	7.2	708	9	0	0	0
1693	75.8	7.6	747	4	3	0	0
1694	79.4	7.6	747	4	3	0	0
1695	77.5	7.4	741	0	0	0	0
1696	61.4	7.4	741	0	0	0	0
1697	82.3	7.1	691	8	2	0	0
1698	47.7	6.4	623	5	3	0	0
1699	85.9	6.4	623	5	3	0	0
1700	100.6	5.9	567	8	3	0	0
1701	80.6	5.9	567	8	3	0	0
1702	78.4	5.1	491	7	3	0	0
1703	81.1	4.9	455	13	5	0	0
1704	46.8	4.4	422	7	2	0	0
1705	68.5	4.2	410	3	0	0	0
1706	49.2	4.3	408	8	3	0	0
1707	47.5	4.2	406	5	3	0	0
1708	64.8	4.3	410	7	3	0	0
1709	57.7	4.5	428	5	4	0	0
1710	70.6	4.6	436	11	3	0	0
1711	71.6	3.0	277	7	2	0	0
1712	57.6	3.3	319	4	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1713	55.1	3.3	319	4	1	0	0
1714	45.7	3.6	349	5	2	0	0
1715	41.3	3.9	380	5	1	0	0
1716	49.5	3.9	380	5	1	0	0
1717	56.6	3.9	380	5	1	0	0
1718	73.6	4.1	397	4	3	0	0
1719	72	4.3	414	5	2	0	0
1720	123.7	4.2	404	6	2	0	0
1721	103.8	4.1	391	10	2	0	0
1722	108.8	4.1	391	10	2	0	0
1723	119.4	3.9	380	5	2	0	0
1724	160.5	4.0	384	4	2	0	0
1725	117.3	4.2	395	8	3	0	0
1726	94.7	4.2	395	8	3	0	0
1727	15.8	4.0	389	3	3	0	0
1728	123.4	4.0	389	3	3	0	0
1729	88	4.7	446.2	6.7	3.6	0	0
1730	72.6	6.9	664.3	13.4	5.2	0	0
1731	98.4	3.9	365.3	7.9	2.6	0	0
1732	158.1	3.5	334.9	5.2	0.8	0	0
1733	169	3.5	334.9	5.2	0.8	0	0
1734	156.9	3.5	334.9	6.9	1.9	0	0
1735	147.2	3.5	334.9	8.6	2.9	0	0
1736	111	3.5	326.8	8.6	2.9	0	0
1737	134.3	3.5	326.8	8.6	3.4	0	0
1738	154.5	3.4	324.8	5.5	3.4	0	0
1739	149.4	3.4	324.8	5.5	3.4	0	0
1740	137.2	3.5	317.2	10.7	3.9	0	0
1741	141.5	3.5	317.2	10.7	3.9	0	0
1742	113.2	3.5	320.4	10.7	3.9	0	0
1743	143.1	3.5	323.6	10.7	3.9	0	0
1744	89	3.5	326.8	10.7	3.9	0	0
1745	124	3.6	345.6	6.4	1.8	0	0
1746	117.6	3.6	345.6	5.5	1.8	0	0
1747	104.5	4.1	389.1	8.3	1.8	0	0
1748	111.7	4.1	389.1	8.3	1.6	0	0
1749	111.1	4.1	389.1	8.3	1.6	0	0
1750	112.4	4.1	389.1	8.3	1.6	0	0
1751	116.1	4.2	400.8	7.5	1.3	0	0
1752	113	4.3	412.4	6.7	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1753	116.1	4.3	412.4	9.2	1.6	0	0
1754	109.8	3.8	361.8	9.2	1.6	0	0
1755	123.1	4.5	427	12.8	1.6	0	0
1756	101.2	4.5	427	12.8	0.8	0	0
1757	105.8	4.5	427	12.8	0	0	0
1758	108.3	6.3	616.2	12.8	0.8	0	0
1759	110.6	6.3	616.2	8.6	0.8	0	0
1760	112.1	7.1	694.9	9.4	0.8	0	0
1761	106.1	7.9	773.6	10.1	0.8	0	0
1762	95.1	9.6	921.8	14.4	3.1	0	0
1763	101.4	14.2	1366.1	26.3	6.2	0	0
1764	110.4	12.3	1204.2	13.4	1.8	0	0
1765	88.7	11.7	1139.7	15.6	2.6	0	0
1766	131.3	11.2	1075.1	17.7	3.4	0	0
1767	92.3	11.2	1075.1	17.7	3.6	0	0
1768	122.5	10.0	966.9	14.4	3.6	0	0
1769	143.5	10.0	966.9	14.4	3.6	0	0
1770	151.1	9.1	863.1	16.2	5.2	0	0
1771	142.6	9.1	863.1	16.2	5.2	0	0
1772	150.5	9.1	863.1	16.2	5.2	0	0
1773	149.6	8.3	795.4	13.4	2.3	0	0
1774	174.9	8.3	795.4	13.4	2.3	0	0
1775	156.1	8.3	795.4	13.4	2.3	0	0
1776	161	7.6	748.8	8.6	0	0	0
1777	143.2	7.6	748.8	8.6	0	0	0
1778	149.7	7.6	748.8	8.9	0	0	0
1779	171.6	7.6	748.8	8.9	0	0	0
1780	164.8	8.0	765.5	15.6	2.9	0	0
1781	170.6	8.0	765.5	15.6	2.9	0	0
1782	171.5	8.0	765.5	15.6	2.9	0	0
1783	148.6	8.6	836.3	15.6	2.9	0	0
1784	153.5	8.6	836.3	10.4	2.9	0	0
1785	191	8.6	836.3	10.4	2.9	0	0
1786	168.5	9.2	883.4	14.1	2.9	0	0
1787	163.4	9.2	883.4	14.1	2.9	0	0
1788	204.2	9.2	883.4	14.1	2.9	0	0
1789	158.9	9.4	901.6	16.8	3.1	0	0
1790	187.3	9.4	901.6	16.8	3.1	0	0
1791	200.5	9.4	901.6	16.8	3.1	0	0
1792	165.6	9.8	943.1	16.5	4.1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1793	135.5	9.8	943.1	16.5	4.1	0	0
1794	142.5	9.8	943.1	16.5	4.1	0	0
1795	170.3	9.7	940.1	15.9	0.8	0	0
1796	145.7	9.7	940.1	15.9	0.8	0	0
1797	126.6	9.7	940.1	15.9	2.3	0	0
1798	135.5	9.3	905.1	12.2	2.3	0	0
1799	173.8	9.3	905.1	12.2	2.3	0	0
1800	176.7	9.3	905.1	14.4	2.3	0	0
1801	144.6	9.3	883.9	18.3	3.9	0	0
1802	114.1	9.3	888.2	18.3	4	0	0
1803	186	9.3	892.5	18.3	4.1	0	0
1804	174.5	9.3	892.5	15.3	4.1	0	0
1805	169.2	9.6	935	15.3	4.1	0	0
1806	142.6	9.6	935	12.8	1.6	0	0
1807	153.7	10.1	963.3	20.5	1.8	0	0
1808	142.3	10.4	988.6	20.2	3.9	0	0
1809	113.5	10.4	988.6	20.2	3.9	0	0
1810	109.9	10.4	988.6	20.2	3.9	0	0
1811	94.8	9.9	951.2	17.1	3.1	0	0
1812	81.2	9.6	929.4	13.4	2.1	0	0
1813	119.8	9.6	929.4	15	2.1	0	0
1814	81	9.2	891	18.6	1.6	0	0
1815	90.6	9.0	876	10	4	0	0
1816	135.8	9.4	922	11	0	0	0
1817	148.7	9.4	922	11	0	0	0
1818	50.3	9.3	910	11	1	0	0
1819	89.8	9.2	898	11	2	0	0
1820	154.3	9.7	936	15	3	0	0
1821	187.3	9.7	936	15	3	0	0
1822	174.8	9.7	936	15	3	0	0
1823	111.7	10.9	1058	13	2	0	0
1824	166.4	10.9	1058	13	2	0	0
1825	158	11.4	1117	12	2	0	0
1826	198.7	17.9	1747	24	0	0	0
1827	79.8	17.9	1747	24	0	0	0
1828	144.5	16.3	1591	22	0	0	0
1829	130.6	16.3	1591	22	0	0	0
1830	164	16.3	1591	22	0	0	0
1831	160	13.4	1309	17	1	0	0
1832	181.4	13.4	1309	17	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1833	186.4	13.4	1309	17	1	0	0
1834	184.3	10.1	991	13	0	0	0
1835	88.7	6.5	636	9	1	0	0
1836	111.9	7.0	675	11	1	0	0
1837	139.1	7.0	675	11	1	0	0
1838	161.4	7.6	743	10	1	0	0
1839	142.1	12.7	1222	29	0	0	0
1840	129.7	12.7	1222	29	0	0	0
1841	129.7	11.6	1127	16	2	0	0
1842	38.7	11.6	1127	16	2	0	0
1843	50.2	11.3	1097	17	0	0	0
1844	50.9	11.0	1081	7	2	0	0
1845	42.9	10.7	1050	13	0	0	0
1846	58.7	9.8	952	13	0	0	0
1847	76.6	8.9	850	19	1	0	0
1848	103	8.9	850	19	1	0	0
1849	70.9	8.0	774	12	0	0	0
1850	87	7.5	718	12	2	0	0
1851	105.4	7.5	718	12	2	0	0
1852	49.2	7.0	680	10	2	0	0
1853	38.8	7.0	680	10	2	0	0
1854	38.5	7.0	680	10	2	0	0
1855	42.5	7.0	680	10	2	0	0
1856	63.3	7.0	680	10	2	0	0
1857	72.4	7.5	718	12	2	0	0
1858	70.1	7.9	760.4	11	2	0	0
1859	94.5	8.5	826.7	11.6	2.6	0	0
1860	112.3	9.0	876.8	11.6	2.9	0	0
1861	53.8	10.6	1030.6	12.8	3.6	0	0
1862	36.7	11.1	1085.8	12.8	3.6	0	0
1863	42.2	11.7	1120.7	22.9	3.4	0	0
1864	89.2	11.7	1120.7	22.9	3.4	0	0
1865	71.6	11.9	1159.1	14.4	2.3	0	0
1866	36.9	12.4	1214.3	14.7	1.8	0	0
1867	53.5	12.9	1252.2	15.3	2.3	0	0
1868	38.2	13.0	1264.9	15.3	2.3	0	0
1869	59.1	12.9	1259.3	10.1	2.9	0	0
1870	48.8	12.9	1259.3	15.9	3.6	0	0
1871	40.3	12.5	1207.7	15.9	3.6	0	0
1872	45.4	12.2	1199.1	14.4	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1873	72.6	12.2	1190	17.1	1	0	0
1874	80	11.8	1161.1	17.1	1.6	0	0
1875	61.1	11.9	1161.1	13.1	4.1	0	0
1876	41.5	12.2	1171.3	22.6	4.1	0	0
1877	58.4	12.1	1186.4	15	2.6	0	0
1878	13.7	10.1	994.7	11.9	2.3	0	0
1879	36.1	9.5	924.9	11.9	2.3	0	0
1880	50.8	8.7	850.5	17.7	3.1	0	0
1881	36.2	8.1	771.1	17.7	2.1	0	0
1882	82.3	8.1	771.1	17.7	2.6	0	0
1883	88.4	7.8	755.9	8.6	2.6	0	0
1884	88.3	7.8	756.4	8.6	4.1	0	0
1885	37.7	8.1	782.2	11.3	4.1	0	0
1886	52.7	8.3	814.1	11.3	3.4	0	0
1887	64.3	8.3	814.1	7	1.8	0	0
1888	123.9	9.2	873.3	18.3	4.1	0	0
1889	130.7	9.6	924.9	18.3	4.1	0	0
1890	72.2	9.6	924.9	13.1	2.6	0	0
1891	109.6	9.6	924.9	13.1	2.6	0	0
1892	104.6	10.2	990.6	12.2	1.8	0	0
1893	126.7	10.2	990.6	12.2	1.8	0	0
1894	151.1	10.5	1025	12.2	2.1	0	0
1895	130	10.5	1025	8.6	2.1	0	0
1896	109.8	11.1	1086.8	10.4	2.1	0	0
1897	91.9	11.1	1086.8	10.4	1.6	0	0
1898	97	11.9	1157.6	13.8	2.3	0	0
1899	99.7	12.2	1187	15	2.3	0	0
1900	88.8	12.4	1215.8	15	4.1	0	0
1901	75.3	12.4	1215.8	7.9	4.1	0	0
1902	98.1	13.2	1295.2	14.1	4.1	0	0
1903	84.2	14.5	1399.4	26.3	0	0	0
1904	94.5	15.0	1472.3	26.3	0	0	0
1905	68.4	15.0	1472.3	14.7	0	0	0
1906	77.2	14.8	1454.1	12.2	1.3	0	0
1907	95.4	14.8	1454.1	15.9	1.6	0	0
1908	82.1	14.8	1448	15.9	2.1	0	0
1909	105.4	14.5	1418.4	15	2.1	0	0
1910	120.1	14.2	1388.8	14.1	2.1	0	0
1911	112.5	14.0	1378.2	13.4	0	0	0
1912	101.7	14.0	1378.2	13.4	0.5	0	0
1913	124.8	14.1	1390.3	14.7	2.9	0	0
1914	91.7	11.5	1116.6	14.4	1.6	0	0
1915	110.4	11.5	1116.6	14.4	2.9	0	0
1916	114.9	10.8	1053.4	10.4	2.9	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1917	105.9	10.8	1053.4	18	2.9	0	0
1918	111.2	10.2	984.6	18	1.6	0	0
1919	99	9.5	925.4	8.9	1.6	0	0
1920	110	9.9	958.8	11.6	4.1	0	0
1921	105.4	7.7	755	6	3	0	0
1922	66.2	3.9	376	5	2	0	0
1923	101.6	5.3	499	9	4	0	0
1924	110	5.3	499	9	4	0	0
1925	122.6	4.8	458	6	3	0	0
1926	119.3	4.7	458	4	2	0	0
1927	123.5	3.9	376	5	2	0	0
1928	89.3	3.6	340	10	2	0	0
1929	77.7	3.6	340	9.8	1.8	0	0
1930	93.4	5.6	543.4	6.7	2.3	0	0
1931	118.3	6.7	646	12	2	0	0
1932	109.2	6.7	646	12	2	0	0
1933	107.4	7.7	745	12	3	0	0
1934	119.4	2.1	194	4	4	0	0
1935	40	1.8	160	5	3	0	0
1936	35.3	1.2	103	5	3	0	0
1937	24.3	1.2	103	5	3	0	0
1938	27.4	1.2	103	5	3	0	0
1939	34.9	5.3	499	9	4	0	0
1940	52.6	4.8	458	6	3	0	0
1941	52.6	4.7	458	4	2	0	0
1942	66.6	3.9	376	5	2	0	0
1943	57.9	3.6	340	10	2	0	0
1944	77.4	3.6	340	10	2	0	0
1945	65.4	5.3	499	9	4	0	0
1946	62.5	4.8	458	6	3	0	0
1947	56.6	4.7	458	4	2	0	0
1948	67.1	3.9	376	5	3	0	0
1949	71.7	3.9	376	4	2	0	0
1950	78.3	3.5	340	3	2	0	0
1951	81.3	3.6	340	4	3	0	0
1952	67.4	5.6	543	7	2	0	0
1953	66.9	6.7	646	12	2	0	0
1954	82.2	6.7	646	12	2	0	0
1955	52.5	14.8	1421	22	6	0	0
1956	64.1	19.0	1829	27	9	0	0
1957	68	34.7	3374	38	11	0	0
1958	61.2	51.7	5027	58	15	0	0
1959	103.4	58.7	5590	71	56	0	0
1960	71.9	58.7	5590	71	56	0	0
1961	52.8	60.3	5761	72	50	0	0
1962	66.3	60.0	5757	62	49	0	0
1963	63.5	60.1	5779	61	45	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1964	82.7	68.8	6617	72	49	0	0
1965	108.2	50.4	4860	49	35	0	0
1966	103.9	50.3	4860	47	32	0	0
1967	88.4	56.1	5342.3	66.9	60.5	0	0
1968	77.9	58.5	5614.5	66.9	53.3	0	0
1969	89.4	58.5	5614.5	58.4	49.7	0	0
1970	101.9	58.9	5694.4	40.3	46.3	0	0
1971	103.4	58.9	5694.4	40.3	46.3	0	0
1972	120	60.7	5841.1	63.6	44	0	0
1973	103.7	60.7	5841.1	65.7	48.4	0	0
1974	64.8	55.8	5348.3	65.7	42.4	0	0
1975	115.5	54.3	5216.8	59	41.1	0	0
1976	144.3	54.3	5216.8	59	41.1	0	0
1977	158.9	54.3	5216.8	59	41.1	0	0
1978	170.4	63.1	6035.4	76.4	50.2	0	0
1979	74.5	66.6	6349.6	92.3	53.3	0	0
1980	96	66.6	6349.6	92.3	53.3	0	0
1981	142.1	68.0	6485	92.3	54.4	0	0
1982	123.8	69.3	6620.3	92.3	55.4	0	0
1983	130.4	69.3	6620.3	90.1	55.4	0	0
1984	140.8	69.3	6620.3	90.1	55.4	0	0
1985	115.1	68.2	6523.2	81.9	55.1	0	0
1986	170.9	68.2	6523.2	85.2	55.1	0	0
1987	150.5	62.7	5975.2	85.2	53.8	0	0
1988	138.3	62.7	5975.2	85.2	53.8	0	0
1989	160	58.9	5624.6	107.6	47.1	0	0
1990	123.9	53.9	5135.3	107.6	22.2	0	0
1991	125	52.4	5008.4	62.6	44.2	0	0
1992	120.4	52.4	5008.4	62.6	44.2	0	0
1993	154.1	52.4	5008.4	62.6	44.2	0	0
1994	143.1	49.9	4771.6	63.2	39.3	0	0
1995	130.7	49.9	4771.6	63.2	39.3	0	0
1996	159.1	49.9	4771.6	63.2	39.3	0	0
1997	148	47.7	4567	55	39	0	0
1998	138	47.7	4567	55	39	0	0
1999	144.3	44.6	4274	54	32	0	0
2000	143.1	44.6	4274	54	32	0	0
2001	135.3	44.4	4256	53	34	0	0
2002	109.9	44.4	4256	53	34	0	0
2003	133.8	44.4	4256	53	34	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2004	131.8	45.8	4368	68	33	0	0
2005	104.9	45.8	4368	68	33	0	0
2006	114.4	47.8	4583	56	35	0	0
2007	108.6	47.8	4583	56	35	0	0
2008	107.1	53.0	5087	56	41	0	0
2009	115.4	58.2	5645	41	36	0	0
2010	127.2	58.2	5645	41	37	0	0
2011	159.7	64.2	6161	74	46	0	0
2012	87.2	64.2	6160.9	73.6	46.3	0	0
2013	92.7	61.8	5943.8	64.8	46	0	0
2014	48.2	44.6	4273.2	48.6	36	0	0
2015	65	44.6	4273.2	48.6	36	0	0
2016	88.5	42.6	4071.8	55.9	37	6.1	0
2017	48.1	28.5	2684.5	35.4	28.2	5.7	0
2018	54.3	28.5	2684.5	35.4	28.2	5.7	0
2019	92.2	32.0	3003.3	67.2	16.8	8.8	0
2020	118.3	32.0	3003.3	67.2	16.8	8.8	0
2021	136.7	37.3	3539.6	44	34.9	5.7	0
2022	59.4	37.3	3539.6	44	34.9	5.7	0
2023	112.4	37.3	3539.6	44	34.9	5.7	0
2024	82.1	37.3	3539.6	44	34.9	5.7	0
2025	45.4	0.4	25	5	2	0	0
2026	48.4	0.2	17	2	1	0	0
2027	46	0.2	17	2	1	0	0
2028	46	0.3	15	4	2	0	0
2029	46.2	0.3	20	5	2	0	0
2030	55.5	0.4	18	6	3	0	0
2031	55.5	0.4	18	6	3	0	0
2032	39.2	0.3	15	5	2	0	0
2033	58.4	0.3	15	5	2	0	0
2034	56.6	0.3	15	5	2	0	0
2035	52.1	0.1	13	1	0	0	0
2036	70.9	0.2	14	2	1	0	0
2037	81	0.3	18	3	1	0	0
2038	79.8	0.3	18	3	1	0	0
2039	85.1	0.4	27	5	1	0	0
2040	82.8	0.3	26	3	1	0	0
2041	76.5	0.3	26	3	1	0	0
2042	123.4	0.3	15	5	2	0	0
2043	87.5	0.3	15	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2044	90.1	0.1	13	1	0	0	0
2045	2.9	0.2	14	2	1	0	0
2046	98.1	0.3	18	3	1	0	0
2047	122.8	0.3	18	3	1	0	0
2048	131.4	0.4	27	5	2	0	0
2049	170.6	0.6	50	4	2	0	0
2050	65.6	0.4	29	2	1	0	0
2051	112.1	0.4	29	2	1	0	0
2052	111.6	0.3	30	1	0	0	0
2053	97.8	0.3	30	1	0	0	0
2054	44.6	0.4	31	2	1	0	0
2055	61.2	0.4	31	2	1	0	0
2056	83	0.4	32	2	1	0	0
2057	83.9	0.5	39	4	2	0	0
2058	74.7	0.5	39	4	2	0	0
2059	116	0.6	50	2	1	0	0
2060	93.7	0.9	71	6	3	0	0
2061	101	0.9	71	6	3	0	0
2062	113.4	1.0	97	2	1	0	0
2063	78.1	1.3	124	3	1	0	0
2064	47.1	1.6	153	3	1	0	0
2065	38.3	1.9	187	2	1	0	0
2066	35	4.5	432	7	3	0	0
2067	25	5.0	478	7	3	0	0
2068	6.8	5.0	478	7	3	0	0
2069	99.1	5.1	497	7	0	0	0
2070	106.3	5.3	514	7	3	0	0
2071	62.9	5.7	547	7	3	0	0
2072	57	5.7	547	7	4	0	0
2073	106.4	6.2	590	8	4	0	0
2074	96.5	6.4	604	12	6	0	0
2075	106	6.6	619	12	6	0	0
2076	75	6.4	619	7	3	0	0
2077	92.8	6.4	620	7	3	0	0
2078	90	6.4	620	6	3	0	0
2079	120.1	6.4	620	6	3	0	0
2080	109.4	6.2	589	12	3	0	0
2081	83.4	6.0	573	9	4	0	0
2082	73.1	5.6	539	8	4	0	0
2083	90.1	5.6	539	8	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2084	85.2	5.4	519	8	4	0	0
2085	95.6	5.4	519	8	4	0	0
2086	101.8	5.2	504	4	2	0	0
2087	108.3	4.9	473	6	3	0	0
2088	84.9	5.3	511	6	3	0	0
2089	93.7	5.2	511	2	1	0	0
2090	105.9	5.6	552	3	1	0	0
2091	105.9	5.8	564	4	2	0	0
2092	89.5	5.9	577	4	2	0	0
2093	83.7	6.4	617	8	4	0	0
2094	86	6.4	617	8	4	0	0
2095	100.8	6.7	644	8	4	0	0
2096	107.9	6.6	644	6	3	0	0
2097	103.4	7.0	677	7	3	0	0
2098	112.1	7.0	677	7	3	0	0
2099	151.4	7.5	734	7	3	0	0
2100	138	7.5	734	7	3	0	0
2101	138	8.4	815	7	3	0	0
2102	118.4	14.8	1432	14	7	0	0
2103	115.6	13.4	1298	12	6	0	0
2104	205.7	13.5	1298	16	8	0	0
2105	134.9	12.8	1232	16	8	0	0
2106	127	14.0	1332	20	10	0	0
2107	116.1	13.2	1260	19	9	0	0
2108	134.8	12.3	1170	19	9	0	0
2109	119.3	11.3	1082	16	8	0	0
2110	84.9	11.3	1082	16	8	0	0
2111	118.1	10.8	1030	15	7	0	0
2112	150.3	10.8	1030	15	7	0	0
2113	168.9	10.8	1030	15	7	0	0
2114	133.2	10.2	976	15	7	0	0
2115	106	9.3	896	12	6	0	0
2116	102.9	9.4	896	13	6	0	0
TEREBRATULA Mbr.							
2117	106.3	8.3	790	13	6	0	0
2118	91	8.3	790	14	7	0	0
2119	74.5	7.3	687	14	7	0	0
2120	59.1	6.3	600	10	5	0	0
2121	74.7	5.4	519	8	4	0	0
2122	114.5	5.4	519	8	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2123	115.3	5.4	519	8	4	0	0
2124	111.7	4.8	459	6	3	0	0
2125	137.3	4.8	459	6	3	0	0
2126	123.7	4.4	426	6	3	0	0
2127	120.5	4.4	426	6	3	0	0
2128	120.5	7.3	699	9	4	0	0
2129	120.5	6.9	664	8	4	0	0
2130	32.9	6.9	664	9	4	0	0
2131	90.3	6.6	636	9	4	0	0
2132	102.5	6.6	636	9	4	0	0
2133	99.8	6.6	636	9	4	0	0
2134	66.8	6.6	631	8	4	0	0
2135	66.8	6.5	626	8	4	0	0
2136	66.8	6.5	626	8	4	0	0
2137	19.8	6.5	626	8	4	0	0
2138	87.8	6.4	619	8	4	0	0
2139	98.3	6.4	611	8	4	0	0
2140	127.3	6.0	586	5	2	0	0
2141	153.3	5.8	564	6	3	0	0
2142	113.2	5.8	564	6	3	0	0
2143	113.2	5.5	536	4	2	0	0
2144	129.8	5.5	536	4	2	0	0
2145	190.8	5.5	536	4	2	0	0
2146	182.5	5.4	521	6	3	0	0
2147	124.6	5.3	506	9	4	0	0
2148	107.4	4.9	461	9	4	0	0
2149	103.7	4.9	461	9	4	0	0
2150	152.8	4.9	461	9	4	0	0
2151	143.4	4.8	448	9	4	0	0
2152	166.9	4.8	448	9	4	0	0
2153	145.3	4.5	447	0	0	0	0
2154	158.2	4.5	447	0	0	0	0
2155	152.4	4.5	447	0	0	0	0
2156	153.3	5.0	470	10	5	0	0
2157	151.3	5.0	470	10	5	0	0
2158	190.9	5.5	514	10	5	0	0
2159	159.8	5.3	514	4	2	0	0
2160	165.9	5.3	514	4	5	0	0
2161	160.9	7.1	678	11	5	0	0
2162	34.8	7.1	678	11	5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2163	105.4	7.1	678	11	5	0	0
2164	160.3	9.1	876	11	5	0	0
2165	166.2	10.3	997	12	6	0	0
2166	165.3	11.6	1118	13	6	0	0
2167	141.6	11.6	1118	13	6	0	0
2168	144.8	11.6	1118	13	6	0	0
2169	131.5	14.8	1421	18	9	0	0
2170	116.6	18.3	1776	18	9	0	0
2171	101.8	18.3	1776	16	8	0	0
2172	112.1	21.3	2054	23	11	0	0
2173	117.5	21.3	2054	23	11	0	0
2174	214	21.3	2054	23	11	0	0
2175	134.2	25.1	2405	30	15	4	0
2176	162.9	25.0	2393	30	14	3	0
2177	7.7	24.8	2380	30	13	3	0
2178	201.8	24.2	2340	22	11	3	0
2179	182.1	24.3	2340	22	11	6	0
2180	175.9	23.6	2273	20	10	6	0
2181	212.6	22.8	2206	17	8	6	0
2182	172.6	22.8	2206	17	8	6	0
2183	209.6	22.8	2206	17	8	6	0
2184	254.9	21.8	2123	15	7	4	0
2185	217.3	20.9	2040	12	6	2	0
2186	241.8	20.9	2040	12	6	2	0
2187	179.5	19.2	1876	11	5	2	0
2188	164.3	19.2	1876	12	6	3	0
2189	199.2	19.2	1876	12	6	3	0
2190	89	17.6	1711	12	6	3	0
2191	112.4	17.6	1711	12	6	3	0
2192	164.3	15.6	1512	11	5	3	0
2193	141.2	15.6	1512	11	5	3	0
2194	125.8	15.7	1512	11	5	6	0
2195	87.2	14.9	1425	14	7	6	0
2196	148.1	14.7	1406	14	7	5	0
2197	169.6	14.5	1388	14	7	4	0
2198	173	14.0	1371	8	4	1	0
2199	79.5	14.0	1371	8	4	1	0
2200	160	14.0	1371	8	4	1	0
2201	203.6	10.5	1000	13	6	3	0
2202	0.2	2.5	224	2	1	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2203	69.7	2.2	195	2	1	5	0
2204	111.8	2.2	195	3	1	5	0
2205	131.5	1.9	175	3	1	2	0
2206	123.7	1.9	175	3	1	3	0
2207	74.6	1.7	147	3	1	3	0
2208	116.8	1.5	132	2	1	2	0
2209	111.7	1.5	132	3	1	4	0
2210	90	1.4	115	3	2	4	0
2211	95.4	1.3	106	3	2	4	0
2212	78.4	1.3	106	3	2	4	0
2213	107.2	1.1	86	4	2	2	0
2214	154.4	1.1	86	4	2	2	0
2215	143.2	0.8	72	2	1	0	0
2216	137.7	0.8	72	2	1	0	0
2217	127.6	0.8	72	2	2	0	0
2218	75.6	0.7	61	2	1	0	0
2219	34.8	0.7	60	3	1	0	0
2220	31.3	0.7	59	5	2	0	0
2221	19.9	0.7	59	5	2	0	0
2222	137.7	0.9	80	3	1	0	0
2223	137.4	0.9	80	3	1	0	0
2224	70.8	0.9	80	3	1	0	0
2225	65.4	0.9	80	3	1	0	0
2226	45.1	1.0	95	2	1	0	0
2227	115.7	1.1	99	2	1	0	0
2228	70.4	1.1	99	2	1	0	0
2229	91.6	1.1	100	2	1	0	0
2230	62.6	1.1	100	2	1	0	0
2231	61.2	1.1	104	3	1	0	0
2232	65	1.2	108	3	1	0	0
2233	65	1.3	116	4	2	0	0
2234	22.5	1.3	116	4	2	0	0
2235	69.7	1.5	134	5	2	0	0
2236	70.4	1.5	134	5	2	0	0
2237	94.4	1.4	144	0	0	0	0
2238	110.1	1.6	144	7	3	0	0
2239	96.6	1.7	145	7	3	0	0
2240	54.8	1.6	145	6	3	0	0
2241	74.5	1.4	134	2	1	0	0
2242	115.5	1.4	131	3	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2243	101	1.4	128	4	2	0	0
2244	96.5	1.7	157	3	1	0	0
2245	80.3	1.7	157	3	1	0	0
2246	155.8	1.7	157	3	1	0	0
2247	166.4	2.2	195	5	2	3	0
2248	159.6	2.1	195	5	2	1	0
2249	161.4	2.7	252	5	2	2	0
2250	146.8	2.7	252	3	1	3	0
2251	171.7	2.7	252	3	1	3	0
2252	194.3	2.7	252	3	1	3	0
2253	189.6	3.4	318	3	2	3	0
2254	213.4	3.4	318	3	1	3	0
2255	169.9	3.9	365	4	2	3	0
2256	222.3	4.3	412	4	2	2	0
2257	151.2	4.3	412	4	2	2	0
2258	179.1	4.3	412	4	2	1	0
2259	176.3	5.2	497	5	2	1	0
2260	203.8	5.2	497	5	2	2	0
2261	205	5.2	497	5	2	2	0
2262	154.3	5.6	538	5	2	2	0
2263	127.3	6.1	579	6	3	2	0
2264	164.8	6.4	616	6	3	1	0
2265	154.1	6.8	652	7	3	1	0
2266	163.2	6.8	652	7	3	1	0
2267	116.6	7.5	723	7	3	1	0
2268	139.8	7.6	723	6	3	4	0
2269	144.8	7.6	723	6	3	4	0
2270	139.8	8.3	791	10	5	3	0
2271	113.4	8.3	791	10	5	3	0
2272	118.4	9.1	858	12	6	3	0
2273	74.1	9.0	858	12	6	1	0
2274	138.6	10.1	974	9	4	2	0
2275	143.4	11.7	1107	16	8	3	0
2276	87.4	11.7	1107	16	8	3	0
2277	202.5	11.7	1107	16	8	3	0
2278	178.2	11.7	1107	16	8	3	0
2279	136.6	13.0	1224	21	10	3	0
2280	104.7	14.1	1333	23	11	3	0
2281	105.5	14.1	1333	23	11	2	0
2282	122.1	15.3	1452	23	11	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2283	122.5	15.1	1452	18	9	1	0
2284	160.9	15.1	1452	18	9	1	0
2285	157.6	15.5	1484	20	10	2	0
2286	161.6	15.9	1516	21	10	2	0
2287	166.3	15.9	1516	21	10	2	0
2288	180.2	16.1	1539	22	9	2	0
2289	188.8	16.4	1562	24	12	1	0
2290	198.1	16.4	1562	24	12	1	0
2291	192.7	16.4	1562	24	12	1	0
2292	210.4	16.4	1562	24	12	1	0
2293	176.6	16.8	1590	25	12	4	0
2294	186.3	16.8	1590	25	12	4	0
2295	174.8	16.9	1600	24	12	3	0
2296	123.8	16.9	1600	24	12	3	0
2297	0.3	10.1	955	17	8	0	0
2298	91.7	5.1	487	6	3	0	0
2299	115.7	5.1	487	6	3	0	0
2300	100.3	5.1	487	6	3	0	0
2301	164.5	5.7	538	9	4	0	0
2302	170.5	5.7	538	9	4	0	0
2303	172.5	6.2	596	9	4	0	0
2304	116	6.2	596	7	3	0	0
2305	133.5	6.2	596	7	3	0	0
2306	156.1	6.7	646	8	4	0	0
2307	165.5	6.7	646	8	4	0	0
2308	141.7	6.7	646	8	4	0	0
2309	127.8	7.4	696	14	7	0	0
2310	125.3	7.4	696	14	7	0	0
2311	127.8	7.6	707	16	8	0	0
2312	137.6	7.6	707	16	8	0	0
2313	127.6	7.6	707	16	8	0	0
2314	89.3	7.2	693	8	4	0	0
2315	96.6	7.1	674	12	6	0	0
2316	123.1	7.1	674	12	6	0	0
2317	83.4	6.8	631	17	8	0	0
2318	145.9	6.8	631	17	8	0	0
2319	123	6.4	593	15	7	0	0
2320	123	6.4	593	15	7	0	0
2321	113.7	6.0	565	13	6	0	0
2322	105.7	6.0	565	13	6	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2323	107	6.0	565	13	6	0	0
2324	120.3	5.6	532	10	5	0	0
2325	131.3	5.6	532	10	5	0	0
2326	125.4	5.4	506	12	6	0	0
2327	125.4	5.4	506	12	6	0	0
2328	125.4	5.3	487	13	7	0	0
2329	125.4	5.3	487	13	7	0	0
2330	27.3	5.2	482	12	6	0	0
2331	27.3	5.1	474	11	5	0	0
2332	27.3	5.0	468	10	5	0	0
2333	94.6	4.7	446	9	4	0	0
2334	141.8	4.5	428	8	4	0	0
2335	95.9	4.6	428	9	4	0	0
2336	147.1	4.3	404	9	4	0	0
2337	163.3	4.3	404	9	4	0	0
2338	165.3	4.3	404	9	4	0	0
2339	182.5	4.1	392	7	3	0	0
2340	160	3.9	380	4	2	0	0
2341	157.8	3.7	358	4	2	0	0
2342	171.6	3.8	358	7	3	0	0
2343	100.6	2.9	287	2	1	0	0
2344	87.2	2.9	287	2	1	0	0
2345	110.6	3.0	287	3	1	0	0
2346	171.9	2.8	274	3	1	0	0
2347	184.1	2.8	274	3	1	0	0
2348	231.2	2.8	274	3	1	0	0
2349	196.7	2.8	270	3	1	0	0
2350	199.8	2.7	266	3	1	0	0
2351	218.8	2.8	266	5	2	0	0
2352	214.2	2.8	266	6	3	0	0
2353	237.6	2.8	258	6	3	0	0
2354	219.9	2.8	258	6	3	0	0
2355	236.1	2.8	258	6	3	0	0
2356	210.6	2.7	256	5	2	0	0
2357	229.4	2.6	254	3	1	0	0
2358	172.5	2.6	254	3	1	0	0
2359	144	2.6	254	3	1	0	0
2360	144	2.6	254	3	1	0	0
2361	241.3	2.9	271	6	3	0	0
2362	243.8	2.9	271	6	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2363	220.8	2.9	271	6	3	0	0
2364	199.5	2.9	271	6	3	0	0
2365	247.2	2.9	271	6	3	0	0
2366	233.9	2.9	271	6	3	0	0
2367	286.5	3.3	317	4	2	0	0
2368	259.6	3.3	317	4	2	0	0
2369	230.2	3.3	317	4	2	0	0
2370	240	3.6	347	5	2	0	0
2371	241	3.9	376	6	3	0	0
2372	283.3	3.9	376	6	3	0	0
2373	285.1	3.9	376	6	3	0	0
2374	230.4	4.6	449	4	2	0	0
2375	258.1	4.6	449	4	2	0	0
2376	249.8	4.6	449	4	2	0	0
2377	212.8	4.6	449	4	2	0	0
2378	240.7	5.4	528	5	2	0	0
2379	213.7	5.4	528	5	2	0	0
2380	202.5	5.4	528	5	2	0	0
2381	134.4	6.8	644	12	6	0	0
2382	139.9	6.8	644	12	6	0	0
2383	158.5	6.8	644	12	6	0	0
2384	179.4	7.6	734	8	4	0	0
2385	153.7	7.6	734	8	4	0	0
2386	121	8.7	825	15	7	0	0
2387	142.2	8.7	825	15	7	0	0
2388	140.5	9.5	901	15	7	0	0
2389	168.8	9.5	901	15	7	0	0
2390	224.4	9.5	901	15	7	0	0
2391	214	9.5	901	15	7	0	0
2392	199.5	27.2	2631	28	14	0	0
2393	14.2	5.8	544	11	5	0	0
2394	66.9	5.2	483	11	5	0	0
2395	66.6	4.8	463	5	2	0	0
2396	74.6	4.9	463	9	4	0	0
2397	79	4.8	446	10	5	0	0
2398	56.1	4.6	431	10	5	0	0
2399	59.8	4.4	412	8	4	0	0
2400	49.9	4.2	396	8	4	0	0
2401	13.9	3.8	355	8	4	0	0
2402	65.6	3.5	336	6	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2403	125.3	3.5	336	6	3	0	0
2404	111.2	3.5	325	8	4	0	0
2405	60.3	3.5	325	8	4	0	0
2406	40.3	3.3	323	3	1	0	0
2407	47.3	3.4	336	3	1	0	0
2408	49.8	3.6	345	5	2	0	0
2409	46.4	3.5	338	4	2	0	0
2410	52.1	3.3	323	3	1	0	0
2411	48.4	3.3	323	3	1	0	0
2412	62	3.2	305	4	2	0	0
2413	59.2	3.1	287	7	3	0	0
2414	56.9	2.8	258	7	3	0	0
2415	54	2.6	244	6	3	0	0
2416	48.1	2.4	225	4	2	0	0
2417	97.8	2.4	225	4	2	0	0
2418	97.8	2.3	218	4	2	0	0
2419	40.6	2.1	201	3	1	0	0
2420	28	2.1	192	5	2	0	0
2421	83.4	1.9	186	2	1	0	0
2422	56.7	1.8	172	3	1	0	0
2423	58.4	1.8	172	3	1	0	0
2424	85.7	1.9	175	5	2	0	0
2425	66.4	1.8	177	2	1	0	0
2426	52.8	2.1	192	5	2	0	0
2427	56.9	2.3	219	5	2	0	0
2428	62	2.6	242	6	3	0	0
2429	84	3.1	289	7	3	0	0
2430	122.1	3.1	289	7	3	0	0
2431	73.1	3.6	331	9	4	0	0
2432	62.7	3.8	379	0	0	0	0
2433	53.8	4.2	409	5	2	0	0
2434	46.5	4.6	441	6	3	0	0
2435	66.3	4.6	450	4	2	0	0
2436	68.9	4.6	445	6	3	0	0
2437	35.8	4.9	472	5	2	0	0
2438	39.7	5.2	499	6	3	0	0
2439	48.4	6.0	574	8	4	0	0
2440	31.7	6.6	640	7	3	0	0
2441	73	7.3	698	9	4	0	0
2442	85.2	7.7	738	10	5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2443	79.5	7.7	738	10	5	0	0
2444	48.6	8.4	810	9	4	0	0
2445	48.6	9.8	940	12	6	0	0
2446	50.3	10.5	1008	12	6	0	0
2447	83.5	11.1	1074	13	6	0	0
2448	86.1	11.1	1074	13	6	0	0
2449	78.9	20.4	1960	24	12	0	0
2450	69.3	24.5	2285	53	26	0	0
2451	95.7	25.1	2428	25	12	0	0
2452	75.2	25.1	2428	25	12	0	0
2453	90.3	26.1	2509	32	16	0	0
2454	74.7	27.4	2642	33	16	0	0
2455	89.8	27.4	2642	33	16	0	0
2456	113.7	29.2	2831	29	14	0	0
2457	113.7	29.2	2831	29	14	0	0
2458	113.7	29.2	2831	29	14	0	0
2459	113.7	29.2	2831	29	14	0	0
2460	108.2	31.2	3008	37	18	0	0
2461	116.5	33.6	3234	40	20	0	0
2462	106.1	33.6	3234	40	20	0	0
2463	125.3	36.1	3488	40	20	0	0
2464	115.4	36.1	3488	40	20	0	0
2465	94.4	37.6	3637	38	19	0	0
2466	89.9	37.6	3637	38	19	0	0
2467	130.3	38.0	3670	43	21	0	0
2468	134.3	38.0	3670	43	21	0	0
2469	111.8	38.0	3670	43	21	0	0
2470	120.5	38.6	3728	43	21	0	0
2471	138.8	38.6	3728	43	21	0	0
2472	156.6	39.7	3840	41	20	0	0
2473	130.7	39.7	3840	41	20	0	0
2474	154.9	39.7	3840	41	20	0	0
2475	119.9	41.0	3944	50	25	0	0
2476	122	42.6	4088	55	27	0	0
2477	100.1	42.6	4088	55	27	0	0
2478	106.3	45.9	4282	99	49	0	0
2479	120.3	47.5	4396	112	56	0	0
2480	108.2	49.0	4510	124	62	0	0
2481	82.7	49.0	4510	124	62	0	0
2482	28.9	48.8	4521	114	57	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2483	82.6	47.8	4454	103	51	0	0
2484	79.7	49.4	4564	120	60	0	0
2485	95.4	272.3	20185.7	938.3	1985.3	0	0
2486	45.4	16.2	1432	59	29	0	0
2487	66.7	13.8	1276	34	17	0	0
2488	131.1	12.9	1123	53	26	0	0
2489	73.8	12.1	1018	53	26	8	0
2490	26.3	8.6	759	32	16	0	0
2491	11.8	8.6	745	38	19	0	0
2492	48.6	8.7	763	34	17	0	0
2493	35.9	9.2	803	36	18	0	0
2494	57.4	9.4	823	37	17	0	0
2495	106.4	9.9	867	39	18	0	0
2496	62.8	9.8	869	37	16	0	0
2497	123.8	12.4	870.2	37.3	110.4	0	0
2498	99.1	12.4	870.2	37.3	110.4	0	0
2499	84.9	11.7	828.7	34.2	105.3	0	0
2500	33.9	10.7	766	29.6	93.6	0	0
2501	73.2	10.7	766	29.6	93.6	0	0
2502	115.5	10.4	734.6	35.4	90.5	0	0
2503	119	10.3	727.6	35.4	86.9	0	0
2504	116.6	12.7	1186	28	14	0	0
2505	116.6	22.3	1979	80	40	0	0
2506	23	59.1	5456	143	71	0	0
2507	19.1	59.4	5470	149	74	0	0
2508	53.7	58.3	5406	135	67	0	0
2509	116.4	60.2	5252	244	120	0	0
2510	99.2	67.0	5252	440	244	0	0
2511	136	63.8	5037	415	222	0	0
2512	45.9	60.6	4883	325	220	0	0
2513	37.2	57.8	4741	278	198	0	0
2514	49.4	61.0	4722	213	367	0	0
2515	69.7	62.2	4846	194	379	0	0
2516	109.5	69.7	5464	419	279	0	0
2517	72.9	69.4	5464	419	268	0	0
2518	82.9	82.1	6526	494	295	0	0
2519	46.5	114.2	9757	472	301	0	0
2520	37.9	128.7	11116	501	314	0	0
2521	59.2	144.1	11714	663	557	0	0
2522	59.2	157.9	12312	1012	614	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2523	26.2	157.9	12312	1012	614	0	0
2524	62.6	165.8	12998	1090	601	0	0
2525	66	166.9	13124	1119	574	0	0
2526	65.9	167.5	13047	1088	645	0	0
2527	92.1	156.9	12322	1066	537	0	0
2528	121.9	156.9	12322	1066	537	0	0
2529	156.1	158.4	12322	1066	537	42	0
2530	162.4	147.0	11481	1007	468	41	0
2531	82.8	147.0	11481	1007	468	40	0
2532	62.7	133.7	10732	939	299	38	0
2533	93.7	125.2	10100	876	265	36	0
2534	124.7	120.7	9372	811	415	34	0
2535	125.8	120.7	9372	811	415	34	0
2536	98.6	111.3	8644	761	370	32	0
2537	71	111.2	8644	761	370	30	0
2538	70.6	102.3	8238	716	219	30	0
2539	83.5	100.4	7842	672	330	28	0
2540	15.1	95.8	7395	633	349	29	0
2541	25.8	88.2	7120	606	192	24	0
2542	52.2	88.8	6903	580	308	28	0
2543	66.3	83.2	6510	556	265	26	0
2544	42.8	77.4	6280	516	159	27	0
2545	40.3	88.1	6876	531	329	25	0
2546	29.2	90.1	6887	536	398	24	0
2547	30.9	87.3	6817	520	331	24	0
2548	37	117.9	9444	512	481	34	0
2549	45.2	117.5	10153	469	278	0	0
2550	133.8	117.5	10153	469	278	0	0
2551	159	117.5	10153	469	278	0	0
2552	134.6	112.4	9736	456	253	0	0
2553	151.1	112.4	9736	456	253	0	0
2554	132.2	103.9	9183	436	155	0	0
2555	126.3	103.9	9183	436	155	0	0
2556	122.9	104.6	8960	409	246	28	0
2557	104.9	104.6	8960	409	246	28	0
2558	121.8	104.6	8960	409	246	28	0
2559	116.6	97.7	8478	393	218	0	0
2560	3.3	71.2	6178	256	177	0	0
2561	123.3	74.2	6344	263	198	19	0
2562	185.1	74.2	6344	263	198	19	0
2563	136.7	78.7	6779	277	193	19	0
2564	45.1	86.2	7194	358	290	0	0
2565	105.5	86.2	7194	358	290	0	0
2566	121.5	91.8	7559	407	303	20	0
2567	55.4	91.5	7516	403	307	23	0
2568	99.7	91.5	7516	403	307	23	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2569	121.7	91.0	7466	404	306	22	0
2570	201.5	91.0	7466	404	306	22	0
2571	101	91.7	7486	421	312	22	0
2572	55.8	93.9	7370	424	314	114	0
2573	33.9	92.3	7198	433	314	112	0
2574	30.1	81.0	6369	394	293	63	0
2575	84.2	76.6	6007	377	279	61	0
2576	86.5	74.7	5815	367	272	73	0
2577	121.6	72.9	5624	356	266	86	0
2578	108.9	69.0	5197	330	248	83	31
2579	31.6	65.4	4919.3	268	218.8	85.3	60.5
2580	37.3	13.3	1161	43	22	4	3
2581	45.3	18.7	1638	60	28	8	5
2582	88.8	16.3	1376	59	33	10	6
2583	103	16.3	1376	59	33	10	6
2584	116	15.1	1273	56	31	9	5
CHACRA Fm.							
2585	74.6	13.6	1144	50	29	9	4
2586	121	13.7	1144	50	29	9	5
2587	84.6	12.2	1006	46	26	10	6
2588	104	10.5	860	39	21	10	7
2589	62.5	8.6	697	35	23	5	5
2590	42.3	8.9	704	38	28	4	7
2591	30.7	8.9	704	38	28	4	7
2592	54.6	9.4	735	40	28	9	5
2593	98.6	9.4	735	40	28	9	5
2594	121.5	9.7	760	38	30	10	5
2595	87.5	10.1	807	40	28	12	3
2596	104.1	10.1	807	40	28	12	3
2597	111.7	10.7	838	38	30	12	10
2598	128.3	10.7	838	38	30	12	10
2599	127.8	11.4	886	42	29	13	11
2600	59.2	11.4	886	42	29	13	11
2601	59.2	11.4	886	42	29	14	12
2602	52.8	11.9	941	39	30	13	12
2603	128	11.8	941	39	30	13	10
2604	167.3	12.2	989	40	31	10	8
2605	153.3	12.3	989	40	31	12	9
2606	64.8	12.2	989	40	31	11	8
2607	118.5	12.3	1018	39	31	9	5
2608	138.4	12.3	1018	39	31	9	5
2609	190.6	12.3	1018	39	31	9	5
2610	172.9	12.6	1056	38	30	10	5
2611	95.5	13.1	1077	40	30	12	9
2612	66.6	13.1	1077	40	30	12	9
2613	166.5	13.1	1077	40	30	12	9
2614	159.4	12.8	1042	39	27	13	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2615	219.6	12.8	1042	39	27	14	11
2616	168.8	12.8	1042	39	27	13	10
2617	144.8	12.3	1011	37	26	14	7
2618	70.2	12.3	986	34.2	28	13.4	16.9
2619	42.1	10.0	766	28.1	23.5	11.5	16.9
2620	136.6	10.0	766	28.1	23.5	11.5	16.9
2621	153.1	9.0	744.2	26.9	22.5	10.7	2.6
2622	119.9	9.0	744.2	28.4	22.5	10.7	7.2
2623	82.9	8.9	721.7	28.4	22.1	11.7	8.8
2624	141.9	8.7	699.2	28.4	21.7	12.6	10.4
2625	113.4	8.7	668.9	27.2	21.7	12.6	10.4
2626	82.9	8.7	668.9	27.2	21.7	12.6	14.3
2627	143.2	8.6	659.8	23.8	21	10	14.3
2628	127.2	8.6	659.8	23.8	21	10	14.3
2629	117.9	8.6	659.8	26	21.5	10.7	14.3
2630	112.1	8.4	649.7	26	22.2	10.7	12.7
2631	120.4	8.3	639.5	26	22.8	10.7	11.1
2632	127.1	8.0	610.7	25.7	22.8	10	11.1
2633	133.9	7.4	577.3	22.6	19.4	7.7	9.1
2634	127.6	7.4	577.3	22.9	19.4	10.3	10.4
2635	124.5	7.4	562.1	22.9	18.4	10.3	10.4
2636	113.6	7.4	562.1	22.9	20.2	14.9	10.4
2637	160	7.3	554.8	22.8	20.3	14.9	8.8
2638	145.5	7.3	547.4	22.6	20.4	14.9	7.2
2639	121.6	6.9	535.3	22.6	20.4	8	6.5
2640	130.7	7.4	567.7	22.6	20.4	9.6	9.8
2641	94.9	7.4	567.7	22.6	18.4	9.6	9.8
2642	117.9	7.4	621.3	23.2	18.4	6.5	2
2643	113.3	8.2	667.3	23.8	19.9	7.3	6.5
2644	105.3	8.2	667.3	23.8	19.9	7.3	6.5
2645	120.5	9.2	742.2	24.4	20.4	10.3	9.8
2646	133.7	9.2	742.2	24.4	20.4	10.3	9.8
2647	115.8	9.7	830.3	28.1	21.7	9.2	0
2648	123.6	10.5	887.5	30.4	23	9.6	3
2649	89.8	11.3	944.6	32.7	24.3	10	5.9
2650	118.5	67.5	5930.2	181.5	120.8	30.2	22.1
2651	91.5	70.0	6130	193.7	125.2	32.2	15
2652	75.3	70.0	6130	193.7	125.2	32.2	15
2653	150.4	70.0	6130	193.7	125.2	32.2	15
2654	193.3	70.0	6130	193.7	125.2	33.7	15
2655	106.9	67.4	5965.6	180.9	122.6	33.7	0
2656	144.8	67.4	5965.6	181.5	122.6	33.7	11.7
2657	175	67.2	5923.4	181.5	120.8	31.6	11.7
2658	239.7	66.9	5881.1	181.5	119	29.5	11.7
2659	197	66.9	5881.1	181.5	119	29.5	15.6
2660	216.3	65.7	5764.3	179.4	117.3	29.5	15.6
2661	222	64.5	5647.4	177.2	115.6	29.5	15.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2662	199.8	64.5	5647.4	177.2	115.6	30.5	15.6
2663	198.8	64.5	5647.4	177.2	115.6	31.4	15.6
2664	241.8	61.0	5393.4	163.8	111.2	31.4	0
2665	229.3	61.0	5393.4	163.8	111.2	31.4	0
2666	191.9	61.0	5393.4	163.8	111.2	31.4	0
2667	280.2	61.0	5393.4	164.7	111.2	31.4	13.7
2668	192.1	60.6	5325.6	164.7	107.3	25.3	13.7
2669	195.6	60.6	5325.6	164.7	107.3	25.3	13.7
2670	203	60.6	5325.6	164.7	107.3	25.5	13.7
2671	160.1	60.6	5325.6	164.7	107.3	25.6	13.7
2672	228.3	57.3	5048.8	146	101.4	25.6	11.1
2673	157.9	57.3	5048.8	146	101.4	30.2	16.9
2674	167.1	53.1	4628.9	141.2	91	30.2	16.9
2675	159.7	53.1	4628.9	141.2	91	30.2	16.9
2676	136	57.4	5018.5	153.1	106	32.5	25.4
2677	124.6	40.9	3527.5	110.6	78.4	21.8	16.3
2678	120.4	37.6	3255.3	104.2	73.2	19.9	11.1
2679	130.8	37.6	3255.3	104.2	73.2	19.9	11.1
2680	149.1	35.2	3064.5	99	69.6	23	2
2681	136.2	35.2	3064	99	70	23	2
2682	133.3	33.1	2845	90	68	18	13
2683	159.2	33.1	2845	90	68	18	13
2684	124	14.4	1207	41	33	9	9
2685	101.5	15.2	1272	44	35	10	8
2686	99.9	15.2	1272	44	35	10	8
2687	124.2	15.7	1330	45	35	12	5
2688	124.4	15.7	1330	45	35	12	5
2689	72.5	15.7	1330	45	35	12	5
2690	93.6	16.7	1406	50	38	14	5
2691	103.2	17.3	1445	51	40	15	8
2692	103	17.3	1445	51	40	15	8
2693	75.1	17.6	1457	52	41	17	8
2694	120.7	18.0	1494	54	40	17	10
2695	96.9	18.0	1494	54	40	17	10
2696	91.8	18.0	1467	52	43	21	11
2697	117.2	18.0	1467	52	43	21	11
2698	137.9	18.0	1467	52	43	21	11
2699	137.1	17.8	1455.8	50.8	43.8	19.5	9.4
2700	127.7	17.5	1444.5	49.5	44.5	18	7.8
2701	105.1	17.5	1444.5	49.5	44.5	18	7.8
2702	128.5	17.0	1432.8	51.6	41.4	16.8	0
2703	117.3	17.0	1432.8	51.6	41.4	16.8	0
2704	160.1	17.0	1432.8	51.6	41.4	16.8	0
2705	150.4	16.9	1385.3	50.4	44.7	20.3	20.2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2706	4.2	15.8	1276	48.4	42.7	20.3	15.7
2707	99.2	14.8	1166.7	46.4	40.6	20.3	11.1
2708	153.3	14.2	1152	44.9	40.6	20.3	0
2709	143.2	14.2	1152	44.9	40.6	20.3	0
2710	135.2	15.0	1202.6	43.4	38.8	14.9	13.7
2711	96	15.0	1202.6	43.4	38.8	14.5	13.7
2712	93.5	16.0	1311.9	44.9	38.8	17.2	13.7
2713	122.5	16.7	1379.5	46	40.4	17.2	12.1
2714	222.8	17.4	1447	47.1	41.9	17.2	10.4
2715	92.7	17.4	1447	47.1	41.9	17.2	8.5
2716	157.7	18.1	1508.8	48	41.9	17.2	11.8
2717	150.7	18.8	1570.5	48.9	41.9	17.2	15
2718	162.6	18.8	1570.5	48.9	40.4	14.2	15
2719	143.2	18.8	1570.5	48.9	40.4	14.2	15
2720	120.4	19.6	1653.9	50.7	41.1	14.5	11.7
2721	79.1	19.6	1653.9	50.7	41.1	14.5	11.7
2722	127.3	20.3	1704	52.3	41.9	18.4	11.1
2723	141	20.3	1704	52.3	41.9	18.4	11.1
2724	153.5	20.3	1704	52.3	41.9	18.4	11.1
2725	155.2	19.9	1688.3	48.9	40.1	18.4	9.1
2726	148.8	19.9	1688.3	48.9	40.1	18.4	9.1
2727	137	19.0	1610.4	48	38.3	15.7	9.1
2728	130.3	19.0	1610.4	48	38.3	15.7	9.1
2729	128.3	19.3	1601.8	49.5	38.3	19.5	15
2730	118.4	19.3	1601.8	49.5	38.3	19.5	15
2731	132.9	19.3	1601.8	49.5	39.1	19.5	15
2732	125.6	18.2	1531.5	43.1	39.1	16.1	11.1
2733	135.7	18.2	1531.5	43.4	39.1	16.1	11.1
2734	135.2	17.3	1458.6	43.4	39.1	15.3	8.5
2735	117.1	17.3	1458.6	43.4	39.1	15.3	8.5
2736	104.3	16.9	1416.7	42.8	34.7	16.8	10.4
2737	123.7	16.9	1416.7	42.8	34.7	16.8	10.4
2738	134.1	16.6	1362	42.5	36.5	17.2	13
2739	175.8	16.6	1362	42.5	36.5	17.2	13
2740	190.2	16.6	1362	42.5	36.5	17.2	13
2741	179.7	16.4	1358	42	35	18	11
2742	179.6	16.3	1355	41	34	18	9
2743	209.9	16.3	1355	42	34	18	9
2744	206.7	16.3	1355	43	34	18	9
2745	170.3	15.9	1344	43	33	13	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2746	159	15.9	1344	43	33	13	7
2747	145.9	16.3	1382	43	33	15	7
2748	174.5	16.3	1382	40	33	15	7
2749	155.9	17.0	1421	42	34	16	13
2750	170.1	17.0	1421	42	34	16	13
2751	153.4	17.0	1421	42	34	16	13
2752	101.7	16.9	1468	39	35	15	0
2753	131.2	16.9	1468	39	35	15	0
2754	110.3	19.8	1666	50	36	16	16
2755	110.1	19.7	1666	50	34	16	14
2756	52.9	20.8	1767	50	36	18	14
2757	125.6	22.3	1900	52	38	18	16
2758	134.4	22.3	1900	52	38	18	16
2759	160.5	22.3	1900	52	38	18	16
2760	162.5	24.9	2145	57	40	18	16
2761	154.4	27.5	2390	61	41	18	16
2762	153.9	32.1	2833	76	49	19	10
2763	133.6	38.2	3370	91	53	19	16
2764	107.9	40.9	3619	97	58	19	16
2765	101.7	43.7	3869	102	63	20	16
2766	111.1	47.7	4235	116	71	22	12
2767	104.4	49.4	4405	120	75	22	8
2768	57.9	49.3	4405	120	75	21	8
2769	77	50.3	4468	120	76	23	14
2770	107.4	50.3	4468	119	76	23	14
2771	88.4	53.9	4943	144	22	31	3
2772	55	58.2	5168	148	90	24	12
2773	108.6	56.0	4980	144	88	20	11
2774	70.6	56.0	4980	144	88	20	11
2775	158.7	58.2	5139	155	91	25	14
2776	153.2	58.2	5139	155	91	25	14
2777	147.1	58.2	5139	155	91	25	14
2778	148.4	50.4	4617	154	55	0	0
2779	167.7	50.4	4617	154	55	0	0
2780	154.9	50.4	4617	154	55	0	0
2781	169.8	64.2	5690	169	104	24	13
2782	135.9	64.2	5690	169	104	24	13
2783	139.5	65.7	5815	180	106	28	10
2784	124.4	65.7	5815	180	106	28	10
2785	135.3	63.2	5605	172	101	28	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2786	151.7	63.2	5605	172	101	28	8
2787	138	63.2	5605	172	101	28	8
2788	139.3	57.9	5144	153	94	22	8
2789	113.1	57.9	5144	153	94	22	8
2790	110.8	51.5	4540	143	83	23	11
2791	153.1	51.5	4540	143	83	23	11
2792	134.9	45.6	3988	119	74	21	18
2793	138.4	45.5	3988	119	74	21	17
2794	140.2	45.4	3988	119	74	20	16
2795	99.8	39.6	3492	106	63	16	12
2796	95.7	35.2	3100	94	56	14	12
2797	101.4	34.7	3057	95	56	13	11
2798	80.1	34.2	3013	95	55	15	7
2799	118	34.2	3013	95	55	15	7
2800	104	35.8	3162	102	60	15	5
2801	115.1	35.8	3162	102	60	15	5
2802	108	37.2	3276	100	63	17	8
2803	112	38.6	3391	98	66	19	10
2804	86.3	38.6	3391	98	66	19	10
2805	99	38.6	3391	98	66	19	10
2806	115.9	39.1	3449	102	68	20	6
2807	134.3	39.9	3508	106	69	20	7
2808	126.9	39.9	3508	106	69	20	7
2809	131.6	41.3	3606	111	70	21	13
2810	124.1	41.3	3606	111	70	21	13
2811	74.5	40.3	3548	107	70	21	6
2812	75.2	38.8	3414	106	69	20	3
2813	102.6	38.8	3414	106	69	20	3
2814	108.6	32.9	2926	107	45	9	5
2815	121.8	32.9	2926	107	45	9	5
2816	122.7	36.1	3117	96	63	24	14
2817	103.4	34.7	2997.7	92.3	63.6	22.6	11.7
2818	89.3	34.7	2997.7	92.3	63.6	22.6	11.7
2819	107.7	32.7	2838.9	89.8	61.8	16.8	10.4
2820	109	32.7	2838.9	89.8	61.8	21.1	10.4
2821	104.6	30.8	2654.7	84	57.2	21.1	9.8
2822	112.4	30.8	2654.7	84	57.2	22.6	9.8
2823	89.8	29.8	2571.7	82.2	56.9	22.6	5.9
2824	115.8	29.8	2571.7	82.2	56.9	22.6	9.8
2825	105.6	28.5	2442.7	80.4	54.8	20.7	9.8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2826	60	28.5	2442.7	80.4	54.8	21.5	9.8
2827	60	28.5	2442.7	80.4	54.8	22.2	9.8
2828	60	27.9	2386.1	78.7	54.3	22.2	9.2
2829	48.7	27.2	2329.4	77	53.8	22.2	8.5
2830	109.2	26.8	2288.4	73.9	53	21.4	8.5
2831	133.7	26.8	2288.4	74.9	53	21.4	8.5
2832	141.8	26.8	2288.4	75.8	53	21.4	8.5
2833	93.2	25.7	2196.3	75.8	53.3	16.1	8.5
2834	66.9	25.7	2196.3	74.9	53.3	16.1	8.5
2835	75.3	24.5	2120.4	72.4	50.2	14.2	3.3
2836	116.4	24.5	2120.4	72.4	50.2	18.8	15
2837	107.7	24.3	2036.9	69.7	49.1	18.8	15
2838	126.8	24.3	2036.9	69.7	49.1	18.8	22.1
2839	100.1	23.5	1937.8	66.9	49.1	18	22.1
2840	100.1	23.5	1937.8	66.9	49.1	20.3	22.1
2841	96.2	22.5	1864.4	62	45.8	20.3	17.6
2842	127.8	21.7	1833	61.1	41.6	14.9	13
2843	93.5	21.9	1833	61.1	43.7	20.3	16.9
2844	83.6	21.9	1819.4	56.8	43.7	20.3	16.9
2845	74.6	21.9	1827.5	59	43.7	20.3	17.6
2846	82.9	22.0	1870.5	59	40.9	14.9	17.6
2847	103.7	22.0	1870.5	57.1	40.9	14.2	14.3
2848	128.4	22.0	1870.5	57.1	40.9	14.2	14.3
2849	122.3	22.4	1911.5	62.6	41.1	13.8	13.7
2850	149.7	22.4	1911.5	62.6	41.1	13.8	13.7
2851	132.1	23.0	1996.5	62.6	42.7	13.8	13.7
2852	104.7	23.0	1996.5	58.4	42.7	13.8	7.2
2853	136.8	23.9	2094.1	64.5	42.7	18	7.2
2854	118.3	23.9	2094.1	64.5	42.2	18	0
2855	135.3	23.9	2094.1	64.5	42.2	18	0
2856	121.1	25.4	2172	64.2	45	17.2	16.3
2857	123.3	26.2	2290.9	71.8	46.8	17.2	16.3
2858	116.9	26.2	2290.9	71.8	46.8	16.9	9.5
2859	111.4	26.2	2290.9	71.8	46.8	16.5	2.6
2860	68.5	27.2	2391.1	72.7	49.1	16.8	2.6
2861	140.1	29.8	2608.4	77.8	52.5	18.4	12.1
2862	120.7	32.5	2825.7	82.8	55.9	19.9	21.5
2863	107.4	34.4	2979	87.4	58.5	21.8	15.6
2864	128.2	34.4	2979	87.4	58.5	21.8	15.6
2865	90.1	35.7	3147.5	96.6	64.7	21.8	15.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2866	124.1	35.7	3147.5	96.6	64.7	20.7	0
2867	134.4	35.5	3058.9	98.4	62.1	22.6	17.6
2868	105.7	32.0	2766.5	84.3	57.2	19.9	11.7
2869	149.3	32.0	2766.5	84.3	57.2	19.9	11.7
2870	142.4	29.8	2560.6	77	52.2	18.8	16.3
2871	122.6	27.8	2395.1	71.8	50.4	19.1	10.4
2872	99.3	27.8	2395.1	71.8	50.4	19.1	10.4
2873	126.9	27.0	2361.2	70.3	49.1	14.5	7.2
2874	141.9	27.0	2361.2	70.3	49.1	14.5	7.2
2875	121.7	29.3	2526.7	79.1	52.5	19.1	11.7
2876	127.6	29.3	2526.7	79.1	52.5	19.1	11.7
2877	86.5	32.2	2813.1	84.3	56.9	17.6	9.1
2878	119.9	32.2	2813.1	84.3	56.9	17.6	9.1
2879	124.5	32.4	2813.1	86.5	56.9	21.4	14.3
2880	131.9	32.4	2795.4	86.5	56.9	21.4	14.3
2881	133.4	32.4	2795.4	86.5	56.9	21.4	14.3
2882	115.8	31.3	2704.3	83.3	54.9	19.9	13.4
2883	89.6	30.2	2613.2	80.1	52.8	18.4	12.4
2884	114.4	23.3	2058.2	72.1	42.2	16.1	7.2
2885	106.7	23.3	2051.9	67.4	42.2	16.1	3.6
2886	49.8	23.3	2045.5	62.6	42.2	16.1	0
2887	51.3	21.2	1835.6	56.5	38.5	11.5	7.8
2888	54.4	21.2	1835.6	56.5	38.5	11.5	7.8
2889	140.6	21.2	1835.6	56.5	38.5	11.5	7.8
2890	136.5	22.0	1881.6	58.4	38.5	15.3	13
2891	110.5	25.2	2201.6	67.4	42.3	15.3	13
2892	110.5	28.5	2521.6	76.4	46	15.3	13
2893	75.3	38.7	3409.1	100.8	59.5	18.4	12.4
2894	55.9	38.7	3409.1	100.8	59.5	18.4	12.4
2895	75.1	38.7	3409.1	100.8	59.5	18.4	12.4
2896	75.1	47.0	4169.5	123.1	70.9	20.3	12.4
2897	71.4	47.0	4169.5	123.1	70.9	20.3	10.4
2898	103.6	54.0	4797.4	139.3	81.2	26	7.8
2899	103.8	56.1	4988.7	148.4	84.6	26	8.5
2900	103.8	58.2	5179.9	157.4	87.9	26	9.1
2901	61.7	59.7	5295.7	159.2	89	22.6	15.6
2902	74.3	59.7	5295.7	159.2	89	22.6	15.6
2903	95.3	58.4	5160.1	156.7	89.5	24.5	14.3
2904	77	58.4	5160.1	156.7	89.5	24.9	14.3
2905	80.1	55.4	4909.2	140.2	87.4	24.9	12.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2906	84.6	53.6	4747.3	145.1	84.3	22.2	10.4
2907	86.6	53.6	4747.3	145.1	84.3	22.2	10.4
2908	100.6	50.4	4490.8	140.2	81.5	20.3	1.3
2909	152.7	50.4	4490.8	140.2	81.5	22.6	1.3
2910	130	47.2	4198.8	126.2	79.9	22.6	0
2911	119.1	47.2	4198.8	128.3	79.9	22.6	9.8
2912	86.3	45.6	4013.7	128.3	76.6	23.3	9.8
2913	56.7	43.0	3787.5	121.3	74.2	23.3	1.3
2914	121.6	43.0	3787.5	121.3	74.2	23.3	1.3
2915	105.7	39.4	3427.8	110	68.5	21.4	12.4
2916	55.2	39.4	3427.8	109.7	68.5	21.4	12.4
2917	97.1	37.7	3253.2	105.7	65.7	22.6	15
2918	122.8	37.7	3253.2	105.7	65.7	22.6	15
2919	110.2	37.1	3211	104.1	65.3	21.3	16.6
2920	105.7	36.6	3168.7	102.4	64.9	19.9	18.2
2921	111.3	35.9	3096.9	97.8	64.9	18.4	18.2
2922	97.9	35.9	3096.9	98.4	64.9	20.3	18.2
2923	91.4	35.7	3082.2	98.4	63.1	20.3	15.6
2924	112.9	35.7	3134.8	103.6	63.6	20.3	15.6
2925	108.7	37.1	3214.8	103.6	64.4	23	13.7
2926	65	37.1	3214.8	101.4	64.4	23	13.7
2927	95.4	38.1	3329.6	100.8	65.4	21.4	11.1
2928	87.9	38.1	3329.6	100.8	65.4	21.4	11.1
2929	105.4	36.1	3260.3	96.2	51.2	11.1	0
2930	90.1	41.5	3622.1	100.8	67.8	24.1	18.2
2931	110.5	47.4	4166.5	109.7	70.1	27.2	19.5
2932	52.6	47.4	4166.5	109.7	70.1	27.2	19.5
2933	55.8	49.4	4363.3	118.2	77.1	26.8	14.3
2934	61.6	52.6	4628.4	122.8	78.6	26.8	22.8
2935	74.8	54.3	4837.3	129.5	80.7	29.9	22.8
2936	93.3	54.3	4837.3	129.5	80.7	29.9	8.5
2937	90.3	56.2	4989.6	133.5	85.4	29.9	14.3
2938	61	61.9	5456.6	151.9	100.1	32.5	16.9
2939	56.9	65.1	5731.9	159.5	106.6	32.5	18.9
2940	72.8	65.1	5731.9	159.5	106.6	32.2	18.9
2941	85	67.5	5951.4	161.9	107.6	35.6	20.2
2942	91.3	68.7	6073.9	171.1	113.3	36	20.2
2943	83.1	70.6	6210	181.2	117.9	36.7	17.6
2944	90.1	70.6	6210	181.2	117.9	36.7	17.6
2945	78.7	71.5	6369.9	181.2	118.7	39.8	17.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2946	95.6	73.6	6502.5	186.1	121.8	39.8	22.2
2947	63.7	75.7	6635	191	124.9	39.8	26.7
2948	66.5	75.7	6635	190.7	124.9	39	26.7
2949	87.6	77.8	6947.6	198.9	128.3	39	26.7
2950	79.8	81.7	7218.8	212	136.8	42.5	11.1
2951	73.6	81.7	7218.8	212	136.8	42.5	11.1
2952	101.6	84.2	7409.1	223.4	144.3	41.2	16
2953	113.9	86.7	7599.3	234.7	151.8	39.8	20.8
2954	116	90.6	7905.9	258.5	167.3	46.3	20.8
2955	95.7	90.6	7905.9	258.5	167.3	46.3	16.3
2956	152.2	94.1	8125	264.3	180.3	51.3	31.9
2957	137.4	94.1	8125	264.3	180.3	51.3	31.9
2958	107	97.2	8392.6	288.7	187.3	51.3	31.9
2959	126.1	97.2	8392.6	288.7	187.3	47.8	29.3
2960	182	97.5	8404.3	288.7	187.3	51.7	31.2
2961	104	97.5	8404.3	287.8	186.7	54	31.2
2962	167.6	84.5	7563.4	193.1	123.1	39.4	26
2963	100.4	68.5	6116.9	157	97	31.4	17.6
2964	169.3	68.5	6116.9	157	98.3	31.4	17.6
2965	151.8	66.9	5983.3	152.8	98.3	30.6	13
2966	149.2	66.9	5983.3	152.8	98.3	30.6	13
2967	166.5	66.9	5983.3	152.8	98.3	30.6	13
2968	158	62.3	5550.2	137.8	92.3	31.8	15.6
2969	116.1	62.3	5550.2	137.8	92.3	31.8	15.6
2970	74.2	62.3	5550.2	137.8	92.3	31.8	15.6
2971	74.2	59.3	5285.4	135.4	87.3	28.2	15.3
2972	74.2	56.4	5020.5	132.9	82.2	24.5	15
2973	79.8	56.4	5020.5	132.9	82.2	24.5	15
2974	124.5	56.4	5020.5	132.9	82.2	24.5	15
2975	124.5	56.4	5020.5	132.9	82.2	24.5	15
2976	124.5	45.7	4137.6	112.4	56.1	9.2	10.4
2977	81.9	45.7	4137.6	112.4	56.1	9.2	10.4
2978	125.2	44.4	3993.4	104.5	59.4	15.9	8.8
2979	125.2	43.0	3849.2	96.6	62.6	22.6	7.2
2980	125.2	43.0	3849.2	96.6	62.6	22.6	7.2
2981	122	43.0	3849.2	96.6	62.6	22.6	7.2
2982	127.2	43.0	3849.2	96.6	62.6	22.6	7.2
2983	127.2	39.8	3534.5	95	58.2	18.4	11.1
2984	101.4	39.8	3534.5	95	58.2	18.4	11.1
2985	152.3	38.6	3431.8	86.5	56.6	21.1	11.1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2986	122.7	38.6	3431.8	87.1	57.7	21.1	12.1
2987	122.7	38.6	3431.8	87.7	58.7	21.1	13
2988	83.2	38.6	3416.9	89.9	58.7	22.1	13
2989	83.3	38.5	3402	92	58.7	23	13
2990	83.3	38.4	3392.1	92	57.7	23	12.1
2991	64.2	38.3	3382.2	92	56.6	23	11.1
2992	57.3	37.5	3318.8	88	55.5	21.9	9.8
2993	69.1	36.6	3255.3	84	54.3	20.7	8.5
2994	45.5	34.1	3019	81.6	52.2	18	7.8
2995	56.7	34.1	3019	81.6	52.2	18	7.8
2996	63.9	31.6	2768.5	79.7	49.1	17.2	13
2997	82.9	31.6	2768.5	75.5	49.1	17.2	13
2998	74.1	31.6	2768.5	76.1	49.1	17.2	13
2999	78.1	30.2	2655.2	76.1	46.3	15.3	11.7
3000	109.2	30.2	2655.2	76.1	47.6	18.4	11.7
3001	95.7	29.2	2561.1	71.8	47.6	18.4	7.2
3002	109.6	29.2	2561.1	71.8	47.6	18.4	7.2
3003	108.9	27.8	2451.8	67.5	45.8	18.4	4.6
3004	115.8	26.4	2312.2	66.3	42.7	17.2	6.5
3005	117.2	26.4	2312.2	66.3	42.7	17.2	6.5
3006	113.4	25.1	2187.2	64.2	42.7	16.8	6.5
3007	102.8	25.1	2187.2	64.2	42.7	17.2	10.4
3008	105.9	23.9	2066.8	59	40.4	17.2	10.4
3009	92	23.9	2066.8	59	40.4	17.2	10.4
3010	79.9	22.0	1905.9	57.1	38.8	14.9	8.5
3011	68.6	20.8	1798.1	53.5	38.8	13.8	7.2
3012	81.4	18.5	1648.9	51	30	6.5	0
3013	102.4	18.5	1648.9	51	30	6.5	0
3014	121.9	19.0	1657	53.2	35.4	10.7	3.9
3015	85	18.7	1621.8	51.5	34.7	13.6	3.6
3016	86.4	18.4	1586.6	49.8	33.9	16.5	3.3
3017	82.7	18.4	1586.6	49.8	34.7	16.5	5.2
3018	99.7	17.6	1514.8	48	34.7	15.3	11.7
3019	98.6	17.5	1470.3	48	32.9	15.3	11.7
3020	84.1	16.6	1406	43.7	33.4	13.8	9.1
3021	104.2	16.6	1406	43.7	33.4	13.8	9.1
3022	94.1	16.4	1368.6	43.4	34.4	15.7	9.1
3023	122.6	16.4	1368.6	43.4	34.4	15.7	9.1
3024	113.3	16.4	1368.6	43.4	34.4	17.2	9.1
3025	99.9	15.9	1325.6	41.6	32.9	17.2	12.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3026	88.2	15.7	1301.6	41.5	32.9	16.5	12.4
3027	68.4	15.5	1277.5	41.3	32.9	15.7	12.4
3028	96.4	15.1	1270.9	44.3	32.9	14.5	7.2
3029	68.8	15.7	1304.8	44.3	32.9	15.7	9.1
3030	104.1	15.7	1304.8	44.3	31.8	15.7	9.1
3031	80.3	16.2	1356.4	45.2	32.3	15.7	11.1
3032	69.7	16.4	1383	45.2	32.6	14.8	11.1
3033	102	16.5	1409.6	45.2	32.9	13.8	11.1
3034	105.4	17.2	1458.1	48.9	33.4	13	9.8
3035	70	17.2	1458.1	48.9	33.4	11.9	9.8
3036	69	15.5	1356.4	47.1	23.8	4.2	6.5
3037	71.2	18.4	1530	49.5	33.9	14.5	16.9
3038	73.4	18.4	1547.2	49.5	34.7	16.5	16.9
3039	87.3	18.4	1547.2	48	34.7	16.5	13
3040	74.4	19.4	1656.5	50.7	35.7	17.2	7.8
3041	83.8	21.5	1843.2	54.1	39.8	17.2	9.8
3042	91.8	21.5	1843.2	54.1	39.8	16.1	9.8
3043	83.7	23.3	2028.8	62	41.9	14.5	6.5
3044	78.1	25.8	2220.6	69.7	45.8	19.1	10.4
3045	72.7	27.9	2425.5	73	47.1	20.3	10.4
3046	50.4	30.8	2660.3	80.7	53	26	12.4
3047	38.3	32.5	2821.7	88.9	55.6	20.7	12.4
3048	41.1	32.5	2821.7	88.9	55.6	18.4	11.1
3049	68.7	32.7	2851	87.4	55.4	20.3	9.8
3050	77.8	33.1	2880.9	87.4	55.4	20.7	13
3051	73.2	33.1	2880.9	84.6	55.4	20.7	13
3052	90.1	33.1	2880.9	88.3	56.6	20.7	13
3053	90.3	33.2	2902.7	88.3	56.6	21.5	11.7
3054	84.1	33.3	2924.4	88.3	56.6	22.2	10.4
3055	74.6	33.6	2939.5	85.6	56.1	23.7	6.5
3056	81.1	35.3	3060.5	92.9	56.1	23.7	16.3
3057	74.5	34.9	3060	93	46	22	14
3058	0.1	34.8	3006	104	52	23	15
3059	90.9	12.9	1077	41	20	12	9
3060	130.3	12.0	993	39	19	13	9
3061	107.4	12.0	993	39	19	13	9
3062	121.5	11.5	939	38	19	13	9
3063	127.1	11.5	939	38	19	13	9
3064	113	11.2	921	36	18	12	9
3065	111.6	11.2	921	36	18	12	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3066	2.2	4.4	361	13	6	6	4
3067	43.3	4.5	370	13	6	5	4
3068	34.9	4.6	375	15	7	5	4
3069	27.3	4.7	373	13	6	8	6
3070	23.5	4.4	361	14	7	6	4
3071	17.3	4.5	369	15	7	6	4
3072	23.8	4.8	382	16	8	7	6
3073	60.3	4.9	400	17	9	5	3
3074	63.6	4.1	363	14	7	0	0
3075	35.2	5.2	422	13	6	8	7
3076	36.2	6.2	511	16	8	9	7
3077	13.9	6.5	548	20	10	6	4
3078	69.8	6.9	588	21	11	5	4
3079	70.5	6.9	594	20	10	5	4
3080	62.5	6.4	529	18	9	7	6
3081	6.5	6.2	519	16	8	8	6
3082	131.3	6.2	519	16	8	8	6
3083	135.9	5.8	488	17	8	6	4
3084	113.4	5.8	488	17	8	6	4
3085	112.9	5.5	462	15	7	6	4
3086	108.8	5.5	462	15	7	6	4
3087	101.6	5.5	462	15	7	6	4
3088	55.8	5.4	440	15	7	8	6
3089	85.7	5.4	440	15	7	8	6
3090	104.2	4.9	412	12	6	6	4
3091	113.4	4.9	412	12	6	6	4
3092	110.4	4.8	406	13	6	6	4
3093	108.9	4.8	406	13	6	6	4
3094	104.6	4.8	392	12	6	6	6
3095	114.5	4.7	392	12	6	6	4
3096	129.3	4.7	389	15	7	5	4
3097	119	4.7	392	14	7	6	3
3098	103.6	4.8	392	14	7	6	4
3099	88.1	4.7	380	13	6	7	5
3100	101.8	4.6	381	12	6	6	4
3101	46.6	4.4	369	11	5	6	4
3102	46.6	4.4	366	12	6	5	3
3103	49.7	4.5	372	14	7	5	3
3104	51.9	4.5	372	14	7	5	3
3105	48.7	4.7	384	14	7	6	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3106	53.6	4.8	403	14	7	5	3
3107	62.3	4.8	403	14	7	5	3
3108	52.7	4.8	419	14	7	3	2
3109	53.7	4.5	382	15	8	3	2
3110	44.5	5.5	455	14	7	7	6
3111	43.5	5.5	475	15	7	5	3
3112	30.9	6.5	552	20	10	6	4
3113	30.9	9.2	794	28	15	5	4
3114	28.3	9.1	777	29	15	6	4
3115	55.2	9.1	777	29	15	6	4
3116	74.4	7.7	657	24	14	5	3
3117	52.3	7.7	657	24	14	5	3
3118	52.3	7.7	657	24	14	5	3
3119	52.3	7.0	597	23	11	4	3
3120	12.5	6.6	574	20	12	3	2
3121	17.4	7.4	628	21	11	7	5
3122	24.2	9.3	800	30	17	4	3
3123	32.3	9.9	826	33	17	8	6
3124	31	10.9	938	33	18	6	4
3125	2.8	8.2	693	25	17	6	4
3126	74.9	8.2	693	25	17	6	4
3127	96.3	8.1	666	25	15	8	6
3128	107	8.1	666	25	15	8	6
3129	109.7	7.4	636	21	14	5	3
3130	100.7	7.3	605	23	14	7	5
3131	101.8	7.3	605	23	14	7	5
3132	75.7	7.1	598	20	13	6	4
3133	90	7.0	591	22	13	6	4
3134	95.7	7.0	591	22	13	6	4
3135	74.4	6.8	578	20	13	5	3
3136	71	6.7	571	21	14	4	3
3137	62.6	6.7	563	20	13	6	4
3138	62.8	6.7	563	20	13	6	4
3139	59	6.7	568	21	13	5	3
3140	24.6	7.1	604	20	13	6	4
3141	33.8	7.4	625	22	15	6	4
3142	44.5	7.7	649	22	12	7	5
3143	39.5	6.8	596	20	13	2	1
3144	42.2	8.0	684	25	16	5	3
3145	40.6	8.2	689	23	16	7	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3146	46.4	8.3	689	23	16	8	6
3147	36.3	8.4	712	25	18	5	3
3148	3.9	9.6	808	29	19	7	5
3149	1.8	15.9	1328	50	32	13	9
3150	25.2	14.1	1221	48	25	5	3
3151	19.7	15.6	1318	50	33	10	7
3152	17.1	20.7	1771	60	37	13	9
3153	0.5	18.5	1554	59	38	13	9
3154	70.7	18.8	1576	63	40	13	9
3155	85.3	17.8	1497	60	38	11	8
3156	92.2	17.8	1497	60	38	11	8
3157	95.2	16.1	1351	51	35	11	8
3158	119.4	11.6	951	36	24	11	8
3159	134.6	10.5	882	32	21	8	6
3160	102.4	10.9	914	37	24	7	5
3161	98.3	10.9	914	37	24	7	5
3162	88.8	10.9	914	37	24	7	5
3163	69.3	11.6	968	33	23	10	7
3164	66	12.0	1005	42	25	8	6
3165	29.7	12.6	1048	38	27	11	7
3166	49.9	11.7	1003	39	24	4	3
3167	49.9	11.8	1007	38	26	6	4
3168	39.2	12.2	1012	39	28	10	7
3169	36.2	10.4	888	40	18	4	3
3170	33.9	12.0	992	39	26	10	7
3171	52.1	11.9	987	37	26	10	7
3172	63.3	11.9	987	37	26	10	7
3173	47	11.7	949	37	26	12	9
3174	65.7	11.5	932	35	25	12	9
3175	65.7	11.5	932	35	25	12	9
3176	65.7	11.5	934	38	25	12	9
3177	73.4	11.3	919	36	25	12	8
3178	3.1	10.7	844	31	24	12	15
3179	82.5	12.5	1024	35	24	9	15
3180	63.1	14.3	1192	38	26	12	13
3181	51.9	14.2	1192	38	26	12	11
3182	31.5	14.1	1192	38	26	12	9
3183	31.5	13.7	1161	36	24	12	9
3184	31.5	12.5	1064	32	22	11	6
3185	5.1	11.3	967	32	19	8	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3186	56.8	12.6	1073	36	22	10	5
3187	58.9	12.6	1073	36	22	10	5
3188	68.9	13.2	1123	38	24	10	6
3189	57.9	13.7	1164	40	25	10	6
3190	85.9	13.9	1181	41	26	11	5
3191	66.9	14.3	1226	44	26	11	4
3192	73.4	14.6	1237	44	28	10	8
3193	62.4	15.1	1264	49	30	12	8
3194	56.6	15.0	1264	49	30	12	5
3195	61.8	15.1	1278	49	30	12	5
3196	80.5	15.2	1288	46	29	11	8
3197	41.4	15.6	1315	46	30	11	10
3198	32.7	16.8	1404	54	33	12	10
3199	25.3	16.6	1404	53	32	12	8
3200	39.1	16.5	1397	51	32	12	7
3201	35.9	16.1	1364	49	32	13	6
3202	36.6	15.7	1339	49	32	13	3
3203	70.7	15.6	1303	48	31	13	9
3204	59.6	15.5	1278	47	31	13	12
3205	47.7	15.2	1250	47	31	13	12
3206	93.5	14.7	1246	45	28	10	6
3207	105.8	14.7	1246	45	28	10	6
3208	161.4	14.8	1246	45	28	13	6
3209	133.2	14.4	1215	45	28	13	6
3210	138.1	14.4	1215	45	28	13	6
3211	132.2	13.7	1150	44	26	11	6
3212	109.1	13.7	1150	44	26	11	8
3213	105.9	13.3	1120	40	25	10	8
3214	121.9	13.8	1159	43	27	10	8
3215	101.8	15.1	1274	47	29	12	6
3216	100.6	15.9	1344	48	30	13	8
3217	130	16.8	1414	50	32	13	9
3218	130.1	16.8	1414	50	32	13	9
3219	128.9	18.2	1537	54	35	13	9
3220	99.6	18.0	1537	54	35	13	6
3221	89.9	19.4	1643	58	37	15	9
3222	99.9	19.4	1643	58	37	15	9
3223	106.5	20.2	1721	58	38	15	9
3224	85	20.0	1721	61	38	10	6
3225	78.7	19.4	1685	61	34	8	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3226	92.9	20.8	1779	61	40	15	6
3227	79.8	21.4	1832	61	42	15	8
3228	55.3	21.5	1832	63	42	14	10
3229	43.6	21.4	1814	63	42	14	10
3230	70.4	21.6	1831	67	42	14	10
3231	65.4	21.6	1831	67	42	13	12
3232	69.4	21.5	1811	66	42	15	12
3233	65.1	21.1	1795	66	41	15	8
3234	59.1	21.1	1819	64	43	14	3
3235	59.6	22.2	1907	69	43	14	5
3236	46.3	23.1	1981	71	45	15	5
3237	35.3	24.5	2071	75	48	16	12
3238	91.7	24.5	2071	75	48	16	12
3239	119.5	24.5	2071	75	48	16	12
3240	127.1	26.1	2230	81	51	16	8
3241	120.8	26.7	2282	84	53	17	8
3242	149.3	27.4	2334	86	55	19	8
3243	138.7	27.4	2334	86	55	19	8
3244	120.4	27.6	2349	86	56	19	8
3245	76.6	27.7	2350	90	56	21	8
3246	37.9	27.6	2350	82	54	21	10
3247	73.4	26.6	2250	82	54	20	10
3248	81.1	37.5	3184	112	74	26	16
3249	0.5	38.0	3245	112	75	26	12
3250	142.7	37.8	3245	112	75	26	9
3251	60.8	37.7	3245	111	75	26	7
3252	162.5	37.7	3245	111	75	26	7
3253	176.4	37.3	3206	109	74	27	7
3254	201.4	36.9	3166	108	74	28	7
3255	170.6	36.9	3166	108	74	28	7
3256	192.9	31.0	2711	108	51	9	6
3257	203.9	31.0	2711	108	51	9	6
3258	165.9	39.2	3329	124	78	25	16
3259	2.8	39.6	3371	126	78	24	15
3260	2.8	40.1	3414	128	78	24	15
3261	35.2	40.0	3414	128	77	24	15
3262	109.3	39.1	3344	122	77	22	14
3263	80.8	37.6	3192	116	76	24	15
3264	74	37.6	3192	116	76	24	15
3265	38.3	34.0	2879	104	70	23	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3266	29.5	31.1	2633	93	64	22	14
3267	30.5	33.1	2786	97	68	26	16
3268	2.2	32.9	2786	94	68	24	15
3269	78.3	32.6	2755	95	68	24	15
3270	93.1	31.3	2645	95	67	20	14
3271	78.2	31.3	2645	95	67	20	14
3272	70.5	27.8	2375	94	56	13	9
3273	84.3	26.7	2285	82	56	13	9
3274	107.3	26.7	2285	82	56	13	9
3275	92.2	24.4	2076	76	53	13	9
3276	85.1	21.8	1849	64	44	14	10
3277	77.8	21.8	1849	64	44	14	10
3278	77.8	21.8	1849	64	44	14	10
3279	77.8	21.8	1849	64	44	14	10
3280	29.9	19.2	1610	59	41	14	10
3281	67.2	17.0	1436	49	37	11	8
3282	59.7	15.6	1310	48	32	11	8
3283	61.8	15.7	1310	48	32	14	8
3284	96.3	14.9	1223	50	32	14	8
3285	68.7	24.3	2049.1	71.5	48.9	23	16.3
3286	2.6	27.5	2330.9	84.6	51.2	21.8	15.6
3287	127.8	27.5	2330.9	84.6	51.2	16.1	15.6
3288	124.5	31.6	2676.5	91.1	62.3	18.4	20.2
3289	153.3	31.6	2676.5	91.1	62.3	18.4	20.2
3290	157	31.6	2676.5	91.1	62.3	18.4	20.2
3291	89.3	36.1	3028.6	111.5	64.7	11.1	38.4
3292	96.7	36.1	3028.6	111.5	64.7	11.1	38.4
3293	89.9	39.2	3301.8	116.7	74.2	20.7	29.9
3294	97.5	40.1	3347.8	116.7	74.2	26	42.9
3295	97.8	40.1	3347.8	100.5	73.5	26	42.9
3296	88.6	32.5	2932	107	48	0	0
3297	82.7	31.8	2824	100	48	3	7
3298	93.1	30.9	2716	93	48	5	14
3299	85.1	31.9	2716	93	52	20	22
3300	86.5	27.9	2396	76	48	19	14
3301	54	28.1	2396	77	52	19	14
3302	69	27.2	2302	77	52	16	18
3303	79.5	27.2	2301	77	50	17	18
3304	66.6	27.1	2321	77	50	17	12
3305	41.6	26.8	2321	76	50	15	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3306	70.2	27.4	2333	77	48	20	15
3307	69.2	27.7	2369	82	52	18	10
3308	74.3	27.6	2369	82	52	18	8
3309	40.9	27.8	2374	82	52	18	13
3310	72.8	28.0	2374	83	50	20	15
3311	59.1	27.7	2351	83	50	20	15
3312	44.8	27.9	2347	82	50	25	16
3313	83.1	27.8	2345	81	50	25	15
3314	75.3	28.1	2393	79	51	20	15
3315	80	28.3	2441	77	52	15	13
3316	96.6	28.4	2441	85	52	14	12
3317	83	27.2	2426	85	38	9	1
3318	94.3	27.2	2426	85	38	9	1
3319	97.9	28.3	2503	87	44	12	3
3320	110.9	29.5	2579	90	49	15	5
3321	122.8	33.0	2814.6	92.3	60	20.7	18.2
3322	121.8	33.0	2814.6	92.3	60	20.7	18.2
3323	121.6	33.0	2814.6	92.3	60	20.7	18.2
3324	134.6	33.3	2862.1	101.7	60	20.7	18.2
3325	129.5	33.5	2919.8	101.7	60.8	20.7	12.4
3326	104.7	33.5	2919.8	93.5	60.8	11.1	12.4
3327	111	33.5	2919.8	93.5	60.8	11.1	12.4
3328	154.1	33.7	2919.8	98.7	60.8	19.5	12.4
3329	129.5	33.7	2917.3	98.7	60.6	19.5	11.1
3330	142.3	33.7	2914.8	98.7	60.3	19.5	9.8
3331	180	33.4	2902.6	95	60.3	19.1	7.2
3332	144	33.7	2921.3	101.4	60.3	19.1	9.1
3333	86.3	33.7	2921.3	101.4	59	18.4	20.8
3334	119.7	29.6	2520.6	100.2	47.1	11.1	20.8
3335	118.2	32.6	2779.7	97.5	61.6	19.5	15.6
3336	127.2	32.6	2779.7	97.5	61.6	19.5	15.6
3337	131.4	32.6	2779.7	97.5	61.6	19.5	15.6
3338	105.5	31.2	2682.5	93.2	57.7	18	10.4
3339	113.4	31.2	2682.5	93.2	57.7	24.1	12.4
3340	127.3	32.6	2760.9	96.2	61	24.1	18.2
3341	85.3	33.0	2842.4	99	59.7	17.2	12.4
3342	75.4	34.1	2947.6	102.4	65.4	19.5	7.2
3343	90.6	47.9	4103.2	147.6	92.3	31.8	27.3
3344	104.3	42.5	3662	132.6	79.7	19.1	15
3345	145	43.3	3703	134.1	81.5	24.1	16.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3346	185.7	43.3	3703	134.1	81.5	24.1	16.9
3347	149.2	44.1	3784	134.1	86.4	29.5	16.9
3348	150	44.1	3784	128.3	86.4	29.5	12.4
3349	138.1	44.1	3784	128.3	86.4	29.5	12.4
3350	135.5	44.8	3895.8	135.4	86.4	29.5	20.8
3351	45.3	54.5	4752.3	160.7	97.3	26	15
3352	29.3	54.5	4752.3	160.7	97.3	21.1	15
3353	63.4	62.3	5443	183	109.9	31	10.4
3354	77.2	73.8	6430.1	212.3	128.5	37.5	23.4
3355	95.5	75.2	6615.2	212.3	128.5	37.5	19.5
3356	35.1	76.1	6664.3	210.5	129.8	39.8	18.2
3357	65.6	76.1	6664.3	213.3	129.8	39.8	18.9
3358	54.8	75.6	6618.8	214.2	128.9	39.4	18.9
3359	33.1	75.0	6573.2	215.1	128	39	18.9
3360	48	74.1	6475.3	215.1	128	39.4	18.9
3361	48	73.2	6377.4	215.1	128	39.8	18.9
3362	48	63.2	5488	176.3	115.9	37.1	18.9
3363	49.3	60.2	5223.9	164.7	107.3	37.1	18.2
3364	85.5	57.0	4941.1	160.4	98.5	37.1	18.2
3365	70.8	53.3	4606.6	155.8	97	37.1	16.9
3366	52.2	44.7	3871.5	132	86.9	27.9	5.2
3367	100.9	44.7	3871.5	133.2	86.9	27.9	8.5
3368	171.6	44.7	3871.5	134.4	86.9	27.9	11.7
3369	151.2	44.1	3793.1	134.4	85.9	24.5	11.7
3370	163	44.1	3793.1	134.4	85.9	24.5	11.7
3371	118.4	42.9	3651.9	129.9	88.2	30.6	12.4
3372	152.6	42.9	3651.9	129.9	88.2	30.6	12.4
3373	108.9	35.0	3112.6	128.9	56.6	0	0
3374	112.1	42.3	3641.8	134.1	86.4	21.8	8.5
3375	113.4	42.3	3641.8	134.1	86.4	21.8	8.5
3376	84.6	44.1	3741	134.1	92.9	34.1	12.4
3377	110.7	44.1	3741	133.4	92.9	34.1	12.4
3378	163.8	44.1	3741	132.6	92.9	34.1	12.4
3379	165.2	45.3	3846.5	134.8	94.5	34.5	15
3380	178.9	46.6	3951.9	136.9	96	34.8	17.6
3381	135.2	46.6	3951.9	136.9	96	34.8	17.6
3382	166.9	48.5	4117.9	154.9	102.7	30.6	14.3
3383	153.8	48.6	4134.4	154.9	102.7	31.4	14.3
3384	125.4	48.7	4150.8	154.9	102.7	32.2	14.3
3385	118.4	48.7	4150.8	152.8	99.8	32.2	12.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3386	167.2	48.7	4150.8	154	101.5	36	15.7
3387	179.8	48.8	4150.8	155.2	103.2	39.8	18.9
3388	157.5	48.8	4091.1	155.2	103.2	39.8	18.9
3389	101.6	47.4	4001	145.7	104.8	35.6	15.6
3390	112.5	47.4	4001	145.7	104.8	37.1	15.6
3391	94.4	45.7	3854.8	144.8	100.1	37.1	15.6
3392	53	43.7	3674.7	138.4	98.3	32.5	15.6
3393	73.9	39.6	3327.1	127.7	90.5	35.6	11.7
3394	77.7	39.6	3327.1	121	90.5	35.6	13
3395	66.3	37.9	3166.2	116.4	85.4	34.8	13
3396	58.6	37.9	3166.2	116.4	87.2	34.8	13
3397	78.4	36.9	3113.6	112.1	87.2	32.9	9.1
3398	83.4	37.6	3158.4	115.7	86.3	32.4	12.7
3399	98.4	38.3	3203.1	119.2	85.4	31.8	16.3
3400	105.4	38.3	3203.1	119.2	85.5	31.6	16.3
3401	151.3	38.3	3203.1	119.2	85.6	31.4	16.3
3402	193	37.9	3202.6	115.2	85.6	31.4	7.8
3403	90.2	38.6	3248.7	111.8	83	31.8	15.6
3404	96.8	38.6	3248.7	111.8	83	31.8	15.6
3405	132.4	38.1	3215.3	115.8	82	29.5	14.3
3406	115.2	38.1	3215.3	115.8	82	29.5	14.3
3407	153.3	38.1	3215.3	115.8	82	29.5	14.3
3408	152.4	37.4	3159.2	110.2	79.2	29.7	13.7
3409	138.9	36.6	3103	104.5	76.3	29.9	13
3410	162.7	36.6	3103	106.1	76.3	29.9	15.3
3411	201	36.6	3103	107.6	76.3	29.9	17.6
3412	195.3	51.3	4474.6	152.4	93.7	30.3	18.9
3413	160.6	66.0	5846.2	197.1	111	30.6	20.2
3414	75.3	69.0	6066.3	205.6	113.3	27.9	13
3415	59.2	69.0	6066.3	205.6	113.3	27.9	13
3416	95.2	69.0	6066.3	205.6	113.3	27.9	13
3417	107.2	70.7	6208.5	204.7	115.9	34.4	13.7
3418	123.4	73.1	6396.7	214.8	119.2	34.4	20.2
3419	72.9	75.1	6560.1	215.7	120.3	37.1	24.1
3420	40.3	75.6	6637.5	226.1	122.9	33.7	18.9
3421	30.1	75.6	6673.9	221.5	123.4	31.4	18.9
3422	37.9	75.8	6673.9	223.7	124.7	36.4	15.6
3423	53.1	75.8	6639	223.7	124.7	36.4	15.6
3424	27.8	73.3	6465.5	222.1	123.6	30.2	16.3
3425	61.2	73.3	6411.8	222.1	123.6	30.2	16.3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3426	73.8	63.8	5661	214.2	88.7	11.1	11.7
3427	90.4	67.3	6035.9	233.7	100.9	11.1	11.7
3428	71.7	113.5	9906.9	342.5	204.3	50.5	22.8
3429	81.4	113.5	9906.9	347.1	204.3	50.5	22.1
3430	58.9	113.3	9880.1	347.1	203.3	49.4	22.1
3431	100.1	107.0	9379.7	321.4	194.8	47.8	10.4
3432	103.3	107.0	9379.7	321.4	194.8	47.8	14.3
3433	110.7	103.9	9098.9	319.6	184.2	44	14.3
3434	123.3	102.1	8935	304.3	182.9	52.4	23.4
3435	69.6	72.8	6330.4	223.3	134	37.5	12.4
3436	108.3	72.8	6330.4	223.3	134	37.5	12.4
3437	127.8	66.3	5749.1	195.8	123.4	35.6	15
3438	119	64.4	5559.8	189.4	120	40.2	15
3439	170.4	64.4	5559.8	189.4	120	40.2	15
3440	162	64.5	5588.7	193.7	120.4	40.2	15
3441	184.5	64.7	5617.5	198	120.8	40.2	15
3442	131.1	64.7	5617.5	198	120.8	37	13.4
3443	113.2	64.7	5617.5	198	120.8	33.7	11.7
3444	119	65.6	5683.3	193.7	125.2	34.8	15
3445	116.1	67.4	5837.6	209.6	127	34.8	15
3446	108.4	67.4	5837.6	209.6	127	34.4	12.4
3447	112.7	67.4	5837.6	209.6	127	34.4	12.4
3448	105.2	64.8	5626.1	201.7	122.6	34.1	15.6
3449	97.5	59.5	5133.8	181.5	111.2	32.9	15.6
3450	83.3	59.5	5133.8	181.5	111.2	32.9	16.9
3451	67.8	52.9	4564.6	154.3	98.3	31	16.9
3452	63.7	47.4	4084.5	147	88.5	24.9	15.6
3453	59.3	42.0	3614.5	128.6	79.4	21.8	15.6
3454	39.7	39.8	3428.6	121.2	75.7	21.8	13.7
3455	42.4	37.5	3242.6	113.7	71.9	21.8	11.7
3456	39.4	40.3	3514.3	124.4	75	21.1	11.7
3457	43.3	44.9	3897.8	138.4	82.5	21.4	9.1
3458	48.3	49.6	4322.3	150.3	90.3	23.3	9.1
3459	60	53.6	4656.7	161.6	97.8	27.9	11.7
3460	60	56.3	4911.2	170.2	100.6	27.9	11.7
3461	54.3	58.2	5070.6	178.4	105	29.1	9.1
3462	66.2	58.4	5088.8	178.4	105.7	29.9	10.1
3463	49.4	58.7	5107	178.4	106.3	30.6	11.1
3464	46.3	58.7	5107	177.1	106.3	30.6	11.1
3465	51.3	58.7	5107	175.7	106.3	30.6	11.1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3466	43.7	58.7	5107	175.7	106.6	30.6	11.1
3467	58	58.4	5079.5	176.5	106.6	30.4	12.1
3468	57.2	58.0	5051.9	177.2	106.6	30.2	13
3469	30.7	57.8	5014.5	177.2	107.1	30.2	15
3470	32.7	57.5	4977	177.2	107.6	30.2	16.9
3471	36.4	48.1	4286.4	156.7	71.6	7.3	4.6
3472	65.5	53.8	4649.6	157.4	102.4	34.8	10.4
3473	57.5	52.4	4531.8	150.6	102.9	35.6	11.1
3474	58.1	51.0	4386	148.2	100.4	35.6	11.1
3475	59.3	51.0	4386	148.2	100.4	35.6	11.7
3476	62.8	50.1	4320.8	140.2	96.7	34.4	11.7
3477	73.6	48.5	4180.1	139.3	94.9	35.6	12.4
3478	43.6	47.7	4089.6	136.6	94.9	35.6	12.4
3479	52.8	46.0	3911	136.6	89.2	34.8	18.9
3480	52.5	45.6	3886.2	142.7	99.1	32.2	13
3481	34.8	45.8	3917	142.7	99.1	30.2	10.4
3482	58.8	46.7	3973.5	143	101	32	13.7
3483	83	47.6	4029.9	143.3	102.9	33.7	16.9
3484	80	54.8	4688.1	170.8	113.3	38.3	16.9
3485	54.9	55.8	4807	171.4	116.1	37.1	12.4
3486	48	57.1	4905.1	171.4	116.1	37.1	12.4
3487	47.2	59.2	5072.1	182.4	117.7	36.7	15.6
3488	69.7	60.1	5157.1	184.9	119.8	39.4	15.6
3489	57	61.1	5248.2	184.9	123.6	39.8	15
3490	67.1	61.1	5248.2	179	123.6	39.8	15
3491	65.3	61.0	5260.8	187.6	121.6	35.6	15.6
3492	62.4	61.3	5260.3	186.1	117.9	36	19.5
3493	43.6	61.3	5260.3	186.1	117.9	36	19.5
3494	92.6	61.3	5260.3	186.1	117.9	36	19.5
3495	102.4	62.6	5352.9	187.9	121.6	39.8	22.8
3496	104.1	64.3	5509.7	191.6	121.6	39.8	26.7
3497	94.4	64.3	5509.7	191.6	120	37.9	26.7
3498	73.3	61.6	5336.2	184.9	116.1	36.7	16.3
3499	64.8	58.0	4996.7	165	110.7	36.7	16.3
3500	100.1	54.7	4726	163.2	102.9	33.7	11.1
3501	102.6	54.7	4726	163.2	102.9	33.7	11.7
3502	86.7	51.2	4426	152.2	96.5	31.4	11.7
3503	99.4	51.2	4426	152.2	96.5	31.4	11.7
3504	88.8	48.1	4162.4	145.1	87.9	28.3	10.4
3505	98.1	44.9	3872.5	129.9	84.6	31	10.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3506	90.9	45.1	3894.3	129.9	84.6	31	14.3
3507	82.3	45.1	3894.3	128.9	81	27.6	14.3
3508	99.8	51.5	4466	148.8	90.5	31	16.9
3509	114.1	51.2	4441	152.3	92.2	28	15.6
3510	338.7	50.8	4415.9	155.8	93.9	24.9	14.3
3511	98.8	51.8	4495.1	159.7	96.4	27.4	12.7
3512	70.5	52.8	4574.3	163.5	98.8	29.9	11.1
3513	97	52.8	4574.3	163.5	98.8	29.9	9.8
3514	136.5	52.8	4574.3	163.5	98.8	29.9	8.5
3515	106.2	54.2	4690.6	166.5	100.4	32.2	10.4
3516	132.3	55.0	4790.8	174.5	102.4	32.2	10.4
3517	118.2	55.0	4790.8	174.5	102.4	26.8	5.9
3518	96.5	55.0	4790.8	174.5	102.4	26.8	11.7
3519	59.4	54.7	4746.3	170.8	101.1	26.8	11.7
3520	103.7	51.6	4485.7	164.4	94.1	21.4	9.8
3521	108.2	48.0	4141.7	150	88.5	24.9	14.3
3522	117.7	48.0	4141.7	150	88.5	24.9	14.3
3523	105.1	43.3	3726.3	134.1	81	25.6	11.1
3524	122	43.3	3726.3	134.1	81	25.6	11.1
3525	104.4	38.5	3327.1	124.4	72.4	20.3	7.8
3526	112.1	38.5	3327.1	124.4	72.4	20.3	7.8
3527	122.9	35.1	3014.9	112.7	64.7	20.3	9.8
3528	95.4	35.1	3014.9	112.7	64.7	20.3	9.8
3529	73.1	31.5	2710.9	104.2	56.4	17.2	8.5
3530	82.9	31.5	2710.9	104.2	56.4	17.2	12.4
3531	93.1	29.1	2510	91	52	13	12
3532	39.1	96.6	8185	316	211	62	25
3533	65.2	90.7	7746	317	199	51	8
3534	77.9	82.1	7012	273	180	42	15
3535	82.6	77.3	6588	258	167	48	12
3536	78.1	75.3	6400	255	165	45	14
3537	84.2	73.3	6212	252	164	42	16
3538	122.4	73.3	6212	252	164	42	16
3539	149.7	69.0	5857	233	155	44	11
3540	115.7	69.0	5857	233	155	44	11
3541	152.2	67.3	5722	232	150	39	10
3542	114.8	67.3	5722	232	150	39	10
3543	85	60.5	5136	201	135	36	13
3544	129.3	58.3	4951	196	129	36	10
3545	85	41.2	3437	149	104	28	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3546	77	41.4	3399	152	109	31	13
3547	77	40.4	3313	150	109	29	13
3548	45	41.3	3353	156	115	37	12
3549	79.4	41.6	3355	153	117	41	16
3550	45.6	41.6	3355	153	117	41	16
3551	26.5	42.2	3402	162	124	37	14
3552	29	43.2	3436	160	135	46	14
3553	31.5	47.4	3753	181	149	50	18
3554	72.5	47.4	3753	181	149	50	18
3555	41.8	55.6	4466	197	165	58	20
3556	45.8	62.6	5052	225	177	58	27
3557	61.7	62.7	5152	239	136	59	25
3558	71.4	77.3	6364	271	208	62	22
3559	20.6	88.9	7371	295	232	72	24
3560	79.4	86.2	7178	301	221	60	20
3561	84	82.1	6809	287	210	65	19
3562	103.9	80.4	6650	278	208	63	22
3563	116.2	76.8	6331	264	200	61	25
3564	96.6	76.8	6331	264	200	61	25
3565	99.2	71.8	5949	252	186	56	16
3566	108.4	68.2	5619	238	179	56	21
3567	119.1	68.2	5619	238	179	56	21
3568	112	64.1	5265	227	173	54	16
3569	95.3	64.1	5265	227	173	54	16
3570	99.6	60.3	5001	214	165	49	5
3571	90.6	59.5	4915	212	163	47	10
3572	108.5	58.7	4829	210	161	45	14
3573	106.9	56.9	4672	203	158	47	12
3574	103.1	56.9	4672	203	158	47	12
3575	119.4	56.0	4576	201	155	49	15
3576	100.7	54.9	4469	195	155	52	14
3577	41.2	54.3	4416	196	154	43	21
3578	69.2	54.1	4389	190	151	51	21
3579	73.2	54.1	4389	190	151	51	21
3580	61.9	53.9	4357	189	153	52	20
3581	74.4	47.4	3898	175	104	48	16
3582	70	52.9	4315	184	147	52	14
3583	58.4	52.6	4273	173	148	51	21
3584	61.1	52.7	4272	174	145	58	20
3585	77.3	53.2	4304	178	149	52	24

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3586	55.8	53.2	4304	178	149	52	24
3587	48.4	53.2	4304	178	149	52	24
3588	48.4	51.8	4215	171	148	49	18
3589	63.9	51.6	4208	168	146	55	13
3590	102.4	51.6	4208	168	146	55	13
3591	77.7	52.0	4217	167	146	56	20
3592	70.9	52.5	4229	167	146	57	27
3593	44.7	51.9	4229	166	145	53	19
3594	76.9	45.9	3882	170	103	18	13
3595	69.9	52.0	4256	177	150	49	10
3596	99.4	52.6	4255	170.2	148.2	54.3	22.8
3597	85.2	54.2	4406.3	175.1	150.8	56.6	22.8
3598	107.3	54.2	4406.3	175.1	150.8	56.6	20.8
3599	75.1	57.0	4670.4	190.4	153.4	56.6	20.8
3600	107	57.0	4670.4	190.4	153.4	54	17.6
3601	110.2	60.4	4986.6	195.8	160.1	54.3	17.6
3602	104.8	66.9	5533	207.5	166.6	62	24.1
3603	98.4	66.9	5533	207.5	166.6	62	24.1
3604	90.9	72.8	6061.2	234.3	179	58.2	24.7
3605	88.5	77.7	6500.1	246.9	187.5	64.9	29.6
3606	124.3	82.5	6939	259.4	196	71.6	34.5
3607	98	82.9	6942.6	270.7	199.5	71.6	30.9
3608	118.3	83.4	6946.1	282	203	71.6	27.3
3609	95.6	83.4	6946.1	278.7	203	68.7	27.3
3610	104	83.4	6946.1	275.3	203	65.8	27.3
3611	99.7	81.8	6779.7	275.3	199.9	62.8	31.9
3612	74.8	81.8	6779.7	275.3	199.9	62.8	31.9
3613	124.8	79.8	6619.8	263.7	194.2	60.9	31.9
3614	124.2	79.8	6619.8	263.7	194.2	60.9	31.9
3615	126	77.9	6482.7	257.3	190.1	59.6	27
3616	145.9	76.1	6345.6	250.8	186	58.2	22.1
3617	96.8	73.2	6108.3	248.4	176.4	54.3	21.5
3618	105.4	70.9	5947.4	234	172.5	51.3	15.6
3619	89	71.8	6016	241	174	49	18
3620	107.4	72.7	6084	248	176	48	21
3621	109.1	77.0	6466	268	191	52	12
3622	123	81.3	6729	284	205	56	30
3623	100.4	81.3	6729	284	205	56	30
3624	101	82.1	6831	285	214	62	15
3625	69.1	83.7	6934	286	223	68	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3626	93.6	84.6	6953	303	228	68	22
3627	65.3	69.3	5715	254	192	52	12
3628	118.3	67.9	5579	251	182	52	18
3629	95.9	67.9	5579	251	182	52	18
3630	114	64.9	5360	236	172	52	13
3631	98.7	60.6	5028	216	160	41	15
3632	118	60.6	5028	216	160	41	15
3633	100	57.8	4797	205	150	41	14
3634	84.5	57.8	4797	205	150	41	14
3635	94	53.2	4395	186	137	36	21
3636	115.1	53.2	4395	186	137	36	21
3637	98.2	50.2	4145	175	127	36	19
3638	108.9	50.1	4145	175	127	36	18
3639	113.1	48.2	3989	168	123	37	15
3640	115.9	48.2	3989	168	123	37	15
3641	100.1	47.3	3929	167	118	37	10
3642	106.8	47.4	3936	163	117	36	14
3643	97.2	47.4	3936	163	117	36	14
3644	81.9	46.1	3867	156	115	33	8
3645	78.2	44.7	3716	154	108	33	14
3646	69	40.9	3429	141	99	29	8
3647	68.8	40.9	3429	141	99	29	8
3648	63.5	36.8	3029	126	88	32	17
3649	59.1	32.3	2688	108	79	29	7
3650	75.7	29.5	2438	102	72	25	9
3651	84.2	29.5	2438	102	72	25	9
3652	91.9	29.5	2438	102	72	25	9
3653	84.3	25.9	2125	86	63	23	13
3654	58.2	25.9	2125	86	63	23	13
3655	60.1	23.1	1914	75	56	23	7
3656	73.6	21.5	1779	74	53	16	9
3657	54.4	20.6	1700	70	50	18	7
3658	29.3	18.8	1623	74	37	3	3
3659	45	31.6	2651	97	71	22	14
3660	62.9	31.6	2651	97	71	22	14
3661	71.1	38.6	3301	127	83	23	6
3662	97.6	45.0	3847	141	94	28	11
3663	94.2	50.3	4311	150	103	31	14
3664	77	50.3	4311	150	103	31	14
3665	89.6	53.9	4635	165	110	30	11

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3666	54.6	55.0	4717	164	113	35	13
3667	63.4	55.0	4717	164	113	35	13
3668	73.1	56.2	4808	166	114	37	16
3669	94.2	56.2	4808	166	114	37	16
3670	57.3	55.3	4770	162	114	34	8
3671	49.5	55.5	4789	165	116	35	6
3672	36.9	56.2	4844	175	115	33	7
3673	72.2	56.2	4844	175	115	33	7
3674	77.7	55.9	4798	172	115	36	10
3675	68.1	55.6	4784	171	115	31	10
3676	59.7	55.9	4776	172	115	33	16
3677	86.3	55.9	4776	172	115	33	16
3678	88.7	55.1	4721	170	112	35	12
3679	77.3	55.5	4732	172	114	34	17
3680	75.2	55.5	4732	172	114	34	17
3681	82.5	48.0	4106	174	75	32	15
3682	95.3	54.6	4671	172	110	33	14
3683	80.5	54.6	4671	172	110	33	14
3684	78.5	54.3	4635	171	107	32	18
3685	79.8	52.9	4537	166	111	32	8
3686	67.5	52.9	4537	166	111	32	8
3687	45.8	51.6	4386	164	106	31	18
3688	36	50.0	4286	158	104	30	10
3689	46.2	49.2	4234	160	101	31	4
3690	26	47.8	4068	153	102	32	11
3691	49.5	46.6	3967	149	102	26	12
3692	37	46.6	3918	147	98	39	16
3693	42.7	45.7	3870	149	101	30	11
3694	85.7	44.0	3730	140	100	30	10
3695	43.3	43.9	3709	137	98	32	13
3696	63.2	43.7	3704	142	96	31	8
3697	71.9	43.4	3660	135	99	30	13
3698	55.4	43.7	3681	139	97	32	14
3699	74.8	44.6	3752	146	97	32	16
3700	80.9	44.5	3762	137	100	33	13
3701	58.8	45.8	3879	150	101	32	10
3702	64.4	46.6	3935	148	105	37	10
3703	85.9	50.7	4280	163	115	38	12
3704	58	64.6	5382	226	158	50	15
3705	72.2	75.3	6241	278	193	57	15

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3706	82.2	75.3	6241	278	193	57	15
3707	76.3	76.0	6321	269	197	59	12
3708	95.7	75.4	6256	270	193	60	13
3709	93.6	75.4	6256	270	193	60	14
3710	117.7	75.2	6254	276	189	56	12
3711	86	67.3	5784	275	143	11	5
3712	88.1	70.2	5856.8	275	173	52.4	12.4
3713	97.6	70.2	5856.8	250.8	173	52.4	29.9
3714	63.7	69.0	5705	248.7	165.5	45.5	29.9
3715	80.7	69.0	5705	248.7	165.5	47.1	29.9
3716	76.6	66.2	5500.6	236.2	157.8	47.5	22.8
3717	62.6	63.4	5282.1	224.3	151.3	47.5	18.9
3718	73.8	60.6	5076.1	212	142.5	38.7	18.9
3719	81.1	60.6	5076.1	212	142.5	38.7	18.9
3720	73.2	38.8	3249	123	80	30	20
3721	45	12.3	902	44	27	28	16
3722	43.2	10.9	829	34	29	18	14
3723	43.2	10.9	829	34	29	18	14
3724	19.7	10.1	761	30	29	16	13
3725	47.9	9.4	710	27	26	16	12
3726	43.7	8.7	651	28	24	14	12
3727	56.8	7.7	596	28	21	10	8
3728	39.7	7.1	539	24	22	12	6
3729	65.5	6.2	461	24	15	11	8
3730	46.5	6.4	478	19	17	13	9
3731	42.9	6.4	487	24	18	9	6
3732	57.4	7.0	510	24	20	13	11
3733	52.9	7.0	510	24	20	13	10
3734	66.4	7.2	514	26	19	14	12
3735	52.6	7.5	523	29	22	19	11
3736	44.8	7.2	534	25	21	12	9
3737	62.5	7.4	535	25	20	15	11
3738	51.4	6.9	543	26	20	8	5
3739	59	7.5	538	26	24	14	12
3740	53	7.7	540	34	23	15	13
3741	52.8	7.6	546	30	24	13	11
3742	63.2	7.7	546	30	24	14	12
3743	57.4	7.7	556	32	24	13	10
3744	35.4	8.1	585	34	22	13	14
3745	38.3	7.7	588	28	24	11	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3746	87.4	7.6	588	28	24	9	6
3747	83.6	7.9	588	32	25	12	7
3748	74.6	7.9	588	32	25	12	8
3749	90.6	8.2	585	32	25	17	12
3750	90.6	8.2	585	32	25	16	13
3751	85.7	8.3	581	33	25	17	14
3752	83	8.0	563	26	24	17	14
3753	66.6	7.9	563	26	24	17	13
3754	52.6	7.6	557	26	22	14	11
3755	85.1	7.8	556	28	27	14	11
3756	81.9	7.3	543	26	22	11	9
3757	65.4	7.8	543	33	25	16	11
3758	48.7	7.3	535	27	23	12	10
3759	52.3	7.7	538.8	28.4	23.5	15	18.9
3760	69.5	7.3	538.8	28.4	23.5	8.8	9.1
3761	130.6	7.4	539	28	24	12	9
3762	127.2	7.6	530	29	23	16	14
3763	113.3	7.6	530	29	23	16	14
3764	140.4	7.6	532	27	23	19	11
3765	125.1	7.7	532	28	24	19	13
3766	130.1	8.0	564	27	22	16	15
3767	76.4	7.8	588	26	23	13	9
3768	101.2	7.8	588	26	23	13	9
3769	111	8.7	627	27	24	19	13
3770	103	8.6	627	26	22	19	13
3771	94.6	8.9	664	28	25	16	12
3772	138.8	8.9	664	29	26	16	11
3773	123	9.1	709.3	28.4	24.6	8.4	11.7
3774	131.6	9.2	709	28	25	13	10
3775	143	9.7	766	35	26	11	8
3776	120.4	9.7	766	35	26	11	8
3777	102.5	10.2	795	34	27	14	9
3778	125	10.3	795	34	27	15	10
3779	109.3	10.9	843	31	28	17	12
3780	128.2	10.9	843	31	28	17	12
3781	79.7	11.3	869	39	27	16	13
3782	136.8	11.3	869	39	27	16	13
3783	95.4	11.5	921	41	27	13	7
3784	144.6	11.5	921	41	27	13	7
3785	122.8	11.9	957	37	30	12	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3786	99.7	12.6	1001	43	30	14	12
3787	101.9	12.7	1001	43	30	15	13
3788	140.8	12.7	1001	43	30	15	13
3789	98.3	13.0	1047	46	33	13	8
3790	95.7	13.2	1086	43	33	9	7
3791	159.7	13.2	1086	43	33	10	7
3792	136.6	13.6	1129	43	31	10	8
3793	87.1	14.5	1167	52	32	15	12
3794	98.3	14.5	1167	52	32	15	12
3795	115.9	14.8	1199	52	30	16	11
3796	100	14.8	1199	52	30	16	11
3797	130.2	14.7	1228	45	35	11	7
3798	139.5	14.7	1227.9	44.6	35.2	10.7	7.2
3799	153	15.0	1249.7	48	35.2	10.7	8.5
3800	130.4	15.0	1249.7	48	31.8	10.7	8.5
3801	136.3	15.3	1263	48	33	14	10
3802	168.9	14.9	1257	47	33	9	6
3803	134	15.3	1267	48	33	13	10
3804	140.5	15.4	1265	52	33	14	10
3805	126.4	15.2	1265	52	31	13	6
3806	109.7	15.5	1265	51.9	34	14.9	13
3807	64.8	15.5	1260.3	51.9	31	14.9	13
3808	100.1	15.7	1275	51.9	31.6	16.5	13
3809	89.5	15.7	1275	50.4	34.7	17.2	14.3
3810	54.7	15.7	12.72	49.8	33.4	16.9	13.9
3811	172.4	15.1	1248.7	49.2	32.2	15.3	9.5
3812	130.7	15.1	1238.6	49.2	30.8	15.3	9.1
3813	121.9	18.4	1534.6	60.8	37.5	16.1	13.7
3814	153.3	21.7	1830.5	72.4	44.2	16.8	18.2
3815	121	18.5	1579.1	59.3	37.2	13.4	3.9
3816	94.7	18.0	1543.6	55.9	36.2	12.6	6.5
3817	75.3	17.2	1466.2	51.9	33.1	12.6	6.5
3818	97.7	17.2	1466.2	51.9	33.1	12.6	6.5
3819	111.7	16.1	1375.7	51.9	32.3	10.7	3.9
3820	115.9	15.1	1291.2	51	31.3	10.7	1.3
3821	85.3	15.1	1291.2	51	31.3	11.1	10.4
3822	103.4	14.7	1221.4	44.3	30.3	11.1	10.4
3823	97.1	13.9	1178.9	43.1	29	11.9	3.9
3824	121.7	13.9	1178.9	43.1	29	11.9	3.9
3825	116.3	13.9	1178.9	43.1	29	11.9	7.8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3826	95.9	13.2	1095.4	42.2	26.1	11.1	7.8
3827	108	12.1	1023	38.5	25.1	8	5.2
3828	57	12.1	1023	38.5	25.1	10.3	5.2
3829	70.1	26.2	2253	90.1	51.7	16.5	7.2
3830	43.8	26.6	2284.9	92.3	52.8	15.3	3.3
3831	64.5	26.8	2284.9	92.6	53.3	15.3	6.9
3832	83.9	26.9	2284.9	92.9	53.8	15.3	10.4
3833	34.4	26.9	2284.3	92.9	53.8	14.9	10.4
3834	35.4	26.1	2225.7	91.1	54.1	16.8	9.1
3835	51.8	25.7	2173.5	86.8	54.1	16.8	9.1
3836	31.5	25.1	2117.9	85.6	53.3	18.8	10.4
3837	36.1	24.6	2057.2	81	53.3	18.8	10.4
3838	40.9	23.3	1968.1	76.4	50.2	18.8	6.5
3839	23.7	22.7	1898.3	75.8	50.2	19.9	15
3840	29.7	22.0	1839.6	73.6	48.1	21.8	9.1
3841	28.8	21.1	1747.5	71.5	48.4	21.8	15.6
3842	31.7	20.4	1665.1	68.1	44.2	21.4	15.6
3843	29.8	20.0	1668.1	65.7	44.7	21.4	6.5
3844	46	20.9	1738.9	68.1	45.5	19.5	20.2
3845	36.2	21.8	1830.5	73.3	48.6	19.5	8.5
3846	51.2	23.5	1947.4	77.3	49.1	20.3	12.4
3847	41.8	23.5	1971.7	77.6	49.7	20.3	12.4
3848	30.9	23.5	1971.7	77.6	49.7	18	9.1
3849	40.6	23.4	1971.7	77.3	48.9	17.6	11.7
3850	46.6	22.4	1886.2	76.7	48.4	19.5	9.1
3851	26.9	21.1	1759.7	69.1	45.3	16.8	9.1
3852	44.7	19.8	1674.7	66.6	44.5	17.2	12.4
3853	39.6	19.7	1619	64.2	43.5	17.6	12.4
3854	45	17.4	1442.5	57.4	40.4	18.8	14.3
3855	33.3	17.2	1384.8	57.1	38.5	18.4	14.3
3856	35.5	16.2	1324.1	57.1	38	17.6	10.4
3857	65.9	15.6	1267.4	52.6	37	16.5	10.4
3858	48.8	14.8	1212.8	47.7	36.5	16.5	9.1
3859	48	14.3	1165.7	47.1	32.6	13	11.1
3860	85.1	14.3	1165.7	47.1	32.6	13	11.1
3861	89.7	14.0	1133.8	46.1	32.9	14.5	9.1
3862	91.3	14.0	1133.8	46.1	32.9	15.3	9.1
3863	98.8	13.5	1125.2	43.4	31.3	15.3	9.8
3864	43.7	13.6	1116.1	42.8	31.3	14.2	8.5
3865	36	14.8	1195.6	43.1	31	18	15.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3866	65.2	14.8	1195.6	42.8	29.5	18	15.6
3867	52.9	15.0	1228.4	46.4	30.3	14.5	12.4
3868	107.9	15.0	1228.4	46.4	30.3	14.5	12.4
3869	146.1	15.0	1228.4	46.4	30.3	14.5	12.4
3870	134.3	15.0	1235	46.4	30.3	14.9	12.4
3871	117.2	14.9	1235	41.9	28.2	14.9	10.4
3872	150	15.3	1250.7	47.1	28.2	15.7	15
3873	129.6	15.3	1250.7	47.1	27.2	15.7	15
3874	130.8	15.4	1284.1	47.1	29.5	15.7	15
3875	125.1	15.4	1284.1	46.1	29.5	13.4	9.1
3876	142.8	15.4	1284.1	46.1	29.5	13.4	9.1
3877	144.8	15.5	1304.3	45.2	29.5	14.9	6.5
3878	121.6	15.5	1304.3	45.2	29.5	14.9	6.5
3879	111	16.0	1352.4	48.3	29.5	13	10.4
3880	57.3	16.6	1390.8	49.5	30.5	15.3	9.1
3881	65.3	16.6	1390.8	49.5	30.5	15.3	9.1
3882	90.9	16.6	1398.9	49.5	31.6	15.7	9.1
3883	89.8	17.2	1458.6	51.6	32.3	15.7	10.4
3884	89.5	17.8	1480.9	51.6	32.6	13.4	17.6
3885	50.7	18.1	1529	56.8	32.9	13.4	17.6
3886	59.5	18.2	1536.1	56.8	32.9	17.2	10.4
3887	55	18.2	1540.6	55.3	33.1	17.2	11.1
3888	66.8	18.3	1576.5	54.7	33.1	14.2	11.1
3889	40.9	19.0	1614	57.1	33.1	13.8	9.1
3890	56.7	19.0	1614	57.1	33.1	13.8	9.1
3891	79.6	19.0	1614	57.1	33.1	13.8	9.1
3892	158.1	19.0	1622.6	57.1	33.1	13.8	9.1
3893	59.8	18.9	1622.6	55.6	33.1	13.4	7.2
3894	121.2	18.9	1622.6	55.6	33.1	13.4	7.2
3895	101.9	19.9	1693.4	57.4	34.1	15.3	11.1
3896	42.9	19.9	1693.4	57.4	34.1	15.3	10.4
3897	79.3	20.9	1784.5	60.2	34.9	15.3	12.4
3898	89.9	20.9	1784.5	60.2	34.9	15.3	10.4
3899	86	21.2	1843.2	60.2	35.2	15.3	10.4
3900	98.8	23.6	2042.5	64.2	38.5	16.5	9.8
3901	48.2	25.5	2209	75.5	44	15.7	9.1
3902	31.1	28.2	2435.1	84.9	47.3	17.6	10.4
3903	85.1	34.6	2998.2	104.8	60.3	21.1	14.3
3904	52.9	35.7	3071.1	110.3	64.4	21.1	11.1
3905	93.8	36.3	3127.3	116.1	67.5	21.4	11.7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3906	84.4	37.2	3164.7	124.1	70.9	21.4	17.6
3907	73.4	37.2	3164.7	124.1	70.9	20.7	17.6
3908	101.2	36.6	3135.3	121.3	70.6	21.8	11.1
3909	49.7	36.2	3098.4	123.1	72.4	21.8	11.1
3910	76	34.8	2955	116	70	21	12
3911	86.3	26.7	2241	92	55	17	12
3912	60.1	25.6	2147	86	53	15	15
3913	45.4	23.6	1982	82	50	19	6
3914	75.7	17.1	1448	58	34	11	7
3915	65.3	21.1	1797	69	42	14	5
3916	57.6	25.9	2191	85	49	16	12
3917	62.6	25.9	2191	85	49	16	12
3918	43.6	33.6	2890	109	67	19	6
3919	59.8	37.3	3194	123	73	21	9
3920	31.4	40.3	3454	128	78	24	11
3921	40.6	44.1	3776	148	89	22	10
3922	44.8	45.0	3865	148	91	24	8
3923	44.8	45.0	3865	148	91	24	8
3924	74.7	45.4	3915	143	91	24	9
3925	56.7	44.4	3831	145	90	24	5
3926	69.8	44.1	3768	140	89	24	14
3927	62.6	42.5	3666	135	88	23	5
3928	46.2	42.5	3666	135	88	23	5
3929	40.3	41.3	3524	138	87	28	6
3930	38.5	38.9	3323	128	82	24	6
3931	69	38.4	3232	133	80	23	16
3932	53	37.3	3138	130	79	27	11
3933	48.5	36.0	3038	125	79	23	10
3934	68.5	36.0	3038	125	79	23	10
3935	78.1	34.5	2919	116	79	22	6
3936	74.7	34.3	2890	118	77	21	9
3937	63.1	33.2	2772	115	74	24	12
3938	88.2	33.2	2772	115	74	24	12
3939	98.3	28.7	2383	98	64	23	13
3940	86.3	28.0	2299	96	63	23	16
3941	117.5	26.5	2194	86	60	24	12
3942	93.7	26.5	2194	86	60	24	12
3943	92.7	26.4	2162	92	60	21	17
3944	77.6	24.7	2052	81	56	23	8
3945	99.8	24.7	2052	81	56	23	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3946	134.8	23.9	1969	80	55	20	12
3947	119.6	23.1	1916	80	52	18	10
3948	118	23.1	1916	80	52	18	10
3949	102.8	22.0	1803	76	52	20	11
3950	108.4	22.0	1803	76	52	20	11
3951	92.4	21.5	1770	72	50	21	10
3952	52.2	21.5	1770	72	50	21	10
3953	72	20.9	1732	68	48	21	6
3954	58.3	20.5	1681	67	49	21	10
3955	121.4	19.7	1608	66	47	20	9
3956	36.8	19.0	1560	62	45	21	8
3957	51.4	19.0	1560	62	45	21	8
3958	118.9	18.1	1480	59	44	20	8
3959	74.2	18.1	1480	59	44	20	8
3960	96.9	17.5	1411	58	41	21	10
3961	90.1	16.1	1318	51	38	16	10
3962	114.3	14.8	1228	47	37	14	5
3963	94.8	14.8	1228	47	37	14	5
3964	71.8	14.2	1152	45	34	15	10
3965	85	13.7	1101	42	31	18	10
3966	64.1	13.8	1099	44	30	11	18
3967	95.4	13.8	1099	44	30	11	18
3968	48.8	14.0	1138	48	34	11	10
3969	133.5	14.5	1176	47	34	13	12
3970	92.6	15.1	1243	50	32	14	9
3971	132.8	15.5	1281	50	34	14	8
3972	143.8	15.8	1320	50	35	14	6
3973	143.2	15.8	1320	50	35	14	6
3974	120.8	16.5	1374	55	35	16	5
3975	123.2	16.5	1374	55	35	16	5
3976	155.1	17.5	1466	55	37	18	5
3977	112.1	17.5	1466	55	37	18	5
3978	139.2	17.5	1466	55	37	18	5
3979	142.8	14.0	1134	46	33	14	9
3980	141.4	14.0	1134	46	33	14	9
3981	140	13.5	1125	43	31	15	3
3982	153.9	13.4	1102	42	31	14	6
3983	97.6	13.5	1116	43	29	13	8
3984	146.3	14.9	1196	42	30	18	16
3985	105.9	14.1	1192	43	28	11	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3986	106.3	15.0	1228	46	30	14	12
3987	133.4	15.0	1228	46	30	14	12
3988	140.7	15.0	1228	46	30	14	12
3989	130	14.8	1235	42	28	15	10
3990	146	42.3	3715.2	146	75.8	18	5.2
3991	134.3	42.3	3715.2	136.3	78.1	13.4	5.2
3992	138.1	41.9	3679.2	135	78.1	13.4	2.6
3993	136.7	41.9	3679.2	135	78.1	20.7	3.9
3994	145.5	41.9	3665.6	131.7	74	20.7	3.9
3995	152	41.9	3665.6	131.7	74	20.7	3.9
3996	147	41.9	3665.6	131.7	74	20.7	3.9
3997	126.5	41.3	3607.4	125.9	72.4	19.1	7.8
3998	176.1	41.3	3607.4	126.8	74	19.1	7.8
3999	116.2	40.4	3511.3	126.8	74	18.4	7.8
4000	145.1	40.4	3511.3	126.8	74	21.8	9.1
4001	135.2	40.3	3498.2	124.7	72.6	21.8	9.1
4002	110.3	40.2	3485	122.5	71.1	21.8	9.1
4003	88	40.2	3485	122.5	71.1	21.8	9.1
4004	118.3	40.2	3485	129.2	73.2	23.7	21.5
4005	66.8	33.9	2913.7	105.4	65.4	21.8	11.1
4006	55.3	33.7	2889.5	105.4	65.4	21.8	9.1
4007	58.6	33.7	2889.5	105.4	65.4	21.8	9.1
4008	145.8	34.0	2901.1	103.6	65.7	19.1	14.3
4009	139.6	34.0	2901.1	103.6	65.7	19.1	14.3
4010	117	34.1	2917.3	112.7	65.7	20.3	14.3
4011	133.7	34.1	2917.3	112.7	62.6	20.3	9.8
4012	152	34.1	2917.3	112.7	63.9	20.3	9.8
4013	175.4	33.1	2837.8	102.7	63.9	19.5	9.8
4014	123.3	33.1	2837.8	102.7	63.9	19.5	9.8
4015	145.9	31.1	2660.3	93.8	57.7	18	13.7
4016	140.5	31.1	2660.3	93.8	57.7	18.8	13.7
4017	124	29.9	2548.5	92	55.9	18.8	12.7
4018	126.8	28.6	2436.6	90.1	54.1	18.8	11.7
4019	124.2	28.6	2436.6	90.1	54.1	18.8	11.7
4020	113.3	26.0	2223.1	77.6	47.9	16.5	11.1
4021	120.2	23.4	1998.5	78.2	41.9	10.3	11.1
4022	101.5	23.4	1998.5	78.2	41.9	10.3	11.1
4023	132	23.4	1998.5	78.2	44.5	14.2	13.7
4024	111.4	25.2	2152.3	84.9	49.7	11.9	8.5
4025	68.5	27.7	2359.2	85.6	54.1	20.3	8.5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4026	75.3	27.7	2359.2	85.6	54.1	20.3	7.8
4027	124.9	27.7	2359.2	85.6	54.1	20.3	7.8
4028	155.7	30.8	2641	100.8	59.2	20.3	7.8
4029	128.1	30.8	2641	100.8	59.2	20.3	5.9
4030	223.7	30.8	2641	100.8	59.2	20.3	5.9
4031	241.2	30.8	2641	100.8	59.2	20.3	5.9
4032	187	32.7	2812.3	108.9	63.8	16.5	6.2
4033	225.7	34.5	2983.6	117	68.3	12.6	6.5
4034	221.8	34.5	2983.6	117	68.3	12.6	6.5
4035	177.3	34.5	2983.6	117	68.3	12.6	6.5
4036	200.7	39.5	3402	134.4	75.3	20.3	7.2
4037	214.5	39.5	3402	134.4	75.3	20.3	7.2
4038	181.2	39.5	3402	134.4	75.3	20.3	7.2
4039	184.1	44.1	3785	148.2	85.4	21.1	12.4
4040	190.6	44.1	3785	148.2	85.4	21.1	12.4
4041	155.7	47.4	4059.2	158.3	93.4	24.5	13
4042	173	47.4	4059.2	158.3	93.4	24.5	13
4043	119.1	47.4	4059.2	158.3	93.4	24.5	13
4044	160.1	48.6	4153.8	160.7	95.4	27.6	13.7
4045	136.3	48.6	4153.8	160.7	95.4	27.6	13.7
4046	128.9	48.6	4182.1	169.9	95.4	27.6	13.7
4047	120.1	48.4	4182.1	169.9	90.3	21.8	7.2
4048	123.8	48.4	4182.1	169.9	90.3	21.8	7.2
4049	119.9	46.7	4028.3	152.8	89.5	23.7	9.8
4050	167.1	46.7	4028.3	152.8	89.5	23.7	9.8
4051	116.1	45.7	3905.9	151.5	87.9	21.4	18.2
4052	84.8	45.7	3905.9	151.5	87.9	21.4	18.2
4053	96.9	44.8	3846.2	147.9	87.7	20.7	11.7
4054	164.5	44.8	3846.2	147.9	87.7	20.7	11.7
4055	122.8	45.0	3886.7	153.7	87.9	20.7	11.7
4056	177.3	45.0	3886.7	153.7	87.9	26.4	11.7
4057	117.2	43.8	3756.1	135.7	85.9	26.4	11.7
4058	55.4	43.8	3756.1	139.6	85.9	26.4	11.7
4059	64.4	43.4	3723.6	139.6	84.7	25.8	13
4060	57.2	43.0	3691	139.6	83.4	25.1	14.3
4061	83.3	42.6	3658.5	139.6	82.2	24.5	15.6
4062	70.8	41.6	3546.2	138.7	82.2	26.8	15.6
4063	111.3	41.2	3503	138.7	81.1	26.8	13.7
4064	73.2	40.7	3459.7	138.7	79.9	26.8	11.7
4065	124	39.7	3407	127.1	79.9	25.6	12.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4066	91.2	39.1	3331.7	124.4	78.6	25.6	12.4
4067	112.6	38.6	3289.2	128.3	76.6	22.2	12.4
4068	59.2	38.6	3289.2	129.2	80.2	27.2	12.4
4069	75	37.8	3185.4	129.2	80.2	29.9	15
4070	40.9	36.7	3075.6	122.2	73.7	29.9	15
4071	43.2	35.6	2996.7	118.9	76.8	28.3	13
4072	49.6	35.2	2961.8	118.9	76.8	28.3	19.5
4073	52.1	35.0	2921.8	117.9	74	29.1	19.5
4074	35.9	34.9	2937.5	117.9	75.8	29.1	11.1
4075	48.8	35.6	2960.3	120.1	76	27.6	18.2
4076	56.9	35.6	2967.9	120.1	79.7	26	18.2
4077	62.5	35.4	2967.9	117.6	79.7	25.6	13
4078	65.6	36.6	3058.9	123.1	79.7	25.6	17.6
4079	85.4	36.6	3058.9	123.1	78.9	24.5	17.6
4080	111.9	36.2	3047.8	122.2	76	24.1	13
4081	78.6	36.3	3055.4	119.8	77.3	22.2	15
4082	75.9	36.9	3108.5	122.5	78.9	27.6	15
4083	112	36.9	3108.5	122.5	78.9	27.6	11.7
4084	95.5	36.9	3108.5	124.1	79.7	27.6	11.7
4085	96.4	36.8	3107.5	124.1	79.7	25.6	10.4
4086	101.6	37.8	3167.7	126.5	81.5	27.2	15.6
4087	127.7	38.5	3260.8	135.4	81.5	27.2	15.6
4088	75.3	38.5	3260.8	135.4	80.2	20.7	11.7
4089	77.8	38.8	3262.8	135.4	84.6	26.4	15
4090	96.3	43.4	3653.4	147.3	98.3	29.5	15.6
4091	69.8	54.3	4553	197.4	132.9	35.6	15.6
4092	72.7	54.3	4553	197.4	132.9	32.9	10.4
4093	69.9	59.6	4962.8	218.8	149.8	44.4	10.4
4094	84.9	73.0	6020.7	288.1	190.4	53.6	15
4095	52.1	76.0	6288.4	288.1	198.4	58.9	12.4
4096	63.6	79.0	6485.2	284.5	203.5	68.5	28
4097	72.8	81.2	6714.9	300.3	210.5	68.5	28
4098	41.4	77.7	6431.6	283.2	205.4	60.9	19.5
4099	62.1	76.7	6369.3	266.7	193.7	60.9	22.8
4100	82.6	54.7	4479.6	198.6	138.1	53.2	20.8
4101	78.3	23.0	1871	85	56	20	13
4102	78.3	23.0	1871	85	56	20	13
4103	78.3	23.0	1871	85	56	20	13
4104	35.1	21.5	1795	71	47	17	9
4105	83.4	21.4	1740	65	43	26	16

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4106	88.8	20.5	1677	66	44	21	14
4107	91.1	20.5	1677	66	44	21	14
4108	88.1	19.6	1593	66	44	20	13
4109	83.8	18.7	1525	56	37	23	15
4110	85.9	18.7	1525	56	37	23	15
4111	95.6	17.4	1427	55	36	18	12
4112	3.3	9.8	773	34	22	13	9
4113	45.5	9.5	752	33	22	12	9
4114	47.5	8.8	710	30	20	9	7
4115	22.1	8.9	686	32	21	13	9
4116	19.7	7.7	615	26	17	9	7
4117	33.3	7.6	604	25	16	10	7
4118	35.8	7.6	584	30	20	9	7
4119	33.3	7.3	570	27	18	9	7
4120	57.5	7.4	557	31	20	11	8
4121	5.7	7.1	545	27	18	10	8
4122	142.7	7.1	545	27	18	10	8
4123	114.9	7.1	539	29	19	11	7
4124	88.6	7.1	539	29	19	11	7
4125	120.1	7.1	546	23	15	12	9
4126	144.6	7.1	546	23	15	12	8
4127	133.8	7.1	542	25	16	13	8
4128	159.7	7.1	542	25	16	13	7
4129	134.1	7.1	542	25	16	13	7
4130	130.7	6.8	540	21	14	9	7
4131	89	6.8	540	21	14	9	7
4132	89	6.8	540	21	14	9	7
4133	40.1	7.5	547	30	20	14	10
4134	109	7.2	538	27	18	12	9
4135	106.1	7.1	552	22	14	12	9
4136	77.6	7.1	552	22	14	12	9
4137	122	7.1	552	22	14	12	9
4138	115.6	7.0	555	23	15	8	7
4139	57.5	7.1	560	21	14	11	8
4140	94.6	7.2	566	24	16	10	7
4141	69.5	7.2	566	24	16	10	7
4142	66.5	7.1	571	17	11	12	9
4143	55.4	7.1	571	17	11	12	9
4144	89.6	7.1	563	25	16	9	7
4145	95.8	7.1	563	25	16	9	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4146	107.7	7.1	544	26	17	10	8
4147	98.3	6.9	523	23	15	12	9
4148	103.3	6.9	523	23	15	12	9
4149	113.2	6.9	523	23	15	12	9
4150	123.8	6.6	506	17	11	14	10
4151	93.1	6.3	485	24	16	9	7
4152	105.7	6.1	476	17	11	10	8
4153	90.4	6.1	476	17	11	10	8
4154	110.5	6.1	476	17	11	10	8
4155	110.1	5.9	454	22	14	8	7
4156	97.5	5.8	432	23	15	9	7
4157	109.3	5.8	432	23	15	9	7
4158	115.3	5.6	424	17	11	11	8
4159	60.2	5.5	416	16	10	11	8
4160	65.5	5.5	416	16	10	11	8
4161	65.5	5.5	416	16	10	11	8
4162	90.4	5.4	405	20	13	8	7
4163	84.3	5.4	405	20	13	8	7
4164	89.9	5.4	393	24	16	9	6
4165	74.3	5.1	386	16	10	10	8
4166	62.5	5.1	399	16	10	8	7
4167	95.3	5.3	394	22	14	8	6
4168	60.1	5.3	398	21	14	8	6
4169	72.8	5.6	417	19	12	11	8
4170	79.7	5.6	417	19	12	11	8
4171	78.1	5.5	414	19	12	10	7
4172	100.6	5.8	434	24	16	8	6
4173	48.6	6.1	453	20	13	13	9
4174	56.8	6.1	470	19	12	10	8
4175	56.7	6.6	491	24	16	12	9
4176	65.6	6.8	526	26	17	8	7
4177	28.9	7.0	555	24	16	9	6
4178	66.5	8.0	624	26	17	12	9
4179	60.9	8.0	624	26	17	12	9
4180	78	8.2	652	28	18	10	8
4181	78.6	8.3	682	25	16	8	7
4182	75.3	9.0	713	31	20	11	8
4183	74.7	9.2	746	24	16	12	9
4184	89.4	9.2	746	24	16	12	9
4185	73.1	9.9	777	34	22	14	10
4186	73.5	10.2	817	32	21	13	9
4187	79.4	10.3	830	35	19	12	9
4188	63.5	11.2	870	35	21	14	19
4189	79.7	11.4	895	31	21	13	19
4190	90.9	12.1	968	36	24	15	14
4191	71.3	12.3	974	38	24	16	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4192	85.1	12.3	980	40	24	15	13
4193	44.2	12.8	1046	40	24	16	10
4194	59.5	27.8	2382	91	53	15	8
4195	0.1	27.8	2382	91	53	15	8
4196	69.1	32.5	2736	106	70	24	11
4197	66.6	32.6	2702	111	70	22	20
4198	54.3	31.0	2574	104	67	21	18
4199	69.4	31.0	2574	104	67	21	18
4200	58.1	28.5	2407	94	61	17	11
4201	48.6	26.7	2216	93	60	20	12
4202	1.7	22.7	1874	75	50	21	12
4203	24.4	23.3	1924	76	51	17	17
4204	31.8	24.5	1997	79	51	24	19
4205	40.6	25.3	2112	84	52	23	10
4206	21.4	30.5	2552	105	65	21	13
4207	23.3	34.0	2823	109	72	30	17
4208	23.4	37.0	3066	117	80	32	20
4209	25.8	39.1	3261	126	87	31	18
4210	31.5	42.3	3508	135	92	42	18
4211	51.3	44.8	3734	149	97	37	18
4212	45.1	46.7	3890	139	100	39	26
4213	50.4	47.9	4013	147	99	40	22
4214	57.7	48.9	4160	150	99	34	16
4215	48.7	47.0	3944	142	96	38	23
4216	51.8	31.7	2612	98	66	32	20
4217	50	31.7	2612	98	66	32	20
4218	50	31.7	2612	98	66	32	20
4219	48.9	27.9	2286	90	58	26	20
4220	151.7	27.9	2286	90	58	26	20
4221	151.7	27.9	2286	90	58	26	20
4222	90.4	26.1	2168	78	58	23	14
4223	87.1	26.1	2168	78	58	23	14
4224	69.9	26.1	2168	78	58	23	14
4225	96.5	24.5	2030	73	52	24	15
4226	101.8	23.6	1934	77	52	25	13
4227	101.9	23.6	1934	77	52	25	13
4228	89.8	20.3	1678	62	45	16	15
4229	89.9	20.4	1684	63	44	21	10
4230	85.2	19.9	1652	59	44	16	12
4231	79.2	20.6	1715	63	46	20	9
4232	77.8	20.6	1733	61	46	16	8
4233	34.2	21.2	1772	63	46	22	8
4234	52.2	22.5	1846	69	49	21	16
4235	56.7	22.4	1857	62	47	18	17
4236	60	22.4	1897	62	46	15	13
4237	56.9	22.9	1928	70	44	19	12
4238	74.4	22.8	1922	62	44	22	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4239	53.1	23.2	1939	68	42	21	15
4240	34.8	23.3	1980	63	41	16	16
4241	40.9	24.0	2047	71	44	21	8
4242	51.8	25.5	2127	72	44	21	22
4243	48	28.0	2396	78	52	20	11
4244	48.8	30.2	2594	86	57	19	10
4245	70.7	38.6	3296	114	75	31	10
4246	128.3	38.6	3296	114	75	31	10
4247	128.2	41.4	3528	125	83	26	16
4248	100.8	44.8	3826	131	86	32	15
4249	98	44.8	3826	131	86	32	15
4250	126.4	48.5	4130	147	93	37	16
4251	118.5	48.5	4130	147	93	37	16
4252	107.8	48.5	4130	147	93	37	16
4253	119.2	52.5	4499	158	101	35	16
4254	145.7	52.5	4499	158	101	35	16
4255	122.5	55.9	4787	172	109	36	16
4256	105.9	57.9	4946	180	114	35	19
4257	87.2	59.8	5105	188	118	34	21
4258	112.2	60.9	5212	187	121	38	18
4259	53.2	35.7	3034	103	71	22	17
4260	73	35.9	3018	109	66	26	23
4261	5.3	33.7	2871	100	66	16	18
4262	94.3	33.7	2871	100	66	16	18
4263	79.8	33.0	2813	107	60	21	14
4264	144.8	32.0	2740	99	63	20	8
4265	116.9	32.0	2740	99	63	20	8
4266	116.8	30.3	2577	91	57	21	14
4267	95.3	29.7	2527	86	58	19	14
4268	80.7	29.7	2527	86	58	19	14
4269	128.8	30.6	2617	97	58	18	10
4270	112.2	30.6	2617	97	58	18	10
4271	107.7	30.6	2617	97	58	18	10
4272	91.8	32.4	2771	102	64	14	15
4273	95.6	33.2	2832	108	64	16	14
4274	97.9	33.9	2874	102	69	25	12
4275	78	33.9	2874	102	69	25	12
4276	82.6	34.6	2938	109	69	23	12
4277	87.9	45.1	3803	143	91	31	20
4278	110.1	44.9	3823	129	87	30	21
4279	98.4	44.9	3823	129	87	30	21
4280	83.5	45.5	3856	147	92	34	14
4281	73.8	37.8	3120	137	87	32	14
4282	100.9	37.9	3120	137	92	32	14
4283	94.3	38.3	3120	138	89	34	22
4284	111.5	45.1	3807	138	87	34	22
4285	117.3	44.2	3752	144	92	27	15

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4286	97.2	44.1	3752	144	89	27	15
4287	82.9	43.8	3693	139	90	31	18
4288	116.1	43.8	3693	139	90	31	18
4289	107.5	44.9	3823	129	87	30	21
4290	51.8	38.2	3120	147	92	34	14
4291	23.4	45.2	3852	137	89	32	14
4292	59.3	37.8	3120	137	89	32	14
4293	42.1	38.3	3120	138	91	34	22
4294	54.2	45.2	3807	138	91	34	22
4295	88.3	44.2	3752	144	90	27	15
4296	63	44.2	3752	144	90	27	15
4297	73.1	43.8	3693	139	90	31	18
4298	3.2	43.8	3693	139	90	31	18
4299	46.2	38.2	3120	137	91	34	20
4300	44.7	42.6	3625	141	92	20	13
4301	17.8	43.7	3669	139	97	31	17
4302	14.8	41.9	3492	136	93	32	19
4303	38.4	41.1	3416	133	91	34	19
4304	29.7	38.3	3174	126	84	34	18
4305	38.4	37.7	3129	120	83	34	18
4306	51.8	37.1	3055	124	82	34	21
4307	56.9	37.3	3055	124	82	32	26
4308	26.4	37.9	3117	125	81	31	26
4309	34.9	37.3	3117	125	79	31	15
4310	48.3	39.7	3320	123	85	31	20
4311	70.7	45.0	3738	144	90	39	27
4312	1.2	26.3	2119	83	63	32	18
4313	100.9	26.0	2097	83	60	32	18
4314	78.3	25.9	2097	80	60	31	16
4315	80.2	26.1	2097	84	60	32	20
4316	83.1	26.0	2090	84	58	32	20
4317	48.4	26.7	2139	90	59	32	21
4318	44.5	26.5	2139	90	59	28	21
4319	33	27.5	2229	93	60	28	21
4320	83.4	27.9	2284	93	62	26	17
4321	95.8	27.7	2284	91	62	23	17
4322	73.2	28.4	2340	86	60	29	17
4323	61.3	28.7	2351	91	63	29	18
4324	73.4	28.9	2372	94	63	29	18
4325	52.9	30.2	2494	94	66	29	17
4326	45.1	31.5	2613	96	66	31	17
4327	38.3	34.7	2881	104	71	31	23
4328	35.3	34.5	2881	104	71	24	23
4329	40.9	36.9	3108	104	72	28	22

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4330	42.3	37.6	3167	120	74	28	17
4331	34.9	38.6	3238	114	74	35	20
4332	46.7	37.5	3150	110	69	35	20
4333	45.5	36.6	3091	98	66	35	20
4334	57.4	35.6	2998	97	63	35	20
4335	77	34.6	2928	96	58	33	19
4336	98.1	34.7	2928	96	62	33	19
4337	97	33.7	2845	92	62	31	18
4338	119.5	33.7	2845	92	62	31	18
4339	142.5	32.4	2726	90	61	30	17
4340	109.5	32.4	2726	90	61	30	17
4341	155.1	31.6	2693	87	60	24	15
4342	164.9	31.6	2693	87	60	24	15
4343	142.2	31.5	2640	98	60	28	17
4344	128.9	31.5	2640	98	60	28	17
4345	124.1	32.3	2714	98	60	28	17
4346	106.2	32.0	2714	97	60	24	15
4347	134.6	34.1	2865	102	68	28	17
4348	148	34.1	2865	102	68	28	17
4349	117.6	34.1	2865	102	68	28	17
4350	120.1	34.9	2971	96	65	28	17
4351	119.6	34.9	2971	96	65	28	17
4352	143.8	36.4	3086	117	70	25	15
4353	210	36.8	3122	117	70	25	15
4354	166.8	37.1	3159	117	70	25	15
4355	138.3	36.8	3159	117	66	21	13
4356	135	37.9	3184	117	68	34	20
4357	123	37.9	3184	115	68	34	20
4358	150.5	37.8	3184	113	68	34	20
4359	165.5	38.2	3194	118	74	34	20
4360	132	37.8	3194	118	74	28	17
4361	162.9	37.9	3194	122	74	28	17
4362	107.9	37.4	3179	122	73	22	14
4363	92.6	36.6	3110	119	71	22	14
4364	168.6	35.8	3041	116	69	22	14
4365	170.3	36.3	3041	116	72	30	18
4366	113.1	35.4	2969	107	72	30	18
4367	157.8	35.7	2977	119	72	30	18
4368	111	35.6	2977	119	72	28	17
4369	117.5	34.1	2852	109	68	30	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4370	37.3	34.0	2841	109	68	30	17
4371	82.5	33.1	2751	105	68	30	17
4372	83.8	32.9	2742	105	64	30	17
4373	83.4	31.8	2692	97	68	20	13
4374	101.2	32.5	2692	97	68	33	19
4375	105.9	32.3	2672	96	68	33	19
4376	120.7	32.1	2652	96	67	33	19
4377	90.3	31.8	2652	96	62	31	18
4378	121.5	32.1	2651	104	66	31	18
4379	102.8	29.7	2472	91	54	31	18
4380	100.3	29.9	2489	93	54	31	18
4381	96.7	30.3	2557	90	54	26	16
4382	0	37.2	3155	116	68	28	17
4383	82.5	31.1	2655	93	57	20	13
4384	36.1	30.9	2634	96	57	20	13
4385	73.7	30.2	2582	96	52	19	12
4386	94.8	29.3	2520	93	52	15	10
4387	78.8	29.3	2520	93	52	16	11
4388	62.5	28.4	2412	80	52	23	14
4389	63.7	26.5	2245	79	43	23	14
4390	55.2	33.1	2821.2	107.6	63.6	23	18.9
4391	73.9	33.0	2821.2	102.4	61.8	16.1	16.9
4392	86.7	32.6	2793.3	104.8	60.8	18.4	16.9
4393	11.4	31.7	2702.3	98.7	60.8	24.5	18.9
4394	37.4	31.0	2616.8	99.3	63.4	24.5	21.5
4395	6.5	29.7	2436.6	101.4	62.1	30.2	22.1
4396	24	29.2	2435.6	96.2	59.7	30.2	22.1
4397	19.6	29.3	2435.6	90.1	61.6	28.7	22.1
4398	34	29.0	2395.1	95	61.6	31	22.1
4399	16.4	28.3	2346.6	89.2	60.8	29.9	22.1
4400	19.9	27.6	2294	84.9	60.3	26.4	20.2
4401	21.5	27.0	2252.5	85.2	58.5	24.1	19.5
4402	29.2	25.7	2161.4	85.6	57.7	25.6	10.4
4403	22.2	25.2	2066.8	83.1	57.2	27.6	16.3
4404	43.2	23.7	1948.4	82.5	54.1	27.9	24.7
4405	20.5	23.4	1845.7	76.7	54.6	27.9	24.7
4406	20.5	22.6	1845.7	73.6	54.6	28.3	24.1
4407	18.8	22.5	1774.9	70.9	51.7	28.3	24.1
4408	41.5	22.5	1774.9	73.3	51.7	28.3	24.1
4409	23.4	21.6	1743	73.3	51.5	27.2	16.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4410	38.5	21.9	1729.3	69.7	51.5	28.3	24.1
4411	39.6	6.9	601	17	9	5	4
4412	41.2	6.6	580	16	8	4	3
4413	43.4	6.3	558	15	7	3	4
4414	45.6	6.4	558	15	7	3	6
4415	46.2	5.9	454	22	14	8	7
4416	70	5.8	432	23	15	9	7
4417	45	5.8	432	23	15	9	7
4418	45.2	5.6	424	17	11	11	8
4419	47.8	5.5	416	16	10	11	8
4420	60.2	5.5	416	16	10	11	8
4421	52	5.5	416	16	10	11	8
4422	57.2	5.4	405	20	13	8	7
4423	42.3	5.4	405	20	13	8	7
4424	33.1	5.4	393	24	16	9	6
4425	55	5.1	386	16	10	10	8
4426	57.6	5.1	399	16	10	8	7
4427	56.9	5.3	394	22	14	8	6
4428	62	5.3	398	21	14	8	6
4429	66.4	5.6	417	19	12	11	8
4430	75.2	5.6	417	19	12	11	8
4431	80.4	5.5	414	19	12	10	7
4432	77.6	5.8	434	24	16	8	6
4433	84	6.1	453	20	13	13	9
4434	79.2	6.1	470	19	12	10	8
4435	64.5	6.6	491	24	16	12	9
4436	60.3	6.8	526	26	17	8	7
4437	89	7.0	555	24	16	9	6
4438	87	8.0	624	26	17	12	9
4439	122.9	8.0	624	26	17	12	9
4440	51.8	8.2	652	28	18	10	8
4441	52.9	8.3	682	25	16	8	7
4442	88.1	9.0	713	31	20	11	8
4443	99.5	9.2	746	24	16	12	9
4444	117.9	9.2	746	24	16	12	9
4445	116.1	9.9	777	34	22	14	10
4446	44.3	10.2	817	32	21	13	9
4447	59.6	10.3	830	35	19	12	9
4448	72.9	11.2	870	35	21	14	19
4449	106.6	11.4	895	31	21	13	19

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4450	30.4	12.1	968	36	24	15	14
4451	5.1	12.3	974	38	24	16	14
4452	79.7	12.3	980	40	24	15	13
4453	117.9	12.1	968	36	24	15	14
4454	132.2	12.3	974	38	24	16	14
4455	76.7	12.3	980	40	24	15	13
4456	114.5	8.3	670	19	9	13	12
4457	56.9	9.2	749	31	15	12	8
4458	60.2	10.6	875	32	16	13	8
4459	36.3	11.1	922	34	17	12	8
4460	70.6	11.7	974	38	19	13	7
4461	96.2	11.7	974	38	19	13	7
4462	102	12.4	1038	41	20	13	7
4463	96	13.0	1097	42	20	12	7
4464	109.7	13.0	1097	42	20	12	7
4465	102	14.0	1174	44	22	12	10
4466	114.9	14.9	1252	46	23	15	10
4467	120.1	16.0	1335	48	33	15	8
4468	65.6	16.0	1335	54	33	12	8
4469	53.7	16.9	1423	54	34	12	8
4470	123.1	16.9	1423	54	34	12	8
4471	150.1	16.9	1423	56	34	12	8
4472	137.8	17.6	1494	56	37	12	4
4473	113.4	19.1	1620	61	39	16	5
4474	94.4	19.2	1620	63	39	16	5
4475	83.7	20.3	1690	67	44	15	10
4476	0.8	13.6	1088	51	34	15	8
4477	81.1	14.2	1147	54	35	15	6
4478	89.6	15.0	1195	56	38	15	10
4479	47	16.0	1275	60	43	17	10
4480	94.9	15.9	1275	60	43	17	7
4481	89.3	17.0	1360	68	44	13	12
4482	85.5	17.8	1422	69	47	15	12
4483	62.2	18.6	1501	69	50	16	10
4484	66.4	18.4	1501	65	50	16	7
4485	78.5	20.2	1630	74	54	17	11
4486	102	20.2	1630	74	54	17	11
4487	131	21.6	1751	81	54	18	11
4488	85	28.4	2290	109	71	23	17
4489	68.9	28.1	2290	109	71	23	12
4490	44.7	37.0	3035	137	90	31	14
4491	46.5	41.6	3410	152	102	36	16
4492	44.9	50.7	4176	192	125	39	16
4493	33.5	53.1	4418	197	130	39	11

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4494	41.3	58.8	4850	210	142	49	20
4495	33.2	62.5	5194	217	149	49	20
4496	29.5	63.0	5204	225	154	52	20
4497	34.9	62.1	5126	228	155	52	16
4498	31.3	62.0	5126	228	154	52	14
4499	42.2	62.0	5142	218	150	52	16
4500	54.1	62.0	5142	218	150	52	16
4501	41.2	62.0	5142	218	150	52	16
4502	38	62.0	5142	218	150	52	16
4503	34	62.0	5142	218	150	52	16
4504	38.4	62.0	5142	218	150	52	16
4505	38.4	76.4	6617	200	150	52	16
4506	46.6	62.0	5142	218	150	52	16
4507	38	62.0	5142	218	150	52	16
4508	43.2	62.0	5142	218	150	52	16
4509	37.9	28.6	2410	119	32	18	19
4510	48.1	28.6	2410	119	32	18	19
4511	45.1	28.6	2410	119	32	18	19
4512	43.2	28.6	2410	119	32	18	19
4513	39.7	20.6	1694	87	35	9	18
4514	43.2	21.2	1698	82	55	13	18
4515	40.8	20.6	1653	76	55	18	14
4516	33.2	20.6	1625	70	55	22	19
4517	35.2	20.5	1611	74	53	22	19
4518	44.7	20.2	1620	69	50	25	12
4519	54.9	20.6	1657	75	51	19	14
4520	53.5	20.6	1657	75	51	18	14
4521	54.7	21.2	1710	78	52	20	13
4522	51.8	21.0	1710	72	52	18	13
4523	74.6	21.7	1766	76	53	20	12
4524	59.3	21.7	1766	76	52	20	12
4525	70.4	21.6	1763	75	52	17	14
4526	47.2	21.6	1770	77	52	21	8
4527	44.5	21.5	1770	77	52	20	6
4528	48.9	21.6	1772	79	52	20	8
4529	51.6	21.7	1772	79	52	21	9
4530	62.8	21.8	1759	78	52	21	14
4531	98.3	21.6	1736	78	52	24	14
4532	57.3	21.3	1718	73	50	24	14
4533	47.8	21.2	1718	73	52	20	13
4534	73.6	20.8	1679	72	52	20	13
4535	50.4	20.4	1673	72	50	18	9
4536	82.3	20.8	1664	73	52	21	16
4537	52.8	20.8	1664	73	52	21	16
4538	79.4	20.2	1648	74	50	19	8
4539	66.2	20.3	1618	74	50	23	13
4540	71.1	20.1	1615	70	49	23	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4541	74.5	19.9	1603	70	49	24	10
4542	65.1	19.8	1603	66	47	24	10
4543	54.2	19.8	1603	67	48	24	10
4544	58.8	19.5	1570	67	48	21	13
4545	45.8	19.5	1570	65	48	21	13
4546	62.6	19.1	1556	63	47	21	8
4547	54.3	19.1	1554	70	47	17	10
4548	70.4	19.1	1554	70	46	17	10
4549	60	18.8	1534	62	46	20	8
4550	89.9	18.8	1534	63	46	20	8
4551	54.3	18.8	1520	66	45	21	9
4552	56.4	18.7	1520	64	44	21	9
4553	40.5	18.7	1521	65	44	21	8
4554	42	18.9	1527	66	46	21	10
4555	39.4	18.9	1527	66	46	21	11
4556	45.1	18.7	1525	65	44	16	11
4557	50.6	18.5	1525	65	44	16	7
4558	63.1	18.7	1536	65	46	18	7
4559	73.5	20.7	1678	74	46	21	14
4560	49.9	21.0	1707	70	48	19	16
4561	70.3	21.8	1796	72	50	19	11
4562	55.5	23.7	1941	82	54	23	11
4563	33	24.1	1981	79	54	26	10
4564	17.4	24.4	2003	80	55	26	11
4565	41.9	24.5	1993	81	56	24	17
4566	3.1	23.8	1940	80	54	24	15
4567	3.1	23.1	1887	78	52	23	14
4568	0.9	18.1	1475	60	42	18	11
4569	0.9	13.1	1064	42	31	13	9
4570	11.2	12.9	1053	42	30	13	7
4571	95.3	12.8	1043	43	29	13	7
4572	71.2	12.7	1043	43	29	12	6
4573	74.6	12.9	1049	43	30	13	9
4574	73.1	13.1	1060	44	30	13	9
4575	63	13.7	1114	45	31	12	12
4576	66.3	13.7	1114	45	31	12	12
4577	77.1	14.2	1140	45	31	16	12
4578	70.6	14.8	1204	47	32	16	11
4579	68.7	15.2	1246	50	34	16	7
4580	55.5	15.4	1287	46	35	16	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4581	56.4	17.1	1399	54	39	16	12
4582	60.2	17.0	1399	54	39	16	10
4583	65.4	17.7	1458	54	41	17	10
4584	47.2	17.4	1458	50	41	17	4
4585	52.8	19.4	1580	67	46	18	11
4586	48.9	20.4	1662	67	47	21	13
4587	49.9	21.5	1760	69	48	21	13
4588	54.8	24.6	2028	80	55	23	13
4589	43.3	24.3	2028	80	54	23	6
4590	27.1	24.9	2069	88	60	21	5
4591	39.8	24.9	2069	88	60	21	5
4592	39.8	25.5	2100	88	62	24	8
4593	39.8	26.2	2153	90	62	24	12
4594	13.4	26.4	2163	92	62	24	12
4595	33.2	26.0	2123	92	63	26	10
4596	43.4	25.5	2098	87	60	24	10
4597	44.4	24.8	2025	87	60	25	10
4598	52.1	24.7	2008	85	59	25	14
4599	62.4	24.7	1991	83	59	25	18
4600	45	23.3	1860	81	59	23	18
4601	48.6	22.5	1817	81	57	23	11
4602	51.7	21.4	1735	68	54	24	11
4603	40.4	20.8	1673	68	50	26	12
4604	66.5	19.5	1576	58	47	26	12
4605	74.5	19.5	1554	66	48	24	15
4606	63.3	18.3	1458	66	45	21	13
4607	54.8	18.2	1458	65	45	21	12
4608	68.2	18.3	1458	65	45	21	13
4609	50.9	18.4	1473	63	45	21	12
4610	39.7	19.1	1526	63	45	24	15
4611	60.2	19.8	1593	68	48	24	11
4612	56.4	20.5	1662	68	49	23	12
4613	66.1	21.2	1726	68	49	24	12
4614	53.4	21.5	1777	66	49	24	8
4615	60.1	21.7	1825	60	42	19	12
4616	47.9	23.5	1962	70	49	24	9
4617	67.5	24.4	2016	70	50	24	17
4618	73.3	24.3	2016	68	50	23	17
4619	80.7	27.8	2288	88	61	27	17
4620	73.2	27.7	2306	88	61	24	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4621	77.3	27.0	2306	73	51	24	9
4622	84.9	50.9	4240	177	114	39	19
4623	78	57.1	4793	182	128	48	16
4624	54.5	115.3	9438.9	440.6	303.1	110.2	35.1
4625	39.2	58.3	4726	208	155	58	23
4626	38.4	23.1	1852	80	63	28	9
4627	115.7	21.4	1794	71	48	16	7
4628	115.7	21.6	1794	71	51	17	8
4629	46.6	22.7	1821	72	61	31	10
4630	18.6	23.5	1866.4	88	71.4	36	13
4631	28	22.2	1733.4	81.9	69.6	38.7	17.6
4632	2.2	15.1	1152.5	55.3	48.1	28.3	16.3
4633	6.1	14.6	1108	53.2	47.1	25.6	13
4634	16.7	14.9	1114.6	52.6	46.6	26	13
4635	20.1	14.9	1114.6	52.6	46.6	26	13
4636	98	14.9	1134.3	55	46.6	26	13
4637	123.3	14.6	1135.9	55.3	45.8	21.1	5.9
4638	83.3	14.6	1135.9	55.3	45	20.3	9.1
4639	79	14.0	1088.3	53.2	44.5	16.8	9.1
4640	62.8	14.0	1088.3	53.2	44.5	18.4	9.8
4641	38.5	12.9	979	46.8	39.3	18	11.7
4642	57.5	11.1	879.8	40.3	34.1	16.8	10.4
4643	43.7	10.7	814.6	40	31.8	16.5	11.7
4644	60.2	10.4	785.2	36.4	29.5	16.5	11.7
4645	65.5	10.2	779.7	37	31.6	14.2	11.7
4646	69.2	10.5	809.5	37	31.8	16.1	6.5
4647	59.3	11.0	842.4	38.2	32.9	18.4	7.8
4648	57.7	11.9	899.6	40.3	33.9	18.4	15.6
4649	40.4	12.0	942.1	43.1	34.4	17.6	15.6
4650	57.7	12.8	983.1	43.1	36.7	18.8	12.4
4651	44.5	13.0	1023	42.8	36.7	20.3	12.4
4652	63.5	14.9	1129.3	50.1	40.9	23.3	17.6
4653	52.2	16.2	1264.4	53.2	44.7	27.2	17.6
4654	48.7	16.9	1336.7	56.8	45.5	27.2	9.8
4655	55.1	18.2	1419.7	61.4	51	26	13.7
4656	33.3	19.6	1568.4	63.9	54.3	30.2	13.7
4657	43.3	20.9	1622.6	63.9	54.6	33.3	19.5
4658	48.2	22.3	1755.1	70.9	59.5	36.4	19.5
4659	16	22.3	1781.4	70.9	57.9	36.4	13
4660	37.9	23.2	1823.9	75.2	62.6	32.2	16.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4661	66.1	23.2	1824	75	63	32	17
4662	47.2	23.2	1824	75	63	32	17
4663	74.4	21.9	1790	71	52	24	10
4664	80	21.9	1790	71	52	24	10
4665	57.1	21.3	1736	72	52	21	10
4666	117.1	21.3	1736	72	52	21	10
4667	127.2	20.7	1687	68	49	23	11
4668	61.4	19.9	1620	61	46	20	15
4669	78.9	18.6	1506	59	46	23	9
4670	104.4	17.6	1431	56	43	20	10
4671	169.9	17.6	1431	56	43	20	10
4672	164.5	17.6	1431	56	43	20	10
4673	128.3	16.7	1331	50	38	20	18
4674	158.3	16.7	1331	50	38	20	18
4675	167.2	14.9	1207	51	35	16	10
4676	109.1	14.9	1207	51	35	16	10
4677	102.3	13.8	1117	45	34	14	10
4678	115.2	13.8	1117	45	34	14	10
4679	128.1	13.8	1117	45	34	14	10
4680	122.1	13.1	1046	39	32	17	10
4681	133.8	13.1	1046	39	32	17	10
4682	122.9	13.1	1046	39	32	17	10
4683	112	13.0	1029	42	30	16	13
4684	84.2	13.0	1029	42	30	16	13
4685	140.5	13.0	1029	42	30	16	13
4686	120.9	13.0	1029	42	30	16	13
4687	153.5	12.7	1032	45	31	16	3
4688	153.7	12.7	1032	45	31	16	3
4689	143.5	12.6	1021	42	26	15	8
4690	157.2	12.6	1021	42	26	15	8
4691	113	21.8	1759	78	52	21	14
4692	141.2	21.6	1736	78	52	24	14
4693	195.6	21.3	1718	73	50	24	14
4694	145.9	21.2	1718	73	52	20	13
4695	157.2	20.8	1679	72	52	20	13
4696	95.5	20.4	1673	72	50	18	9
4697	97.1	20.8	1664	73	52	21	16
4698	102.9	20.8	1664	73	52	21	16
4699	105.7	20.2	1648	74	50	19	8
4700	117.4	20.3	1618	74	50	23	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4701	131.5	20.1	1615	70	49	23	13
4702	126.3	19.9	1603	70	49	24	10
4703	100.7	19.8	1603	66	47	24	10
4704	95.1	19.8	1603	67	48	24	10
4705	74	19.5	1570	67	48	21	13
4706	114.4	19.5	1570	65	48	21	13
4707	118.6	19.1	1556	63	47	21	8
4708	152.3	19.1	1554	70	47	17	10
4709	105.6	19.1	1554	70	46	17	10
4710	60.2	18.8	1534	62	46	20	8
4711	79.5	18.8	1534	63	46	20	8
4712	129.6	19.8	1603	67	48	24	10
4713	108.3	16.2	1262	58	46	20	13
4714	141.3	16.2	1262	58	45	20	13
4715	129.3	15.8	1262	58	41	18	9
4716	154	16.5	1296	56	39	21	16
4717	116.4	16.5	1296	56	39	21	16
4718	116.2	16.3	1371.1	59.3	42.4	18	9
4719	126.1	17.1	1386.8	59.3	43.5	13	13.7
4720	158	17.1	1386.8	56.8	43.5	13	13.7
4721	104.9	17.4	1398.4	62.6	46	18.4	13.7
4722	97.1	17.4	1411.6	65.1	46	18.4	9.8
4723	62.1	17.1	1411.6	65.1	44.7	13.4	3.3
4724	101.3	17.2	1411.6	65.1	47.1	17.2	7.2
4725	100.7	17.2	1388.3	59.6	47.1	18	9.8
4726	109	17.2	1385.3	58.4	43.5	18	9.8
4727	114.3	17.2	1385.3	58.4	44.7	22.2	9.8
4728	78.2	16.9	1356.4	56.5	44.7	22.2	11.7
4729	89.8	16.8	1344.8	56.4	43.8	22.6	11.7
4730	80.4	16.7	1333.2	56.2	42.9	23	11.7
4731	94	16.5	1313.4	56.2	41.9	23	9.1
4732	82.2	16.1	1284.6	54.7	40.4	22.2	9.8
4733	110	15.6	1240.1	51.3	41.6	21.1	7.8
4734	84.8	15.6	1234.8	51.6	41.6	21.1	10.8
4735	79.1	15.7	1229.5	51.9	41.6	21.1	13.7
4736	83.5	15.7	1229.5	51.9	41.6	21.4	13.7
4737	84.7	15.2	1195	51.6	40.1	21.8	14.3
4738	59	15.0	1161.1	50.4	40.1	21.8	14.3
4739	62.2	13.6	1066	49.8	38.3	18.8	13.7
4740	38	13.6	1069.6	49.8	38.3	18	12.4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4741	65.6	13.5	1069.6	48	34.9	17.2	9.1
4742	53.4	14.1	1102.5	50.1	35.2	17.6	15
4743	68.2	14.1	1102.5	47.5	35.2	17.6	15
4744	69	14.1	1102.5	44.9	35.2	17.6	15
4745	112	14.3	1132.3	48.9	36	16.5	13
4746	133.5	14.6	1160.1	48.9	36.2	21.4	13
4747	87.3	14.6	1160.1	45.8	36.2	21.4	9.8
4748	78.2	14.9	1198.6	50.4	36.7	21.4	9.8
4749	77.4	15.1	1216.8	52.6	38.8	16.5	9.8
4750	81.6	15.1	1216.8	52.6	38.8	16.5	8.5
4751	106.6	15.6	1259.8	52.6	38.8	18.8	9.8
4752	117.7	15.8	1281.8	53.4	38	18.8	9.8
4753	99.4	16.0	1303.8	54.1	37.2	18.8	9.8
4754	121.7	16.0	1303.8	54.1	36.7	16.8	7.8
4755	111.5	16.0	1303.8	54.1	36.7	16.8	7.8
4756	60.2	76.6	6502.9	256.3	164.8	59.7	21.5
4757	58.6	18.0	1470.3	60.5	40.4	20.7	13
4758	86.3	17.8	1452.6	54.4	38.5	20.7	11.7
4759	153.7	17.8	1452.6	58.4	42.9	20.7	11.7
4760	134.6	17.7	1435.9	58.4	42.9	17.6	11.7
4761	122.9	17.7	1445.5	58.4	42.9	18.4	11.7
4762	110.8	17.9	1450	62.9	44.7	23.3	15
4763	38.1	17.0	1356.4	58.4	45.3	22.6	12.4
4764	46.8	17.3	1379.2	58.4	45.3	21.1	11.7
4765	27.9	17.3	1379.2	58.4	45.3	20.3	11.7
4766	99.3	17.7	1412.1	58.4	45.5	23	11.7
4767	102.8	17.9	1422.7	63.2	48.1	24.5	10.4
4768	77.6	20.8	1631.7	79.4	60.5	29.9	16.3
4769	59.4	20.8	1617.5	79.4	60.5	26	13.7
4770	47.3	20.5	1627.6	76.1	57.2	21.4	11.7
4771	85.6	20.5	1627.6	76.1	58.2	25.5	13
4772	90.9	20.6	1627.6	76.1	59.2	29.5	14.3
4773	77.5	22.1	1777.9	73.3	54.6	26.4	14.3
4774	25.7	22.3	1810.8	75.2	55.1	26.4	15
4775	24.2	22.8	1852.8	79.4	55.1	25.3	14.3
4776	16.8	23.5	1928.7	77	52.8	27.2	14.3
4777	3.6	21.6	1763.7	71.5	47.9	23	11.7
4778	18.6	25.0	2034	79	58	28	16
4779	17.3	25.2	2052	81	58	28	14
4780	13.9	26.3	2162	79	58	28	16

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4781	38.9	27.5	2279	80	61	31	12
4782	29.3	31.1	2555	88	63	34	24
4783	40.7	33.2	2756	98	69	29	21
4784	35.1	33.9	2850	107	71	29	11
4785	38.8	34.6	2888	101	71	33	19
4786	33.4	34.8	2896	97	71	38	19
4787	29.7	34.7	2899	98	70	37	16
4788	45.7	34.7	2899	98	70	37	16
4789	56.7	34.6	2910	97	68	37	14
4790	40.2	36.1	2987	113	74	32	23
4791	40.9	35.9	2958	108.2	76	36	24
4792	40.1	35.1	2910.2	111.8	76.6	35.6	16.9
4793	31.4	35.1	2910.2	111.8	76.6	32.9	24.7
4794	47.2	33.6	2742.2	107.9	73.5	31.4	24.7
4795	31.3	31.9	2623.8	100.5	72.9	36	28
4796	48.2	31.4	2523.7	100.5	70.4	36	28
4797	48.8	30.2	2448.8	93.8	69.3	35.6	23.4
4798	49.2	30.1	2430.6	92.3	67.2	37.1	24.1
4799	37.2	33.0	2736.7	99	67.8	37.1	28.6
4800	23.2	33.0	2736.7	91.7	66.2	36.4	20.2
4801	92.9	34.0	2821.7	97.2	66.5	37.5	20.2
4802	68.6	35.4	2922.8	100.2	71.1	37.5	25.4
4803	84.3	35.4	2922.8	100.2	71.1	36.4	25.4
4804	124.4	35.4	2922.8	100.2	71.1	36.4	25.4
4805	122.8	36.1	2970.9	98.4	68	40.2	29.3
4806	137.9	36.1	2970.9	98.4	68	40.2	29.3
4807	152.9	35.8	2993.2	104.5	73.2	37.9	15
4808	123.3	35.8	2993.2	104.5	73.2	37.9	15
4809	126.7	36.7	3065.5	104.5	73.2	39.8	17.6
4810	152.3	36.7	3065.5	103.6	73.2	39.8	17.6
4811	183.3	37.3	3107	103.6	73.2	41.7	20.8
4812	189	37.3	3107	102.1	73	41.7	20.8
4813	142.6	37.3	3107	100.5	72.7	41.7	20.8
4814	119.5	38.2	3156.1	104.2	76	45.2	24.7
4815	120.3	39.9	3272.5	118.6	81.7	46.3	32.5
4816	65.3	40.7	3326.6	120.7	83.3	42.5	33.8
4817	119.2	40.7	3326.6	120.7	83.4	42.9	33.8
4818	86.5	40.7	3326.6	120.7	83.5	43.3	33.8
4819	83.2	40.1	3294.2	118.2	83.5	43.3	28.6
4820	91.8	41.1	3362.5	117.6	84.3	44.4	34.5
4821	106	42.3	3499.1	130.5	84.3	44.4	34.5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4822	84.7	42.3	3499.1	130.5	84.1	41	27.3
4823	102.2	43.1	3563.9	131.4	88.5	37.9	29.9
4824	78.8	43.1	3563.9	131.4	88.5	37.9	29.9
4825	92.2	44.6	3708.1	129.2	90.3	45.9	26
4826	90	44.6	3708.1	129.2	90.3	45.9	26
4827	134.9	46.0	3813.8	132	92.9	50.5	25.4
4828	133.4	46.9	3888.2	137.8	94.7	46.3	30.6
4829	117.5	46.9	3888.2	137.8	94.7	46.3	30.6
4830	118.8	48.6	4030.9	139.3	96	48.6	32.5
4831	168.9	48.6	4030.9	139.3	96	48.6	32.5
4832	125.3	50.0	4176.6	145.4	99.3	48.6	32.5
4833	112.6	55.6	4690.6	168.4	110.2	52.4	33.8
4834	44.7	60.2	5067.5	184.9	118.5	47.8	28.6
4835	90.4	63.4	5377.7	197.7	123.1	47.5	28.6
4836	142.9	63.4	5377.7	197.7	123.1	47.1	23.4
4837	141.9	66.6	5674.7	197.7	123.6	52.8	26
4838	82.8	66.6	5674.7	192.5	123.6	52.8	26
4839	96.7	69.6	5923.1	198.6	127.3	58.9	28
4840	168.3	70.7	6069.8	198.6	127.8	58.9	28
4841	153.1	74.0	6350.6	217.5	136	56.6	26
4842	124.4	74.0	6350.6	217.5	136	55.9	20.2
4843	157.8	74.0	6350.6	217.5	136	55.9	20.2
4844	159.6	75.5	6445.7	220.3	135.8	57.4	30.6
4845	105.2	76.3	6495.8	242.6	147.7	57.4	30.6
4846	179.9	76.3	6495.8	242.6	147.7	53.6	24.7
4847	119.9	79.2	6746.3	259.4	154.9	53.6	24.7
4848	105.8	79.2	6746.3	259.4	154.9	51.3	22.8
4849	70.1	104.7	8804	331.8	228.9	91.5	44.9
4850	65.3	90.5	7554.8	291.8	202.8	76.2	41
4851	65.3	96.9	8123.5	319.9	218.5	79.2	36.4
4852	130.7	96.9	8123.5	319.9	218.5	79.2	25.4
4853	126.8	96.9	8123.5	319.9	218.5	79.2	25.4
4854	142	105.8	8918.3	344.3	234.3	83.8	24.7
4855	152.5	105.8	8918.3	344.3	234.3	83.8	24.7
4856	165.5	105.8	8918.3	344.3	234.3	83.8	24.7
4857	159.1	113.9	9575	373.7	260.7	86.1	28.6
4858	141.1	113.9	9575	373.7	260.7	86.1	28.6
4859	130.7	120.7	10156.8	390.2	271.1	96.1	29.3
4860	135.6	120.7	10156.8	390.2	271.1	96.1	29.3
4861	149.8	124.7	10437.1	424.7	285.8	101.4	29.9
4862	107.5	128.0	10696.2	437.2	295.1	101.4	36.1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4863	146.2	131.3	10955.2	449.7	304.4	101.4	42.3
4864	135.4	131.3	10955.2	449.7	304.4	99.5	42.3
4865	167.1	133.2	11065	469	312.9	112.9	48.8
4866	135.2	96.3	7891.2	311.3	233.5	101	42.3
4867	148	91.3	7517.3	294.2	222.2	99.1	37.7
4868	31	84.7	6963.8	286.3	211	88	42.3
4869	32	71.4	5797.1	236.8	179	81.5	36.4
4870	32.6	69.8	5640.3	236.8	179	76.9	33.8
4871	23.5	67.8	5483.7	225.5	171.8	77.3	35.8
4872	23.5	65.8	5327.1	214.2	164.5	77.3	35.8
4873	18.2	64.2	5199.1	224.3	167.9	69.3	29.9
4874	23	65.0	5224.4	224.3	167.9	73.9	42.9
4875	42.4	65.6	5293.2	219.4	167.9	73.9	42.9
4876	42.7	71.8	5850.2	226.4	174.1	83.8	35.1
4877	46.2	74.5	6073.4	242.3	181.8	83.8	37.7
4878	49.3	78.7	6439.5	259	190.6	82.1	37.7
4879	49.3	82.8	6805.5	275.6	199.4	80.4	37.7
4880	40.4	85.1	7013.4	281.1	204.8	89.2	42.9
4881	59.5	85.1	7013.4	276.5	207.2	89.2	35.8
4882	51.4	84.9	6968.4	276.5	207.2	85	35.8
4883	65.5	85.2	6975	277.7	207.7	87.6	48.8
4884	68.8	85.0	6975	270.7	210	87.6	46.8
4885	46.7	85.0	6932.5	270.7	210	89.9	46.8
4886	67.5	84.0	6902.1	265.8	204.8	89.9	31.9
4887	36.5	82.9	6747.3	268.6	206.4	86.1	44.2
4888	79.1	83.7	6825.2	283.8	207.7	79.2	42.3
4889	48.1	83.7	6825.2	283.8	209	94.5	42.3
4890	70.9	82.7	6690.6	274.8	220.7	98.6	39.1
4891	55.5	81.7	6556	265.8	232.3	102.6	35.8
4892	0.4	41.6	3228	151	128	67	16
4893	96.6	40.1	3087	149	125	59	24
4894	103	40.1	3066	152	126	56	29
4895	110.3	38.2	3156	104	76	45	25
4896	142.6	39.4	3262	117	81	42	23
4897	145	40.7	3327	121	83	42	34
4898	95.9	40.7	3327	121	83	42	34
4899	111.5	40.2	3294	118	84	43	29
4900	73.6	41.1	3362	118	84	44	34
4901	73.6	41.1	3362	118	84	44	34
4902	73.6	42.3	3499	130	84	41	27

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4903	50.7	43.1	3564	131	88	38	30
4904	57.8	43.1	3564	131	88	38	30
4905	67	44.6	3708	129	90	46	26
4906	66	44.6	3708	129	90	46	26
4907	56.7	45.9	3814	132	93	50	25
4908	59	46.9	3888	138	95	46	31
4909	43.7	46.9	3888	138	95	46	31
4910	43.7	48.6	4031	139	96	49	32
4911	33.3	48.6	4031	139	96	49	32
4912	44.7	48.6	4031	139	96	49	32
4913	43.3	50.0	4177	145	99	48	28
4914	46.8	55.6	4691	168	110	48	23
4915	52.7	60.2	5068	185	118	48	29
4916	51.2	63.4	5378	198	123	47	23
4917	59.4	63.4	5378	198	123	47	23
4918	62.7	66.6	5675	192	124	53	26
4919	77.4	39.2	3147	148	112	32	20
4920	56.5	40.0	3197	146	126	32	20
4921	45.9	40.0	3197	146	126	30	22
4922	62.4	40.3	3178	148	128	39	22
4923	56.6	41.9	3297	163	131	42	22
4924	62.6	42.6	3345	161	134	50	18
4925	57.2	44.7	3460	151	134	68	30
4926	59.8	46.2	3562	167	141	68	29
4927	34.8	46.7	3629	171	146	66	24
4928	50.7	46.6	3629	171	146	64	23
4929	52.2	48.4	3803	141	136	80	30
4930	41.2	48.6	3803	139	138	82	31
4931	59.6	53.5	4236	155	147	85	31
4932	57.8	53.3	4236	155	146	85	25
4933	49.9	67.4	5439	214	170	87	33
4934	4.5	68.6	5618	221	171	78	23
4935	70.1	70.5	5748	221	171	84	31
4936	63.1	71.8	5900	219	166	84	31
4937	66.6	72.4	5976	213	164	85	29
4938	63.1	73.2	5993	226	167	85	38
4939	73.1	73.5	6048	226	167	78	38
4940	73.5	71.5	5938	216	155	77	29
4941	73.2	69.1	5726	216	155	71	27
4942	34.1	66.6	5564	199	142	69	23

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4943	56.9	72.8	6075	220	151	71	34
4944	47.2	36.1	2942	115	84	36	24
4945	40	41.8	3453	130	92	45	18
4946	50.3	44.0	3702	120	91	45	18
4947	50.4	52.7	4430	151	117	56	11
4948	45.1	54.6	4620	151	117	56	11
4949	56.9	61.4	5136	176	139	66	18
4950	49.9	67.6	5629	208	157	70	19
4951	57	71.9	5918	238	174	72	26
4952	48.4	74.5	6137	238	175	83	26
4953	46.5	74.8	6256	214	175	83	16
4954	35.2	75.2	6266	226	174	72	26
4955	33.7	75.8	6266	226	180	81	29
4956	29.5	73.1	5971	240	182	82	27
4957	36.2	70.1	5658	240	182	82	31
4958	41.7	68.1	5505	226	174	80	31
4959	52.2	64.8	5268	210	165	78	25
4960	39.2	61.6	4989	194	155	76	30
4961	33.4	55.1	4455	175	139	70	26
4962	36.2	48.8	3903	166	130	63	22
4963	28.2	45.0	3573	143	116	59	32
4964	35	42.8	3419	135	109	59	26
4965	48.3	41.3	3301	135	108	55	22
4966	39.5	40.9	3272	132	106	54	22
4967	39.5	40.4	3243	129	104	53	22
4968	39.5	39.6	3171	124	102	53	22
4969	43.2	39.5	3131	131	103	52	26
4970	43.3	39.6	3131	131	103	57	26
4971	62.4	38.3	3083	106	95	57	21
4972	43.2	39.5	3202	111	100	53	19
4973	48.7	40.2	3243	114	100	57	22
4974	40.9	40.5	3276	114	100	57	22
4975	50.3	42.6	3447	116	105	59	25
4976	52.7	63.3	5158	196	152	74	32
4977	52.7	63.2	5158	196	152	74	29
4978	52.7	63.1	5158	196	152	74	27
4979	52.7	62.9	5158	196	152	74	24
4980	52.7	63.5	5200	201	155	73	24
4981	52.7	64.0	5241	205	157	72	24
4982	52.7	64.6	5283	210	159	71	25

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4983	52.7	65.1	5325	215	162	70	25
4984	52.7	69.3	5627	218	171	79	38
4985	13.7	69.3	5627	218	171	79	38
4986	35.2	71.2	5805	218	172	88	31
4987	44.6	75.0	6099	234	186	93	33
4988	42.3	75.5	6141	234	186	95	33
4989	46.2	77.4	6250	250	195	95	38
4990	43.4	77.8	6283	250	197	98	38
4991	34	77.8	6232	253	200	97	46
4992	43.3	77.1	6176	260	200	89	46
4993	60.2	75.7	6092	260	200	92	31
4994	56.9	72.9	5864	239	189	92	34
4995	50.6	71.5	5761	230	183	90	36
4996	56.9	69.5	5598	217	177	90	36
4997	41.1	66.8	5391	207	169	90	30
4998	55	64.8	5233	206	166	83	30
4999	41.3	62.7	5050	200	161	83	29
5000	45.5	59.1	4743	187	147	75	37
5001	44.8	57.4	4579	193	150	69	37
5002	42.5	56.6	4577	196	150	63	23
5003	31.7	52.6	4484	160	100	42	16
5004	31.7	51.2	4390	160	98	31	16
5005	31.7	52.4	4296	165	120	62	22
5006	32.4	51.7	4247	162	118	60	21
5007	42.3	50.8	4176	163	116	58	20
5008	35	53.5	4310	163	127	70	35
5009	43.6	50.6	4118	139	120	65	30
5010	40.9	51.2	4165.4	146	120.5	68.5	28.6
5011	47.9	50.2	4094.6	153.1	118.5	68.5	26
5012	43.5	50.2	4094.6	153.1	118.5	63.9	32.5
5013	31.7	50.8	4106.8	158.9	119.8	63.9	33.8
5014	38.4	1.1	70	6	2	2	0
5015	51	1.2	71	6	2	3	0
5016	84.2	1.2	71	6	2	3	0
5017	87.3	1.1	65	5	2	4	0
5018	58	0.9	58	6	2	2	0
5019	44.9	0.9	51	5	2	2	0
5020	31.7	0.7	46.6	2.8	2.1	1.9	0
5021	53.2	1.2	37.4	3.7	2.3	4.6	0
5022	0.1	1.0	23.8	3.7	1.6	4.2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5023	70.4	0.3	21.3	1.2	0.5	0.4	0
5024	65.4	1.7	26.3	2.1	1.6	2.3	0
5025	70.2	1.9	38.5	2.1	3.9	2.3	0
5026	84.2	1.9	38.5	1.2	3.9	2.3	0
5027	77.3	0.6	50.6	1.8	0.8	2.3	0
5028	74.8	1.0	78.9	3.4	0.8	2.7	0
5029	72	1.1	90.6	4.6	2.1	2.7	0
5030	78.1	1.1	90.6	4.6	2.1	2.3	0
5031	104.1	1.2	94.6	4.6	3.6	2.3	0
5032	73.3	1.2	95.6	4.6	3.6	2.3	0
5033	69.5	1.2	95.6	4.6	2.3	1.5	0
5034	79.6	1.3	101.7	5.5	4.4	2.7	0
5035	77.3	1.4	112.3	5.5	4.4	2.7	0
5036	68.2	1.4	123.5	3.4	4.1	1.9	0
5037	75.1	1.4	123.5	1.8	2.6	1.9	0
5038	77.2	1.7	142.2	5.5	2.9	2.7	0
5039	68.3	1.9	161.9	7	2.9	2.7	0
5040	84	2.1	178.6	7	3.6	2.3	0
5041	75.2	2.1	179	6	4	2	0
5042	79.4	2.1	179	6	4	2	0
5043	93.3	2.2	192	8	3	2	0
5044	94.1	2.2	192	8	3	2	0
5045	81.5	2.4	202	9	4	2	0
5046	92.6	2.4	202	9	4	2	0
5047	77.3	2.6	220	10	5	3	0
5048	73.7	2.8	226	6	5	3	0
5049	77.9	2.8	238	7	6	2	0
5050	70	3.1	246.4	10.7	6	2	0
5051	75.7	3.0	253	9.5	5.7	1.9	0
5052	84.6	3.0	253	9.5	5.7	1.9	0
5053	85.4	3.1	255.5	9.5	5.7	1.9	0
5054	86.1	3.1	259.6	9.5	5.7	2.3	0
5055	93.3	3.1	262.6	9.5	5.4	2.3	0
5056	74.6	3.1	262.6	9.5	4.7	1.5	0
5057	73.2	3.1	264.1	11.3	6.2	2.3	0
5058	60.9	3.1	266.1	9.5	4.9	1.5	0
5059	79.3	3.3	268.2	10.7	5.7	3.1	0
5060	77.8	3.3	273.7	11	5.7	5	0
5061	77.5	3.3	273.7	11	5.4	5	0
5062	93	3.4	282.8	11	5.4	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5063	87.5	3.6	299.5	10.7	5.2	1.5	0
5064	77.9	3.6	299.5	10.4	5.2	1.2	0
5065	73.6	3.7	315.7	11.6	5.2	3.8	0
5066	77.1	3.9	331.9	11.6	6.7	3.8	0
5067	76.8	4.1	355.7	12.5	6.7	1.5	0
5068	81.5	4.1	355.7	12.5	6.2	1.2	0
5069	84.7	4.2	370.9	12.5	6.2	1.2	0
5070	82.1	4.3	386	14.1	6.2	0.8	0
5071	64.3	4.3	386	14.1	5.4	0	0
5072	79.9	4.7	396.2	14.1	7.8	2.3	0
5073	86.4	5.0	418.4	12.5	7.8	3.4	0
5074	63.8	5.5	468	18	8.5	3.4	0
5075	73.3	6.1	514.6	18.3	10.4	3.1	0
5076	44.9	6.2	546.4	19.3	10.4	3.1	0
5077	99.4	6.2	546.4	19.3	10.4	1.2	0
5078	55.1	6.5	566.2	19.3	9.1	1.5	0
5079	47.9	6.5	584.9	19.3	9.6	1.5	0
5080	51	5.2	436.6	22.6	3.9	3.8	0
5081	111	6.6	577.3	22.6	11.6	3.8	0
5082	83.6	6.6	581.3	21.4	11.6	3.4	0
5083	55.7	6.4	571.2	21.4	11.1	1.9	0
5084	44.3	6.1	551	19.9	9.6	0	0
5085	57.4	6.1	551	21.4	12.2	3.1	0
5086	90.7	6.1	526.2	21.4	12.2	3.1	0
5087	79.3	5.8	512	20	10	2	0
5088	68.2	5.4	474	19	10	2	0
5089	69.7	5.1	455	17	10	0	0
RIO BRAVO Fm.							
5090	65.9	5.2	455	17	10	3	0
5091	67.3	5.2	450	17	10	3	0
5092	94.2	5.2	450	19	10	3	0
5093	96.8	3.8	325	19	4	2	0
5094	94.6	5.0	434	18	11	1	0
5095	94.7	5.1	434	19	11	2	0
5096	80	5.0	430	19	9	2	0
5097	92.1	5.3	447	21	10	5	0
5098	104.8	4.9	407	20	12	4	0
5099	71.9	4.9	418	20	9	2	0
5100	92.8	5.1	431	23	10	3	0
5101	76	5.0	424	21	11	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5102	22.8	4.8	409	22	11	0	0
5103	77.7	13.1	1145	39.7	21.2	5	3.9
5104	34.4	13.4	1204.2	39.7	21.2	5	4.6
5105	36	10.8	952.2	32.7	18.1	3.1	2.6
5106	28.5	9.4	827.7	29.3	17.1	3.4	2.6
5107	27.6	8.1	691.6	23.8	14.2	3.4	6.5
5108	26.4	6.3	537.3	21.1	11.6	3.4	5.2
5109	29.4	5.5	462.4	19.3	10.6	3.8	3.9
5110	35.1	5.0	431.6	17.1	9.6	3.8	5.2
5111	38	4.4	374.9	16.5	9.1	3.8	0
5112	35.7	4.3	364.8	16.5	9.1	3.8	0
5113	48	4.2	370.4	14.1	9.1	0	0
5114	64.2	4.7	389.1	17.7	9.1	4.2	3.3
5115	56.4	4.1	359.7	17.4	5.2	1.9	0
5116	50.7	5.2	447.3	17.7	9.8	4.6	4.6
5117	46.8	5.2	447.3	17.7	8.8	4.6	0
5118	54	5.3	463.5	18.3	9.3	1.9	0
5119	56.9	5.4	463.5	18.3	11.1	3.1	0
5120	46.3	5.4	463.5	18.9	11.1	3.1	0
5121	46.7	5.1	434.1	18.9	10.1	3.1	0
5122	51.7	4.7	387.6	14.4	8.8	2.7	4.6
5123	50	4.4	356.2	16.5	8	3.8	5.9
5124	48.8	3.7	297.3	13.8	7.4	3.8	5.3
5125	76.2	3.0	238.3	11	6.7	3.8	4.6
5126	130.5	3.0	232.7	11	6.5	3.8	4.6
5127	112	2.6	229.2	9.5	5.4	0	0
5128	138.5	2.6	229.2	9.5	5.4	0	0
5129	147.3	3.0	242.9	9.5	6	2.7	3.9
5130	140.9	3.0	242.9	9.5	6	2.7	3.9
5131	141.4	3.1	276.3	10.1	6.7	2.7	3.9
5132	108.4	3.1	276.3	10.1	6.7	0	0
5133	142.6	3.8	316.2	12.8	7	2.3	2.6
5134	122.4	3.8	316.2	12.8	7	2.3	2.6
5135	114.4	4.4	359.7	12.8	9.1	3.8	3.9
5136	156.8	4.4	359.7	12.2	9.1	3.8	3.9
5137	126.4	4.4	359.7	12.2	9.1	3.8	3.9
5138	147.5	4.4	359.7	12.2	9.1	3.8	3.9
5139	131.7	4.4	391.6	14.7	9.1	0	0
5140	150.3	4.4	391.6	14.7	9.1	0	0
5141	151	5.1	427.5	14.1	10.1	3.8	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5142	147.3	5.1	427.5	14.1	10.1	3.8	3.9
5143	111	5.7	471	17.1	11.4	3.8	4.6
5144	91.9	5.7	471	17.1	11.4	3.4	4.6
5145	151.2	6.1	527.7	18.6	11.4	3.4	4.6
5146	129.6	6.1	527.7	18.6	11.4	2.7	2
5147	130	6.7	585.4	22.9	13.2	3.4	2
5148	134.9	6.7	585.4	22.9	13.2	3.4	0
5149	126.6	6.7	585.4	22.9	13.2	3.4	0
5150	118.4	7.4	648.6	25.7	15.3	3.4	0
5151	92.3	8.3	696.2	26.3	15.3	4.2	7.8
5152	124.4	8.3	696.2	26.3	15	4.2	7.8
5153	123	8.5	723	26.6	17.1	4.2	7.8
5154	118.6	8.5	723	26.6	17.1	3.8	3.3
5155	134.3	8.5	723	26.6	17.1	3.8	3.3
5156	135.2	8.6	754.4	27.2	16.8	2.7	0
5157	157.8	8.6	754.4	27.2	16.8	2.7	0
5158	126.4	9.2	775.1	28.7	18.9	5.7	3.9
5159	137.9	9.2	775.1	28.7	18.9	5.7	3.9
5160	128.6	9.2	775.1	28.7	18.9	5.7	4.6
5161	131.9	9.1	775.1	27.2	17.3	4.6	4.6
5162	153.5	9.2	789.3	28.4	17.9	4.6	4.6
5163	141.7	9.2	789.3	28.4	17.9	3.8	3.3
5164	128.9	9.2	789.3	29.3	17.9	4.6	3.3
5165	137	9.1	781.2	29.3	16.3	4.6	3.3
5166	136.6	9.1	781.2	29.3	16.3	4.6	3.3
5167	138.2	9.1	781.2	29.3	18.1	5	3.3
5168	122	8.9	768.5	28.1	18.1	5	0
5169	142.3	8.9	768.5	29	18.1	5	5.2
5170	126	8.8	750.3	29	17.1	1.9	5.2
5171	136.5	8.8	750.3	29.6	17.1	4.2	5.9
5172	145.6	8.8	742	29.6	16.7	4.2	5.9
5173	111.1	8.7	733.6	29.6	16.3	4.2	5.9
5174	174.9	8.4	714.4	27.2	16	4.6	4.6
5175	129.2	8.4	714.4	27.2	16	4.6	4.6
5176	90.3	8.0	688.6	26.6	16	5.7	0
5177	185	8.0	688.6	26.6	16	5.7	0
5178	139.8	8.0	688.6	26.6	16	5.7	0
5179	123.7	7.9	688.1	26	14.7	3.4	0
5180	118.6	7.9	688.1	26	14.7	3.4	0
5181	110.8	5.8	511.5	24.1	8.5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5182	132	7.9	677.5	24.1	14.2	4.6	3.9
5183	117.9	7.8	674.4	23.8	14	2.7	5.2
5184	117.4	7.8	677.7	23.7	13.2	3.1	5.2
5185	122.8	7.9	681	23.5	12.4	3.4	5.2
5186	124.1	7.9	681	22.9	12.2	3.4	5.2
5187	133	7.9	681	22.9	12.9	4.6	5.2
5188	159.7	7.9	681	22.9	13.5	5.7	5.2
5189	156	7.9	677.2	22.3	13.5	5.7	4.3
5190	125.2	7.8	673.4	21.7	13.5	5.7	3.3
5191	126.9	7.6	657.2	21.7	12.9	4.2	2.6
5192	99.6	16.4	1406	57.1	36.5	8	5.9
5193	136.8	13.6	1182.4	49.5	27.7	3.1	0
5194	199.3	13.6	1181.4	51.9	26.4	1.2	2.6
5195	202.7	13.6	1181.4	51.9	26.4	1.2	2.6
5196	144.5	13.6	1181.4	51.9	26.4	1.2	2.6
5197	177.5	9.4	789.3	48.3	10.1	3.4	4.6
5198	164.6	9.4	789.3	48.3	10.1	3.4	4.6
5199	173.3	9.4	789.3	48.3	10.1	3.4	4.6
5200	193.6	9.6	813.1	50.1	9.1	2.7	5.2
5201	146.8	9.6	813.1	50.1	9.1	2.7	5.2
5202	195.3	9.6	813.1	50.1	9.1	2.7	5.2
5203	188.9	9.6	813.1	50.1	9.1	2.7	5.2
5204	183.5	13.0	1122.2	47.4	24.6	3.1	3.9
5205	164.2	13.0	1122.2	47.4	24.6	3.1	3.9
5206	138.9	13.0	1122.2	48.9	24.6	5	5.2
5207	120	11.2	952.7	40.3	21.5	5	4.6
5208	131.7	8.0	697.7	37.6	12.4	0	0
5209	134.5	8.0	697.7	37.6	12.4	0	0
5210	154.6	9.5	800.4	36.1	19.9	5.7	3.3
5211	99.3	9.5	800.4	36.1	19.9	5.7	3.3
5212	96.5	8.9	750.8	34.8	18.6	3.4	3.3
5213	121.5	8.9	750.8	34.8	18.6	3.4	3.3
5214	119.6	8.8	734.1	34.5	19.9	4.2	3.9
5215	138.5	8.8	734.1	34.5	19.9	4.2	3.9
5216	135.2	9.0	761.5	35.1	21.7	5.7	0
5217	135.1	9.0	761.5	35.1	21.7	5.7	0
5218	130	9.0	761.5	35.1	21.7	5.7	0
5219	133.2	9.3	768.5	34.5	19.7	5.7	5.2
5220	123.8	9.3	783.2	36.1	21.5	5.7	5.2
5221	108.4	9.3	783.2	36.1	21.5	5.7	0
5222	114.3	9.5	804	40.3	21.5	5.7	0
5223	146.7	9.5	804	40.3	21.5	5.4	0
5224	125.3	9.5	804	40.3	21.5	5.4	0
5225	112.1	9.8	813.1	42.8	24.8	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5226	164.2	9.8	813.1	42.8	24.8	5	0
5227	134.9	10.4	848	44.9	26.1	5.4	5.9
5228	154.6	10.4	848	44.9	26.1	5.4	5.9
5229	124	10.6	866.7	45.5	30.3	8.4	0
5230	134.5	10.6	866.7	45.5	30.3	8.4	0
5231	126.8	10.6	866.7	49.5	32.1	8.4	3.9
5232	120	10.6	843.4	49.5	32.1	7.7	3.9
5233	102.4	10.6	843.4	49.5	32.1	7.7	3.9
5234	130.8	10.6	843.4	49.5	32.1	7.7	3.9
5235	92.3	10.0	811	46.4	30	6.1	0
5236	134.1	10.0	823.2	47.1	30	6.1	0
5237	148.9	10.0	823.2	47.1	28.7	4.2	0
5238	115.4	11.0	891.5	53.8	36.2	4.2	0
5239	90.5	11.0	891.5	53.8	36.2	4.2	0
5240	143.7	12.5	988.1	61.4	42.7	4.2	4.6
5241	87	12.5	988.1	61.4	42.7	4.2	4.6
5242	125.8	13.4	1061.5	68.7	46.3	8.4	0
5243	138.4	13.4	1061.5	68.7	46.3	8.4	0
5244	150	13.4	1061.5	68.7	46.3	8.4	0
5245	149.8	11.2	914.2	68.7	27.2	3.1	0
5246	145.2	13.5	1058.4	68.7	49.1	11.1	0
5247	116.5	13.5	1058.4	68.7	49.1	11.1	0
5248	122	14.9	1165.2	77.9	52.2	11.1	0
5249	108.4	14.9	1165.2	77.9	52.2	10.7	0
5250	112.4	16.6	1296.2	87.7	61.6	11.1	0
5251	104.2	16.6	1296.2	87.7	61.6	11.1	0
5252	118.5	17.7	1365.6	93.8	67.2	15.3	0
5253	124.3	17.7	1365.6	93.8	67.2	15.3	0
5254	125.7	17.8	1386.3	96.9	67.2	15.3	0
5255	91.2	17.8	1386.3	96.9	65.2	11.1	0
5256	78.6	17.5	1366.1	92.9	63.9	12.6	0
5257	121	17.5	1366.1	92.9	63.9	12.6	0
5258	79.3	11.6	934	89.8	24.3	0	0
5259	75.5	17.0	1351.4	85.9	59.7	9.2	0
5260	136.9	17.0	1351.4	85.9	59.7	9.2	0
5261	170.7	17.0	1351.4	86.5	60	10.4	0
5262	191.6	17.0	1351.4	87.1	60.3	11.5	0
5263	166.5	17.0	1340.3	87.1	60.3	11.5	0
5264	101.7	17.0	1344.3	87.1	60.3	11.5	0
5265	103.6	16.8	1344.3	82.2	54.8	11.1	0
5266	145.5	16.8	1344.3	82.2	54.8	13.4	0
5267	158.9	16.4	1310.9	79.1	52.8	13.4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5268	131	16.4	1310.9	79.1	52.8	13.4	0
5269	94.4	15.7	1263.9	74.6	47.1	13.4	0
5270	75.7	15.1	1211.2	70.3	45.8	10	3.3
5271	59	33.3	2948.7	93.5	62.9	13	0
5272	80.2	27.3	2419.9	77.6	52.2	10.3	5.9
5273	56.5	23.2	2015.2	68.1	44.2	10.3	5.9
5274	60.6	18.4	1600.8	56.5	35.7	6.9	3.3
5275	72.6	15.1	1325.6	43.7	30.3	6.9	0
5276	49.6	12.4	1085.3	38.8	25.6	7.7	3.9
5277	48.3	10.8	917.8	33.3	22.2	7.7	3.9
5278	50.8	7.8	685.1	26.6	16.8	0.8	0
5279	89.8	7.8	685.1	26.6	16.8	2.7	2.6
5280	105.4	6.7	577.8	21.1	13.2	2.7	2.6
5281	75.3	6.0	499.9	20.2	11.6	4.2	3.3
5282	91.9	6.0	499.9	20.2	11.9	4.2	3.3
5283	57.7	4.9	422.5	16.5	11.9	2.7	3.3
5284	42.3	3.7	308.6	14.1	9.6	1.9	0
5285	60.6	4.5	384.5	13.8	8.8	4.6	3.3
5286	107.9	6.7	582.3	16.2	10.4	1.2	5.2
5287	107.8	6.7	582.3	16.2	10.4	1.2	5.2
5288	58.8	37.4	3369.6	99.9	51.5	9.6	5.2
5289	80.4	7.8	684.5	26.3	16	1.5	0
5290	71	7.8	684.5	26.3	16	1.5	0
5291	127.8	7.8	684.5	26.3	16	5.4	2.6
5292	154.8	7.1	605.6	22	14.2	5.4	2.6
5293	137.9	7.1	605.6	22	14.2	5.4	2.6
5294	176.9	7.1	605.6	22	14.2	5.4	4.6
5295	130.8	6.7	557.6	19.3	14	5	4.6
5296	140	8.2	688.6	31.2	21.2	5	0
5297	101.2	17.1	1368.6	81.6	57.4	11.5	0
5298	74.4	17.1	1368.6	81.6	57.4	11.5	0
5299	95.3	17.1	1368.6	81.6	57.4	11.5	0
5300	127.8	20.9	1642.8	102.4	76	13	2.6
5301	160.7	17.3	1360	83	63	14	0
5302	111.8	17.3	1360	83	63	14	0
5303	152	17.3	1360	83	63	14	0
5304	127.8	13.7	1057	67	49	11	5
5305	124.7	23.5	2052	68	48	9	3
5306	57.4	37.8	3423	98	53	8	1
5307	59.8	39.9	3637	95	57	6	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5308	55.3	47.9	4365	113	63	10	3
5309	23.5	50.1	4556	124	68	9	4
5310	35.1	55.9	5101	136	74	10	1
5311	64.5	50.5	4612	116	68	10	3
5312	15.3	20.6	1883	76	16	0	0
5313	14.5	15.2	1349	42	25	4	3
5314	4.8	19.5	1769	65	20	3	0
5315	20.3	30.5	2732	79	48	6	6
5316	94	32.6	2928	78	51	10	3
5317	88	33.8	3054	84	51	8	3
5318	94.6	33.8	3054	84	51	8	3
5319	115	34.1	3082	81	51	10	1
5320	144.9	34.1	3082	81	51	10	1
5321	59.9	9.5	783	36	22	6	5
5322	96.9	9.3	783	36	22	6	0
5323	96.3	9.6	804	40	22	6	0
5324	100.2	9.5	804	40	22	5	0
5325	86.8	9.5	804	40	22	5	0
5326	87.2	9.8	813	43	25	5	0
5327	74.9	9.8	813	43	25	5	0
5328	58.6	10.4	848	45	26	5	6
5329	65.9	10.4	848	45	26	5	6
5330	75.8	10.6	867	46	30	8	0
5331	108	10.6	867	46	30	8	0
5332	79.4	10.9	867	50	32	8	4
5333	83.5	10.7	843	50	32	8	4
5334	87.4	10.7	843	50	32	8	4
5335	119	10.7	843	50	32	8	4
5336	103.4	10.0	811	46	30	6	0
5337	79.2	10.1	823	47	30	6	0
5338	76.9	10.0	823	47	29	4	0
5339	104.8	11.0	892	54	36	4	0
5340	84.3	11.0	892	54	36	4	0
5341	124.4	12.5	988	61	43	4	5
5342	145.1	12.5	988	61	43	4	5
5343	152.6	13.4	1062	69	46	8	0
5344	168	13.4	1062	69	46	8	0
5345	90.1	13.4	1062	69	46	8	0
5346	126.5	11.2	914	69	27	3	0
5347	111.4	9.5	783	36	22	6	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5348	111.1	9.3	783	36	22	6	0
5349	197.8	9.6	804	40	22	6	0
5350	161.8	9.5	804	40	22	5	0
5351	172.5	9.5	804	40	22	5	0
5352	186.2	9.8	813	43	25	5	0
5353	211.6	9.8	813	43	25	5	0
5354	192.1	10.4	848	45	26	5	6
5355	180.8	10.4	848	45	26	5	6
5356	142.9	10.6	867	46	30	8	0
5357	134.6	10.6	867	46	30	8	0
5358	146.5	10.9	867	50	32	8	4
5359	136.8	10.7	843	50	32	8	4
5360	167.6	10.7	843	50	32	8	4
5361	151	10.7	843	50	32	8	4
5362	157.2	9.5	783	36	22	6	5
5363	139.8	9.3	783	36	22	6	0
5364	177.7	9.6	804	40	22	6	0
5365	188.9	9.5	804	40	22	5	0
5366	198.4	9.5	804	40	22	5	0
5367	142.7	9.8	813	43	25	5	0
5368	202.5	9.8	813	43	25	5	0
5369	239	10.4	848	45	26	5	6
5370	175.4	10.4	848	45	26	5	6
5371	208.6	10.6	867	46	30	8	0
5372	212.1	10.6	867	46	30	8	0
5373	156.1	10.9	867	50	32	8	4
5374	188.5	10.7	843	50	32	8	4
5375	176.5	10.7	843	50	32	8	4
5376	190.2	10.7	843	50	32	8	4
5377	174.1	10.0	811	46	30	6	0
5378	162.8	10.8	867	50	32	8	2
5379	181.2	10.6	843	50	32	8	2
5380	211.7	10.6	843	50	32	8	2
5381	151.7	0.0	0	0	0	0	0
5382	142.3	0.0	0	0	0	0	0
5383	159.3	0.0	0	0	0	0	0
5384	103.2	0.0	0	0	0	0	0
5385	127.9	0.0	0	0	0	0	0
5386	139	0.0	0	0	0	0	0
5387	146.7	0.0	0	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5388	206.5	0.0	0	0	0	0	0
5389	171.2	0.0	0	0	0	0	0
5390	196	0.0	0	0	0	0	0
5391	192	0.0	0	0	0	0	0
5392	177.2	0.0	0	0	0	0	0
5393	153.4	0.0	0	0	0	0	0
5394	159.1	0.0	0	0	0	0	0
5395	102.9	0.0	0	0	0	0	0
5396	108.2	0.0	0	0	0	0	0
5397	97.6	0.0	0	0	0	0	0
5398	104.8	0.0	0	0	0	0	0
5399	129.7	0.0	0	0	0	0	0
5400	127.7	0.0	0	0	0	0	0
5401	126.7	0.0	0	0	0	0	0
5402	129.6	0.0	0	0	0	0	0
5403	105.9	0.0	0	0	0	0	0
5404	123.9	0.0	0	0	0	0	0
5405	122.5	0.0	0	0	0	0	0
5406	122.6	0.0	0	0	0	0	0
5407	132.8	0.0	0	0	0	0	0
5408	123.6	0.0	0	0	0	0	0
5409	146.9	0.0	0	0	0	0	0
5410	141.7	0.0	0	0	0	0	0
5411	115.1	0.0	0	0	0	0	0
5412	90.4	0.0	0	0	0	0	0
5413	99.4	0.0	0	0	0	0	0
5414	115.1	0.0	0	0	0	0	0
5415	84.3	0.0	0	0	0	0	0
5416	121.8	0.0	0	0	0	0	0
5417	95.2	0.0	0	0	0	0	0
5418	68.4	0.0	0	0	0	0	0
5419	64.2	0.0	0	0	0	0	0
5420	88.8	0.0	0	0	0	0	0
5421	105.6	0.0	0	0	0	0	0
5422	132.7	0.0	0	0	0	0	0
5423	121.7	0.0	0	0	0	0	0
5424	118.1	0.0	0	0	0	0	0
5425	120.7	0.0	0	0	0	0	0
5426	99.7	0.0	0	0	0	0	0
5427	113.6	0.0	0	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5428	100.5	0.0	0	0	0	0	0
5429	106.5	0.0	0	0	0	0	0
5430	83.3	0.0	0	0	0	0	0
5431	81.5	0.0	0	0	0	0	0
5432	87.1	0.0	0	0	0	0	0
5433	99.2	0.0	0	0	0	0	0
5434	122.8	0.0	0	0	0	0	0
5435	115.6	0.0	0	0	0	0	0
5436	125.9	0.0	0	0	0	0	0
5437	122.8	0.0	0	0	0	0	0
5438	93.2	0.0	0	0	0	0	0
5439	109.4	0.0	0	0	0	0	0
5440	201.6	0.0	0	0	0	0	0
5441	119.9	0.0	0	0	0	0	0
5442	148.3	0.0	0	0	0	0	0
5443	127.9	0.0	0	0	0	0	0
5444	143	0.0	0	0	0	0	0
5445	128.7	0.0	0	0	0	0	0
5446	131.5	0.0	0	0	0	0	0
5447	115.2	0.0	0	0	0	0	0
5448	106.5	0.0	0	0	0	0	0
5449	105.5	0.0	0	0	0	0	0
5450	104.7	0.0	0	0	0	0	0
5451	163	0.0	0	0	0	0	0
5452	4.2	0.0	0	0	0	0	0
5453	8.5	14.3	1309.4	31.2	20.2	3.1	0
5454	66.8	14.3	1309.4	31.2	20.2	4.6	2.6
5455	159.6	9.7	868.7	27.8	10.1	4.6	2.6
5456	143.5	9.7	868.7	27.8	10.1	4.6	2.6
5457	122.5	11.7	1039.7	26.9	17.6	6.5	3.3
5458	118.9	11.7	1039.7	26.9	17.6	6.5	3.3
5459	142	11.7	1039.7	26.9	17.6	6.5	3.3
5460	133.3	11.7	1039.7	26.9	17.6	6.5	3.3
5461	105.2	10.2	918.8	23.2	16.3	3.1	2
5462	108.6	9.4	816.1	22.9	17.3	5.4	3.9
5463	157.8	9.4	816.1	22.9	17.3	5.4	3.9
5464	152.1	9.4	816.1	22.9	17.3	5.4	3.9
5465	163.9	9.4	816.1	22.9	17.3	5.4	3.9
5466	138.5	8.4	748.8	20.5	15	4.2	0
5467	115	8.4	748.8	20.5	15	5.7	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5468	128.7	7.9	675.4	20.2	14.5	5.7	4.6
5469	108.1	7.9	675.4	20.2	14.7	5.7	4.6
5470	161.2	7.3	637	20	15	5	0
5471	139.3	7.3	637	20	15	5	0
5472	156.1	7.4	645	22	12	5	2
5473	149.9	7.4	645	22	12	5	2
5474	123.5	7.4	645	22	12	5	2
5475	114.3	6.0	546	20	8	0	0
5476	104.2	6.0	546	20	8	0	0
5477	139.9	33.2	3010	72	42	10	6
5478	121.4	35.8	3261	81	44	8	5
5479	85.3	5.7	486	19	9	4	2
5480	169.4	6.6	560	19	11	4	5
5481	131.3	6.6	560	17	11	6	4
5482	132	16.4	1363	64	43	7	5
5483	84.3	18.3	1501	76	51	9	5
5484	115.9	17.6	1439	74	50	8	5
5485	84.6	17.7	1439	74	50	12	5
5486	96.1	16.3	1327	66	48	12	2
5487	54.3	14.6	1216	61	40	6	0
5488	69.7	24.2	1924	112	78	16	5
5489	1.7	16.2	1396	55	36	8	0
5490	19.4	12.9	1104	40	27	6	4
5491	41.3	11.5	987	36	24	6	3
5492	105.7	10.4	887	33	22	5	3
5493	141.4	10.5	887	33	22	5	5
5494	84	9.8	829	31	19	5	5
5495	128.8	9.8	829	31	19	5	5
5496	59.9	9.0	768	27	19	4	5
5497	116.7	9.1	768	29	19	5	5
5498	148.4	8.6	746	29	18	5	0
5499	120.8	9.0	756	29	18	6	5
5500	140.7	9.5	812	28	17	6	5
5501	86.6	9.5	812	28	17	6	5
5502	70.3	11.1	947	33	21	6	5
5503	92.6	10.9	947	33	21	3	3
5504	113.7	12.2	1056	36	22	6	4
5505	79.1	5.7	468	23	15	4	2
5506	3.5	6.7	570	25	10	4	2
5507	47.8	8.0	673	27	16	4	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5508	121.4	8.5	706	29	18	5	5
5509	183.5	8.9	739	31	20	6	4
5510	149.5	8.8	739	31	20	6	3
5511	174.5	9.1	756	34	23	6	3
5512	170.1	9.1	756	34	23	5	3
5513	139.6	9.1	756	34	23	6	3
5514	126.9	8.5	719	32	21	6	0
5515	96.9	8.5	719	32	21	6	0
5516	174.3	8.5	719	32	21	6	0
5517	179	8.0	669	32	20	5	0
5518	161.1	8.0	669	32	20	5	0
5519	128.8	7.4	624	30	19	4	0
5520	123.1	7.6	624	30	19	4	4
5521	144.7	7.5	614	29	20	4	4
5522	66.1	7.4	605	28	20	4	4
5523	77.6	7.1	590	27	20	4	0
5524	116.1	7.3	594	27	20	8	0
5525	127.9	7.2	594	27	19	8	0
5526	144.9	7.2	594	27	19	8	0
5527	113.2	7.8	644	27	20	5	3
5528	112.8	9.3	788	29	20	5	3
5529	60.5	9.3	788	29	19	6	4
5530	100.8	12.1	1050	36	23	5	3
5531	98.1	12.1	1050	36	23	5	3
5532	130.3	12.1	1050	36	23	5	3
5533	169.9	15.9	1413	48	26	3	3
5534	129.7	20.2	1792	57	32	6	3
5535	122.1	21.6	1927	61	33	6	3
5536	101.1	23.1	2062	65	34	6	3
5537	138.1	26.0	2328	69	39	6	4
5538	90.8	25.9	2328	69	39	5	4
5539	154.1	25.9	2328	69	39	5	4
5540	135.3	28.2	2538	83	42	5	1
5541	144.7	28.2	2538	83	42	5	1
5542	65.3	29.9	2691	84	45	6	0
5543	154.7	29.9	2691	84	45	6	0
5544	113.5	31.3	2778	91	51	8	4
5545	108.9	31.3	2778	93	51	9	4
5546	96.9	27.9	2481	81	47	9	0
5547	28.9	27.9	2481	81	47	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5548	131.4	25.8	2281	77	44	8	2
5549	157	25.9	2281	77	44	8	5
5550	99.4	23.3	2052	70	39	8	5
5551	127.9	20.8	1823	62	35	8	5
5552	172.2	20.8	1823	62	35	8	5
5553	179.7	19.8	1741	59	32	7	4
5554	122.4	18.7	1660	56	30	5	3
5555	169.4	17.6	1548	56	30	5	3
5556	53.3	17.7	1548	57	30	6	3
5557	225.1	17.2	1510	57	30	6	0
5558	105	17.2	1510	57	30	6	0
5559	200.8	17.2	1510	57	30	6	0
5560	239.6	17.8	1571	53	29	5	3
5561	290.5	18.2	1609	53	30	5	3
5562	122.6	18.6	1646	54	30	6	4
5563	183.2	18.6	1646	54	30	5	3
5564	201.3	18.6	1646	54	30	5	3
5565	143.5	18.6	1646	54	30	5	4
5566	250	19.7	1741	60	32	6	3
5567	215.2	19.7	1741	60	32	6	3
5568	125.1	21.3	1878	63	33	8	4
5569	127	21.2	1878	63	33	7	4
5570	117.3	22.0	1953	65	35	6	4
5571	231.9	23.0	2029	67	37	8	5
5572	150.7	5.7	469	21	13	4	2
5573	190.9	5.7	469	21	13	4	2
5574	229.1	4.7	386	15	11	5	3
5575	236.8	4.7	386	15	11	5	3
5576	261.4	4.7	386	15	11	5	3
5577	223.2	4.7	386	15	11	5	3
5578	244.8	4.2	344	15	8	4	2
5579	209	4.2	344	15	8	4	2
5580	268.9	27.6	2456.4	89.8	51	9.6	5.2
5581	92.3	27.6	2456.4	88.6	46.3	5.7	2
5582	112.9	25.4	2257.5	81.6	41.1	5.7	2
5583	82	25.4	2257.5	81.6	41.1	8.4	4.6
5584	109.6	22.0	1935.2	66	34.1	8.4	4.6
5585	76.8	17.1	1515.3	53.2	28.2	3.8	2
5586	50.7	12.6	1104.5	40	23	4.6	2
5587	105	12.6	1104.5	40	23	5.4	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5588	57.6	9.4	799.4	30.9	16.6	5.4	4.6
5589	117.1	5.9	510.5	22	11.9	1.5	0
5590	152	5.9	510.5	21.4	11.9	3.4	4.6
5591	74.3	10.1	893	26.6	14	6.1	3.3
5592	50.7	19.3	1762.2	49.2	24.8	6.1	3.3
5593	51.6	24.5	2210.5	66	31.6	6.1	2.6
5594	113.5	24.5	2210.5	66	31.6	6.1	2.6
5595	77.8	27.0	2426	72.1	36.5	6.5	4.6
5596	62.7	27.0	2426	72.1	36.5	6.5	4.6
5597	111.6	22.6	2073.4	72.7	21.5	0	0
5598	76.7	29.6	2665.8	78.5	39.8	9.6	3.3
5599	96.6	29.6	2665.8	78.5	39.8	9.6	3.3
5600	91	29.6	2665.8	78.5	39.8	9.6	3.3
5601	139.2	29.1	2629.4	78.2	39.1	8.4	2
5602	70.3	27.7	2518.1	70.6	39.8	6.1	0
5603	107.4	27.7	2518.1	70.6	39.8	6.1	3.3
5604	107.8	23.7	2130.5	62.3	35.4	6.1	3.3
5605	93.9	22.8	2051.1	61.4	34.1	6.1	1.3
5606	114.6	22.8	2051.1	61.4	34.1	6.1	1.3
5607	85.2	24.9	2215.5	72.4	37.5	8.8	3.3
5608	105.2	51.0	4609.7	142.7	72.9	13.8	5.9
5609	148.1	50.9	4609.7	138.3	71.9	11.7	4
5610	272.1	50.8	4609.7	133.8	70.9	9.6	2
5611	278.4	50.8	4609.7	133.8	70.9	9.8	2.7
5612	225.9	50.8	4609.7	133.8	70.9	10	3.3
5613	254.2	49.2	4458.7	128.8	68.5	10	3.3
5614	256.3	47.6	4307.6	123.7	66	10	3.3
5615	190.9	47.6	4307.6	123.7	66	10	3.3
5616	298.3	47.6	4307.6	123.7	66	10	3.3
5617	291.2	47.6	4307.6	123.7	66	10	3.3
5618	311.1	42.3	3800.7	118.1	61.1	11	4
5619	277.7	37.1	3293.7	112.4	56.1	11.9	4.6
5620	248.3	37.1	3293.7	112.4	56.1	11.9	4.6
5621	307.6	37.1	3293.7	112.4	56.1	11.9	4.6
5622	268.1	32.1	2863.4	93.3	49.2	9.4	2.3
5623	260.5	27.1	2433.1	74.2	42.2	6.9	0
5624	237.4	25.5	2283.9	71.1	40.4	6.9	0
5625	312.3	23.9	2134.6	68.1	38.6	6.9	0
5626	289.9	22.3	1985.4	65.1	36.7	6.9	0
5627	267.6	20.7	1836.1	62	34.9	6.9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5628	292	20.7	1836.1	62	34.9	6.9	0
5629	202.3	20.7	1836.1	62	34.9	8.1	0.7
5630	331.1	20.7	1836.1	62	34.9	9.2	1.3
5631	370	18.6	1637.8	57	31.6	9.2	1.3
5632	287.1	16.5	1439.4	51.9	28.2	9.2	1.3
5633	356.8	16.5	1439.4	51.9	28.2	9.2	1.3
5634	216.5	16.5	1439.4	51.9	28.2	9.2	1.3
5635	285.8	16.5	1439.4	51.9	28.2	9.2	1.3
5636	318.2	15.2	1331.7	47.4	27.3	8.3	0.7
5637	259.3	14.0	1223.9	42.8	26.4	7.3	0
5638	237.6	14.0	1223.9	42.8	26.4	7.3	0
5639	195.1	13.6	1191.5	43.4	25.6	6.5	0
5640	338.6	13.3	1159.1	44	24.8	5.7	0
5641	222.4	13.4	1163.7	44	25.1	5.7	1.3
5642	231.9	13.4	1168.2	44	25.4	5.7	2.6
5643	223.8	13.4	1168.2	43.4	25.4	5.6	2.6
5644	226.7	13.4	1168.2	42.8	25.4	5.4	2.6
5645	172.9	13.4	1168.2	42.8	25.4	5.6	3.9
5646	158.2	13.4	1168.2	42.8	25.4	5.7	5.2
5647	259.1	13.4	1154.8	42.8	25.4	5.7	5.2
5648	202.9	13.3	1141.4	42.8	25.4	5.7	5.2
5649	264.3	17.5	1530	53.5	32.4	5.7	5.2
5650	303.7	21.7	1918.5	64.2	39.3	5.7	5.2
5651	336	21.7	1918.5	64.2	39.3	5	4.3
5652	238.6	21.7	1918.5	64.2	39.3	4.2	3.3
5653	310.7	21.7	1918.5	64.2	39.3	4.2	3.3
5654	250.7	21.7	1918.5	64.2	39.3	4.2	3.3
5655	217.4	38.3	3397.4	120.7	62.3	12.3	0
5656	377	38.3	3397.4	120.7	62.3	12.3	0
5657	283.9	38.3	3397.4	120.7	62.3	12.3	0
5658	292.9	45.4	4035.4	139.1	73.6	14	2
5659	297.1	52.6	4673.4	157.4	84.8	15.7	3.9
5660	254.4	52.6	4673.4	157.4	84.8	15.7	3.9
5661	314.7	52.6	4673.4	157.4	84.8	15.7	3.9
5662	282.7	58.2	5196.8	168.9	91.6	17.1	3.9
5663	246.9	63.8	5720.2	180.3	98.3	18.4	3.9
5664	694.6	63.8	5720.2	180.3	98.3	18.4	0
5665	183.2	37.7	3357.5	111.3	61.5	13.1	2.6
5666	232.1	11.6	994.7	42.2	24.6	7.7	5.2
5667	95.3	23.2	1847	107	79	18	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5668	139.8	16.6	1304	78	56	15	3
5669	123.6	11.7	918	50	38	13	3
5670	119.9	9.1	733	37	26	6	4
5671	140.5	9.1	733	37	26	6	4
5672	109	9.6	792	37	27	8	0
5673	93.6	9.6	792	37	27	8	0
5674	145.3	9.6	792	37	27	8	0
5675	153.8	7.2	616	27	18	3	0
5676	65.3	7.6	636	27	19	4	2
5677	53.9	9.4	792	33	23	6	0
5678	52.5	10.4	846	36	27	9	5
5679	86.7	10.4	846	36	27	9	5
5680	79.6	5.8	466	24	9	7	4
5681	59.5	5.8	465	21	15	6	4
5682	78	4.5	346	16	11	7	4
5683	63.9	4.3	341	14	11	5	3
5684	49.1	4.5	362	15	13	6	2
5685	86.9	6.3	513	20	14	7	3
5686	67.1	9.4	792	33	20	6	4
5687	43	12.6	1068	45	27	6	4
5688	51.7	15.6	1333	53	32	8	3
5689	70	14.5	1260	55	25	6	0
5690	68.4	14.5	1260	56	25	7	0
5691	51.9	16.5	1390	62	36	10	3
5692	54.9	15.4	1310	52	33	8	5
5693	64.8	15.4	1310	52	33	8	5
5694	77.4	26.5	2287	90	52	11	4
5695	19.4	12.9	1101	46	30	8	0
5696	52	12.9	1101	46	30	8	0
5697	100.2	7.3	609	27	17	5	3
5698	50.8	6.9	564	24	17	6	3
5699	93.3	6.9	564	24	17	6	3
5700	76.7	6.2	517	23	15	6	0
5701	126.5	6.8	577	25	15	4	0
5702	101	9.4	808	29	17	5	3
5703	102.2	9.4	808	29	17	5	3
5704	127.1	13.1	1139	39	24	7	3
5705	90.5	8.7	750	27	17	6	2
5706	45	8.7	750	27	17	6	2
5707	76.5	5.6	475	18	12	3	3
5708	61.7	5.6	475	18	12	3	3
5709	104	5.7	484	19	11	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5710	84.9	7.9	701	26	17	0	0
5711	64.1	7.9	701	26	17	0	0
5712	79	11.2	983	34	18	5	3
5713	84.7	10.2	912	43	12	0	0
5714	91.1	10.2	912	43	12	0	0
5715	78.6	17.1	1520	45	27	6	3
5716	81.8	19.0	1688	58	30	6	0
5717	59.1	17.5	1554	50	30	7	0
5718	68	15.4	1345	48	27	8	1
5719	72.6	16.1	1412	51	27	6	3
5720	132	26.1	2256	95	52	12	0
5721	96.3	28.4	2442	104	57	10	5
5722	147.1	28.4	2442	104	57	10	5
5723	111.9	27.8	2389	104	56	12	3
5724	57	27.8	2389	104	56	12	3
5725	140.6	26.7	2301	100	53	8	3
5726	126.5	26.7	2301	100	53	8	3
5727	157.2	24.9	2141	93	49	9	3
5728	175	24.9	2141	93	49	9	3
5729	159.4	24.9	2141	93	49	9	3
5730	149.7	22.7	1960	90	47	5	0
5731	132.1	22.7	1960	90	47	5	0
5732	111.6	22.7	1960	90	47	5	0
5733	145.1	16.6	1441	73	22	3	3
5734	124.7	15.4	1318	62	32	5	2
5735	112.6	15.4	1318	62	32	5	2
5736	137.1	11.9	1006	47	26	5	3
5737	149.2	11.9	1006	47	26	5	3
5738	117	9.8	800	36	22	8	5
5739	156.3	9.8	800	36	22	8	5
5740	127	9.8	800	36	22	8	5
5741	112.6	7.8	652	29	18	5	3
5742	75.5	7.8	652	29	18	5	3
5743	93	7.8	660	30	16	4	2
5744	104.4	7.7	660	30	16	3	1
5745	109.7	12.2	1041	43	24	6	4
5746	149.1	12.2	1041	43	24	6	4
5747	116.3	17.2	1492	65	31	5	2
5748	102.5	17.2	1492	65	31	5	2
5749	69.6	20.1	1754	77	38	3	2
5750	100.4	24.4	2122	94	45	4	3
5751	141.9	24.4	2122	94	45	4	3
5752	94.6	30.0	2617	119	52	4	3
5753	98.3	30.0	2617	119	52	4	3
5754	148.5	33.6	2938	133.5	59	6.1	0
5755	147.6	33.6	2938	133.5	59	6.1	0
5756	164.2	35.1	3068.1	140.9	61.9	5	1.7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5757	146.4	36.7	3198.1	148.2	64.7	3.8	3.3
5758	129.6	40.3	3500.6	161.3	74.5	5	4.6
5759	130.5	39.7	3468.5	154.2	71	5	3.6
5760	110.5	39.1	3436.4	147	67.5	5	2.6
5761	135.7	36.6	3216	138	62	5	2
5762	52.6	36.6	3216	138	62	5	2
5763	56.2	13.8	1128	61	41	7	2
5764	99.7	13.8	1128	61	41	7	2
5765	157	6.6	549	40	13	0	0
5766	121.3	6.6	549	40	13	0	0
5767	88.1	7.9	644	35	25	5	0
5768	108.6	9.9	805	44	28	5	2
5769	134.4	11.7	966	52	30	5	3
5770	29.1	21.1	1891	50	32	7	3
5771	4.1	4.8	403	16	12	2	3
5772	21.9	5.4	458	18	12	3	2
5773	13.6	8.0	684	23	18	4	3
5774	12.3	9.3	771	28	23	7	4
5775	22.5	6.8	548	25	21	6	2
5776	3	8.0	694	24	16	3	1
5777	12.5	6.4	536.3	20.2	13.7	3.8	3.3
5778	14.5	6.9	584.9	25.4	14.5	6.9	3.3
5779	23.8	7.9	662.8	28.4	17.1	6.1	5.9
5780	18.6	18.2	1495.6	73	50.2	12.3	5.9
5781	14.2	9.4	774.6	33.3	22	5.7	5.2
5782	112.6	9.4	774.6	33.3	22	5.7	5.2
5783	97.5	9.4	774.6	33.3	22	5.7	5.2
5784	147.8	8.3	694.7	30.6	18.6	5.4	2.6
5785	128.6	8.3	694.7	30.6	18.6	5.4	3.9
5786	126.8	8.1	675.4	28.4	17.6	3.8	3.9
5787	156.5	8.1	675.4	29.2	17.9	4.6	3.9
5788	118	8.1	675.4	29.9	18.1	5.4	3.9
5789	147	7.7	646.1	29.9	18.1	5.4	0
5790	142.3	7.7	646.1	29.9	18.1	5.4	0
5791	154.9	7.1	597	27	18	5	0
5792	129.5	7.1	597	27	18	5	0
5793	160.9	7.7	639	28	19	5	3
5794	147.6	7.7	639	28	19	5	3
5795	91.8	8.0	658	30	18	6	4
5796	99	8.0	658	30	18	6	4
5797	62.3	13.4	1097	76	30	4	2
5798	58	4.7	363	17	15	5	3
5799	14	4.4	345	17	13	4	3
5800	16.9	10.4	905.1	33.3	19.1	4.6	4.6
5801	9.5	7.0	606.1	24.8	17.3	0	0
5802	144.4	7.0	606.1	24.8	17.3	0	0
5803	131	5.6	492.8	21.1	11.4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5804	28.3	5.2	427	18.3	11.1	2.3	3.9
5805	163.3	5.2	427	18.3	11.1	2.3	3.9
5806	110.9	4.8	405.8	18.6	10.4	1.2	2
5807	132	4.4	384.5	18.9	9.6	0	0
5808	58.7	5.2	438.2	19.9	12.7	6.9	2.6
5809	47	5.6	456.9	21.1	13.5	3.1	3.9
5810	36	5.4	433.1	20.8	13.5	4.2	3.3
5811	88.5	5.4	433.1	20.8	13.5	4.2	3.3
5812	125.1	5.4	433.1	20.8	13.5	4.2	4.6
5813	108.3	4.4	349.1	17.4	8.8	4.2	4.6
5814	119.7	5.1	402.7	19.9	14.7	4.6	3.3
5815	115.9	5.1	402.7	19.9	14.7	4.6	3.3
5816	110.7	5.6	453.8	19.9	14.7	5.7	3.9
5817	64.4	5.9	492.3	20.5	14.5	5.7	3.9
5818	62.2	10.1	877.8	29.9	17.6	4.2	3.3
5819	44.4	10.1	877.8	29.9	17.6	4.2	3.3
5820	62.2	12.3	1120.2	32.4	18.6	0	0
5821	90	13.2	1178.4	34.8	19.9	3.4	3.3
5822	65.4	13.2	1178.4	34.8	19.9	3.4	3.3
5823	100.5	23.7	2177.1	55.9	26.9	6.1	4.6
5824	2.1	17.8	1613.5	46.8	22.8	6.9	7.2
5825	140.2	15.3	1360	40.3	22.8	6.9	2.6
5826	5.6	15.3	1360	40.3	22.8	6.9	4.3
5827	5.6	15.3	1360	40.3	22.8	6.9	5.9
5828	6.2	6.2	519.6	20.2	12.2	6.5	5.2
5829	6.7	7.1	612.7	23.2	14.2	5	2.6
5830	16.9	7.9	684.5	24.8	14.2	6.1	5.2
5831	38.3	7.7	659.3	24.4	14.2	6.1	7.2
5832	4.3	7.1	615.7	22.6	13.2	5.7	7.2
5833	10.2	4.1	339	14.4	8.5	2.3	5.2
5834	42.8	4.1	339	14.4	8.5	5.4	5.2
5835	37.7	3.4	270.7	11.3	6.2	5.4	3.9
5836	14.3	3.0	239.3	9.8	5.4	3.4	3.9
5837	31.2	3.5	281.3	12.5	7.2	2.7	4.6
5838	18.3	7.5	679.5	22.3	12.4	5	5.2
5839	3.1	7.4	633.4	20.2	12.4	3.1	5.2
5840	53.3	7.1	622.3	19.6	10.1	3.8	3.3
5841	132.9	7.1	622.3	19.6	10.1	3.8	3.3
5842	129.1	7.1	619	20.1	10.5	2.9	3.6
5843	116.1	7.1	615.7	20.5	10.9	1.9	3.9
5844	210	7.1	615.7	20.5	10.9	1.9	3.9
5845	190.2	6.8	588.4	18.9	10.1	5.4	3.3
5846	160.2	6.8	588.4	18.9	10.1	5.4	3.3
5847	122.1	8.4	728.1	22.9	12.4	5.4	3.3
5848	27.1	8.4	728.1	22.9	12.4	5.4	3.3
5849	114	8.2	713.9	23.2	11.6	3.4	3.9
5850	157.9	8.2	713.9	23.2	11.6	3.4	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5851	151.6	7.5	658.5	21.3	9.2	2.7	3.3
5852	191.2	6.7	603.1	19.3	6.7	1.9	2.6
5853	102.2	7.2	628.4	22	9.8	2.7	3.9
5854	185.5	7.2	628.4	22	9.8	2.7	3.9
5855	134	7.2	628.4	22	10.1	2.7	3.9
5856	146	7.4	646.6	21.6	10.6	3.9	3.3
5857	179.3	7.6	664.8	21.1	11.1	5	2.6
5858	99.9	7.6	664.8	21.1	11.1	5	2
5859	78	10.2	868.2	39.4	22.5	5.7	5.9
5860	59	4.3	356.7	14.7	8.5	1.9	3.3
5861	82.6	4.3	362.8	15	8.5	1.9	3.3
5862	116.2	4.4	362.8	16.2	8.8	2.7	3.9
5863	92.5	4.4	362.3	16.2	8.8	2.7	3.9
5864	151.3	4.4	362.3	16.2	8.8	2.7	3.9
5865	80	4.6	391.1	17.1	10.9	4.2	3.9
5866	2.5	4.8	382.5	18.6	11.6	3.8	5.2
5867	35.6	4.5	380	18.3	11.6	1.5	2
5868	66	4.9	387.6	20.5	14	5.4	5.9
5869	26.1	5.0	405.3	20.5	14.5	3.4	3.3
5870	91.4	5.0	405.3	19.6	14.5	3.4	2.6
5871	58.3	6.1	476.1	26.3	19.4	6.1	5.9
5872	7.5	6.0	459.9	24.1	19.9	5.4	5.9
5873	50.2	5.8	451.3	23.2	16.8	5.4	4.6
5874	69.8	5.8	451.3	24.1	17.1	6.5	4.6
5875	43.4	5.4	417.4	24.1	17.6	6.5	3.9
5876	40.2	5.7	469	22	18.1	5.7	3.3
5877	40.9	6.2	499.9	22.3	17.3	5	3.9
5878	56.8	6.5	533.3	24.4	19.1	5.4	3.9
5879	62.4	6.5	533.3	24.4	19.1	5.4	1.3
5880	66.3	6.5	533.3	25.7	19.1	5.4	1.3
5881	56.3	6.6	536.3	25.4	18.4	6.5	2
5882	71.8	6.5	533.8	25.4	16.6	6.9	0
5883	87.6	6.5	533.8	25.4	16.6	6.9	0
5884	49.5	6.5	533.8	25.4	16.6	6.9	0
5885	54	9.5	779.2	41.6	22.8	11.5	3.9
5886	4.3	9.5	779.2	41.6	22.8	5.7	3.9
5887	96.8	9.5	779.2	41.6	22.8	5.7	3.9
5888	141.9	9.5	779.2	41.6	22.8	5.7	3.9
5889	188	9.4	793.3	41.3	25.9	0	0
5890	158.8	9.4	793.3	41.3	25.9	0	0
5891	154.5	9.5	789.3	38.5	24.8	3.4	2
5892	183.4	9.5	789.3	38.5	24.8	3.4	2
5893	139.2	9.5	789.3	38.5	24.8	3.4	2
5894	177.4	9.7	795.9	43.1	25.9	3.4	2.6
5895	148.9	9.7	795.9	43.1	25.9	3.4	2.6
5896	113.6	9.7	795.9	43.1	25.9	3.4	2.6
5897	167.6	10.2	827.7	44.3	29.2	5	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5898	149.7	10.2	827.7	44.3	29.2	5	3.9
5899	155.9	11.1	913.2	46.4	30	6.5	2.6
5900	94	11.1	913.2	46.4	30	6.5	2.6
5901	139.4	12.0	984.6	51.9	34.7	8.8	2.6
5902	141.5	12.0	984.6	51.9	34.7	8.8	0
5903	130.1	12.4	1009.9	51.9	34.7	8.8	4.6
5904	125.5	12.4	1009.9	51.3	33.9	7.7	4.6
5905	102.2	12.4	1022	53.8	34.1	7.7	4.6
5906	143.7	12.4	1022	53.8	34.1	3.8	2.6
5907	116.7	12.4	1022	53.8	34.1	3.8	2.6
5908	170.8	12.1	1005.3	40.3	32.1	5.4	5.9
5909	145	12.1	1005.3	40.3	32.1	5.4	5.9
5910	171.2	12.1	1005.3	49.5	32.6	6.1	5.9
5911	153.8	11.7	966.9	49.5	32.6	6.1	0
5912	159.5	11.7	966.9	49.5	32.6	6.1	0
5913	169.2	11.7	966.9	49.5	32.6	6.1	3.3
5914	162.9	9.2	765.5	41.9	16.3	5.4	3.3
5915	175.8	9.2	765.5	41.9	16.3	5.4	3.3
5916	158.5	10.1	834.3	43.3	23.3	5.8	2.7
5917	194	11.0	903.1	44.6	30.3	6.1	2
5918	146.9	11.0	903.1	44.6	30.3	6.1	2
5919	179.2	10.2	844.4	40	29.2	5.7	0
5920	81.5	10.2	844.4	40	29.2	5.7	0
5921	143.4	9.9	808.5	38.5	26.6	5.7	3.9
5922	151.3	9.9	808.5	38.5	26.6	6.5	3.9
5923	103.7	9.4	777.6	35.1	25.1	6.5	2.6
5924	103.5	9.4	777.6	35.1	25.1	6.5	4.6
5925	125.1	9.1	743.2	34.2	24.3	4.2	4.6
5926	153.5	9.1	743.2	34.2	24.3	4.2	4.6
5927	160.7	9.1	748.8	34.2	24.3	5	4.6
5928	122.9	8.9	748.8	31.8	23.5	5	1.3
5929	136.4	9.1	758.9	32.4	23.5	5	4.6
5930	115.9	9.1	758.9	32.4	22.8	4.2	4.6
5931	136.7	9.1	758.9	32.4	22.8	4.2	4.6
5932	130.3	7.7	651.7	31.2	11.9	2.7	3.9
5933	138.1	7.7	651.7	31.2	11.9	2.7	3.9
5934	149.4	8.6	730.6	32.4	17	4.1	3.6
5935	163.9	9.6	809.5	33.6	22	5.4	3.3
5936	214.9	9.7	816.4	34.4	22	5.4	4
5937	187.2	9.8	823.2	35.1	22	5.4	4.6
5938	164.3	10.0	838.9	35.1	22.7	6.7	4.6
5939	183.2	10.1	854.5	35.1	23.3	8	4.6
5940	137.6	10.1	854.5	34.8	23.3	8	2.3
5941	165.6	10.1	854.5	34.5	23.3	8	0
5942	149	10.1	869.7	34.5	24	8	0
5943	178	10.1	884.9	34.5	24.6	8	0
5944	116.1	10.5	895	34.8	24.6	3.8	3.3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5945	140.4	10.5	895	34.8	23.5	3.8	3.3
5946	140.3	10.5	895	34.8	23.5	4.8	3.6
5947	167.3	10.5	895	34.8	23.5	5.7	3.9
5948	102.1	10.3	870.2	32.4	22.2	5.7	3.9
5949	107	9.2	798.6	32.9	17.3	2.9	2
5950	160.5	8.2	727	33.3	12.4	0	0
5951	108.4	8.8	765.8	31	16.6	3.3	0
5952	214.1	9.4	804.5	28.7	20.7	6.5	0
5953	159.2	9.4	804.5	30.1	20.7	6.5	0
5954	169.2	9.4	804.5	31.5	20.7	6.5	0
5955	8	2.0	139	9	7	4	3
5956	7	2.0	142	9	8	3	1
5957	42	2.2	146	9	8	4	5
5958	42.4	2.0	145	8	5	5	3
5959	29.2	2.0	146	9	8	4	0
5960	34.1	1.6	111	8	6	4	1
5961	6	1.7	117	8	4	3	4
5962	23.8	2.0	148	10	4	3	2
5963	38.1	3.7	262.6	12.5	10.1	6.1	5.9
5964	15.9	4.1	297.5	15	10.9	6.5	7.2
5965	13.6	4.1	297.5	15	10.9	6.5	2.6
5966	51.8	4.3	323.8	15.6	11.1	4.2	3.3
5967	76.6	4.3	339	16.5	11.1	4.2	3.3
5968	60.4	4.4	339	16.8	13.5	5.4	5.9
5969	46.5	3.2	228.2	11	7.8	3.8	5.9
5970	18.9	3.1	226.7	10.1	7.8	4.2	3.3
5971	40	2.8	223.6	9.5	6.2	2.7	0
5972	38.3	2.7	207.9	9.5	6.2	4.2	3.3
5973	29	2.7	190.2	9.8	8.3	6.5	4.6
5974	43.4	2.7	195.3	9.2	6.5	3.1	3.9
5975	43.4	2.5	195.3	8.9	4.9	3.1	0
5976	79.9	2.9	193.3	9.2	5.2	6.1	5.2
5977	80.6	2.9	193.8	9.8	6.5	6.1	5.2
5978	91.7	2.8	193.8	9.8	6.5	3.4	3.9
5979	98.3	2.8	206.4	9.8	6.7	5.4	3.9
5980	95.5	2.8	206.4	8.9	6.7	5.4	1.3
5981	90.5	3.5	239.8	10.7	8.8	5.4	5.9
5982	124.5	3.5	239.8	10.7	8.8	5.4	5.9
5983	105	4.0	301.5	12.2	10.1	5.4	5.9
5984	111.3	4.0	301.5	12.2	10.1	5.4	3.9
5985	121.4	4.7	371.4	14.1	12.4	5.4	3.9
5986	121.3	4.7	371.4	14.1	12.4	3.8	2.6
5987	111.1	5.4	426.5	18.9	12.7	4.2	3.3
5988	76.6	6.0	465	20.5	13.7	6.9	3.3
5989	105.9	6.1	481.7	20.8	13.7	6.9	3.3
5990	64.9	6.1	481.7	20.8	13.2	5.7	3.3
5991	80.1	6.1	481.7	20.8	14.2	6.9	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5992	53.1	5.9	469.5	20.2	14.2	6.9	3.3
5993	64.7	5.7	446.2	19.3	13.5	5.7	3.9
5994	47.5	5.4	416.9	19.3	12.9	5.7	3.9
5995	61.4	5.4	416.9	19.3	12.9	6.1	3.9
5996	94.6	4.9	380.5	15.6	11.6	6.1	4.6
5997	66.2	4.8	362.3	14.4	10.9	6.1	4.6
5998	88.6	4.7	353.2	16.2	11.4	6.5	3.3
5999	104.5	4.7	353.2	16.2	11.4	6.5	3.3
6000	108.7	4.7	353.2	16.2	11.4	6.5	3.3
6001	141.7	4.5	346.1	15	9.8	1.2	5.9
6002	126.8	4.7	361.8	15.6	11.4	3.4	5.9
6003	110.9	4.7	361.8	15.6	11.4	3.4	4.6
6004	102	4.7	361.8	17.7	11.4	3.8	5.2
6005	82.7	5.2	391.6	19.3	11.1	4.6	6.5
6006	60.6	5.2	402.2	19.3	12.9	5	6.5
6007	53.9	5.3	412.9	18.3	12.9	5.4	4.6
6008	76.4	5.3	412.9	20.2	12.4	5.4	3.9
6009	68.2	5.3	412.4	20.2	11.6	5.4	3.3
6010	94.2	8.1	652.5	30.6	19.1	7.1	4.6
6011	102.9	10.8	892.5	40.9	26.6	8.8	5.9
6012	15	11.8	1019.5	40.9	26.6	8.4	3.9
6013	45.1	11.8	1019.5	40.9	25.4	0	0
6014	54.6	12.7	1070.1	43.1	26.4	3.1	4.6
6015	48.6	13.1	1104	43.7	26.4	5.7	5.9
6016	43.3	18.5	1632.7	50.1	27.2	7.3	5.9
6017	43.3	18.9	1661	51.6	28.7	10	2
6018	35.2	18.9	1661	51.6	28.7	10	2
6019	27.9	17.1	1479.9	49.8	27.7	8.8	5.9
6020	9.2	4.7	343.5	18	12.9	6.9	3.9
6021	9.5	3.6	273.2	11.9	9.8	6.5	7.2
6022	7.7	6.1	459.9	27.8	19.4	8	5.2
6023	5.6	6.1	449.3	26.9	19.4	8.8	3.3
6024	8.8	4.0	289.4	14.7	10.6	6.1	5.2
6025	8.6	2.9	212.5	11	8	4.6	3.9
6026	28.1	5.5	444.7	18.3	10.1	6.5	5.9
6027	16.8	5.2	427	18.3	10.6	4.2	4.6
6028	128.5	5.2	424.3	18	10.6	3.5	4.6
6029	104.3	5.2	421.5	17.7	10.6	2.7	4.6
6030	116.1	4.9	393.9	17	9.7	3.3	4.3
6031	98.3	4.6	366.3	16.2	8.8	3.8	3.9
6032	130.1	3.8	306.1	12.8	7.8	3.8	0
6033	118.1	3.8	306.1	15.3	7.8	4.6	3.9
6034	95.1	4.0	321.8	16.1	8.2	4.6	3.9
6035	96.1	4.3	337.5	16.8	8.5	4.6	3.9
6036	121.2	5.5	421.5	20.8	11.6	6.1	3.9
6037	133.1	5.5	421.5	20.8	11.6	6.1	3.9
6038	121	5.7	452.8	21.4	11.6	6.1	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6039	114.9	5.7	452.8	21.4	11.1	4.6	2.6
6040	62	5.8	460.4	21.7	11.9	4.6	3.3
6041	46.4	6.8	567.7	22.9	12.7	4.6	3.3
6042	98.1	10.0	856.1	28.1	15.5	5.4	2.6
6043	117.1	10.9	931.2	34.9	18.5	6	5.2
6044	92.8	11.8	1006.3	41.6	21.5	6.5	7.8
6045	14.4	4.2	350.6	12.8	9.3	4.2	3.9
6046	55.8	4.4	338.5	12.5	9.3	5.7	4.6
6047	70.4	4.4	338.5	11.9	8.8	5.7	4.6
6048	99.9	4.9	391.1	16.2	8.8	5.7	4.6
6049	93.5	4.9	391.1	16.2	8.8	3.4	2.6
6050	112.9	5.4	448.3	17.1	9.1	3.1	2
6051	91.6	5.4	448.3	17.1	9.6	5.4	2
RIO BRAVO SHALY							
6052	30.3	5.2	416.9	15.3	9.6	5.4	2
6053	131.3	4.4	350.6	14.1	8.3	2.7	2.6
6054	116.2	4.4	350.6	14.1	9.1	4.2	3.9
6055	105.7	4.1	313.7	12.8	9.1	4.2	3.9
6056	100.8	4.1	313.7	12.8	9.1	4.2	3.9
6057	120.9	4.5	343	14.4	7.5	5	5.9
6058	139	21.5	1899.8	66.6	30.3	7.7	5.9
6059	2.1	15.6	1346.3	52.9	24.3	6.1	6.5
6060	22.3	9.3	770.1	32.7	16	5.4	6.5
6061	29.1	7.0	572.7	25.4	13.7	5.4	5.2
6062	20.8	6.1	496.3	22	12.2	6.1	4.6
6063	6.6	6.1	500.4	20.5	11.1	4.6	4.6
6064	17	6.1	501.4	21.4	11.1	3.8	4.6
6065	33.9	6.1	497.9	20.2	11.1	3.8	3.9
6066	55.5	6.2	497.9	21.4	11.4	5	5.2
6067	39.4	6.2	493.8	19.9	12.4	5	5.2
6068	41.9	5.9	487.2	19.9	12.4	1.9	4.6
6069	33.7	5.9	487.2	22.3	9.3	4.2	4.6
6070	30.2	5.7	480.1	19.3	9.8	2.3	2.6
6071	24.7	5.9	480.1	18.6	9.1	5	3.9
6072	38	5.9	475.1	20.8	10.6	5.4	3.3
6073	29.7	6.0	491.3	20.5	10.4	3.4	2.6
6074	31.2	6.0	495.3	21.4	10.9	2.7	5.2
6075	41.6	6.2	498.9	21.4	12.9	5	4.6
6076	32.7	6.1	503.4	21.4	12.9	4.6	2.6
6077	31.9	6.1	509.5	21.4	11.6	2.7	3.3
6078	62.9	6.3	522.1	20.8	11.6	2.7	3.9
6079	39.8	6.6	541.9	22	11.9	6.9	3.9
6080	25.6	7.0	563.1	22	11.1	5.4	7.2
6081	24.8	6.8	571.7	22.3	11.1	5.4	3.3
6082	31.9	6.8	579.8	22.3	11.6	3.4	3.3
6083	42.2	7.2	594	25.1	11.6	4.6	3.9
6084	22.5	7.2	594	25.1	11.6	3.4	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6085	36.1	7.1	590.4	23.5	10.9	5.4	3.9
6086	32	7.1	590.4	22.6	10.9	5	3.9
6087	16.3	8.3	702.3	26.6	12.9	6.1	5.2
6088	20.7	8.3	708.8	27.5	14.5	3.8	4.6
6089	19.4	8.6	715.9	30.3	14.2	6.1	4.6
6090	17.5	8.7	714.4	30.6	17.3	6.1	5.9
6091	20.5	8.8	718.4	32.1	15.8	6.5	7.8
6092	4.1	7.8	634.5	27.5	12.7	4.2	5.9
6093	68.3	7.8	634.5	27.5	13.7	4.2	5.9
6094	73.5	7.5	624.3	26.3	13.7	6.5	3.9
6095	76.5	7.5	617.8	25.7	12.7	6.5	3.3
6096	72.2	7.3	606.6	25.7	12.7	4.2	2
6097	93	7.3	606.6	26	13.2	4.2	2
6098	98	7.0	598.5	26	13.2	0.8	0
6099	103.4	7.2	600.1	23.5	12.2	4.2	3.3
6100	89.6	7.2	603.6	23.8	12.2	4.2	3.3
6101	80.1	7.2	603.6	23.8	12.2	2.3	2.6
6102	82	6.3	527.7	25.1	7.8	1.5	3.3
6103	76.5	7.5	622.8	25.1	11.6	3.1	4.6
6104	92.5	7.5	622.8	24.4	11.6	3.1	4.6
6105	97.6	7.6	632.4	25.8	13.3	3.9	4.3
6106	96.7	7.7	642	27.2	15	4.6	3.9
6107	70.1	7.7	642	27.2	13.2	4.6	2
6108	78.5	8.0	647.6	26.6	15	5.7	5.2
6109	75	8.0	648.1	26.6	15	5.7	5.2
6110	87.7	7.7	648.1	26	14.5	4.2	0
6111	92.8	8.0	648.1	28.4	15.5	6.9	3.9
6112	97.8	8.0	645.6	28.4	15.5	6.9	3.9
6113	85.1	7.7	641.5	28.1	13.5	3.8	2
6114	87.7	7.8	641.5	28.1	14.2	3.8	5.9
6115	80	7.8	638	26.9	14.2	3.8	5.9
6116	95.1	7.8	638	26.9	14.7	4.2	5.9
6117	125.6	7.6	618.3	25.4	14.7	4.2	4.6
6118	116.1	7.6	618.3	25.4	15.8	4.2	5.2
6119	104.7	7.4	603.1	25.4	15.8	3.1	5.2
6120	93.2	7.4	603.1	26.3	15.8	3.4	5.2
6121	122.7	7.2	593	26.3	13.5	3.4	2.6
6122	108.3	7.2	593	28.4	15.8	5	2.6
6123	119	7.1	582.9	28.4	15.8	5	0
6124	97.7	6.9	563.6	26	12.4	4.6	2.6
6125	108.1	6.9	563.6	26	12.7	4.6	5.2
6126	104	6.7	544.9	25.1	12.7	5	5.2
6127	85.5	6.6	531.8	22.3	12.7	5	4.6
6128	49.5	6.3	523.7	22	14	2.7	3.9
6129	47.6	6.0	494.3	21.7	11.1	2.7	3.3
6130	54.2	6.0	494.3	22.9	12.7	4.2	3.3
6131	85.9	5.9	471	22.9	12.7	4.2	2.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6132	112.5	5.9	471	22.9	12.7	4.2	3.3
6133	109	5.8	468	20.2	12.2	4.6	3.3
6134	115.2	5.5	443.5	19.8	10.9	4.2	4
6135	78	5.2	418.9	19.3	9.6	3.8	4.6
6136	84.7	5.2	416.9	19.3	9.6	3.1	4.6
6137	89.7	5.6	455.4	16.8	10.1	6.9	5.9
6138	29	6.6	552.5	20.5	9.8	3.1	3.3
6139	58.7	6.6	552.5	20.5	9.8	3.1	2.6
6140	65.6	7.3	609.2	20.5	11.1	3.4	5.9
6141	72.7	7.8	664.3	23.2	12.7	3.4	5.9
6142	69.6	7.8	664.3	23.2	12.7	3.1	2.6
6143	78.8	8.7	731.1	26.9	12.9	4.2	4.6
6144	102.4	9.1	794.8	28.7	12.9	4.2	4.6
6145	80.2	9.1	794.8	28.7	12.9	3.8	0
6146	90	9.9	854.8	30.7	13.8	4.8	2
6147	82.2	10.6	914.8	32.7	14.7	5.7	3.9
6148	55.4	10.6	914.8	32.7	14.7	4.2	2.6
6149	88.9	11.2	972.9	33.3	15.8	4.2	3.3
6150	83.4	11.2	972.9	33.3	15.8	3.1	3.3
6151	85.1	14.6	1263.3	48.9	23	5.4	6.5
6152	87.3	14.2	1225.4	45.2	22.8	6.5	4.6
6153	38	14.0	1204.7	45.2	22	6.5	5.9
6154	93.8	13.9	1195	43.4	21	3.8	5.9
6155	93.8	13.9	1195	44	21.7	5.4	5.9
6156	107.1	13.8	1193.5	44	21.7	5.4	2.6
6157	97.3	13.4	1164.7	42.2	21.2	3.4	2.6
6158	113.2	13.4	1164.7	42.2	21.2	3.4	2.6
6159	99.2	13.5	1175.3	44.6	21.5	3.4	2.6
6160	88.6	13.7	1183.9	45.5	21.5	3.1	4.6
6161	92.5	13.7	1183.9	45.5	21.3	3.1	4.6
6162	84.2	13.7	1183.9	45.5	21	3.1	4.6
6163	97	13.3	1158.1	42.2	20.4	2.7	3.9
6164	80.7	13.2	1139.9	42.5	22	3.8	2.6
6165	99.5	13.2	1139.9	43.4	22	4.6	2.6
6166	95.7	13.0	1126.7	43.4	21.2	5.7	6.5
6167	18	10.0	842.9	34.8	17.1	5	4.6
6168	22.9	8.9	740.7	31.8	15	5	4.6
6169	20	8.2	692.1	29	15.3	5	6.5
6170	15.1	7.8	649.4	27.7	15.4	3.7	5.2
6171	15.1	8.6	724.5	27.5	15.5	5	4.6
6172	8.4	10.3	881.9	34.2	18.4	4.6	4.6
6173	14.8	11.3	961.3	39.1	21	5.4	4.6
6174	12.7	11.3	959.3	39.1	20.4	5	6.5
6175	9.9	11.2	955.7	36.4	17.9	5	5.9
6176	6.8	11.4	975.2	36.6	18.7	6	5.9
6177	4	11.6	994.7	36.7	19.4	6.9	5.9
6178	21.2	7.7	660.3	25.4	13.5	3.4	3.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6179	18.4	7.5	623.8	25.1	13.5	3.8	7.2
6180	19.7	7.1	585.4	24.1	12.4	3.8	5.2
6181	24.5	6.9	576.3	23.2	12.4	4.2	4.6
6182	32.2	6.8	562.1	24.1	12.9	5.7	3.9
6183	15.6	6.6	535.3	21.1	11.9	5.7	3.3
6184	20.5	6.1	513	20.2	10.6	3.4	2.6
6185	13.8	6.1	502.4	20.5	11.1	3.4	2
6186	13.8	6.2	496.3	21.4	11.9	6.1	5.2
6187	9.2	5.9	473.1	21.4	11.4	4.6	3.9
6188	15.7	5.5	449.8	20.2	11.1	4.6	4.6
6189	21.2	4.9	400.7	19.9	10.6	4.6	3.9
6190	12.9	4.6	364.3	16.5	10.6	3.4	3.9
6191	12.4	4.2	325.3	15.6	10.6	3.8	5.2
6192	16.3	4.0	311.7	15.6	9.3	2.7	4.6
6193	22.8	4.0	315.7	14.1	9.3	3.1	3.3
6194	20.9	4.2	322.3	15.3	9.1	5.7	5.2
6195	11.5	4.2	351.1	15.6	10.1	4.2	7.8
6196	16.6	4.5	369.9	15.9	9.1	3.4	3.3
6197	28.1	4.8	389.1	16.8	8.5	3.4	3.3
6198	36.1	5.2	421.5	17.1	8.5	1.9	4.6
6199	28.9	5.2	432.6	18.9	8.5	1.9	4.6
6200	41.4	5.6	458.4	18.9	10.4	3.1	5.2
6201	51.8	5.6	464.5	17.4	10.4	3.8	2.6
6202	28.4	6.1	476.6	18.6	9.8	5.7	7.8
6203	44.2	6.1	483.7	20.5	10.1	5.7	7.8
6204	72.6	6.0	483.7	20.5	10.1	3.4	5.2
6205	80	5.8	482.7	19.3	9.8	3.1	2.6
6206	101.9	5.8	482.7	19.3	9.8	3.1	3.3
6207	92.4	5.7	478.1	17.7	8.5	1.9	3.3
6208	102.2	5.7	478.1	17.7	8.5	1.9	3.3
6209	152.1	5.8	477.6	17.4	9.3	3.1	4.6
6210	101.2	5.8	477.6	18.9	9.3	3.1	4.6
6211	90.2	5.8	477.1	18.9	7.5	2.7	3.9
6212	113.1	5.8	477.1	18.9	9.1	4.6	3.9
6213	136.3	5.8	472.1	16.8	9.1	4.6	3.9
6214	140.9	5.8	472.1	19.6	9.3	4.6	4.6
6215	123.1	5.8	463.5	19.6	9.3	4.2	4.6
6216	156	5.8	463.5	19.6	9.3	4.2	4.6
6217	191.6	5.8	463.5	19.6	9.3	4.2	4.6
6218	148.3	5.4	455.9	17.7	8.3	3.4	0
6219	117.4	5.5	455.9	17.7	8.8	3.4	3.9
6220	114.1	5.5	450.8	17.7	8.8	1.9	3.9
6221	137.9	5.5	450.8	17.9	8.8	1.9	3.9
6222	186.5	5.5	450.8	18	8.8	1.9	3.9
6223	188.3	5.4	446.5	18	9.3	2.3	3.6
6224	284.6	5.4	442.2	18	9.8	2.7	3.3
6225	253.3	5.4	440.7	16.5	9.8	2.7	3.3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6226	274.2	5.4	440.7	17.3	9.8	3.1	4
6227	189.1	5.4	440.7	18	9.8	3.4	4.6
6228	213.6	5.4	430.6	18	9.1	3.4	4.6
6229	166.4	5.5	437.6	18	9.1	3.4	6.5
6230	172	5.5	454.3	16.2	9.8	3.4	6.5
6231	138.6	5.5	454.3	15.9	9.8	3.1	2.6
6232	168	5.5	454.3	15.9	9.8	3.1	2.6
6233	110.2	13.9	1112.6	64.8	40.6	11.5	5.2
6234	45.3	7.8	601.6	36.1	21.5	6.1	3.3
6235	65.3	7.4	589.4	33.6	21	4.2	3.9
6236	117.6	7.4	584.9	32.4	19.7	3.4	3.9
6237	146.1	7.4	584.9	32.4	19.7	3.4	3.9
6238	134.1	7.4	584.9	33	19.9	5.4	4.6
6239	147.6	7.4	574.3	33	19.9	5.4	4.6
6240	192.3	7.4	574.3	33	19.9	5.4	4.6
6241	179.3	7.4	574.3	33	19.9	5.4	4.6
6242	159.6	7.1	572.2	29.9	20.2	2.7	0.7
6243	210.8	7.1	572.2	29.9	20.2	2.7	0.7
6244	181.3	7.1	572.2	29.9	20.2	2.7	0.7
6245	231.7	7.5	590.4	31.2	18.6	6.5	3.3
6246	210.1	7.5	590.4	31.2	18.6	6.5	3.3
6247	177.5	7.5	590.4	31.2	18.6	6.5	3.3
6248	143.5	7.7	606.1	31.2	20.7	6.5	4.6
6249	99.1	7.8	614	30.8	21.1	5.6	5.6
6250	116.1	8.0	621.8	30.3	21.5	4.6	6.5
6251	147.7	8.0	621.8	30.3	21.5	4.6	6.5
6252	128.1	8.4	665.3	31.8	18.9	6.9	5.2
6253	112.1	8.7	698.2	31.8	22	6.9	5.2
6254	166.9	10.7	870.7	38.5	24.8	6.5	4.6
6255	169.1	10.7	870.7	38.5	24.8	5.7	4.6
6256	129.6	10.9	913.7	40.3	24.3	6.5	0
6257	84.3	11.7	953.7	41.3	27.2	6.5	5.9
6258	77.5	11.7	953.7	41.3	27.2	6.5	5.9
6259	123.6	11.8	995.2	41.3	27.2	6.5	5.9
6260	155.3	11.8	995.2	40.3	24.3	3.1	3.3
6261	93.6	12.2	1017.7	42.3	25.4	5.8	4.6
6262	154.7	12.6	1040.2	44.3	26.4	8.4	5.9
6263	104.8	13.0	1096.4	44.3	26.4	8.4	5.9
6264	108.8	13.6	1129.8	44.3	27.7	7.7	6.5
6265	43.6	13.6	1129.8	44.3	27.7	7.7	6.5
6266	60.6	18.9	1612.5	65.4	38.8	7.7	5.2
6267	45.7	18.9	1612.5	65.4	38.8	7.7	3.3
6268	73.3	20.3	1744.5	67.8	40.1	7.7	3.3
6269	61.6	21.6	1844.5	73	43.5	8.7	4
6270	72.5	22.8	1944.4	78.2	46.8	9.6	4.6
6271	84.8	25.1	2132.1	87.1	51.2	13	4.6
6272	64.9	26.3	2240.9	92	55	13.2	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6273	84.7	27.5	2349.6	96.9	58.7	13.4	4.6
6274	82	29.1	2478.1	104.8	63.4	13.4	2.6
6275	92.4	30.7	2621.8	116.4	63.9	10.7	3.3
6276	170.1	31.8	2712.9	120.4	68.8	10.7	3.3
6277	86.5	33.8	2869.7	131.4	75.5	12.3	4.6
6278	62.4	34.7	2948.7	135	75.5	12.3	3.9
6279	71	34.7	2948.7	135	75.5	11.9	3.9
6280	95.7	35.4	2995.7	143.3	83	17.6	5.2
6281	32.9	23.7	1959	102.7	59.2	10.3	4.6
6282	130.3	23.1	1907.4	97.2	59.2	10.3	4.6
6283	127.4	22.2	1834.6	94.4	56.9	13.8	1.3
6284	133.3	22.0	1801.7	94.4	56.9	13.8	5.9
6285	126.5	21.4	1749.6	89.5	55.1	9.6	5.9
6286	170.1	20.5	1672.7	86.5	54.3	11.5	4.6
6287	137.2	20.5	1672.7	86.5	54.3	11.5	4.6
6288	153.3	20.0	1638.3	84	52	10	3.9
6289	138.4	20.0	1694.9	76.1	45.3	14.2	7.8
6290	45.6	12.4	979	51.3	34.7	12.3	6.5
6291	101.3	12.0	940.1	51.3	34.4	8	5.9
6292	62.4	11.5	917.3	47.4	33.1	8.8	4.6
6293	33.7	11.0	883.4	47.1	32.9	11.1	5.9
6294	25	10.4	814.6	43.7	31	11.1	5.9
6295	26.3	10.1	788.8	43.7	31	10	5.9
6296	3.6	8.7	673.4	35.4	26.9	9.2	4.6
6297	30.9	8.1	632.4	33.9	24.6	8	3.3
6298	12.2	7.6	589.9	32.7	22.2	6.9	4.6
6299	15.7	7.3	568.7	31.2	22	8.4	7.2
6300	5	6.0	452.3	22.9	18.4	9.2	4.6
6301	4.7	6.3	503.4	25.1	16.3	6.9	5.9
6302	15.7	4.8	380	18	10	5	5
6303	18	4.6	377	17	9	4	4
6304	78.6	4.7	373	20	12	4	3
6305	74.7	5.0	382	21.7	14	5.4	4.6
6306	14.1	5.0	377.9	21.7	12.7	6.1	5.2
6307	15.2	5.0	372.9	20.5	12.9	6.1	5.2
6308	16.7	4.9	370.4	19.3	12.7	4.2	4.6
6309	25.8	5.0	365.8	20.2	12.4	5	7.8
6310	36.7	4.7	363.3	20.2	12.4	4.2	2
6311	38.2	4.8	363.3	20.8	13.7	4.6	3.3
6312	38.2	4.7	363.3	20.2	12.4	1.9	3.9
6313	27.2	4.6	357.7	20.5	11.6	4.2	3.9
6314	42.1	4.6	347.1	20.5	12.7	4.2	5.9
6315	43.7	4.6	342	18.3	12.7	3.4	5.9
6316	35.1	4.5	339	18.3	12.4	2.3	5.2
6317	38	4.3	331.4	18.3	11.1	2.3	5.2
6318	29.6	4.4	315.7	18.6	11.9	4.2	6.5
6319	35.7	4.1	311.2	16.2	11.1	4.2	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6320	41.7	4.3	306.6	16.8	11.4	2.7	7.2
6321	55.2	4.3	306.6	18	11.4	5.7	7.2
6322	53.5	4.0	303.6	18	10.6	4.6	3.9
6323	38.2	4.0	291.9	16.2	10.1	4.6	3.9
6324	43.5	4.0	288.4	16.5	10.1	5.7	5.9
6325	45	4.0	288.4	17.4	10.1	6.5	5.9
6326	40.9	3.8	279.3	17.7	11.4	3.8	5.9
6327	51.3	3.7	268.7	16.2	9.8	3.1	5.2
6328	43	3.7	267.1	16.2	9.8	1.5	5.2
6329	25.3	4.1	305.6	17.4	10.6	6.9	7.2
6330	45.8	3.9	297	14.7	7.5	4.2	4.6
6331	36.1	3.9	297	15.9	9.8	3.8	4.6
6332	31.4	3.9	299	13.8	8.5	3.1	4.6
6333	24.7	3.9	312.2	15.6	8	3.1	3.3
6334	30.8	4.6	374.4	15.6	8	3.1	2.6
6335	35	4.6	370.9	15.6	10.4	3.1	2.6
6336	34.8	4.6	364.8	15.9	10.4	4.6	4.6
6337	37.1	4.4	344	15	8.8	5.4	3.9
6338	32.2	4.4	335.4	15.3	8.8	5.4	3.9
6339	28.3	3.9	313.7	15	7.8	4.2	3.3
6340	26.2	3.9	302.1	14.7	7.8	4.2	5.2
6341	24.5	4.1	308.6	14.4	8.8	5	5.2
6342	31.8	4.2	324.8	17.4	7.8	5	7.2
6343	27.5	4.2	320.8	15.9	7	3.8	7.2
6344	16.2	4.1	306.6	14.4	8.3	3.8	6.5
6345	19.4	3.7	283.8	14.1	7.2	4.2	3.3
6346	38.1	3.7	283.8	13.1	7.5	5	5.9
6347	9.4	3.1	239.3	11.6	6.7	2.3	4.6
6348	24	3.2	236.3	11.6	6.7	4.6	4.6
6349	44.9	3.3	234.8	11.3	6	3.4	7.2
6350	42.3	3.2	237.8	11.3	5.4	3.4	5.2
6351	31.2	3.4	244.9	11.3	6.7	3.4	7.2
6352	25.6	3.4	244.9	11.2	6.7	2.9	7.2
6353	51.2	3.4	244.9	11.1	6.7	2.4	7.2
6354	43.4	3.4	244.9	11	6.7	1.9	7.2
6355	15	3.6	253	11.3	7.2	5.4	7.2
6356	37.8	3.6	255	12.2	7.2	5.4	7.2
6357	36.8	3.4	260.1	10.4	7.5	3.1	2
6358	42	3.4	260.1	12.2	7.5	3.1	5.2
6359	34.8	3.4	262.6	11	6.5	4.2	5.2
6360	53.3	3.5	273.7	11.6	6.2	4.2	2.6
6361	55.9	3.7	273.7	13.8	7.2	5	4.6
6362	49.2	3.7	271.7	13.8	7.2	5	4.6
6363	47.2	3.7	281.8	13.4	6.5	3.1	5.9
6364	40.5	3.7	281.8	11.9	7.8	4.6	3.3
6365	34.3	3.7	283.3	12.5	7.8	4.6	3.3
6366	40.8	3.8	288.4	13.8	6.7	3.4	5.9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6367	38.2	4.0	295	12.8	7.2	3.4	7.2
6368	45.7	4.0	301	12.5	7.2	3.4	7.2
6369	39	3.9	315.2	12.8	7.2	3.1	2
6370	46.3	4.2	320.3	13.8	7.2	4.6	5.2
6371	43.2	4.1	329.9	12.2	7.8	1.9	3.3
6372	45.6	4.3	334.9	12.8	7.8	3.1	4.6
6373	50.3	4.3	346.6	13.1	6.5	3.4	3.9
6374	45.6	4.5	367.3	15.3	9.1	3.1	2.6
6375	48.7	4.5	367.3	14.7	9.1	1.5	2.6
6376	63.4	4.9	388.1	15.6	7.8	2.7	5.9
6377	79.2	4.9	395.7	15.9	9.8	2.3	5.9
6378	72.1	4.9	395.7	15.9	9.8	2.3	2.6
6379	64.6	5.0	407.8	15.9	9.8	2.7	3.3
6380	55.4	5.1	412.9	16.2	9.3	3.4	3.3
6381	54.5	5.1	412.9	16.2	9.3	3.4	3.3
6382	75.4	5.1	407.8	15	7	3.4	5.9
6383	49.3	5.2	413.9	16.2	8	3.4	7.8
6384	65.4	5.2	422.5	16.2	8.5	1.5	7.8
6385	71.2	5.2	422.5	18	8.5	3.8	4.6
6386	53.7	5.1	414.9	18	7.5	4.6	3.3
6387	66.1	5.1	412.4	16.2	7.5	4.6	3.3
6388	72.2	5.3	422	16.2	7.5	3.4	5.9
6389	70.4	5.3	425	16.2	9.8	3.8	5.9
6390	48.5	5.6	444.7	20.2	9.8	3.8	5.2
6391	37	5.8	475.6	22	11.9	3.4	5.2
6392	41.9	6.7	514.6	25.4	17.3	5.7	5.2
6393	26.3	6.7	541.4	27.8	17.3	5.7	4.6
6394	41.8	7.2	569.7	30.3	18.6	5	2.6
6395	39.7	7.5	593.5	30.6	18.9	5.7	2.6
6396	39.1	8.0	621.3	35.8	22.8	5.7	4.6
6397	32.8	8.2	640.5	37.9	22.8	5.4	4.6
6398	36.9	8.7	682.5	40.3	24.1	5.4	4.6
6399	24	9.1	721	41.9	27.4	6.9	3.9
6400	23.1	9.3	731.6	42.2	27.4	6.9	4.6
6401	19.7	9.5	743.7	43.4	27.7	8	4.6
6402	17.9	9.4	745.3	41.6	27.4	5.4	3.9
6403	24.8	9.3	744.8	43.1	27.4	6.5	3.9
6404	28.4	9.2	728.1	40.6	23.8	6.5	5.9
6405	37.2	9.2	728.1	40.3	24.1	3.8	5.9
6406	59.6	9.0	715.4	40	24.8	3.4	5.9
6407	38	9.0	712.4	39.4	24.8	5.7	5.9
6408	42.5	8.9	699.2	38.2	23.8	5.7	3.9
6409	58.3	8.7	690.1	36.7	23.5	5.4	3.3
6410	45.9	8.6	690.1	36.7	22	4.6	4.6
6411	30.3	8.4	670.4	34.5	21.5	5.7	5.9
6412	16.7	8.5	674.4	35.8	21.2	6.5	3.9
6413	21.9	8.5	687.1	34.5	20.4	4.6	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6414	43	8.5	700.7	35.4	19.1	4.2	3.3
6415	54.8	8.8	704.8	35.4	20.2	6.1	3.9
6416	70.2	9.0	713.9	37.6	20.2	6.9	5.9
6417	74.8	9.6	764.5	38.8	22.5	6.9	5.9
6418	54.7	9.7	782.7	39.7	23.3	7.3	5.9
6419	59.9	9.7	786.7	40.3	23.5	7.3	2.6
6420	54.7	10.6	848	45.2	25.6	8	3.3
6421	35.7	11.5	921.8	48.6	30	6.1	8.5
6422	28.5	13.8	1097.4	59.9	38	10.7	6.5
6423	65	9.8	780.7	39.7	25.1	7.3	3.9
6424	59	9.8	780.7	39.7	25.1	7.3	7.2
6425	56.9	9.6	764	37.3	24.3	6.5	7.2
6426	51.5	9.1	738.7	37	24.3	3.4	3.3
6427	53.6	9.1	734.6	37.6	23.5	6.1	4.6
6428	55.7	9.1	728.1	37	23.5	6.9	4.6
6429	47.9	9.1	730.6	37	22.8	6.9	4.6
6430	44.1	9.1	730.6	36.7	22.5	6.1	5.2
6431	46.1	9.2	746.3	36.7	22.5	5	5.2
6432	65.1	9.4	749.3	36.7	23.8	5	6.5
6433	52.7	9.7	768.5	37.9	24.8	8	6.5
6434	58.5	9.7	768.5	37.3	23.8	8	5.2
6435	29.7	9.7	769	37.3	25.4	7.7	3.9
6436	65.3	9.7	769	37.3	25.4	8.8	3.9
6437	62.8	9.5	758.4	36.7	23	8.8	3.3
6438	69.4	9.5	770.6	37.6	21.7	6.5	3.9
6439	50.8	9.5	770.6	37.6	24.6	6.5	3.9
6440	59.2	9.5	764.5	37.3	24.6	6.9	4.6
6441	50.8	9.9	784.2	38.8	24.8	8.4	5.2
6442	27.5	9.9	791.8	38.8	25.4	8.4	5.2
6443	41.8	9.7	800.4	39.7	25.4	3.8	0
6444	71.7	10.1	805	40.3	25.9	8.4	5.2
6445	46.9	10.2	808	40.3	25.9	8.4	4.6
6446	56.3	10.2	808	39.7	25.6	8.4	4.6
6447	66.2	10.2	819.6	40.6	26.4	8.4	4.6
6448	70.7	10.2	827.2	42.2	26.4	5.7	3.3
6449	63.3	10.2	833.3	42.2	26.4	8	3.3
6450	68.1	10.6	846.5	40.9	26.4	8	5.9
6451	49	10.6	847	40.9	25.9	7.3	5.9
6452	63.8	10.7	873.8	41.9	27.2	7.3	3.9
6453	41.2	11.2	904.1	43.1	28.2	8	4.6
6454	27.6	11.2	904.1	43.1	28.2	8	4.6
6455	50.9	11.5	935	44.9	29.5	6.5	5.2
6456	50.4	11.9	945.1	45.5	29.5	9.2	8.5
6457	41.9	11.8	957.8	45.5	29	7.7	6.5
6458	50	12.3	993.2	47.1	29.7	7.7	7.2
6459	34.7	12.4	1018	47.1	29.7	7.7	7.2
6460	32.1	12.6	1029.6	48.6	29.7	8	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6461	31.5	12.6	1037.2	48.6	31.3	8	4.6
6462	41.8	13.0	1053.9	49.5	31.3	10.7	4.6
6463	49.3	12.7	1045.3	49.2	31.3	6.9	3.9
6464	45.8	13.0	1069.1	51.3	31.6	7.7	2.6
6465	45.8	13.1	1066	49.8	32.3	8.8	4.6
6466	49.3	13.0	1074.1	51.3	30.8	7.3	2.6
6467	51.2	12.8	1060.5	49.5	30.5	6.1	2.6
6468	31.2	12.8	1059.5	48.9	30.8	6.5	3.9
6469	60.3	12.5	1023.5	46.4	30.5	6.1	5.2
6470	57.7	12.4	1022	48.9	30.5	8	2.6
6471	44.3	12.4	1014.9	48.9	30.8	8	3.3
6472	39.9	11.8	966.4	46.4	29.5	5.4	3.9
6473	58.2	11.8	966.4	46.4	29.5	7.3	3.9
6474	40.6	11.3	936.5	44.9	27.7	6.5	5.2
6475	45	11.3	915.3	44.9	27.7	6.5	5.2
6476	38.4	10.7	885.9	42.5	26.4	8.4	0
6477	34.7	10.6	866.2	42.5	25.6	8.4	3.9
6478	25.1	10.5	852	42.2	26.1	6.9	3.9
6479	33.6	10.5	844.9	39.4	24.1	8	5.9
6480	40.3	10.5	853	40.3	23.8	8	5.9
6481	31.9	10.5	860.6	39.1	24.1	6.9	4.6
6482	39.1	11.0	900.1	38.5	24.8	6.5	5.9
6483	35.7	11.0	900.1	37.6	24.8	5	5.9
6484	83.1	11.1	916.8	37.6	24.3	6.5	3.9
6485	63.7	11.3	932.5	40.3	24.3	6.5	4.6
6486	52.4	11.4	946.1	39.4	23.3	5.7	3.9
6487	90.4	11.4	946.1	39.4	23.3	5.7	3.9
6488	62.5	11.6	979	41.9	24.1	5.7	2.6
6489	46	12.3	1030.6	41.3	23.8	7.7	3.9
6490	39.4	12.4	1042.8	44.6	24.8	7.7	3.9
6491	34.9	13.0	1084.8	44.6	25.1	5.4	7.2
6492	41	13.0	1089.8	44	25.1	6.5	7.2
6493	51.9	12.9	1089.8	44	25.1	6.5	3.3
6494	74.9	13.1	1111.1	46.4	23.3	6.1	3.9
6495	46.4	13.0	1111.1	45.5	23.3	3.1	3.9
6496	74.5	13.1	1113.6	41.9	25.9	5	3.3
6497	58.5	13.3	1135.9	46.8	25.4	7.7	1.3
6498	42.2	13.3	1135.9	46.8	25.4	7.7	0
6499	72	13.6	1138.4	48	25.6	6.5	5.2
6500	99	13.6	1158.1	48	26.6	6.5	5.2
6501	61	13.6	1158.6	47.7	26.6	5.4	3.3
6502	44.2	13.7	1170.8	47.4	26.4	5.4	3.9
6503	70.6	13.7	1175.8	47.4	27.9	5.7	3.9
6504	79.4	13.7	1175.8	47.4	27.9	5.7	0
6505	77.6	14.2	1215.3	50.4	27.9	6.1	2.6
6506	73.1	14.8	1252.7	50.4	28.5	6.9	6.5
6507	71.2	14.8	1269.9	51.6	28.5	6.9	6.5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6508	76.8	14.6	1269.9	48.3	26.1	2.3	2
6509	62.1	15.3	1281.1	51.6	28.7	8	6.5
PALEGREDA Fm.							
6510	84.1	15.3	1282.6	51.6	28.7	8	6.5
6511	61.6	15.0	1282.6	48.9	27.4	7.7	3.3
6512	83.1	14.9	1279.5	50.1	27.4	7.7	5.2
6513	101.9	14.7	1247.2	49.2	25.6	7.3	5.2
6514	68.8	12.6	1073.1	45.2	23	7.3	4.6
6515	42.4	12.6	1057.9	45.2	23	6.1	4.6
6516	64.3	12.5	1057.9	43.1	21.7	5.4	4.6
6517	62.5	12.5	1056.9	46.8	21.7	6.1	5.2
6518	59.8	15.3	1303.3	52.3	25.1	8	4.6
6519	78.5	15.6	1371.1	56.5	26.9	0	0
6520	102.9	16.2	1401.5	57.3	28.1	3.1	2
6521	119.1	16.7	1431.8	58.1	29.2	6.1	3.9
6522	129.9	30.4	2592	117.9	61	10.7	7.8
6523	107.6	32.1	2729.6	123.6	64.7	11.3	8.5
6524	25	33.8	2867.2	129.2	68.3	11.9	9.1
6525	68.2	33.9	2915.3	130.2	67.8	12.6	5.2
6526	14.8	33.9	2915.3	128.6	66.2	13.4	5.9
6527	5.9	32.8	2821.7	120.7	63.1	12.6	4.6
6528	10.9	13.5	1127.8	51	28.2	8	2.6
6529	67	13.2	1107	49.2	27.9	7.7	3.9
6530	64.1	13.0	1080.2	47.4	27.9	6.9	3.9
6531	60.7	12.6	1042.8	47.7	26.1	5.4	4.6
6532	79.3	12.6	1042.8	47.7	26.1	6.5	5.9
6533	81.3	12.4	1018	46.1	25.6	6.5	5.9
6534	95.6	12.4	1018	46.1	25.6	8.8	5.9
6535	118.2	12.0	985.1	44.6	25.4	8.8	4.6
6536	99.2	11.8	968.2	44.2	25.4	8.1	3.6
6537	84.6	11.5	951.2	43.7	25.4	7.3	2.6
6538	87.4	11.2	926.9	40.3	24.8	5.7	2.6
6539	70	10.5	886.4	38.2	22.2	6.1	0
6540	64.2	10.6	873.3	41.3	23.3	4.6	4.6
6541	53.5	10.1	841.9	36.4	22.2	4.6	2.6
6542	68	10.1	841.9	38.2	22.2	4.6	5.2
6543	105.3	9.9	810.5	38.2	22.5	6.5	5.2
6544	89.5	9.7	802.4	37.3	22.5	6.5	0
6545	68.3	9.7	802.4	37.3	22.5	6.5	6.5
6546	132.4	8.3	667.3	32.7	19.1	5.4	4.6
6547	69.7	8.1	662.8	32.1	19.1	6.1	3.9
6548	47.9	7.8	634	30.3	19.1	7.7	4.6
6549	14.1	7.4	598.5	28.4	17.3	5.7	3.9
6550	15.9	7.4	589.9	28.4	16.8	5.7	5.9
6551	23.3	7.3	581.3	28.1	17.3	6.5	3.9
6552	21.7	6.9	550.5	26.6	17.3	4.2	3.9
6553	30.2	6.8	542.9	25.7	15.3	4.6	4.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6554	27	6.6	530.7	25.1	15.8	5.4	3.9
6555	14.6	10.1	867.2	37.9	17.6	4.6	4.6
6556	14.2	9.4	787.3	32.7	17.6	5.4	3.9
6557	66.2	9.4	782.7	32.7	17.6	5.4	2.6
6558	79.3	8.8	742.2	31.5	14.7	4.6	3.3
6559	64.7	8.7	730.6	27.8	14.7	4.6	3.3
6560	79.6	8.7	730.6	30.9	15.5	5	3.3
6561	85.2	8.7	720	30.9	15.5	5	3.3
6562	78.6	8.7	720	30.9	15.5	5	4.6
6563	73.4	8.5	702.3	29	14.2	7.3	4.6
6564	82.6	8.3	688.1	28.7	14.7	7.3	2.6
6565	67.9	7.9	664.3	25.7	14.7	4.2	2
6566	79.1	7.9	664.3	25.7	14.7	4.2	5.9
6567	64.4	7.9	655.2	26.9	12.7	5	5.9
6568	66	7.9	653.2	26.9	12.7	5	3.3
6569	65.9	7.8	634.5	28.4	15.3	5	6.5
6570	45	7.6	620.3	25.4	15.3	5	3.9
6571	47.9	7.4	611.2	26.3	12.7	4.6	4.6
6572	53.3	7.2	593.5	24.1	11.1	4.6	3.9
6573	45.7	7.0	580.3	23.8	12.4	3.8	3.3
6574	41.8	7.0	579.3	24.4	12.4	3.4	3.3
6575	45.4	6.8	566.2	24.8	13.5	2.7	3.3
6576	38.9	6.6	557.6	24.8	12.4	1.9	0
6577	49.4	6.6	540.9	23.2	11.9	4.2	3.3
6578	58.6	6.5	540.9	22.9	11.9	1.2	2.6
6579	50.3	6.3	523.2	20.8	11.6	2.7	2.6
6580	66.4	6.3	523.2	22.6	11.6	6.1	6.5
6581	72.8	5.4	436.1	18.6	9.3	4.6	5.2
6582	12.5	14.2	1222.9	46.8	21.2	6.5	4.6
6583	27.4	18.5	1642.3	52.6	25.1	5.4	6.5
6584	8.3	20.1	1787	61.1	27.2	6.1	6.5
6585	8.9	19.2	1712.6	55.3	25.1	4.6	8.5
6586	22	18.5	1624.1	52.3	23.5	6.1	8.5
6587	33.9	17.3	1527.5	50.4	23.3	5.4	4.6
6588	53.2	16.6	1460.7	47.1	23.3	3.8	4.6
6589	47.7	15.9	1408.6	43.7	22	3.8	5.2
6590	66.9	15.3	1348.3	41.6	20.7	1.9	5.2
6591	72.9	14.7	1282.1	43.1	20.2	4.6	4.6
6592	63	14.1	1232.5	40.6	17.9	3.8	4.6
6593	103.1	14.1	1232.5	40.6	17.9	3.8	4.6
6594	95.9	13.1	1153.6	39.4	16.8	3.4	2.6
6595	112.8	12.8	1131.8	39.4	16.8	2.7	0
6596	43.7	12.8	1131.8	39.4	16.8	2.7	0
6597	75.2	12.8	1131.8	39.4	16.8	2.7	0
6598	38.7	12.8	1131.8	39.4	16.8	2.7	0
6599	48.7	12.8	1131.8	39.4	16.8	2.7	0
6600	57.7	12.8	1131.8	39.4	16.8	2.7	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6601	70.9	12.9	1066	50	25	7	5
6602	61.6	12.9	1074	51	24	7	3
6603	59.9	12.7	1060	50	24	6	3
6604	76.7	12.5	1060	49	25	3	1
6605	69.1	12.3	1024	46	24	6	5
6606	30.4	12.1	1022	44	23	5	3
6607	59.5	8.4	712	26	14	3	4
6608	72.2	8.1	689	24	11	2	4
6609	95.4	7.9	672	24	11	3	3
6610	38.1	7.2	604	23	10	4	6.5
6611	107.8	6.3	527.7	20.2	9.1	2.7	5.2
6612	42.8	6.3	535.3	19.6	9.1	0.8	3.9
6613	69.3	8.5	709.8	27.2	13.2	5	7.8
6614	76.8	8.5	709.8	26.6	12.2	5	4.6
6615	60.3	8.8	754.9	27.8	12.4	3.8	3.3
6616	98.5	9.3	793.3	32.1	14.5	3.8	5.2
6617	77	9.3	793.3	32.1	14.5	1.2	5.2
6618	68	9.8	848.5	30.6	14.2	1.9	2.6
6619	89.8	9.8	848.5	30.6	14.2	1.9	2.6
6620	108.9	10.6	893	33.6	13.5	4.6	9.1
6621	80.5	10.8	937	33.6	15.3	4.6	9.1
6622	86.6	10.8	937	31.5	15.3	3.8	2.6
6623	86.4	11.5	996.2	35.4	14.7	3.1	4.6
6624	84.4	12.2	1050.9	37.3	15.8	3.4	6.5
6625	53.1	12.7	1105.5	40.6	18.4	3.4	6.5
6626	56.3	13.0	1154.6	40.6	18.4	3.1	3.9
6627	48.3	14.4	1276	42.8	18.6	3.8	2
6628	40.5	14.6	1302.8	43.7	18.6	3.4	2
6629	67.5	14.6	1302.8	43.7	17.6	3.4	0
6630	57.9	16.3	1439.9	47.7	21.2	4.2	5.2
6631	50.3	16.8	1486.5	50.1	22.2	4.2	2.6
6632	55.6	17.2	1528	50.1	24.6	3.8	3.3
6633	62.2	18.5	1617	55	24.6	5.4	9.8
6634	44.5	18.5	1643.3	55	24.6	5.4	7.2
6635	39.9	18.9	1672.2	57.4	26.4	3.8	4.6
6636	28.2	19.8	1733.9	60.8	26.9	6.1	5.9
6637	45.1	19.8	1733.9	60.8	29.7	6.1	5.9
6638	43.8	19.5	1715.2	60.5	29.7	4.6	4.6
6639	47.5	19.4	1715.2	61.1	29.7	6.9	6.5
6640	17.7	19.1	1667.1	61.1	29.7	6.9	5.2
6641	20.7	17.9	1559.3	55.9	27.2	6.5	4.6
6642	32.8	16.8	1470.8	51	25.4	5.4	4.6
6643	26	16.5	1439.9	52.9	25.4	3.4	4.6
6644	40.1	16.4	1445	52.9	23.3	3.4	3.9
6645	54.1	16.4	1445	52.6	23	3.4	2.6
6646	74.7	16.9	1484.4	52.3	22.8	5.7	3.3
6647	59.7	17.5	1534	53.8	26.1	5.7	3.3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6648	90.2	19.0	1682.3	56.2	26.1	6.1	3.9
6649	97.5	19.0	1682.3	55.3	25.9	6.1	2.6
6650	168.7	19.0	1682.3	55.3	25.9	6.1	2.6
6651	122.6	19.5	1719.7	57.8	27.9	2.3	5.9
6652	137.2	20.0	1768.8	59.9	27.9	4.6	5.9
6653	61.6	20.0	1768.8	59.9	26.9	4.6	3.9
6654	81.6	20.1	1780.9	61.4	28.7	4.6	2
6655	166.4	20.2	1791.8	61.7	28.7	4.6	2.7
6656	189	20.3	1802.7	62	28.7	4.6	3.3
6657	117.6	20.3	1802.7	62	28.2	1.9	3.3
6658	135.4	20.3	1802.7	62	28.2	1.9	3.3
6659	96.5	20.4	1814.3	61.1	27.9	3.4	2.6
6660	65.9	20.3	1801.2	60.8	27.9	1.9	3.9
6661	79.5	20.3	1801.2	62	27.9	4.2	3.9
6662	124.1	19.8	1745	62	26.4	4.2	3.9
6663	95.3	19.8	1745	62	27.4	4.6	3.9
6664	143.6	19.4	1718.7	57.1	27.4	4.6	2.6
6665	89.8	19.4	1718.7	59	27.7	4.6	2.6
6666	79.5	19.0	1685.8	59	27.7	4.6	2.6
6667	72	18.5	1632.2	57.4	25.9	4.6	2.6
6668	118.6	18.5	1632.2	57.4	25.9	6.1	3.9
6669	163.3	18.2	1597.3	54.1	24.8	6.1	3.9
6670	166.3	18.2	1597.3	54.1	24.8	6.1	3.9
6671	95.6	17.4	1530	52.3	22.2	6.1	3.9
6672	91.1	17.4	1530	52.3	23.5	6.1	3.9
6673	81.8	16.7	1468.8	51	23.5	3.1	3.3
6674	162.6	16.2	1427.8	49.5	22.5	4.6	2
6675	81.9	16.2	1427.8	51.9	22.8	4.6	8.5
6676	99.9	16.0	1381.2	51.9	22.8	1.5	8.5
6677	169.2	16.0	1381.2	51.9	23	3.4	8.5
6678	156.3	15.0	1316	47.4	23	3.4	2.6
6679	139	15.0	1316	47.4	23	3.4	3.9
6680	112	14.7	1285.6	45.5	22.2	3.8	3.9
6681	97.2	13.5	1187.5	41.9	21	2.7	0
6682	87.4	13.5	1187.5	42.2	21	4.2	0
6683	110.9	13.4	1179.9	42.2	20.2	4.2	0
6684	169.3	13.4	1179.9	42.2	20.2	4.2	0
6685	140.7	12.6	1124.7	39.7	17.1	0	0
6686	78.1	13.1	1124.7	41.3	21	5.4	6.5
6687	120.7	13.1	1121.2	41.3	21	5.4	6.5
6688	186.2	13.1	1117.6	41.3	21	5.4	6.5
6689	149.2	13.1	1117.6	41.3	21	5.4	6.5
6690	207	13.1	1117.6	41.3	21	5.4	6.5
6691	196.7	13.0	1117.4	39.6	19.7	4.6	5.2
6692	244	12.8	1117.1	37.9	18.4	3.8	3.9
6693	186.6	12.8	1117.1	38.2	18.4	4.2	3.9
6694	201.3	12.7	1105.5	38.2	17.1	4.2	3.6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6695	212.1	12.5	1093.9	38.2	15.8	4.2	3.3
6696	194.3	12.5	1093.9	39.1	17.6	4.2	3.3
6697	149.3	12.5	1093.7	39.1	17.6	3.7	3
6698	162.6	12.5	1093.4	39.1	17.6	3.1	2.6
6699	118.5	12.9	1130.8	40.3	20.7	3.8	4.6
6700	157.7	13.0	1133.1	40	20.6	3.1	4.9
6701	108.6	12.9	1131	36	20	2	4
6702	137.7	13.0	1133	38	20	2	5
6703	228.5	13.1	1135	40	20	2	5
6704	150.8	13.4	1158	40	19	5	5
6705	114.3	13.3	1165	39	19	2	4
6706	111.9	11.6	994	37	20	4	3
6707	65.1	11.2	946	41	19	2	5
6708	171	11.2	946	41	19	2	5
6709	130.3	11.2	946	41	19	2	5
6710	201.5	11.2	946	41	19	2	5
6711	192.4	11.2	948	39	19	1	6
6712	248	11.2	948	39	19	1	6
6713	192.2	11.2	948	39	19	1	6
6714	240.9	11.0	945	40	18	2	3
6715	208.4	11.0	945	40	18	2	3
6716	229.7	11.0	945	40	18	2	3
6717	232	11.0	943	35	19	3	3
6718	167.8	11.0	943	35	19	3	3
6719	189.9	11.0	943	35	19	3	3
6720	105.6	11.2	952	37	19	4	4
6721	95.9	11.2	952	37	19	4	4
6722	179.1	11.3	964	39	21	3	3
6723	203.4	11.3	964	39	21	3	3
6724	260.1	11.3	964	39	21	3	3
6725	134.9	11.3	964	39	21	3	3
6726	143	11.5	971	41	20	6	3
6727	171.7	11.5	971	41	20	6	3
6728	186.4	11.5	978	42	20	4	3
6729	128.4	11.5	978	42	20	4	3
6730	137.2	11.6	987	42	22	4	2
6731	133.5	11.6	987	42	22	4	2
6732	239.5	11.6	987	42	22	3	2
6733	206.4	11.6	994	42	23	3	1
6734	236	11.8	1001	42	24	4	2
6735	100.7	11.9	1008	43	22	5	3
6736	172.3	11.9	1008	43	22	5	3
6737	207.8	11.9	1008	43	22	5	3
6738	177.4	11.9	1008	43	22	5	3
6739	164.2	12.1	1022	42	21	6	3
6740	194.4	12.1	1022	42	21	6	3
6741	177.5	12.0	1022	42	21	4	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6742	142.3	12.0	1020	42	22	5	2
6743	140.4	12.6	1063	48	23	5	3
6744	151.1	12.6	1063	48	23	5	3
6745	170.6	12.6	1063	48	23	5	3
6746	59.2	12.9	1089	47	25	5	3
6747	128.8	13.3	1126	49	23	6	3
6748	151	13.3	1126	49	23	6	3
6749	164.9	13.4	1141	50	24	5	3
6750	214	13.6	1156	51	25	4	2
6751	86.9	13.6	1156	51	25	4	2
6752	165.5	14.0	1190	51	24	6	4
6753	140.7	14.0	1190	51	24	6	4
6754	121.8	14.5	1230	53	26	6	3
6755	156	14.5	1230	53	26	6	3
6756	178.1	14.8	1253	55	25	7	4
6757	80.8	14.8	1253	55	25	7	4
6758	138	14.8	1253	55	25	7	3
6759	89	15.1	1290	54	27	5	4
6760	93.9	15.1	1296	53	27	5	3
6761	116.4	15.1	1296	53	27	5	3
6762	122.3	15.6	1337	56	26	6	4
6763	136.7	15.6	1337	56	26	6	4
6764	157.5	15.6	1337	56	26	7	3
6765	171.6	16.0	1369	56	27	7	4
6766	193.2	16.0	1369	56	27	6	4
6767	158.5	17.0	1444	62	30	7	4
6768	170.2	16.9	1444	62	30	7	3
6769	159.4	18.0	1543	68	31	6	3
6770	111.6	18.0	1543	68	31	6	3
6771	128.5	18.0	1543	68	31	6	3
6772	120.8	19.3	1656	75	35	5	3
6773	124.1	20.2	1731	78	37	5	2
6774	148	21.1	1805	82	39	5	3
6775	82.7	23.7	2018	93	46	8	3
6776	124.7	23.7	2018	93	46	8	3
6777	91.6	23.7	2018	93	46	8	3
6778	104	26.4	2240	108	54	6	4
6779	125.2	26.4	2240	108	54	6	4
6780	147.7	29.0	2455	118	62	9	4
6781	175.9	29.0	2455	118	62	9	4
6782	153.4	31.0	2615	136	68	8	3
6783	134.8	31.0	2615	136	68	8	3
6784	131.5	33.4	2793	141	76	14	5
6785	169.7	33.5	2793	141	76	14	6
6786	163.1	36.4	3032	161	85	13	6
6787	155.5	36.3	3032	161	85	13	4
6788	211	36.3	3032	161	85	13	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6789	185.8	36.4	3032	161	85	13	5
6790	234.7	37.9	3156	164	91	15	5
6791	164.8	37.9	3156	164	91	15	4
6792	147	39.0	3265	176	89	13	4
6793	134.5	39.0	3265	176	89	13	4
6794	184.4	39.0	3265	176	89	13	4
6795	171.8	39.8	3318	181	95	14	3
6796	128.9	39.8	3318	181	95	14	3
6797	144.6	39.8	3318	181	95	14	3
6798	95	40.8	3397	184	97	14	4
6799	148.9	41.1	3424	188	97	13	4
6800	114.5	41.8	3442	192	103	21	4
6801	143.8	41.4	3407.1	189.2	102.2	20.3	5.9
6802	114.2	41.0	3372.1	186.4	101.4	19.5	7.8
6803	88.6	41.2	3510.8	162.1	84.2	14.6	4.9
6804	122.8	41.4	3649.4	137.8	67	9.6	2
6805	227.5	41.4	3649.4	137.8	67	9.6	2
6806	253.8	41.4	3649.4	137.8	67	9.6	2
6807	191	45.5	4023.8	145.4	72.9	10.3	3.9
6808	173.8	45.5	4023.8	145.4	72.9	10.3	3.9
6809	185.3	47.5	4210.8	151.9	73.8	11.3	3.9
6810	281.2	49.5	4397.7	158.3	74.7	12.3	3.9
6811	221.5	49.5	4397.7	158.3	74.7	12.3	2.6
6812	182.7	49.5	4397.7	158.3	74.7	12.3	1.3
6813	136.4	53.6	4789.3	158.3	78.4	10	5.9
6814	125.5	53.6	4789.3	158.3	78.4	10	5.9
6815	81.5	55.7	4969.9	168.5	82.7	12.7	3
6816	151	57.8	5150.5	178.7	86.9	15.3	0
6817	142.8	61.7	5480.9	191	91	18	3.3
6818	166.9	61.7	5480.9	191	91	18	3.3
6819	173.8	61.7	5480.9	191	91	18	3.3
6820	213.3	64.6	5753.6	198.3	96.2	18	3.3
6821	184	64.6	5753.6	198.3	96.2	17.6	2.6
6822	113.2	67.3	5972.7	212	100.1	19.9	3.3
6823	100.6	67.3	5972.7	212	100.1	19.9	3.3
6824	80.2	67.3	5972.7	212	100.1	19.9	3.3
6825	186.4	70.4	6269.2	218.5	103.7	18.8	2.6
6826	215.6	70.4	6269.2	218.5	103.7	18.8	2.6
6827	163.8	70.4	6269.2	218.5	103.7	18.8	2.6
6828	172.4	71.3	6354.7	220.5	106.3	20.1	1.3
6829	167.5	72.3	6440.2	222.4	108.9	21.4	0
6830	151.1	73.0	6517.6	227.5	108.9	21.4	0
6831	225.1	73.7	6595	232.5	108.9	21.4	0
6832	137.2	73.7	6595	232.5	108.1	13.8	0
6833	78.4	75.3	6704.8	233.7	113.8	21.1	0
6834	112.1	75.3	6704.8	233.7	113.8	21.1	0
6835	121.3	75.3	6704.8	233.7	113.8	21.1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6836	108.3	76.6	6790.8	239.5	117.7	24.9	2.6
6837	120.2	78.1	6935	249.9	119.2	21.4	1.3
6838	138.9	78.6	6971.4	252.1	120	21.4	3.9
6839	82.6	78.6	6971.4	252.1	120	21.1	3.9
6840	82.6	78.6	6971.4	252.1	121.3	22.2	3.9
6841	126.3	77.6	6889.5	249.3	121.3	22.2	0
6842	160.5	77.6	6889.5	249.3	121.3	22.2	0
6843	104.7	78.4	6935.5	251.8	123.6	24.1	3.3
6844	126.2	78.4	6935.5	251.8	123.6	24.1	3.3
6845	179	77.8	6890	257.3	125.2	17.6	2.6
6846	140.1	77.8	6890	257.3	125.2	17.6	2.6
6847	109.8	77.8	6890	257.3	125.2	21.8	4.6
6848	113.1	77.6	6850	255.4	123.6	21.8	4.6
6849	118.9	77.6	6850	258	123.6	21.8	4.6
6850	213.7	77.6	6850	260.6	123.6	21.8	4.6
6851	167.5	76.3	6731.6	260.6	123.6	21.4	1.3
6852	142.6	76.7	6765	260.6	126.2	26	1.3
6853	129.4	76.7	6765	257	126.2	26	0.7
6854	210.6	76.7	6765	253.3	126.2	26	0
6855	145.6	76.7	6765	253.3	126.2	26	2.6
6856	159.3	75.5	6661.3	247.2	124.7	24.1	2.6
6857	206	74.3	6557.6	241.1	123.1	22.2	2.6
6858	210.1	74.6	6561.1	243.5	126	22.6	5.2
6859	202	74.6	6561.1	243.5	126	22.6	5.2
6860	124	75.0	6617.3	250.2	126	22.6	5.2
6861	131.2	75.0	6617.3	250.2	124.7	22.2	0
6862	124.9	75.0	6617.3	250.2	124.7	22.6	2.3
6863	192.9	75.0	6617.3	250.2	124.7	23	4.6
6864	114.7	74.4	6557.6	248.9	124.1	23.2	4.6
6865	213.4	73.8	6497.9	247.5	123.4	23.3	4.6
6866	169.3	73.2	6484.7	247.5	116.1	16.8	0
6867	83.6	73.2	6484.7	247.5	119	23	2.6
6868	116.1	72.4	6374.4	241.7	119.8	23	2.6
6869	77.3	72.1	6348.6	241.7	119.8	23	0
6870	114.2	72.1	6348.6	241.7	119.8	23	3.9
6871	134.1	69.6	6126.5	234	114.8	19.9	3.9
6872	91.8	67.7	5970.2	223	113.5	18.8	2.6
6873	145.6	67.7	5970.2	223	113.5	20.3	2.6
6874	130.1	67.7	5970.2	223	113.5	21.8	2.6
6875	143.4	64.4	5672	217	108	22	2
6876	74.2	64.4	5672	217	108	22	2
6877	73.1	63.5	5604	216	105	18	2
6878	143.8	63.5	5604	216	105	19	2
6879	182.6	63.6	5604	216	105	20	2
6880	193.3	63.1	5562	215	104	21	2
6881	161.2	62.7	5520	213	104	21	3
6882	136.4	62.2	5463	213	104	21	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6883	113.2	61.6	5407	213	104	21	3
6884	134.1	60.2	5314	205	100	15	3
6885	86.2	60.2	5314	205	100	15	4
6886	113	60.4	5315	205	100	19	3
6887	123.7	60.4	5315	205	100	19	3
6888	146.2	60.0	5275	204	99	20	4
6889	119.9	59.7	5236	204	98	21	5
6890	182	57.7	5060	197	97	21	4
6891	142.5	55.8	4885	191	96	21	3
6892	96.2	55.4	4850	194	95	19	3
6893	145.3	55.4	4850	194	95	19	3
6894	135.8	54.4	4758	190	94	19	3
6895	106.2	63.8	5614	214	106	19	5
6896	162.9	73.1	6471	239	117	19	6
6897	148.5	123.5	10858	426	209	38	6
6898	92.7	125.5	11027	431	214	39	6
6899	115	127.4	11196	435	218	40	6
6900	157.6	127.3	11196	435	218	40	5
6901	127.1	132.0	11620	452	223	40	5
6902	69.2	131.9	11620	452	223	36	5
6903	125.9	131.6	11572	450	227	41	4
6904	163.4	131.6	11572	450	227	41	4
6905	187.2	132.8	11667	454	231	43	3
6906	130.1	132.8	11667	454	231	43	4
6907	141.9	132.8	11667	454	231	43	4
6908	184.3	135.4	11916	468	230	39	5
6909	180.5	135.4	11916	468	230	39	4
6910	146.9	135.4	11916	468	231	41	3
6911	132.2	135.5	11916	468	232	42	3
6912	161.6	135.2	11894	466	232	42	2
6913	164.7	135.2	11894	466	232	42	3
6914	180	134.4	11818	464	232	41	3
6915	145.9	134.6	11818	464	232	47	3
6916	173.9	132.1	11635	431	230	47	3
6917	180.7	132.1	11635	431	230	47	3
6918	175.7	132.1	11635	431	230	47	3
6919	191.2	132.0	11620	453	226	40	3
6920	173.8	132.0	11620	453	226	40	2
6921	237.6	132.0	11620	453	226	40	3
6922	235.1	130.4	11556	441	210	31	3
6923	123.5	130.4	11556	441	210	31	3
6924	115.1	129.1	11383	441	219	38	2
6925	148.5	125.4	11057	434	212	31	3
6926	109.6	125.4	11057	434	212	31	3
6927	210.5	122.2	10787	414	209	32	3
6928	89.6	122.2	10787	414	209	32	3
6929	183.1	122.2	10787	414	209	32	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6930	225.1	121.3	10691	417	204	35	2
6931	105.5	121.3	10691	417	204	35	2
6932	115.3	121.4	10691	417	204	35	4
6933	128.6	116.9	10304	404	196	31	4
6934	118.3	115.6	10181	396	195	32	5
6935	176.1	114.2	10059	387	194	32	6
6936	235	114.2	10059	387	194	32	6
6937	172.5	111.4	9813	381	187	31	6
6938	137.4	111.4	9813	381	187	31	6
6939	122.8	111.4	9813	381	187	31	6
6940	94.1	107.2	9460	372	178	28	3
6941	125.1	107.3	9460	374	178	28	4
6942	195.7	107.4	9460	376	178	28	4
6943	153.6	106.1	9361	376	172	26	4
6944	235	104.9	9262	376	167	24	4
6945	138.9	105.2	9262	376	169	28	5
6946	226.5	100.6	8858	347	169	28	5
6947	137.9	100.6	8858	347	169	28	5
6948	206.5	100.6	8858	347	169	28	5
6949	122.7	96.8	8543	324	163	28	3
6950	128.2	94.3	8316	320	158	24	5
6951	107.7	94.4	8316	320	158	25	6
6952	100.1	92.4	8141	315	155	25	6
6953	127.4	92.4	8141	315	155	25	6
6954	123.7	88.1	7763	298	148	26	5
6955	125.7	88.1	7763	298	148	26	5
6956	171.5	87.3	7704	297	146	24	3
6957	167.2	86.6	7645	296	144	23	2
6958	130.9	86.7	7645	296	144	24	3
6959	93.7	84.2	7426	286	140	24	3
6960	55.4	78.4	6929	272	124	19	3
6961	64.3	78.4	6929	272	125	20	3
6962	77	76.2	6721	263	125	20	4
6963	86.9	76.4	6721	263	125	23	5
6964	90.1	74.0	6508	255	120	23	5
6965	70.5	71.5	6268	247	119	24	6
6966	114.3	71.5	6268	247	119	24	6
6967	99.4	69.4	6093	246	115	21	5
6968	89.6	69.4	6093	246	115	21	5
6969	51.8	63.3	5590	210	103	20	3
6970	57.8	64.2	5624	228	105	21	5
6971	54.3	63.2	5570	224	101	16	4
6972	56.6	63.3	5570	224	101	16	5
6973	76.4	62.6	5492	222	102	19	5
6974	76.4	62.3	5480	222	102	16	4
6975	111.9	61.6	5409	222	101	18	3
6976	172.3	61.6	5409	222	101	18	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6977	98.4	61.6	5409	222	101	18	3
MOGOLLON Fm.							
6978	117.7	60.7	5314	215	101	20	5
6979	119	60.7	5314	215	101	20	5
6980	156.7	60.0	5248	217	102	20	4
6981	56.4	56.5	4956	204	98	14	2
6982	63.2	55.8	4889	202	96	15	3
6983	199	55.1	4821	200	94	16	3
6984	192.1	55.1	4821	200	94	16	3
6985	137	55.1	4821	200	94	16	3
6986	91.3	54.0	4720	199	93	14	5
6987	93.7	52.9	4628	187	91	16	5
6988	145.2	52.3	4578	188	93	15	3
6989	180.3	52.3	4578	188	93	15	3
6990	84.5	52.3	4578	188	93	15	3
6991	66.7	50.6	4409	181	92	15	6
6992	99.5	49.7	4332	183	89	13	5
6993	135.2	55.2	4910	189	78	11	4
6994	186.1	55.2	4910	189	78	11	4
6995	172.8	59.9	5327	204	87	14	3
6996	170.7	59.9	5327	204	87	14	3
6997	155.6	60.0	5327	204	87	14	4
6998	77.5	77.3	6873	260	115	17	3
6999	145.7	77.3	6873	260	115	17	4
7000	105.8	83.0	7383	275	126	16	5
7001	152.3	83.0	7383	275	126	16	5
7002	99.2	88.3	7859	292	134	17	6
7003	120	88.3	7859	292	134	17	6
7004	118.8	94.2	8365	316	144	24	3
7005	81.6	94.2	8365	316	144	24	3
7006	66.5	97.5	8636	332	151	23	5
7007	110.6	99.9	8863	328	156	23	8
7008	115.2	99.9	8863	328	156	23	8
7009	83.2	104.3	9243	348	163	24	8
7010	99.1	104.3	9258	344	166	25	3
7011	95.7	104.3	9258	344	166	25	3
7012	100.2	107.7	9562	367	163	25	5
7013	58.2	106.9	9503	349	169	24	3
7014	36.6	108.1	9600	357	169	24	5
7015	73.8	109.1	9677	367	171	26	5
7016	90.4	106.3	9453	348	166	24	4
7017	49.1	105.3	9363	346	165	24	3
7018	48.5	103.9	9231	347	165	21	4
7019	109.5	103.9	9231	347	165	21	4
7020	54.6	102.9	9116	352	163	23	5
7021	73.3	101.5	9009	359	152	18	5
7022	75.2	99.6	8820	339	156	24	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7023	88.4	93.7	8296	322	146	25	3
7024	13.6	91.3	8074	313	144	25	4
7025	72.2	88.4	7811	308	137	23	5
7026	53.4	85.0	7485	298	134	22	8
7027	55.2	85.0	7485	298	134	22	8
7028	47.3	78.3	6906	270	123	21	6
7029	48.3	74.5	6596	257	117	16	5
7030	35.9	71.8	6340	250	113	20	3
7031	60.5	68.6	6034	242	110	20	5
7032	35.6	62.2	5486	214	100	16	5
7033	37.8	59.4	5226	204	94	18	6
7034	82.2	59.4	5226	204	94	18	6
7035	104.2	57.2	5057	201	90	13	2
7036	92.8	55.0	4835	195	87	16	4
7037	49.3	51.6	4524	183	82	17	5
7038	195	51.6	4524	183	82	17	5
7039	125.4	49.0	4309	170	81	15	3
7040	91.9	49.0	4309	170	81	15	3
7041	122.4	47.4	4163	166	78	14	3
7042	91.5	46.6	4108	162	75	13	3
7043	42.8	46.6	4108	162	75	13	3
7044	120.8	46.2	4062	161	74	12	5
7045	91.4	46.2	4062	161	74	12	5
7046	84.9	44.1	3893	150	73	10	3
7047	82.7	43.7	3862	148	70	10	4
7048	61.2	43.7	3862	148	70	10	4
7049	88.6	44.5	3915	152	69	13	6
7050	115.3	45.1	3974	154	70	13	5
7051	85.8	46.7	4126	161	70	10	6
7052	99.4	46.7	4126	161	70	10	6
7053	90	50.9	4512	168	76	13	5
7054	70.3	53.5	4773	173	79	12	3
7055	89.8	56.4	5034	178	82	12	4
7056	84.8	65.4	5870	201	92	14	3
7057	61.5	75.5	6796	226	101	11	8
7058	70.3	75.5	6796	226	101	11	8
7059	84	89.0	8043	256	118	15	5
7060	85.3	105.5	9572	298	136	19	2
7061	108.3	105.5	9572	298	136	19	2
7062	92.4	123.0	11183	342	153	21	3
7063	88.6	123.0	11183	342	153	21	3
7064	86.7	144.8	13216	394	171	18	7
7065	75.3	157.5	14351	430	189	25	5
7066	203.4	170.1	15485	466	207	31	3
7067	151	193.5	17602	536	235	33	6
7068	115.8	193.5	17602	536	235	33	6
7069	133	214.8	19588	573	263	39	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7070	74.2	238.1	21733	641	285	38	3
7071	90.1	238.1	21733	641	285	38	4
7072	151.3	238.1	21733	641	285	38	4
7073	130.7	256.0	23345	701	307	41	3
7074	92.2	256.0	23345	701	307	41	4
7075	133.6	270.6	24648	742	325	48	5
7076	97.4	270.6	24648	742	325	48	5
7077	114.2	280.9	25632	756	337	46	4
7078	155.5	280.9	25632	756	337	46	4
7079	137.9	282.6	25819	746	340	45	5
7080	200.7	284.4	26006	736	343	43	6
7081	137.9	292.7	26700	789	349	50	6
7082	115.7	292.7	26700	789	349	50	6
7083	152.6	292.9	26711	789	350	52	5
7084	89.5	285.2	26044	762	343	44	4
7085	139.6	285.2	26044	762	343	44	4
7086	146	278.1	25354	752	336	48	5
7087	114	94.2	8146	358	181	33	4
7088	99	88.8	7686	333	175	29	3
7089	101.7	88.8	7686	333	175	29	3
7090	100	88.1	7606	332	173	32	6
7091	85.4	85.3	7385	327	165	24	6
7092	89.9	85.3	7385	327	165	24	6
7093	75.9	83.3	7199	312	165	28	5
7094	108.5	82.5	7137	309	162	28	4
7095	102.4	82.5	7137	309	162	28	4
7096	116	79.5	6879	297	153	29	5
7097	79.2	79.5	6879	297	153	29	5
7098	107.2	76.3	6613	284	150	24	3
7099	153.9	76.2	6612	289	146	21	4
7100	137.7	76.2	6612	289	146	21	4
7101	161.8	76.2	6612	289	146	21	5
7102	134.3	74.7	6452	289	140	26	6
7103	121.2	74.7	6452	289	140	26	6
7104	91.4	72.9	6319	273	140	23	4
7105	85.3	72.3	6258	273	138	26	3
7106	120	72.3	6258	273	138	26	3
7107	98	70.0	6051	270	136	20	6
7108	98.6	68.9	5971	259	132	22	4
7109	143.6	68.9	5971	259	132	22	5
7110	133.6	68.2	5900	257	130	24	5
7111	136.7	65.6	5679	246	126	20	5
7112	103.5	65.6	5679	246	126	20	5
7113	158.4	64.9	5625	243	124	19	5
7114	149.2	64.2	5570	241	122	19	5
7115	77.3	64.2	5570	241	122	19	5
7116	107.1	63.9	5548	246	120	16	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7117	46.7	62.0	5400	230	114	15	5
7118	42.1	61.5	5318	234	119	19	4
7119	133.3	60.1	5192	230	115	23	3
7120	159.6	60.1	5192	230	115	23	3
7121	79.8	60.1	5192	230	115	23	3
7122	107.3	58.8	5060	228	113	22	6
7123	62.1	56.7	4873	219	111	24	3
7124	75.7	56.7	4873	219	111	24	3
7125	79.5	55.2	4754	213	107	21	3
7126	59.6	53.4	4585	205	105	20	6
7127	49	50.8	4377	196	100	18	3
7128	79.5	50.8	4377	196	100	18	3
7129	89	48.1	4128	184	94	19	7
7130	98.7	46.6	3994	179	93	21	3
7131	96.1	46.6	3994	179	93	21	3
7132	82.3	45.0	3874	174	87	17	3
7133	64.5	43.6	3742	169	86	17	4
7134	105.5	43.6	3742	169	86	17	4
7135	104.1	42.2	3612	165	83	19	4
7136	91.1	41.2	3533	160	80	18	4
7137	82	39.2	3371	152	78	15	3
7138	58	38.2	3274	148	75	16	5
7139	50.3	37.9	3236	150	76	15	5
7140	58.2	36.8	3139	147	73	14	6
7141	96.3	36.1	3089	142	74	15	3
7142	114	36.1	3089	142	74	15	3
7143	96.9	36.3	3106	143	75	14	3
7144	79.5	35.9	3081	145	72	12	3
7145	86.2	35.9	3081	145	72	12	3
7146	139.8	35.5	3034	144	73	12	3
7147	114.4	35.5	3034	144	73	12	4
7148	139.5	35.4	3007	143	75	14	5
7149	98.8	35.4	3007	143	75	14	5
7150	94.6	17.7	1504	72	37	7	2
7151	129.5	17.5	1483	71	36	9	3
7152	65.1	17.5	1483	71	36	9	3
7153	101.5	35.0	2966	141	72	18	5
7154	98	34.4	2917	139	74	16	4
7155	134.2	33.8	2880	136	72	14	3
7156	143.1	33.8	2880	136	72	14	3
7157	154.5	33.8	2880	136	72	14	3
7158	144.9	33.8	2880	136	72	14	3
7159	44.5	33.1	2814	133	72	14	3
7160	134.8	32.4	2748	130	71	14	4
7161	147.7	32.4	2748	130	71	14	4
7162	134.8	32.4	2746	130	71	14	3
7163	70.5	32.4	2746	130	71	14	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7164	94.5	32.4	2749	130	71	15	2
7165	96	31.6	2688	125	69	14	2
7166	158.4	31.6	2688	125	69	14	2
7167	133.3	31.6	2688	125	69	14	2
7168	183	31.9	2717	127	68	13	3
7169	201	32.2	2746	130	67	12	4
7170	126.3	32.2	2746	130	67	12	4
7171	155.2	32.7	2789	128	69	15	3
7172	158.2	33.2	2832	127	70	18	2
7173	175.5	33.9	2912	126	68	15	2
7174	125.7	33.9	2912	126	68	15	2
7175	133.7	35.0	3018	131	70	14	2
7176	168.9	36.2	3125	135	71	13	3
7177	96.5	37.9	3282	134	73	15	3
7178	154.5	37.9	3282	134	73	15	4
7179	198.7	40.7	3530	140	76	16	5
7180	203	40.7	3530	140	76	16	5
7181	185.6	47.1	4082	169	85	22	3
7182	157.5	47.1	4082	169	85	22	3
7183	163.7	47.1	4082	169	85	22	3
7184	162.2	50.1	4358	186	92	18	2
7185	68.5	53.0	4611	201	99	14	3
7186	157	53.0	4611	201	99	14	3
7187	140.5	53.0	4611	201	99	14	3
7188	83.9	58.6	5080	217	112	18	6
7189	127.7	58.6	5080	217	112	18	6
7190	166	64.1	5551	241	119	23	5
7191	140.9	64.1	5551	241	119	23	5
7192	149.4	69.6	6026	258	131	26	4
7193	59.8	76.1	6634	281	139	24	3
7194	44.8	83.7	7303	307	153	25	3
7195	63.3	91.2	7966	325	160	30	6
7196	168.3	91.2	7966	325	160	30	6
7197	198.9	99.2	8702	349	172	30	5
7198	58.5	107.6	9448	374	180	34	6
7199	91.8	115.1	10143	391	190	36	5
7200	125.9	115.1	10143	391	190	36	5
7201	80.9	122.0	10806	402	199	32	5
7202	95.7	127.1	11298	420	200	27	5
7203	31.5	134.2	11948	442	207	28	4
7204	61.6	138.0	12303	435	214	33	3
7205	103.8	138.0	12303	435	214	33	3
7206	166.2	144.2	12868	456	218	34	4
7207	114.1	147.1	13140	472	219	32	3
7208	50.6	147.1	13140	472	219	32	3
7209	82.8	148.7	13311	462	223	31	4
7210	135.1	148.7	13311	462	223	31	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7211	149	151.0	13524	485	218	29	3
7212	70.8	151.0	13524	485	218	29	3
7213	102.7	150.1	13444	475	220	27	4
7214	110.1	149.7	13386	462	221	34	8
7215	106.8	149.7	13386	462	221	34	8
7216	46.5	148.5	13271	468	216	34	6
7217	57.5	144.9	12953	452	213	34	5
7218	39	140.7	12589	446	205	28	6
7219	78.1	136.2	12178	432	199	28	6
7220	64.1	130.7	11719	402	194	23	5
7221	91.1	128.2	11466	400	188	28	6
7222	115.4	128.2	11466	400	188	28	6
7223	128.3	128.2	11466	400	188	28	6
7224	188.1	128.2	11466	400	188	28	6
7225	195.8	124.3	11108	389	184	31	4
7226	152.5	124.3	11108	389	184	31	4
7227	218.4	117.3	10483	360	175	28	5
7228	213.7	117.3	10483	360	175	28	5
7229	73.1	113.7	10220	351	161	16	5
7230	90.2	110.0	9809	349	163	28	5
7231	87.6	105.1	9347	340	155	30	6
7232	136.6	105.1	9347	340	155	30	6
7233	108.5	98.9	8807	315	150	26	4
7234	50.5	95.7	8541	308	142	21	3
7235	60.8	91.2	8111	289	137	27	5
7236	61	91.2	8111	289	137	27	5
7237	113.9	91.2	8111	289	137	27	5
7238	90.5	91.2	8111	289	137	27	5
7239	44.4	91.2	8111	289	137	27	5
7240	55.2	91.2	8111	289	137	27	5
7241	87.6	91.2	8111	289	137	27	5
7242	146.4	91.2	8111	289	137	27	5
7243	103.7	91.2	8111	289	137	27	5
7244	108.6	91.2	8111	289	137	27	5
7245	179.4	91.2	8111	289	137	27	5
7246	171.6	91.2	8111	289	137	27	5
7247	126.5	91.2	8111	289	137	27	5
7248	60.3	91.2	8111	289	137	27	5
7249	159.6	91.2	8111	289	137	27	5
7250	231.8	91.2	8111	289	137	27	5
7251	108	51.5	4425	201	100	20	4
7252	228.8	51.2	4425	201	95	18	3
7253	154.8	53.2	4650	199	90	16	2
7254	179.8	55.1	4875	197	80	15	2
7255	33.8	53.8	4819	181	72	8	2
7256	37.9	51.3	4580	178	76	4	2
7257	123.1	50.5	4501	176	76	5	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7258	200	49.8	4422	174	77	7	2
7259	140.8	49.8	4422	174	77	7	3
7260	191.8	48.4	4302	162	76	7	4
7261	254.5	48.3	4302	162	75	7	2
7262	152.8	47.7	4248	166	70	7	3
7263	134.8	47.9	4248	166	70	10	4
7264	164.6	47.2	4174	166	70	10	4
7265	148.1	46.4	4099	165	70	10	4
7266	140.1	46.4	4099	165	70	10	4
7267	189.7	46.4	4099	165	70	10	4
7268	193.2	45.8	4042	158	71	11	5
7269	203	45.1	3984	150	71	11	6
7270	111.5	44.9	3952	154	71	12	6
7271	156.9	44.1	3876	154	71	13	5
7272	187.3	43.4	3799	154	71	14	4
7273	50	42.1	3694	141	74	14	3
7274	125	44.1	3865	153	79	13	3
7275	120.3	83.3	7103	340	179	30	5
7276	135	122.4	10340	527	278	48	6
7277	73.5	322.6	26065	1656	934	174	16
7278	185.6	322.6	26065	1656	934	174	16
7279	196.4	329.9	26665	1682	955	179	17
7280	173.5	329.9	26665	1682	955	179	17
7281	194.6	329.9	26665	1682	955	179	17
7282	86.9	339.4	27411	1743	991	179	16
7283	126.3	339.4	27411	1743	991	179	16
7284	72.9	347.9	28045	1791	1014	194	20
7285	53.4	326.2	25998	1726	1020	190	18
7286	131.6	326.8	25998	1726	1050	185	17
7287	138.3	365.9	29503	1892	1084	187	18
7288	156.8	365.9	29503	1892	1084	187	18
7289	150.1	365.9	29503	1892	1084	187	18
7290	134	374.0	30212	1985	1099	162	14
7291	164.5	374.0	30212	1985	1099	162	14
7292	174.2	382.2	30788	1977	1144	196	19
7293	160.3	382.2	30788	1977	1144	196	19
7294	162.6	382.2	30788	1977	1144	196	19
7295	160.1	382.2	30788	1977	1144	196	19
7296	179.4	396.4	31873	2063	1186	212	21
7297	159.2	396.4	31873	2063	1186	212	21
7298	186	396.4	31873	2063	1186	212	21
7299	126.7	403.0	32496	2146	1190	178	19
7300	58.9	412.5	33210	2202	1222	184	26
7301	135.8	412.5	33210	2202	1222	184	26
7302	186.2	355.9	28878	2250	695	188	25
7303	89.4	356.0	28878	2250	695	190	25
7304	175.2	422.9	33965	2264	1279	192	25

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7305	132.8	422.9	33965	2264	1279	192	25
7306	144.7	422.9	33965	2264	1279	192	25
7307	151.3	433.3	34810	2264	1301	232	21
7308	77.1	434.4	35024	2325	1285	189	19
7309	76.6	434.4	35024	2325	1285	189	19
7310	130	439.1	35251	2299	1318	240	23
7311	92.6	430.3	34522	2250	1303	231	25
7312	91.9	430.3	34522	2250	1303	231	25
7313	63.3	429.6	34479	2248	1297	230	24
7314	78.9	429.6	34479	2248	1297	230	24
7315	82.8	424.2	34008	2218	1283	232	27
7316	38.1	409.6	32895	2197	1235	189	22
7317	79.9	362.1	28407	2110	1200	186	21
7318	116	361.8	28407	2110	1190	185	21
7319	97.5	383.0	30810	2010	1162	180	20
7320	110.9	383.0	30810	2010	1162	180	20
7321	129.7	371.8	29800	1942	1117	216	20
7322	109	371.8	29800	1942	1117	216	20
7323	125.9	170.8	13650	871	519	115	10
7324	89.4	136.3	10973	705	412	68	7
7325	153.2	136.3	10973	705	412	68	7
7326	135.2	136.3	10973	705	412	68	7
7327	98.9	133.2	10678	681	399	84	8
7328	111.1	133.2	10678	681	399	84	8
7329	72.3	128.6	10299	654	389	83	9
7330	95.8	125.3	10049	641	381	73	8
7331	56.9	121.4	9720	626	366	74	9
7332	110	121.4	9720	626	366	74	9
7333	122.3	117.3	9394	604	356	72	7
7334	133.6	117.3	9394	604	356	72	7
7335	137	113.0	9041	581	343	70	9
7336	97.2	113.0	9041	581	343	70	9
7337	53.1	108.6	8662	554	334	73	8
7338	68.5	105.1	8390	538	324	66	9
7339	109.6	100.9	8043	522	310	68	6
7340	107.2	100.9	8043	522	310	68	6
7341	87.9	96.3	7649	496	302	67	8
7342	95.6	96.3	7649	496	302	67	8
7343	101.3	92.3	7349	479	290	52	10
7344	79.4	89.4	7080	465	281	63	8
7345	98.6	89.4	7080	465	281	63	8
7346	90.2	85.3	6749	439	272	62	7
7347	120.3	85.2	6749	439	272	62	6
7348	122.5	82.7	6554	432	262	57	5
7349	117.7	82.7	6554	432	262	57	5
7350	81.2	79.1	6288	421	249	44	7
7351	107.5	79.1	6288	421	249	44	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7352	112.2	76.9	6088	407	246	46	8
7353	86.9	74.8	5914	399	245	47	5
7354	142.8	74.8	5914	399	245	47	5
7355	117.5	75.5	5955	391	247	57	5
7356	68.1	75.3	5950	400	247	50	4
7357	63.8	75.1	5942	401	247	45	4
7358	93.7	74.9	5924	401	247	45	4
7359	93.4	75.0	5924	403	247	45	6
7360	100.8	76.1	6010	403	250	47	6
7361	125.7	80.6	6394	419	263	50	6
7362	120	85.6	6792	444	275	54	8
7363	136.2	85.6	6792	444	275	54	8
7364	150.5	85.6	6792	444	275	54	8
7365	148.5	85.6	6792	444	275	54	8
7366	123.3	89.9	7143	473	285	52	8
7367	150.7	457.5	38344.8	1717	1007.4	382.7	44.7
7368	59	9.2	701.9	40.8	21.8	13.3	5.6
7369	94.9	9.2	701.9	40.8	21.8	13.3	5.6
7370	122	9.2	702.4	39.8	24.7	15.2	2.4
7371	96.8	9.9	722.9	41.5	25.6	22.8	6.4
7372	91.2	10.1	740.2	42.5	28.5	22.8	9.6
7373	81.2	10.2	749.9	42.8	28.5	21.8	9.6
7374	122.2	10.2	749.9	42.8	27.8	21.8	4.8
7375	98.4	10.5	774.7	45.2	29.1	21.8	6
7376	82.8	10.8	799.5	47.6	30.4	21.8	7.2
7377	89	11.3	854.7	50.6	34.2	18	7.2
7378	116.9	11.3	854.7	50.6	34.2	18	2.4
7379	92.3	12.0	913	54	37	17	7
7380	50.6	13.0	993	55	39	20	8
7381	116.8	13.0	993	55	39	20	8
7382	112.9	13.0	993	55	39	20	8
7383	94	10.8	830	64	19	11	10
7384	81.3	15.9	1198	70	49	29	6
7385	104.6	17.0	1307	74	50	26	6
7386	109.7	17.0	1307	74	50	26	6
7387	86.8	17.9	1380	81	56	25	6
7388	80.6	17.9	1380	81	56	25	6
7389	85.4	19.4	1485	90	58	28	7
7390	91.1	20.9	1602	93	66	30	8
7391	57.5	22.1	1709	100	68	32	6
7392	57.4	23.3	1772	101	75	36	9
7393	78.7	23.3	1772	101	75	36	9
7394	90.2	24.1	1864	109	79	28	7
7395	61.5	26.3	1960	117	86	48	13
7396	64.5	26.3	1960	117	86	48	13
7397	77.9	26.6	2019	126	87	43	6
7398	86.8	27.9	2092	131	99	43	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7399	94.9	29.4	2198	136	101	48	12
7400	73.8	29.4	2198	136	101	48	12
7401	85.8	30.2	2249	143	110	49	8
7402	83.4	30.2	2249	143	110	49	8
7403	84.7	30.8	2285	144	114	56	7
7404	90.7	30.8	2285	144	114	56	7
7405	43.7	32.6	2393	155	120	54	16
7406	89.7	32.6	2393	155	120	54	16
7407	85.2	32.9	2400	159	122	56	17
7408	103.8	33.1	2405	159	124	57	17
7409	84.7	33.4	2414	161	126	59	18
7410	79.6	33.4	2487	160	120	51	14
7411	65.3	33.4	2487	160	120	51	14
7412	45.9	34.2	2544	167	120	56	12
7413	73.9	35.6	2630	168	128	59	15
7414	84	37.5	2824	173	131	61	10
7415	105.4	37.5	2824	173	131	61	10
7416	75.9	40.6	3053	189	140	66	11
7417	76.4	46.0	3493	212	154	72	12
7418	54.8	56.0	4289	260	171	88	15
7419	60.4	67.9	5255	324	209	86	18
7420	119.4	67.9	5255	324	209	86	18
7421	115.6	83.1	6428	396	255	107	22
7422	95.2	83.1	6428	396	255	107	22
7423	116.4	99.5	7763	484	301	122	14
7424	113.2	114.4	8932	565	343	139	14
7425	118.9	114.4	8932	565	343	139	14
7426	73.3	121.4	9555	598	365	120	20
7427	100.8	121.4	9555	598	365	120	20
7428	101.8	128.8	10082	631	380	154	19
7429	90.6	129.6	10139	627	378	158	23
7430	102	129.6	10139	627	378	158	23
7431	70.4	124.1	9749	602	363	143	18
7432	71.4	75.1	5635	391	250	120	15
7433	99.5	72.8	5635	391	200	95	13
7434	124.9	71.8	5715	328	194	83	11
7435	109.6	71.8	5715	328	194	83	11
7436	118.8	71.8	5718	325	191	82	15
7437	121.7	71.8	5718	325	191	82	15
7438	99.7	70.8	5662	319	185	78	14
7439	105.7	70.8	5662	319	185	78	14
7440	115.4	68.8	5521	303	178	78	11
7441	99.8	68.8	5521	303	178	78	11
7442	75.1	67.2	5416	297	170	74	9
7443	92.3	64.3	5202	276	164	62	14
7444	137.6	64.3	5202	276	164	62	14
7445	120.1	63.6	5138	272	158	71	11

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7446	102.5	63.6	5138	272	158	71	11
7447	133.4	63.6	5138	272	158	71	11
7448	137.7	55.4	4396	265	150	60	10
7449	126.1	59.3	4846	255.2	140	50.3	10.4
7450	49.2	57.2	4669.2	244.7	135.3	49.4	10.4
7451	75.2	57.2	4669.2	244.7	135.3	51.3	16.8
7452	132.1	56.1	4553.3	240.6	134.6	51.3	16.8
7453	105.5	55.0	4437.3	236.5	133.8	51.3	16.8
7454	115.3	53.3	4322.9	229	128.9	51.3	13.6
7455	120.7	51.6	4208.4	221.5	124	51.3	10.4
7456	123.3	50.0	4046	213.7	124	55.1	9.6
7457	87.8	49.3	3971.9	210.2	122.1	55.1	9.6
7458	126.2	48.5	3897.8	206.6	120.2	55.1	9.6
7459	159.8	85.6	6892.5	379.7	224.7	96	18.4
7460	137.7	122.7	9887.1	552.8	329.2	136.8	27.2
7461	73.4	76.3	6009.2	363.9	213.4	80.7	20.8
7462	38.4	74.7	5918.3	358.5	205.2	76.9	12.8
7463	61.1	74.7	5918.3	358.5	205.2	76.9	12.8
7464	119.6	55.5	4429.6	353	105.9	24.7	21.6
7465	64.1	56.4	4735.6	353	108.5	24.7	21.6
7466	102.7	73.9	5768.6	349.3	210	95.9	13.6
7467	61.3	73.9	5768.6	349.3	210	95.9	13.6
7468	115.3	73.9	5768.6	349.3	210	95.9	13.6
7469	124.5	73.3	5739	344	210	93	17
7470	111	73.5	5739	344	210	93	17
7471	117.1	72.4	5668	340	208	90	13
7472	109	72.4	5668	340	208	90	13
7473	99.4	73.1	5726	343	209	89	14
7474	87.8	73.1	5726	343	209	89	14
7475	86.5	74.1	5792	349	209	89	21
7476	89.1	74.1	5792	349	209	89	21
7477	111.8	72.6	5709	352	208	76	14
7478	122.1	73.1	5732	352	208	76	20
7479	98	73.1	5732	352	208	76	20
7480	96.1	59.7	4722	329	107	74	18
7481	96.1	59.5	4722	329	107	73	16
7482	96.4	72.8	5751	342	207	80	12
7483	125.6	72.8	5751	342	207	80	12
7484	92.9	70.5	5549	338	203	75	14
7485	147.7	70.5	5549	338	203	75	14
7486	81	69.9	5485	324	201	80	16
7487	99.8	69.1	5414	324	198	80	17
7488	112.2	69.1	5414	324	198	80	17
7489	92.2	67.7	5261	316	196	92	15
7490	93	64.0	5001	306	186	73	16
7491	70	64.0	5001	306	186	73	16
7492	92.8	62.6	4891	290	181	83	10

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7493	96.8	62.6	4891	290	181	83	10
7494	103.6	61.7	4789	284	178	88	12
7495	97.1	61.7	4789	284	178	88	12
7496	86.8	51.6	4067	279	99	73	10
7497	84.3	57.3	4436	276	168	70	17
7498	106	57.3	4436	276	168	70	17
7499	109.7	61.3	4815	286	169	71	16
7500	99.2	61.3	4815	286	169	71	16
7501	84.9	68.0	5220	323	205	90	23
7502	55.8	43.9	3431	192	119	58	15
7503	89.6	40.7	3232	174	99	48	15
7504	77.5	26.9	2174	167	36	16	10
7505	98.8	26.9	2174	167	36	16	10
7506	79.9	37.3	2972	156	90	45	13
7507	88.9	34.6	2750	146	87	41	10
7508	115.7	34.6	2750	146	87	41	10
7509	119.6	34.6	2750	146	87	41	10
7510	127.1	33.5	2696	141	79	33	11
7511	136.3	33.5	2696	141	79	33	11
7512	129.7	33.5	2696	141	79	33	11
7513	118.9	33.6	2709	140	78	34	10
7514	98.9	32.5	2598	132	77	36	13
7515	112.8	32.5	2598	132	77	36	13
7516	82	33.5	2702	134	76	35	13
7517	72.9	34.8	2811	137	77	42	10
7518	91.3	37.1	3019	135	81	44	13
7519	116.2	37.1	3019	135	81	44	13
7520	127.2	39.2	3140	152	87	58	10
7521	29.1	39.2	3140	152	87	58	10
7522	106.7	41.6	3350	163	100	50	11
7523	128.5	45.3	3625	182	115	56	12
7524	46.3	45.8	3631	184	119	61	13
7525	108.6	45.8	3631	184	119	61	13
7526	93.7	46.5	3721	191	120	55	10
7527	136.7	46.5	3721	191	120	55	10
7528	75.6	51.8	4098	213	136	68	15
7529	92.4	55.9	4345	241	155	86	16
7530	86.7	55.9	4345	241	155	86	16
7531	155.2	56.8	4442	262	161	66	17
7532	50.8	63.5	4972	280	181	84	14
7533	46.6	81.8	6535	365	208	80	27
7534	121.3	81.8	6535	365	208	80	27
7535	135.9	99.0	8024	415	242	103	21
7536	85.3	94.0	7630	368	229	109	18
7537	103.5	94.0	7630	368	229	109	18
7538	78.2	82.4	6710	320	199	91	16
7539	106.1	82.4	6710	320	199	91	16

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7540	63.7	62.5	5020	254	157	71	18
7541	123	59.3	4754	240	152	67	18
7542	166.6	56.1	4488	227	146	63	18
7543	149.4	56.1	4488	227	146	63	18
7544	196.6	56.1	4488	227	146	63	18
7545	75.2	55.1	4390	225	142	66	18
7546	181.7	75.1	6149	367	120	74	22
7547	91.6	181.8	14830	797	444	151	35
7548	102.3	181.8	14829.6	797.2	444	151	35.1
7549	130.9	225.6	18408.2	1033.3	541.7	171.9	43.1
7550	154.5	225.6	18408.2	1034.5	547.9	172.9	43.1
7551	188	225.6	18408.2	1035.7	554	173.8	43.1
7552	148.2	267.9	21933.9	1317.4	662.6	173.8	54.7
7553	194.3	310.3	25459.5	1599.1	771.2	173.8	66.3
7554	60.8	310.3	25460	1599	771	83	66
7555	18.1	43.0	3209	193	132	81	18
7556	67.1	107.5	8227	552	342	142	18
7557	137	107.5	8227	552	342	142	18
7558	138.2	101.3	7683	535	334	124	28
7559	70.8	101.3	7683	535	334	124	28
7560	78	86.2	6488	442	288	123	23
7561	37.7	71.1	5294	349	242	122	18
7562	43.5	95.6	7410	434	298	125	22
7563	82.1	99.0	7589	457	302	151	26
7564	32.3	96.5	7390	467	311	128	22
7565	27.9	107.9	7740	526	398	232	40
7566	11.7	46.4	3445	223	154	88	11
7567	56.8	42.2	3136	202	140	67	18
7568	70.1	40.5	3020	199	132	61	17
7569	64.7	37.8	2779	188	127	67	15
7570	52.1	36.1	2582	177	127	81	14
7571	42.1	39.5	2864	192	137	77	18
7572	58.6	39.5	2864	192	137	77	18
7573	85.9	46.5	3543	207	136	71	21
7574	99.3	46.5	3543	207	136	71	21
7575	42.7	53.1	4120	235	156	70	18
7576	64.1	46.0	3487	203	137	81	16
7577	114.4	44.9	3407	198	130	76	20
7578	57.1	47.3	3636	205	130	72	22
7579	88.3	52.1	4090	226	139	69	17
7580	43.6	52.5	4132	230	139	63	19
7581	65	41.3	3279	181	104	57	5
7582	89.3	37.9	2964	165	98	60	6
7583	137.1	37.9	2964	165	98	60	6
7584	43.4	31.4	2338	168	92	57	7
7585	101.7	33.2	2474	163	99	62	10
7586	132.4	34.9	2610	157	106	67	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7587	139.5	34.2	2515	152	102	77	14
7588	101.2	39.0	2964	168	106	75	13
7589	43.4	46.4	3580	197	120	77	19
7590	33.3	46.4	3580	197	120	77	19
7591	65.3	46.0	3585	196	118	73	14
7592	125.3	46.0	3585	196	118	73	14
7593	101.3	50.3	3969	216	125	76	9
7594	95.3	50.3	3969	216	125	76	9
7595	115	54.2	4280	233	132	78	16
7596	75.5	54.8	4308	241	138	86	9
7597	124.3	54.8	4308	241	138	86	9
7598	99	55.9	4367	248	149	83	14
7599	76.3	55.9	4367	248	149	83	14
7600	55	49.0	3786	220	136	73	17
7601	34	49.0	3786	220	136	73	17
7602	77.3	46.4	3602	199	123	70	18
7603	89.3	49.0	3851	205	129	75	11
7604	83.2	49.0	3851	205	129	75	11
7605	112.6	52.1	4092	229	137	72	14
7606	77.5	52.1	4092	229	137	72	14
7607	88.3	51.5	3987	221	139	86	14
7608	65.3	51.5	3987	221	139	86	14
7609	78.4	49.1	3782	211	134	88	11
7610	106.3	49.1	3782	211	134	88	11
7611	116.4	47.0	3661	189	125	77	16
7612	86.4	51.5	4035	206	134	84	14
7613	58.8	44.6	3515	210	70	86	12
7614	75.6	69.2	5558	272	155	97	19
7615	65.5	69.0	5558	272	155	92	19
7616	77.9	69.0	5558	272	155	92	19
7617	88	68.7	5504	280	156	98	15
7618	69.3	22.4	1654	99	69	45	9
7619	80	20.5	1453	86	64	59	10
7620	121	22.5	1643	94	69	55	8
7621	147.3	22.5	1643	94	69	55	8
7622	130.4	22.7	1655	94	67	59	9
7623	58.3	22.5	1620	92	70	60	9
7624	63	23.3	1694	95	68	57	14
7625	73.4	24.0	1814	93	65	51	10
7626	57.6	28.3	2230	120	64	43	9
7627	54.7	41.9	3366	146	90	72	10
7628	69.8	41.9	3366	146	90	72	10
7629	73.2	45.0	3658	161	95	63	12
7630	99.3	45.2	3672	159	94	65	13
7631	99.3	42.5	3457.5	151.9	88.5	64.6	6.4
7632	102	93.7	7681.8	382.1	207.6	99.8	13.6
7633	113.8	42.5	3458	152	88	65	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7634	65.3	17.2	1235	68	48	48	9
7635	95.3	17.2	1235	68	48	48	9
7636	72.6	14.9	1102	61	44	27	10
7637	14.5	20.7	1573	75	50	44	12
7638	15.7	26.1	2053	101	62	44	7
7639	17.4	46.9	3755	192	114	59	12
7640	47.1	40.4	3196	166	100	63	7
7641	3.9	30.1	2197	162	99	59	6
7642	101.6	33.1	2470	156	106	54	15
7643	85.3	33.1	2470	156	106	54	15
7644	81	28.0	2075	135	91	51	9
7645	106.9	28.3	2230	120	64	43	9
7646	109.2	41.8	3309	169	103	63	10
7647	56.3	14.9	1102	61	44	27	10
7648	62.3	39.6	3215	163	90	41	11
7649	81.8	36.1	2867	158	93	42	9
7650	85.7	36.1	2867	158	93	42	9
7651	74.8	39.4	3096	176	107	46	13
7652	36.8	32.7	2526	142	90	53	8
7653	44.3	27.0	2084	112	66	45	13
7654	51.2	30.4	2422	125	71	45	6
7655	38	32.7	2665	134	71	37	6
7656	46.5	34.7	2813	145	76	37	9
7657	85.9	36.2	2938	150	79	40	8
7658	118.6	39.8	3201	169	92	46	9
7659	37	42.2	3357	180	102	57	10
7660	68.5	39.3	3132	166	96	52	8
7661	91	39.3	3132	166	96	52	8
7662	68.1	36.6	2927	148	88	51	7
7663	124.9	36.6	3008	142	77	46	2
7664	72.5	36.6	3008	142	77	46	2
7665	114.6	39.8	3321	133	76	40	13
7666	51.5	39.8	3363	132	72	36	8
7667	56.2	39.7	3344	130	70	42	7
7668	81.9	39.7	3344	130	70	42	7
7669	39.3	46.0	3913	152	79	40	9
7670	43.3	45.8	3913	152	79	33	9
7671	34.4	44.0	3685	152	82	46	8
7672	33.6	42.7	3582	161	82	40	4
7673	55.9	38.9	3198	150	78	43	10
7674	39.7	35.0	2913	138	70	31	5
7675	47.3	32.8	2698	124	67	36	6
7676	39.4	30.1	2466	113	62	36	6
7677	67.5	27.8	2262	101	58	39	5
7678	95.6	27.8	2262	101	58	39	4
7679	72.5	27.8	2262	101	58	39	4
7680	107.8	25.6	2081	91	52	39	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7681	76.1	25.8	2081	91	52	39	9
7682	73.2	25.5	2058	89	51	39	9
7683	68.4	25.2	2027	88	51	45	5
7684	20.6	27.2	2234	91	50	40	6
7685	75.8	34.5	2892	113	59	43	5
7686	88.3	42.0	3543	140	71	41	10
7687	62.8	44.9	3795	154	76	48	5
7688	133.9	44.9	3795	154	76	48	5
7689	83.8	48.1	4079	171	80	46	6
7690	99.6	47.9	4047	176	84	46	4
7691	109.1	46.8	3920	169	82	46	11
7692	94	46.8	3920	169	82	46	11
7693	30.6	48.4	4132	173	81	37	6
7694	72	48.8	4161	165	82	38	10
7695	100.3	48.8	4161	165	82	38	10
7696	94.3	48.8	4161	165	82	38	10
7697	79.8	48.5	4122	169	81	39	10
7698	127.7	49.0	4198	177	82	34	5
7699	41	46.3	3911	164	82	42	7
7700	68.1	42.3	3566	158	75	36	8
7701	58.8	42.1	3547	155	74	34	10
7702	70.4	42.1	3547	155	74	34	10
7703	79.1	41.7	3523	151	70	39	7
7704	58.8	40.9	3489	146	68	28	9
7705	47.8	40.4	3440	145	65	28	10
7706	66.4	38.4	3275	140	64	27	6
7707	82.7	39.0	3357	139	64	23	5
7708	81.4	44.4	3815	156	71	30	6
7709	55.8	50.0	4340	174	75	27	7
7710	91.9	50.0	4340	174	75	27	7
7711	61.4	46.4	4020	196	51	25	6
7712	64.1	57.3	4954	201	84	40	6
7713	62.4	57.3	4954	201	84	40	6
7714	42.5	60.6	5294	209	83	32	7
7715	49	63.1	5512	216	82	39	7
7716	39	60.5	5295	202	79	36	8
7717	57.6	51.1	4451	202	49	33	7
7718	69.6	55.9	4879	187	77	31	8
7719	62.6	51.7	4498	175	74	33	5
7720	79.1	51.8	4498	175	74	36	5
7721	76.7	49.1	4260	170	70	36	2
7722	49.5	47.5	4087	173	69	36	5
7723	95.8	43.1	3687	152	65	34	7
7724	75.4	40.6	3472	142	58	33	10
7725	62.2	38.0	3248	139	58	29	6
7726	31.1	35.1	2993	121	54	27	9
7727	45.7	28.9	2473	102	45	17	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7728	75.4	36.2	3117	123	53	27	5
7729	69.8	43.4	3757	145	60	31	6
7730	48.9	42.7	3713	141	61	30	4
7731	36	28.4	2427	94	45	22	6
7732	36.6	27.1	2336	87	42	20	3
7733	49.6	31.6	2730	96	45	23	9
7734	57.1	41.8	3704	122	57	16	7
7735	73.4	41.1	3576	124	56	33	6
7736	59.7	30.4	2548	125	47	21	10
7737	60.1	37.3	3222	117	56	28	6
7738	55.5	37.9	3288	121	56	24	7
7739	60.2	35.9	3088	121	53	28	5
7740	59.9	32.7	2837	102	47	25	4
7741	60.9	20.5	1644	83	46	24	6
7742	55.3	15.9	1268	55	31	23	8
7743	45.4	13.1	1029	52	29	18	6
7744	45.4	12.6	1016	50	25	12	5
7745	38	12.7	1025	45	25	16	5
7746	45.4	13.4	1103	47	23	10	9
7747	68.4	13.4	1103	47	23	10	9
7748	70.4	16.7	1382	56	29	18	7
7749	105.1	16.7	1382	56	29	18	7
7750	87.7	20.3	1699	67	35	22	5
7751	101.9	20.3	1699	67	35	22	5
7752	90.3	20.5	1734	68	33	15	8
7753	91	21.0	1778	69	34	17	7
7754	92.9	21.0	1778	69	34	17	7
7755	132.4	22.9	1957	76	34	15	7
7756	140.7	22.9	1957	76	34	15	7
7757	148	22.9	1957	76	34	15	7
7758	124	29.8	2588	97	45	19	2
7759	93.3	29.8	2588	97	45	19	2
7760	93.3	31.8	2726	106	50	24	5
7761	79.9	21.0	1757	90	37	14	4
7762	34.8	24.4	2057	91	47	11	7
7763	35.1	24.3	2049	96	47	14	4
7764	55.1	26.8	2198	108	55	22	10
7765	89.3	33.8	2815	137	71	23	6
7766	94.2	33.8	2815	137	71	23	6
7767	86	23.9	2012	86	45	16	6
7768	65	23.9	2012	86	45	16	6
7769	78.3	17.6	1470	61	28	19	5
7770	63.2	17.7	1470	61	28	19	6
7771	81.9	14.3	1200	48	24	10	6
7772	78.3	14.3	1200	48	24	10	6
7773	89.1	20.5	1745	59	34	18	6
7774	99.3	20.5	1745	59	34	18	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7775	66.2	47.9	4117	157	83	33	8
7776	75.3	47.9	4117	157	83	33	8
7777	101.6	187.6	15718	725	401	161	12
7778	62.3	263.7	21825	1074	611	240	19
7779	38.4	269.2	22277	1110	629	232	22
7780	42.4	153.8	12786	618	351	131	10
7781	39.3	86.8	7222	347	186	73	12
7782	28.3	60.5	4904	278	123	69	11
7783	105.9	58.8	4904	229	123	51	6
7784	90.9	58.8	4904	229	123	51	6
7785	85	48.1	4042	184	98	36	6
7786	91.6	41.1	3426	155	81	39	6
7787	104	39.9	3337	145	77	28	14
7788	46	38.3	3222	140	74	32	6
7789	64.2	39.8	3331	148	78	33	8
7790	87.6	39.8	3331	148	78	33	8
7791	84.2	44.2	3718	166	86	36	5
7792	79.3	49.3	4140	183	90	46	7
7793	77	45.2	3797	183	66	45	8
7794	68.7	45.0	3797	183	66	42	7
7795	53.4	48.5	4105	180	88	35	9
7796	63.1	44.5	3837	163	84	18	2
7797	54.3	42.7	3641	154	74	30	5
7798	63.8	39.6	3385	141	66	25	9
7799	64.7	26.7	2241	127	30	21	5
7800	98.4	26.5	2241	127	30	18	5
7801	77.3	25.2	2125	118	31	19	4
7802	59.3	30.0	2577	103	54	18	2
7803	76.3	29.0	2450	100	52	26	5
7804	33.3	33.2	2843.2	111.5	55.6	24.9	5.7
7805	77.8	37.4	3236.3	123	59.1	23.7	6.4
7806	66.9	42.7	3688.4	148.5	68.3	24.7	6.4
7807	54.1	42.7	3688.4	153.3	68.3	24.7	7.2
7808	51.8	41.4	3548.4	153.3	69.6	26.6	7.2
7809	45.2	41.4	3548.4	150.2	69.6	29.4	10.4
7810	65.4	39.4	3373.2	142.7	66.7	29.4	1.6
7811	41.6	39.6	3390	147.8	67	29.4	2.4
7812	94.1	40.9	3508.6	147.8	67.4	26.6	6.4
7813	54.5	51.9	4429.6	193.7	89.8	38	7.2
7814	18.6	52.3	4452.6	193.7	95.2	38	4.8
7815	16.2	52.3	4452.6	193.7	95.2	41.8	6
7816	66.5	52.3	4452.6	193.7	95.2	45.6	7.2
7817	44.9	41.2	3358.9	166.8	95.2	42.7	6.4
7818	96.8	41.2	3358.9	166.8	95.2	49.4	6.4
7819	85.4	41.2	3269.5	166.2	106.9	58.9	8
7820	62.9	41.2	3269.5	166.2	106.9	58.9	8
7821	66.3	40.1	3202	163	105	56	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7822	107.1	39.1	3134	160	102	54	4
7823	80	46.6	3735	186	120	66	6
7824	66.4	49.3	3978	193	128	60	9
7825	77.5	47.4	3817	187	122	57	11
7826	78.5	45.5	3655	180	116	55	14
7827	112.6	43.3	3541	165	103	49	9
7828	71.2	51.1	4166	195	125	56	12
7829	75.8	51.1	4166	195	125	56	12
7830	76.3	39.4	3243	150	88	46	5
7831	75.9	48.1	4013	184	108	40	7
7832	63.8	51.1	4240	193	111	56	5
7833	57.8	39.2	3148	200	86	42	4
7834	62.3	41.4	3312.4	200	107.8	52.2	12
7835	64.3	57.6	4535.4	273.2	167	62.7	8.8
7836	68.1	57.6	4535.4	273.2	168.5	69.3	14.4
7837	80.3	46.9	3639.3	207.3	127.4	69.3	14.4
7838	27.2	31.3	2541	127.8	75.3	32.3	4.8
7839	31.4	31.3	2541	127.8	75.3	32.3	4.8
7840	91.2	35.9	2955.3	136.6	75.3	36.1	8.8
7841	37	39.5	3342	138	74	35	8
7842	60.2	36.8	3132	151	44	34	7
7843	63.8	43.7	3710	159	75	33	8
7844	35	45.1	3829	167	83	31	6
7845	53.9	52.2	4459	193	95	36	2
7846	36.3	51.7	4407	188	99	34	5
7847	68.7	50.1	4263	184	91	30	11
7848	91.6	46.5	3952	175	81	29	10
7849	55.7	44.1	3799	161	74	22	5
7850	95.3	45.4	3939	166	74	19	3
7851	64.6	48.2	4151	176	78	24	8
7852	75.8	48.2	4151	176	78	24	8
7853	97.2	41.1	3528	175	49	23	7
7854	81.2	41.2	3528	175	49	27	7
7855	82.5	48.3	4144	170	79	33	8
7856	74.5	52.8	4552	187	81	33	8
7857	67.1	55.6	4781	194	86	39	10
7858	40.2	54.5	4678	190	87	40	7
7859	76.2	55.0	4718	200	89	39	5
7860	63.3	55.0	4718	200	89	39	5
7861	91.6	61.4	5256	225	103	43	6
7862	60.6	61.4	5256	225	103	43	6
7863	81	65.7	5598	254	112	42	9
7864	83.9	65.7	5598	254	112	42	9
7865	32.5	64.6	5456	258	119	46	7
7866	21.1	63.4	5336	252	118	53	6
7867	92.5	61.3	5170	242	114	48	6
7868	56.9	67.9	5729	260	127	59	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7869	76.8	67.9	5729	260	127	59	5
7870	65.3	76.8	6552	268	135	69	4
7871	129	78.2	6724	265	131	60	8
7872	87.3	78.2	6724	265	131	60	8
7873	127.3	68.1	5839	231	117	54	6
7874	64.4	68.1	5839	231	117	54	6
7875	57.4	64.6	5525	213	108	56	10
7876	104.2	79.1	6818	267	142	51	6
7877	123.2	79.1	6818	267	142	51	6
7878	63.1	155.1	12935	609	338	136	13
7879	61.9	315.3	25684	1372	811	292	28
7880	61.4	422.2	33983	1927	1132	438	26
7881	59.9	388.6	31185	1813	1056	386	34
7882	61.7	304.7	24459	1383	832	315	29
7883	60.9	247.8	20013	1099	659	257	16
7884	60.5	247.8	20013	1099	659	257	16
7885	59.9	196.6	15981	841	510	198	14
7886	75.9	170.5	13871	710	423	190	12
7887	69.9	154.2	12624	644	381	143	18
7888	67.2	131.4	10798	529	321	132	8
7889	74.9	122.8	10139	490	286	120	9
7890	62.5	110.9	9152	436	253	108	14
7891	32.7	98.6	8186	378	226	93	8
7892	52.5	88.6	7369	331	200	84	7
7893	48.4	79.0	6642	268	162	75	12
7894	56.8	71.1	6062	243	141	50	7
7895	52.3	71.1	6062	243	141	50	7
7896	77.5	68.2	5719	229	133	74	10
7897	48	55.8	4645	198	114	62	7
7898	56.5	57.9	4826	212	117	55	12
7899	39.7	71.0	5968	262	140	67	5
7900	50.7	61.2	5152	268	90	59	4
7901	29.1	61.8	5204	222	120	52	10
7902	23.1	49.0	4159	166	95	42	3
7903	20.5	46.0	3919	146	82	43	6
7904	17.4	37.4	3111	136	80	39	7
7905	30.5	35.5	2937	132	78	38	6
7906	39.8	34.4	2843	135	78	33	5
7907	33.2	33.5	2767	128	82	30	5
7908	35.6	31.2	2540	121	75	33	9
7909	19.1	35.2	2925	126	73	41	6
7910	43.3	42.0	3540	134	82	46	7
7911	63.7	43.0	3660	138	90	35	6
7912	54.7	44.3	3600	156	106	62	8
7913	74.8	45.2	3588	177	122	68	8
7914	77.8	45.2	3588	177	122	68	8
7915	73.6	47.0	3637	202	142	71	14

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7916	91.4	50.0	3836	215	160	77	15
7917	67.6	48.1	3577	240	165	80	16
7918	71.1	48.8	3577	240	179	86	17
7919	48.1	62.5	4872	258	187	92	18
7920	57	69.3	5426	265	196	120	14
7921	57.5	75.4	5985	277	204	126	11
7922	38.5	70.1	5620.4	246	178.7	111.1	12.8
7923	58.6	67.9	5516.7	257.9	166.6	95.9	12.8
7924	67.7	70.4	5664.9	273.5	166.3	97.8	13.6
7925	56	70.4	5664.9	273.5	166.3	97.8	13.6
7926	58.3	57.7	4650.3	231.4	136.6	73.1	12.8
7927	62.1	49.5	3960.7	201.8	118.6	63.6	12.8
7928	51.3	11.3	820	46	32	27	10
7929	29	10.4	793	44	28	19	6
7930	61.4	10.8	810	46	31	19	7
7931	22.5	10.9	816	46	31	20	7
7932	22.5	11.0	821	46	32	22	7
7933	70.2	11.3	836	46	32	26	6
7934	60.8	11.4	840	46	32	26	9
7935	44.4	11.7	860	47	33	29	7
7936	51.1	11.9	868	47	34	29	9
7937	29.1	11.8	868	47	34	26	9
7938	50.4	11.5	866	46	34	26	4
7939	54.5	11.8	867	47	34	27	9
7940	47	11.6	872	50	31	26	5
7941	32.1	11.6	878	44	33	26	4
7942	46.9	12.1	901	48	36	27	6
7943	42.3	9.9	686	45	35	28	6
7944	31.1	12.4	919	51	36	29	6
7945	42.1	12.2	931	51	36	18	9
7946	41.7	12.7	948	49	38	28	8
7947	51.9	12.8	989	54	39	18	6
7948	47	13.3	1021	56	39	20	7
7949	47.6	14.0	1074	60	38	26	6
7950	44.1	15.2	1162	62	43	30	5
7951	43.6	18.6	1452	78	50	29	7
7952	40.5	16.9	1280	76	49	32	6
7953	27.2	19.1	1485	75	49	36	6
7954	48.9	19.4	1545	74	47	28	8
7955	35	19.3	1545	74	46	28	7
7956	26.1	19.5	1583	76	42	25	6
7957	41.9	19.6	1600	78	41	23	7
7958	58	19.7	1598	74	43	27	6
7959	38.7	19.2	1564	72	37	24	8
7960	40.4	18.6	1525	70	37	22	6
7961	49.3	18.4	1496	68	37	25	7
7962	46.3	17.8	1469	67	34	21	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7963	45.2	17.6	1456	65	32	22	4
7964	52.2	16.4	1345	60	31	20	6
7965	65.2	17.5	1458	63	30	18	7
7966	77.2	17.4	1443	63	34	15	8
7967	55.6	18.4	1508	68	33	20	11
7968	44.9	18.2	1508	68	32	16	11
7969	36.1	19.2	1589	68	34	25	6
7970	40.9	19.6	1628	72	34	22	6
7971	68.6	19.3	1622	69	34	20	5
7972	74.2	19.8	1660	74	37	18	6
7973	61.3	19.9	1660	74	37	18	7
7974	54.8	20.1	1675	75	38	20	5
7975	50	20.2	1683	76	38	20	6
7976	59.6	19.7	1667	78	36	12	6
7977	42.2	19.3	1578	71	37	21	10
7978	37.2	18.7	1536	66	37	24	6
7979	56.3	17.7	1473	66	36	12	9
7980	57.5	15.5	1250	68	35	13	8
7981	61.4	18.6	1504	67	35	28	9
7982	54.9	18.6	1537	68	39	15	9
7983	52.6	19.6	1609	71	42	23	7
7984	40.5	20.4	1674	73	45	23	6
7985	39.3	23.2	1941	84	45	25	4
7986	43.3	26.4	2190	90	53	28	11
7987	80.1	29.4	2466	101	57	31	5
7988	52.5	34.2	2849	119	66	36	11
7989	45.8	39.7	3330	144	78	40	6
7990	50.8	40.5	3404	146	82	40	5
7991	55.4	39.6	3367	143	76	28	6
7992	51.1	40.6	3449	145	78	32	5
7993	57.6	47.1	4000	170	85	38	9
7994	48.8	57.8	4856	223	120	41	12
7995	39.4	67.5	5638	272	150	48	10
7996	28.8	84.0	6885	359	204	74	12
7997	41	88.8	7243	387	231	73	13
7998	44.9	79.3	6590	422	137	50	7
7999	36	20.6	1721	82	43	15	4
8000	51.3	20.7	1703	81	44	20	6
8001	46.4	21.0	1703	83	46	24	9
8002	44.3	17.7	1450	68	37	21	6
8003	44.5	19.0	1563	71	40	20	6
8004	46.5	15.4	1236	59	34	22	7
8005	47.3	13.3	1077	56	29	15	5
8006	47.2	11.6	936	48	29	11	4
8007	41.6	13.5	1106	55	32	10	5
8008	32.5	29.2	2452	109	60	25	5
8009	54.9	26.5	2154	104	61	32	6

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8010	73.1	20.1	1602	81	49	27	8
8011	75.9	24.0	1939	98	57	24	9
8012	78.3	30.1	2418.9	119.3	73.7	35	8
8013	50.6	31.6	2566	130.1	77.5	34.2	8
8014	39.2	32.5	2607.4	132.5	83.5	37	5.6
8015	47.2	32.5	2607.4	133.9	83.5	39.9	5.6
8016	73.2	32.4	2602.3	134.2	81	39.9	4.8
8017	48.5	31.6	2562.5	134.2	77.5	29.4	11.2
8018	46.9	30.2	2434	124	76	29	11
8019	86.1	33.3	2680	135.9	85.4	33.2	11.2
8020	20.8	33.3	2680	135.9	85.4	33.2	8
8021	62.3	27.6	2201.3	114.2	71.8	31.3	10.4
8022	85.8	20.4	1590.3	81.6	55.3	28.5	10.4
8023	66.5	16.0	1215.8	66.9	43.3	28.5	11.2
8024	34.7	11.6	936	48	29	11	4
8025	42.3	12.4	886	54	48	24	10
8026	85.1	12.3	888	53	46	27	6
8027	84.5	12.3	888	53	46	27	6
8028	98.7	12.5	873	51	46	33	10
8029	65.3	12.5	873	51	46	33	10
8030	92.2	12.7	875	50	44	37	11
8031	89.9	12.7	890	52	45	35	8
8032	69.3	12.7	890	52	45	35	8
8033	61.4	10.2	702	48	37	25	9
8034	65.3	13.0	883	50	46	46	8
8035	63	11.5	857	49	39	22	5
8036	82	11.9	861	47	40	24	11
8037	80.1	11.9	861	47	40	24	11
8038	76	12.0	859	47	38	32	8
8039	71.8	11.7	841	44	38	30	8
8040	88.3	11.7	841	44	38	30	8
8041	110.2	11.3	835	47	36	22	8
8042	108.4	11.3	835	47	36	22	8
8043	105.7	10.9	822	46	35	14	9
8044	73.8	11.0	795	44	38	28	6
8045	61.6	10.3	796	44	32	10	7
8046	55.4	9.9	776	42	30	6	8
8047	34.7	10.4	782	40	34	21	5
8048	28.1	12.8	998	44	31	22	9
8049	43.7	15.2	1248	46	32	17	9
8050	61.6	18.0	1526	57	34	13	7
8051	50.6	21.1	1824	61	37	12	8
8052	55	23.8	2059	75	41	15	5
8053	70.1	26.2	2244	79	44	25	6
8054	55.4	27.6	2402	85	46	17	4
8055	56.8	28.6	2498	85	46	17	6
8056	62	29.1	2527	95	47	15	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8057	68.6	29.6	2579	92	49	15	7
8058	45.9	30.8	2628	103	50	26	9
8059	50.9	30.6	2656	100	51	14	8
8060	47.9	34.0	2883	105	57	34	11
8061	55.6	34.0	2883	105	57	34	11
8062	51.4	34.0	2930	108	60	24	6
8063	53.1	34.2	2891	108	60	36	10
8064	45.6	31.8	2706	98	58	30	8
8065	49.9	30.7	2583	96	60	34	6
8066	72.7	30.7	2583	96	60	34	6
8067	47.3	26.3	2230	83	52	22	7
8068	43.6	24.9	2047.5	80	50.9	23.7	14.4
8069	77.6	24.9	2047.5	75.1	50.9	23.7	14.4
8070	122.4	25.2	2078.7	75.1	50.9	33.2	14.4
8071	94.1	25.7	2123.1	73.7	49	40.8	8
8072	47.2	26.6	2234	71.4	47.8	40.8	7.2
8073	79	27.7	2316.2	73.1	48.1	36.1	12
8074	75.2	28.7	2438.8	74.1	48.1	35.1	12
8075	52.1	29.9	2561.9	79.5	48.1	35.1	15.2
8076	26.6	25.4	2289.1	83.3	34.5	26.6	12
8077	23.3	14.6	1148.4	49.3	33.5	23.7	5.6
8078	56.4	14.6	1148.4	49.3	33.5	25.6	9.6
8079	54.8	15.5	1243.4	52.3	37.3	25.6	10.4
8080	17.5	15.5	1248	55.1	35.1	24.7	4.8
8081	26.5	15.8	1240.9	53	35.1	28.5	8
8082	22.9	15.5	1240.9	52.3	34.2	28.5	6.4
8083	52	16.5	1335.9	57.1	36.1	19.9	5.6
8084	51.9	18.2	1468.7	59.8	38.6	20.9	10.4
8085	53.2	19.1	1541.8	68.3	41.4	23.7	10.4
8086	55.3	19.1	1541.8	68.3	41.4	23.7	7.2
8087	69.4	19.2	1536.1	66.9	40.8	25.6	9.6
8088	40.3	18.2	1489.1	64.2	38.3	18	8.8
8089	48.1	17.6	1436	64.2	36.1	17.1	8
8090	38.1	15.6	1279.2	54.7	31.6	14.3	8
8091	28	15.8	1295.5	51.7	32.6	19	8
8092	29.4	18.4	1532.6	55.7	34.5	19	7.2
8093	25.3	24.6	2071.5	71.7	41.7	22.8	11.2
8094	33.9	26.6	2246.7	81.6	46.5	28.5	10.4
8095	41.2	29.0	2436.8	84.3	48.7	28.5	13.6
8096	49.9	31.2	2672.3	89.7	52.8	27.5	13.6
8097	64.7	33.6	2874.1	102.3	60.1	29.4	12
8098	59	37.1	3151	117.2	65.8	29.4	12.8
8099	54.8	41.7	3550.5	134.9	76.5	30.4	12.8
8100	44.3	47.7	4079.2	158.7	92.3	32.3	12
8101	41.8	50.9	4288.6	167.5	99.6	50.3	7.2
8102	40.6	50.9	4295.3	168.9	100.2	50.3	8.8
8103	89.8	50.4	4295.3	168.9	100.2	41.8	8.8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8104	44.7	50.2	4264.6	164.8	98	41.8	10.4
8105	52.6	49.6	4208.4	161.7	94.2	40.8	10.4
8106	72.3	46.3	3948.9	149.2	85.7	35.1	10.4
8107	37.7	46.3	3948.9	143.4	85.7	35.1	10.4
8108	56.9	44.0	3778.8	127.8	80.6	33.2	8
8109	49	43.5	3754.8	127.8	77.8	31.3	8.8
8110	37.6	41.6	3577	123	72.1	32.3	12
8111	54.4	40.2	3433	116.6	71.8	32.3	12
8112	33.7	34.8	3001.3	99.9	60.1	27.5	6.4
8113	40.4	35.1	3072.8	97.2	61	27.5	4
8114	32.7	39.8	3439.6	123.3	69.6	22.8	6.4
8115	63.3	41.1	3559.6	123.3	75.3	27.5	9.6
8116	40.4	40.3	3502.9	114.2	67	26.6	10.4
8117	55	31.7	2742.8	85.3	49	26.6	5.6
8118	51.2	32.7	2904.7	77.1	46.8	19.9	6.4
8119	70.2	36.2	3227.1	93.4	49	19.9	4.8
8120	71.6	38.3	3379.8	91.7	49.3	28.5	7.2
8121	58.9	41.0	3619.4	101.9	55	28.5	7.2
8122	48.3	41.0	3619.4	101.9	55	28.5	12.8
8123	36	37.3	3284.8	96.8	51.5	26.6	12.8
8124	46.5	35.4	3093.2	91.1	49.3	26.6	11.2
8125	46.8	32.8	2856.7	85	45.9	26.6	8
8126	70.9	30.4	2639.4	81.9	41.9	23.8	8
8127	56	27.9	2422	78.8	37.9	20.9	8
8128	66.2	26.7	2320.3	73.1	39.8	20.9	6.4
8129	36	28.0	2421	81.2	41.1	21.8	6.4
8130	24.5	28.6	2485.8	83.9	41.4	15.2	8.8
8131	59	29.0	2513.9	86	43.3	20.9	8.8
8132	43.2	29.8	2612	85	42.1	17.1	4.8
8133	44.5	31.1	2693.2	93.4	49.6	19.9	6.4
8134	49.3	32.2	2793.9	98.2	50.3	18	8
8135	57.7	36.5	3208.7	112.5	55.7	20.9	12
8136	59.7	50.8	4433.2	137.6	75.3	37	12.8
8137	61.8	48.7	4270.8	136.6	73	33.2	11.2
8138	35.2	49.7	4311.6	151.6	81.9	33.2	14.4
8139	31.2	50.6	4349.9	156.3	87	38.9	9.6
8140	28.9	49.5	4257	153.9	87	38.9	8.8
8141	25.3	40.5	3471.8	127.1	74.6	32.3	8
8142	19.1	35.0	2976.3	113.2	63.6	30.4	4
8143	54.1	33.3	2829.1	105.3	59.8	28.5	6.4
8144	31.4	31.0	2632.4	99.2	60.1	27.5	8
8145	36.7	29.3	2495.5	89.4	54.7	24.7	5.6
8146	33.8	21.9	1838	69	40	26	6
8147	30.8	8.0	602	33	21	18	5
8148	55	7.5	574	29	23	11	6
8149	53.9	6.3	474	26	13	13	6
8150	73.3	6.3	472	24	17	12	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8151	70.3	5.6	417	23	14	11	6
8152	64.1	5.3	395	25	14	10	4
8153	61.7	5.5	410	24	15	11	4
8154	67.4	5.5	410	24	15	11	4
8155	59.2	5.7	422	21	16	12	6
8156	60.6	6.1	438	24	16	13	8
8157	60.1	6.3	469	24	16	13	6
8158	64.1	6.3	496	25	17	8	3
8159	77.6	6.8	530	27	16	9	6
8160	49.7	7.0	562	27	17	7	5
8161	35	8.2	632	31	20	11	9
8162	28.3	8.5	654	34	21	12	9
8163	59.9	8.5	669	34	21	12	5
8164	74.7	8.8	686	33	20	14	6
8165	46.3	9.0	713	33	20	14	6
8166	66.2	8.9	720	33	21	9	6
8167	67.4	9.2	726	34	21	13	6
8168	50.8	9.4	738	34	21	16	5
8169	60.4	9.3	738	31	21	16	6
8170	55.9	9.6	750	31	22	17	8
8171	49.4	8.6	659	31	20	16	7
8172	49.4	9.7	765	35	21	15	6
8173	69.8	9.7	776	32	22	15	6
8174	66.6	9.8	791	34	22	14	4
8175	56.5	10.0	793.9	33.3	21.5	9.5	7.2
8176	55	10.0	793.9	33.3	21.5	9.5	7.2
8177	58.6	9.6	780.6	33.3	21.5	10.5	5.6
8178	53.1	10.1	798	34	20.2	16.1	6.4
8179	51.1	13.2	1113.2	38.7	23.4	16.1	6.4
8180	63.4	13.2	1110	38	23	16	6.2

FLUORESCENCE DATA RECORD

WELL: LO6-34D

INTERVALS (Feet)	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.
2490 - 2520	TEREBRATULA						5	PL YELSH		X				X			X			X			PL YELSH WH	PL YEL	NIL
2520 - 2550	TEREBRATULA						5	PL YELSH		X				X			X			X			PL YELSH WH	PL YEL	NIL
2550 - 2580	TEREBRATULA		X					PL YELSH		X				X			X			X			PL YELSH WH	PL YEL	NIL
5100 - 5110	RIO BRAVO		X					DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5110 - 5120	RIO BRAVO						5	DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5120 - 5130	RIO BRAVO		X					DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5130 - 5140	RIO BRAVO		X					DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5260 - 5270	RIO BRAVO						5	DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5270 - 5280	RIO BRAVO		X					DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5280 - 5290	RIO BRAVO		X					DULL YEL	X					X			X			X			PL YEL	MKY WH	NIL
5420 - 5430	RIO BRAVO		X					PL YEL	X					X				X		X			PL YEL	PL YEL	NIL
5600 - 5610	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5870 - 5880	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5880 - 5890	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5890 - 5900	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5900 - 5910	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5910 - 5920	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5920 - 5930	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5930 - 5940	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5940 - 5950	RIO BRAVO						10	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-34D

INTERVALS (Feet)	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.
5950 - 5953	RIO BRAVO						15	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5953 - 5960	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5960 - 5970	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5970 - 5980	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5980 - 5990	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
5990 - 6000	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6000 - 6010	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6180 - 6190	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6190 - 6200	RIO BRAVO						10	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6200 - 6210	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6210 - 6220	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6220 - 6230	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6230 - 6240	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6240 - 6250	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6280 - 6290	RIO BRAVO						15	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6290 - 6300	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6300 - 6310	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6310 - 6320	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6340 - 6350	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6350 - 6360	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-34D

INTERVALS (Feet)	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.
6360 - 6370	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6370 - 6380	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6380 - 6390	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6390 - 6400	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6400 - 6410	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6410 - 6420	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6420 - 6430	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6430 - 6440	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6520 - 6530	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6700 - 6710	RIO BRAVO						5	PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
6710 - 6720	RIO BRAVO						5	PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
6720 - 6730	RIO BRAVO		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
6830 - 6840	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6840 - 6850	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6850 - 6860	RIO BRAVO						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6870 - 6880	RIO BRAVO		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
6980 - 6990	MOGOLLON						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
7000 - 7010	MOGOLLON		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
7010 - 7020	MOGOLLON		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
7020 - 7030	MOGOLLON		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL

FLUORESCENCE DATA RECORD

WELL: LO6-34D

INTERVALS (Feet)	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.
7030 - 7040	MOGOLLON		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
7180 - 7190	MOGOLLON						5	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7190 - 7200	MOGOLLON						20	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7200 - 7210	MOGOLLON						10	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7210 - 7220	MOGOLLON						5	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7220 - 7230	MOGOLLON						5	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7230 - 7240	MOGOLLON						15	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7240 - 7250	MOGOLLON						25	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7250 - 7260	MOGOLLON						30	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7260 - 7270	MOGOLLON						30	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7270 - 7280	MOGOLLON						25	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7280 - 7290	MOGOLLON						35	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7290 - 7300	MOGOLLON						35	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7300 - 7310	MOGOLLON						40	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7310 - 7320	MOGOLLON						35	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7320 - 7330	MOGOLLON						25	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7330 - 7340	MOGOLLON						20	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7340 - 7350	MOGOLLON						5	PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7350 - 7360	MOGOLLON		X					PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7360 - 7367	MOGOLLON		X					PL YELSH		X	X			X				X		X		X	YELSH WH	MKY WH	NIL

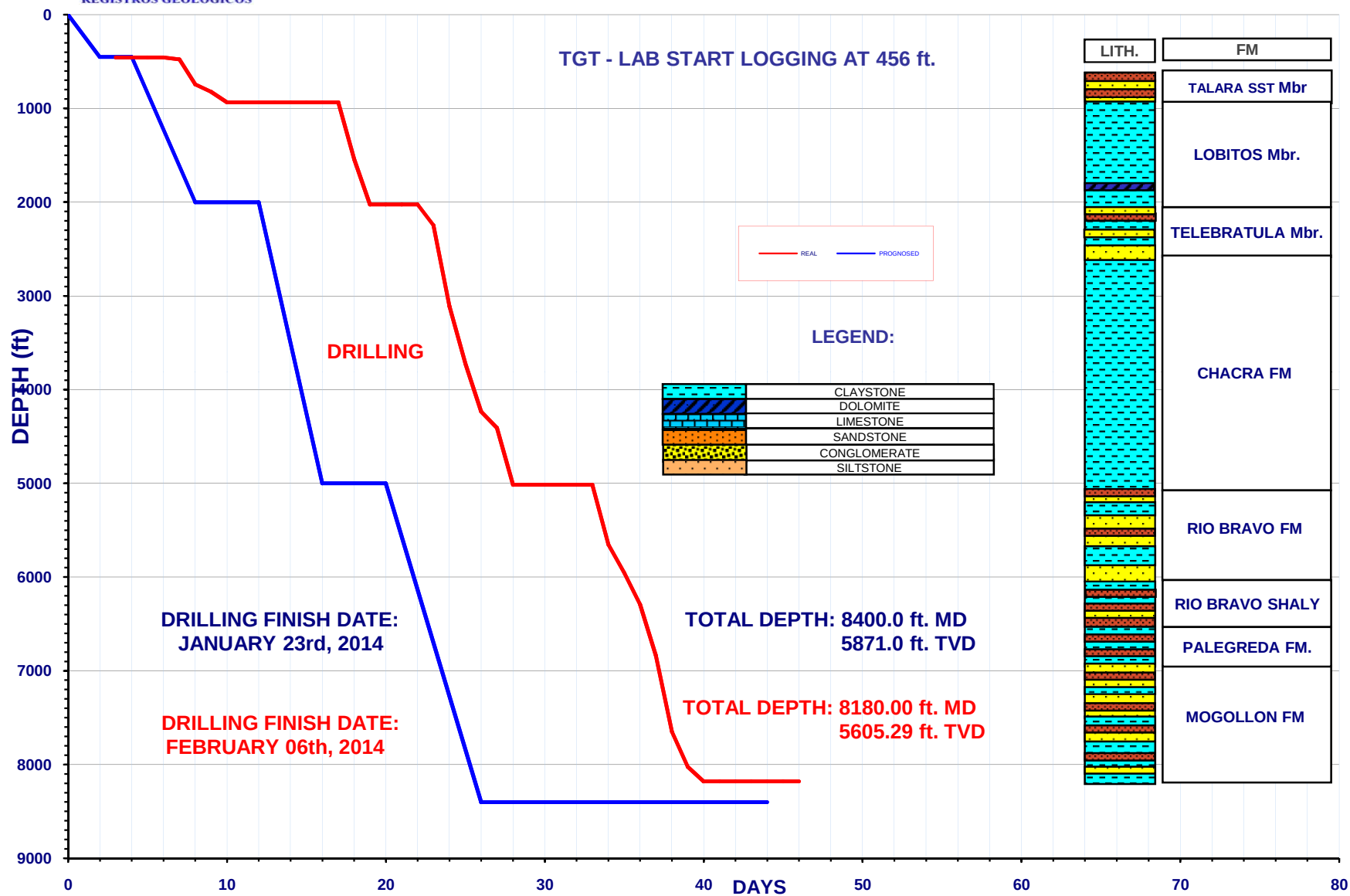
FLUORESCENCE DATA RECORD

WELL: LO6-34D

INTERVALS (Feet)	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.
7390 - 7400	MOGOLLON		X					PL YELSH		X	X			X				X		X			YELSH WH	MKY WH	NIL
7440 - 7450	MOGOLLON						15	PL YELSH		X				X				X		X			YELSH WH	MKY WH	NIL
7450 - 7460	MOGOLLON						20	PL YELSH		X				X				X		X			YELSH WH	MKY WH	NIL
7540 - 7550	MOGOLLON		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
7550 - 7560	MOGOLLON						5	PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
7560 - 7570	MOGOLLON		X					PL YEL	X					X				X		X			YELSH WH	MKY WH	NIL
7630 - 7640	MOGOLLON		X					PL YEL	X					X				X		X			PL YELSH WH	PL YEL	NIL
7770 - 7780	MOGOLLON						5	PL YEL	X	X				X				X		X			YELSH WH	PL YEL	NIL
7780 - 7790	MOGOLLON		X					PL YEL	X	X				X				X		X			YELSH WH	PL YEL	NIL
7790 - 7800	MOGOLLON		X					PL YEL	X	X				X				X		X			YELSH WH	PL YEL	NIL
7870 - 7880	MOGOLLON						25	PL YEL		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7880 - 7890	MOGOLLON						15	PL YEL		X	X			X				X		X		X	YELSH WH	MKY WH	NIL
7890 - 7900	MOGOLLON						5	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
7900 - 7910	MOGOLLON						5	PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
7910 - 7920	MOGOLLON		X					PL YEL		X				X				X		X			YELSH WH	MKY WH	NIL
7960 - 7970	MOGOLLON		X					PL YEL	X	X				X				X		X			YELSH WH	MKY WH	NIL
7970 - 7980	MOGOLLON						5	PL YEL	X	X				X				X		X			YELSH WH	MKY WH	NIL
7980 - 7990	MOGOLLON						20	PL YEL	X	X				X				X		X			YELSH WH	MKY WH	NIL
7990 - 8000	MOGOLLON		X					PL YEL	X	X				X				X		X			YELSH WH	MKY WH	NIL
8080 - 8090	MOGOLLON		X					PL YEL	X	X				X			X			X			PL YELSH WH	PL YEL	NIL

[illegible]

DRILLING PROGRESS CURVE WELL : LO6-34D





BIT RECORD



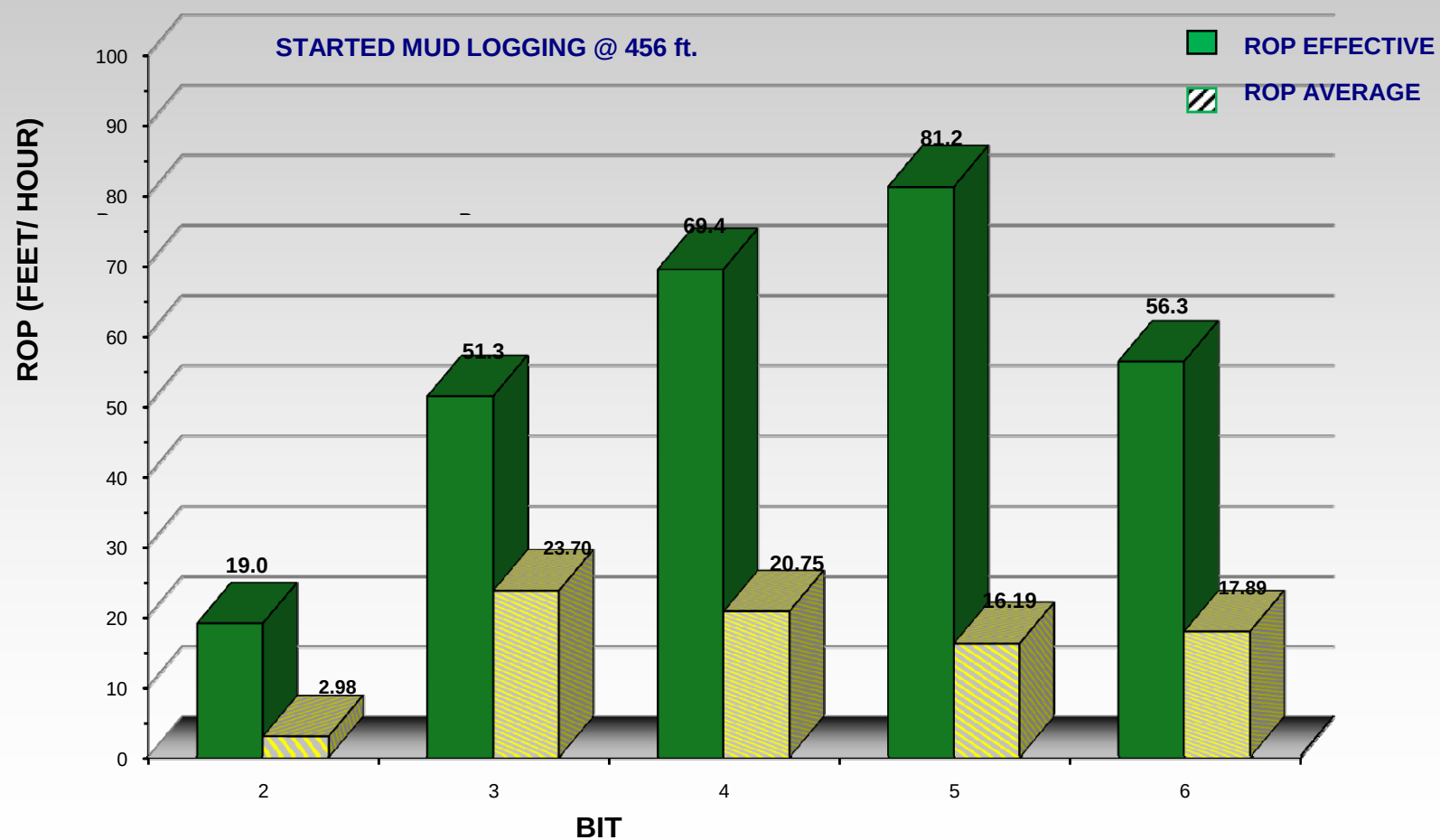
WELL: LO6-34D

* STARTED MUD LOGGING @ 456 ft.

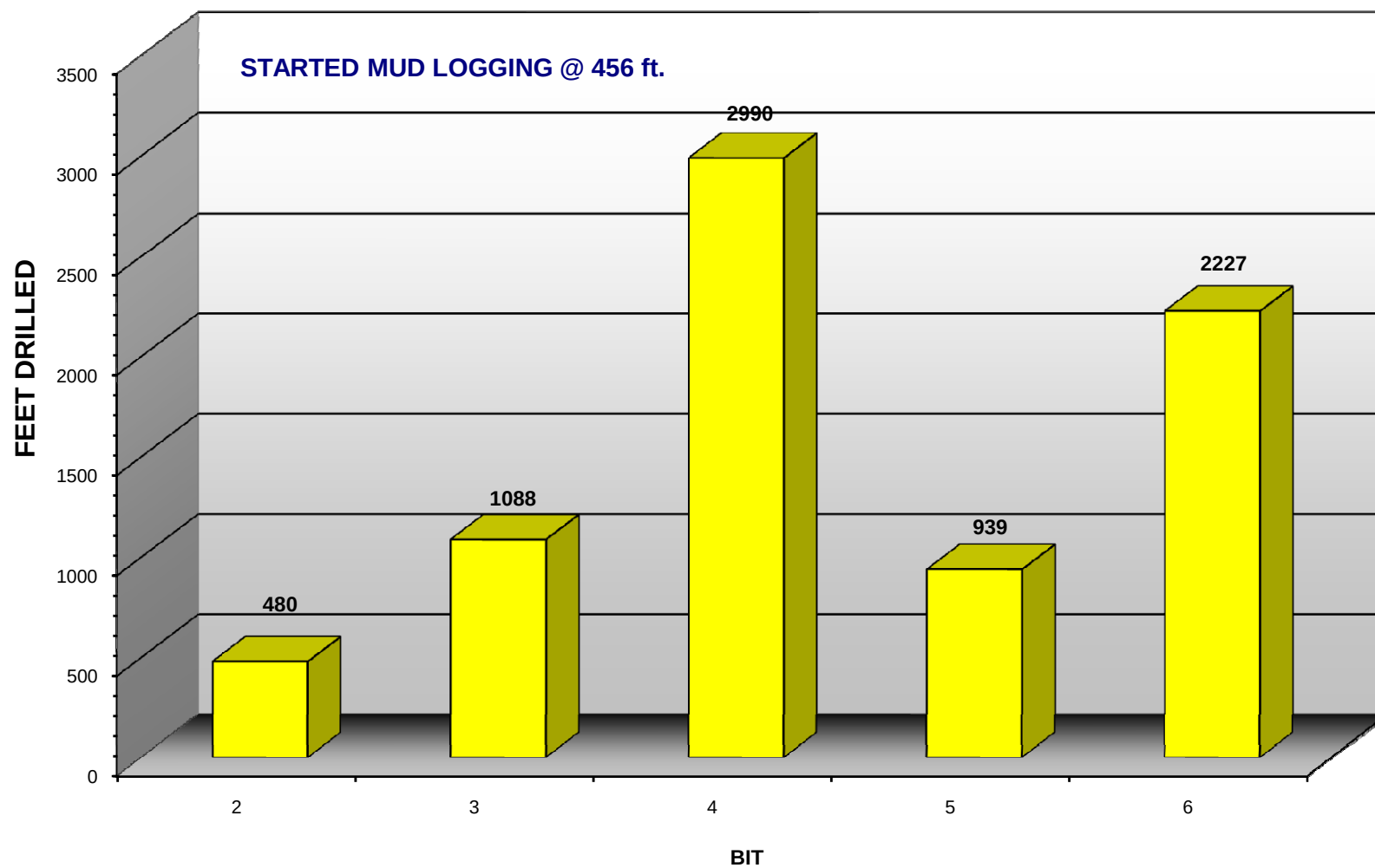
BIT	SIZE	MAKE	TYPE	SERIAL	DEPTH		HOLE	ROP Effective	HOURS		JETS	GPM/PSI	WOB/RPM Klbs / rpm	IADC
	IN				IN	OUT		M/HR	Total	Drilling				
2	12 1/4	-	XR+	PT5699	456	936	480	19.0	161.0	25.2	1X18;1X14;1X20;1X32	680/1220	-	-
3	17	NOV	TFH519S	E159172	936	2024	1088	51.3	45.9	21.2	5X15	780/2150	15/50	-
4	12 1/4	SMITH	SDI419MHABPX	JG2134	2024	5014	2990	69.4	144.1	43.1	6X15	780/2820	13/100	1-2-CT-G-X-I-NO-TD
5	8 1/2	SMITH	MDIZ519LBPX	JH6444	5014	5953	939	81.2	58.0	11.6	3X15; 2X16	580/2590	12/80	0-2-DL-G/S-X-2-WT-BHA
6	8 1/2	SMITH	MDI529LBPX	JH2437	5953	8180	2227	56.3	124.5	39.6	3X15; 2X16	590/2700	15/100	0-2-DL-G/2-X-2-WT-TD

FORMATIONS:	MD (ft)	TVD (ft)
TALARA SANDSTONE	0	0.0
LOBITOS	807	805.3
TEREBRATULA	2117	1850.6
CHACRA	2585	2099.4
RIO BRAVO	5090	3264.4
RIO BRAVO SHALY	6052	3853.7
PALEGREDA	6510	4189.6
MOGOLLON	6978	4568.8
TD	8180	5605.3

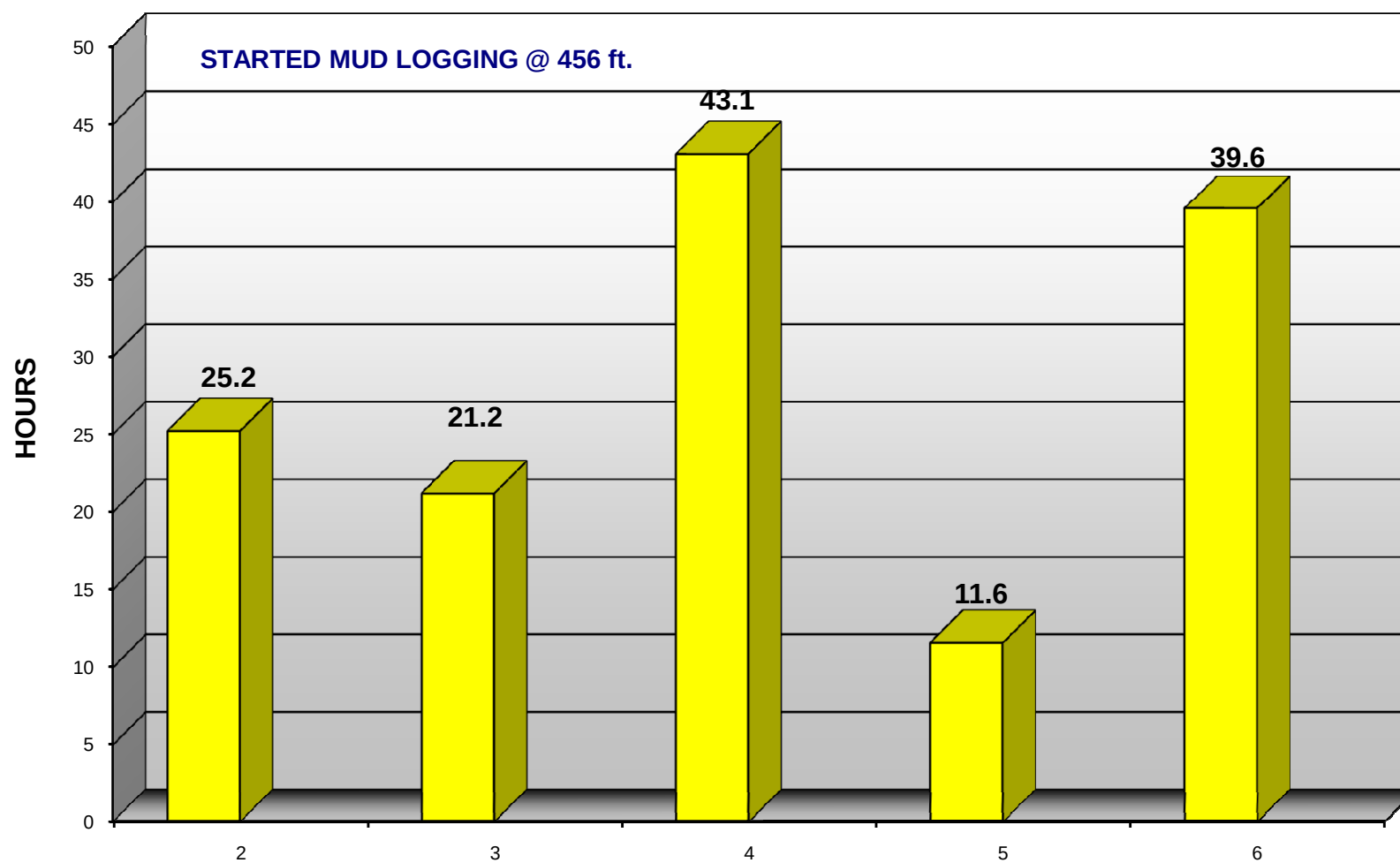
WELL : LO6-34D
**EFFECTIVE AND AVERAGE RATE OF
PENETRATION BY BIT (ft/hr)**



WELL : LO6-34D
FEET DRILLING BY BIT



WELL : LO6-34D
EFFECTIVE DRILLING HOURS



DAILY OPERATIONS REPORTS

WELL: LO6-34D

December 29th, 2013

00:00 - 01:00	Continue RIH 17" slick BHA from 392 ft and add 01 pup joint.
01:00 - 03:30	Running Gyrodata tool with Pepesa slick line unit to 392 ft. POOH Gyro tool and take survey each 100 ft. Survey at 380ft, incl 2.8 deg, azm 135.04 deg.
03:30 - 04:00	Wait Drilling office decision to continue drilling.
04:00 - 04:30	Rig service.
04:30 - 07:00	Spud date 29-12-13, 04:30 hrs. Drill w/ 17" tricone bit, wash and run 18" conductor from 392' to 414'. Gpm 400, pres 300 psi, 100 rpm. Conductor slide fr/ 392 ft to 411 ft.
07:00 - 08:00	POOH 17" tricone bit with lateral jets.
08:00 - 12:00	Pick up and weld 18 " conductor with other conductor, weld 3 pads on second level and cut 4 ft of conductor on drilling floor.
12:00 - 18:00	Drill w/ 17" tricone bit, wash and run 18" conductor from 414 ' to 440'. gpm 400, pres 300 psi, 100 rpm. Conductor slide fr/ 411 ft to 435 ft.
18:00 - 18:30	Maneuver to put weight on 18" conductor w/string & apply 20 klb w/o progress.
18:30 - 19:00	Welder install top support on conductors in first level of platform.
19:00 - 20:00	Drill pilot hole to re-open 17" well. Rotary drill from 440' to 450' & don't slide 18" conductor, 600 gpm, 550 psi, 5 - 10 kbl wob, 80 rpm.
20:00 - 20:30	Circulate hole with 600 gpm - 550 psi.
20:30 - 22:30	M/U slick line unit. RIH Gyro tool. Take survey at 440 ft, inc 1.97 deg, azm 128.18 deg, POOH and L/D slick line and pulleys.
22:30 - 00:00	POOH 17" tricone bit with Bit sub w/ lateral jets from 450 ft to surface.

December 30th, 2013

00:00 - 01:00	Finished to POOH 17" tricone bit with lateral jets.
01:00 - 04:00	Pick up 4 ft and conductor have collapse. Weld stopped. Cut 19 ft x 18" conductor with collapse side. (This conductor it on first level of platform). Add new conductor of 38 ft (nº 11) and weld with nº10. Pick up all conductor and observed 38 klbs up, loss weight, probably conductor is broken.
04:00 - 07:30	Make maneuver to POOH 18" conductor - recovers 142 ft and wait Zuluf diver to inspection conductor broken.
07:30 - 09:30	Divers find conductor to 15 ft below third elevation (142 ft below rotary table).
09:30 - 10:30	Divers make two holes and installs 1 1/2" shackles.
10:30 - 12:00	Maneuver conductor with drawwork, pull to 100 klbs, pull out conductor to surface.
12:00 - 19:00	Continue cutting off conductors, recovers 7 conductors.
19:00 - 00:00	Welded 1" plate on first level and visel two conductors.

December 31st, 2013

00:00 - 03:00	Weld conductor shoe to 18" conductor from surface to 39 ft.
03:00 - 17:00	Cont. Weld 7 joints x 18" conductor RIH from 39 ft to 235 ft. Divers cannot work because the sea current is strong. Wait until the next day to

begin to guide the conductor to the east side in the fifty.
17:00 - 19:00 Ensures the 18" conductor in the first level.
19:00 - 00:00 M/U 15 stands of 5" DP on set back.

January 01st, 2014

00:00 - 08:00 Waiting divers to orient conductor on fifth elevation, meanwhile prepare lateral lines of diverter on second level.
08:00 - 10:30 Zuluf divers maneuver on 5 elevation of platform (241 ft) and pass conductor to east side. Pass free from 235 ft to 275 ft.
10:30 - 20:00 Continue RIH 18" conductor pipe from 235 ft to 433 ft.
20:00 - 23:00 M/U 17" bit, bit sub with lateral jet, 3x7 3/4" DC, 1x6 1/2" DC, 5" HWDP from surface to 430 ft.
23:00 - 00:00 Rig up Pepesa slick line and RIH Gyrodata tool to 420 ft.

January 02nd, 2014

00:00 - 01:00 Take survey from 420 ft to 100 ft each 50 ft, survey to 420 ft Inc: 2.08 deg & Azi: 125.92 deg.
01:00 - 03:00 Ream and wash from 433 ft to 450 ft with 60 RPM, 550 GPM and 350 psi.
03:00 - 05:30 Cont. RIH 18" conductor from 433 ft to 436 ft, conductor sit to 436 ft.
05:30 - 08:30 Ensures conductor on the first level.
08.30 - 10:30 M/U 17" tricone bit, under reamer, 7 3/4" DC, 6 1/2" DC and 5" HWDP from surface to 436 ft.
10.30 - 13:00 Wash and ream from 436 ft to 450 ft with 800 gpm, 800 psi and 40 RPM.
13.00 - 14:00 Cont. Drill and ream from 450 ft to 456 ft with 800 gpm, 800 psi and 40 RPM.
14.00 - 16:00 Cont. RIH 18" conductor from 436 ft to 456 ft.
16:00 - 17:00 Weld 4 stop's and cut and remove 18" conductor joint.
17:00 - 19:00 POOH 17" tricone bit, under reamer from 456 ft to surface.
19:00 - 00:00 Welder weld 18" extension with 21 1/4" flange, RIH 1 stand and Aligning center well between rotary table and extension flange install tops to support.

January 03rd, 2014

00:00 - 05:00 P/U and MU 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, meanwhile from 3:00am Baker RU cementing lines.
05:00 - 05:30 M/U and RIH 5" DP cements from surface to 456 ft.
05.30 - 06:00 Circulate hole close with 450gpm and 250psi at 455ft drill pipe point.
06:00 - 07:30 RU Baker cement lines and connected to circulating head, close diverter and lateral valves and circulate hole with 450gpm and 150psi at 456 ft.
07:30 - 08:00 Safety meeting with all personnel.
08:00 - 09:00 PT lines w/2100 psi. Circ hole w/diverter close, pump 30 bbls of cement 15.6ppg, 4bpm. Open diverter; pump 15bbls of cement 15.6ppg, 4bpm. Clean lines w/7bbls. POOH 3ea 5" DP's stands, connect lines & circulate to clean Diverter-drilling spool. Close Diverter to displace cement w/12bbls, 2bpm. Final press=60psi close cement head valve.
09.00 - 10:30 Baker RD cement lines and connections.
10:30 - 13:00 Wait on cement meanwhile install flow line on 2th level and LD 13 stands of 5" Cement DP to platform.
13:00 - 15:00 Slip 30 ft and cut off drilling line.
15:00 - 17:30 MU slick BHA 17" tricone bit, 7 3/4" DC, 6 1/2" DC, 5" HWDP from surface to 406 ft, tag top of cement to 406 ft.

17:30 - 18:00 Rig service, lubricate Top Drive.
18:00 - 00:00 DOC with 450 GPM, 420 psi, 35 RPM, 1-2 TQ & 5 WOB from 406 ft to 454 ft.

January 04th, 2014

00:00 - 01:00 Cont. DOC from 454 ft to 456 ft, and drill formation from 456 ft to 458 ft, last foot drilled has a lot of vibration.
01:00 - 01:30 Circ. and cond hole to 458 ft with 480 gpm.
01:30 - 02:30 POOH slick BHA with 17" tricone bit from 458 ft to surface.
02:30 - 04:00 Run magnet # 1 to 458 ft, Metal recovered: 1 Kg.
04:00 - 04:30 Rig service, lubricate Top drive.
04:30 - 06:00 Run magnet # 2 to 458 ft, Metal recovered: 0 (cero) Kg.
06:00 - 06:30 M/U slick BHA with 17" tricone bit from surface to 458 ft.
06:30 - 08:30 Rotate Drill with 5 WOB, 650 gpm, 770 psi, 40 RPM, last foot drilled has a lot of vibration.
08:30 - 10:00 POOH slick BHA with 17" tricone bit from 468 ft to surface.
10:00 - 11:00 Leveled drilling Rig.
11:00 - 11:30 Run magnet # 3 to 468 ft.
11:30 - 12:30 Circ. and displace sea water by mud with 640 gpm and 150 psi.
12:30 - 13:30 Take gyro to 464 ft: Inc: 1.76 deg, Azi: 124.3 deg.
13:30 - 14:30 POOH Run magnet # 3, Metal recover 4 kg.
14:30 - 15:30 Run magnet # 4 to 468 ft, Metal recovered: 6 Kg.
15:30 - 16:30 Run magnet # 5 to 468 ft, Metal recovered: 4 Kg.
16:30 - 17:30 Run magnet # 6 to 468 ft, Metal recovered: 2 Kg.
17:30 - 18:30 Run magnet # 7 to 468 ft, Metal recovered: 0 (cero) Kg.
18:30 - 19:00 L/D a stand of 8"DC.
19:00 - 19:30 Safety meeting with all personnel.
19:30 - 23:00 M/U directional BHA with 12 1/4" tricone bit, Motor with 12 1/8" STB, Float sub, UBHO, Short Flex NMDC, 8" DC, XO, 12x5" HWDP from surface to 468 ft, RIH orient tool face.
23:00 - 00:00 Rotate drill from 468 ft to 476 ft, with WOB 5-8, Q 500 gpm, PP 440 psi, RPM 45, Torque 2.

January 05th, 2014

00:00 - 00:30 Cont. M/U directional BHA jar to 476 ft.
00:30 - 03:30 Orient tool face with gyro, and take survey to 426 ft, Inc: 2.04 deg, Azi: 127.87 deg, Gyro Tool Face: 154.77 deg.
03:30 - 08:30 Slide drill from 476 ft to 511 ft, with WOB 5-8 Klb, Q 620 gpm, PP 650 psi.
08:30 - 11:00 Rotate drill from 511 ft to 559 ft, with WOB 5-8 Klb, Q 650 gpm, PP 770 psi, 35 RPM, TQ 2.
11:00 - 12:00 Orient tool face with gyro, and take survey to 517 ft, Inc: 2.85 deg, Azi: 146.85 deg, Gyro Tool Face: 182.53 deg.
12:00 - 14:30 Slide drill from 559 ft to 612 ft, with WOB 5 Klb, Q 640 gpm, PP 800 psi.
14:30 - 16:30 Rotate drill from 612 ft to 654 ft, with WOB 5-8 Klb, Q 650 gpm, PP 800 psi, 40 RPM, TQ 2.
16:30 - 17:30 Take survey to 609 ft, Inc: 4.51 deg, Azi: 174.98 deg.
17:30 - 20:00 Slide drill from 654 ft to 697 ft, with WOB 5 Klb, Q 650 gpm, PP 900 psi.
20:00 - 22:00 Rotate drill from 697 ft to 730 ft, with WOB 5-8 Klb, Q 650 gpm, PP 900 psi, 45 RPM, TQ 2.
22:00 - 23:30 Slide drill from 730 ft to 744 ft, with WOB 5 Klb, Q 650 gpm, PP 920 psi.
23:30 - 00:00 Take survey with gyro.

January 06th, 2014

00:00 - 01:00	Orient tool face with gyro, and take survey to 699 ft, Inc:6.43 deg, Azi: 194.03 deg, Gyro Tool Face: 315.5 deg.
01:00 - 02:00	Slide drill from 744 ft to 756 ft, with WOB 5-8 Klb, Q 650 gpm, PP 990 psi.
02:00 - 03:30	Orient tool face with gyro, and take survey to 699 ft, Inc:6.43 deg, Azi: 194.03 deg, Gyro Tool Face: 314.5 deg, High side Tool face 120.46R deg.
03:30 - 04:30	Slide drill from 756 ft to 782 ft, with WOB 5-8 Klb, Q 650 gpm, PP 990 psi.
04:30 - 06:00	Orient tool face with gyro, and take survey to 731 ft, Inc:6.51 deg, Azi: 198.40 deg, Gyro Tool Face: 175.71 deg, High side Tool face 22.51L deg.
06:00 - 06:30	Slide drill from 782 ft to 788 ft, with WOB 5-8 Klb, Q 650 gpm, PP 990 psi.
06:30 - 08:00	Drilling is stopped by Cia. SLB, meanwhile analyzes the data to make a decision, while circ. on bottom.
08:00 - 10:30	POOH directional BHA to surface.
10:30 - 12:30	M/U slick BHA 12 1/4" tricone bit, XO, and RIH to bottom with 5" HWDP and 5" DP from surface to 788 ft.
12:30 - 13:30	Take survey with Gyro to 779 ft, Inc: 7.63 deg, Azi: 203.67 deg.
13:30 - 15:30	POOH slick BHA 12 1/4" tricone bit from 788 ft to surface.
15:30 - 16:00	Change BH from 1.5 to 1.85 to SLB motor.
16:00 - 18:00	M/U directional BHA with 12 1/4" tricone bit, Motor with 12 1/8" STB, Float sub, UBHO, Short Flex NMDC, 8" DC, XO, 12x5" HWDP from surface to 788 ft, RIH orient tool face.
18:00 - 19:00	Orient tool face with gyro, and take survey to 720 ft, Inc:6.34 deg, Azi: 197.80 deg, Gyro Tool Face: 140.79 deg, High side Tool face 56.98L deg.
19:00 - 21:00	Slide drill from 788 ft to 823 ft, with WOB 5-8 Klb, Q 650 gpm, PP 1060 psi.
21:00 - 22:30	POOH directional BHA with 12 1/4" tricone bit, Motor from 823 to surface.
22:30 - 00:00	M/U slick BHA 12 1/4" tricone bit, XO, and RIH to bottom with 5" HWDP and 5" DP from surface to 823 ft.

January 07th, 2014

00:00 - 01:00	Take survey with Gyro to 817 ft, Inc: 10.29 deg, Azi: 201.49 deg, and POOH slick BHA to surface.
01:00 - 03:30	M/U directional BHA with 12 1/4" tricone bit, Motor with 12 1/8" STB, Float sub, UBHO, Short Flex NMDC, 8" DC, XO, 12x5" HWDP from surface to 823 ft, RIH orient tool face.
03:30 - 04:00	Circ. and clean hole with 650 gpm and 1030 psi.
04:00 - 05:00	Orient tool face with gyro, and take survey to 780 ft, Inc: 8.42 deg, Azi: 201.08 deg, Gyro Tool Face: 213.21 deg, High side Tool face 12.32R deg.
05:00 - 07:00	Slide drill from 823 ft to 857 ft, with WOB 5-8 Klb, Q 650 gpm, PP 1060 psi.
07:00 - 09:00	POOH directional BHA with 12 1/4" tricone bit, Motor from 857 to surface.
09:00 - 10:00	M/U slick BHA 12 1/4" tricone bit, XO, and RIH to bottom with 5" HWDP and 5" DP from surface to 857 ft.
10:00 - 11:00	Take survey with Gyro to 850 ft, Inc: 12.31 deg, Azi: 198.15 deg.
11:00 - 12:00	POOH slick BHA from 857 ft to surface.
12:00 - 13:00	M/U directional BHA with 12 1/4" tricone bit, Motor with 12 1/8" STB, Float sub, UBHO, Short Flex NMDC, 8" DC, XO, 12x5" HWDP from surface to 857 ft.
13:00 - 13:30	Circ. and clean hole with 660 gpm and 1000 psi.
13:30 - 15:00	Orient tool face with gyro, and take survey to 780 ft, Inc: 8.42 deg, Azi: 201.08 deg, Gyro Tool Face: 213.21 deg, High side Tool face 12.32R deg.
15:00 - 19:30	Slide drill from 857 ft to 936 ft, with WOB 5-8 Klb, Q 650 gpm, PP 1060 psi.
19:30 - 20:00	Circ. and clean hole with 750 gpm and 1300 psi.
20:00 - 20:30	Observed bad weather, POOH dir. BHA with 12 1/4" tricone bit from 936 ft to

420 ft.
20:30 - 21:00 Disconnected mud hoses and power lines from Perla Tender to Platform.
21:00 - 00:00 Wait on weather, separate Perla tender of Platform.

January 08th, 2014

00:00 - 00:00 Bad weather continues in the area, Wait on weather.

January 09th, 2014

00:00 - 00:00 Wait on weather.

January 10th, 2014

00:00 - 00:00 Wait on weather.

January 11th, 2014

00:00 - 06:00 Wait on weather.
06:00 - 06:30 Perla Tender close to LO16 platform.
06:30 - 08:00 Pepesa crew install mud hoses, water, diesel and power lines from LO6 platform to Perla Tender.
08:00 - 09:30 Function test to Drilling rig – Ok.
09:30 - 10:30 TIH to 460 ft, connected Top Drive and Circ. a bottom up, full return.
10:30 - 11:00 Rig service, lubricate Top Drive.
11:00 - 12:00 RIH circ. each joint with 725 gpm, 990 psi and 40 RPM from 460 ft to 490 ft.
12:00 - 13:00 Repair mud pump.
13:00 - 15:00 RIH circ. each joint with 725 gpm, 990 psi and 40 RPM from 490 ft to 935 ft.
15:00 - 15:30 Circ. a bottom up.
15:30 - 16:00 Take a survey with gyro data 890 ft MD, Incl: 15.38°, Az: 195.83°.
16:00 - 19:30 POOH and L/D BHA directional with 12 1/4" tricone bit from 935 ft to surface, P/U 03 HWDP 5" to M/U new dir. BHA.
19:30 - 21:00 P/U Mud motor 9 5/8" and B/O sleeve stab 17 1/4" with tongs.
21:00 - 22:30 M/U sleeve stab 16 3/4" in mud motor 9 5/8" with tongs.
22:30 - 23:00 M/U BHA directional with 17" Tricone bit NOV T11 (4 x 16 Jets TFA: 0.785 in2), mud motor 9 5/8" sleeve stab 16 3/4".
23:00 - 00:00 Change BH to 1.59 in mud motor 9 5/8".

January 12th, 2014

00:00 - 03:30 Continue to M/U dir. BHA aligned with 8" float sub, rigid mount with slim pulse MWD, 8 1/2" UBHO, XO, 12 HWDP 5" to 350 ft.
03:30 - 04:00 Perform shallow test with 450 gpm, 630 psi.
04:00 - 04:30 Continue to M/U dir. BHA with HWDP5" in singles to 456 ft.
04:30 - 00:00 Enlarge hole with 17" Tricone bit directional BHA from 456 ft to 634 ft, 800 gpm, WOB: 3-4 Klbs, TQ: 1200/1400 Klbs-ft, RPM: 40 + 86, SPP: 1960 psi. ROP low gradually to 4 ft/hour with same parameters last hour.

January 13th, 2014

00:00 - 01:00 Take survey with gyro data, MD: 537 ft, Incl: 3.06°, Az: 148.97°, TF: 205.91°.
01:00 - 02:30 Enlarge hole sliding with 17" tricone bit directional BHA from 634 ft to 639 ft, WOB: 2-4 Klbs, 720 gpm, SPP: 1574 psi.

02:30 - 07:30	Enlarge hole rotating with 17" tricone bit directional BHA from 639 ft to 671 ft, 800 gpm, SPP: 1990 psi, 40 RPM, WOB: 3-4 Klbs, TQ: 1200-1300 ft-lb.
07:30 - 08:30	Take survey and circ. hole.
08:30 - 11:00	POOH directional BHA with 17" tricone bit from 671 to surface.
11:00 - 12:30	M/U and RIH slick BHA with 17" tooth bit, bit sub, 6 1/2" DC and 5"HWDP from surface to 669 ft.
12:30 - 13:00	Circ. a bottom up with 760 gpm and 1400 psi.
13:00 - 15:00	Take survey with gyro from 669 ft to 456 ft each 30 ft.
15:00 - 15:30	Rig service, lubricate Top Drive.
15:30 - 18:30	POOH slick BHA with 17" tooth bit from 669 ft to surface.
18:30 - 22:30	M/U and RIH directional BHA with 17" tricone bit, mud motor BH 1.59, Float sub, short flex, MWD slim pulse, UBHO, monel, XO, HWDP, 6 1/2" Jar, HWDP from surface to 671 ft.
22:30 - 23:00	Circulate and check MWD signal.
23:00 - 00:00	Orient tool face with gyro, MD: 567 ft, Incl: 3.04°, Az: 152.71°, TF: 164.34°.

January 14th, 2014

00:00 - 10:00	Enlarge sliding with BHA dir. and 17" Tricone bit from 671 ft to 779 ft with 660/700 gpm, SPP: 1540/1670 psi, WOB: 5/8 Klbs.
10:00 - 10:30	Circ. and cond. hole with 700 gpm and 1650 psi.
10:30 - 12:30	POOH directional BHA with 17" tricone bit from 779 ft to surface.
12:30 - 14:00	M/U slick BHA with 17" tricone bit from surface to 779 ft.
14:00 - 14:30	Circ. and cond. hole with 700 gpm and 1330 psi.
14:30 - 16:00	Take survey with Gyro Data from 772 ft to 682 ft, each 30 ft.
16:00 - 18:00	POOH and L/D slick BHA with 17" tricone bit from 772 ft to surface.
18:00 - 19:30	M/U and RIH BHA dir. with 17" PDC bit NOV TFH5195, Jets: 5x15 TFA: 0.863 in ² , mud motor BH 1.59, 8" float sub, 8" short flex monel, MWD slimpulse, UBHO, 8" NMDC to 112 ft.
19:30 - 20:00	Perform shallow test, test MWD signal, negative.
20:00 - 21:00	POOH and L/D UBHO and Slimpulse, check slimpulse, it was off.
21:00 - 23:30	Install new slimpulse back up, aligned mud motor again, M/U UBHO for gyro, check position.
23:30 - 00:00	Test MWD signal, Ok. perform shallow test with 550 gpm, 774 psi. Sensor MWD from bit 63.52 ft.

January 15th, 2014

00:00 - 01:00	Continue to RIH BHA dir. and PDC 17" bit from 120 ft to 779 ft, no restriction, 8" NMDC, 12 HWDP5", 6 1/2" Jar and 09 HWDP5".
01:00 - 05:30	Enlarge hole sliding with 17" PDC bit and BHA dir. from 779 ft to 864 ft with 660 gpm, SPP: 1500 psi, WOB: 5-6 Klbs. Enlarge hole rotating with 17" PDC bit and BHA dir from 864 ft to 871 ft with 700 gpm, SPP: 1740 psi, WOB: 5-6Klbs, TQ: 3-4 Klbs-ft , RPM: 40. Enlarge hole sliding with 17" PDC bit and BHA dir. from 871 ft to 936 ft with 700 gpm, 1720 psi, WOB: 5-6 Klbs.
05:30 - 07:00	Drill in slide mode with BHA dir and 17" PDC bit from 936 ft to 965 ft with 700 gpm, SPP: 1720 psi, WOB: 5-6 Klbs. Last survey MWD, MD: 806.9 ft, Incl: 10.47°, Az: 161.49°.
07:00 - 08:00	Take survey with Gyro at 880 ft, Inc: 14.86°, Azi: 159.12°.
08:00 - 08:30	Circ. and cond. hole with 700 gpm, and 1830 psi.
08:30 - 11:00	Drill in slide mode with BHA dir and 17" PDC bit from 965 ft to 1062 ft with 800 gpm, SPP: 2170 psi, WOB: 5-6 Klbs.

11:00 - 11:30	Circ. and take survey to 996.01 ft, Inc: 20.73°, Azi: 160.64°.
11:30 - 13:00	Drill in slide mode with BHA dir and 17" PDC bit from 1062 ft to 1133 ft with 800 gpm, SPP: 2170 psi, WOB: 5-6 Klbs.
13:00 - 13:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1133 ft to 1158 ft with 800 gpm, SPP: 2170 psi, WOB: 5-6 Klbs, 50 RPM and TQ 5-6.
13:30 - 14:00	Circ. and take survey to 996.01 ft, Inc: 20.73°, Azi: 160.64°.
14:00 - 14:30	Drill in slide mode with BHA dir and 17" PDC bit from 1158 ft to 1217 ft with 800 gpm, SPP: 2170 psi, WOB: 5-6 Klbs.
14:30 - 15:00	Drill in rotate mode with BHA dir and 17" PDC bit from 1197 ft to 1217 ft with 800 gpm, SPP: 2170 psi, WOB: 5-6 Klbs, 50 RPM and TQ 5-6.
15:00 - 16:00	Drill in slide mode with BHA dir and 17" PDC bit from 1217 ft to 1254 ft with 800 gpm, SPP: 2154 psi, WOB: 10-14 Klbs.
16:00 - 16:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1254 ft to 1271 ft with 800 gpm, SPP: 2160 psi, WOB: 5-6 Klbs, 50 RPM and TQ 5-6.
16:30 - 17:30	Drill in slide mode with BHA dir and 17" PDC bit from 1271 ft to 1322 ft with 800 gpm, SPP: 2190 psi, WOB: 10-14 Klbs.
17:30 - 18:00	Drill in rotate mode with BHA dir and 17" PDC bit from 1322 ft to 1349 ft with 800 gpm, SPP: 2168 psi, WOB: 5 Klbs, 50 RPM and TQ 5-6Klb-ft.
18:00 - 19:00	Drill in slide mode with BHA dir and 17" PDC bit from 1349 ft to 1412 ft with 800 gpm, SPP: 2200 psi, WOB: 10-14 Klbs.
19:00 - 19:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1412 ft to 1427 ft with 800 gpm, SPP: 2170 psi, WOB: 5 Klbs, 50 RPM and TQ 5-6Klb-ft.
19:30 - 20:00	Drill in slide mode with BHA dir and 17" PDC bit from 1427 ft to 1445 ft with 800 gpm, SPP: 2210 psi, WOB: 12-14 Klbs.
20:00 - 21:00	Circulate, pump hi-viscous pill, continue circulate until clean shakers.
21:00 - 21:30	Acc. take survey MWD and ream.
21:30 - 22:30	Drill in slide mode with BHA dir and 17" PDC bit from 1445 ft to 1498 ft with 800 gpm, SPP: 2210 psi, WOB: 10-14 Klbs.
22:30 - 23:00	Drill in rotate mode with BHA dir and 17" PDC bit from 1498 ft to 1508 ft with 800 gpm, SPP: 2170 psi, WOB: 5 Klbs, 50 RPM and TQ 5-6Klb-ft.
23:00 - 00:00	Drill in slide mode with BHA dir and 17" PDC bit from 1508 ft to 1540 ft with 800 gpm, SPP: 2250 psi, WOB: 10-14 Klbs.

January 16th, 2014

00:00 - 01:00	Drill in slide mode with BHA dir and 17" PDC bit from 1540 ft to 1583 ft with 800 gpm, SPP: 2280 psi, WOB: 10-14 Klbs.
01:00 - 01:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1583 ft to 1597 ft with 800 gpm, SPP: 2230 psi, WOB: 5 Klbs, 50 RPM and TQ 5-6Klb-ft.
01:30 - 02:30	Drill in slide mode with BHA dir and 17" PDC bit from 1597 ft to 1632 ft with 800 gpm, SPP: 2290 psi, WOB: 10-14 Klbs.
02:30 - 03:00	Circulate, take survey MWD and ream.
03:00 - 03:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1632 ft to 1657 ft with 800 gpm, SPP: 2300 psi, WOB: 5-6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
03:30 - 04:30	Drill in slide mode with BHA dir and 17" PDC bit from 1657 ft to 1696 ft with 800 gpm, SPP: 2300 psi, WOB: 10-15 Klbs.
04:30 - 06:00	Drill in rotate mode with BHA dir and 17" PDC bit from 1696 ft to 1732 ft with 800 gpm, SPP: 2330 psi, WOB: 6-8 Klbs, 50 RPM and TQ 4-6 Klb-ft.
06:00 - 06:30	Circulate, take survey MWD and ream, survey at 1664 ft, Incl: 43.28°, Az: 194.30°.
06:30 - 08:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1732 ft to 1841 ft with 800 gpm, SPP: 2400 psi, WOB: 6-8 Klbs, 50 RPM and TQ 4-6 Klb-ft.
08:30 - 10:00	Drill in slide mode with BHA dir and 17" PDC bit from 1841 ft to 1886 ft with 800

	gpm, SPP: 2300 psi, WOB: 10-15 Klbs.
10:00 - 11:00	Drill in rotate mode with BHA dir and 17" PDC bit from 1886 ft to 1937 ft with 800 gpm, SPP: 2300 psi, WOB: 6-8 Klbs, 40 RPM and TQ 4-6 Klb-ft.
11:00 - 12:00	Drill in slide mode with BHA dir and 17" PDC bit from 1937 ft to 1977 ft with 800 gpm, SPP: 2300 psi, WOB: 10-15 Klbs.
12:00 - 13:30	Drill in rotate mode with BHA dir and 17" PDC bit from 1977 ft to 2024 ft with 800 gpm, SPP: 2450 psi, WOB: 6-8 Klbs, 40 RPM and TQ 4-6 Klb-ft.
13:30 - 16:00	Pump sweep pill, circ. and cond. hole with 800 gpm and 2450 psi.
16:00 - 18:30	POOH directional BHA with 17" PDC bit from 2024 ft to 873 ft, POOH with circ. from 2024 ft, no restriction with circulation.
18:30 - 22:30	POOH and L/D BHA dir. and 17" PDC bit from 873 ft to surface.
22:30 - 00:00	M/U and RIH slick BHA from surface to 652 ft, 17" Tricone bit, bit sub, String stb 16 7/8", float sub.

January 17th, 2014

00:00 - 04:30	Continue to RIH slick BHA and 17" Tricone bit from 652 ft to 1600 ft without circulation, no restriction, continue to RIH to 2024 ft with circulation. No restriction.
04:30 - 06:00	Circulate and condition mud, observed flocculated mud form Halliburton, increase circulation to 800 gpm.
06:00 - 07:00	Circ. and cond. hole on bottom with 800 gpm and 2150 psi.
07:00 - 11:00	POOH slick BHA from 2024 ft to surface, POOH with low circ. from 2024 to 860 ft.
11:00 - 11:30	R/D hydraulic tong and cond. rig floor.
11:30 - 12:30	R/U ITS casing tools and fill up tool.
12:30 - 13:00	Safety meeting with all perssonel.
13:00 - 20:00	Install 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 13 3/8" csg 54.5 #/ft, K-55, BTC.
	Continue to run 13 3/8" casing K-55 to 1680 ft.
20:00 - 00:00	Observed restriction at 1908 ft, connect to fill up tool, run casing 13 3/8" from 1680 ft to 1800 ft with circulation.

January 18th, 2014

00:00 - 01:30	Continue to run casing 13 3/8" K-55 from 1800 ft to 2024 ft with circulation use fill up tool. Total 154 csg. Centralizer: Semi-rigid 15, Bow spring: 13, shoe casing: 2023 ft, Float collar: 1984.4 ft.
01:30 - 03:30	Circulate and homogenize mud with 500 gpm, 140 psi.
03:30 - 04:00	R/D spider elevator, fill up tool and equipment ITS service.
04:00 - 04:30	R/U cement head and lines from Halliburton.
04:30 - 08:30	Halliburton perform safety and operational meeting, test cementing lines with 2000 psi, Ok. Perform cement Job as follows: pump 50 bbls x 07 BPM of mud (low reology), pump mud flush 20 bbls x 05 BPM-8.3 ppg, pump tuned spacer 30 bbls x 05 BPM-11 ppg. Drop bottom plug, pump 247 bbls of Econocem 15.2 ppg Lead cement x 05 BPM, pump 20 bbls of HALCEM 13.5 ppg Tail cement x 05 BPM. Release top plug & displacement with 305 bbl of mud 10 ppg, 7-2 bpm, 400/580 psi, top plug perform bump plug on landing valve with 1,0 bpm, 580 psi and pressure with 1250 psi by 5 min, ok.

	Observed full return by shakers & return Mud Flush and Spacer contaminated & 60 bbl contaminate cement 12.4 ppg during displacement. Perform flow back test and return 1.5 bbl, ok.
08:30 - 12:30	R/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 - 15:00	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.
15:00 - 17:00	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. Perform slick lock test w/ 1000 psi by 5 min – Ok.
17:00 - 00:00	N/U 13-5/8"-3M extension, 13-5/8-3M x 13-5/8-5M DSA, drilling spool, Blind ram BOP, pipe rams BOP 13 5/8" and annular BOP 13 5/8".

January 19th, 2014

00:00 - 01:30	Continue to tight bolts in BOP stack 13 5/8" and install choke line and kill line w/lateral valves.
01:30 - 02:30	Center 13 5/8" BOP stack with top drive position, weld stop to center.
02:30 - 04:00	Install bell nipple and flow line, connect hydraulic hoses on BOP stack, function test accumulator.
04:00 - 05:00	Install plug tester and Dp5".
05:00 - 09:30	Perform test pressure pipe ram, stand pipe, choke manifold, IBOP, rotary hose with 300 psi and 3000 psi - Ok. annular with 300 and 1500 psi by 10 min - Ok.
09:30 - 10:30	Pull out plug tester and install wear bushing.
10:30 - 18:00	Pepesa change drum of drilling line, and change all drilling line by new drilling line.
18:00 - 18:30	Rig service, lubricate Top Drive.
18:30 - 22:00	Upload 5" DP from Perla Tender to platform, take measurement and serial number.
22:00 - 00:00	M/U 5" DP in stands, drifting, 10 stands.

January 20th, 2014

00:00 - 04:00	Continue to M/U 5" DP in stands, total 30 stands.
04:00 - 13:00	M/U BHA dir. with 12 1/4" PDC bit MS1419MHABPX (Jets 6 x15 TFA: 0.785in ²), mud motor 8 1/4" sleeve stab 12 1/8" BH: 1.5, 8" float sub 8" NMSDC, 11 3/4" stab, align mud motor, 8" DC, 5" HWDP, Jar and 5" HWDP, perform shallow test to MWD tools, Ok, cont. TIH from surface to 1977 ft, tag cement at 1977 ft. TIH 5" DP one by one.
13:00 - 15:00	Drill out cement, plugs and float collars from 1977 ft to 2004 ft. with 500 gpm, 1000 psi.
15:00 - 15:30	Perform casing integrity test with 1000 psi x 10 min ok.
15:30 - 16:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2024 ft to 2034 ft with 500 gpm, SPP: 1080 psi, WOB: 5 Klbs, 50 RPM and TQ 5-6 Klb-ft.
16:30 - 17:30	Circulate and displace contaminated mud with cement by 10.0 ppg new mud.
17:30 - 18:00	Perform formation integrity test with 315 psi. EMW: 13.5 ppg and MW: 10.0ppg. Ok.
18:00 - 18:30	Rig service, lubricate Top Drive.
18:30 - 19:00	Rig repair, repair top drive engine.
19:00 - 19:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2034 ft to 2050 ft with 660 gpm, SPP: 1890 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
19:30 - 20:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2050 ft to

20:30 - 21:30	2100 ft, 700 gpm, SPP: 2050 psi, WOB: 8/10 Klbs. Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2100 ft to 2130 ft with 800 gpm, SPP: 2420 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5- Klb-ft.
21.30 - 22:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2130 ft to 2176 ft, 800 gpm, SPP: 2480 psi, WOB: 8/10 Klbs.
22:00 - 22:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2176 ft to 2201 ft with 800 gpm, SPP: 2450 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
22.30 - 00:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2201 ft to 2246 ft, 800 gpm, SPP: 2460 psi, WOB: 8/10 Klbs.

January 21st, 2014

00:00 - 01:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2246 ft to 2297 ft with 800 gpm, SPP: 2450 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
01:00 - 02:00	Circulate, pump sweep pill and continue to circulate, take survey and ream.
02:00 - 03:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2297 ft to 2346 ft, 800 gpm, SPP: 2460 psi, WOB: 8/11 Klbs.
03:00 - 03:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2346 ft to 2392 ft with 800 gpm, SPP: 2450 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
03:30 - 04:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2392 ft to 2451 ft, 800 gpm, SPP: 2460 psi, WOB: 8/11 Klbs.
04:00 - 05:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2451 ft to 2485 ft with 800 gpm, SPP: 2450 psi, WOB: 5/6 Klbs, 50 RPM and TQ 5-6 Klb-ft.
05:00 - 05:30	Accum. ream and take survey.
05:30 - 07:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2485 ft to 2550 ft, 800 gpm, SPP: 2460 psi, WOB: 8/11 Klbs. Survey: MD 2422.4 ft, Incl 60.57°, Az 189.78°, sample: MD 2480 ft, 80% claystone, 10% sandstone, 10% sand.
07:30 - 08:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2560 ft to 2580 ft with 800 gpm, SPP: 2730 psi, WOB: 5/6 Klbs, 55 RPM and TQ 6-7 Klb-ft.
08:00 - 08:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2560ft to 2580 ft, 800 gpm, SPP: 2660 psi, WOB: 8/11 Klbs.
08:30 - 09:00	Rig service, lubricate Top Drive.
09:00 - 12:00	Rig repair, overheating of electrical cables in the electrical panel of the barge, changes plugs, meanwhile POOH directional BHA to CSG shoe and RIH to 2580 ft.
12:00 - 12:30	circ. and cond. hole with 800 gpm and 2550 psi.
12:30 - 14:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2580ft to 2620 ft, 800 gpm, SPP: 2660 psi, WOB: 8/11 Klbs.
14:00 - 14:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2620 ft to 2675 ft with 800 gpm, SPP: 2730 psi, WOB: 10/12 Klbs, 55 RPM and TQ 6-7 Klb-ft.
14:30 - 15:00	Pump sweep pill and circ on bottom with 800 gpm and 2650 psi.
15:00 - 15:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 2675 ft to 2706 ft, 800 gpm, SPP: 2735 psi, WOB: 8/11 Klbs.
15:30 - 21:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 2706 ft to 3052 ft with 795 gpm, SPP: 2860 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 6-7 Klb-ft.
21:30 - 22:30	Pump sweep pill and circ on bottom with 800 gpm and 2850 psi.
22:30 - 23:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3052 ft to 3067 ft, 790 gpm, SPP: 2735 psi, WOB: 8/11 Klbs.
23:00 - 00:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3067 ft to 3114 ft with 790 gpm, SPP: 2900 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 6-7 Klb-ft.

January 22nd, 2014

00:00 - 00:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3114 ft to 3123 ft, 800 gpm, SPP: 2935 psi, WOB: 8/11 Klbs.
00:30 - 01:30	Accum. Ream and take survey.
01:30 - 04:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3123 ft to 3258 ft with 800 gpm, SPP: 2940 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 6-8.5 Klb-ft.
04:30 - 05:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3258 ft to 3266 ft, 800 gpm, SPP: 2940 psi, WOB: 8/12 Klbs.
05:00 - 07:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3266 ft to 3351 ft with 800 gpm, SPP: 2940 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 6-8.4 Klb-ft.
07:00 - 07:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3351 ft to 3366 ft, 800 gpm, SPP: 3100 psi, WOB: 8/12 Klbs.
07:30 - 11:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3366 ft to 3539 ft with 790 gpm, SPP: 3180 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 8-10 Klb-ft.
11:30 - 12:00	Pump sweep pill and circ. hole with 800 gpm and 3100 psi.
12:00 - 12:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3539 ft to 3556 ft, 790 gpm, SPP: 3140 psi, WOB: 8/12 Klbs.
12:30 - 15:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3556 ft to 3721 ft with 790 gpm, SPP: 3180 psi, WOB: 10/12 Klbs, 60/80 RPM and TQ 8-10 Klb-ft.
15:00 - 16:30	Circulate, pump sweep pill, clean until clean shakers.
16:30 - 18:00	POOH BHA dir. with 12 1/4" PDC bit from 3719 ft to 2860 ft with circulation and rotation.
18:00 - 19:00	Circulate until clean shakers.
19:00 - 20:00	Continue to POOH BHA dir and 12 1/4" PDC bit from 2860 ft to 2090 ft with circulation and rotation.
20:00 - 20:30	Circulate with 800 gpm, SPP: 2760 psi.
20:30 - 22:00	Continue to POOH BHA dir. with 12 1/4" PDC bit from 2090 ft to 890 ft.
22:00 - 00:00	POOH and L/D BHA dir and 12 1/4" PDC bit from 890 ft to surface. Observed in 12 1/4" PDC, not plugged jet on bit. Change Jets to 6 x 16 (TFA: 1.178in ²).

January 23rd, 2014

00:00 - 03:00	M/U and RIH BHA dir. and 12 1/4" PDC bit, mud motor 8 1/4" BH: 1.5 with sleeve stab: 12 1/8", 8" float sub, string stab 11 3/4", 8" Short NMDC, MWD Slimpulse, 8" NMDC, 8" DC, 3 HWDP 5", Jar 6 1/2", 20 HWDP 5". Perform shallow test with 460 gpm, 600 psi, check MWD signal, Ok.
03:00 - 05:00	Continue to RIH BHA dir. and 12 1/4" PDC bit from 890 ft to 2023 ft. Circulate with 800 gpm, 2700 psi.
05:00 - 09:00	Continue to RIH BHA dir. with 12 1/4" PDC from 2023 ft to 3721 ft, tight hole, ream down with 800 gpm, 3000 psi.
09:00 - 10:30	Pump sweep pill and circ. on bottom with 800 gpm and 3000 psi.
10:30 - 13:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3721 ft to 3831 ft with 790 gpm, SPP: 3100 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
13:00 - 14:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 3831 ft to 3866 ft, 785 gpm, SPP: 3100 psi, WOB: 8/12 Klbs.
14:00 - 18:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 3866 ft to 4094 ft with 775 gpm, SPP: 3140 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
18:30 - 19:30	Pump sweep pill and circ. on bottom with 800 gpm and 3160 psi.
19:30 - 20:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4094 ft to 4104 ft with 775 gpm, SPP: 3180 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
20:30 - 21:00	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 4104 ft to

21:00 - 23:00	4114 ft, 770 gpm, SPP: 3100 psi, WOB: 8/12 Klbs. Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4114 ft to 4202 ft with 770 gpm, SPP: 3160 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
23:00 - 23:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 4202 ft to 4219 ft, 770 gpm, SPP: 3120 psi, WOB: 8/12 Klbs.
23:30 - 00:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4219 ft to 4233 ft with 770 gpm, SPP: 3170 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.

January 24th, 2014

00:00 - 02:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4233 ft to 4288 ft with 770 gpm, SPP: 3180 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
02:00 - 02:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 4288 ft to 4298 ft, 775 gpm, SPP: 3130 psi, WOB: 8/12 Klbs.
02:30 - 04:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4298 ft to 4389 ft with 770 gpm, SPP: 3170 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
04:30 - 05:30	Drill in slide mode with directional BHA and 12 1/4" PDC bit from 4389 ft to 4408 ft, 770 gpm, SPP: 3110 psi, WOB: 10-13 Klbs.
05:30 - 08:00	Circulate with 790 gpm, SPP: 3100 psi.
08:00 - 10:30	POOH directional BHA from bottom to 3300 ft with circulation.
10:30 - 12:00	Circulate with 800 gpm, SPP: 350 psi, there are a lot of cuttings on shakers, circulates until the shakers are clean.
12:00 - 13:00	Cont. POOH directional BHA from 3300 to 2350 ft with circulation.
13:00 - 14:30	Circulate with 800 gpm, SPP: 3050 psi, Circulates until there are not cuttings on the shakers is observed.
14:30 - 15:00	Cont. POOH directional BHA from 2350 to 2050 ft with circulation.
15:00 - 17:30	Savia mechanics continue to repair the crane barge. Crane barge operative to 17:30 hrs.
17:30 - 19:30	RIH directional BHA from 2050 ft to 3200 ft, RIH with circ. all stands.
19:30 - 20:00	Circulate with 760 gpm, SPP: 2701 psi.
20:00 - 23:00	Continue to RIH dir. BHA from 3200 ft to 4408 ft with circulation, no restriction.
23:00 - 00:00	Circulate and condition mud, pump sweep pill and continue to circulate.

January 25th, 2014

00:00 - 04.30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4408 ft to 4625 ft with 770 gpm, SPP: 3180 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
04:30 - 05:30	Acc. ream and take survey.
05:30 - 10:00	Drill in slide mode with BHA dir and 12 1/4" PDC bit from 4625 ft to 4752 ft with 770 gpm, SPP: 3180 psi, WOB: 11/13 Klbs.
10:00 - 11:00	Pump sweep pill and circ. hole with 770 gpm and 3200 psi.
11:00 - 13:00	Rig repair, hose of high pressure leak below stand pipe, Pepesa crew change hose, meanwhile POOH directional BHA from 4752 ft o 4423 ft and TIH again.
13:00 - 13:30	Rig service, lubricate top drive.
13:30 - 15:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4752 ft to 4773 ft with 760 gpm, SPP: 3200 psi, WOB: 10/12 Klbs, 100 RPM and TQ 8-10 Klb-ft.
15:00 - 16:00	Drill in slide mode with BHA dir and 12 1/4" PDC bit from 4773 ft to 4802 ft with 770 gpm, SPP: 3180 psi, WOB: 11/13 Klbs.
16:00 - 18:00	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4802 ft to 4895 ft with 765 gpm, SPP: 3200 psi, WOB: 10/12 Klbs, 110 RPM and TQ 10-11 Klb-ft.
18:00 - 19:00	Pump #2 stop (change 02 piston), circulate with pump #1 and #3 with Max pump rate 700 gpm, 2530 psi, not enough to drill.
19:00 - 23:30	Drill in rotate mode with BHA dir and 12 1/4" PDC bit from 4895 ft to 5014 ft with

23:30 - 00:00 760 gpm, SPP: 3220 psi, WOB: 10/12 Klbs, 110 RPM and TQ 10-11 Klb-ft.
Circulate with 780 gpm, SPP: 3170 psi. Obtain last geology sample at MD 5014 ft, 100% claystone.
Last survey: MD 4948 ft, Incl. 57.13°, Azm 185.27°.

January 26th, 2014

00:00 - 02:00 Continue to circulate, pump sweep pill with 780 gpm, SPP: 3179 psi, circulate until clean shakers.
02:00 - 03:30 POOH BHA dir. with 12 1/4" PDC from 5014 ft to 3980 ft, with circulation and rotation, no restriction.
03:30 - 04:30 Circulate with 800 gpm, 3150 psi, observed lot of cuttings on shaker, circulate until clean shakers.
04:30 - 10:00 Continue to POOH dir. BHA from 3980 ft to 1520 ft, with circulation and rotation.
10:00 - 14:00 cont. POOH dir. BHA from 1520 ft to surface and L/D BHA.
14:00 - 21:00 M/U and RIH slick BHA with 12 1/4" tooth bit from surface to 3500 ft with circulation.
21:00 - 22:00 Circulate with 830 gpm, 2650 psi, pump #1 and #2.
22:00 - 00:00 Continue to RIH slick BHA with 12 1/4" tricone bit from 3500 ft to 4600 ft, with circulation and rotation.

January 27th, 2014

00:00 - 01:30 Continue to RIH from 4600 to 5014 ft, with circulation and rotation.
01:30 - 04:00 Circulate with 840 gpm, 2700 psi.
Pump sweep pill and circulate until clean shakers, 840 gpm, 2700 psi, reciprocate string 100 RPM. MW final 11ppg. Lubricity: 1 %.
04:00 - 10:00 POOH slick BHA and 12 1/4" tricone bit from 5014 ft to 2050 ft, POOH with circulation and rotation pump #1 and # 3, no restriction.
Pump #2 failed, mechanics crew check and indicate pump of lubrication is damage, Pepesa request to base spare of pump of lubrication.
10:00 - 13:30 Cont. POOH slick BHA with 12 1/4" from 2050 ft to surface, without circ. and rot.
13:30 - 14:30 Pull out wear bushing.
14:30 - 16:00 Cia. ITS rig up equipment on rig floor.
16:00 - 16:30 Perform safety meeting with all personnel.
16:30 - 23:00 Run 9-5/8" casing 43.5#, N80 & BTC (Shoe track: Shoe, 02ea joint, float collar) and continue to run 9-5/8" csg to 2000 ft. Fill each 5ea casing.
23:00 - 00:00 Install fill up tool and components at 2000 ft.

January 28th, 2014

00:00 - 04:00 Continue to run 9-5/8" casing 43.5#, N80 BTC from 2000 ft to 3200 ft, fill each 05 casing, no restriction. Broke gels at 3000 ft.
04:00 - 06:00 At 3200 ft observed restriction, connected fill up tool, run casing 9 5/8" with circulation from 3200 ft to 3774 ft.
06:00 - 07:00 Circulate with 600 gpm, 350 psi, observed few cuttings on shakers.
07:00 - 16:00 Cont. run casing 9 5/8" from 3774 ft to 5014 ft with fill up tool, 600 gpm, 350 psi. Total 132 casing, use 15 Bow sping, 15 Semi rigid centralizers as per program.
16:00 - 17:00 Circulate hole, meanwhile rig down ITS casing running tools.
17:00 - 18:00 Rig up cement lines and install cement head, lateral valves and connection. R/D spider slip and fill up tool from ITS.
18:00 - 19:00 Safety meeting prior cement job with all companies.
19:00 - 23:30 PT lines w/3000psi Ok. Rig pump 60 bbls of mud low reology, pump 15bbl-

8.4ppg of mud clean, 20 bbls of IMS Spacer 12ppg, 10 bbls- 8.4 ppg of mud clean, 20bbl-12ppg of spacer.
Drop bottom plug, 297bbl-13.5ppg Lead Slurry, 83 bbl-15.2ppg of Tail slurry.
Drop top plug, Baker lines & displace w/mud 391 bbls-11.0ppg, Pump rate 7-5-2-1gpm. Final press to 410 psi.
Not observed arrive of plug, bump plug, theoretical displace 371 bbls, displace with 291 bbls, back flow 1.5 bbls well no flow.
23:30 - 00:00 Rig down Halliburton cement head and lines.

January 29th, 2014

00:00 - 00:30 Maneuver and lift BOP stack 13 5/8".
00:30 - 01:00 Install casing hanger 9 5/8".
01:00 - 01:30 R/D cement head, cut and L/D landing joint casing 9 5/8".
01:30 - 03:30 N/D BOP stack 13 5/8", riser spool 13 5/8".
03:30 - 04:30 Bevel casing and install casing head spool 13-5/8"x3M -11"x3M Psi.
04:30 - 05:30 Test casing head spool 13-5/8"x3M -11"x3M with 1900 psi x 10 min, Ok.
05:30 - 12:30 N/U riser spool, DSA 13 5/8" and BOP stack 13 5/8". N/U chock and kill line, bell nipple and flow line.
12:30 - 13:00 Install plug tester with DP5".
13:00 - 18:00 Pressure test pipe ram, choke & kill lines Valves, stand pipe manifold with 300/3000 psi, ok. Choke Manifold test pressure 300/3000 psi.
Test pressure blind ram, 300/3000 psi, Ok. IBOP.
18:00 - 18:30 Retrieve plug tester with DP5".
18:30 - 19:30 Install Hawk Jaw, condition rig floor, install wear bushing.
19:30 - 21:30 Upload DP 5" from Perla Tender to platform, take serie and measurement.
21:30 - 22:00 B/O and L/D 03 DC8", download to Perla tender.
22:00 - 22:30 Rig service.
22:30 - 00:00 M/U DP5" in stands, drifting, continue to upload from Perla tender and measure.

January 30th, 2014

00:00 - 06:00 M/U DP 5" in stands, total 25 stands, drifting and measure.
06:00 - 07:30 Upload 8 1/2" directional tools from Perla tender to platform, take measurement.
07:30 - 11:30 M/U dir. BHA and 8 1/2" PDC bit (MDIZ519LBPX, 3 x15 + 2 x 16, TFA: 0.91 inch2), 6 3/4" mud motor BH 1.5 with sleeve stab 8 3/8".
6 3/4" Float sub, 6 3/4" SNMDC, 8 3/8" Stab, MWD slimpulse, 6 3/4" NMDC, 06 HWDP 5", Jar 6 1/2", 20 HWDP 5".
11:30 - 12:00 Perform shallow test with 400 gpm, 584 psi, check MWD signal, Ok.
12:00 - 14:30 RIH dir. BHA and 8 1/2" PDC bit with 5" DP in stands from 965 ft to 2500 ft.
14:30 - 15:00 Rig service.
15:00 - 17:00 Continue to RIH from 2500 ft to 3942 ft (Top of cement). Observed on shakers top (black) and bottom (Red) plugs.
17:00 - 00:00 Drill out cement from 3942 ft to 4360 ft.

January 31st, 2014

00:00 - 05:00 Continue to drill out cement from 4360 ft to 4973 ft, observed float collar.
05:00 - 05:30 Drill out float collar and cement from 4973 ft to 4985 ft.
05:30 - 06:00 Perform CIT with 1000 psi, x 10 min ok.
06:00 - 06:30 Drill 10 ft of new formation from 5014 ft to 5024 ft.
06:30 - 07:30 Circulate 01 bottom up to get 100 % geology sample.

07:30 - 08:30	Clean sand tramp and MWD calibrate depth sensor.
08:30 - 09:30	Circulate and displace contaminated mud with cement by 11.0 ppg new mud.
09:30 - 10:30	Perform formation integrity test with 580 psi. EMW: 14 ppg and MW: 11.0 ppg.
10:30 - 12:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5024 ft to 5100 ft, 550 gpm, SPP: 2350 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 8-10 Klbs.
12:30 - 13:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5100 ft to 5122 ft, 550 gpm, SPP: 2320 psi, WOB: 9 Klbs.
13:30 - 15:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5122 ft to 5270 ft, 570 gpm, SPP: 2470 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 9-10 Klbs.
15:30 - 16:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5270 ft to 5285 ft, 590 gpm, SPP: 2650 psi, WOB: 11 Klbs.
16:30 - 17:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5285 ft to 5308 ft, 570 gpm, SPP: 2670 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 11-12 Klbs.
17:00 - 17:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5308 ft to 5338 ft, 590 gpm, SPP: 2650 psi, WOB: 12 Klbs.
17:30 - 20:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5338 ft to 5483 ft, 590 gpm, SPP: 2700 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 11-12 Klbs.
20:30 - 21:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5483 ft to 5508 ft, 590 gpm, SPP: 2700 psi, WOB: 8-9 Klbs.
21:30 - 22:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5508 ft to 5583 ft, 590 gpm, SPP: 2710 psi, TQ: 11-12 Klbs-ft, RPM: 60, WOB: 11-12 Klbs.
22:00 - 23:00	Circulate, pump sweep pill, circulate until clean shakers.
23:00 - 23:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5583 ft to 5612 ft, 590 gpm, SPP: 2710 psi, WOB: 8-9 Klbs.
23:30 - 00:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5612 ft to 5653 ft, 590 gpm, SPP: 2740 psi, TQ: 11-12 Klbs-ft, RPM: 60, WOB: 11-12 Klbs.

February 01st, 2014

00:00 - 01:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5653 ft to 5676 ft, 590 gpm, SPP: 2760 psi, TQ: 11-12 Klbs-ft, RPM: 60, WOB: 8-10 Klbs.
01:00 - 02:00	Drill slide with dir BHA and 8 1/2" PDC bit from 5676 ft to 5721 ft, 590 gpm, SPP: 2700 psi, WOB: 8-9 Klbs.
02:00 - 03:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5721 ft to 5764 ft, 590 gpm, SPP: 2700 psi, TQ: 11.5 Klbs-ft, RPM: 60, WOB: 9-11Klbs.
03:30 - 04:30	Drill slide with dir BHA and 8 1/2" PDC bit from 5764 ft to 5776 ft, 590 gpm, SPP: 2700 psi, WOB: 8-9 Klbs.
04:30 - 05:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5776 ft to 5800 ft, 590 gpm, SPP: 2740 psi, TQ: 11.5 Klbs-ft, RPM: 60, WOB: 10-11.5Klbs.
05:00 - 08:00	Drill slide with dir BHA and 8 1/2" PDC bit from 5800 ft to 5857 ft, 590 gpm, SPP: 2700 psi, WOB: 8-9 Klbs. While slide drill increase pressure, hanging and stall, pick up and continue to slide.
08:00 - 09:30	Circulate hole with 600 gpm - 2614 psi, pump and circ visc pill (30 bbls-11.2 ppg - 120 seg).
09:30 - 12:00	POOH string from 5857 ft to 9-5/8" csg shoe (5014 ft) without problem, no restriction, TIH from 5014 ft to bottom (5848 ft) without pump and rot. PU: 190, SO: 80, HL:115 klbs.
12:00 - 12:30	Drill in rotate mode from 5857 ft to 5866 ft, 590 gpm, SPP: 2740 psi, TQ: 11.5 Klbs-ft, RPM: 60, WOB: 10-11.5Klbs.
12:30 - 13:30	Drill in slide mode from 5866 ft to 5888 ft, increase pressure and pick up 4 time due stalling mud motor and it difficult to orientate toolface.
13:30 - 14:00	Drill in rotate mode from 5888 ft to 5953 ft with 10/12 klbs, 580 gpm, 2726 psi,

torq 11.5 lb-ft. ROP 130 ft /hr. MW: 11.2 ppg.

According to recommendation of SLB, Savia decided to POOH string to surface and change BHA.

14:00 - 15:00	Circulate hole with 600 gpm - 2600 psi, pump and circ visc pill (30 bbls-11.2 ppg - 120 seg).
15:00 - 18:30	POOH dir BHA and 8 1/2" PDC bit from 5953 ft to 930 ft, no restriction.
18:30 - 20:30	POOH and L/D dir BHA and 8 1/2" PDC bit from 930 ft to surface.
20:30 - 00:00	M/U dir BHA with 8 1/2" PDC bit MDI519LBPX (3 x15-2 x16 TFA: 0.91in ²), mud motor 6 3/4" BH 1.5, 6 3/4" float sub, 8 1/8" Stab, 6 3/4" SNMDC. rigid mount/w slimpulse, 6 3/4" NMDC, 06 x 5" HWDP, 6 1/2" Jar, 20 x 5" HWDP.

Perform shallow at 114 ft test with 480 gpm, 754 psi, check MWD signal, Ok.

February 02nd, 2014

00:00 - 04:30	Continue to RIH dir. BHA with 8 1/2" PDC bit from 550 ft to 5000 ft.
04:30 - 05:30	Cut and slip drilling line.
05:30 - 06:00	Rig service.
06:00 - 08:00	Continue RIH with directional BHA from 5000 ft to 5953 ft, no restriction.
08:00 - 08:30	Circulate 01 bottom up with 600 gpm - 2620 psi.
08:30 - 09:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 5953 ft to 5962 ft, 590 gpm, SPP: 2600 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 9-11Klbs.
09:00 - 10:00	Drill slide with dir BHA and 8 1/2" PDC bit from 5962 ft to 5967 ft, 590 gpm, SPP: 2680 psi, WOB:10 Klbs. Continue to increase pressure while slide, stall, pick up string and continue to slide.
10:00 - 10:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5967 ft to 5972 ft, 590 gpm, SPP: 2700 psi, TQ: 11 Klbs-ft, RPM: 60, WOB: 9-11 Klbs.
10:30 - 11:00	Drill slide with dir BHA and 8 1/2" PDC bit from 5972 ft to 5977 ft, 590 gpm, SPP: 2670 psi, WOB: 10-11 Klbs.
11:00 - 11:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 5977 ft to 6013 ft, 590 gpm, SPP: 2700 psi, TQ: 11-11.5 Klbs-ft, RPM: 60, WOB: 9-11Klbs.
11:30 - 13:00	Drill slide with dir BHA and 8 1/2" PDC bit from 6013 ft to 6027 ft, 590 gpm, SPP: 2680 psi, WOB: 10-11 Klbs.
13:00 - 14:00	Drill rotate with dir BHA and 8 1/2" PDC bit from 6027 ft to 6060 ft, 590 gpm, SPP: 2730 psi, TQ: 10-11 Klbs-ft, RPM: 60, WOB: 9-11Klbs.
14:00 - 16:00	Drill slide with dir BHA and 8 1/2" PDC bit from 6060 ft to 6094 ft, 590 gpm, SPP: 2700 psi, WOB: 11-12 Klbs.
16:00 - 17:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 6094 ft to 6170 ft, 590 gpm, SPP: 2740 psi, TQ: 11.5 Klbs-ft, RPM: 60, WOB: 9-11Klbs.
17:30 - 20:00	Drill slide with dir BHA and 8 1/2" PDC bit from 6170 ft to 6195 ft, 590 gpm, SPP: 2700 psi, WOB: 10-11 Klbs.
20:00 - 22:30	Drill rotate with dir BHA and 8 1/2" PDC bit from 6195 ft to 6291 ft, 590 gpm, SPP: 2780 psi, TQ: 11-12 Klbs-ft, RPM: 80, WOB: 8-10 Klbs. Continue to increase pressure while slide, stall, pick up string and continue to slide.
22:30 - 00:00	Circulate, Acc. take survey and ream.

February 03rd, 2014

00:00 - 02:00	Drill slide with dir BHA and 8 1/2" PDC bit from 6291 ft to 6303 ft, 590 gpm, SPP: 2730 psi, WOB: 10 Klbs.
02:00 - 02:30	Observed lost circulation, pump rate down to 420 gpm, circulate, partial lost, V

mud loss: 120 bbls.

02:30 - 03:00 Prepare and spotted LCM pill 40 lb/bbl on bottom.

03:00 - 05:00 POOH dir BHA from 6303 ft to 4990 ft, no restriction.

05:00 - 07:00 Perform flow check, level down, partial loss after flock check ok. Prepare 2nd LCM pill, prepare mud in active tanks, complete system.

07:00 - 09:00 TIH with 8.5" directional BHA from 4990 ft to bottom (6303 ft). Total mud lost: 200 bbls.

09:00 - 16:30 Directional drilling in rotate mode from 6303 ft to 6525 ft with 6/8 klbs wob, 60 rpm, 500 gpm, 2100 psi, torq 11/13 k lb-ft.

16:30 - 17:00 Directional drilling in slide mode from 6525' to 6529', wob: 8 klbs, 2050 psi, 500 gpm.

17:00 - 17:30 Directional drilling in rotate mode from 6529 ft to 6549 ft with 6/8 klbs wob, 60 rpm, 500 gpm, 2100 psi, torq 11/13 k lb-ft.

17:30 - 18:00 Directional drilling in slide mode from 6549' to 6558', wob:10 klbs, 2100 psi, 500 gpm.

18:00 - 19:00 Directional drilling in rotate mode from 6558 ft to 6583 ft with 8/10 klbs wob, 60 rpm, 500 gpm, 2100 psi, torq 11/13 k lb-ft.

19:00 - 20:00 Directional drilling in slide mode from 6583' to 6609', wob: 10 klbs, 2300 psi, 540 gpm, diff: 100 psi.

20:00 - 00:00 Directional drilling in rotate mode from 6609 ft to 6836 ft with 10/12 klbs wob, 70 rpm, 540 gpm, 2500 psi, torq 11/13 k lb-ft. PU: 230 SO: 85 , HL: 120 klbs.

February 04th, 2014

00:00 - 02:00 Directional drilling in rotate mode from 6836 ft to 6992 ft with 13 klbs wob, 70 rpm, 540 gpm, 2450 psi, torq 11/13 k lb-ft. MW: 11.1 ppg.

02:00 - 03:00 Circulate & pump 30 bbls visc pill (30 bbls- 11.1 ppg - 130 seg) to shaker clean.

03:00 - 10:00 Directional drilling in rotate mode from 6992 ft to 7367 ft with 13 klbs wob, 70 rpm, 540 gpm, 2480 psi, torq 15 k lb-ft.
Just with pump; PU: 260, SO 85 , HL: 140 klbs.
With pump & rot. (70 rpm-14/20 Klb-ft torq) PU:165, SO:110, HL:132 klbs.

10:00 - 12:00 Circulate and increase mud weight from 11.1 to 11.3 ppg, and increase lubricity from 0.8 to 1.2 %.

12:00 - 14:00 Pump and circulate 30 bbls visc pill (11.3 ppg- 120 seg) to shaker clean.
POOH string from 7367 ft to 5900 ft without problem & without pump & rot, PU: 275 klbs.

14:00 - 16:00 TIH with 8.5" direct BHA from 5900 ft to 7367 ft without problem. Last 3 stand down with rot & circ.

16:00 - 16:30 Circulate with 540 gpm-2620 psi.

16:30 - 20:00 Acc Directional in rotate mode from 7367 ft to 7632 ft with 540 gpm - 2660 psi - 220 diff, 70 rpm , 13 klbs wob, torq 21 klb-ft. MW: 11.3 ppg.

20:00 - 22:30 Acc reaming , survey and connection.

22:30 - 23:00 Directional in slide mode from 7632 ft to 7635 ft .540 gpm - wob: 5 klbs, press diff: 40 psi.
When slide 5 ft, try to pick up & get tension of 300klbs without be free, down string to neutral weight (138 klbs) & rotate string to 25 klbs -ft to be free. Cant cont. drilling in slide mode.

23:00 - 23:30 Continue drilling in rotate mode from 7635 ft to 7649 ft with 540 psi, 2720 psi, 90 rpm, wob:12klbs, torq 21 klb-ft. MW: 11.3 ppg.
With rotation and circ PU: 165 klbs, SO:110, HL: 138 klbs, torq up: 20/25 klbs with 70 rpm.
Without rotation and circ PU: 275 klbs, SO: 85 klbs, 540 gpm.

23:30 - 00:00 Circulate and connection with 540 gpm - 2750 psi.

February 05th, 2014

00:00 - 01:30 Directional drilling fr/7649 ft to 7742 ft, wob: 12 klbs, 540 gpm, 2720 psi, 90 rpm, torq; 21 klb-ft. MW: 11.3 ppg.

01:30 - 02:30 Reaming connection and survey. Stand reaming 4 time.

02:30 - 04:00 Directional drilling fr/ 7742 ft to 7835 ft, wob: 12 klbs, 540 gpm, 2740 psi, 90 rpm, torq; 21 klb-ft. MW: 11.3 ppg.

04:00 - 05:00 Reaming, connection and survey, circulate 30 bbls visc pill to shaker clean.

05:00 - 11:00 Directional drilling fr/ 7835 ft to 8024 ft, wob: 12 klbs, 540 gpm, 2740 psi, 90 rpm, torq; 21 klb-ft.

11:00 - 14:00 Circulate & pump hole with 550 gpm-2884 psi, 2 pill-30 bbls disperse and 30 bbls vis-heavy pill. Circulate hole to shaker clean.
PU: 185 klbs (torq 19/24 klbs-ft), SO: 115 klbs (15/17 klbs-ft), HL: 140 klbs.
PU 278 klbs (just pump).

14:00 - 15:00 POOH string from 8024 ft to 6825 ft backreaming, 520 gpm-2350 psi.

15:00 - 15:30 Circulate hole with 550 gpm-2650 psi.

15:30 - 16:00 POOH string from 6825 ft to 6645 ft (PU: 275 klbs), without pump and rotation but at 6645 ft string pick up to 310 klbs.

16:00 - 17:30 Continue POOH string from 6645 ft to 6038 in backreaming.

17:30 - 18:30 Circulate hole with 550 gpm-2400 psi.

18:30 - 20:00 Continue POOH string from 6038 ft to casing shoe in backreaming.

20:00 - 00:00 TIH string from shoe to 7894 ft without pump and rotation, just reaming at 5887', 6028', 6478'.
Installed 14 reduce torq (Spiro-Torq from North Services) from 6500 ft.

February 06th, 2014

00:00 - 01:00 Continue TIH from 7894 ft to 8024 ft, Down last 3 stand reaming.
Total reduce tq (Spiro-Torq from North Services) installed:17 ft, from 6500 ft.

01:00 - 02:00 Circulate hole with 550 gpm - 2700 psi.

02:00 - 05:30 Directional drilling fr/ 8024 ft to 8140 ft, wob: 13 klbs, 550 gpm, 2740 psi, 100rpm, torq; 22 klb-ft.
With Rotation and pump: PU: 195 klbs (torq 18/25 klbs-ft), SO:120 Klbs (17/18 klb-ft), HL: 148 klbs, torq off bottom with 100 rpm: 22 klb-ft. 17 Torq reduction in hole.
Last geology sample at 8130 ft, 80 % claystone, 20 & sandstone. Formation: Mogollon.
MW: 11.3 ppg.
Last survey point 7984.12 ft - 28.59 ° incl, 175.49° azm.

05:30 - 06:00 Rig service. Circulate hole, change mud pump, replace piston.

06:00 - 06:30 Directional drilling fr/ 8140 ft to 8146 ft, wob: 13 klbs, 550 gpm, 2740 psi, 100rpm, torq: 22 klb-ft.
PU: 195 klbs (torq 18/25 klbs-ft), SO: 120 Klbs (17/18 klb-ft), HL: 148 klbs, torq off bottom with 100 rpm : 22 klb-ft. 17 Torq reduction in hole.
Difficult to continue drilling due when try to reaming, string stop rotation (26800 klbs - ft), & increase string weight (PU, SO, HL) when add 17 torq reduction tools.

06:30 - 11:30 POOH string in backreaming from 8146 ft to 6500 ft, and remove torq reduction (17 unit).

11:30 - 12:00 Circulate hole with 530 gpm - 2400 psi.

12:00 - 15:00 TIH string from 6500 ft to 8146 ft without rot & circ, last 3 stand reaming.

15:00 - 15:30	Circulate hole with 530 gpm - 2570 psi. PU: 175 klbs, SO 140, HL: 110 klbs. tq up: 23 klbs, torq down 17 klbs. Torq off bottom: 22 klbs.
15:30 - 17:00	Directional drilling fr/ 8146 ft to 8180 ft, wob: 13 klbs, 550 gpm , 2750 psi, 80rpm, torq; 22 klb-ft. WELL STOPPED AT 8180 ft.
17:00 - 19:00	Circulate & pump hole with 530 gpm - 2630 psi, 2 pills - 30 bbls disperse and 30 bbls vis-heavy pill. Circulate hole to shaker clean.
19:00 - 20:00	Repair rig - problem with top drive, grabber cant disconnected drill pipe.
20:00 - 00:00	Reciprocate string up 290 klbs and down 90 klbs with 500 gpm. POOH string in backreaming from 8180 ft to 5530 ft.

February 07th, 2014

00:00 - 01:00	Continue POOH in backreaming fr/ 5530 ft to 5014 ft. circulate.
01:00 - 08:00	Continue POOH string from 5014 ft to 5014 ft. L/D directional BHA.
08:00 - 12:30	M/U 8.5" tricone bit with slick BHA from surface to 5000 ft.
12:30 - 13:30	Circulate hole 600 gpm - 1600 psi.
13:30 - 14:00	Rig service. Pepesa replace saver sub of top drive.
14:00 - 18:00	TIH 8.5" conventional BHA from 5000 ft to 8180 ft. without pump and rot. Reaming last 3 stand's. String set with 30 klbs at 6171 ft, 6300 ft, 6444 ft, 7148 ft, 7260 ft, reaming and pass.
18:00 - 20:00	Circulate & pump hole with 600 gpm - 2200 psi, 2 pill - 30 bbls disperse and 30 bbls vis-heavy pill. Circulate hole to shaker clean. MW: 11.4 ppg.
20:00 - 00:00	POOH string 8180 ft to 5000 ft, without pump and rotation. With Rotation and Circ, PU: 175 klbs (torq 22/24), SO: 120 klbs (16/17), HL: 145 klbs and normal PU (without pump & rot): 300klbs.

February 08th, 2014

00:00 - 00:30	Circulate hole at 500 gpm - 1350 psi.
00:30 - 04:30	Continue POOH from 4800 ft, to surface without problems.
04:30 - 05:00	Safety meeting with WTF, Savia, Pepesa and Tramarsa previous to perform R/U logging tools (shuttle compact of WTF).
05:00 - 17:30	M/U Shuttle compact tool of Weatherford (logging tool) and RIH with 5" DP from 207 ft, to 8180 ft without problem. Shuttle compact tool (BHA): 207.31 ft - Max OD: 4 3/4".
17:30 - 19:00	POOH from 8180 ft to 8012 ft, circulate and send messenger dart for deployment tool logging string with 126 gpm - 450 psi.
19:00 - 00:00	POOH logging from 8012 ft to 5014 ft (9 5/8" csg shoe), velocity 30 ft/min First of two runs , gamma ray , resistivity , porosity , density. Continue POOH fr/ 5014 ft to 1600 ft.

February 09th, 2014

00:00 - 01:00	Continue POOH 5" DP with wtf logging tool from 1600 ft to 207 ft.
01:00 - 03:00	Weatherford lay down shuttle compact tool.
03:00 - 18:00	M/U Shuttle compact tool of Weatherford (logging tool - Second run: image, sonic, bipolar) and RIH with 5" DP from surface to 8180 ft. without problems. Shuttle compact tool (BHA): 186.65 ft - Max OD: 4 3/4".
18:00 - 20:30	POOH from 8180 ft to 8060 ft, circulate and send messenger dart for deployment tool logging string with 85 gpm - 346 psi.
20:30 - 00:00	POOH logging from 8060 ft to 6950 ft, velocity 15 ft/min second runs, image, sonic and bipolar (8060 ft to 6950 ft). Continue POOH from 6950 ft to 6000 ft with velocity 30 ft/hr.

February 10th, 2014

00:00 - 04:00	Continue POOH 5" DP with wtf logging tool from 6950 ft 5014 ft, and continue POOH to 186.65 ft.
04:00 - 07:30	Weatherford lay down shuttle compact tool.
07:30 - 11:30	M/U 8.5" tricone bit with 8 1/8 stb from surface to 4950 ft.
11:30 - 12:00	Circulate hole at 4950 ft, with 350 gpm - 1000 psi.
12:00 - 13:00	Cut & slid drilling line: 170 ft.
13:00 - 13:30	Simulation of blow out & injure man and security safety meeting with all crew.
13:30 - 16:00	TIH conventional BHA from 4950 ft to 8180 ff without problem.
16:00 - 18:00	Circulate and pump 30 bbls visc pill to shaker clean with 560 gpm - 1900 psi. PU: 175 klbs (torq 23 klbs-ft). SO: 120 klbs (torq: 12Klbs-ft), HL: 145 Klbs. Normal.
18:00 - 00:00	PU: 290 klbs without pump & circ. POOH 8.5" conventional BHA from 8180 ft to 2600 ft without problems (without pump & rot).

February 11th, 2014

00:00 - 02:30	POOH 8.5" conventional BHA from 2600 ft, to surface without problems. Lay down 8.5" bit, stb and jar.
02:30 - 03:00	Retrieve wear bushing.
03:00 - 04:30	Prepare rig floor to RIH 5.5" csg, lay down PPSA hydr tongs, top drive links. M/U ITS links and elevator
04:30 - 05:00	Safety meeting with ITS, Pepesa and Tramarsa previous to RIH 5.5" csg.
05:00 - 13:00	M/U Guide Shoe + 2 joints 5 1/2" 17.0 ppf N-80 BTC casing+ float collar and continue RIH 5 1/2" csg from 78.15 ft to 4960 ft.
13:00 - 13:30	R/U ITS fill up tool with spider at 4960 ft.
13:30 - 14:00	Circulate hole with 300 gpm - 387 psi.
14:00 - 19:00	Continue RIH 5.5 csg from 4960 ft t to 8179 ft without problems.
19:00 - 00:00	Circulate hole at 8179 ft with 260 gpm - 432 psi. 5.5" csg depth at 8179 ft BJ-Baker Hugues prepare Mud clean, MS spacer on Hippo boat. Hippo arrieved to location at 18:30 hours (11-02-2014).

February 12th, 2014

00:00 - 02:00	Baker Hugues prepare Mud clean, MS spacer on Hippo boat. Finished to rig up cementing line and installed cementing head.
02:00 - 05:00	Baker Test cement lines w/ 3100 psi by 5 min, ok. Pump 20 bbl mud of low reology and 15 bbl mud clean, 15 bbls spacer and 20 bbls spacer. Drop bottom plug. Mixs cement & pump 145 bbl of cmt Lead extendaCem V 14.7 ppg & pump 122 bbl of cmt ExpandaCem V 15.2 ppg. observed by shakers full return. Drop top plug & displace w/198 bbl of mud 11.4 ppg, (theory volume:189 bbls) perform bump plug from 882 psi to 1340 psi by 5 min and perform integrity test 5.5" csg Ok. Perform back flow 1.5 bbl, ok. Csg shoe: 8179 ft, Float Collar: 8100 ft. Total cement used 1210 sxs (Pacasmayo V).
05:00 - 22:00	WOC while Baker L/D cement lines and Pepesa untight riser bolts. LD flow line, lift 13 5/8" BOP stack, set casing hanger(slips) with 120 klb ok. Cut & retrieve 5.5" landing joint. N/D BOP 13 5/8" X 5M, drilling spool 13 5/8" x 5M, riser 13 5/8" x 5M.



Pepesa welder cut & bevel 5.5" casing & install tubing spool (section "c"), Tighten bolts. Perform section "c" test, R54 ring gasket and pack off w/ 500 psi & 2700 psi by 10 min, ok.

N/U 7 1/16" shooting valve.

7 1/16 BOP stack, Connect choke line and kill line from drilling spool to choke manifold.

Pepesa welder install bell nipple and aligns with 7 1/16 BOP and weld.

Mechanics perform installation of hydraulic hoses from kookey to BOP.

LD BHA stands: 6 x 6 1/2" DC & 27 x 5" HWDP, in Mousehole.

22:00 - 00:00

CONCLUSIONS AND RECOMMENDATIONS

- The **LO6-34D**, is an Development well, and was drilled in four phases for 5 1/2" Casing from 456 feet to 8179 feet.
- During 8.5" phase, it was used mud CLAYSEAL PLUS type with mud weight between 11.0 ppg and 11.3 ppg.
- The last survey took was at 8091.46 feet MD, 5527.20 feet TVD with 28.25° of inclination and 175.02 degrees azimuth.
- The reservoir Mogollon top structurally was found at 6978.00 ft MD (RT), 4568.76 ft. TVD (RT), at 171.24 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.
- 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.