



TGT - LAB
REGISTROS GEOLOGICOS

FINAL WELL REPORT

WELL: LO6-33D

JULY-AUGUST 2013

SAVIA PERU S.A.

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INTRODUCTION

TGT – LAB S.A.C. started Mud Logging Operations on the Well LO6-33D on July 09th, 2013 at 461 feet depth, and finished on August 07th, at the depth of 8150.0 feet TD(RT), with 7" Casing cementation; Casing Shoe at 8149 feet.

Origin:	
Surface Northing	9'508,652.99 m.
Surface Easting	459,049.25 m.
Main objective:	Río Bravo Formation
Objective Northing	9'507,790.31 m
Objective Easting	458,124.14 m
Kelly Bushing	50 ft.
Water depth	-335 ft.
Total Depth	8150 ft.
Reference	DATUM-WGS -84 UTM

It is proposed to drill a development well LO6-33D to produce oil of Rio Bravo reservoir in Lobitos oil field.

The well LO6-33D will be drilled from platform Lobitos 6 and will reach a final depth of 4822.07 feet (TVD).

The geological control for Rio Bravo reservoirs 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 LO6-33D from 461 feet measured depth (Rotary Table) from July 09th, 2013; to the Final Total Depth at 8150 feet that was reached on August 07th, 2013.

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

This Unit was endowed with the following equipment:

Hook height measurement:

Draw work sensor

Drilling parameters:

Stand pipe pressure

Weight on bit

Depth (Measure Depth and True Vertical Depth)

MMRPM (Down Hole Motor RPM)

ROP (Rate of Penetration)

Mud system:

Pit Suction level # 1 (Sonic sensor)

Pit Pre-suction level # 2 (Sonic sensor)

Pit Desander level # 3 (Sonic sensor)

Pit Desilter level # 4 (Sonic sensor)

Mud pumps:

Pump # 1 (Triplex)

Pump # 2 (Triplex)

Pump # 3 (Triplex)

Gas chain specification:

Gas trap pneumatic shaker box

Gas Chromatograph FID SRI 8610C gas cycle 40"

Data acquisition system:

1 computer DRILL VIEW ADQ for Real time acquisition.

1 computer Windows 2003 Server for data bases.

1 computer Windows XP, for Geology Data control.

1 computer Windows XP, for Chromatograph control.

1 computer Windows XP, for Repetition screen on CoMan office.

- 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 461 to 5000 feet; and each 10 feet from 5000 feet to 8150 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.

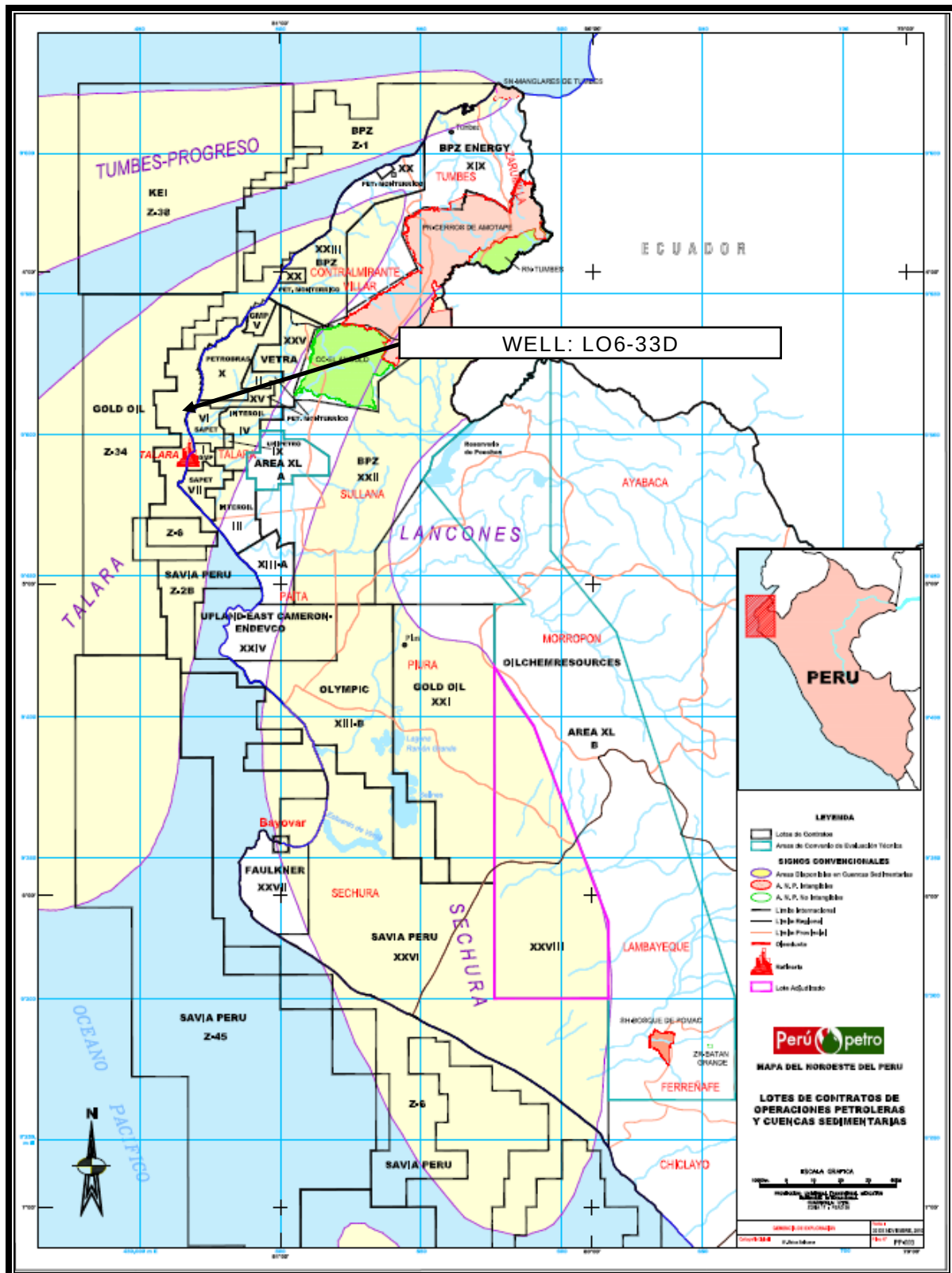


GEOLOGICAL REPORT



WELL AND RIG DATA

Company:	SAVIA PERU	
Well Name:	LO6-33D	
Well Type:	DEVELOPMENT	
Field:	LOBITOS OFFSHORE	
Basin:	TALARA	
State:	PIURA	
Country:	PERU	
Coordinates (WGS-84 UTM):	North	East
Origin:		
Main Objective: (RIO BRAVO FM)	9'507,790.31 m	458,124.14 m
Rotary table:	50 ft.	
Water Depth:	-335 ft.	
Spud Date:	JULY 25 th 2013	
End Date:	AUGUST 01 st 2013	
Total Depth:	8150.0 ft. MD (RT); 4822.07 ft. TVD (RT)	
Drilling Contractor / Rig:	PEPESA / P-40	
Drilling Fluids:	HALLIBURTON	
Logging Contractor:	WEATHERFORD	
Mud logging / Unit:	TGT LAB SAC	
Well site Geologist:	A. ORTEGA	
TGT-LAB Geologist:	G. CARDOZA / E. SANTISTEBAN / H. MONASTERIO.	





FORMATION TOPS



WELL LO6-33D

Elevación RKB:

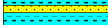
50 ft

SEA DEPTH:

335 ft

ROTARY TABLE: 50 ft.	PREDICTED TOPS			LITHOLOGIC TOPS BY SAMPLES		
FORMATION/ZONE	MD (ft)	DEPTH TVD (ft)	DEPTH	MD (ft)	DEPTH TVD (ft)	DEPTH SSTVD (ft)
	RT (ft)		SSTVD (ft)	RT (ft)		
Talara sandstone	-	-	-	-	0.00	-
Lobitos				772.0	769.02	-719.02
Terebratula				2473.0	1942.54	-1892.54
Chacra	2600.0	1989.0	-1939.0	3049.0	2191.91	-2141.91
Río Bravo	5840.0	3430.0	-3380.0	5769.0	3401.39	-3351.39
Final T.D.	8200.0	4906.0	-4856.0	8150.0	4822.07	4772.07

TOTAL DEPTH: 8150.0 ft. MD (RT), 4822.07 ft. TVD (RT)

AGE			FORMATION/MEMBER	THICKNESS (ft)	LITHOLOGY	DESCRIPTION
CENOZOIC	TERTIARY	Eocene	TALARA SANDSTONE	769.0	                                                	

STRATIGRAPHIC SEQUENCE

WELL: LO6-33D

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

TGT LAB started logging into Talara Formation at 461 feet to the total depth on Rio Bravo at 8150 feet MD.

CENOZOIC

TERTIARY

TALARA FORMATION

TALARA SANDSTONE MEMBER

Interval: 0 to 772 feet

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

Sand: white, very fine to fine, traces 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 minerals inclusion, poor visual porosity. No Oil Show.

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

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

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

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

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

Accessories: calcite, coal.

LOBITOS MEMBER

Interval: 772 to 2473 feet

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

At the upper section:

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

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

At the middle section:

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

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

At the lower section:

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

Dolomite: dark yellowish brown, pale yellowish brown, earthy, blocky to subblocky, subtabular in part, moderately hard to hard.

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

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

Accessories: calcite, coal, pyrite, microfossils.

TEREBRATULA MEMBER

Interval: 2473 to 3049 feet

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

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

Sand: white, 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.

Claystone: olive black, medium dark gray, locally olive gray, earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to 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 friable to friable, with dark minerals inclusion, poor visual porosity. No Oil Show.

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

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

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

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

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

Accessories: calcite, dolomite, pyrite, coal.

CHACRA FORMATION

Interval: 3049 to 5769 feet

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

At the upper section:

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

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

Sand: white, coarse to very coarse quartz grain, smoky, hyaline, translucent, subrounded, to sub angular, well sorted.



At the middle section:

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

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

At the lower section:

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

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

Sand: white, very fine to fine, traces 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 to moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show.

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

RIO BRAVO FORMATION

Interval: 5769 to 8150 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 Sand, Sandstone intercalated with Claystone and Siltstone.

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

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

Fluorescence: NVOS, 5-50% pin point yellowish white natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS.

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

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

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

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

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

Fluorescence: NVOS, 5-25% 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. F-POS.

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

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

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

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

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

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

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

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

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

LITHOLOGICAL DESCRIPTION

WELL: LO6-33D

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
Started logging & Monitoring Data from 461 feet on July 09 th , 2013 In Talara Sandstone Mbr. (Talara Fm.)			
461 – 490	40	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite.	
490 – 520	40	CLAYSTONE: olive black (5Y 2/1), locally medium dark gray (N4), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite.	
520 – 550	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.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite.	
550 – 580	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	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	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.	
	30	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite.	
580 – 610	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.	
	40	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally amorphous, moderately firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite.	
610 – 640	40	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 to non calcareous.	
	30	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	30	SAND: white (N9), 80% fine, 20% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite.	
640 – 670	70	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.	
	20	SANDSTONE: medium dark gray (N4), locally medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 90% fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite.	
670 – 700	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, scarce calcareous cement, moderately consolidated to moderately friable, locally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 20	SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. 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. Accessories: calcite.	
700 – 730	70 30 Tr	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark and greenish lithic. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, scarce calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. 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. Accessories: calcite, coal.	
730 – 760	60 30 10	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark and greenish lithic. CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), locally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, coal.	
LOBITOS Mbr. (TALARA FM.) TOP. AT 772.00 ft. MD (RT); 769.02 ft. TVD (RT)			
760 – 790	60 20 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 to firm, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted, locally with dark and greenish lithic. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, coal.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
790 – 820	90 10 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
820 – 850	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 80% fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, dolomite, microfossils.	
850 – 880	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, pyrite, microfossils.	
880 – 910	80 20 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 70% fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
910 – 940	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite.	
940 – 970	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, microfossils.	
970 – 1000	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally soft, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite.	
1000 – 1030	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, microfossils, dolomite.	
1030 – 1060	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, microfossils, dolomite, pyrite.	
1060 – 1090	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, microfossils, dolomite, pyrite.	
1090 – 1120	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, microfossils, dolomite.	
1120 – 1150	100 Tr Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: microfossils, calcite, pyrite, dolomite.	
1150 – 1180	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	minerals inclusion, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, microfossils, calcite, pyrite.	
1180 – 1210	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, microfossils, calcite, pyrite.	
1210 – 1224	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, microfossils, calcite, pyrite.	
1224 – 1240	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite. NOTE: SAMPLE CONTAMINATED WITH CEMENT.	
1240 – 1270	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite. NOTE: SAMPLE CONTAMINATED WITH CEMENT.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1270 – 1300	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1300 – 1330	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1330 – 1360	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1360 – 1390	100 Tr	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to consolidated, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1390 – 1420	100	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. Accessories: calcite, dolomite, microfossils.	
1420 – 1450	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, dolomite, microfossils.	
1450 – 1480	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, microfossils.	
1480 – 1510	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite, microfossils.	
1510 – 1540	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1540 – 1570	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1570 – 1600	100	CLAYSTONE: olive black (5Y 2/1), olive gray (5Y 4/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1600 – 1630	100	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1630 – 1660	100	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1660 – 1690	100	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1690 – 1720	100	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. Accessories: calcite, dolomite.	
1720 – 1750	80	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1750 – 1780	90 10	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
1780 – 1810	100 Tr	CLAYSTONE: olive gray (5Y 4/1), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1810 – 1840	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1840 – 1870	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
1870 – 1900	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1900 – 1930	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1930 – 1960	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
1960 – 1990	90 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite, coal.	
1990 – 2020	90 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite, coal.	
2020 – 2050	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, locally silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, slightly calcareous. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite, coal.	
2050 – 2080	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite, coal.	
2080 – 2110	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite, coal.	
2110 – 2140	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2140 – 2170	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2170 – 2200	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2200 – 2230	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2230 – 2260	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2260 – 2290	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2290 – 2320	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: calcite.	
2320 – 2350	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	Tr	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
2350 – 2380	70	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous.	
	20	SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite.	
2380 – 2410	100 Tr Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. DOLOMITE: dark yellowish brown (10YR 4/2), pale yellowish brown (10YR 6/2), earthy, blocky to subblocky, subtabular in part, moderately hard to hard. Accessories: dolomite, calcite.	
2410 – 2440	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
2440 – 2470	90 10 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), medium dark gray (N4), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
TEREBRATULA Mbr. (TALARA FM.) TOP. AT 2473.00 ft. MD (RT); 1942.54 ft. TVD (RT)			
2470 – 2500	70 30 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, slightly soluble, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), medium dark gray (N4), 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, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
2500 – 2530	70 30 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, slightly calcareous. SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite.	
2530 – 2560	50 40 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. 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: dolomite, calcite, pyrite.	
2560 – 2590	50 30 20	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non 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. Accessories: dolomite, calcite, pyrite.	
2590 – 2620	80 20	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	

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, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, pyrite.	
2620 – 2650	90	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
2650 – 2680	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	Tr	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. Accessories: abundant dolomite, calcite, pyrite.	
2680 – 2710	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	Tr	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. Accessories: abundant dolomite, calcite, pyrite.	
2710 – 2740	90	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	7
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
		Fluorescence: NVOS, 7% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	
2740 – 2770	70	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	
2770 – 2800	60 20 20	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	15
2800 – 2830	80 10 10	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
2830 – 2860	60	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	15
	30	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, 15% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	
2860 – 2890	70	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	10
	20	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	10	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	
2890 – 2920	70	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	TR
	30	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	
2920 – 2950	80 20 Tr	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	TR
2950 – 2980	60 30 10	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Fluorescence: NVOS, traces pin point pale yellow natural fluorescence, slow, weak, faint, even, pale yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant dolomite, calcite, pyrite.	TR
2980 – 3010	80 20 Tr	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: abundant dolomite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3010 – 3040	90	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
CHACRA FM. TOP. AT 3049.00 ft. MD (RT); 2191.91 ft. TVD (RT)			
3040 – 3070	90	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand.	
	Tr	SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
3070 – 3100	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	Tr	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. Accessories: dolomite, calcite.	
3100 – 3130	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	Tr	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. Accessories: dolomite, calcite.	
3130 – 3160	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3160 – 3190	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted, clean sand. Accessories: dolomite, calcite.	
3190 – 3220	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3220 – 3250	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3250 – 3280	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3280 – 3310	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3310 – 3340	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to moderately soft, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite.	
3340 – 3370	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous. Accessories: dolomite, calcite. NOTE: SAMPLE CONTAMINATED WITH ABUNDANT LCM (WALLNUT).	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
3370 – 3400	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, locally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	10	SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, coal.	
3400 – 3430	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, locally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous to non calcareous.	
	10	SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: abundant dolomite, calcite, coal.	
3430 – 3460	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, locally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3460 – 3490	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally silty, locally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3490 – 3520	90	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally olive gray (5Y 4/1), occasionally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally silty, locally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite, microfossils, pyrite, coal.	
3520 – 3550	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3550 – 3580	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3580 – 3610	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3610 – 3640	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3640 – 3670	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite, pyrite, microfossils, coal.	
3670 – 3700	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils.	
3700 – 3730	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils, coal.	
3730 – 3760	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils, coal.	
3760 – 3790	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: dolomite, calcite, pyrite, microfossils, coal.	
3790 – 3820	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite, coal.	
3820 – 3850	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils, coal.	
3850 – 3880	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils.	
3880 – 3910	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils.	
3910 – 3940	90 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. SAND: white (N9), coarse to very coarse quartz grain, smoky, hyaline, translucent, subrounded, to sub angular, well sorted. Accessories: dolomite, calcite, pyrite, microfossils.	
3940 – 3970	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. SAND: white (N9), coarse to very coarse quartz grain, smoky, hyaline, translucent, subrounded, to sub angular, well sorted. Accessories: dolomite, calcite.	
3970 – 4000	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. SAND: white (N9), coarse to very coarse quartz grain, smoky, hyaline, translucent, subrounded, to sub angular, well sorted. Accessories: dolomite, calcite.	
4000 – 4024	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite.	
4024 – 4060	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4060 – 4090	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally soft, locally silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
4090 – 4120	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally soft, silty in part, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
4120 – 4150	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally soft, silty in part, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4150 – 4180	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally soft, silty in part, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, coal.	
4180 – 4210	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils, coal.	
4210 – 4240	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to subplaty, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4240 – 4270	100	CLAYSTONE: medium dark gray (N4), dark gray (N3), olive black (5Y 2/1), occasionally brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4270 – 4300	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4300 – 4317	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4317 – 4330	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, coal.	
4330 – 4360	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4360 – 4390	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4390 – 4420	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4420 – 4450	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	microcarbonaceous, non calcareous to very slightly calcareous. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, moderately consolidated to moderately friable, occasionally tight, with dark minerals inclusion, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
4450 – 4470	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4470 – 4480	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4480 – 4500	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, locally microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4500 – 4510	90 10	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4510 – 4540	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: dolomite, calcite, microfossils, pyrite.	
4540 – 4570	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite.	
4570 – 4600	100 Tr	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4600 – 4630	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous. Accessories: dolomite, calcite, microfossils.	
4630 – 4660	100	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, microfossils.	
4660 – 4690	100 Tr	CLAYSTONE: medium dark gray (N4), olive black (5Y 2/1), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), earthy, blocky to subblocky, locally amorphous, moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
4690 – 4720	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
4720 – 4750	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
4750 – 4780	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
4780 – 4810	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite.	
4810 – 4840	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), dark greenish gray (5GY 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite.	
4840 – 4870	100	CLAYSTONE: olive black (5Y 2/1), medium dark gray (N4), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. Accessories: dolomite, calcite, pyrite, microfossils, glauconite.	
4870 – 4900	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: abundant dolomite, calcite, pyrite, microfossils, glauconite.	
4900 – 4930	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, microfossils, glauconite.	
4930 – 4960	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils, glauconite, pyrite, coal.	
4960 – 4990	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils, pyrite, coal.	
4990 – 5000	90 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils, pyrite, coal.	
5000 – 5010	100 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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. SANDSTONE: medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, microfossils, pyrite, coal.	
5010 – 5020	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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 gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, pyrite, coal.	
5020 – 5030	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	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.	
	Tr	SANDSTONE: medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal.	
5030 – 5040	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	Tr	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 gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, microfossils, pyrite, coal.	
5040 – 5050	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	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. (%)
	Tr	SANDSTONE: medium gray (N5), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, microfossils, pyrite.	
5050 – 5060	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, pyrite, glauconite.	
5060 – 5070	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminal, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, pyrite, microfossils.	
5070 – 5080	90 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, pyrite, microfossils.	
5080 – 5090	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils, pyrite.	
5090 – 5100	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	to very slightly calcareous. 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: dolomite, calcite, microfossils, pyrite.	
5100 – 5110	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	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. Accessories: dolomite, calcite, microfossils, pyrite.	
5110 – 5120	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	Tr	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: dolomite, calcite, microfossils, pyrite.	
5120 – 5130	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	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. Accessories: dolomite, calcite, microfossils, pyrite.	
5130 – 5140	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, locally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	
	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. Accessories: dolomite, calcite, microfossils, pyrite.	
5140 – 5150	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils, pyrite.	
5150 – 5160	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils.	
5160 – 5170	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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: dolomite, calcite, microfossils.	
5170 – 5180	80 10 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. No Oil Show. Accessories: dolomite, calcite, glauconite, pyrite.	
5180 – 5190	80 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. 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. (%)
	10 Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite, pyrite.	
5190 – 5200	80 20 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite, pyrite.	
5200 – 5210	90 10 Tr Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite, pyrite, microfossils.	
5210 – 5220	90 10	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr Tr	microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
5220 – 5230	80 10 10 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
5230 – 5240	80 10 10 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous. SILTSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, coal, pyrite.	
5240 – 5250	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, non calcareous to very slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	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.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, glauconite, coal, pyrite.	
5250 – 5260	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite.	
5260 – 5270	80	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, glauconite.	
5270 – 5280	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	10	SILTSTONE: medium dark gray (N4), medium gray (N5), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	blocky to subblocky, moderately firm to 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 friable to moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite.	
5280 – 5290	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, glauconite.	
5290 – 5300	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite, glauconite.	
5300 – 5310	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	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 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	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: dolomite, calcite.	
5310 – 5320	100	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	Tr	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 gray (N5), locally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
5320 – 5330	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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. Accessories: dolomite, calcite, glauconite.	
5330 – 5340	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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. Accessories: dolomite, calcite, glauconite, microfossils.	
5340 – 5350	90	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, very slightly calcareous.	
	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. Accessories: dolomite, calcite, glauconite, microfossils, bentonite.	
5350 – 5360	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	micromicaceous, microcarbonaceous, very slightly calcareous. 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: dolomite, calcite, glauconite, microfossils, bentonite.	
5360 – 5370	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	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.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	
5370 – 5380	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	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.	
	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 moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite, microfossils.	
5380 – 5390	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	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.	
	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, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5390 – 5400	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	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.	
	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, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: dolomite, calcite, glauconite.	
5400 – 5410	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	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. Accessories: abundant glauconite, dolomite, calcite.	
5410 – 5420	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	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: abundant glauconite dolomite, calcite, microfossils.	
5420 – 5430	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	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: abundant glauconite, dolomite, calcite.	
5430 – 5440	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	
	Tr	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: abundant glauconite, dolomite, calcite, microfossils.	
5440 – 5450	100 Tr Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to 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, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: abundant glauconite, dolomite, calcite, microfossils.	
5450 – 5460	90 10 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to 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, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: abundant glauconite, dolomite, calcite, microfossils.	
5460 – 5470	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5470 – 5480	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5480 – 5490	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5490 – 5500	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5500 – 5510	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite, microfossils.	
5510 – 5520	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite, microfossils.	
5520 – 5530	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite, microfossils.	
5530 – 5540	90	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: glauconite, dolomite, calcite.	
5540 – 5550	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5550 – 5560	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5560 – 5570	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5570 – 5580	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5580 – 5590	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5590 – 5600	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5600 – 5610	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5610 – 5620	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), locally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5620 – 5630	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5630 – 5640	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, microfossils.	
5640 – 5650	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. LIMESTONE: mudstone, olive gray (5Y 4/1), blocky to subblocky, moderately firm to firm, occasionally microcarbonaceous. Accessories: dolomite, calcite, glauconite, microfossils.	
5650 – 5660	100 Tr	CLAYSTONE: medium dark gray (N4), olive gray (5Y 4/1), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. LIMESTONE: mudstone, olive gray (5Y 4/1), blocky to subblocky, moderately firm to firm, occasionally microcarbonaceous. Accessories: dolomite, calcite, glauconite, microfossils.	
5660 – 5670	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5670 – 5680	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5680 – 5690	100	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: dolomite, calcite, glauconite.	
5690 – 5700	90 10	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite, bentonite.	
5700 – 5708	100 Tr	CLAYSTONE: olive gray (5Y 4/1), medium dark gray (N4), occasionally olive black (5Y 2/1), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, occasionally moderately soft, silty, occasionally with coal inclusion, micromicaceous, microcarbonaceous, slightly calcareous. SILTSTONE: medium dark gray (N4), locally olive gray (5Y 4/1), medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite, glauconite.	
5708 – 5720	90 10 Tr	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: dolomite, calcite.	
5720 – 5730	90 10 Tr	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH TRACES CaCO₃ AND SHAVING METALS.	
5730 – 5740	80 10 10	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite. NOTE: SAMPLE CONTAMINATED WITH CaCO₃ TRACES AND SHAVING METALS.	
5740 – 5750	70 20 10	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
5750 – 5760	80 20 Tr	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), locally medium dark gray (N4), occasionally medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately consolidated, dirty, with glauconite and dark minerals inclusions, poor visual porosity. Accessories: calcite, dolomite, pyrite.	
RIO BRAVO FM. TOP. AT 5769.00 ft. MD (RT); 3401.39 ft. TVD (RT)			

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
5760 – 5770	70	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	5
	20	SAND: white (N9), 60% very fine to fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	Tr	Fluorescence: NVOS, 5% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium dark gray (N4), locally medium gray (N5), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite, pyrite.	
5770 – 5780	50	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	10
		Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	30	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	
	20	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal.	
5780 – 5790	70	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	10
		Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted.	
	10	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5790 – 5800	60	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	10
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% medium, 40% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted. Accessories: calcite, pyrite, coal, shell fragments.	
5800 – 5810	60	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	20
	30	Fluorescence: NVOS, 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.	
	10	SAND: white (N9), 60% medium, 30% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted. CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5810 – 5820	60	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	20
	30	Fluorescence: NVOS, 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 (N9), 60% medium, 30% very fine to fine, 10% coarse quartz grain, hyaline, translucent, subrounded to subangular, local	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	angular, poor sorted. CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5820 – 5830	70	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	20
	30	SAND: white (N9), 60% medium, 20% very fine to fine, 20% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted.	
	Tr	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5830 – 5840	50	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	30
	30	Fluorescence: NVOS, 30% 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. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SAND: white (N9), 50% medium, 30% very fine to fine, 20% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted.	
	10	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5840 – 5850	50	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	Fluorescence: NVOS, 30% 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 (N9), 50% medium, 30% very fine to fine, 20% coarse quartz grain, hyaline, translucent, subrounded to subangular, local angular, poor sorted.	
	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	CLAYSTONE: dark gray (N3), locally olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5850 – 5860	70	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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.	
	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	30
	10	SAND: white (N9), 60% very fine to fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	
	Tr	CLAYSTONE: dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5860 – 5870	60	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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.	
	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 Tr	SAND: white (N9), 60% very fine to fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. CLAYSTONE: dark gray (N3), olive black (5Y 2/1), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5870 – 5880	60 30 10 Tr	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	40
5880 – 5890	60 30 10 Tr	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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 (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	30
5890 – 5900	30	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), very light gray (N8), very fine to fine	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	
	20	CLAYSTONE: dark gray (N3), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, coal, shell fragments.	
5900 – 5910	50	CLAYSTONE: dark gray (N3), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% very fine to fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. Accessories: calcite, pyrite, coal, shell fragments.	
5910 – 5920	70	CLAYSTONE: dark gray (N3), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, coal, shell fragments.	
5920 – 5930	60 20 20 Tr	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: abundant pyrite, calcite, coal, shell fragments.	
2930 – 5940	40 20 20 20	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 60% very fine to fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. Accessories: abundant pyrite, calcite, coal, shell fragments.	20
5940 – 5950	50 40	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subrounded to subangular, fair sorted.	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	SILTSTONE: medium gray (N5), locally medium light gray (N6), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	
5950 – 5960	90 10 Tr	SAND: white (N9), 50% fine, 50% medium quartz grain, hyaline, translucent, subrounded to subangular, poor sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	40
5960 – 5970	80 20 Tr	SAND: white (N9), 50% fine, 50% medium quartz grain, hyaline, translucent, subrounded to subangular, poor sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	40
5970 – 5980	90 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% pin point pale yellowish natural	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. Accessories: pyrite, calcite, coal.	
5980 – 5990	70 20 10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally medium gray (N5), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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. F-POS. Accessories: pyrite, calcite, coal.	30
5990 – 6000	90 10 Tr	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% pin point yellowish white natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	50
6000 – 6010	70 30 Tr	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% pin point yellowish white natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally	50

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	
6010 – 6020	80 20 Tr	SAND: white (N9), 40% medium, 40% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% pin point yellowish white natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	50
6020 – 6030	70 30 Tr	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% pin point yellowish white natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: pyrite, calcite, coal.	40
6030 – 6040	70 30 Tr	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% pin point yellowish white 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. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous,	30

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, non calcareous. Accessories: coal, shell fragments, calcite, pyrite.	
6040 – 6050	80 20 Tr	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% pin point yellowish white 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. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: coal, shell fragments, calcite, pyrite.	25
6050 – 6060	50 40 10	SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% pin point yellowish white 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. CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: abundant shell fragments, coal, calcite, pyrite.	20
6060 – 6070	70 20 10	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, 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, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: abundant shell fragments, coal, calcite, pyrite.	
6070 – 6080	70	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10	microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, coal, calcite, pyrite.	
6080 – 6090	60 30 10	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, coal, calcite, pyrite.	
6090 – 6100	100 Tr	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, moderately firm to firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, calcite, pyrite.	
6100 – 6110	60 30 10	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, 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, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark 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: shell fragments, coal, calcite, pyrite.	
6110 – 6120	70 20	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, coal, calcite, pyrite.	
6120 – 6130	70	CLAYSTONE: dark gray (N3), occasionally grayish black (N2), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, coal, calcite, pyrite.	
6130 – 6140	90	CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	
6140 – 6150	90	CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	Tr	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: shell fragments, coal, calcite, pyrite.	
6150 – 6160	50	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	20
	30	CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), 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), locally light gray (N7),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. Accessories: coal, calcite, pyrite.	
6160 – 6170	70 20 10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	30
6170 – 6180	60 30 10	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 30% 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. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	30
6180 – 6190	70 30	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% pin point pale yellowish natural	40

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	
6190 – 6200	90 10 Tr	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	40
6200 – 6210	80 20 Tr	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% 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. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	50
6210 – 6220	90 10	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut	50

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	
6220 – 6230	80 20 Tr	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 50% 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. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.	50
6230 – 6240	90 10 Tr	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 40% 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. F-POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite. NOTE: SAMPLE CONTAMINATED WITH SHAVING METALS.	40
6240 – 6250	60 20	SAND: white (N9), 50% fine, 50% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, 20% pin point pale yellowish natural	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. Accessories: coal, calcite, pyrite.	
6250 – 6260	70 20 10	CLAYSTONE: dark gray (N3), locally grayish black (N2), occasionally medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to subplaty, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: coal, calcite, pyrite.	TR
6260 – 6270	80 10 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite.	
6270 – 6280	80 10 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous. SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6280 – 6290	60	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	Tr	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite.	
6290 – 6300	40	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: abundant shell fragments, coal, calcite, pyrite.	
6300 – 6310	40	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: light gray (N7), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: abundant shell fragments, coal, calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6310 – 6320	50	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, 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), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: abundant shell fragments, coal, calcite, pyrite.	
6320 – 6330	50	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, 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), locally medium light gray (N6), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: abundant shell fragments, coal, calcite, pyrite.	
6330 – 6340	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6340 – 6350	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	
6350 – 6360	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	
6360 – 6370	60	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6370 – 6380	50	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	
6380 – 6390	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	40	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), occasionally very light gray (N8), very fine to fine, traces medium quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: shell fragments, coal, calcite, pyrite.	
6390 – 6400	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, locally microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6400 – 6410	50	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	
6410 – 6420	50	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	5
	30	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
		Fluorescence: NVOS, 5% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
6420 – 6430	10	SAND: white (N9), 70% fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite, slickenside.	10
	50	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	20	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity.	
		Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
6420 – 6430	20	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6430 – 6440	70	SAND: white (N9), 60% fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	15
	10	SANDSTONE: medium light gray (N6), locally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 15% 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.	
	10	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6440 – 6450	70	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	20
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	
	10	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6450 – 6460	70	SAND: white (N9), 50% medium, 30% fine, 20% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	25

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% 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.	
	10	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6460 – 6470	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	10
	20	SAND: white (N9), 50% medium, 30% fine, 20% coarse to very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6470 – 6480	40	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	Tr
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), 60% medium, 40% fine, traces coarse to very coarse quartz grain, hyaline, translucent, subangular to subrounded,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal, pyrite.	
6480 – 6490	50	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), 60% medium, 40% fine, traces coarse to very coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite, slickenside.	
6490 – 6500	60	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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, 50% fine, traces coarse to very coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	Tr	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite, shell fragments.	
6500 – 6510	70	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 10 Tr	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite, shell fragments.	
6510 – 6520	50 30 20 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% fine, 40% medium quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant shell fragments, calcite, coal, pyrite.	TR
6520 – 6530	50 20 20 10	SAND: white (N9), 50% medium, 30% fine, 20% 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 to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant shell fragments, calcite, coal, pyrite.	
6530 – 6540	50 20 20 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), 60% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant shell fragments, calcite, coal, pyrite.	TR
6540 – 6550	50 30 10 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to subplaty, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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% medium, 40% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: abundant shell fragments, calcite, coal, pyrite.	TR
6550 – 6560	60 20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm	TR

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 10	to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 50% medium, 50% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal, pyrite, shell fragments.	
6560 – 6570	40 30 20 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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, 50% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, coal, pyrite, shell fragments.	TR
6570 – 6580	60 20 10 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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, 50% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, coal, pyrite, shell fragments.	
6580 – 6590	40 30 20 10	SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminal, 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, fair sorted. SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, coal, pyrite, shell fragments.	
6590 – 6600	40 30 20 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), locally medium light gray (N6), occasionally 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), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 70% very fine to fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, coal, pyrite.	
6600 – 6610	70 20 10 Tr	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium light gray (N6), occasionally 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), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), 70% very fine to fine, 30% medium quartz grain,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, coal, pyrite.	
6610 – 6620	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to 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 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.	
	30	SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	10	SILTSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, pyrite.	
6620 – 6630	40	SANDSTONE: light gray (N7), medium light gray (N6), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	10
	30	SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, pyrite.	
6630 – 6640	40	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium light gray (N6), occasionally 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), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, coal, pyrite.	
6640 – 6650	40	SILTSTONE: medium gray (N5), medium light gray (N6), occasionally medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	10
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% very fine to fine, 40% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted. Accessories: calcite, coal, pyrite.	
6650 – 6660	30	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 70% very fine to fine, 30% medium, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, fair sorted.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), occasionally grayish black (N2), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, pyrite.	
6660 – 6670	40	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, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	20
	30	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6670 – 6680	40	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	20
	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, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	
	20	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, pyrite.	
6680 – 6690	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm,	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	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, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	
	20	SAND: white (N9), 50% fine, 40% medium, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	
6690 – 6700	40	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	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, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	20
	20	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6700 – 6710	50	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	40	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, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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.	20
	10	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6710 – 6720	40 30 20 10	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SANDSTONE: light gray (N7), medium light gray (N6), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	20
6720 – 6730	40 40 10 10	SANDSTONE: light gray (N7), medium light gray (N6), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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 (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	20
6730 – 6740	40 30 20	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix,	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 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. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6740 – 6750	40 20 20	CLAYSTONE: dark gray (N3), medium dark gray (N4), 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), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% 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 (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, coal, pyrite.	25
6750 – 6760	40 40 10 10	SANDSTONE: light gray (N7), medium light gray (N6), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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 (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6760 – 6770	40	SANDSTONE: light gray (N7), medium light gray (N6), locally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 25% 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.	25
	20	SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6770 – 6780	30	SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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.	20
	30	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	
6780 – 6790	40	SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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.	20

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	40 10 10	SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, coal, pyrite.	
6790 – 6800	50 20 20 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 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 (N9), 50% medium, 50% fine, traces coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. Accessories: calcite, coal, pyrite.	20
6800 – 6810	50 30 20	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, pyrite.	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6810 – 6820	40	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	10
	40	SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	20	Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
6820 – 6830	40	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	TR
	30	SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity.	
	30	Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite.	
6830 – 6840	60	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, pyrite.	
6840 – 6850	70 20 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to 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 yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, pyrite.	TR
6850 – 6860	40 40 10 10	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 50% medium, 40% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	10
6860 – 6870	60 20	CLAYSTONE: dark gray (N3), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally light olive gray (5Y 6/1), very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous	10

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 10	matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 60% medium, 30% fine, 10% coarse quartz grain, hyaline, translucent, subangular to subrounded, poor sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
6870 – 6880	80 10 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	10
6880 – 6890	70 10 10 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, 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, pyrite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
6890 – 6900	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
6900 – 6910	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
6910 – 6920	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. Accessories: calcite, pyrite.	
6920 – 6930	50 20 20 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	TR
6930 – 6940	30 30 20 20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
6940 – 6950	60 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
6950 – 6960	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, occasionally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	20	SANDSTONE: light gray (N7), medium light gray (N6), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
6960 – 6970	60	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6970 – 6980	60	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6980 – 6990	80	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
6990 – 7000	80	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
7000 – 7010	90	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. Accessories: calcite, pyrite.	
7010 – 7020	90	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		very fine sandstone, non calcareous. Accessories: calcite, pyrite.	
7020 – 7030	30	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7030 – 7040	60	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7040 – 7050	70	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
7050 – 7060	40 30 20 10	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. Accessories: calcite, pyrite, dolomite.	
7060 – 7070	70 10 10 10	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7070 – 7080	70 20 10 Tr	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite.	
7080 – 7090	80 20 Tr	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7090 – 7100	80 10 10	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7100 – 7110	90 10 Tr	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), occasionally medium light gray (N6), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7110 – 7120	90 10	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
7120 – 7130	90	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
7130 – 7140	80	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
7140 – 7150	80	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	inclusions, 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.	
7150 – 7160	90	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
7160 – 7170	90	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	
7170 – 7180	40	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	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 gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7180 – 7190	70	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite.	
7190 – 7200	40	CLAYSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	40	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark 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, dolomite.	
7200 – 7210	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light olive gray (5Y 6/1), light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, dolomite.	
7210 – 7220	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	TR
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	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), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite.	
7220 – 7230	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark 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), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7230 – 7240	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	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.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
7240 – 7250	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	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.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
7250 – 7260	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	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), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7260 – 7270	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	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.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, dolomite, coal, pyrite.	
7270 – 7280	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	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.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7280 – 7290	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7290 - 7300	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	inclusions, 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, coal, pyrite.	
7300 – 7310	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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 gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7310 – 7320	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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 gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, dolomite, coal, pyrite.	
7320 – 7330	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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.	
	Tr	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite.	
7330 – 7340	60 30 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark 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.	
7340 – 7350	50 30 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, 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: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7350 – 7360	40 30 30	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark 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), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, dolomite, coal.	
7360 – 7370	60 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. CLAYSTONE: medium dark gray (N4), medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20 Tr	occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, 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, pyrite, dolomite, coal.	
7370 – 7380	60 20 20 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. CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, 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, pyrite, dolomite, coal.	
7380 – 7390	60 20 20 Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, 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, pyrite, dolomite, coal.	
7390 – 7400	30 30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous. SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite, coal.	
7400 – 7410	50	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	30	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite, coal.	
7410 – 7420	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite, coal.	
7420 – 7430	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non 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, calcareous.	
	10	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	inclusions, 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, pyrite, dolomite.	
7430 – 7440	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	20	SANDSTONE: medium gray (N5), medium light gray (N6), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite.	
7440 – 7450	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, firm to moderately firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, calcareous.	
	30	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite.	
7450 – 7460	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, firm to moderately firm, silty, micromicaceous, microcarbonaceous, non calcareous.	
	40	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark 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, calcareous. Accessories: calcite, pyrite, dolomite.	
7460 – 7470	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30 10	to subblocky, locally subtabular, 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, calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7470 – 7480	60 30 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, 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, calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7480 – 7490	50 30 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, 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, calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7490 – 7500	60 30 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, 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, calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		Accessories: calcite, pyrite, dolomite.	
7500 – 7510	70 20 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, 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, calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7510 – 7520	80 10 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, 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: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7520 – 7530	50 20 20 10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark minerals inclusions, poor visual porosity. No Oil Show. CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, 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. Accessories: calcite, pyrite, dolomite.	
7530 – 7540	60	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, with dark 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.	
	10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. Accessories: calcite, pyrite, dolomite.	
7540 – 7550	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite.	
7550 – 7560	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminar, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, occasionally micropyrictic, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite.	
7560 – 7570	60 20 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, occasionally micropyrritic, non calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
7570 – 7580	60 20 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally brownish black (5YR 2/1), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, occasionally micropyrritic, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7580 – 7590	60 20 20	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7590 – 7600	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7600 – 7610	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7610 – 7620	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, occasionally micropyrritic, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite.	
7620 – 7630	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 Tr	micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7630 – 7640	50 20 20 10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), medium gray (N5), occasionally light gray (N7), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, moderately friable to friable, locally 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, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7640 – 7650	50 30 10 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite.	
7650 – 7660	30 30 30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous. SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite.	
7660 – 7670	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7670 – 7680	60	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7680 – 7690	30	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), earthy, blocky to subblocky, locally subtabular, occasionally sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7690 – 7700	50	SAND: white (N9), 70% very fine to fine, 30% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), 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, occasionally micropyrritic, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: calcite, dolomite, pyrite.	
7700 – 7710	50	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), 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, occasionally micropyrritic, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
		Accessories: calcite, pyrite.	
7710 – 7720	60	CLAYSTONE: medium dark gray (N4), 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, occasionally micropyrritic, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7720 – 7730	50	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, locally moderately consolidated, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	20	CLAYSTONE: medium dark gray (N4), 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, occasionally micropyrritic, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7730 – 7740	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, silty in part, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark 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.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7740 – 7750	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally dark gray (N3), 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: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite.	
7750 – 7760	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	Tr	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, dolomite.	
7760 – 7770	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7770 – 7780	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally dark gray (N3), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
		to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7780 – 7790	90 10 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), 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, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7790 – 7800	90 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), 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, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
7800 – 7810	100 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), 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, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7810 – 7820	100 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), 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, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7820 – 7830	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), 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, non calcareous.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7830 – 7840	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7840 – 7850	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
7850 – 7860	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
7860 – 7870	40	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	30	CLAYSTONE: medium dark gray (N4), medium gray (N5), locally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7870 – 7880	60	CLAYSTONE: medium dark gray (N4), 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.	
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, dolomite.	
7880 – 7890	80	CLAYSTONE: medium dark gray (N4), 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.	
	10	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7890 – 7900	90	CLAYSTONE: medium dark gray (N4), 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.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, scarce argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. No Oil Show. Accessories: calcite, pyrite, dolomite.	
7900 – 7910	50	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	10
	20	CLAYSTONE: medium dark gray (N4), medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	20	occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7910 – 7920	40	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	10
	20	SAND: white (N9), very fine to fine, traces medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite.	
7920 – 7930	40	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	10
	30	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	20	CLAYSTONE: medium dark gray (N4), medium gray (N5),	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10	occasionally olive gray (5Y 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7930 – 7940	40	CLAYSTONE: medium dark gray (N4), 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.	TR
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7940 – 7950	50	CLAYSTONE: medium dark gray (N4), 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.	TR
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	20	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
7950 – 7960	60	CLAYSTONE: medium dark gray (N4), 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.	TR
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity.	
	10	Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7960 – 7970	40	SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted.	10
	30	SANDSTONE: medium light gray (N6), light gray (N7), occasionally very light gray (N8), very fine to fine quartz grain, hyaline, subangular to subrounded, well sorted, argillaceous matrix, calcareous cement, friable to moderately friable, with dark minerals inclusions, poor visual porosity.	
	20	Fluorescence: NVOS, 10% pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS.	
	10	CLAYSTONE: medium dark gray (N4), 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. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7970 – 7980	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	TR
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	10 10	porosity. Fluorescence: NVOS, traces pin point pale yellowish natural fluorescence, slow, weak, faint, even, yellowish white cut fluorescence, milky white residual ring under U. V. light, non residual ring at natural light. POS. SAND: white (N9), 80% very fine to fine, 20% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7980 – 7990	70 10 10 10	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, 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. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. Accessories: calcite, pyrite, coal, dolomite.	
7990 – 8000	50 30 20 Tr	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous. SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, coal, dolomite.	
8000 – 8010	50	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	30	moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: calcite, pyrite, coal, dolomite.	
8010 – 8020	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: abundant coal, calcite, pyrite, dolomite.	
8020 – 8030	70	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally olive gray (5Y 4/1), brownish gray (5YR 4/1), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: abundant coal, calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
8030 – 8040	60	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	20	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	20	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, calcite, pyrite, dolomite.	
8040 – 8050	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, calcite, pyrite, dolomite.	
8050 – 8060	80	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminal, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SAND: white (N9), 90% very fine to fine, 10% medium quartz grain, hyaline, translucent, subangular to subrounded, well sorted. Accessories: coal, calcite, pyrite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
8060 – 8070	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite, dolomite.	
8070 – 8080	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, pyrite, dolomite.	
8080 – 8090	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
8090 – 8100	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone,	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
	Tr	slightly calcareous. SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
8100 – 8110	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
8110 – 8120	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
8120 – 8130	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminae, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	

INTERVAL (Feet)	%	DESCRIPTION	FLUOR. (%)
8130 – 8140	90	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	10	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
8140 – 8150	100	CLAYSTONE: medium dark gray (N4), medium gray (N5), occasionally brownish gray (5YR 4/1), dark gray (N3), earthy, blocky to subblocky, locally subtabular to sublaminar, firm to moderately firm, locally silty, micromicaceous, microcarbonaceous, non calcareous.	
	Tr	SILTSTONE: medium gray (N5), medium dark gray (N4), earthy, blocky to subblocky, occasionally subtabular, moderately firm to firm, micromicaceous, microcarbonaceous, grading to very fine sandstone, slightly calcareous.	
	Tr	SANDSTONE: medium light gray (N6), light gray (N7), occasionally 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 minerals inclusions, poor visual porosity. No Oil Show. Accessories: coal, calcite, dolomite.	
FINAL TOTAL DEPTH 8150.0 ft. MD(RT); 4821.85 ft. TVD(RT)			

WELL: LO6-33D

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
TALARA SANDSTONE Mbr.							
462	50	0.0	0	0	0	0	0
463	26	0.0	0	0	0	0	0
464	30	0.0	0	0	0	0	0
465	30	0.0	0	0	0	0	0
466	24	0.0	0	0	0	0	0
467	30	0.0	0	0	0	0	0
468	27	0.0	0	0	0	0	0
469	27	0.0	0	0	0	0	0
470	28	0.0	0	0	0	0	0
471	35	0.0	0	0	0	0	0
472	30	0.0	0	0	0	0	0
473	25	0.0	0	0	0	0	0
474	29	0.0	0	0	0	0	0
475	22	0.0	0	0	0	0	0
476	9	4.3	32	18	19	19	19
477	30	2.1	23	9	9	8	9
478	29	431.2	1875	1994	2070	1786	1917
479	27	439.8	1961	2044	2105	1835	1929
480	23	0.3	27	0	0	0	0
481	21	0.3	25	0	0	0	0
482	19	0.2	24	0	0	0	0
483	27	0.2	24	0	0	0	0
484	26	0.3	28	0	0	0	0
485	25	0.3	30	0	0	0	0
486	28	0.3	31	0	0	0	0
487	33	0.3	34	0	0	0	0
488	30	0.4	37	0	0	0	0
489	18	0.4	37	0	0	0	0
490	27	0.4	36	0	0	0	0
491	28	0.4	37	0	0	0	0
492	26	0.4	37	0	0	0	0
493	26	0.4	36	0	0	0	0
494	30	0.3	34	0	0	0	0
495	27	0.3	34	0	0	0	0
496	26	0.3	34	0	0	0	0
497	32	0.3	34	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
498	13	0.4	37	0	0	0	0
499	18	0.4	38	0	0	0	0
500	23	0.3	34	0	0	0	0
501	27	0.3	32	0	0	0	0
502	22	0.4	35	0	0	0	0
503	26	0.4	41	0	0	0	0
504	35	0.4	41	0	0	0	0
505	34	0.5	45	0	0	0	0
506	26	0.5	45	0	0	0	0
507	28	0.4	42	0	0	0	0
508	29	0.4	42	0	0	0	0
509	35	0.4	43	0	0	0	0
510	33	0.4	42	0	0	0	0
511	31	0.4	44	0	0	0	0
512	29	0.5	48	0	0	0	0
513	27	0.6	58	0	0	0	0
514	45	0.5	51	0	0	0	0
515	47	0.5	53	0	0	0	0
516	41	0.8	83	0	0	0	0
517	24	0.9	86	0	0	0	0
518	43	0.9	90	0	0	0	0
519	42	0.9	90	0	0	0	0
520	43	0.8	80	0	0	0	0
521	29	1.1	110	0	0	0	0
522	42	1.2	120	0	0	0	0
523	42	1.0	100	0	0	0	0
524	36	1.1	106	0	0	0	0
525	41	1.1	107	0	0	0	0
526	41	1.1	107	0	0	0	0
527	54	1.1	112	0	0	0	0
528	58	1.1	112	0	0	0	0
529	37	1.1	112	0	0	0	0
530	48	2.9	288	0	0	0	0
531	45	2.9	288	0	0	0	0
532	45	2.7	267	0	0	0	0
533	46	3.1	306	0	0	0	0
534	43	2.5	254	0	0	0	0
535	17	2.1	210	0	0	0	0
536	50	1.6	158	0	0	0	0
537	51	1.2	123	0	0	0	0
538	51	1.0	101	0	0	0	0
539	49	1.0	96	0	0	0	0
540	49	1.4	135	0	0	0	0
541	50	1.2	120	0	0	0	0
542	48	1.1	110	0	0	0	0
543	50	1.0	102	0	0	0	0
544	25	1.2	115	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
545	45	1.0	98	0	0	0	0
546	47	1.0	102	0	0	0	0
547	55	0.7	73	0	0	0	0
548	56	0.6	59	0	0	0	0
549	50	0.6	63	0	0	0	0
550	52	0.7	67	0	0	0	0
551	53	0.7	73	0	0	0	0
552	51	0.8	80	0	0	0	0
553	22	0.8	80	0	0	0	0
554	26	0.8	76	0	0	0	0
555	50	0.6	65	0	0	0	0
556	43	0.5	55	0	0	0	0
557	41	0.5	55	0	0	0	0
558	52	0.9	87	1	1	0	0
559	53	1.2	119	1	1	0	0
560	50	1.2	119	1	1	0	0
561	53	1.2	119	1	1	0	0
562	48	1.1	107	0	0	0	0
563	57	1.2	115	0	0	0	0
564	72	1.7	168	0	0	0	0
565	70	1.7	168	0	0	0	0
566	62	1.6	155	0	0	0	0
567	30	1.5	152	0	0	0	0
568	35	1.5	152	0	0	0	0
569	44	1.4	141	0	0	0	0
570	47	1.0	97	0	0	0	0
571	40	0.9	93	0	0	0	0
572	44	1.0	96	0	0	0	0
573	42	1.0	101	0	0	0	0
574	35	1.0	101	0	0	0	0
575	45	1.0	101	0	0	0	0
576	45	1.0	100	0	0	0	0
577	32	1.0	99	0	0	0	0
578	45	1.0	98	0	0	0	0
579	44	0.9	93	0	0	0	0
580	46	0.9	86	0	0	0	0
581	49	0.9	86	0	0	0	0
582	46	0.9	86	0	0	0	0
583	52	0.9	86	0	0	0	0
584	59	0.9	86	0	0	0	0
585	63	0.8	83	0	0	0	0
586	51	0.8	83	0	0	0	0
587	61	0.7	71	0	0	0	0
588	62	0.5	52	0	0	0	0
589	80	0.5	52	0	0	0	0
590	82	0.5	47	0	0	0	0
591	80	0.5	47	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
592	83	0.5	45	0	0	0	0
593	80	0.5	49	0	0	0	0
594	102	0.5	53	0	0	0	0
595	63	1.3	135	0	0	0	0
596	21	2.1	212	0	0	0	0
597	35	2.1	212	1	1	0	0
598	49	1.8	181	1	1	0	0
599	53	1.0	101	1	1	0	0
600	59	0.6	59	0	1	0	0
601	61	0.5	50	0	1	0	0
602	53	1.0	95	1	0	0	0
603	47	0.2	17	0	0	0	0
604	45	0.1	11	0	0	0	0
605	56	0.1	6	0	0	0	0
606	44	0.3	29	0	0	0	0
607	83	0.3	30	0	0	0	0
608	80	0.3	30	0	0	0	0
609	70	0.3	29	0	0	0	0
610	63	0.3	28	0	0	0	0
611	21	0.3	27	0	0	0	0
612	35	0.3	28	0	0	0	0
613	49	0.3	29	0	0	0	0
614	53	0.3	30	0	0	0	0
615	59	0.3	33	0	0	0	0
616	61	0.3	33	0	0	0	0
617	53	0.3	32	0	0	0	0
618	47	0.3	30	0	0	0	0
619	62	0.3	32	0	0	0	0
620	80	0.3	34	0	0	0	0
621	82	0.3	34	0	0	0	0
622	80	0.3	33	0	0	0	0
623	83	0.3	33	0	0	0	0
624	80	0.3	34	0	0	0	0
625	70	0.4	35	0	0	0	0
626	63	0.3	34	0	0	0	0
627	21	0.3	36	0	0	0	0
628	35	0.2	34	0	0	0	0
629	44	0.3	34	0	0	0	0
630	83	0.5	34	0	0	0	0
631	80	0.5	33	0	0	0	0
632	70	0.5	30	0	0	0	0
633	63	0.5	30	0	0	0	0
634	21	0.5	27	0	0	0	0
635	35	0.5	33	0	0	0	0
636	49	0.5	32	0	0	0	0
637	53	0.5	30	0	0	0	0
638	59	0.5	22	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
639	61	0.3	20	0	0	0	0
640	53	0.3	25	0	0	0	0
641	47	0.3	25	0	0	0	0
642	62	0.2	24	0	0	0	0
643	80	0.2	23	0	0	0	0
644	82	0.2	23	0	0	0	0
645	80	0.2	22	0	0	0	0
646	83	0.2	20	0	0	0	0
647	80	0.2	19	0	0	0	0
648	70	0.2	21	0	0	0	0
649	63	0.3	27	0	0	0	0
650	21	0.3	28	0	0	0	0
651	35	0.3	29	0	0	0	0
652	49	0.3	30	0	0	0	0
653	53	0.3	30	0	0	0	0
654	59	0.3	29	0	0	0	0
655	61	0.3	28	0	0	0	0
656	53	0.3	27	0	0	0	0
657	80	0.3	28	0	0	0	0
658	35	0.3	29	0	0	0	0
659	40	0.3	30	0	0	0	0
660	35	0.3	33	0	0	0	0
661	43	0.3	33	0	0	0	0
662	40	0.3	32	0	0	0	0
663	49	0.3	30	0	0	0	0
664	51	0.3	32	0	0	0	0
665	53	0.3	34	0	0	0	0
666	46	0.3	34	0	0	0	0
667	37	0.3	33	0	0	0	0
668	47	0.3	33	0	0	0	0
669	44	0.3	34	0	0	0	0
670	46	0.4	35	0	0	0	0
671	44	0.3	34	0	0	0	0
672	39	0.4	36	0	0	0	0
673	40	0.3	34	0	0	0	0
674	36	0.3	34	0	0	0	0
675	44	0.3	34	0	0	0	0
676	46	0.3	33	0	0	0	0
677	55	0.3	30	0	0	0	0
678	40	0.3	30	0	0	0	0
679	37	0.3	27	0	0	0	0
680	47	0.3	33	0	0	0	0
681	45	0.3	32	0	0	0	0
682	10	0.3	30	0	0	0	0
683	40	0.2	22	0	0	0	0
684	42	0.2	20	0	0	0	0
685	50	0.2	18	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
686	55	0.2	18	0	0	0	0
687	57	0.2	19	0	0	0	0
688	33	0.4	40	0	0	0	0
689	44	0.6	55	0	0	0	0
690	44	0.7	71	0	0	0	0
691	42	0.8	76	0	0	0	0
692	42	0.8	80	0	0	0	0
693	42	0.9	85	0	0	0	0
694	25	0.4	40	0	0	0	0
695	29	0.4	43	0	0	0	0
696	48	0.4	43	0	0	0	0
697	71	0.5	53	0	0	0	0
698	57	0.7	70	0	0	0	0
699	47	0.9	87	0	0	0	0
700	54	2.0	202	0	0	0	0
701	50	2.0	202	0	0	0	0
702	50	2.6	260	0	0	0	0
703	25	0.3	33	0	0	0	0
704	30	0.3	33	0	0	0	0
705	75	1.4	141	0	0	0	0
706	15	0.8	77	0	0	0	0
707	74	0.7	68	0	0	0	0
708	94	0.6	63	0	0	0	0
709	93	0.6	63	0	0	0	0
710	78	0.6	58	0	0	0	0
711	47	0.6	58	0	0	0	0
712	45	0.5	54	0	0	0	0
713	25	0.5	50	0	0	0	0
714	40	0.5	50	0	0	0	0
715	42	0.5	50	0	0	0	0
716	50	0.5	49	0	0	0	0
717	55	0.5	48	0	0	0	0
718	57	0.5	49	0	0	0	0
719	33	0.5	49	0	0	0	0
720	44	0.5	49	0	0	0	0
721	44	0.5	49	0	0	0	0
722	42	0.5	52	0	0	0	0
723	42	0.6	55	0	0	0	0
724	42	0.6	55	0	0	0	0
725	25	0.6	55	0	0	0	0
726	29	0.6	64	0	0	0	0
727	48	0.7	72	0	0	0	0
728	71	0.8	81	0	0	0	0
729	57	0.9	90	0	0	0	0
730	47	0.9	90	0	0	0	0
731	54	0.9	90	0	0	0	0
732	31	0.7	69	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
733	58	0.6	58	0	0	0	0
734	102	0.6	58	0	0	0	0
735	118	0.6	58	0	0	0	0
736	119	0.5	51	0	0	0	0
737	122	0.5	51	0	0	0	0
738	102	0.5	47	0	0	0	0
739	76	0.4	42	0	0	0	0
740	117	0.5	51	0	0	0	0
741	18	1.2	120	0	0	0	0
742	10	1.2	120	0	0	0	0
743	54	1.1	110	0	0	0	0
744	80	1.0	100	0	0	0	0
745	123	0.8	83	0	0	0	0
746	84	0.7	69	0	0	0	0
747	106	0.7	69	0	0	0	0
748	116	0.6	62	0	0	0	0
749	120	0.6	62	0	0	0	0
750	132	0.6	62	0	0	0	0
751	100	0.6	57	0	0	0	0
752	95	0.6	57	0	0	0	0
753	90	0.5	55	0	0	0	0
754	113	0.5	52	0	0	0	0
755	46	0.6	57	0	0	0	0
756	98	0.6	57	0	0	0	0
757	96	0.7	72	0	0	0	0
758	104	0.7	72	0	0	0	0
759	88	0.9	91	0	0	0	0
760	85	1.0	105	0	0	0	0
761	84	1.3	127	0	0	0	0
762	79	1.3	127	0	0	0	0
763	116	1.4	142	0	0	0	0
764	104	1.4	142	0	0	0	0
765	105	1.4	142	0	0	0	0
766	99	1.4	136	0	0	0	0
767	88	1.3	130	0	0	0	0
768	96	1.3	130	0	0	0	0
769	80	1.3	130	0	0	0	0
770	79	1.2	121	0	0	0	0
771	80	1.1	112	0	0	0	0
LOBITOS Mbr.							
772	61	1.1	106	0	0	0	0
773	42	1.0	100	0	0	0	0
774	23	0.9	94	0	0	0	0
775	25	0.9	87	0	0	0	0
776	20	0.8	81	0	0	0	0
777	28	0.8	75	0	0	0	0
778	31	0.7	69	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
779	35	0.6	63	0	0	0	0
780	43	0.6	57	0	0	0	0
781	35	0.4	35	0	0	0	0
782	54	0.4	36	0	0	0	0
783	46	0.4	38	0	0	0	0
784	49	0.4	40	0	0	0	0
785	47	0.4	41	0	0	0	0
786	45	0.2	21	0	0	0	0
787	45	0.4	40	0	0	0	0
788	25	0.5	52	0	0	0	0
789	31	0.5	49	0	0	0	0
790	33	0.5	48	0	0	0	0
791	38	0.5	50	0	0	0	0
792	41	0.5	50	0	0	0	0
793	43	0.5	52	0	0	0	0
794	39	0.5	55	0	0	0	0
795	37	0.5	50	0	0	0	0
796	40	0.6	55	0	0	0	0
797	41	0.6	55	0	0	0	0
798	27	0.6	59	0	0	0	0
799	32	0.6	59	0	0	0	0
800	32	0.6	55	0	0	0	0
801	32	0.5	53	0	0	0	0
802	34	0.5	53	0	0	0	0
803	32	0.5	51	0	0	0	0
804	38	0.5	54	0	0	0	0
805	33	0.6	55	0	0	0	0
806	30	0.6	55	0	0	0	0
807	36	0.6	55	0	0	0	0
808	59	0.6	56	0	0	0	0
809	38	0.6	56	0	0	0	0
810	33	0.6	57	0	0	0	0
811	35	0.6	59	0	0	0	0
812	34	0.6	62	0	0	0	0
813	34	0.6	64	0	0	0	0
814	42	0.7	65	0	0	0	0
815	51	0.6	63	0	0	0	0
816	66	0.6	61	0	0	0	0
817	61	0.6	61	0	0	0	0
818	85	0.6	61	0	0	0	0
819	74	0.6	60	0	0	0	0
820	46	0.7	65	0	0	0	0
821	43	0.9	88	0	0	0	0
822	37	1.2	123	0	1	0	0
823	34	1.2	125	0	1	0	0
824	31	1.2	125	0	0	0	0
825	34	1.1	108	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
826	30	0.9	91	0	0	0	0
827	35	0.9	89	0	0	0	0
828	30	0.7	74	0	0	0	0
829	30	0.7	75	0	0	0	0
830	30	0.8	76	0	0	0	0
831	30	0.8	81	0	0	0	0
832	31	0.8	76	0	0	0	0
833	28	0.7	68	0	0	0	0
834	28	0.7	72	0	0	0	0
835	30	0.7	72	0	0	0	0
836	32	0.7	70	0	0	0	0
837	25	0.7	70	0	0	0	0
838	28	0.7	69	0	0	0	0
839	33	0.7	71	0	0	0	0
840	35	0.7	74	0	0	0	0
841	34	0.8	80	0	0	0	0
842	36	0.8	80	0	0	0	0
843	32	0.8	82	0	0	0	0
844	31	0.8	82	0	0	0	0
845	28	0.8	82	0	0	0	0
846	31	0.8	82	0	0	0	0
847	29	0.8	81	0	0	0	0
848	30	0.8	80	0	0	0	0
849	32	0.7	66	0	0	0	0
850	28	0.7	74	0	0	0	0
851	27	0.8	75	0	0	0	0
852	26	0.8	75	0	0	0	0
853	27	1.2	118	0	0	0	0
854	23	1.2	118	0	0	0	0
855	39	1.1	113	0	0	0	0
856	68	1.0	101	0	0	0	0
857	63	0.8	84	0	0	0	0
858	54	0.7	72	0	0	0	0
859	49	0.7	68	0	0	0	0
860	60	0.7	70	0	0	0	0
861	48	0.7	70	0	0	0	0
862	51	0.7	69	0	0	0	0
863	43	0.7	74	0	0	0	0
864	63	0.8	76	0	0	0	0
865	61	0.8	76	0	0	0	0
866	69	0.7	74	0	0	0	0
867	66	0.8	76	0	0	0	0
868	56	0.8	81	0	0	0	0
869	46	0.8	84	0	0	0	0
870	48	0.8	84	0	0	0	0
871	44	0.8	84	0	0	0	0
872	33	0.8	75	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
873	38	0.8	75	0	0	0	0
874	43	0.7	72	0	0	0	0
875	53	0.7	69	0	0	0	0
876	48	0.7	68	0	0	0	0
877	51	0.7	70	0	0	0	0
878	58	0.7	70	0	0	0	0
879	43	0.7	70	0	0	0	0
880	51	0.7	70	0	0	0	0
881	49	0.7	73	0	0	0	0
882	35	0.4	43	0	0	0	0
883	38	0.4	44	0	0	0	0
884	39	0.5	46	0	0	0	0
885	40	0.5	49	0	0	0	0
886	43	0.6	55	0	0	0	0
887	43	0.6	55	0	0	0	0
888	39	0.6	56	0	0	0	0
889	44	0.7	67	0	0	0	0
890	35	0.7	66	0	0	0	0
891	40	0.7	70	0	0	0	0
892	45	0.7	73	0	0	0	0
893	40	0.7	73	0	0	0	0
894	44	0.7	73	0	0	0	0
895	47	0.8	79	0	0	0	0
896	41	0.8	79	0	0	0	0
897	36	0.8	79	0	0	0	0
898	40	0.8	77	0	0	0	0
899	32	0.4	45	0	0	0	0
900	38	0.1	12	0	0	0	0
901	42	0.2	16	0	0	0	0
902	20	0.2	17	0	0	0	0
903	20	0.2	18	0	0	0	0
904	4	0.2	19	0	0	0	0
905	18	0.3	26	0	0	0	0
906	9	0.3	26	0	0	0	0
907	2	0.2	19	0	0	0	0
908	23	0.2	19	0	0	0	0
909	24	0.2	23	0	0	0	0
910	34	0.3	26	0	0	0	0
911	28	0.3	27	0	0	0	0
912	39	0.3	30	0	0	0	0
913	34	0.3	34	0	0	0	0
914	33	0.4	35	0	0	0	0
915	31	0.7	72	0	0	0	0
916	24	1.0	96	0	0	0	0
917	26	1.2	116	0	0	0	0
918	39	1.2	120	0	0	0	0
919	37	1.3	128	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
920	36	1.3	128	0	0	0	0
921	32	1.2	122	0	0	0	0
922	32	1.0	102	0	0	0	0
923	28	0.9	94	0	0	0	0
924	33	0.9	90	0	0	0	0
925	32	1.0	103	0	0	0	0
926	32	1.4	140	0	0	0	0
927	19	1.6	158	0	0	0	0
928	27	1.8	182	0	0	0	0
929	24	1.8	182	0	0	0	0
930	29	1.8	180	0	0	0	0
931	27	1.7	165	0	0	0	0
932	24	1.3	130	0	0	0	0
933	23	1.2	116	0	0	0	0
934	25	1.4	139	0	0	0	0
935	26	1.5	148	0	0	0	0
936	30	2.0	198	0	0	0	0
937	24	2.0	198	0	0	0	0
938	27	2.1	208	0	0	0	0
939	27	2.1	208	0	0	0	0
940	29	2.3	227	0	0	0	0
941	25	2.3	228	0	0	0	0
942	27	2.3	228	0	0	0	0
943	30	1.8	177	0	0	0	0
944	35	2.0	205	0	0	0	0
945	2	1.5	150	0	0	0	0
946	55	1.5	150	0	0	0	0
947	48	1.7	165	0	0	0	0
948	53	2.0	197	0	0	0	0
949	45	2.2	224	0	0	0	0
950	41	2.3	229	0	0	0	0
951	47	2.4	242	0	0	0	0
952	42	2.5	255	0	0	0	0
953	64	2.9	287	0	0	0	0
954	70	2.9	287	0	0	0	0
955	56	3.0	303	0	0	0	0
956	63	3.1	311	0	0	0	0
957	71	3.3	329	0	0	0	0
958	65	3.3	329	0	0	0	0
959	82	3.4	338	0	0	0	0
960	77	3.7	372	0	0	0	0
961	58	3.9	391	0	0	0	0
962	46	4.0	398	0	0	0	0
963	42	4.0	398	0	0	0	0
964	49	3.8	376	0	0	0	0
965	53	3.8	376	0	0	0	0
966	48	3.5	353	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
967	64	3.5	353	0	0	0	0
968	58	3.6	365	0	0	0	0
969	66	3.6	365	0	0	0	0
970	49	3.7	374	0	0	0	0
971	45	3.7	374	0	0	0	0
972	48	3.6	358	0	0	0	0
973	40	3.3	335	0	0	0	0
974	35	3.1	306	0	0	0	0
975	35	2.5	251	0	0	0	0
976	54	3.1	306	0	0	0	0
977	33	1.5	147	0	0	0	0
978	32	1.7	168	0	0	0	0
979	40	1.8	178	0	0	0	0
980	33	1.9	190	0	0	0	0
981	34	1.9	191	0	0	0	0
982	42	2.0	203	0	0	0	0
983	50	2.2	219	0	0	0	0
984	40	2.3	232	0	0	0	0
985	25	2.3	232	0	0	0	0
986	39	2.5	251	0	0	0	0
987	38	2.5	255	0	0	0	0
988	39	2.7	266	0	0	0	0
989	39	2.8	282	0	0	0	0
990	29	3.2	322	0	0	0	0
991	26	3.5	347	0	0	0	0
992	38	3.8	375	0	0	0	0
993	36	4.4	440	0	0	0	0
994	34	4.4	440	0	0	0	0
995	46	4.6	458	0	0	0	0
996	45	5.3	525	0	0	0	0
997	47	5.2	520	0	0	0	0
998	43	5.1	515	0	0	0	0
999	47	6.2	616	0	0	0	0
1000	39	6.2	616	0	0	0	0
1001	45	6.0	600	0	0	0	0
1002	30	4.8	484	0	0	0	0
1003	46	4.8	484	0	0	0	0
1004	37	3.9	389	0	0	0	0
1005	33	3.6	363	0	0	0	0
1006	44	3.9	390	0	0	0	0
1007	39	3.9	390	0	0	0	0
1008	38	3.9	389	0	0	0	0
1009	38	2.3	229	0	0	0	0
1010	37	2.4	242	0	0	0	0
1011	35	2.6	255	0	0	0	0
1012	35	2.9	287	0	0	0	0
1013	33	2.9	287	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1014	32	3.0	303	0	0	0	0
1015	39	3.1	311	0	0	0	0
1016	33	3.3	329	0	0	0	0
1017	30	3.3	329	0	0	0	0
1018	36	3.4	338	0	0	0	0
1019	35	3.7	372	0	0	0	0
1020	34	3.9	391	0	0	0	0
1021	42	4.0	398	0	0	0	0
1022	38	3.8	375	0	0	0	0
1023	29	3.8	376	0	0	0	0
1024	26	3.5	353	0	0	0	0
1025	38	3.4	342	0	0	0	0
1026	36	3.5	353	0	0	0	0
1027	34	3.7	365	0	0	0	0
1028	46	3.5	352	0	0	0	0
1029	45	3.7	374	0	0	0	0
1030	47	3.6	358	0	0	0	0
1031	43	3.3	334	0	0	0	0
1032	47	3.1	306	0	0	0	0
1033	39	2.5	251	0	0	0	0
1034	45	3.1	306	0	0	0	0
1035	30	1.5	147	0	0	0	0
1036	46	1.7	168	0	0	0	0
1037	37	1.8	178	0	0	0	0
1038	29	1.9	190	0	0	0	0
1039	26	1.9	191	0	0	0	0
1040	38	8.1	814	0	0	0	0
1041	36	7.6	763	0	0	0	0
1042	34	7.6	763	0	0	0	0
1043	57	6.7	674	0	0	0	0
1044	55	7.3	734	0	0	0	0
1045	57	10.7	1070	0	0	0	0
1046	75	12.3	1228	0	0	0	0
1047	58	12.3	1228	0	0	0	0
1048	62	10.3	1027	0	0	0	0
1049	54	8.2	825	0	0	0	0
1050	48	4.8	485	0	0	0	0
1051	39	4.9	487	0	0	0	0
1052	53	4.9	487	0	0	0	0
1053	47	4.9	487	0	0	0	0
1054	48	4.7	474	0	0	0	0
1055	53	5.1	505	0	0	0	0
1056	43	5.1	515	0	0	0	0
1057	45	5.1	515	0	0	0	0
1058	55	5.2	518	0	0	0	0
1059	55	5.2	518	0	0	0	0
1060	52	5.1	514	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1061	49	5.2	521	0	0	0	0
1062	50	5.3	528	0	0	0	0
1063	49	5.3	528	0	0	0	0
1064	51	5.3	528	0	0	0	0
1065	45	5.1	513	0	0	0	0
1066	41	4.9	493	0	0	0	0
1067	36	4.8	476	0	0	0	0
1068	46	2.6	262	0	0	0	0
1069	51	4.3	429	0	0	0	0
1070	36	4.9	489	0	0	0	0
1071	44	4.9	488	0	0	0	0
1072	53	4.6	457	0	0	0	0
1073	56	4.3	427	0	0	0	0
1074	45	4.5	450	0	0	0	0
1075	39	4.5	450	0	0	0	0
1076	39	5.1	511	0	0	0	0
1077	38	5.1	511	0	0	0	0
1078	34	4.7	467	0	0	0	0
1079	34	4.3	428	0	0	0	0
1080	32	4.1	412	0	0	0	0
1081	37	3.8	381	0	0	0	0
1082	37	4.0	400	0	0	0	0
1083	34	4.0	404	0	0	0	0
1084	42	4.3	429	0	0	0	0
1085	36	4.6	458	0	0	0	0
1086	33	4.6	457	0	0	0	0
1087	37	4.8	478	0	0	0	0
1088	39	5.0	499	0	0	0	0
1089	47	5.0	499	0	0	0	0
1090	44	4.9	487	0	0	0	0
1091	42	4.8	480	0	0	0	0
1092	30	4.7	472	0	0	0	0
1093	35	4.6	463	0	0	0	0
1094	39	4.4	443	0	0	0	0
1095	48	4.4	443	0	0	0	0
1096	42	2.5	245	0	0	0	0
1097	36	2.5	253	0	0	0	0
1098	41	2.5	253	0	0	0	0
1099	40	2.4	235	0	0	0	0
1100	36	2.5	246	0	0	0	0
1101	39	2.6	262	0	0	0	0
1102	42	2.7	270	0	0	0	0
1103	41	2.9	286	0	0	0	0
1104	38	3.5	350	0	0	0	0
1105	37	3.6	361	0	0	0	0
1106	35	3.9	386	0	0	0	0
1107	38	3.8	380	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1108	42	3.2	322	0	0	0	0
1109	42	2.6	262	0	0	0	0
1110	38	2.0	196	0	0	0	0
1111	37	2.0	196	0	0	0	0
1112	39	1.8	185	0	0	0	0
1113	42	1.8	184	0	0	0	0
1114	39	2.0	199	0	0	0	0
1115	44	2.0	199	0	0	0	0
1116	48	2.0	203	0	0	0	0
1117	51	2.1	206	0	0	0	0
1118	46	2.3	233	0	0	0	0
1119	43	2.3	235	0	0	0	0
1120	44	2.4	240	0	0	0	0
1121	39	2.5	248	0	0	0	0
1122	38	2.6	260	0	0	0	0
1123	39	2.6	260	0	0	0	0
1124	37	2.5	251	0	0	0	0
1125	39	2.5	249	0	0	0	0
1126	35	3.1	311	0	0	0	0
1127	34	3.6	359	0	0	0	0
1128	37	3.8	379	0	0	0	0
1129	38	3.3	327	0	0	0	0
1130	37	5.2	518	0	0	0	0
1131	35	3.4	339	0	0	0	0
1132	45	1.6	159	0	0	0	0
1133	63	1.5	153	0	0	0	0
1134	41	1.6	162	0	0	0	0
1135	40	1.6	159	0	0	0	0
1136	37	1.8	179	0	0	0	0
1137	31	1.8	179	0	0	0	0
1138	19	1.7	166	0	0	0	0
1139	27	1.7	166	0	0	0	0
1140	40	2.0	199	0	0	0	0
1141	40	2.5	254	0	0	0	0
1142	33	2.5	254	0	0	0	0
1143	53	2.5	249	0	0	0	0
1144	38	2.4	241	0	0	0	0
1145	40	1.8	184	0	0	0	0
1146	34	1.6	158	0	0	0	0
1147	34	1.6	157	0	0	0	0
1148	37	1.6	162	0	0	0	0
1149	29	1.6	162	0	0	0	0
1150	39	1.6	159	0	0	0	0
1151	40	1.6	163	0	0	0	0
1152	40	1.6	163	0	0	0	0
1153	35	1.6	161	0	0	0	0
1154	38	1.6	157	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1155	29	1.5	148	0	0	0	0
1156	59	1.9	192	0	0	0	0
1157	48	2.6	261	0	0	0	0
1158	62	2.6	261	0	0	0	0
1159	55	2.6	263	0	0	0	0
1160	94	2.6	263	0	0	0	0
1161	66	2.8	276	0	0	0	0
1162	84	2.8	276	0	0	0	0
1163	83	3.7	366	0	0	0	0
1164	75	3.7	366	0	0	0	0
1165	70	2.3	232	0	0	0	0
1166	29	1.6	158	0	0	0	0
1167	35	2.0	201	0	0	0	0
1168	38	2.3	227	0	0	0	0
1169	48	2.3	227	0	0	0	0
1170	52	2.7	269	0	0	0	0
1171	49	2.7	269	0	0	0	0
1172	53	2.2	224	0	0	0	0
1173	55	2.6	257	0	0	0	0
1174	55	2.8	276	0	0	0	0
1175	62	3.3	333	0	0	0	0
1176	60	3.5	350	0	0	0	0
1177	40	3.5	350	0	0	0	0
1178	51	3.2	321	0	0	0	0
1179	48	3.0	300	0	0	0	0
1180	52	2.9	295	0	0	0	0
1181	58	3.1	309	0	0	0	0
1182	60	3.3	327	0	0	0	0
1183	56	3.3	327	0	0	0	0
1184	61	3.3	327	0	0	0	0
1185	56	3.5	350	0	0	0	0
1186	59	3.5	350	0	0	0	0
1187	55	3.0	298	0	0	0	0
1188	58	3.1	315	0	0	0	0
1189	48	3.1	315	0	0	0	0
1190	56	2.8	283	0	0	0	0
1191	62	2.9	288	0	0	0	0
1192	55	3.9	386	0	0	0	0
1193	63	3.9	393	0	0	0	0
1194	53	3.9	393	0	0	0	0
1195	67	3.2	322	0	0	0	0
1196	54	3.1	311	0	0	0	0
1197	49	3.3	332	0	0	0	0
1198	44	3.3	332	0	0	0	0
1199	48	3.2	323	0	0	0	0
1200	47	3.1	313	0	0	0	0
1201	50	3.2	320	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1202	33	3.1	309	0	0	0	0
1203	32	3.3	331	0	0	0	0
1204	42	3.5	352	0	0	0	0
1205	38	3.3	333	0	0	0	0
1206	42	3.7	375	0	0	0	0
1207	40	3.9	393	0	0	0	0
1208	44	3.9	393	0	0	0	0
1209	36	3.5	352	0	0	0	0
1210	33	3.8	381	0	0	0	0
1211	33	4.1	410	0	0	0	0
1212	14	4.3	429	0	0	0	0
1213	41	4.3	429	0	0	0	0
1214	51	4.0	396	0	0	0	0
1215	56	3.9	386	0	0	0	0
1216	43	3.6	359	0	0	0	0
1217	40	3.4	337	0	0	0	0
1218	46	2.7	271	0	0	0	0
1219	45	2.8	280	0	0	0	0
1220	45	2.8	280	0	0	0	0
1221	44	3.0	299	0	0	0	0
1222	42	3.0	299	0	0	0	0
1223	41	3.5	347	0	0	0	0
1224	35	4.7	469	0	0	0	0
1225	91	3.5	347	0	0	0	0
1226	114	3.8	375	0	0	0	0
1227	109	3.9	393	0	0	0	0
1228	124	3.9	393	0	0	0	0
1229	147	3.5	352	0	0	0	0
1230	155	3.8	381	0	0	0	0
1231	153	3.9	390	0	0	0	0
1232	134	300.4	2280	0	2279	2339	1420
1233	139	300.4	2262	0	2276	2339	1420
1234	145	299.3	2273	0	2262	2330	1451
1235	173	299.3	2273	0	2262	2330	1451
1236	200	299.3	2273	0	2262	2330	1451
1237	206	300.3	2273	0	2266	2336	1451
1238	211	301.2	2273	0	2271	2343	1451
1239	55	171.7	1206	1140	1145	1178	726
1240	93	1.4	138	0	0	0	0
1241	41	1.5	149	0	0	0	0
1242	87	1.5	149	0	0	0	0
1243	91	1.5	149	0	0	0	0
1244	104	3.1	306	0	0	0	0
1245	93	10.4	1037	0	0	0	0
1246	64	10.4	1037	0	0	0	0
1247	101	9.5	946	0	0	0	0
1248	133	9.5	946	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1249	139	6.1	612	0	0	0	0
1250	116	6.1	612	0	0	0	0
1251	86	5.4	538	0	0	0	0
1252	97	4.6	464	0	0	0	0
1253	104	4.1	406	0	0	0	0
1254	113	4.1	406	0	0	0	0
1255	98	3.9	395	0	0	0	0
1256	105	3.9	395	0	0	0	0
1257	132	3.9	389	0	0	0	0
1258	148	3.9	389	0	0	0	0
1259	136	4.0	405	0	0	0	0
1260	117	4.4	440	0	0	0	0
1261	98	4.4	440	0	0	0	0
1262	122	4.4	440	0	0	0	0
1263	113	4.9	493	0	0	0	0
1264	119	4.9	493	0	0	0	0
1265	111	5.0	503	0	0	0	0
1266	110	5.0	503	0	0	0	0
1267	101	5.0	496	0	0	0	0
1268	111	5.4	544	0	0	0	0
1269	110	5.4	544	0	0	0	0
1270	114	4.0	402	0	0	0	0
1271	105	2.6	260	0	0	0	0
1272	51	1.0	104	0	0	0	0
1273	80	1.0	104	0	0	0	0
1274	101	1.7	166	0	0	0	0
1275	77	1.7	166	0	0	0	0
1276	90	1.7	166	0	0	0	0
1277	109	2.9	292	0	0	0	0
1278	119	3.3	333	0	0	0	0
1279	83	3.7	374	0	0	0	0
1280	81	4.7	471	0	0	0	0
1281	79	5.4	543	0	0	0	0
1282	89	5.4	543	0	0	0	0
1283	101	6.0	599	0	0	0	0
1284	106	6.0	599	0	0	0	0
1285	114	7.1	708	0	0	0	0
1286	87	8.2	821	0	0	0	0
1287	99	8.2	821	0	0	0	0
1288	107	8.4	841	0	0	0	0
1289	110	8.4	841	0	0	0	0
1290	135	8.4	841	0	0	0	0
1291	128	9.1	911	0	0	0	0
1292	136	9.1	911	0	0	0	0
1293	142	10.2	1019	0	0	0	0
1294	109	10.2	1019	0	0	0	0
1295	114	11.0	1095	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1296	121	11.0	1095	0	0	0	0
1297	118	11.8	1184	0	0	0	0
1298	131	11.8	1184	0	0	0	0
1299	119	11.8	1184	0	0	0	0
1300	112	16.5	1645	0	0	0	0
1301	108	18.2	1817	0	0	0	0
1302	170	18.2	1817	0	0	0	0
1303	275	18.2	1817	0	0	0	0
1304	235	18.2	1817	0	0	0	0
1305	284	18.2	1817	0	0	0	0
1306	345	16.3	1634	0	0	0	0
1307	269	14.5	1450	0	0	0	0
1308	312	14.5	1450	0	0	0	0
1309	286	14.5	1450	0	0	0	0
1310	277	14.5	1450	0	0	0	0
1311	359	13.2	1321	0	0	0	0
1312	366	11.9	1192	0	0	0	0
1313	292	10.6	1063	0	0	0	0
1314	361	10.6	1063	0	0	0	0
1315	280	10.6	1063	0	0	0	0
1316	315	11.5	1146	0	0	0	0
1317	313	12.3	1229	0	0	0	0
1318	272	12.3	1229	0	0	0	0
1319	305	12.3	1229	0	0	0	0
1320	357	14.6	1459	0	0	0	0
1321	339	16.9	1688	0	0	0	0
1322	311	17.4	1745	0	0	0	0
1323	392	18.0	1801	0	0	0	0
1324	377	18.0	1801	0	0	0	0
1325	322	18.0	1801	0	0	0	0
1326	362	19.1	1906	0	0	0	0
1327	291	20.1	2011	0	0	0	0
1328	367	21.2	2117	0	0	0	0
1329	328	21.2	2117	0	0	0	0
1330	312	21.2	2117	0	0	0	0
1331	261	31.4	3138	0	0	0	0
1332	7	4.5	448	0	0	0	0
1333	152	4.0	402	0	0	0	0
1334	131	4.0	402	0	0	0	0
1335	115	3.8	381	0	0	0	0
1336	105	3.6	357	0	0	0	0
1337	101	4.2	424	0	0	0	0
1338	103	4.2	424	0	0	0	0
1339	99	5.5	550	0	0	0	0
1340	119	5.5	550	0	0	0	0
1341	112	5.5	550	0	0	0	0
1342	115	5.9	586	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1343	116	6.8	681	0	0	0	0
1344	101	6.8	681	0	0	0	0
1345	102	8.2	824	0	0	0	0
1346	107	8.2	824	0	0	0	0
1347	116	9.4	938	0	0	0	0
1348	114	9.4	938	0	0	0	0
1349	101	10.2	1019	0	0	0	0
1350	109	10.2	1019	0	0	0	0
1351	124	10.2	1019	0	0	0	0
1352	120	11.8	1181	0	0	0	0
1353	106	13.4	1335	0	0	0	0
1354	98	13.4	1335	0	0	0	0
1355	103	13.4	1335	0	0	0	0
1356	99	13.2	1318	0	0	0	0
1357	93	13.0	1301	0	0	0	0
1358	103	12.8	1283	0	0	0	0
1359	95	11.7	1170	0	0	0	0
1360	106	11.7	1170	0	0	0	0
1361	147	13.0	1296	0	0	0	0
1362	173	13.0	1296	0	0	0	0
1363	194	13.0	1296	0	0	0	0
1364	157	12.5	1250	0	0	0	0
1365	122	12.0	1204	0	0	0	0
1366	203	2.6	264	0	0	0	0
1367	203	2.6	264	0	0	0	0
1368	101	2.6	264	0	0	0	0
1369	185	2.7	271	0	0	0	0
1370	164	2.7	271	0	0	0	0
1371	157	3.8	382	0	0	0	0
1372	168	3.8	382	0	0	0	0
1373	180	3.8	382	0	0	0	0
1374	162	3.8	382	0	0	0	0
1375	192	6.0	599	0	0	0	0
1376	190	6.0	599	0	0	0	0
1377	176	6.0	599	0	0	0	0
1378	178	7.5	750	0	0	0	0
1379	209	7.5	750	0	0	0	0
1380	149	9.5	951	0	0	0	0
1381	141	9.5	951	0	0	0	0
1382	127	9.5	951	0	0	0	0
1383	163	9.5	951	0	0	0	0
1384	184	10.8	1084	0	0	0	0
1385	164	10.8	1084	0	0	0	0
1386	185	12.7	1259	0	5	0	0
1387	189	12.6	1259	0	0	0	0
1388	182	12.6	1259	0	0	0	0
1389	199	12.2	1217	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1390	203	12.2	1217	0	0	0	0
1391	162	12.2	1217	0	0	0	0
1392	171	9.3	926	0	0	0	0
1393	145	9.3	926	0	0	0	0
1394	178	8.3	825	0	0	0	0
1395	157	7.2	724	0	0	0	0
1396	200	7.2	724	0	0	0	0
1397	174	8.4	834	0	0	0	0
1398	164	8.4	834	0	0	0	0
1399	171	8.4	834	0	0	0	0
1400	150	16.4	1625	0	0	0	0
1401	153	16.3	1625	0	0	0	0
1402	142	18.2	1815	0	0	0	0
1403	141	22.6	2263	0	0	0	0
1404	241	22.6	2263	0	0	0	0
1405	271	20.7	2071	0	0	0	0
1406	290	20.7	2071	0	0	0	0
1407	316	20.7	2071	0	0	0	0
1408	339	20.7	2071	0	0	0	0
1409	352	20.7	2071	0	0	0	0
1410	301	10.8	1081	0	0	0	0
1411	301	10.8	1081	0	0	0	0
1412	274	10.8	1081	0	0	0	0
1413	325	10.8	1081	0	0	0	0
1414	331	10.8	1081	0	0	0	0
1415	266	10.8	1081	0	0	0	0
1416	266	19.1	1906	0	0	0	0
1417	313	19.1	1906	0	0	0	0
1418	323	19.1	1906	0	0	0	0
1419	317	19.1	1906	0	0	0	0
1420	335	21.1	2113	0	0	0	0
1421	349	23.2	2320	0	0	0	0
1422	493	25.3	2527	0	0	0	0
1423	353	25.3	2527	0	0	0	0
1424	327	25.3	2527	0	0	0	0
1425	358	25.3	2527	0	0	0	0
1426	312	25.3	2527	0	0	0	0
1427	212	7.6	757	0	0	0	0
1428	319	7.6	757	0	0	0	0
1429	341	7.4	737	0	0	0	0
1430	353	7.4	737	0	0	0	0
1431	335	7.4	737	0	0	0	0
1432	315	7.4	737	0	0	0	0
1433	305	7.4	737	0	0	0	0
1434	302	7.4	737	0	0	0	0
1435	312	8.3	833	0	0	0	0
1436	335	8.3	833	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1437	420	8.3	833	0	0	0	0
1438	768	8.3	833	0	0	0	0
1439	464	8.3	833	0	0	0	0
1440	343	9.5	951	0	0	0	0
1441	357	10.7	1069	0	0	0	0
1442	365	10.7	1069	0	0	0	0
1443	374	10.7	1069	0	0	0	0
1444	325	10.7	1069	0	0	0	0
1445	417	10.7	1069	0	0	0	0
1446	378	20.1	2005	0	0	0	0
1447	350	20.1	2005	0	0	0	0
1448	362	27.9	2791	0	0	0	0
1449	327	27.9	2791	0	0	0	0
1450	258	27.9	2791	0	0	0	0
1451	531	27.9	2791	0	0	0	0
1452	409	29.7	2967	0	0	0	0
1453	380	31.4	3142	0	0	0	0
1454	367	31.4	3142	0	0	0	0
1455	327	31.4	3142	0	0	0	0
1456	252	31.4	3142	0	0	0	0
1457	299	31.4	3142	0	0	0	0
1458	297	31.9	3187	0	0	0	0
1459	279	32.3	3231	0	0	0	0
1460	364	33.2	3321	0	0	0	0
1461	308	34.1	3411	0	0	0	0
1462	154	4.8	481	0	0	0	0
1463	145	4.4	442	0	0	0	0
1464	166	4.4	442	0	0	0	0
1465	145	4.8	484	0	0	0	0
1466	155	4.8	484	0	0	0	0
1467	157	6.5	651	0	0	0	0
1468	139	6.5	651	0	0	0	0
1469	130	11.1	1112	0	0	0	0
1470	67	11.1	1112	0	0	0	0
1471	97	17.9	1791	0	0	0	0
1472	136	17.9	1791	0	0	0	0
1473	112	31.9	3192	0	0	0	0
1474	119	31.9	3192	0	0	0	0
1475	116	31.6	3161	0	0	0	0
1476	112	31.6	3161	0	0	0	0
1477	121	3.6	357	0	0	0	0
1478	125	3.6	357	0	0	0	0
1479	113	4.2	424	0	0	0	0
1480	117	4.2	424	0	0	0	0
1481	119	5.5	550	0	0	0	0
1482	115	5.5	550	0	0	0	0
1483	109	5.9	586	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1484	112	5.9	586	0	0	0	0
1485	115	6.8	681	0	0	0	0
1486	127	8.2	824	0	0	0	0
1487	83	8.2	824	0	0	0	0
1488	89	8.2	824	0	0	0	0
1489	56	9.4	938	0	0	0	0
1490	88	10.2	1019	0	0	0	0
1491	126	10.2	1019	0	0	0	0
1492	168	10.2	1019	0	0	0	0
1493	171	11.8	1181	0	0	0	0
1494	168	13.4	1335	0	0	0	0
1495	145	13.4	1335	0	0	0	0
1496	157	13.4	1335	0	0	0	0
1497	114	13.2	1318	0	0	0	0
1498	86	13.0	1301	0	0	0	0
1499	121	12.8	1283	0	0	0	0
1500	111	11.7	1170	0	0	0	0
1501	150	11.7	1170	0	0	0	0
1502	173	13.0	1296	0	0	0	0
1503	154	13.0	1296	0	0	0	0
1504	171	13.0	1296	0	0	0	0
1505	140	12.5	1250	0	0	0	0
1506	155	12.0	1204	0	0	0	0
1507	151	2.6	264	0	0	0	0
1508	166	2.6	264	0	0	0	0
1509	122	2.6	264	0	0	0	0
1510	122	2.7	271	0	0	0	0
1511	134	2.7	271	0	0	0	0
1512	146	3.8	382	0	0	0	0
1513	133	3.8	382	0	0	0	0
1514	130	3.8	382	0	0	0	0
1515	141	3.8	382	0	0	0	0
1516	138	6.0	599	0	0	0	0
1517	95	6.0	599	0	0	0	0
1518	233	6.0	599	0	0	0	0
1519	267	7.5	750	0	0	0	0
1520	280	7.5	750	0	0	0	0
1521	311	9.5	951	0	0	0	0
1522	355	9.5	951	0	0	0	0
1523	278	9.5	951	0	0	0	0
1524	284	9.5	951	0	0	0	0
1525	317	10.8	1084	0	0	0	0
1526	298	10.8	1084	0	0	0	0
1527	334	12.6	1259	0	0	0	0
1528	292	12.6	1259	0	0	0	0
1529	270	12.6	1259	0	0	0	0
1530	310	12.2	1217	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1531	339	12.2	1217	0	0	0	0
1532	311	12.2	1217	0	0	0	0
1533	305	9.3	926	0	0	0	0
1534	385	9.3	926	0	0	0	0
1535	354	8.3	825	0	0	0	0
1536	323	7.2	724	0	0	0	0
1537	337	7.2	724	0	0	0	0
1538	461	8.3	834	0	0	0	0
1539	314	8.3	834	0	0	0	0
1540	289	8.3	834	0	0	0	0
1541	287	16.3	1625	0	0	0	0
1542	282	16.3	1625	0	0	0	0
1543	320	18.2	1815	0	0	0	0
1544	252	22.6	2263	0	0	0	0
1545	285	22.6	2263	0	0	0	0
1546	304	20.7	2071	0	0	0	0
1547	273	20.7	2071	0	0	0	0
1548	261	20.7	2071	0	0	0	0
1549	322	20.7	2071	0	0	0	0
1550	302	20.7	2071	0	0	0	0
1551	236	10.8	1081	0	0	0	0
1552	338	10.8	1081	0	0	0	0
1553	233	10.8	1081	0	0	0	0
1554	226	10.8	1081	0	0	0	0
1555	259	10.8	1081	0	0	0	0
1556	260	10.8	1081	0	0	0	0
1557	221	19.1	1906	0	0	0	0
1558	151	19.1	1906	0	0	0	0
1559	279	19.1	1906	0	0	0	0
1560	263	19.1	1906	0	0	0	0
1561	307	21.1	2113	0	0	0	0
1562	367	23.2	2320	0	0	0	0
1563	389	25.3	2527	0	0	0	0
1564	419	25.3	2527	0	0	0	0
1565	403	25.3	2527	0	0	0	0
1566	310	25.3	2527	0	0	0	0
1567	344	25.3	2527	0	0	0	0
1568	367	7.6	757	0	0	0	0
1569	369	7.6	757	0	0	0	0
1570	353	7.4	737	0	0	0	0
1571	419	7.4	737	0	0	0	0
1572	396	7.4	737	0	0	0	0
1573	427	7.4	737	0	0	0	0
1574	346	7.4	737	0	0	0	0
1575	291	7.4	737	0	0	0	0
1576	293	8.3	833	0	0	0	0
1577	282	28.6	2861	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1578	317	28.6	2861	0	0	0	0
1579	276	28.8	2884	0	0	0	0
1580	324	28.8	2884	0	0	0	0
1581	394	33.0	3295	0	0	0	0
1582	297	33.0	3295	0	0	0	0
1583	358	30.4	3041	0	0	0	0
1584	333	30.2	3018	0	0	0	0
1585	290	3.8	382	0	0	0	0
1586	263	6.0	599	0	0	0	0
1587	129	6.0	599	0	0	0	0
1588	101	6.0	599	0	0	0	0
1589	132	7.5	750	0	0	0	0
1590	113	7.5	750	0	0	0	0
1591	128	9.5	951	0	0	0	0
1592	98	9.5	951	0	0	0	0
1593	145	9.5	951	0	0	0	0
1594	179	9.5	951	0	0	0	0
1595	189	10.8	1084	0	0	0	0
1596	188	10.8	1084	0	0	0	0
1597	143	12.6	1259	0	0	0	0
1598	115	12.6	1259	0	0	0	0
1599	113	12.6	1259	0	0	0	0
1600	112	12.2	1217	0	0	0	0
1601	134	12.2	1217	0	0	0	0
1602	138	12.2	1217	0	0	0	0
1603	151	9.3	926	0	0	0	0
1604	160	9.3	926	0	0	0	0
1605	172	8.3	825	0	0	0	0
1606	194	7.2	724	0	0	0	0
1607	233	7.2	724	0	0	0	0
1608	210	8.3	834	0	0	0	0
1609	206	8.3	834	0	0	0	0
1610	188	8.3	834	0	0	0	0
1611	186	16.3	1625	0	0	0	0
1612	179	16.3	1625	0	0	0	0
1613	177	18.2	1815	0	0	0	0
1614	172	22.6	2263	0	0	0	0
1615	179	22.6	2263	0	0	0	0
1616	204	20.7	2071	0	0	0	0
1617	205	20.7	2071	0	0	0	0
1618	212	20.7	2071	0	0	0	0
1619	226	20.7	2071	0	0	0	0
1620	202	20.7	2071	0	0	0	0
1621	192	10.8	1081	0	0	0	0
1622	196	10.8	1081	0	0	0	0
1623	210	10.8	1081	0	0	0	0
1624	215	10.8	1081	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1625	207	10.8	1081	0	0	0	0
1626	208	10.8	1081	0	0	0	0
1627	208	19.1	1906	0	0	0	0
1628	219	19.1	1906	0	0	0	0
1629	205	19.1	1906	0	0	0	0
1630	212	19.1	1906	0	0	0	0
1631	225	21.1	2113	0	0	0	0
1632	101	23.2	2320	0	0	0	0
1633	235	25.3	2527	0	0	0	0
1634	288	25.3	2527	0	0	0	0
1635	386	9.5	951	0	0	0	0
1636	398	9.5	951	0	0	0	0
1637	422	9.5	951	0	0	0	0
1638	461	10.8	1084	0	0	0	0
1639	424	10.8	1084	0	0	0	0
1640	440	12.6	1259	0	0	0	0
1641	428	12.6	1259	0	0	0	0
1642	328	12.6	1259	0	0	0	0
1643	344	12.2	1217	0	0	0	0
1644	298	12.2	1217	0	0	0	0
1645	234	12.2	1217	0	0	0	0
1646	248	9.3	926	0	0	0	0
1647	297	9.3	926	0	0	0	0
1648	320	8.3	825	0	0	0	0
1649	287	7.2	724	0	0	0	0
1650	312	7.2	724	0	0	0	0
1651	390	8.3	834	0	0	0	0
1652	219	8.0	800	0	0	0	0
1653	83	5.2	515	0	0	0	0
1654	158	5.2	515	0	0	0	0
1655	162	5.2	515	0	0	0	0
1656	220	5.2	515	0	0	0	0
1657	194	5.1	514	0	0	0	0
1658	73	11.5	1147	0	0	0	0
1659	96	16.6	1657	0	0	0	0
1660	73	18.8	1883	0	0	0	0
1661	140	18.8	1883	0	0	0	0
1662	104	18.8	1883	0	0	0	0
1663	265	18.8	1883	0	0	0	0
1664	265	5.1	511	0	0	0	0
1665	270	5.1	511	0	0	0	0
1666	299	5.1	511	0	0	0	0
1667	260	14.7	1470	0	0	0	0
1668	261	14.7	1470	0	0	0	0
1669	299	14.7	1470	0	0	0	0
1670	230	14.7	1470	0	0	0	0
1671	275	14.7	1470	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1672	266	19.2	1919	0	0	0	0
1673	283	19.2	1919	0	0	0	0
1674	239	19.2	1919	0	0	0	0
1675	279	22.9	2290	0	0	0	0
1676	231	26.6	2660	0	0	0	0
1677	289	26.6	2660	0	0	0	0
1678	272	26.6	2660	0	0	0	0
1679	257	26.6	2660	0	0	0	0
1680	250	31.1	3102	2	0	0	0
1681	225	35.5	3543	4	0	0	0
1682	201	35.6	3543	8	0	0	0
1683	159	3.7	367	0	0	0	0
1684	191	3.7	367	0	0	0	0
1685	218	3.7	367	0	0	0	0
1686	190	3.9	394	0	0	0	0
1687	187	4.2	422	0	0	0	0
1688	209	4.2	422	0	0	0	0
1689	144	6.8	676	0	0	0	0
1690	115	6.8	676	0	0	0	0
1691	177	6.8	676	0	0	0	0
1692	169	11.2	1114	4	0	0	0
1693	216	11.2	1114	4	0	0	0
1694	210	11.2	1114	4	0	0	0
1695	193	15.0	1493	5	0	0	0
1696	234	15.0	1493	5	0	0	0
1697	202	15.0	1493	5	0	0	0
1698	197	15.0	1493	5	0	0	0
1699	180	18.5	1844	6	0	0	0
1700	166	18.5	1844	6	0	0	0
1701	102	20.1	1995	6	0	0	0
1702	110	20.1	1995	6	0	0	0
1703	134	19.4	1928	6	0	0	0
1704	177	19.4	1928	6	0	0	0
1705	228	19.4	1928	6	0	0	0
1706	202	19.4	1928	6	0	0	0
1707	181	14.0	1394	5	0	0	0
1708	159	14.0	1394	5	0	0	0
1709	146	10.7	1060	4	0	0	0
1710	92	10.7	1060	4	0	0	0
1711	81	9.2	908	4	0	0	0
1712	108	9.2	908	4	0	0	0
1713	126	8.3	824	4	0	0	0
1714	131	8.3	824	4	0	0	0
1715	140	9.0	890	4	0	0	0
1716	132	9.0	890	4	0	0	0
1717	129	8.8	877	4	0	0	0
1718	114	8.8	877	4	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1719	129	9.5	938	4	0	0	0
1720	156	9.5	938	4	0	0	0
1721	124	9.5	938	4	0	0	0
1722	165	9.8	973	4	0	0	0
1723	119	9.8	973	4	0	0	0
1724	146	9.7	958	4	0	0	0
1725	101	9.4	935	4	0	0	0
1726	62	9.4	935	4	0	0	0
1727	116	10.0	996	4	0	0	0
1728	99	10.1	996	5	0	0	0
1729	111	16.2	1606	5	0	0	0
1730	106	28.4	2834	5	0	0	0
1731	62	28.4	2834	5	0	0	0
1732	109	31.7	3164	5	0	0	0
1733	146	31.7	3164	5	0	0	0
1734	175	31.7	3164	5	0	0	0
1735	187	30.2	3010	4	0	0	0
1736	188	30.2	3010	4	0	0	0
1737	171	30.2	3010	4	0	0	0
1738	177	33.9	3386	4	0	0	0
1739	204	37.7	3763	4	0	0	0
1740	182	37.7	3763	4	0	0	0
1741	73	80.6	8041	8	0	0	0
1742	70	77.7	7751	8	0	0	0
1743	63	87.0	8689	8	0	0	0
1744	82	87.0	8689	8	0	0	0
1745	96	57.3	5716	5	0	0	0
1746	109	59.4	5930	5	0	0	0
1747	155	61.5	6143	6	0	0	0
1748	266	4.9	487	0	0	0	0
1749	293	4.9	487	0	0	0	0
1750	293	4.9	487	0	0	0	0
1751	275	4.9	487	0	0	0	0
1752	272	1.7	166	0	0	0	0
1753	285	1.7	166	0	0	0	0
1754	314	1.7	166	0	0	0	0
1755	265	1.7	166	0	0	0	0
1756	388	1.7	166	0	0	0	0
1757	255	23.4	2337	0	0	0	0
1758	258	23.4	2337	0	0	0	0
1759	269	23.4	2337	0	0	0	0
1760	251	23.4	2337	0	0	0	0
1761	260	81.9	8177	6	0	0	0
1762	272	81.9	8177	6	0	0	0
1763	268	81.9	8177	6	0	0	0
1764	310	81.9	8177	6	0	0	0
1765	286	81.9	8177	6	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1766	311	81.9	8177	6	0	0	0
1767	248	93.4	9331	7	0	0	0
1768	253	93.4	9331	7	0	0	0
1769	270	93.4	9331	7	0	0	0
1770	296	93.4	9331	7	0	0	0
1771	281	87.8	8767	7	0	0	0
1772	286	82.1	8202	7	0	0	0
1773	274	82.1	8202	7	0	0	0
1774	264	82.1	8202	7	0	0	0
1775	408	82.1	8202	7	0	0	0
1776	252	71.3	7118	7	0	0	0
1777	241	71.3	7118	7	0	0	0
1778	133	14.9	1492	0	0	0	0
1779	125	13.8	1379	0	0	0	0
1780	110	13.8	1379	0	0	0	0
1781	135	13.8	1379	0	0	0	0
1782	140	13.6	1361	0	0	0	0
1783	108	13.4	1343	0	0	0	0
1784	107	13.0	1303	0	0	0	0
1785	135	13.0	1303	0	0	0	0
1786	154	13.0	1303	0	0	0	0
1787	165	13.3	1328	0	0	0	0
1788	148	13.3	1328	0	0	0	0
1789	151	15.0	1498	0	0	0	0
1790	162	15.0	1498	0	0	0	0
1791	108	15.0	1498	0	0	0	0
1792	142	15.2	1512	4	0	0	0
1793	149	15.2	1512	4	0	0	0
1794	133	15.6	1553	4	0	0	0
1795	175	15.6	1553	4	0	0	0
1796	182	15.6	1553	4	0	0	0
1797	127	16.8	1677	4	0	0	0
1798	129	16.8	1677	4	0	0	0
1799	96	21.2	2115	4	0	0	0
1800	156	21.2	2115	4	0	0	0
1801	177	21.3	2123	4	0	0	0
1802	186	21.4	2131	4	0	0	0
1803	166	21.4	2131	4	0	0	0
1804	175	21.5	2145	4	0	0	0
1805	202	21.7	2158	4	0	0	0
1806	206	21.7	2158	4	0	0	0
1807	215	21.7	2158	4	0	0	0
1808	207	21.7	2158	4	0	0	0
1809	166	18.6	1851	4	0	0	0
1810	153	18.6	1851	4	0	0	0
1811	161	16.4	1636	2	0	0	0
1812	202	14.2	1422	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1813	193	14.2	1422	0	0	0	0
1814	193	14.2	1422	0	0	0	0
1815	146	11.9	1194	0	0	0	0
1816	159	11.9	1194	0	0	0	0
1817	138	14.0	1392	4	0	0	0
1818	166	14.0	1392	4	0	0	0
1819	127	14.1	1398	4	0	0	0
1820	149	14.1	1398	4	0	0	0
1821	133	14.1	1398	4	0	0	0
1822	145	12.9	1284	2	0	0	0
1823	197	11.7	1169	0	0	0	0
1824	183	13.3	1328	0	0	0	0
1825	155	13.3	1328	0	0	0	0
1826	160	13.3	1328	0	0	0	0
1827	158	19.5	1943	4	0	0	0
1828	159	19.5	1943	4	0	0	0
1829	187	19.5	1943	4	0	0	0
1830	183	19.5	1943	4	0	0	0
1831	151	19.1	1904	4	0	0	0
1832	127	19.1	1904	4	0	0	0
1833	160	27.0	2692	6	0	0	0
1834	71	27.0	2692	6	0	0	0
1835	71	1.7	173	0	0	0	0
1836	122	1.7	173	0	0	0	0
1837	124	1.8	175	0	0	0	0
1838	137	1.7	174	0	0	0	0
1839	141	1.8	178	0	0	0	0
1840	152	1.8	179	0	0	0	0
1841	1	23.5	2354	0	0	0	0
1842	252	14.0	1398	2	0	0	0
1843	264	14.0	1398	0	0	0	0
1844	294	14.0	1398	0	0	0	0
1845	286	12.8	1284	0	0	0	0
1846	333	11.7	1169	0	0	0	0
1847	311	13.3	1328	0	0	0	0
1848	196	13.3	1328	0	0	0	0
1849	246	13.3	1328	0	0	0	0
1850	246	19.4	1943	0	0	0	0
1851	230	19.4	1943	0	0	0	0
1852	257	19.4	1943	0	0	0	0
1853	270	19.4	1943	0	0	0	0
1854	271	19.0	1904	0	0	0	0
1855	309	19.0	1904	0	0	0	0
1856	272	26.9	2692	0	0	0	0
1857	274	26.9	2692	0	0	0	0
1858	241	14.2	1422	0	0	0	0
1859	260	14.2	1422	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1860	253	14.2	1422	0	0	0	0
1861	237	11.9	1194	0	0	0	0
1862	246	11.9	1194	0	0	0	0
1863	282	13.9	1392	0	0	0	0
1864	254	13.9	1392	0	0	0	0
1865	237	14.0	1398	0	0	0	0
1866	287	14.0	1398	0	0	0	0
1867	278	14.0	1398	0	0	0	0
1868	237	12.8	1284	0	0	0	0
1869	241	11.7	1169	0	0	0	0
1870	272	13.3	1328	0	0	0	0
1871	246	13.3	1328	0	0	0	0
1872	224	13.3	1328	0	0	0	0
1873	232	19.4	1943	0	0	0	0
1874	211	19.4	1943	0	0	0	0
1875	174	19.4	1943	0	0	0	0
1876	220	19.4	1943	0	0	0	0
1877	222	19.0	1904	0	0	0	0
1878	201	19.0	1904	0	0	0	0
1879	261	26.9	2692	0	0	0	0
1880	270	26.9	2692	0	0	0	0
1881	140	13.3	1328	0	0	0	0
1882	217	13.3	1328	0	0	0	0
1883	219	13.3	1328	0	0	0	0
1884	223	19.4	1943	0	0	0	0
1885	250	19.4	1943	0	0	0	0
1886	3	19.4	1943	0	0	0	0
1887	3	19.4	1943	0	0	0	0
1888	3	19.0	1904	0	0	0	0
1889	88	19.0	1904	0	0	0	0
1890	115	26.9	2692	0	0	0	0
1891	122	26.9	2692	0	0	0	0
1892	125	14.2	1422	0	0	0	0
1893	133	14.2	1422	0	0	0	0
1894	152	14.2	1422	0	0	0	0
1895	90	11.9	1194	0	0	0	0
1896	141	11.9	1194	0	0	0	0
1897	123	13.9	1392	0	0	0	0
1898	149	13.9	1392	0	0	0	0
1899	172	14.0	1398	0	0	0	0
1900	185	14.0	1398	0	0	0	0
1901	187	14.0	1398	0	0	0	0
1902	190	12.8	1284	0	0	0	0
1903	200	11.7	1169	0	0	0	0
1904	198	13.3	1328	0	0	0	0
1905	185	13.3	1328	0	0	0	0
1906	189	13.3	1328	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1907	201	19.4	1943	0	0	0	0
1908	172	19.4	1943	0	0	0	0
1909	180	19.4	1943	0	0	0	0
1910	147	19.4	1943	0	0	0	0
1911	143	19.0	1904	0	0	0	0
1912	159	19.0	1904	0	0	0	0
1913	176	26.9	2692	0	0	0	0
1914	215	26.9	2692	0	0	0	0
1915	214	6.9	688	0	0	0	0
1916	225	6.9	688	0	0	0	0
1917	218	6.9	688	0	0	0	0
1918	209	6.9	688	0	0	0	0
1919	207	8.4	844	0	0	0	0
1920	209	8.4	844	0	0	0	0
1921	198	8.4	844	0	0	0	0
1922	216	8.4	844	0	0	0	0
1923	213	4.9	489	0	0	0	0
1924	185	4.9	489	0	0	0	0
1925	185	4.9	489	0	0	0	0
1926	177	4.9	489	0	0	0	0
1927	171	4.9	489	0	0	0	0
1928	157	7.5	748	0	0	0	0
1929	136	7.5	748	0	0	0	0
1930	124	7.5	748	0	0	0	0
1931	132	6.0	604	0	0	0	0
1932	157	4.6	459	0	0	0	0
1933	176	4.6	459	0	0	0	0
1934	139	4.6	459	0	0	0	0
1935	115	4.6	459	0	0	0	0
1936	172	5.9	586	0	0	0	0
1937	153	8.6	860	0	0	0	0
1938	269	11.3	1133	0	0	0	0
1939	328	11.3	1133	0	0	0	0
1940	266	11.3	1133	0	0	0	0
1941	285	11.3	1133	0	0	0	0
1942	319	8.0	798	0	0	0	0
1943	330	4.6	463	0	0	0	0
1944	319	4.6	463	0	0	0	0
1945	295	4.6	463	0	0	0	0
1946	281	4.6	463	0	0	0	0
1947	333	4.6	463	0	0	0	0
1948	234	5.8	576	0	0	0	0
1949	349	6.9	688	0	0	0	0
1950	253	6.9	688	0	0	0	0
1951	281	6.9	688	0	0	0	0
1952	259	6.9	688	0	0	0	0
1953	258	8.4	844	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
1954	222	8.4	844	0	0	0	0
1955	296	8.4	844	0	0	0	0
1956	287	8.4	844	0	0	0	0
1957	282	4.9	489	0	0	0	0
1958	298	4.9	489	0	0	0	0
1959	247	4.9	489	0	0	0	0
1960	182	4.9	489	0	0	0	0
1961	252	4.9	489	0	0	0	0
1962	222	7.5	748	0	0	0	0
1963	251	7.5	748	0	0	0	0
1964	259	7.5	748	0	0	0	0
1965	314	6.0	604	0	0	0	0
1966	317	4.6	459	0	0	0	0
1967	252	4.6	459	0	0	0	0
1968	273	4.6	459	0	0	0	0
1969	221	4.6	459	0	0	0	0
1970	231	5.9	586	0	0	0	0
1971	212	5.9	586	0	0	0	0
1972	221	5.9	586	0	0	0	0
1973	235	5.9	586	0	0	0	0
1974	228	10.1	1014	0	0	0	0
1975	228	10.1	1014	0	0	0	0
1976	198	10.1	1014	0	0	0	0
1977	248	10.1	1014	0	0	0	0
1978	248	14.7	1473	0	0	0	0
1979	204	14.7	1473	0	0	0	0
1980	158	14.7	1473	0	0	0	0
1981	332	14.7	1473	0	0	0	0
1982	281	8.1	811	0	0	0	0
1983	248	8.1	811	0	0	0	0
1984	252	8.1	811	0	0	0	0
1985	321	8.1	811	0	0	0	0
1986	280	9.6	959	0	0	0	0
1987	285	9.6	959	0	0	0	0
1988	165	9.6	959	0	0	0	0
1989	218	9.6	959	0	0	0	0
1990	246	8.1	811	0	0	0	0
1991	211	8.1	811	0	0	0	0
1992	180	8.1	811	0	0	0	0
1993	217	9.6	959	0	0	0	0
1994	204	9.6	959	0	0	0	0
1995	214	9.6	959	0	0	0	0
1996	152	8.1	811	0	0	0	0
1997	226	8.1	811	0	0	0	0
1998	221	9.6	959	0	0	0	0
1999	241	9.6	959	0	0	0	0
2000	197	4.9	489	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2001	218	4.9	489	0	0	0	0
2002	169	4.9	489	0	0	0	0
2003	190	4.9	489	0	0	0	0
2004	266	4.9	489	0	0	0	0
2005	217	7.5	748	0	0	0	0
2006	232	7.5	748	0	0	0	0
2007	245	7.5	748	0	0	0	0
2008	241	6.0	604	0	0	0	0
2009	230	4.6	459	0	0	0	0
2010	223	4.6	459	0	0	0	0
2011	319	4.6	459	0	0	0	0
2012	241	4.6	459	0	0	0	0
2013	251	5.9	586	0	0	0	0
2014	255	5.9	586	0	0	0	0
2015	258	5.9	586	0	0	0	0
2016	251	5.9	586	0	0	0	0
2017	264	10.1	1014	0	0	0	0
2018	278	10.1	1014	0	0	0	0
2019	262	4.9	489	0	0	0	0
2020	240	4.9	489	0	0	0	0
2021	270	4.9	489	0	0	0	0
2022	279	4.9	489	0	0	0	0
2023	268	4.9	489	0	0	0	0
2024	233	7.5	748	0	0	0	0
2025	208	7.5	748	0	0	0	0
2026	195	7.5	748	0	0	0	0
2027	232	6.0	604	0	0	0	0
2028	208	4.6	459	0	0	0	0
2029	179	4.6	459	0	0	0	0
2030	237	4.6	459	0	0	0	0
2031	187	0.8	85	0	0	0	0
2032	0	0.8	85	0	0	0	0
2033	150	0.9	94	0	0	0	0
2034	170	0.9	94	0	0	0	0
2035	176	0.9	94	0	0	0	0
2036	183	0.9	94	0	0	0	0
2037	191	0.6	65	0	0	0	0
2038	208	0.6	65	0	0	0	0
2039	194	0.6	65	0	0	0	0
2040	163	1.1	114	0	0	0	0
2041	189	1.1	114	0	0	0	0
2042	165	2.7	270	0	0	0	0
2043	171	2.7	270	0	0	0	0
2044	205	2.7	270	0	0	0	0
2045	151	2.7	270	0	0	0	0
2046	174	1.6	163	0	0	0	0
2047	161	1.6	163	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2048	108	2.8	276	0	0	0	0
2049	171	2.8	276	0	0	0	0
2050	124	1.9	185	0	0	0	0
2051	123	1.9	185	0	0	0	0
2052	147	2.9	287	0	0	0	0
2053	132	3.9	389	0	0	0	0
2054	138	3.9	389	0	0	0	0
2055	127	4.2	420	0	0	0	0
2056	136	4.2	420	0	0	0	0
2057	139	4.2	420	0	0	0	0
2058	129	3.6	357	0	0	0	0
2059	119	3.6	357	0	0	0	0
2060	84	3.6	357	0	0	0	0
2061	120	3.6	357	0	0	0	0
2062	144	3.5	348	0	0	0	0
2063	144	3.5	348	0	0	0	0
2064	143	1.5	150	0	0	0	0
2065	154	1.5	150	0	0	0	0
2066	127	4.8	484	0	0	0	0
2067	108	4.8	484	0	0	0	0
2068	66	4.2	420	0	0	0	0
2069	79	4.2	420	0	0	0	0
2070	69	3.6	357	0	0	0	0
2071	64	3.6	357	0	0	0	0
2072	70	3.6	357	0	0	0	0
2073	109	3.6	357	0	0	0	0
2074	116	3.6	357	0	0	0	0
2075	114	3.6	357	0	0	0	0
2076	138	3.6	357	0	0	0	0
2077	151	3.5	348	0	0	0	0
2078	179	3.5	348	0	0	0	0
2079	168	1.5	150	0	0	0	0
2080	127	1.5	150	0	0	0	0
2081	129	1.5	150	0	0	0	0
2082	130	4.8	484	0	0	0	0
2083	95	12.4	1241	0	0	0	0
2084	86	15.8	1581	0	0	0	0
2085	135	15.8	1581	0	0	0	0
2086	131	15.8	1581	0	0	0	0
2087	113	2.8	281	0	0	0	0
2088	179	2.8	281	0	0	0	0
2089	142	7.6	762	0	0	0	0
2090	119	7.6	762	0	0	0	0
2091	153	7.6	763	0	0	0	0
2092	141	7.6	763	0	0	0	0
2093	140	7.6	763	0	0	0	0
2094	127	9.2	921	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2095	155	9.2	921	0	0	0	0
2096	124	7.5	747	0	0	0	0
2097	144	7.5	747	0	0	0	0
2098	114	9.9	988	0	0	0	0
2099	110	9.9	988	0	0	0	0
2100	187	8.6	860	0	0	0	0
2101	144	8.6	860	0	0	0	0
2102	125	5.1	506	0	0	0	0
2103	119	5.1	506	0	0	0	0
2104	158	5.1	506	0	0	0	0
2105	161	8.0	802	0	0	0	0
2106	157	8.0	802	0	0	0	0
2107	159	9.7	973	0	0	0	0
2108	149	9.7	973	0	0	0	0
2109	195	9.7	973	0	0	0	0
2110	201	9.5	951	0	0	0	0
2111	209	9.3	928	0	0	0	0
2112	202	9.3	928	0	0	0	0
2113	143	14.4	1444	0	0	0	0
2114	152	14.4	1444	0	0	0	0
2115	160	14.4	1444	0	0	0	0
2116	134	12.2	1223	0	0	0	0
2117	157	12.2	1223	0	0	0	0
2118	172	13.6	1358	0	0	0	0
2119	172	14.9	1493	0	0	0	0
2120	166	0.0	0	0	0	0	0
2121	163	15.5	1549	0	0	0	0
2122	116	15.5	1549	0	0	0	0
2123	91	9.8	979	0	0	0	0
2124	8	0.3	27	0	0	0	0
2125	34	0.3	33	0	0	0	0
2126	47	0.4	40	0	0	0	0
2127	91	0.4	40	0	0	0	0
2128	79	0.4	42	0	0	0	0
2129	78	0.4	42	0	0	0	0
2130	48	0.4	42	0	0	0	0
2131	40	0.4	42	0	0	0	0
2132	66	0.5	46	0	0	0	0
2133	64	0.5	46	0	0	0	0
2134	92	0.5	46	0	0	0	0
2135	114	0.5	46	0	0	0	0
2136	97	0.4	42	0	0	0	0
2137	77	0.7	73	0	0	0	0
2138	68	0.7	73	0	0	0	0
2139	59	0.7	68	0	0	0	0
2140	74	0.8	78	0	0	0	0
2141	72	0.8	78	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2142	80	0.8	78	0	0	0	0
2143	94	0.8	78	0	0	0	0
2144	96	0.9	93	0	0	0	0
2145	109	0.9	92	0	0	0	0
2146	114	1.1	110	0	0	0	0
2147	8	1.9	185	0	0	0	0
2148	197	2.6	260	0	0	0	0
2149	221	1.4	142	0	0	0	0
2150	207	1.4	142	0	0	0	0
2151	162	8.7	870	0	0	0	0
2152	195	8.7	870	0	0	0	0
2153	52	8.7	870	0	0	0	0
2154	120	9.6	959	0	0	0	0
2155	169	9.6	959	0	0	0	0
2156	218	9.6	959	0	0	0	0
2157	175	5.8	576	0	0	0	0
2158	168	5.8	576	0	0	0	0
2159	162	7.5	751	0	0	0	0
2160	169	7.5	751	0	0	0	0
2161	150	7.5	751	0	0	0	0
2162	147	2.4	244	0	0	0	0
2163	122	2.4	244	0	0	0	0
2164	123	4.4	439	0	0	0	0
2165	124	4.4	439	0	0	0	0
2166	166	4.4	439	0	0	0	0
2167	202	4.4	439	0	0	0	0
2168	160	4.1	407	0	0	0	0
2169	175	4.1	407	0	0	0	0
2170	166	4.2	425	0	0	0	0
2171	167	4.2	425	0	0	0	0
2172	159	4.2	425	0	0	0	0
2173	149	4.2	425	0	0	0	0
2174	183	4.0	404	0	0	0	0
2175	154	6.9	693	0	0	0	0
2176	127	6.9	693	0	0	0	0
2177	197	6.9	693	0	0	0	0
2178	158	7.6	762	0	0	0	0
2179	135	7.6	762	0	0	0	0
2180	148	7.9	791	0	0	0	0
2181	169	7.9	791	0	0	0	0
2182	147	7.9	791	0	0	0	0
2183	142	8.7	868	0	0	0	0
2184	176	8.7	868	0	0	0	0
2185	191	8.7	868	0	0	0	0
2186	155	9.5	952	0	0	0	0
2187	159	9.5	952	0	0	0	0
2188	133	9.5	952	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2189	146	17.4	1725	4	0	0	0
2190	165	17.4	1725	4	0	0	0
2191	164	17.4	1725	4	0	0	0
2192	164	15.8	1570	4	0	0	0
2193	153	14.3	1416	4	0	0	0
2194	138	13.9	1380	4	0	0	0
2195	137	13.9	1380	4	0	0	0
2196	159	13.9	1380	4	0	0	0
2197	132	13.4	1333	4	0	0	0
2198	141	13.4	1333	4	0	0	0
2199	139	12.4	1226	4	0	0	0
2200	153	11.3	1119	4	0	0	0
2201	126	15.5	1538	5	0	0	0
2202	116	15.5	1538	5	0	0	0
2203	133	15.5	1538	5	0	0	0
2204	129	10.4	1030	4	0	0	0
2205	151	10.6	1047	4	0	0	0
2206	158	10.7	1064	4	0	0	0
2207	127	10.7	1064	4	0	0	0
2208	127	11.3	1121	4	0	0	0
2209	122	11.3	1121	4	0	0	0
2210	116	11.5	1135	4	0	0	0
2211	100	11.5	1135	4	0	0	0
2212	114	7.9	792	0	0	0	0
2213	114	7.9	792	0	0	0	0
2214	98	5.9	589	0	0	0	0
2215	97	5.9	593	0	0	0	0
2216	88	5.9	593	0	0	0	0
2217	96	7.3	725	0	0	0	0
2218	87	7.3	725	0	0	0	0
2219	107	2.6	255	0	0	0	0
2220	122	0.7	68	0	0	0	0
2221	117	0.8	84	0	0	0	0
2222	108	0.8	84	0	0	0	0
2223	132	0.8	84	0	0	0	0
2224	146	1.9	193	0	0	0	0
2225	181	1.9	193	0	0	0	0
2226	141	2.3	231	0	0	0	0
2227	137	2.3	231	0	0	0	0
2228	117	1.7	166	0	0	0	0
2229	144	1.7	166	0	0	0	0
2230	139	1.7	166	0	0	0	0
2231	163	2.1	212	0	0	0	0
2232	157	2.1	212	0	0	0	0
2233	166	2.1	212	0	0	0	0
2234	152	6.3	627	0	0	0	0
2235	208	6.3	627	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2236	198	6.3	627	0	0	0	0
2237	179	4.7	473	0	0	0	0
2238	182	4.7	473	0	0	0	0
2239	190	4.7	473	0	0	0	0
2240	227	4.7	473	0	0	0	0
2241	209	4.6	460	0	0	0	0
2242	162	4.6	460	0	0	0	0
2243	100	4.2	417	0	0	0	0
2244	175	4.2	417	0	0	0	0
2245	151	3.4	342	0	0	0	0
2246	159	3.4	342	0	0	0	0
2247	157	3.4	342	0	0	0	0
2248	47	3.8	381	0	0	0	0
2249	168	3.8	381	0	0	0	0
2250	155	4.5	453	0	0	0	0
2251	181	4.5	453	0	0	0	0
2252	151	4.3	432	0	0	0	0
2253	158	4.3	432	0	0	0	0
2254	144	4.3	432	0	0	0	0
2255	137	9.1	913	0	0	0	0
2256	185	9.1	913	0	0	0	0
2257	198	9.1	913	0	0	0	0
2258	204	13.4	1344	0	0	0	0
2259	186	13.4	1344	0	0	0	0
2260	189	13.4	1344	0	0	0	0
2261	177	13.4	1344	0	0	0	0
2262	210	8.8	884	0	0	0	0
2263	64	8.8	884	0	0	0	0
2264	201	8.8	884	0	0	0	0
2265	176	5.8	584	0	0	0	0
2266	176	5.8	584	0	0	0	0
2267	184	5.8	584	0	0	0	0
2268	116	6.8	682	0	0	0	0
2269	140	7.8	780	0	0	0	0
2270	159	7.8	780	0	0	0	0
2271	165	7.8	780	0	0	0	0
2272	184	7.8	780	0	0	0	0
2273	148	10.1	1012	0	0	0	0
2274	166	10.1	1012	0	0	0	0
2275	167	10.1	1012	0	0	0	0
2276	208	10.1	1012	0	0	0	0
2277	203	16.6	1663	0	0	0	0
2278	165	23.1	2314	0	0	0	0
2279	133	23.1	2314	0	0	0	0
2280	75	23.1	2314	0	0	0	0
2281	133	8.3	833	0	0	0	0
2282	129	8.3	833	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2283	125	6.4	640	0	0	0	0
2284	193	4.5	447	0	0	0	0
2285	133	4.5	453	0	0	0	0
2286	120	4.6	459	0	0	0	0
2287	112	4.6	459	0	0	0	0
2288	130	4.6	459	0	0	0	0
2289	60	4.8	477	0	0	0	0
2290	78	5.0	496	0	0	0	0
2291	81	3.7	366	0	0	0	0
2292	82	3.7	366	0	0	0	0
2293	93	8.4	842	0	0	0	0
2294	77	8.4	842	0	0	0	0
2295	86	10.6	1057	0	0	0	0
2296	85	10.6	1057	0	0	0	0
2297	90	7.0	696	0	0	0	0
2298	98	3.4	335	0	0	0	0
2299	131	3.4	335	0	0	0	0
2300	122	2.3	226	0	0	0	0
2301	120	13.6	1356	0	0	0	0
2302	113	13.6	1356	0	0	0	0
2303	103	16.6	1659	0	0	0	0
2304	114	16.6	1659	0	0	0	0
2305	113	16.6	1659	0	0	0	0
2306	109	9.9	985	0	0	0	0
2307	104	9.5	946	0	0	0	0
2308	74	33.5	3353	0	0	0	0
2309	90	33.5	3353	0	0	0	0
2310	117	5.5	550	0	0	0	0
2311	115	5.5	550	0	0	0	0
2312	140	0.0	0	0	0	0	0
2313	84	1.1	108	0	0	0	0
2314	215	1.0	104	0	0	0	0
2315	204	1.0	104	0	0	0	0
2316	203	1.0	104	0	0	0	0
2317	249	1.1	111	0	0	0	0
2318	235	1.2	117	0	0	0	0
2319	252	1.2	117	0	0	0	0
2320	230	1.2	117	0	0	0	0
2321	216	1.2	117	0	0	0	0
2322	173	1.2	117	0	0	0	0
2323	209	1.6	164	0	0	0	0
2324	173	1.6	164	0	0	0	0
2325	191	1.8	178	0	0	0	0
2326	161	1.8	178	0	0	0	0
2327	181	1.8	178	0	0	0	0
2328	147	2.4	238	0	0	0	0
2329	130	2.4	238	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2330	140	3.1	310	0	0	0	0
2331	144	3.1	310	0	0	0	0
2332	145	6.6	655	0	0	0	0
2333	146	6.6	655	0	0	0	0
2334	141	6.6	655	0	0	0	0
2335	174	2.7	270	0	0	0	0
2336	188	2.7	270	0	0	0	0
2337	184	2.7	270	0	0	0	0
2338	111	3.1	307	0	0	0	0
2339	137	3.1	307	0	0	0	0
2340	139	5.4	538	0	0	0	0
2341	119	5.4	538	0	0	0	0
2342	126	5.4	538	0	0	0	0
2343	128	8.0	802	0	0	0	0
2344	133	8.0	802	0	0	0	0
2345	127	50.4	5035	0	0	0	0
2346	121	50.4	5035	0	0	0	0
2347	88	47.1	4708	0	0	0	0
2348	63	76.1	7612	0	0	0	0
2349	62	11.2	1124	0	0	0	0
2350	58	10.5	1052	0	0	0	0
2351	62	9.2	924	0	0	0	0
2352	75	8.7	872	0	0	0	0
2353	107	8.7	872	0	0	0	0
2354	121	10.7	1067	0	0	0	0
2355	73	55.9	5589	0	0	0	0
2356	97	55.9	5589	0	0	0	0
2357	129	22.8	2281	0	0	0	0
2358	115	22.8	2281	0	0	0	0
2359	140	19.0	1888	0	0	0	0
2360	135	19.0	1888	0	0	0	0
2361	150	20.4	2024	0	0	0	0
2362	125	24.5	2430	0	0	0	0
2363	93	24.5	2430	0	0	0	0
2364	112	4.2	416	0	0	0	0
2365	147	0.0	0	0	0	0	0
2366	171	0.0	0	0	0	0	0
2367	168	2.1	208	0	0	0	0
2368	126	2.1	208	0	0	0	0
2369	114	3.5	350	0	0	0	0
2370	106	3.5	350	0	0	0	0
2371	156	17.6	1745	0	0	0	0
2372	164	17.6	1745	0	0	0	0
2373	135	37.8	3783	0	0	0	0
2374	116	21.9	2192	0	0	0	0
2375	161	21.9	2192	0	0	0	0
2376	174	13.5	1347	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2377	176	13.5	1347	0	0	0	0
2378	160	13.5	1347	0	0	0	0
2379	45	5.1	507	0	0	0	0
2380	55	5.1	507	0	0	0	0
2381	55	10.7	1067	0	0	0	0
2382	47	16.3	1626	0	0	0	0
2383	126	16.3	1626	0	0	0	0
2384	113	16.3	1626	0	0	0	0
2385	92	10.6	1055	0	0	0	0
2386	103	15.3	1526	0	0	0	0
2387	162	15.3	1526	0	0	0	0
2388	157	15.3	1526	0	0	0	0
2389	157	15.3	1526	0	0	0	0
2390	138	11.7	1170	0	0	0	0
2391	91	13.3	1330	0	0	0	0
2392	88	14.9	1489	0	0	0	0
2393	79	14.9	1489	0	0	0	0
2394	151	14.9	1489	0	0	0	0
2395	66	6.0	597	0	0	0	0
2396	124	6.0	597	0	0	0	0
2397	148	0.0	0	0	0	0	0
2398	176	0.0	0	0	0	0	0
2399	127	0.0	0	0	0	0	0
2400	142	0.0	0	0	0	0	0
2401	145	0.0	0	0	0	0	0
2402	155	0.0	0	0	0	0	0
2403	144	0.0	0	0	0	0	0
2404	122	0.0	0	0	0	0	0
2405	135	0.0	0	0	0	0	0
2406	147	0.0	0	0	0	0	0
2407	152	0.0	0	0	0	0	0
2408	119	0.0	0	0	0	0	0
2409	185	3.7	366	0	0	0	0
2410	169	3.4	336	0	0	0	0
2411	170	3.4	336	0	0	0	0
2412	140	4.5	446	0	0	0	0
2413	138	4.5	446	0	0	0	0
2414	123	3.7	367	0	0	0	0
2415	165	3.7	367	0	0	0	0
2416	68	3.9	389	0	0	0	0
2417	137	4.6	458	3	0	0	0
2418	114	5.4	526	5	0	0	0
2419	108	5.1	500	5	0	0	0
2420	116	5.1	500	5	0	0	0
2421	133	4.2	412	4	0	0	0
2422	105	4.2	412	4	0	0	0
2423	115	4.1	400	4	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2424	133	4.1	400	4	0	0	0
2425	113	4.7	458	5	0	0	0
2426	96	7.5	729	7	0	0	0
2427	79	7.5	729	7	0	0	0
2428	84	7.2	704	6	0	0	0
2429	93	6.9	675	6	0	0	0
2430	91	6.9	675	6	0	0	0
2431	119	6.9	675	6	0	0	0
2432	53	6.6	643	6	0	0	0
2433	76	5.8	563	5	0	0	0
2434	124	4.9	483	4	0	0	0
2435	141	5.4	529	4	0	0	0
2436	180	5.4	529	4	0	0	0
2437	189	5.8	571	5	0	0	0
2438	191	6.3	613	5	0	0	0
2439	144	6.3	613	5	0	0	0
2440	166	7.8	761	6	0	0	0
2441	180	7.8	761	6	0	0	0
2442	158	9.7	956	7	0	0	0
2443	119	9.7	956	7	0	0	0
2444	125	9.7	956	7	0	0	0
2445	158	12.1	1192	8	0	0	0
2446	161	12.1	1192	8	0	0	0
2447	176	12.1	1192	8	0	0	0
2448	212	12.1	1192	8	0	0	0
2449	218	17.9	1760	10	0	0	0
2450	280	17.9	1760	10	0	0	0
2451	246	17.9	1760	10	0	0	0
2452	188	18.2	1791	10	0	0	0
2453	214	18.2	1791	10	0	0	0
2454	188	18.2	1791	10	0	0	0
2455	172	18.2	1791	10	0	0	0
2456	195	17.3	1700	10	0	0	0
2457	163	16.3	1609	10	0	0	0
2458	225	16.3	1609	10	0	0	0
2459	244	16.3	1609	10	0	0	0
2460	231	17.0	1673	10	0	0	0
2461	213	17.0	1673	10	0	0	0
2462	236	17.0	1673	10	0	0	0
2463	171	18.9	1858	10	0	0	0
2464	192	18.9	1858	10	0	0	0
2465	186	20.7	2041	11	0	0	0
2466	173	22.5	2223	12	0	0	0
2467	212	52.2	5139	30	0	0	0
2468	231	81.9	8055	49	0	0	0
2469	235	93.2	9153	61	0	0	0
2470	87	48.4	4750	32	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2471	145	48.4	4750	32	0	0	0
2472	108	48.4	4750	32	0	0	0
TEREBRATULA Mbr.							
2473	87	48.4	4750	32	0	0	0
2474	106	16.3	1591	15	0	0	0
2475	163	16.3	1591	15	0	0	0
2476	149	25.7	2511	21	0	0	0
2477	136	25.7	2511	21	0	0	0
2478	167	48.4	4741	35	0	0	0
2479	190	71.1	6972	50	0	0	0
2480	133	71.1	6972	50	0	0	0
2481	122	107.5	10537	78	0	0	0
2482	139	107.5	10537	78	0	0	0
2483	132	107.5	10537	78	0	0	0
2484	159	181.0	17523	214	0	0	0
2485	55	143.9	13957	159	0	0	0
2486	178	106.8	10392	105	0	0	0
2487	177	106.8	10392	105	0	0	0
2488	153	73.1	7108	73	0	0	0
2489	106	73.1	7108	73	0	0	0
2490	96	98.6	9553	116	0	0	0
2491	126	98.6	9553	116	0	0	0
2492	155	133.5	12870	179	0	0	0
2493	181	133.5	12870	179	0	0	0
2494	195	133.5	12870	179	0	0	0
2495	162	133.5	12870	179	0	0	0
2496	145	125.1	12059	167	0	0	0
2497	156	130.6	12585	177	0	0	0
2498	150	136.2	13112	187	0	0	0
2499	135	136.2	13112	187	0	0	0
2500	145	136.2	13112	187	0	0	0
2501	149	110.9	10671	155	0	0	0
2502	137	110.9	10671	155	0	0	0
2503	148	68.6	6611	92	0	0	0
2504	100	92.3	9000	130	0	0	0
2505	100	1.4	114	8	4	0	0
2506	286	1.3	109	7	3	0	0
2507	273	1.3	109	7	3	0	0
2508	176	1.3	109	7	3	0	0
2509	221	1.3	109	7	3	0	0
2510	196	1.3	109	7	3	0	0
2511	209	1.0	94	2	0	0	0
2512	206	1.0	94	1	0	0	0
2513	224	1.0	94	3	0	0	0
2514	240	2.9	225	12	8	5	0
2515	247	2.9	225	14	8	5	0
2516	193	2.9	225	15	8	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2517	181	2.9	225	15	8	5	0
2518	172	18.7	1582	48	38	21	6
2519	222	18.7	1582	49	38	21	6
2520	242	18.7	1582	49	38	21	6
2521	200	18.7	1582	49	38	21	6
2522	208	77.1	6472	250	158	76	20
2523	147	77.1	6472	251	158	76	20
2524	162	100.6	8234	350	248	111	28
2525	137	124.0	9995	450	338	145	36
2526	115	124.2	9995	460	338	145	36
2527	147	174.9	13363	750	611	240	60
2528	155	175.1	13363	760	611	240	60
2529	154	175.3	13363	770	611	240	60
2530	159	157.8	12096	650	556	230	42
2531	164	158.0	12096	660	556	230	42
2532	165	158.2	12096	670	556	230	42
2533	165	129.8	10142	550	412	178	22
2534	158	129.8	10142	551	412	178	22
2535	150	108.6	8665	401	322	145	19
2536	167	108.8	8665	410	322	145	19
2537	157	108.9	8665	415	322	145	19
2538	143	102.4	8246	350	293	134	20
2539	136	102.4	8246	351	293	134	20
2540	159	77.2	6178	320	202	96	17
2541	134	77.3	6178	325	202	96	17
2542	156	77.4	6178	330	202	96	17
2543	130	63.1	5049	300	148	73	13
2544	147	63.2	5049	305	148	73	13
2545	126	29.6	2386	120	70	37	8
2546	111	23.2	1851	100	57	30	6
2547	170	23.3	1851	105	57	30	6
2548	166	3.4	144	80	10	6	0
2549	172	6.5	325	120	22	15	0
2550	142	6.6	325	121	22	15	0
2551	130	47.8	3811	201	119	59	16
2552	155	47.8	3811	205	119	59	16
2553	155	58.5	4660	250	153	72	16
2554	214	69.2	5510	290	187	86	16
2555	241	69.6	5510	295	187	86	23
2556	181	69.7	5510	300	187	86	23
2557	206	107.0	8230	500	334	142	36
2558	117	107.2	8230	510	334	142	36
2559	59	112.6	8570	550	363	154	38
2560	65	74.9	5795	400	206	99	14
2561	50	74.9	5795	400	206	99	14
2562	98	67.7	5275	350	182	89	12
2563	92	67.7	5275	350	182	89	12

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2564	152	78.8	6125	400	222	105	14
2565	159	126.9	10508	450	320	122	16
2566	45	34.1	2470	210	99	60	18
2567	201	34.2	2470	215	99	60	18
2568	159	34.3	2470	220	99	60	18
2569	104	42.8	3164	250	128	74	12
2570	123	42.9	3164	255	128	74	12
2571	136	52.0	3851	290	159	89	17
2572	125	52.1	3851	295	159	89	17
2573	121	46.5	3437	250	144	83	16
2574	105	46.6	3437	260	144	83	16
2575	118	41.6	3044	240	127	76	15
2576	139	41.8	3044	250	127	76	15
2577	111	39.6	2918	220	118	72	16
2578	131	39.6	2918	219	118	72	16
2579	156	42.0	3156	220	119	72	16
2580	180	42.0	3156	225	119	71	15
2581	141	42.1	3156	230	119	71	15
2582	154	52.6	4022	260	144	83	19
2583	116	52.7	4022	265	144	83	19
2584	131	43.5	3257	240	120	73	17
2585	142	43.3	3257	230	120	73	17
2586	111	37.5	2778	200	106	68	19
2587	95	39.6	2918	220	118	72	16
2588	144	39.6	2918	219	118	72	16
2589	126	42.0	3156	220	119	72	16
2590	175	42.0	3156	225	119	71	15
2591	170	42.1	3156	230	119	71	15
2592	165	52.6	4022	260	144	83	19
2593	205	52.7	4022	265	144	83	19
2594	138	43.5	3257	240	120	73	17
2595	134	43.3	3257	230	120	73	17
2596	137	37.5	2778	200	106	68	19
2597	145	48.4	3832	150	136	79	20
2598	95	11.8	721	90	44	36	10
2599	117	11.8	721	92	44	36	10
2600	155	11.5	711	86	43	35	9
2601	228	11.3	701	84	42	34	9
2602	167	11.3	701	86	42	34	9
2603	174	10.8	726	70	34	28	8
2604	165	10.9	726	75	34	28	8
2605	169	13.8	1020	75	34	28	8
2606	184	13.1	1020	60	28	23	6
2607	121	13.2	1020	62	28	23	6
2608	133	15.8	1278	62	28	22	7
2609	146	15.8	1278	62	28	22	7
2610	126	14.2	1150	52	26	21	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2611	143	14.2	1150	52	26	21	7
2612	124	14.2	1150	53	26	21	7
2613	151	13.9	1144	52	27	22	0
2614	90	13.9	1144	50	27	22	0
2615	109	16.1	1348	51	25	20	6
2616	101	16.0	1348	50	25	20	6
2617	113	20.3	1749	54	27	20	8
2618	80	20.0	1740	58	28	21	0
2619	95	20.0	1740	59	28	21	0
2620	132	16.2	1355	60	28	23	0
2621	136	17.0	1412	65	30	24	0
2622	84	17.0	1412	68	30	24	0
2623	92	17.1	1412	70	30	24	0
2624	110	16.8	1372	72	32	26	0
2625	140	16.8	1372	70	32	26	0
2626	166	16.9	1372	74	32	26	0
2627	122	12.9	1020	60	29	23	0
2628	123	13.2	1030	65	31	24	0
2629	184	12.9	1020	60	29	23	0
2630	122	10.9	823	65	27	21	0
2631	115	11.3	823	65	27	21	10
2632	150	11.0	774	62	26	21	15
2633	77	10.6	726	62	26	21	17
2634	92	9.8	678	60	26	21	10
2635	163	10.1	710	65	27	22	7
2636	112	9.8	710	68	27	22	0
2637	137	9.8	710	67	27	22	0
2638	149	9.7	700	65	26	22	0
2639	140	9.6	700	64	26	22	0
2640	128	9.0	654	55	25	21	0
2641	108	8.9	654	50	25	21	0
2642	107	8.6	633	51	24	20	0
2643	81	8.3	605	50	24	20	0
2644	94	7.9	577	46	23	19	0
2645	94	7.9	577	46	23	19	0
2646	100	7.0	507	42	21	18	0
2647	88	7.2	514	44	22	18	0
2648	93	7.2	514	44	22	18	0
2649	101	9.1	643	50	25	22	8
2650	94	9.6	686	52	26	22	8
2651	98	9.7	686	53	26	22	8
2652	119	9.7	686	55	26	22	8
2653	108	9.7	698	50	25	21	8
2654	94	9.1	662	46	23	20	8
2655	107	9.1	662	46	23	20	8
2656	87	8.6	626	42	21	18	8
2657	86	8.6	626	42	21	18	8

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2658	117	10.6	794	50	24	20	9
2659	127	10.6	794	50	24	20	9
2660	149	14.7	1163	58	27	23	10
2661	119	14.7	1163	59	27	23	10
2662	93	11.7	945	48	24	20	0
2663	117	11.7	945	48	24	20	0
2664	126	11.7	945	49	24	20	0
2665	113	13.1	1082	48	24	21	0
2666	119	13.1	1082	50	24	21	0
2667	131	13.7	1138	52	25	21	0
2668	122	14.7	1214	58	27	22	0
2669	145	14.7	1214	60	27	22	0
2670	121	20.3	1689	68	34	28	7
2671	120	20.4	1689	69	34	28	7
2672	141	20.4	1689	70	34	28	7
2673	127	18.7	1530	66	33	27	7
2674	134	18.6	1530	65	33	27	7
2675	126	14.3	1194	52	26	21	0
2676	153	14.3	1194	52	26	21	0
2677	116	16.6	1384	53	26	22	6
2678	113	20.2	1710	60	30	24	7
2679	115	17.1	1421	58	27	22	7
2680	116	17.1	1421	59	27	22	7
2681	117	9.0	654	55	25	21	0
2682	115	8.9	654	50	25	21	0
2683	120	8.6	633	51	24	20	0
2684	98	8.3	605	50	24	20	0
2685	110	7.9	577	46	23	19	0
2686	98	7.9	577	46	23	19	0
2687	96	3.6	277	20	9	7	0
2688	100	3.6	277	20	9	7	0
2689	127	3.7	277	22	9	7	0
2690	142	6.4	513	30	14	11	0
2691	105	203.8	16958	580	342	150	49
2692	173	19.9	1259	325	36	10	2
2693	155	5.8	442	28	18	9	2
2694	98	5.2	396	21	16	8	2
2695	43	5.3	396	25	18	8	2
2696	134	3.9	266	24	19	7	1
2697	181	6.4	510	35	10	9	2
2698	204	6.3	510	31	10	9	2
2699	173	6.5	510	25	18	11	2
2700	172	7.4	595	23	21	11	1
2701	104	6.2	495	25	12	11	1
2702	133	9.0	739	28	18	12	2
2703	170	9.3	739	31	19	12	2
2704	116	6.0	414	38	18	8	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2705	122	7.3	535	35	19	10	2
2706	144	7.4	535	38	20	10	2
2707	131	7.2	535	31	16	10	2
2708	142	6.7	489	29	19	10	2
2709	134	6.2	442	28	18	9	2
2710	132	5.5	396	21	16	8	2
2711	105	5.6	396	25	18	8	2
2712	125	4.1	266	24	19	7	1
2713	120	6.8	510	35	10	9	2
2714	104	6.7	510	31	10	9	2
2715	119	6.9	510	25	18	11	2
2716	136	7.8	595	23	21	11	1
2717	144	6.6	495	25	12	11	1
2718	134	9.4	739	28	18	12	2
2719	122	9.5	739	31	19	12	2
2720	126	9.3	739	21	20	12	2
2721	105	8.0	626	21	16	12	2
2722	129	7.0	514	25	19	11	2
2723	120	6.7	491	24	18	11	2
2724	112	6.9	491	35	16	11	2
2725	131	6.1	422	31	18	10	2
2726	115	6.1	426	25	19	11	2
2727	123	6.0	426	23	15	11	2
2728	114	9.7	740	25	19	15	3
2729	106	9.8	740	28	20	15	3
2730	120	9.9	740	31	21	15	3
2731	103	4.6	322	21	11	6	2
2732	97	4.6	322	20	11	6	2
2733	130	3.6	250	18	8	5	2
2734	119	3.4	239	14	9	6	2
2735	110	3.5	239	15	10	6	2
2736	81	3.5	236	19	11	6	2
2737	84	3.5	236	18	11	6	2
2738	109	3.6	236	21	12	6	2
2739	112	5.9	459	25	10	6	2
2740	86	5.9	459	24	10	5	2
2741	119	19.0	1638	35	23	14	4
2742	88	30.7	2767	41	23	17	4
2743	98	30.5	2767	38	21	16	4
2744	108	30.5	2767	37	22	15	4
2745	97	22.3	1972	35	22	14	4
2746	92	27.8	2501	42	22	11	4
2747	100	27.7	2501	41	19	12	4
2748	81	18.9	1646	38	18	13	3
2749	76	11.8	975	29	19	9	3
2750	94	11.6	975	24	18	7	3
2751	116	8.2	660	22	14	8	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2752	105	8.1	660	17	12	8	2
2753	98	8.0	660	12	11	8	2
2754	66	7.0	579	11	10	7	2
2755	29	6.2	498	10	9	7	2
2756	95	9.5	796	15	13	8	2
2757	53	12.9	1093	20	16	10	3
2758	53	12.9	1093	20	16	10	3
2759	84	8.9	752	16	11	7	2
2760	91	8.9	752	16	11	7	2
2761	79	6.2	519	11	8	5	1
2762	21	3.5	286	7	5	3	1
2763	94	0.7	52	2	2	1	0
2764	91	0.7	52	2	2	1	0
2765	91	6.5	526	12	8	6	2
2766	90	6.5	526	12	8	6	2
2767	102	7.2	586	13	11	7	2
2768	91	7.9	647	13	13	9	2
2769	106	9.9	830	15	15	10	3
2770	128	9.9	830	15	15	10	3
2771	94	11.6	974	18	17	11	3
2772	77	16.7	1420	23	23	14	4
2773	47	17.7	1512	25	24	15	3
2774	59	17.8	1512	25	24	15	4
2775	101	17.6	1508	24	22	14	4
2776	119	23.0	1987	31	27	17	4
2777	105	23.0	1987	31	27	17	4
2778	107	26.1	2258	34	31	19	4
2779	93	26.1	2258	34	31	19	4
2780	88	24.7	2140	34	28	18	4
2781	82	24.5	2140	32	24	16	4
2782	79	24.5	2140	32	24	16	4
2783	79	19.4	1682	27	20	14	3
2784	89	14.4	1224	22	17	12	3
2785	98	8.8	710	18	12	9	2
2786	93	15.2	1287	24	14	11	3
2787	70	18.5	1561	31	23	15	4
2788	29	14.3	1150	35	23	16	4
2789	53	19.1	1592	85	35	15	3
2790	62	145.0	13311	298	25	8	2
2791	165	14.2	1287	24	14	11	3
2792	165	17.5	1561	31	23	15	4
2793	151	13.5	1150	35	23	16	4
2794	151	19.1	1592	85	35	15	3
2795	137	14.2	1287	24	14	11	3
2796	92	17.5	1561	31	23	15	4
2797	82	13.5	1150	35	23	16	4
2798	40	19.1	1592	85	35	15	3

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2799	21	11.0	852	65	35	4	1
2800	18	7.6	591	28	15	9	2
2801	11	7.5	591	23	15	9	2
2802	51	7.8	591	29	15	9	2
2803	73	7.9	591	31	15	9	2
2804	35	12.5	1015	28	20	14	4
2805	111	12.6	1015	35	20	14	4
2806	90	14.0	1148	30	22	15	4
2807	66	15.5	1282	29	24	16	3
2808	38	15.6	1282	29	24	16	5
2809	39	15.6	1282	29	24	16	6
2810	41	15.7	1282	31	24	16	7
2811	40	15.2	1282	28	24	9	4
2812	37	15.4	1282	35	24	9	4
2813	16	15.4	1270	30	23	14	5
2814	16	15.3	1258	29	23	14	5
2815	99	15.3	1258	29	23	15	5
2816	153	15.3	1258	30	23	16	5
2817	178	15.1	1246	29	23	16	4
2818	123	15.2	1246	31	23	16	4
2819	127	33.9	2882	69	44	28	6
2820	120	34.0	2882	72	44	28	6
2821	112	47.2	4121	66	48	37	6
2822	111	47.2	4121	72	49	31	7
2823	110	47.5	4121	69	50	41	7
2824	118	36.4	3113	54	43	33	6
2825	149	25.3	2105	39	36	25	6
2826	120	18.1	1490	30	27	19	5
2827	120	18.1	1490	30	27	19	5
2828	121	13.6	1101	23	21	15	4
2829	104	9.5	759	17	15	11	3
2830	109	9.5	759	17	15	11	3
2831	102	6.6	517	13	11	8	2
2832	99	6.7	518	13	11	8	3
2833	111	6.6	518	13	10	8	3
2834	77	6.9	518	13	10	8	3
2835	138	13.2	1114	19	14	11	3
2836	110	13.7	1114	19	14	11	3
2837	128	24.3	2097	33	24	17	5
2838	113	24.3	2097	33	24	17	5
2839	119	53.1	4667	66	49	38	9
2840	99	53.7	4667	89	59	38	9
2841	123	62.2	5424	92	65	49	11
2842	108	62.1	5424	81	68	49	11
2843	112	54.8	4701	92	70	44	10
2844	115	55.0	4701	95	75	44	10
2845	116	34.0	2829	94	44	29	7

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2846	142	33.9	2829	85	44	29	7
2847	164	35.2	2955	75	46	31	8
2848	172	36.6	3081	68	49	33	8
2849	101	39.2	3081	78	49	33	8
2850	97	86.9	7624	155	68	36	14
2851	149	128.8	10732	284	159	124	20
2852	130	129.0	10732	284	168	124	20
2853	112	129.1	10732	284	162	124	20
2854	103	131.6	10976	281	158	128	21
2855	96	131.3	10976	281	149	128	21
2856	119	105.7	8626	285	175	95	17
2857	118	105.6	8626	290	168	95	17
2858	107	80.2	6671	181	125	66	13
2859	94	79.8	6671	175	112	66	13
2860	96	53.1	4398	105	85	44	9
2861	84	42.6	3541	95	61	33	8
2862	89	42.4	3541	88	59	33	8
2863	89	31.5	2582	75	51	25	6
2864	86	31.4	2582	74	49	25	6
2865	103	20.2	1640	33	32	19	5
2866	96	20.3	1640	33	32	19	5
2867	107	18.7	1500	31	30	17	5
2868	101	18.9	1525	30	32	19	5
2869	120	18.9	1525	30	32	19	5
2870	108	23.3	1899	33	42	27	7
2871	110	23.3	1899	33	42	27	7
2872	129	23.4	1899	33	42	27	7
2873	133	27.0	2238	38	42	30	8
2874	87	33.1	2786	44	47	33	8
2875	120	33.1	2786	44	47	33	8
2876	110	33.4	2813	43	47	33	8
2877	106	33.4	2813	43	47	33	8
2878	114	29.6	2500	37	41	29	7
2879	96	29.6	2500	37	41	29	7
2880	94	22.9	1904	31	33	24	7
2881	99	21.9	1818	29	31	22	6
2882	94	23.2	1927	31	31	23	6
2883	86	24.6	2035	32	32	24	6
2884	93	34.3	2939	42	41	29	7
2885	104	32.9	2623	38	36	26	7
2886	77	4.1	294	10	11	10	0
2887	75	2.4	170	0	7	7	0
2888	79	2.4	170	0	7	7	0
2889	93	2.2	164	0	6	6	0
2890	108	3.1	167	0	6	6	0
2891	22	6.0	460	12	9	8	0
2892	79	6.0	460	12	9	8	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2893	81	5.7	432	12	8	8	0
2894	98	5.8	459	11	11	10	0
2895	102	5.8	459	11	11	10	0
2896	130	6.6	521	12	13	11	0
2897	101	6.4	511	11	13	11	0
2898	79	6.4	511	11	13	11	0
2899	95	6.8	534	11	13	11	4
2900	138	6.8	534	11	13	11	4
2901	98	7.1	581	11	12	10	0
2902	100	13.1	1173	14	13	11	0
2903	552	13.1	1173	14	13	11	0
2904	309	13.5	1202	14	14	11	0
2905	152	13.8	1230	15	14	12	0
2906	173	13.8	1230	15	14	12	0
2907	156	13.8	1230	15	14	12	0
2908	175	10.1	883	12	12	10	0
2909	213	10.1	883	12	12	10	0
2910	166	9.8	826	12	12	10	0
2911	182	9.8	826	12	12	10	0
2912	168	9.8	826	12	12	10	0
2913	165	9.8	826	12	12	10	0
2914	87	9.0	759	12	10	10	0
2915	141	8.4	704	11	9	8	0
2916	140	8.4	704	11	9	8	0
2917	141	8.4	704	11	9	8	0
2918	141	8.4	705	10	9	8	0
2919	151	8.4	705	10	9	8	0
2920	153	8.4	705	10	9	8	0
2921	131	9.1	780	11	9	8	0
2922	160	9.2	780	11	9	8	0
2923	135	9.2	780	11	9	8	0
2924	143	10.7	919	13	10	9	0
2925	143	11.4	984	13	11	10	0
2926	127	11.4	984	13	11	10	0
2927	119	11.4	984	13	11	10	0
2928	150	11.7	993	13	15	12	4
2929	130	11.6	993	13	15	12	4
2930	112	11.2	960	12	14	12	4
2931	112	11.2	960	12	14	12	4
2932	102	11.2	960	12	14	12	4
2933	106	9.9	836	12	13	11	4
2934	116	9.9	836	12	13	11	4
2935	156	8.9	766	11	12	10	0
2936	149	8.9	766	11	12	10	0
2937	132	8.9	766	11	12	10	0
2938	158	8.6	738	11	12	10	0
2939	170	6.9	582	9	10	9	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2940	180	6.9	582	9	10	9	0
2941	165	5.8	486	9	9	7	0
2942	159	5.8	486	9	9	7	0
2943	108	5.2	439	8	8	7	0
2944	146	5.2	439	8	8	7	0
2945	153	5.2	439	8	8	7	0
2946	162	5.3	453	8	8	6	0
2947	140	5.3	453	8	8	6	0
2948	154	5.3	453	8	8	6	0
2949	160	5.7	486	8	8	7	0
2950	145	6.1	518	9	8	7	0
2951	134	6.1	518	9	8	7	0
2952	148	6.4	552	9	8	7	0
2953	148	6.4	552	9	8	7	0
2954	150	6.4	552	9	8	7	0
2955	159	6.7	587	10	8	6	0
2956	152	6.7	587	10	8	6	0
2957	167	6.7	587	10	8	6	0
2958	152	6.7	581	10	8	6	0
2959	145	6.7	581	10	8	6	0
2960	167	6.7	581	10	8	6	0
2961	163	6.7	581	10	8	6	0
2962	188	6.8	588	15	7	6	0
2963	161	6.8	594	16	6	5	0
2964	159	6.8	594	18	6	5	0
2965	195	6.9	594	20	6	5	0
2966	163	7.1	608	21	7	5	0
2967	190	7.6	623	38	7	6	0
2968	136	6.2	510	25	7	6	0
2969	130	6.0	510	15	8	6	0
2970	149	6.1	510	16	9	6	0
2971	126	9.6	851	18	10	8	0
2972	139	9.7	851	20	10	8	0
2973	130	10.5	929	21	11	8	0
2974	140	10.8	929	38	11	8	0
2975	148	2.5	182	15	8	5	0
2976	104	3.8	320	16	7	4	0
2977	110	5.5	458	20	8	3	0
2978	13	8.8	689	35	10	8	0
2979	58	11.5	859	42	19	10	0
2980	104	79.5	7340	75	54	31	8
2981	190	72.3	6672	62	50	28	7
2982	170	65.1	6005	56	45	25	6
2983	174	58.0	5338	50	40	22	6
2984	160	50.9	4671	43	35	20	5
2985	156	43.7	4003	37	30	17	4
2986	139	36.6	3336	31	25	14	4

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
2987	54	29.7	2669	35	20	11	3
2988	141	23.5	2002	42	32	15	2
2989	176	33.8	2895	85	45	21	5
2990	183	43.9	3582	125	98	45	12
2991	161	66.2	4966	350	189	85	25
2992	138	108.1	8230	510	334	142	36
2993	121	113.5	8570	550	363	154	38
2994	140	75.8	5795	400	206	99	14
2995	159	75.8	5795	400	206	99	14
2996	152	68.5	5275	350	182	89	12
2997	167	68.5	5275	350	182	89	12
2998	152	79.7	6125	400	222	105	14
2999	145	127.7	10508	450	320	122	16
3000	167	34.9	2470	210	99	60	18
3001	163	35.0	2470	215	99	60	18
3002	188	35.0	2470	220	99	60	18
3003	161	43.5	3164	250	128	74	12
3004	159	43.6	3164	255	128	74	12
3005	195	52.7	3851	290	159	89	17
3006	163	52.8	3851	295	159	89	17
3007	190	47.1	3437	250	144	83	16
3008	136	47.3	3437	260	144	83	16
3009	130	42.2	3044	240	127	76	15
3010	149	42.4	3044	250	127	76	15
3011	126	40.2	2918	220	118	72	16
3012	139	40.2	2918	219	118	72	16
3013	130	42.6	3156	220	119	72	16
3014	140	42.6	3156	225	119	71	15
3015	148	42.7	3156	230	119	71	15
3016	104	107.7	8230	510	334	142	36
3017	110	113.1	8570	550	363	154	38
3018	13	75.4	5795	400	206	99	14
3019	58	75.4	5795	400	206	99	14
3020	104	68.2	5275	350	182	89	12
3021	190	68.2	5275	350	182	89	12
3022	170	79.3	6125	400	222	105	14
3023	174	127.3	10508	450	320	122	16
3024	160	34.5	2470	210	99	60	18
3025	156	34.6	2470	215	99	60	18
3026	139	34.7	2470	220	99	60	18
3027	54	43.2	3164	250	128	74	12
3028	141	43.2	3164	255	128	74	12
3029	176	52.3	3851	290	159	89	17
3030	183	52.4	3851	295	159	89	17
3031	161	46.8	3437	250	144	83	16
3032	138	46.9	3437	260	144	83	16
3033	121	41.9	3044	240	127	76	15

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3034	140	41.1	2950	250	127	76	15
3035	113	35.8	2510	220	118	72	16
3036	149	19.5	1106	182	95	52	11
3037	118	18.3	1106	172	75	42	8
3038	93	16.3	1026	154	62	31	6
3039	100	14.9	1026	105	50	25	5
3040	114	13.4	931	95	48	19	4
3041	126	12.4	931	75	32	14	3
3042	129	11.6	931	45	28	12	2
3043	124	9.2	769	25	18	11	0
3044	116	8.4	728	25	12	5	0
3045	122	8.4	728	19	14	5	0
3046	122	7.5	658	16	13	4	0
3047	121	7.4	658	14	10	4	0
3048	128	7.0	625	12	9	4	0
CHACRA Fm.							
3049	49	6.9	625	13	7	3	0
3050	110	7.0	633	10	7	5	0
3051	126	7.0	633	11	7	5	0
3052	129	6.8	611	12	7	4	0
3053	120	8.0	723	14	7	4	0
3054	117	8.0	723	16	7	4	0
3055	129	8.0	724	13	7	4	0
3056	132	7.9	724	12	7	4	0
3057	154	8.0	724	13	7	4	0
3058	136	7.3	655	14	6	4	0
3059	132	7.3	655	15	6	4	0
3060	161	7.2	655	12	6	4	0
3061	157	6.3	574	7	5	4	0
3062	155	6.3	576	7	5	4	0
3063	141	6.3	578	7	5	4	0
3064	134	6.3	582	7	5	4	0
3065	146	6.4	586	7	5	4	0
3066	129	6.4	586	7	5	3	0
3067	137	7.1	654	8	6	4	0
3068	111	7.1	654	8	5	3	0
3069	133	7.1	654	8	5	3	0
3070	113	6.6	609	8	5	3	0
3071	99	6.6	609	8	5	3	0
3072	61	3.2	293	4	3	0	0
3073	131	2.3	218	4	0	0	0
3074	412	50.5	4820	37	26	12	3
3075	413	3.1	280	5	3	2	0
3076	55	2.0	168	3	3	2	0
3077	70	2.6	220	4	4	3	0
3078	56	2.6	220	4	4	3	0
3079	38	2.4	208	4	4	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3080	56	2.2	192	4	4	3	0
3081	65	2.0	170	4	3	3	0
3082	106	4.6	409	7	6	4	0
3083	64	5.7	507	8	7	4	0
3084	95	5.7	507	8	7	4	0
3085	126	5.7	507	8	7	4	0
3086	139	4.5	400	7	6	4	0
3087	121	4.5	400	7	6	4	0
3088	124	2.3	199	4	3	2	0
3089	117	6.7	606	9	7	4	0
3090	83	3.6	316	5	4	3	0
3091	99	3.6	316	5	4	3	0
3092	152	2.9	257	5	3	2	0
3093	133	2.9	257	5	3	2	0
3094	138	2.9	254	5	3	2	0
3095	131	2.9	254	5	3	2	0
3096	98	2.5	222	5	3	2	0
3097	141	2.5	222	5	3	2	0
3098	154	2.5	222	5	3	2	0
3099	133	1.9	170	4	2	0	0
3100	145	1.9	170	4	2	0	0
3101	193	1.9	170	4	2	0	0
3102	150	1.5	140	3	2	0	0
3103	143	1.2	114	3	2	0	0
3104	132	1.2	114	3	2	0	0
3105	152	1.2	114	3	2	0	0
3106	116	1.1	106	0	2	0	0
3107	131	1.4	130	3	2	0	0
3108	119	1.4	130	3	2	0	0
3109	102	1.8	160	3	2	0	0
3110	129	1.8	160	3	2	0	0
3111	122	1.9	163	3	2	2	0
3112	87	1.9	163	3	2	2	0
3113	93	2.1	183	3	2	2	0
3114	95	2.3	200	4	3	2	0
3115	114	2.3	200	4	3	2	0
3116	130	2.3	211	4	3	2	0
3117	99	2.3	211	4	3	0	0
3118	68	2.1	193	4	2	0	0
3119	109	2.1	193	4	2	0	0
3120	93	1.9	176	4	2	0	0
3121	106	1.8	167	3	2	0	0
3122	110	1.8	167	3	2	0	0
3123	122	1.7	163	3	0	0	0
3124	126	1.7	163	3	0	0	0
3125	123	1.7	163	3	0	0	0
3126	114	1.6	157	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3127	118	1.7	157	4	0	0	0
3128	127	1.7	157	4	0	0	0
3129	104	2.0	170	4	3	2	0
3130	133	2.0	170	4	3	2	0
3131	119	2.5	205	5	4	3	0
3132	118	2.5	205	5	4	3	0
3133	114	2.5	203	5	5	3	0
3134	119	2.5	203	5	5	3	0
3135	122	2.5	203	5	5	3	0
3136	139	2.3	189	5	4	3	0
3137	139	2.3	189	5	4	3	0
3138	129	2.5	212	6	5	3	0
3139	102	2.5	212	6	5	3	0
3140	107	2.6	214	5	4	3	0
3141	132	2.6	214	5	4	3	0
3142	106	2.3	193	4	4	3	0
3143	112	2.3	193	4	4	3	0
3144	111	2.1	178	4	4	3	0
3145	105	2.1	178	4	4	3	0
3146	84	1.9	159	4	3	2	0
3147	97	1.8	150	4	3	2	0
3148	109	1.8	150	4	3	2	0
3149	99	1.8	150	4	3	2	0
3150	116	1.7	142	3	3	2	0
3151	119	1.7	152	4	3	0	0
3152	116	1.7	152	4	3	0	0
3153	104	2.1	183	4	3	2	0
3154	135	2.1	183	4	3	2	0
3155	147	2.1	183	4	3	2	0
3156	129	1.9	172	4	2	0	0
3157	131	1.9	172	4	2	0	0
3158	128	1.9	171	4	2	0	0
3159	130	1.9	171	4	2	0	0
3160	135	1.9	171	4	2	0	0
3161	126	1.9	170	4	2	0	0
3162	126	1.9	170	4	2	0	0
3163	140	1.9	171	4	2	0	0
3164	125	2.0	180	4	2	0	0
3165	119	2.1	188	4	2	0	0
3166	105	2.1	188	4	2	0	0
3167	45	11.8	1094	14	11	5	0
3168	3	2.8	238	6	4	2	0
3169	28	2.8	238	6	3	2	0
3170	23	1.6	130	3	3	2	0
3171	28	0.6	65	0	0	0	0
3172	41	0.1	11	0	0	0	0
3173	49	0.7	74	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3174	47	1.2	104	3	2	2	0
3175	66	1.4	126	3	2	2	0
3176	75	1.4	126	3	2	0	0
3177	81	1.5	135	3	2	0	0
3178	36	1.5	138	3	2	0	0
3179	92	1.5	138	3	2	0	0
3180	83	1.7	167	4	2	0	0
3181	9	1.7	167	4	0	0	0
3182	206	2.0	190	4	2	0	0
3183	177	2.4	224	4	2	0	0
3184	155	2.8	257	5	3	0	0
3185	164	2.8	257	5	3	0	0
3186	155	2.8	257	5	3	0	0
3187	129	2.8	257	5	3	0	0
3188	150	3.3	301	5	3	2	0
3189	164	3.3	301	5	3	2	0
3190	201	3.3	301	5	3	2	0
3191	198	3.1	275	5	4	2	0
3192	134	3.1	275	5	4	2	0
3193	125	3.1	275	5	4	2	0
3194	143	2.7	245	5	4	2	0
3195	103	2.7	245	5	4	2	0
3196	128	1.4	137	3	0	0	0
3197	53	1.4	137	3	2	0	0
3198	123	1.2	109	3	2	0	0
3199	135	1.5	139	3	2	0	0
3200	140	2.3	205	4	3	2	0
3201	82	4.3	386	7	5	3	0
3202	88	6.3	566	9	7	4	0
3203	93	6.3	566	9	7	4	0
3204	103	6.3	566	9	7	4	0
3205	123	4.2	380	6	5	3	0
3206	89	3.9	356	6	4	2	0
3207	99	3.9	356	6	4	2	0
3208	137	3.9	356	6	4	2	0
3209	125	4.0	361	6	4	2	0
3210	135	4.0	361	6	4	2	0
3211	92	3.9	353	6	4	2	0
3212	157	3.9	353	6	4	2	0
3213	133	3.8	344	6	4	2	0
3214	134	4.0	361	6	4	2	0
3215	129	4.2	377	6	4	2	0
3216	136	5.5	503	8	5	3	0
3217	140	6.6	614	9	6	3	0
3218	121	7.8	725	10	6	3	0
3219	141	13.0	1223	14	8	4	0
3220	144	13.0	1223	14	8	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3221	123	13.0	1223	14	8	4	0
3222	126	12.1	1129	15	8	4	0
3223	116	12.1	1129	15	8	4	0
3224	125	9.9	924	12	7	3	0
3225	125	7.7	719	10	5	2	0
3226	119	5.5	514	8	3	2	0
3227	179	3.3	309	5	2	1	0
3228	4	1.1	104	3	0	0	0
3229	134	10.7	986	14	7	4	0
3230	139	10.7	986	14	7	4	0
3231	118	10.7	986	14	7	4	0
3232	113	7.8	713	12	7	4	0
3233	90	7.8	713	12	7	4	0
3234	132	6.8	617	10	7	3	0
3235	134	5.8	521	9	7	3	0
3236	129	5.8	521	9	6	3	0
3237	133	5.8	521	9	6	3	0
3238	119	17.9	1689	18	12	5	0
3239	119	17.9	1689	18	12	5	0
3240	130	17.9	1689	18	12	5	0
3241	120	11.7	1097	14	9	4	0
3242	129	12.9	1212	14	9	4	0
3243	127	14.1	1326	15	10	4	0
3244	124	16.0	1505	17	10	5	0
3245	116	16.0	1505	17	10	5	0
3246	122	16.0	1505	17	10	5	0
3247	131	11.5	1075	13	8	4	0
3248	132	7.0	645	10	6	3	0
3249	137	0.8	79	0	0	0	0
3250	122	0.9	90	0	0	0	0
3251	119	0.0	0	0	0	0	0
3252	114	0.0	0	0	0	0	0
3253	112	0.0	0	0	0	0	0
3254	101	0.1	6	0	0	0	0
3255	93	1.2	107	2	2	0	0
3256	97	1.2	107	2	2	0	0
3257	109	4.0	359	7	5	2	0
3258	100	4.0	359	7	5	2	0
3259	103	4.0	359	7	5	2	0
3260	117	1.3	118	3	2	0	0
3261	136	23.7	2206	24	18	10	3
3262	52	3.7	329	6	4	2	0
3263	103	3.7	329	6	4	2	0
3264	122	3.9	354	6	4	2	0
3265	181	4.2	378	7	4	2	0
3266	172	4.3	391	7	4	2	0
3267	207	4.4	403	7	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3268	211	4.4	403	7	4	2	0
3269	202	4.4	407	7	4	2	0
3270	168	4.5	411	7	4	2	0
3271	145	4.5	411	7	4	2	0
3272	119	5.1	474	7	4	2	0
3273	107	5.1	474	7	4	2	0
3274	154	6.3	588	8	4	2	0
3275	142	6.3	588	8	4	2	0
3276	149	6.3	588	9	4	2	0
3277	191	6.3	589	9	4	2	0
3278	183	6.3	589	9	4	2	0
3279	130	8.2	760	10	7	3	0
3280	108	8.2	760	10	7	3	0
3281	139	9.0	839	10	8	4	0
3282	101	9.0	839	10	8	4	0
3283	130	9.0	834	10	8	4	0
3284	143	9.0	834	10	8	4	0
3285	186	7.8	719	10	7	3	0
3286	171	7.8	719	10	7	3	0
3287	193	7.8	719	10	7	3	0
3288	156	5.8	529	8	6	3	0
3289	136	5.8	529	8	6	3	0
3290	124	5.8	529	8	6	3	0
3291	119	5.8	529	8	6	3	0
3292	55	5.8	529	8	6	3	0
3293	159	5.8	529	8	6	3	0
3294	144	5.8	529	8	6	3	0
3295	173	5.7	517	8	6	3	0
3296	170	5.6	504	8	6	3	0
3297	84	7.6	692	11	8	4	0
3298	125	8.6	785	12	9	4	0
3299	131	9.6	877	13	9	5	0
3300	161	9.6	877	13	9	5	0
3301	156	9.6	877	13	9	5	0
3302	187	9.1	832	12	9	4	0
3303	227	8.6	786	12	8	4	0
3304	197	8.6	786	12	8	4	0
3305	173	9.7	899	12	8	4	0
3306	156	10.9	1013	12	8	4	0
3307	180	12.0	1127	13	9	4	0
3308	142	13.2	1241	13	9	4	0
3309	174	13.2	1241	13	9	4	0
3310	185	13.2	1241	13	9	4	0
3311	170	14.2	1343	13	9	4	0
3312	202	15.3	1445	14	9	4	0
3313	180	15.5	1464	14	9	4	0
3314	197	15.7	1483	15	9	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3315	173	15.7	1483	15	9	4	0
3316	133	15.7	1483	15	9	4	0
3317	140	15.7	1483	15	9	4	0
3318	125	14.6	1382	14	8	4	0
3319	149	14.6	1382	14	8	4	0
3320	165	14.6	1382	14	8	4	0
3321	165	14.9	1405	14	8	4	0
3322	167	15.2	1428	15	8	4	0
3323	154	15.2	1428	15	8	4	0
3324	157	15.2	1428	15	8	4	0
3325	137	15.2	1428	15	8	4	0
3326	144	14.3	1342	15	8	4	0
3327	120	13.3	1256	14	8	4	0
3328	120	12.4	1171	13	8	4	0
3329	89	12.4	1171	13	9	4	0
3330	106	11.8	1104	12	9	4	0
3331	138	11.1	1038	12	9	4	0
3332	103	10.7	1001	11	9	4	0
3333	140	10.3	965	11	8	4	0
3334	103	8.2	757	10	7	3	0
3335	142	8.2	757	10	7	3	0
3336	139	7.2	667	9	6	3	0
3337	119	6.3	577	8	6	3	0
3338	123	5.3	480	7	5	3	0
3339	116	5.3	490	7	5	3	0
3340	127	5.3	490	7	5	3	0
3341	124	6.5	602	8	6	3	0
3342	130	7.7	714	9	6	3	0
3343	126	10.8	1019	11	8	3	0
3344	136	10.8	1019	11	8	3	0
3345	117	10.8	1019	11	8	3	0
3346	109	11.4	1073	12	8	4	0
3347	83	11.4	1073	12	7	4	0
3348	82	9.2	860	10	6	3	0
3349	103	8.9	832	10	6	3	0
3350	108	8.9	832	10	6	3	0
3351	123	7.4	686	10	6	3	0
3352	93	9.4	879	11	6	3	0
3353	84	9.3	879	11	6	3	0
3354	98	9.3	879	11	6	3	0
3355	86	10.4	980	14	8	4	0
3356	39	3.4	312	5	4	2	0
3357	186	3.5	315	6	4	3	0
3358	159	3.5	315	6	4	3	0
3359	182	3.1	282	5	4	2	0
3360	157	3.3	303	6	4	2	0
3361	163	3.2	294	5	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3362	194	3.0	274	5	3	2	0
3363	163	3.0	274	5	3	2	0
3364	89	3.1	287	5	3	2	0
3365	35	3.5	315	6	4	3	0
3366	63	3.5	315	6	4	3	0
3367	33	3.1	282	5	4	2	0
3368	40	3.3	303	6	4	2	0
3369	82	3.2	294	5	4	2	0
3370	69	3.0	274	5	3	2	0
3371	89	2.2	194	4	3	2	0
3372	100	2.2	194	4	3	2	0
3373	68	3.4	312	5	4	2	0
3374	57	3.5	315	6	4	3	0
3375	56	3.5	315	6	4	3	0
3376	74	3.1	282	5	4	2	0
3377	84	3.3	303	6	4	2	0
3378	69	3.2	294	5	4	2	0
3379	73	3.0	274	5	3	2	0
3380	78	3.0	274	5	3	2	0
3381	77	3.1	287	5	3	2	0
3382	53	6.4	608	9	5	2	0
3383	175	6.4	608	9	5	2	0
3384	140	5.5	515	8	4	2	0
3385	192	5.5	515	8	4	2	0
3386	183	5.5	515	8	5	2	0
3387	142	5.2	485	8	5	2	0
3388	155	4.9	454	7	5	2	0
3389	127	4.7	431	7	5	3	0
3390	84	4.7	431	7	5	3	0
3391	69	3.9	357	6	5	3	0
3392	56	4.0	362	6	5	3	0
3393	65	4.0	362	6	5	3	0
3394	128	4.0	368	6	5	3	0
3395	113	4.0	368	6	5	3	0
3396	138	4.0	368	6	5	3	0
3397	133	4.0	363	6	5	3	0
3398	144	4.1	376	7	5	3	0
3399	166	4.2	388	7	5	3	0
3400	135	4.2	388	7	5	3	0
3401	111	4.4	404	7	5	3	0
3402	116	4.4	404	7	5	3	0
3403	107	4.4	406	7	5	3	0
3404	136	4.4	406	7	5	3	0
3405	130	4.4	406	7	5	3	0
3406	131	4.3	395	7	5	3	0
3407	140	4.1	384	7	4	2	0
3408	121	4.2	387	7	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3409	113	4.2	391	7	4	2	0
3410	109	4.2	391	7	4	2	0
3411	76	4.0	367	6	4	2	0
3412	111	4.0	367	6	4	2	0
3413	125	4.0	371	6	4	2	0
3414	133	4.1	382	6	4	2	0
3415	133	4.2	394	7	4	2	0
3416	140	4.4	408	7	4	2	0
3417	141	4.5	422	7	4	2	0
3418	113	4.5	421	7	4	2	0
3419	123	4.5	419	7	4	2	0
3420	134	4.0	376	6	4	2	0
3421	116	3.5	318	6	4	2	0
3422	130	3.5	317	6	4	2	0
3423	120	3.5	317	6	4	2	0
3424	105	3.4	310	5	4	2	0
3425	98	1.6	148	3	2	0	0
3426	105	1.7	159	3	2	1	0
3427	96	1.9	170	3	2	2	0
3428	124	4.4	414	6	4	2	0
3429	122	4.4	414	6	4	2	0
3430	126	4.4	414	6	4	2	0
3431	125	5.2	491	7	5	2	0
3432	117	5.2	491	7	5	2	0
3433	111	5.2	487	7	4	2	0
3434	106	5.2	487	7	4	2	0
3435	159	5.2	487	7	4	2	0
3436	167	5.2	487	7	4	2	0
3437	158	4.9	459	7	4	2	0
3438	194	4.9	463	7	4	2	0
3439	179	5.0	467	7	4	2	0
3440	184	5.3	496	8	4	2	0
3441	145	5.6	525	8	4	2	0
3442	140	5.6	525	8	4	2	0
3443	135	5.6	525	8	4	2	0
3444	142	5.8	546	8	4	2	0
3445	147	6.0	566	9	4	3	0
3446	151	6.0	566	9	4	3	0
3447	161	6.2	579	9	5	3	0
3448	121	6.3	594	9	5	3	0
3449	138	6.5	608	10	5	3	0
3450	119	2.1	180	9	4	2	0
3451	140	2.1	175	9	4	2	0
3452	88	2.0	170	8	3	2	0
3453	78	2.0	175	8	3	2	0
3454	91	2.1	178	7	4	3	0
3455	71	2.2	197	4	3	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3456	67	2.2	197	4	3	2	0
3457	75	2.4	218	4	3	2	0
3458	88	2.5	230	4	3	0	0
3459	60	2.4	229	4	2	0	0
3460	51	2.1	202	4	2	0	0
3461	53	2.4	218	4	3	2	0
3462	56	2.5	224	4	3	2	0
3463	28	2.5	230	4	3	2	0
3464	73	2.5	230	4	3	2	0
3465	62	2.8	254	4	3	2	0
3466	90	2.8	260	4	3	2	0
3467	66	2.8	260	4	3	2	0
3468	60	2.8	253	4	3	2	0
3469	62	2.8	253	4	3	2	0
3470	62	2.8	253	4	3	2	0
3471	102	2.7	250	4	3	2	0
3472	99	2.7	250	4	3	2	0
3473	86	3.9	365	6	4	2	0
3474	74	3.9	365	6	4	2	0
3475	98	6.1	567	9	6	3	0
3476	79	9.5	879	13	10	5	0
3477	68	9.5	879	13	10	5	0
3478	80	13.4	1255	17	12	7	0
3479	43	15.8	1503	18	10	6	0
3480	156	15.7	1481	17	12	7	1
3481	163	15.6	1458	17	14	8	2
3482	165	15.6	1458	17	14	8	2
3483	147	26.6	2514	26	20	10	2
3484	139	26.6	2514	26	20	10	2
3485	152	26.6	2514	26	20	10	2
3486	173	29.1	2750	28	22	11	3
3487	133	29.1	2750	28	22	11	3
3488	138	31.7	3003	28	22	11	3
3489	118	33.2	3170	26	20	10	2
3490	50	30.0	2864	25	18	9	2
3491	89	30.0	2864	25	18	9	2
3492	86	25.3	2423	22	15	8	0
3493	76	25.3	2423	22	15	8	0
3494	115	20.7	1979	19	12	7	0
3495	121	10.3	973	12	8	4	0
3496	99	8.7	812	11	7	4	0
3497	115	7.0	652	10	6	3	0
3498	36	9.4	867	13	11	6	0
3499	133	7.3	664	12	9	5	0
3500	103	6.5	591	11	8	4	0
3501	137	5.7	518	10	8	4	0
3502	159	5.7	518	10	8	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3503	147	5.7	518	10	8	4	0
3504	163	4.7	426	8	6	3	0
3505	175	4.7	426	8	6	3	0
3506	158	4.7	431	8	6	3	0
3507	75	4.7	431	8	6	3	0
3508	98	4.8	438	8	5	3	0
3509	107	4.8	438	8	5	3	0
3510	118	5.3	491	8	6	3	0
3511	102	5.3	491	8	6	3	0
3512	117	5.3	491	8	6	3	0
3513	154	5.9	556	8	5	3	0
3514	116	6.0	565	8	5	3	0
3515	83	6.0	565	8	5	3	0
3516	153	6.6	620	9	6	3	0
3517	155	6.6	620	9	6	3	0
3518	132	7.8	732	11	6	4	0
3519	120	7.8	732	11	6	4	0
3520	110	8.7	816	12	7	4	0
3521	112	8.7	816	12	7	4	0
3522	102	8.9	832	12	7	4	0
3523	107	8.9	832	12	7	4	0
3524	119	9.0	847	12	7	4	0
3525	79	9.0	847	12	7	4	0
3526	116	8.8	822	13	7	4	0
3527	76	9.8	900	13	9	5	3
3528	127	9.8	900	13	9	5	3
3529	144	10.0	928	13	10	6	0
3530	138	10.0	928	13	10	6	0
3531	117	9.6	890	12	10	5	0
3532	151	9.6	890	12	10	5	0
3533	187	9.6	890	12	10	5	0
3534	153	9.8	910	13	10	5	0
3535	192	9.8	910	13	10	5	0
3536	184	9.5	886	12	9	5	0
3537	144	9.5	886	12	9	5	0
3538	169	9.5	886	12	9	5	0
3539	150	8.3	772	11	8	4	0
3540	119	8.3	772	11	8	4	0
3541	127	8.1	757	10	8	4	0
3542	166	8.1	757	10	8	4	0
3543	104	10.4	976	12	9	4	0
3544	114	10.4	976	12	9	4	0
3545	158	9.0	840	12	8	4	0
3546	143	9.0	840	12	8	4	0
3547	103	7.8	728	11	7	4	0
3548	50	7.5	702	10	6	4	0
3549	35	3.8	340	6	5	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3550	63	2.7	247	5	4	2	0
3551	63	2.6	232	6	3	2	0
3552	204	2.6	232	6	3	2	0
3553	151	2.6	232	6	3	2	0
3554	148	3.0	270	6	4	2	0
3555	144	3.0	270	6	4	2	0
3556	155	2.8	251	6	3	2	0
3557	83	2.8	251	6	3	2	0
3558	117	3.4	314	7	4	2	0
3559	143	3.4	314	7	4	2	0
3560	118	5.0	461	10	5	3	0
3561	89	5.0	461	10	5	3	0
3562	99	4.8	443	9	5	3	0
3563	119	6.4	589	10	8	4	0
3564	128	6.4	589	10	8	4	0
3565	118	8.0	735	12	9	5	0
3566	139	8.0	735	12	9	5	0
3567	89	5.4	490	9	7	4	0
3568	111	5.4	490	9	7	4	0
3569	134	5.5	502	10	7	3	0
3570	136	5.5	502	10	7	3	0
3571	132	4.6	418	8	5	3	0
3572	183	4.6	418	8	5	3	0
3573	135	4.6	418	8	5	3	0
3574	152	4.1	370	8	5	3	0
3575	161	4.1	370	8	5	3	0
3576	124	5.1	471	8	6	3	0
3577	131	4.2	388	7	5	2	0
3578	106	3.3	304	6	4	2	0
3579	130	3.3	304	6	4	2	0
3580	161	3.9	354	8	5	2	0
3581	158	3.9	354	8	5	2	0
3582	154	3.9	354	8	5	2	0
3583	192	3.9	354	8	5	2	0
3584	193	6.0	552	9	6	3	0
3585	176	6.0	552	9	6	3	0
3586	142	5.3	492	9	5	2	0
3587	188	4.6	419	7	5	3	0
3588	241	4.9	451	7	5	3	0
3589	179	4.9	451	7	5	3	0
3590	209	5.0	467	7	5	2	0
3591	166	5.2	483	7	5	2	0
3592	182	5.2	483	7	5	2	0
3593	138	4.1	371	8	5	2	0
3594	151	4.1	371	8	5	2	0
3595	185	4.1	371	8	5	2	0
3596	238	3.7	341	7	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3597	220	3.7	341	7	4	2	0
3598	200	3.7	341	7	4	2	0
3599	188	3.7	341	7	4	2	0
3600	172	3.7	341	7	4	2	0
3601	154	4.2	388	7	4	2	0
3602	201	4.2	388	7	4	2	0
3603	178	4.6	419	7	5	3	0
3604	235	4.9	451	7	5	3	0
3605	192	4.9	451	7	5	3	0
3606	227	5.0	467	7	5	2	0
3607	238	5.2	483	7	5	2	0
3608	195	5.2	483	7	5	2	0
3609	203	5.2	483	7	5	2	0
3610	128	5.0	466	8	4	2	0
3611	180	4.6	425	8	4	2	0
3612	102	4.6	425	8	4	2	0
3613	233	4.6	425	8	4	2	0
3614	210	5.1	468	8	5	3	0
3615	206	5.1	468	8	5	3	0
3616	206	5.1	468	8	5	3	0
3617	231	4.9	452	8	5	2	0
3618	192	4.7	435	8	5	2	0
3619	224	4.7	435	8	5	2	0
3620	199	4.7	435	8	5	2	0
3621	103	5.3	485	9	6	3	0
3622	173	5.3	485	9	6	3	0
3623	202	18.8	1781	22	14	6	0
3624	95	18.8	1781	22	14	6	0
3625	109	18.8	1781	22	14	6	0
3626	155	11.1	1033	16	10	5	0
3627	164	11.1	1033	16	10	5	0
3628	92	4.0	360	8	5	3	0
3629	155	4.0	360	8	5	3	0
3630	196	4.0	360	8	5	3	0
3631	175	10.5	982	16	9	4	0
3632	181	4.6	425	8	4	2	0
3633	118	4.6	425	8	4	2	0
3634	189	5.1	468	8	5	3	0
3635	202	5.1	468	8	5	3	0
3636	173	5.1	468	8	5	3	0
3637	189	4.9	452	8	5	2	0
3638	175	4.7	435	8	5	2	0
3639	201	4.7	435	8	5	2	0
3640	137	4.7	435	8	5	2	0
3641	217	5.3	485	9	6	3	0
3642	156	14.2	1316	20	11	5	0
3643	126	3.2	287	6	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3644	120	3.1	271	7	4	2	0
3645	142	3.4	298	7	4	2	0
3646	192	3.7	326	8	5	3	0
3647	145	3.7	326	8	5	3	0
3648	197	3.4	301	7	4	2	0
3649	232	3.1	277	7	4	2	0
3650	226	3.1	277	7	4	2	0
3651	240	2.6	232	6	3	2	0
3652	270	2.1	187	5	3	2	0
3653	210	2.1	187	5	3	2	0
3654	254	2.2	192	5	3	2	0
3655	227	2.2	198	5	3	2	0
3656	269	2.2	198	5	3	2	0
3657	159	2.2	198	5	3	2	0
3658	152	2.6	231	6	4	2	0
3659	167	2.6	231	6	4	2	0
3660	200	2.6	231	6	4	2	0
3661	201	2.7	231	6	5	3	0
3662	183	2.7	231	6	5	3	0
3663	190	2.8	239	6	5	3	0
3664	220	2.9	247	6	5	3	0
3665	222	2.9	247	6	5	2	0
3666	200	2.9	247	6	5	2	0
3667	220	2.9	253	6	5	2	0
3668	217	2.9	259	6	5	2	0
3669	209	2.9	259	6	4	2	0
3670	144	3.1	276	6	4	2	0
3671	235	3.3	294	6	4	2	0
3672	231	3.3	294	6	4	2	0
3673	210	3.3	294	6	4	2	0
3674	264	3.3	294	6	4	2	0
3675	255	4.0	364	7	5	2	0
3676	215	4.8	434	8	5	3	0
3677	256	4.8	434	8	5	3	0
3678	249	5.8	528	9	6	3	0
3679	238	6.8	622	10	6	3	0
3680	267	6.8	622	10	6	3	0
3681	263	6.8	622	10	6	3	0
3682	166	6.8	622	10	6	3	0
3683	190	5.9	540	9	6	3	0
3684	254	5.0	458	8	5	3	0
3685	255	5.0	458	8	5	3	0
3686	272	5.0	458	8	5	3	0
3687	258	5.1	459	9	6	3	0
3688	246	5.2	460	10	6	3	0
3689	202	3.5	309	8	5	3	0
3690	100	3.0	262	7	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3691	171	2.5	214	6	3	2	0
3692	142	3.0	259	7	3	2	0
3693	185	3.0	259	7	3	2	0
3694	193	3.0	259	7	3	2	0
3695	146	5.5	489	10	7	3	0
3696	195	5.5	489	10	7	3	0
3697	174	5.5	489	10	7	3	0
3698	183	5.5	489	10	7	3	0
3699	195	4.7	412	9	6	3	0
3700	241	3.8	335	8	5	3	0
3701	215	5.8	525	10	7	4	0
3702	239	7.9	715	12	8	4	0
3703	187	7.9	715	12	8	4	0
3704	208	7.9	715	12	8	4	0
3705	216	6.4	582	10	7	4	0
3706	198	4.9	450	8	6	3	0
3707	205	4.9	450	8	6	3	0
3708	183	4.9	450	8	6	3	0
3709	185	1.5	142	4	2	0	0
3710	155	1.5	142	4	2	0	0
3711	170	2.7	242	6	3	2	0
3712	159	2.7	242	6	3	2	0
3713	162	2.7	242	6	3	2	0
3714	174	9.5	883	14	9	4	0
3715	175	9.5	883	14	9	4	0
3716	193	9.5	883	14	9	4	0
3717	218	8.6	809	13	8	3	0
3718	178	8.6	809	13	8	3	0
3719	179	8.6	809	13	8	3	0
3720	188	14.1	1330	20	11	5	0
3721	194	14.1	1330	20	11	5	0
3722	210	14.1	1330	20	11	5	0
3723	201	14.1	1330	20	11	5	0
3724	196	14.1	1330	20	11	5	0
3725	210	2.4	215	4	3	2	0
3726	226	3.5	309	8	4	3	0
3727	150	2.9	262	7	4	2	0
3728	183	2.4	214	6	3	2	0
3729	194	2.9	259	6	3	2	0
3730	108	2.9	259	6	3	2	0
3731	150	2.9	259	6	3	2	0
3732	138	2.9	259	6	3	2	0
3733	197	5.4	489	10	7	3	0
3734	130	5.4	489	10	7	3	0
3735	162	5.4	489	10	7	3	0
3736	155	2.9	266	6	4	2	0
3737	127	42.9	4113	40	26	11	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3738	1	2.6	229	6	4	3	0
3739	240	2.6	229	6	4	3	0
3740	238	0.6	64	0	0	0	0
3741	179	0.6	64	0	0	0	0
3742	107	0.0	0	0	0	0	0
3743	206	0.0	0	0	0	0	0
3744	146	0.0	0	0	0	0	0
3745	226	0.0	0	0	0	0	0
3746	189	0.0	0	0	0	0	0
3747	205	0.0	0	0	0	0	0
3748	198	0.0	0	0	0	0	0
3749	208	0.0	0	0	0	0	0
3750	206	0.0	0	0	0	0	0
3751	209	0.0	0	0	0	0	0
3752	217	0.0	0	0	0	0	0
3753	213	0.0	0	0	0	0	0
3754	226	0.0	0	0	0	0	0
3755	225	0.0	0	0	0	0	0
3756	186	0.0	0	0	0	0	0
3757	212	0.0	0	0	0	0	0
3758	208	0.0	0	0	0	0	0
3759	229	0.0	0	0	0	0	0
3760	202	0.0	0	0	0	0	0
3761	234	0.0	0	0	0	0	0
3762	236	0.0	0	0	0	0	0
3763	257	0.0	0	0	0	0	0
3764	201	0.0	1	0	0	0	0
3765	198	0.1	5	0	0	0	0
3766	208	4.9	453	10	6	2	0
3767	204	4.9	453	10	6	2	0
3768	214	6.1	570	11	6	2	0
3769	190	7.4	688	13	7	3	0
3770	205	7.4	688	13	7	3	0
3771	168	7.4	688	13	7	3	0
3772	175	3.8	345	8	4	2	0
3773	193	7.4	688	13	7	3	0
3774	195	3.8	345	8	4	2	0
3775	209	3.2	290	7	4	1	0
3776	208	2.5	235	6	3	0	0
3777	179	2.4	222	6	3	0	0
3778	217	2.3	208	5	3	0	0
3779	184	2.3	208	5	3	0	0
3780	234	2.3	208	5	3	0	0
3781	221	2.4	220	6	3	0	0
3782	186	2.5	232	6	4	0	0
3783	97	2.5	232	6	4	0	0
3784	191	2.5	232	6	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3785	240	2.5	232	6	4	0	0
3786	210	2.5	232	6	4	0	0
3787	81	2.0	185	5	3	0	0
3788	241	2.0	185	5	3	0	0
3789	214	1.7	154	4	3	0	0
3790	207	1.7	154	4	3	0	0
3791	185	1.7	154	4	3	0	0
3792	239	1.9	174	5	3	0	0
3793	169	2.4	218	6	3	0	0
3794	197	2.4	218	6	3	0	0
3795	221	2.6	243	6	3	0	0
3796	185	2.9	268	6	3	0	0
3797	248	2.9	268	6	3	0	0
3798	263	2.9	268	6	3	0	0
3799	275	2.9	268	6	3	0	0
3800	70	1.9	177	5	2	0	0
3801	220	1.9	177	5	2	0	0
3802	226	1.9	177	5	2	0	0
3803	186	1.7	158	4	2	0	0
3804	196	1.7	158	4	2	0	0
3805	201	1.7	158	4	2	0	0
3806	208	1.7	158	4	2	0	0
3807	190	3.3	307	7	3	0	0
3808	203	3.3	307	7	3	0	0
3809	161	1.9	177	5	2	0	0
3810	201	1.9	177	5	2	0	0
3811	118	1.7	158	4	2	0	0
3812	93	1.7	158	4	2	0	0
3813	178	1.7	158	4	2	0	0
3814	232	1.7	158	4	2	0	0
3815	218	3.3	307	7	3	0	0
3816	240	3.3	307	7	3	0	0
3817	217	4.9	454	10	5	2	0
3818	221	4.9	454	10	5	2	0
3819	255	4.9	454	10	5	2	0
3820	251	4.9	454	10	5	2	0
3821	240	5.2	478	10	6	2	0
3822	275	5.5	502	11	6	2	0
3823	216	5.5	502	11	6	2	0
3824	234	5.9	546	11	5	1	1
3825	229	6.2	591	12	4	0	0
3826	230	6.2	591	12	4	0	0
3827	151	6.2	591	12	4	0	0
3828	225	6.2	591	12	4	0	0
3829	199	6.3	591	12	5	1	0
3830	179	6.5	590	12	7	2	0
3831	234	6.2	573	12	7	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3832	214	4.9	454	12	5	0	0
3833	100	4.9	454	12	5	0	0
3834	150	1.9	174	6	3	0	0
3835	187	1.9	174	6	3	0	0
3836	151	1.9	174	6	3	0	0
3837	219	2.2	198	6	4	0	0
3838	122	2.2	198	6	4	0	0
3839	184	2.2	198	6	4	0	0
3840	233	1.4	123	4	2	0	0
3841	250	1.4	123	4	2	0	0
3842	259	1.4	123	4	2	0	0
3843	249	1.4	123	4	2	0	0
3844	207	1.1	99	4	2	0	0
3845	220	1.1	99	4	2	0	0
3846	233	1.1	99	4	2	0	0
3847	207	1.2	106	4	2	0	0
3848	217	1.2	112	4	2	0	0
3849	83	1.4	129	4	2	0	0
3850	195	1.4	129	4	2	0	0
3851	181	1.4	129	4	2	0	0
3852	114	1.0	99	3	0	0	0
3853	174	1.0	99	3	0	0	0
3854	203	1.0	99	3	0	0	0
3855	193	1.1	102	3	0	0	0
3856	206	1.1	102	3	0	0	0
3857	179	1.2	115	4	1	0	0
3858	205	1.4	129	4	3	0	0
3859	216	1.4	129	4	3	0	0
3860	225	1.4	129	4	3	0	0
3861	196	1.4	129	4	3	0	0
3862	225	1.1	101	3	2	0	0
3863	245	1.1	101	3	2	0	0
3864	232	1.1	101	3	2	0	0
3865	203	1.0	87	3	2	0	0
3866	206	1.0	87	3	2	0	0
3867	233	1.0	87	3	2	0	0
3868	215	1.0	87	3	2	0	0
3869	184	1.0	87	3	2	0	0
3870	202	1.1	99	3	2	0	0
3871	247	1.1	99	3	2	0	0
3872	233	1.1	99	3	2	0	0
3873	302	1.0	93	3	2	0	0
3874	323	1.0	88	3	2	0	0
3875	272	1.0	88	3	2	0	0
3876	260	1.0	88	3	2	0	0
3877	257	1.0	88	3	2	0	0
3878	270	0.9	78	3	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3879	170	0.7	68	3	0	0	0
3880	190	0.7	63	3	0	0	0
3881	200	1.4	123	4	2	1	0
3882	232	1.4	123	4	2	1	0
3883	192	1.4	123	4	2	1	0
3884	241	1.4	123	4	2	0	0
3885	265	1.1	99	4	2	0	0
3886	255	1.1	99	4	2	0	0
3887	221	1.1	99	4	2	0	0
3888	321	1.2	106	4	2	0	0
3889	225	1.2	112	4	2	0	0
3890	290	2.1	187	6	3	0	0
3891	260	3.9	362	8	4	2	0
3892	273	2.7	251	5	3	1	0
3893	238	0.7	68	3	0	0	0
3894	245	0.7	63	3	0	0	0
3895	220	1.4	123	4	2	1	0
3896	223	1.4	123	4	2	1	0
3897	237	1.4	123	4	2	1	0
3898	232	1.4	123	4	2	0	0
3899	241	1.1	99	4	2	0	0
3900	247	1.1	99	4	2	0	0
3901	250	1.1	99	4	2	0	0
3902	266	1.2	106	4	2	0	0
3903	316	1.2	112	4	2	0	0
3904	324	2.1	187	6	3	0	0
3905	283	2.9	266	5	3	1	0
3906	249	5.3	487	10	6	2	0
3907	208	5.3	487	10	6	2	0
3908	282	5.3	487	10	6	2	0
3909	309	6.1	561	10	6	3	0
3910	232	6.8	634	11	7	3	0
3911	217	6.9	634	11	7	3	0
3912	285	7.0	635	11	7	3	0
3913	285	7.7	696	13	8	4	0
3914	274	8.4	758	15	9	4	0
3915	261	8.4	758	15	9	4	0
3916	175	8.4	758	15	9	4	0
3917	159	8.3	749	15	9	4	0
3918	206	8.2	741	15	9	4	0
3919	251	7.9	714	15	8	4	0
3920	134	7.6	688	14	8	4	0
3921	189	7.6	688	14	8	4	0
3922	180	7.0	630	13	7	4	0
3923	318	6.3	571	12	6	3	0
3924	299	6.3	571	12	6	3	0
3925	193	6.3	571	12	6	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3926	207	6.0	555	12	6	3	0
3927	220	6.0	555	12	6	3	0
3928	167	1.2	112	4	2	0	0
3929	1	1.4	129	4	2	0	0
3930	90	1.4	129	4	2	0	0
3931	19	2.8	243	8	5	3	0
3932	8	1.6	136	5	4	2	0
3933	13	1.5	125	4	3	2	0
3934	15	1.4	121	4	3	2	0
3935	19	1.5	130	4	3	2	0
3936	23	1.5	132	4	3	2	0
3937	31	1.6	144	4	3	2	0
3938	21	1.6	144	4	3	0	0
3939	27	1.3	114	4	2	0	0
3940	20	1.3	118	4	2	0	0
3941	76	2.6	224	6	4	2	0
3942	66	2.6	224	6	4	2	0
3943	53	1.2	111	3	2	0	0
3944	73	1.3	119	3	2	0	0
3945	54	1.4	131	4	2	0	0
3946	82	1.6	150	4	2	0	0
3947	64	1.4	128	4	2	0	0
3948	43	1.4	127	4	2	0	0
3949	59	2.4	221	5	3	0	0
3950	91	4.5	404	8	5	2	0
3951	146	3.1	270	7	5	3	0
3952	185	2.8	244	6	5	3	0
3953	139	2.8	244	6	5	3	0
3954	195	2.5	223	6	4	2	0
3955	220	2.3	202	5	4	2	0
3956	244	2.2	194	5	4	2	0
3957	140	2.1	186	4	4	2	0
3958	213	2.3	204	5	4	2	0
3959	235	2.5	221	5	4	2	0
3960	257	2.5	221	5	4	2	0
3961	267	2.5	221	5	4	2	0
3962	245	2.5	221	5	4	2	0
3963	219	2.5	221	5	4	2	0
3964	150	2.6	234	6	4	2	0
3965	160	2.6	234	6	4	2	0
3966	130	2.9	253	6	4	2	0
3967	142	2.9	253	6	4	2	0
3968	171	3.3	289	7	4	2	0
3969	199	3.7	324	7	5	3	0
3970	131	3.7	324	7	5	3	0
3971	139	4.2	372	8	5	3	0
3972	167	4.7	420	9	6	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
3973	104	4.7	420	9	6	3	0
3974	116	161.9	204	5	4	2	0
3975	62	132.6	221	5	4	2	0
3976	160	149.0	221	5	4	2	0
3977	182	165.5	221	5	4	2	0
3978	218	165.5	221	5	4	2	0
3979	149	170.3	221	5	4	2	0
3980	157	170.5	234	6	4	2	0
3981	161	170.5	234	6	4	2	0
3982	177	173.1	253	6	4	2	0
3983	128	172.2	253	6	4	2	0
3984	135	171.7	289	7	4	2	0
3985	148	170.5	324	7	5	3	0
3986	172	169.2	204	5	4	2	0
3987	162	169.4	221	5	4	2	0
3988	163	167.7	221	5	4	2	0
3989	209	166.0	221	5	4	2	0
3990	188	165.2	221	5	4	2	0
3991	161	165.2	221	5	4	2	0
3992	123	165.4	234	6	4	2	0
3993	144	106.4	234	6	4	2	0
3994	101	106.6	253	6	4	2	0
3995	98	106.6	253	6	4	2	0
3996	118	107.0	289	7	4	2	0
3997	152	107.4	324	7	5	3	0
3998	96	3.6	324	7	5	3	0
3999	165	4.1	372	8	5	3	0
4000	134	4.6	420	9	6	3	0
4001	175	2.3	200	5	4	2	0
4002	137	2.6	225	6	5	2	0
4003	178	2.8	251	6	5	2	0
4004	174	2.7	237	6	5	2	0
4005	160	2.6	224	6	5	2	0
4006	114	2.8	245	8	5	2	0
4007	70	1.3	104	4	4	2	0
4008	99	3.8	338	8	6	2	0
4009	132	3.8	338	8	6	2	0
4010	157	6.0	537	10	8	3	0
4011	188	8.2	736	13	10	4	0
4012	134	8.2	736	13	10	4	0
4013	186	8.3	736	13	10	4	0
4014	148	16.1	1477	19	16	6	2
4015	196	16.1	1477	19	16	6	2
4016	150	16.0	1452	22	17	8	2
4017	104	17.0	1502	30	23	10	2
4018	147	17.0	1499	30	23	10	2
4019	77	9.4	750	28	21	9	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4020	106	8.3	652	25	20	9	2
4021	186	13.4	1248	25	20	9	2
4022	134	54.3	5155	55	39	15	3
4023	166	94.7	9062	85	58	22	4
4024	96	135.1	12970	116	77	28	5
4025	58	0.9	76	3	2	2	0
4026	58	0.9	80	3	2	1	0
4027	52	1.0	86	2	2	1	0
4028	60	1.0	86	2	2	1	0
4029	57	1.3	113	3	3	2	0
4030	40	1.6	135	4	3	2	0
4031	42	1.7	145	4	3	2	0
4032	52	1.8	160	4	3	2	0
4033	51	1.9	164	4	3	2	0
4034	65	1.8	153	4	3	2	0
4035	52	1.8	155	4	3	2	0
4036	63	1.9	165	4	3	2	0
4037	56	1.9	165	4	3	2	0
4038	68	2.1	183	4	3	2	0
4039	61	2.1	183	4	3	2	0
4040	57	2.2	198	4	4	2	0
4041	53	2.3	202	4	4	2	0
4042	70	2.3	206	5	4	2	0
4043	75	2.2	195	4	3	2	0
4044	102	2.2	195	4	3	2	0
4045	98	2.1	189	4	3	2	0
4046	102	2.1	189	4	3	2	0
4047	117	2.3	200	5	4	2	0
4048	106	2.3	200	5	4	2	0
4049	113	2.1	185	5	4	2	0
4050	112	2.1	185	5	4	2	0
4051	106	2.0	181	4	3	2	0
4052	87	2.0	181	4	3	2	0
4053	106	2.3	202	5	4	2	0
4054	90	2.3	205	4	4	2	0
4055	96	2.3	203	5	4	2	0
4056	91	2.3	203	5	4	2	0
4057	90	2.4	208	5	4	2	0
4058	97	2.4	208	5	4	2	0
4059	55	2.3	205	5	4	2	0
4060	71	2.3	203	5	4	2	0
4061	84	2.5	218	5	4	2	1
4062	87	2.5	218	5	4	2	1
4063	80	2.5	219	5	4	2	0
4064	89	2.5	219	5	4	2	0
4065	90	2.4	209	5	4	2	0
4066	88	2.3	201	5	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4067	89	2.3	207	5	4	2	0
4068	82	2.3	207	5	4	2	0
4069	48	5.4	489	10	7	4	0
4070	90	4.8	435	9	7	3	0
4071	95	3.7	336	7	6	2	0
4072	94	3.7	336	7	6	2	0
4073	84	3.1	277	6	5	2	0
4074	102	3.1	277	6	5	2	0
4075	112	3.0	264	6	5	2	0
4076	104	3.0	264	6	5	2	0
4077	99	2.9	262	6	5	2	0
4078	95	3.1	277	6	5	2	0
4079	78	3.1	277	6	5	2	0
4080	68	3.0	273	6	5	2	0
4081	90	3.1	276	6	5	2	0
4082	83	3.1	276	6	5	2	0
4083	103	3.0	267	6	5	3	0
4084	86	3.0	266	6	5	3	0
4085	95	3.0	266	6	5	3	0
4086	84	3.0	266	6	5	3	0
4087	53	4.2	376	8	6	3	0
4088	70	5.1	458	10	7	4	1
4089	74	5.1	458	10	7	4	1
4090	76	3.3	289	7	5	3	0
4091	94	2.8	253	6	5	2	0
4092	80	2.8	253	6	5	2	0
4093	103	2.7	237	6	5	2	0
4094	97	2.6	228	6	4	2	0
4095	98	2.6	228	6	4	2	0
4096	73	2.6	233	6	4	2	0
4097	82	2.6	233	6	4	2	0
4098	95	2.9	261	6	5	2	0
4099	96	2.9	261	6	5	2	0
4100	97	2.9	262	6	5	2	0
4101	104	2.9	262	6	5	2	0
4102	99	2.7	240	6	4	2	0
4103	119	1.3	116	3	3	1	0
4104	103	1.3	116	3	3	1	0
4105	110	2.6	232	5	4	2	0
4106	96	2.6	232	5	4	2	0
4107	96	2.8	253	6	5	2	0
4108	87	2.8	253	6	5	2	0
4109	82	2.7	237	6	5	2	0
4110	98	2.6	228	6	4	2	0
4111	68	2.6	228	6	4	2	0
4112	91	2.6	233	6	4	2	0
4113	101	2.6	233	6	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4114	82	2.8	252	6	5	2	0
4115	95	2.8	248	6	5	2	0
4116	66	2.8	248	6	5	2	0
4117	66	3.1	270	7	5	3	0
4118	68	2.8	252	6	5	2	0
4119	50	2.8	248	6	5	2	0
4120	66	2.8	248	6	5	2	0
4121	106	3.1	270	7	5	3	0
4122	91	1.6	136	4	3	2	0
4123	104	4.5	393	8	7	3	1
4124	79	3.7	324	7	6	3	1
4125	47	5.0	429	9	7	4	1
4126	48	2.3	197	6	4	2	1
4127	45	2.0	171	5	4	2	1
4128	50	1.7	146	5	4	2	0
4129	52	1.4	121	4	3	2	0
4130	48	1.4	121	4	3	2	0
4131	49	1.4	121	4	3	2	0
4132	50	1.4	121	4	3	2	0
4133	54	1.3	108	4	3	2	0
4134	74	1.3	112	4	3	2	0
4135	62	1.4	124	4	3	2	0
4136	64	1.4	124	4	3	2	0
4137	75	1.4	124	4	3	2	0
4138	50	1.4	119	3	3	1	0
4139	47	1.4	124	3	3	2	0
4140	47	1.5	133	4	3	2	0
4141	48	1.5	136	4	3	2	0
4142	50	1.6	137	4	3	2	0
4143	49	1.6	144	4	3	2	0
4144	40	1.5	136	4	3	1	0
4145	58	1.5	133	4	3	1	0
4146	53	1.6	138	4	3	2	0
4147	70	1.8	159	4	3	2	0
4148	77	2.0	180	4	3	2	0
4149	72	2.0	180	4	3	2	0
4150	83	2.4	216	5	4	2	0
4151	78	2.9	260	5	4	2	0
4152	46	3.0	273	5	5	2	0
4153	58	3.1	282	6	5	2	0
4154	53	3.3	293	6	5	2	1
4155	39	3.3	288	6	5	2	1
4156	71	3.2	275	6	5	3	2
4157	61	3.2	286	6	5	3	2
4158	58	3.2	286	6	5	2	0
4159	61	3.4	308	6	5	3	0
4160	66	4.9	434	8	7	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4161	56	4.9	434	8	7	4	1
4162	63	4.9	431	8	7	3	1
4163	60	3.7	329	7	6	3	0
4164	48	3.5	305	7	6	3	0
4165	67	3.4	298	7	6	3	0
4166	71	3.4	298	7	6	3	0
4167	74	4.2	360	7	7	3	2
4168	72	11.0	1001	15	12	5	2
4169	50	9.2	834	13	11	5	2
4170	124	7.5	668	11	9	4	1
4171	135	7.5	668	11	9	4	1
4172	108	6.0	539	9	8	4	0
4173	101	5.6	487	10	9	4	1
4174	143	5.6	487	10	9	4	1
4175	138	6.2	518	12	11	5	2
4176	172	6.2	518	12	11	5	2
4177	145	7.2	612	14	12	6	2
4178	134	7.2	612	14	12	6	2
4179	102	7.9	664	14	13	7	3
4180	91	7.9	664	14	13	7	3
4181	104	7.3	622	14	12	6	1
4182	62	7.3	622	14	12	6	2
4183	109	7.1	607	13	11	6	2
4184	118	7.1	607	13	11	6	2
4185	115	6.2	525	12	9	5	2
4186	106	5.2	451	10	8	4	0
4187	95	5.4	472	9	8	4	2
4188	54	5.4	472	9	8	4	2
4189	80	5.4	472	9	8	4	2
4190	72	4.9	432	9	7	4	2
4191	86	4.6	411	8	7	3	2
4192	59	4.5	401	8	7	3	0
4193	54	4.4	395	8	7	3	0
4194	85	4.3	386	8	6	3	0
4195	72	4.0	354	7	6	3	1
4196	65	4.1	366	7	6	3	1
4197	84	4.3	378	7	7	3	1
4198	36	4.3	378	8	7	3	1
4199	62	4.9	427	9	7	4	1
4200	89	5.1	441	9	8	4	0
4201	84	5.1	441	9	8	4	0
4202	66	5.6	482	10	8	5	0
4203	84	6.0	513	11	9	5	2
4204	69	6.0	513	11	9	5	2
4205	78	6.1	533	11	9	5	2
4206	89	6.1	533	10	9	4	2
4207	93	5.8	505	10	8	4	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4208	72	5.2	458	8	8	3	2
4209	69	6.8	604	10	10	4	2
4210	82	5.8	513	11	9	4	2
4211	69	4.4	386	9	6	3	2
4212	72	4.0	354	8	6	3	1
4213	83	4.1	366	8	6	3	1
4214	59	14.1	1295	19	16	7	2
4215	18	1.9	140	8	6	5	0
4216	50	1.6	121	6	4	3	2
4217	19	1.5	120	6	4	3	0
4218	33	1.4	115	5	3	3	0
4219	15	1.7	120	7	5	3	2
4220	43	1.6	122	8	4	3	0
4221	17	2.4	187	9	6	4	2
4222	29	2.3	188	10	6	3	0
4223	39	2.2	179	9	5	3	0
4224	26	2.2	168	8	5	3	2
4225	14	1.8	145	6	4	3	0
4226	54	1.8	147	7	5	3	0
4227	52	4.2	349	10	8	5	2
4228	24	3.2	264	9	7	5	0
4229	18	3.0	250	8	7	5	0
4230	22	3.3	278	8	7	4	0
4231	32	3.7	306	9	7	5	2
4232	20	4.8	399	12	9	6	2
4233	36	5.3	443	13	9	6	3
4234	19	8.3	733	15	13	7	3
4235	63	9.6	848	17	15	8	3
4236	112	8.3	727	15	14	8	3
4237	89	8.5	747	15	14	8	3
4238	96	7.4	647	13	13	7	3
4239	105	7.4	647	13	13	7	3
4240	94	5.6	474	11	10	6	3
4241	107	3.7	310	8	7	4	2
4242	75	3.7	310	8	7	4	2
4243	72	2.8	240	6	6	3	0
4244	74	2.6	221	6	5	3	0
4245	35	2.9	241	7	6	3	2
4246	64	2.7	238	7	5	3	0
4247	81	2.7	238	7	5	3	0
4248	68	3.0	261	7	6	4	0
4249	79	3.6	304	8	7	3	2
4250	76	3.6	310	8	7	3	2
4251	56	3.9	329	8	7	4	2
4252	63	4.0	340	8	7	4	2
4253	43	3.9	337	8	7	4	2
4254	37	3.7	316	8	7	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4255	108	3.7	316	8	7	3	2
4256	120	3.7	318	8	7	4	2
4257	120	3.7	318	8	7	4	2
4258	109	3.8	325	8	7	4	2
4259	104	4.0	348	8	7	4	2
4260	97	4.0	348	8	7	4	2
4261	102	4.2	363	9	7	4	2
4262	113	4.2	363	9	7	4	2
4263	104	4.6	407	10	8	4	0
4264	100	12.7	1151	20	17	8	2
4265	49	12.7	1147	21	17	9	2
4266	90	12.7	1147	21	17	9	2
4267	117	12.1	1087	20	17	8	2
4268	102	12.1	1087	20	17	8	2
4269	87	10.0	896	17	16	7	2
4270	52	10.0	886	18	16	8	3
4271	72	9.6	854	17	15	7	3
4272	80	7.2	630	14	12	6	2
4273	72	7.2	630	14	12	6	2
4274	74	4.6	390	10	9	5	2
4275	87	2.7	226	7	6	3	0
4276	105	2.0	166	6	5	3	0
4277	57	3.1	265	8	6	3	0
4278	56	3.6	310	8	7	3	2
4279	69	3.9	329	8	7	4	2
4280	69	4.0	340	8	7	4	2
4281	50	3.9	337	8	7	4	2
4282	52	3.7	316	8	7	3	2
4283	56	3.7	316	8	7	3	2
4284	56	3.7	318	8	7	4	2
4285	67	3.7	318	8	7	4	2
4286	53	3.8	325	8	7	4	2
4287	75	2.2	187	6	4	2	0
4288	78	2.2	187	6	4	2	0
4289	79	2.2	187	6	4	2	0
4290	72	3.2	278	8	6	3	0
4291	73	2.4	200	6	5	2	1
4292	38	1.6	138	4	4	2	0
4293	80	1.6	138	4	4	2	0
4294	82	3.2	278	8	6	3	0
4295	86	2.3	200	6	5	2	0
4296	98	1.6	138	4	3	2	0
4297	79	1.6	140	4	3	2	0
4298	107	1.6	140	4	3	2	0
4299	82	1.7	145	4	3	2	0
4300	84	1.7	146	5	3	2	0
4301	77	1.7	146	5	3	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4302	84	1.4	120	4	2	2	0
4303	85	1.4	117	4	3	1	1
4304	85	1.7	140	5	4	2	0
4305	96	1.7	140	5	4	2	0
4306	68	1.7	145	6	4	2	0
4307	103	1.7	146	5	4	2	0
4308	87	1.7	146	5	4	2	0
4309	65	1.8	148	5	4	2	0
4310	80	2.9	234	7	6	3	0
4311	88	2.7	234	7	6	3	0
4312	64	2.3	200	6	5	2	0
4313	45	1.9	149	5	5	3	0
4314	14	3.0	241	8	7	3	2
4315	3	3.0	237	8	7	4	1
4316	40	2.6	218	7	6	3	0
4317	17	0.9	80	3	2	1	0
4318	11	0.8	69	2	2	1	0
4319	26	0.8	67	2	2	1	0
4320	8	0.8	71	2	2	1	0
4321	77	1.2	100	4	3	1	0
4322	35	1.6	134	6	4	2	0
4323	56	1.4	122	4	3	2	0
4324	34	1.3	104	4	3	2	0
4325	36	1.2	95	4	3	2	0
4326	45	1.2	100	3	3	2	0
4327	37	1.1	89	3	3	2	0
4328	40	1.2	98	3	3	2	0
4329	24	1.6	134	4	4	2	0
4330	44	1.4	117	4	3	2	0
4331	38	1.3	116	4	3	1	0
4332	32	1.4	116	4	3	2	0
4333	56	1.3	111	4	3	2	0
4334	32	0.3	25	0	0	0	0
4335	2	1.3	105	3	3	2	0
4336	29	1.4	117	4	3	1	0
4337	19	1.2	93	4	3	2	0
4338	11	0.7	59	3	2	0	0
4339	3	0.7	59	4	2	0	0
4340	38	0.7	55	4	2	0	0
4341	60	0.7	57	4	2	0	0
4342	48	0.7	61	4	2	0	0
4343	36	0.7	55	4	2	0	0
4344	49	0.7	57	4	2	0	0
4345	42	0.7	61	3	2	0	0
4346	40	0.9	79	4	2	1	0
4347	43	1.0	80	4	2	1	0
4348	47	0.9	75	5	2	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4349	29	0.8	69	2	2	1	0
4350	27	0.8	68	2	2	1	0
4351	25	0.8	74	2	2	1	0
4352	29	0.8	74	2	2	0	0
4353	37	0.9	73	5	2	1	0
4354	35	0.9	72	5	2	1	0
4355	34	0.9	78	2	2	1	0
4356	37	0.9	80	3	2	1	0
4357	30	1.0	82	3	2	1	0
4358	37	1.0	87	3	2	1	0
4359	51	1.0	88	3	2	1	0
4360	38	1.0	88	3	2	1	0
4361	39	1.1	92	3	2	1	0
4362	46	1.1	93	3	2	1	0
4363	43	1.1	93	3	2	1	0
4364	42	1.1	92	3	2	1	0
4365	48	1.1	95	3	2	1	0
4366	37	1.1	100	3	2	1	0
4367	29	1.2	100	3	2	1	0
4368	33	1.2	103	3	2	1	0
4369	37	1.2	104	3	2	1	0
4370	27	1.1	97	3	2	1	0
4371	5	0.9	79	2	2	0	0
4372	53	0.8	76	2	2	0	0
4373	73	0.9	73	2	2	1	1
4374	37	1.0	86	3	2	1	1
4375	16	0.9	84	3	2	0	0
4376	29	1.1	93	3	2	2	1
4377	10	1.1	91	3	2	1	1
4378	9	1.0	83	3	2	1	0
4379	25	1.1	94	3	2	1	0
4380	29	1.2	102	3	3	1	0
4381	32	1.2	105	3	3	1	0
4382	34	1.2	108	3	3	1	0
4383	38	1.3	111	3	3	1	0
4384	38	1.3	111	4	3	1	0
4385	20	1.2	100	3	2	1	0
4386	20	0.3	27	0	0	0	0
4387	20	1.0	89	3	2	0	0
4388	42	1.2	102	3	2	1	0
4389	34	1.1	99	3	2	1	0
4390	24	1.2	102	3	2	1	0
4391	40	1.3	109	3	2	1	0
4392	35	1.3	111	4	2	1	0
4393	35	1.3	116	4	3	1	0
4394	25	1.3	114	3	3	1	0
4395	24	1.1	93	3	3	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4396	15	0.4	38	0	0	0	0
4397	23	0.5	46	0	1	0	0
4398	22	0.5	50	0	1	0	0
4399	15	0.8	76	2	2	1	0
4400	25	0.8	74	2	2	1	0
4401	47	0.8	76	2	2	0	0
4402	52	0.9	80	2	2	1	0
4403	22	0.9	87	2	2	1	0
4404	43	1.1	94	2	2	1	0
4405	38	1.2	108	3	2	1	0
4406	3	1.1	104	3	2	1	0
4407	28	1.1	104	3	2	1	0
4408	26	0.8	70	2	2	0	0
4409	4	0.9	78	2	2	1	0
4410	14	1.1	99	3	2	1	0
4411	14	1.2	100	3	2	1	0
4412	54	1.4	121	4	3	1	0
4413	49	1.5	132	4	3	2	0
4414	29	1.7	150	5	3	2	0
4415	41	1.8	156	5	3	2	0
4416	54	1.8	156	5	3	2	0
4417	50	1.7	153	5	3	2	0
4418	51	1.7	153	4	3	2	0
4419	41	1.6	138	4	3	1	0
4420	37	1.4	126	3	3	1	0
4421	48	1.2	107	3	2	1	0
4422	35	1.3	111	3	2	1	0
4423	43	1.4	121	3	2	1	0
4424	62	1.4	123	3	2	1	0
4425	41	1.4	123	3	2	1	0
4426	35	1.5	131	4	3	1	0
4427	44	1.6	139	4	3	1	0
4428	41	1.6	143	4	3	1	0
4429	38	1.7	146	4	3	1	0
4430	41	1.7	146	4	3	1	0
4431	38	1.8	163	4	3	1	0
4432	47	1.8	163	4	3	1	0
4433	44	1.8	162	4	3	1	0
4434	38	1.9	170	4	3	2	0
4435	40	4.0	361	9	6	2	0
4436	2	3.4	305	8	6	2	0
4437	59	2.8	251	7	5	2	0
4438	36	2.0	172	5	4	2	0
4439	26	1.9	162	5	4	2	0
4440	37	1.7	151	5	4	2	0
4441	42	1.5	133	4	3	2	0
4442	45	1.4	123	4	3	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4443	48	1.1	96	2	2	1	0
4444	40	1.3	117	3	2	1	0
4445	46	1.4	128	3	2	1	0
4446	43	1.6	140	4	3	1	0
4447	47	1.6	140	4	3	1	0
4448	41	1.6	143	4	3	1	0
4449	49	1.7	153	4	3	1	0
4450	42	1.9	166	4	3	2	0
4451	41	2.0	179	4	3	2	0
4452	38	2.2	195	5	3	2	0
4453	38	2.4	214	5	4	2	0
4454	43	2.4	217	5	4	2	0
4455	42	2.5	226	5	4	2	0
4456	37	3.6	309	9	6	3	0
4457	11	2.0	171	5	4	2	0
4458	40	1.8	155	5	4	2	0
4459	11	1.6	139	4	3	2	0
4460	10	1.6	137	4	3	2	0
4461	41	1.6	137	4	3	2	0
4462	91	1.6	141	4	3	2	0
4463	7	1.5	127	4	3	2	0
4464	18	1.2	98	3	3	2	0
4465	4	1.5	128	4	3	2	0
4466	46	1.2	104	3	3	2	0
4467	6	1.4	118	4	3	2	0
4468	5	1.1	91	3	3	2	0
4469	8	1.1	92	3	2	1	0
4470	13	0.6	56	2	1	1	0
4471	11	0.7	62	2	1	1	0
4472	6	0.9	75	2	2	1	0
4473	7	1.0	87	2	2	1	0
4474	20	0.5	41	3	1	0	0
4475	18	0.5	46	3	1	0	0
4476	17	1.0	86	3	2	0	0
4477	6	1.5	134	5	2	1	0
4478	5	0.6	49	3	1	0	0
4479	16	0.4	37	2	0	0	0
4480	21	0.4	37	2	0	0	0
4481	8	0.6	52	3	1	0	0
4482	6	0.8	71	2	1	0	0
4483	21	1.1	97	3	2	1	0
4484	58	1.6	143	4	3	1	0
4485	86	1.8	156	4	3	1	0
4486	39	1.8	163	4	3	1	0
4487	78	1.8	163	4	3	1	0
4488	65	1.9	168	4	3	1	0
4489	70	2.8	251	5	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4490	66	2.1	190	4	3	1	0
4491	39	1.3	120	3	2	1	0
4492	39	1.7	145	4	3	1	0
4493	20	0.8	76	2	2	0	0
4494	48	0.9	81	2	2	0	0
4495	43	0.9	83	2	2	0	0
4496	54	1.0	87	2	2	0	0
4497	43	1.1	97	3	2	1	0
4498	47	1.2	106	3	2	1	0
4499	50	1.3	114	3	2	1	0
4500	50	1.4	129	3	2	1	0
4501	42	3.7	320	8	7	3	1
4502	11	163.6	13106	489	418	164	32
4503	6	161.9	12903	503	419	168	32
4504	13	131.6	10535	377	327	143	28
4505	21	117.7	9400	304	294	125	27
4506	1	113.1	9400	304	294	125	27
4507	2	23.3	1860	63	55	44	11
4508	2	13.2	999	44	34	30	9
4509	2	13.2	999	44	35	30	9
4510	6	8.5	628	30	24	20	7
4511	18	8.1	577	29	25	22	7
4512	24	9.9	756	31	26	21	7
4513	3	8.8	660	30	23	20	8
4514	4	3.2	196	17	12	10	5
4515	5	4.0	282	18	13	8	5
4516	6	2.0	137	9	7	5	3
4517	3	2.1	129	8	7	7	4
4518	71	1.9	121	8	7	6	3
4519	63	2.3	151	10	7	7	3
4520	52	2.6	180	12	8	7	3
4521	22	3.2	219	15	9	8	4
4522	41	3.1	218	14	10	7	4
4523	39	3.2	225	16	10	8	3
4524	42	3.1	216	15	9	8	3
4525	30	2.8	197	13	8	7	3
4526	30	2.8	194	12	8	7	3
4527	28	1.5	110	8	4	3	2
4528	23	1.8	126	9	5	3	2
4529	13	1.8	128	10	4	3	2
4530	23	1.9	139	11	4	3	2
4531	27	2.0	142	14	4	3	2
4532	21	2.1	152	15	4	3	2
4533	22	2.2	162	15	4	4	2
4534	29	2.3	168	16	4	3	2
4535	18	2.6	198	18	5	3	2
4536	24	2.7	201	19	5	3	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4537	37	2.8	213	20	5	3	2
4538	50	3.0	228	21	5	3	2
4539	54	3.1	237	22	5	3	2
4540	50	2.9	223	21	5	3	2
4541	47	2.8	217	19	5	3	2
4542	42	2.7	203	18	4	3	2
4543	42	2.6	203	17	4	3	2
4544	56	2.4	180	17	4	3	1
4545	60	2.3	170	16	4	3	2
4546	59	2.3	176	15	4	3	2
4547	39	2.4	178	15	4	3	2
4548	50	2.4	183	16	5	3	1
4549	47	2.5	186	16	5	3	2
4550	46	2.1	163	14	4	3	1
4551	49	1.4	110	6	3	2	1
4552	56	3.3	280	9	6	3	1
4553	54	3.4	284	9	6	3	2
4554	49	2.9	246	8	5	3	2
4555	53	3.3	280	8	6	3	1
4556	55	3.4	284	9	6	3	2
4557	45	3.0	246	8	5	3	2
4558	53	2.9	245	6	5	3	1
4559	53	2.9	244	6	5	3	1
4560	41	2.8	238	6	5	3	1
4561	48	2.8	237	6	5	3	1
4562	37	2.8	236	6	4	3	1
4563	37	3.0	259	6	5	3	0
4564	51	3.2	271	6	5	3	2
4565	43	3.3	277	6	5	3	2
4566	47	4.0	347	7	6	3	2
4567	44	3.8	324	7	5	3	2
4568	70	4.1	360	8	6	3	2
4569	62	4.1	360	8	6	3	0
4570	65	4.1	360	8	7	3	1
4571	61	4.1	357	8	7	3	1
4572	59	4.0	346	8	7	3	1
4573	74	3.9	334	8	7	3	2
4574	72	3.8	322	8	6	3	2
4575	69	3.4	289	7	6	3	1
4576	69	3.4	289	7	6	3	2
4577	44	2.5	205	6	5	3	1
4578	64	2.1	181	5	4	3	0
4579	61	3.9	194	5	4	11	6
4580	59	3.9	194	5	4	11	6
4581	45	2.1	185	5	4	3	0
4582	60	1.7	143	4	3	2	0
4583	61	3.5	291	8	6	3	31

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4584	15	3.1	259	7	6	3	16
4585	20	2.7	226	6	5	3	1
4586	21	2.7	226	6	5	3	1
4587	100	2.8	234	6	5	3	1
4588	87	2.8	234	6	5	3	1
4589	76	2.8	233	6	5	3	1
4590	69	2.8	233	6	5	3	1
4591	78	2.7	232	6	5	3	0
4592	89	2.7	232	6	5	3	0
4593	91	3.5	291	7	6	3	2
4594	89	2.8	233	6	5	3	1
4595	23	2.0	174	5	4	2	0
4596	15	2.0	174	5	4	2	0
4597	24	2.0	174	5	4	2	0
4598	19	2.0	173	5	3	2	0
4599	19	2.0	172	5	3	2	0
4600	49	1.9	168	4	3	2	1
4601	41	1.9	166	4	3	2	1
4602	44	1.8	158	4	3	2	0
4603	40	1.7	151	4	3	2	0
4604	43	1.7	144	4	3	2	0
4605	41	1.8	149	4	3	2	0
4606	36	1.8	156	4	3	2	0
4607	39	1.8	159	4	3	2	0
4608	35	1.8	161	4	3	2	0
4609	37	1.9	166	5	3	2	0
4610	45	1.9	166	5	3	2	0
4611	38	2.4	208	5	4	2	0
4612	55	3.0	260	6	5	2	1
4613	58	3.2	279	7	5	2	1
4614	46	3.2	279	7	5	2	1
4615	42	3.9	334	8	6	3	1
4616	46	4.1	352	8	6	3	2
4617	39	4.9	418	9	7	3	2
4618	50	5.3	459	9	7	3	2
4619	39	5.6	488	10	7	3	2
4620	37	5.9	516	10	7	4	2
4621	35	6.5	565	11	8	4	2
4622	40	6.8	593	12	8	4	2
4623	35	7.3	642	12	8	4	2
4624	33	8.5	762	14	9	4	2
4625	35	8.3	744	13	9	4	2
4626	38	7.2	643	11	8	3	2
4627	44	5.3	472	10	6	3	1
4628	42	4.4	380	8	6	3	1
4629	48	3.6	312	7	5	3	1
4630	50	3.4	297	7	5	2	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4631	51	3.2	283	7	5	2	0
4632	52	2.5	218	6	4	2	0
4633	49	2.3	204	6	4	2	0
4634	55	2.6	235	6	4	2	0
4635	58	2.6	235	6	4	2	0
4636	51	2.8	251	6	4	2	0
4637	62	2.8	252	6	4	2	0
4638	63	2.8	252	6	4	2	0
4639	55	2.7	238	6	4	2	0
4640	56	2.4	220	6	4	2	0
4641	58	2.4	212	6	4	2	0
4642	48	2.3	203	5	3	2	0
4643	55	2.3	209	6	3	2	0
4644	58	2.9	261	6	4	2	0
4645	37	3.3	297	7	5	2	0
4646	56	3.4	305	7	5	2	0
4647	53	3.4	308	7	5	2	0
4648	51	8.5	781	16	9	3	0
4649	46	9.7	891	16	10	3	0
4650	52	11.4	1048	18	11	3	0
4651	51	12.8	1175	20	12	3	1
4652	50	12.9	1190	21	12	3	1
4653	50	12.4	1134	21	12	3	1
4654	29	11.0	1001	19	12	3	1
4655	41	10.0	908	16	11	3	1
4656	47	7.7	687	14	9	3	1
4657	33	7.2	642	13	9	3	1
4658	40	6.8	609	12	8	3	1
4659	32	6.6	588	12	7	3	2
4660	28	5.9	520	10	7	3	2
4661	31	4.6	413	9	6	2	0
4662	44	4.1	363	8	5	2	0
4663	36	3.6	332	7	5	2	0
4664	30	3.3	298	7	4	2	0
4665	23	2.3	208	5	4	1	0
4666	41	2.6	230	6	4	2	0
4667	61	2.6	233	6	4	2	0
4668	61	2.6	233	6	4	2	0
4669	54	1.9	172	5	3	1	0
4670	50	1.5	133	4	3	1	0
4671	51	1.1	103	3	2	0	0
4672	52	1.0	89	3	2	0	0
4673	49	2.1	184	5	3	1	0
4674	47	2.6	236	6	4	1	0
4675	55	2.6	236	6	4	1	0
4676	52	5.0	443	10	7	3	1
4677	41	5.1	460	10	7	3	1

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4678	45	5.7	505	11	8	3	1
4679	46	5.7	505	11	8	3	1
4680	45	28.9	2678	38	26	8	2
4681	39	24.9	2304	36	23	7	0
4682	1	19.6	1795	30	19	6	1
4683	60	16.1	1469	27	18	6	1
4684	30	13.3	1192	23	17	5	2
4685	53	11.7	1048	21	16	5	2
4686	46	8.7	761	17	13	4	2
4687	43	7.9	687	15	12	4	2
4688	52	7.0	609	15	11	4	1
4689	51	6.3	542	13	10	4	2
4690	52	5.6	480	12	9	3	2
4691	52	5.1	440	11	9	3	1
4692	44	3.5	306	8	6	2	1
4693	3	5.0	409	12	10	4	2
4694	4	5.0	410	12	10	5	2
4695	7	3.1	243	8	7	3	1
4696	9	2.3	181	6	6	3	1
4697	6	1.8	141	5	4	2	1
4698	10	2.0	159	5	4	2	1
4699	10	2.9	242	6	5	3	1
4700	21	3.1	254	6	6	3	1
4701	7	3.0	248	6	6	3	1
4702	15	3.0	240	6	6	3	1
4703	14	2.7	221	6	5	3	1
4704	8	1.1	97	3	2	1	1
4705	7	0.9	78	2	2	1	0
4706	4	3.4	294	7	6	2	0
4707	5	0.8	66	4	2	0	0
4708	14	0.7	59	4	2	0	0
4709	10	1.3	111	5	2	1	0
4710	10	1.6	134	5	3	2	0
4711	48	1.6	138	4	3	2	0
4712	49	1.7	146	4	3	2	0
4713	65	1.8	158	4	3	2	1
4714	56	1.8	158	4	3	2	1
4715	60	2.1	186	5	4	2	0
4716	54	2.3	198	5	4	2	0
4717	53	2.5	214	6	4	2	1
4718	2	3.1	281	7	5	2	0
4719	41	3.0	270	6	5	2	0
4720	58	2.9	256	6	5	2	0
4721	56	2.6	235	6	4	2	0
4722	52	2.3	207	5	4	2	0
4723	55	2.0	182	4	3	2	0
4724	57	1.9	165	4	3	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4725	57	1.8	153	4	3	2	0
4726	58	1.7	146	4	3	2	0
4727	44	1.6	137	4	3	1	0
4728	58	1.5	134	4	3	1	0
4729	68	1.5	131	3	3	1	0
4730	70	1.5	131	3	3	1	0
4731	63	1.4	126	3	3	1	0
4732	55	1.3	114	3	2	1	0
4733	58	1.3	114	3	2	1	0
4734	59	1.4	122	3	2	1	0
4735	60	1.4	122	3	2	1	0
4736	58	1.3	123	3	2	0	0
4737	53	1.4	130	3	2	0	0
4738	63	1.4	134	3	2	0	0
4739	61	1.5	139	3	2	0	0
4740	61	1.5	142	4	2	0	0
4741	59	1.6	143	3	2	1	0
4742	69	1.6	148	3	2	1	0
4743	44	1.6	149	3	2	0	0
4744	61	1.7	158	4	2	0	0
4745	52	1.7	158	4	2	0	0
4746	44	1.7	160	3	2	1	0
4747	50	1.8	161	4	2	1	0
4748	54	1.7	158	4	2	1	0
4749	53	1.8	164	4	2	1	0
4750	52	1.9	170	4	2	1	0
4751	43	1.9	175	4	3	0	0
4752	37	1.9	178	4	3	0	0
4753	59	2.1	189	4	3	1	0
4754	46	2.1	190	4	3	1	0
4755	48	2.1	191	4	3	1	0
4756	48	2.2	200	4	3	1	0
4757	46	2.3	205	5	3	1	0
4758	63	2.3	210	5	4	1	0
4759	66	2.3	212	5	3	1	0
4760	65	2.4	217	5	4	2	0
4761	63	2.4	211	5	3	2	0
4762	63	1.9	174	4	3	1	0
4763	67	0.9	77	4	2	0	0
4764	55	0.3	33	0	0	0	0
4765	60	0.2	22	0	0	0	0
4766	56	0.1	10	0	0	0	0
4767	50	0.2	18	0	0	0	0
4768	53	1.3	120	3	2	0	0
4769	54	1.9	173	4	3	1	0
4770	52	2.4	217	4	3	1	0
4771	40	3.1	284	6	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4772	58	3.2	290	6	4	2	0
4773	48	11.7	1067	20	13	4	0
4774	12	5.9	518	13	9	3	0
4775	51	5.9	518	13	9	3	0
4776	109	5.2	461	11	8	3	0
4777	99	5.2	461	11	8	3	0
4778	87	5.2	461	11	8	3	0
4779	85	5.2	461	11	8	3	0
4780	80	5.0	436	11	8	2	0
4781	91	5.0	436	11	8	2	0
4782	90	4.5	398	9	7	2	0
4783	78	4.1	357	9	7	2	0
4784	95	3.8	336	9	6	2	0
4785	76	3.8	336	9	6	2	0
4786	88	3.8	328	8	6	2	0
4787	88	3.7	322	8	6	2	0
4788	70	3.6	314	8	6	2	0
4789	82	3.6	314	8	6	2	0
4790	87	3.6	313	8	6	2	0
4791	72	3.6	323	8	6	2	0
4792	87	3.6	323	8	5	2	0
4793	78	3.7	336	8	5	2	0
4794	79	3.7	336	7	5	2	0
4795	71	3.9	353	8	5	2	0
4796	75	4.0	358	8	5	2	0
4797	80	4.1	371	8	5	2	0
4798	86	4.2	384	8	5	2	0
4799	71	4.4	398	8	5	2	0
4800	74	4.7	426	8	5	2	0
4801	85	4.7	426	8	5	2	0
4802	75	5.0	456	9	5	2	0
4803	64	5.3	490	9	5	2	0
4804	61	5.7	524	9	6	2	0
4805	72	6.1	560	9	6	2	0
4806	55	6.4	586	10	6	2	0
4807	63	6.5	596	10	6	2	0
4808	68	6.7	623	10	6	2	0
4809	70	6.9	639	10	6	2	0
4810	79	7.0	656	10	6	2	0
4811	71	7.4	682	11	6	2	1
4812	58	7.6	699	11	6	2	1
4813	50	7.6	699	11	6	2	0
4814	73	7.5	702	11	6	2	0
4815	80	7.5	702	11	6	2	0
4816	60	7.1	651	10	6	2	0
4817	72	6.2	571	10	6	2	0
4818	81	5.4	493	10	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4819	80	4.7	432	9	5	2	0
4820	73	4.4	399	8	5	2	0
4821	57	4.4	399	8	5	2	0
4822	70	4.3	391	8	5	2	0
4823	84	4.3	387	8	5	2	0
4824	104	4.2	387	8	5	2	0
4825	88	4.0	367	8	5	2	0
4826	87	4.0	367	8	5	2	0
4827	94	4.0	367	8	5	2	0
4828	95	4.0	365	8	5	2	0
4829	81	4.0	373	8	5	1	0
4830	88	4.0	373	8	5	1	0
4831	86	4.1	373	8	5	2	0
4832	99	4.1	376	8	5	2	0
4833	82	4.1	376	8	5	2	0
4834	84	4.1	374	8	5	2	0
4835	81	4.1	373	8	5	2	0
4836	69	4.0	368	8	5	2	0
4837	81	4.0	366	8	5	2	0
4838	67	4.0	366	8	5	2	0
4839	72	3.9	358	8	5	2	0
4840	61	3.9	355	8	5	2	0
4841	66	3.9	352	8	5	2	0
4842	73	3.8	348	8	5	2	0
4843	63	3.8	344	8	4	2	0
4844	61	3.7	344	7	4	1	0
4845	59	4.1	381	7	4	2	0
4846	69	4.5	411	8	5	2	0
4847	41	5.0	464	8	5	1	0
4848	61	5.0	464	8	5	1	1
4849	66	4.9	460	8	5	1	0
4850	52	3.7	344	7	4	1	0
4851	51	3.9	363	8	4	1	0
4852	53	4.1	383	8	4	1	0
4853	64	4.2	392	8	4	1	0
4854	62	4.1	384	8	4	1	0
4855	57	3.3	301	6	4	1	0
4856	49	2.3	213	5	3	0	0
4857	55	3.2	296	6	3	1	0
4858	41	3.2	293	6	3	1	0
4859	50	3.1	283	6	3	1	0
4860	55	3.2	296	6	3	1	0
4861	51	3.2	293	6	3	1	0
4862	52	3.1	283	6	3	1	0
4863	62	2.9	274	6	3	0	0
4864	68	3.2	292	6	4	1	0
4865	51	3.1	292	6	3	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4866	55	3.2	295	6	3	1	0
4867	34	3.0	278	6	3	1	0
4868	47	41.0	3942	46	22	4	0
4869	25	40.2	3869	45	22	4	0
4870	93	40.2	3869	45	22	4	0
4871	57	38.2	3667	43	21	4	0
4872	98	37.0	3551	42	21	4	1
4873	107	33.7	3224	36	20	5	1
4874	86	35.6	3406	40	21	5	1
4875	107	35.6	3406	40	21	5	1
4876	107	35.6	3406	40	21	5	1
4877	96	28.4	2707	34	19	4	1
4878	90	18.9	1789	25	14	4	0
4879	80	18.9	1789	25	14	4	0
4880	87	15.1	1430	20	12	3	0
4881	91	15.1	1430	20	12	3	0
4882	77	12.7	1200	19	11	3	0
4883	68	9.9	928	16	9	3	0
4884	66	9.9	928	16	9	3	0
4885	56	7.9	733	14	8	3	0
4886	65	6.3	581	11	7	2	0
4887	53	4.4	396	9	6	2	0
4888	69	4.4	396	9	6	2	0
4889	59	3.7	333	8	5	2	0
4890	68	3.7	333	8	5	2	0
4891	77	3.7	333	8	5	2	0
4892	66	4.2	389	8	5	2	0
4893	59	4.2	389	8	5	2	0
4894	59	4.2	389	8	5	2	0
4895	74	5.7	531	10	6	2	0
4896	84	6.9	645	11	6	2	0
4897	71	6.9	645	11	6	2	0
4898	63	7.2	673	11	6	2	0
4899	63	7.2	679	11	6	2	0
4900	61	7.2	679	11	6	2	0
4901	58	7.6	712	11	6	2	0
4902	59	7.7	729	11	6	2	0
4903	69	7.7	729	11	6	2	0
4904	75	7.6	720	11	6	2	0
4905	74	7.6	714	11	6	2	0
4906	65	7.6	714	11	6	2	0
4907	64	7.6	715	10	6	2	0
4908	66	7.2	679	10	6	2	0
4909	71	7.2	679	10	6	2	0
4910	68	6.5	610	10	5	2	0
4911	73	6.5	610	10	5	2	0
4912	84	5.3	499	8	4	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4913	90	5.3	499	8	4	1	0
4914	82	4.6	431	7	4	1	0
4915	3	5.0	471	8	5	1	0
4916	100	5.0	471	8	5	1	0
4917	60	6.9	648	11	6	2	0
4918	41	8.8	838	13	6	2	0
4919	77	12.0	1148	16	7	2	0
4920	70	16.4	1571	21	9	2	0
4921	48	17.4	1665	22	9	2	0
4922	59	17.1	1636	22	10	2	0
4923	64	17.0	1626	22	10	2	0
4924	69	17.0	1620	23	10	2	0
4925	75	16.7	1591	23	10	2	0
4926	76	16.7	1591	23	10	2	0
4927	77	15.1	1432	22	10	2	0
4928	45	13.9	1315	20	10	2	0
4929	77	12.5	1191	18	9	2	0
4930	77	11.5	1091	18	9	2	0
4931	92	11.5	1091	18	9	2	0
4932	92	11.5	1091	18	9	2	0
4933	92	11.5	1091	18	9	2	0
4934	89	10.7	1007	17	8	2	0
4935	80	10.0	942	16	8	2	0
4936	81	9.9	934	15	8	2	0
4937	56	9.7	916	15	8	2	0
4938	47	8.1	761	13	7	2	0
4939	56	7.8	728	13	7	2	0
4940	58	7.4	694	12	6	2	0
4941	60	7.8	733	12	6	2	0
4942	52	8.5	802	13	7	2	0
4943	46	8.5	799	13	7	2	1
4944	46	7.9	749	12	6	2	0
4945	18	8.0	759	11	6	2	0
4946	48	8.1	769	12	6	2	0
4947	50	8.1	765	12	6	2	0
4948	50	8.0	752	12	6	2	0
4949	56	7.6	718	10	6	2	0
4950	54	6.5	607	10	5	2	0
4951	47	8.1	768	11	6	2	0
4952	40	7.3	691	10	5	2	0
4953	56	5.2	486	8	4	2	0
4954	67	5.8	550	9	4	2	0
4955	46	5.6	523	9	4	2	0
4956	67	5.1	473	8	4	2	0
4957	57	4.1	384	7	4	2	0
4958	61	7.3	691	10	5	2	0
4959	43	5.2	486	8	4	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
4960	55	5.8	550	9	4	2	0
4961	40	5.6	523	9	4	2	0
4962	62	5.1	473	8	4	2	0
4963	74	4.1	384	7	4	1	0
4964	51	5.6	524	10	5	1	0
4965	67	6.6	614	10	6	2	0
4966	66	7.0	650	12	7	2	0
4967	69	6.1	566	11	5	2	0
4968	86	6.3	584	12	6	1	0
4969	95	6.3	584	12	6	1	0
4970	112	6.4	593	11	6	2	0
4971	114	6.4	593	11	6	2	0
4972	122	6.2	576	11	6	1	0
4973	102	6.2	576	11	6	1	0
4974	107	6.0	560	11	6	2	0
4975	94	5.9	548	11	6	2	0
4976	84	5.9	548	11	6	2	0
4977	88	5.9	546	10	6	2	0
4978	85	6.0	555	10	6	2	0
4979	89	6.0	555	10	6	2	0
4980	94	6.2	572	11	6	2	0
4981	87	6.2	572	11	6	2	0
4982	87	6.2	577	11	6	2	0
4983	84	6.1	571	11	6	2	0
4984	99	6.1	571	11	6	2	0
4985	106	6.4	595	11	6	2	0
4986	101	6.4	595	11	6	2	0
4987	105	6.6	615	11	6	2	0
4988	87	6.6	615	11	6	2	0
4989	104	6.2	584	11	5	2	0
4990	96	5.5	507	10	5	2	0
4991	102	5.5	507	10	5	2	0
4992	93	4.8	453	9	4	1	0
4993	99	4.8	453	9	4	1	0
4994	97	4.4	415	8	4	1	0
4995	97	4.4	415	8	4	1	0
4996	99	4.5	417	8	4	1	0
4997	89	4.4	409	8	4	1	0
4998	96	4.4	409	8	4	1	0
4999	92	5.0	467	8	4	1	0
5000	84	5.3	501	8	4	1	0
5001	99	5.3	501	8	4	1	0
5002	79	5.3	501	8	4	1	0
5003	81	5.4	514	8	4	1	0
5004	94	5.5	520	8	4	1	0
5005	109	5.6	535	8	4	1	0
5006	104	5.6	535	8	4	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5007	109	5.5	526	8	4	1	0
5008	98	5.5	526	8	4	1	0
5009	105	5.4	512	7	4	1	0
5010	101	5.4	512	7	4	1	0
5011	94	5.3	500	8	4	1	0
5012	109	5.3	500	8	4	1	0
5013	115	5.3	502	8	4	1	0
5014	119	5.3	502	8	4	1	0
5015	123	5.7	541	8	4	1	0
5016	107	5.7	541	8	4	1	0
5017	91	6.3	599	8	5	2	0
5018	99	6.6	626	10	5	2	0
5019	89	6.6	626	10	5	2	0
5020	87	6.3	599	10	5	1	0
5021	110	6.3	599	10	5	1	0
5022	126	6.1	578	9	5	1	0
5023	129	5.8	548	8	5	1	0
5024	94	5.8	548	8	5	1	0
5025	96	4.9	461	8	4	1	0
5026	104	4.9	461	8	4	1	0
5027	92	5.7	535	9	5	1	0
5028	92	5.7	535	9	5	1	0
5029	89	5.9	555	9	5	1	0
5030	102	5.4	513	8	5	1	0
5031	76	6.2	579	10	5	2	0
5032	92	6.2	579	10	5	2	0
5033	114	6.8	640	10	5	1	0
5034	63	6.7	633	10	5	1	0
5035	64	6.7	633	10	5	1	0
5036	96	6.8	643	9	5	1	0
5037	90	4.7	438	7	4	1	0
5038	87	4.7	438	7	4	1	0
5039	102	4.7	445	7	4	1	0
5040	108	4.7	445	7	4	1	0
5041	110	6.5	620	9	5	1	0
5042	110	6.5	620	9	5	1	0
5043	101	7.6	725	9	5	1	0
5044	105	7.5	715	10	5	1	0
5045	105	7.5	715	10	5	1	0
5046	106	2.2	208	4	2	0	0
5047	89	3.2	306	5	3	0	0
5048	97	1.4	130	4	2	0	0
5049	109	2.0	190	4	2	0	0
5050	72	2.2	208	4	2	0	0
5051	97	2.2	208	4	2	0	0
5052	78	3.2	306	5	3	0	0
5053	71	3.2	306	5	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5054	62	3.8	361	6	3	1	0
5055	68	3.8	361	6	3	1	0
5056	80	4.4	413	6	4	1	0
5057	92	5.3	490	8	4	1	0
5058	85	7.5	700	13	7	2	0
5059	79	6.8	637	11	6	1	0
5060	40	5.0	468	8	5	1	0
5061	62	4.9	460	8	4	1	0
5062	77	4.2	392	8	4	1	0
5063	72	3.8	357	7	4	1	0
5064	61	3.8	357	7	4	1	0
5065	49	3.4	317	6	3	1	0
5066	63	3.4	317	6	3	1	0
5067	53	3.3	307	6	3	1	0
5068	65	3.2	300	6	3	1	0
5069	53	3.6	340	6	3	1	0
5070	3	4.7	438	7	4	1	0
5071	4	4.5	420	7	4	1	0
5072	14	4.7	435	8	5	2	0
5073	9	2.1	200	4	2	0	0
5074	1	2.2	203	4	2	1	0
5075	14	2.0	188	4	2	1	0
5076	9	1.6	145	3	2	1	0
5077	6	1.6	147	3	2	1	0
5078	5	2.2	197	4	3	1	0
5079	15	2.1	193	4	2	1	0
5080	7	2.5	231	4	3	0	0
5081	11	2.3	217	4	2	0	0
5082	13	2.3	209	4	2	1	0
5083	5	2.1	197	4	2	1	0
5084	30	2.6	240	4	3	1	0
5085	29	2.8	266	4	3	1	0
5086	36	3.2	296	5	3	1	0
5087	4	1.7	163	3	2	0	0
5088	31	2.4	225	4	2	1	0
5089	15	2.3	219	4	2	0	0
5090	66	2.5	234	4	2	1	0
5091	62	2.8	262	4	3	0	0
5092	61	2.9	272	5	2	0	0
5093	55	2.2	208	3	2	0	0
5094	54	3.1	294	4	2	0	0
5095	53	2.9	275	4	2	0	0
5096	58	2.4	231	3	2	0	0
5097	42	4.1	391	5	2	0	0
5098	62	4.9	468	5	3	1	0
5099	89	4.9	468	5	3	1	0
5100	85	5.9	561	7	3	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5101	78	6.5	619	8	4	1	0
5102	57	6.5	619	8	4	1	0
5103	67	6.4	610	8	4	1	0
5104	54	5.8	561	6	3	1	0
5105	65	6.0	573	7	3	1	0
5106	65	6.0	573	7	3	1	0
5107	64	6.0	576	7	3	1	0
5108	65	6.7	639	7	4	1	0
5109	62	7.5	718	8	4	1	0
5110	80	7.7	734	9	5	1	0
5111	57	7.3	702	8	4	1	0
5112	67	7.3	700	8	4	1	0
5113	75	7.1	690	7	3	1	0
5114	57	7.0	680	7	3	1	0
5115	63	1.1	100	2	1	0	0
5116	78	2.6	253	3	2	0	0
5117	71	1.4	138	2	1	0	0
5118	88	1.4	130	2	1	0	0
5119	82	1.5	139	2	1	0	0
5120	75	2.2	214	3	2	0	0
5121	67	2.4	227	3	2	0	0
5122	70	1.5	140	2	1	0	0
5123	44	1.6	150	3	1	0	0
5124	61	2.4	233	3	2	0	0
5125	54	2.7	255	3	2	0	0
5126	41	2.8	267	3	2	0	0
5127	36	2.4	234	3	2	0	0
5128	58	1.3	121	2	1	0	0
5129	65	1.3	121	2	1	0	0
5130	55	4.1	388	4	2	0	0
5131	54	6.3	601	6	3	0	0
5132	50	6.3	601	6	3	0	0
5133	62	8.5	809	9	4	1	0
5134	55	10.6	1021	10	5	1	0
5135	53	11.3	1085	10	5	1	0
5136	57	11.3	1085	10	5	1	0
5137	51	12.1	1161	11	5	1	0
5138	52	12.1	1161	11	5	1	0
5139	54	11.9	1135	11	5	1	0
5140	55	10.9	1043	11	5	1	0
5141	37	9.7	938	10	5	1	0
5142	48	9.7	938	10	5	1	0
5143	43	10.1	972	10	5	1	0
5144	52	7.5	721	8	4	1	0
5145	29	6.6	632	6	4	1	0
5146	18	6.6	632	6	4	1	0
5147	49	15.6	1519	11	5	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5148	25	12.4	1207	11	5	1	0
5149	40	11.3	1094	10	5	1	0
5150	63	9.6	931	9	4	1	0
5151	53	8.4	812	8	4	1	0
5152	44	7.7	743	8	4	0	0
5153	55	9.3	898	9	4	1	0
5154	1	2.5	230	4	2	1	0
5155	118	2.5	229	4	2	1	0
5156	109	2.5	238	4	2	1	0
5157	98	2.5	238	4	2	0	0
5158	56	2.5	238	4	2	0	0
5159	101	2.4	228	4	2	0	0
5160	122	2.2	206	4	2	0	0
5161	117	2.2	206	4	2	0	0
5162	117	2.1	202	4	2	0	0
5163	110	2.1	202	4	2	0	0
5164	106	2.3	222	4	2	0	0
5165	106	2.6	247	4	2	0	0
5166	77	2.6	247	4	2	0	0
5167	94	3.1	296	4	3	0	0
5168	86	3.4	322	4	3	0	0
5169	90	3.6	347	5	3	0	0
5170	98	3.6	347	5	3	0	0
5171	81	3.9	372	5	3	0	0
5172	83	3.9	372	5	2	0	0
5173	92	4.2	406	5	3	0	0
5174	87	4.3	410	5	3	0	0
5175	87	4.3	410	5	3	0	0
5176	93	4.2	406	5	2	0	0
5177	82	4.7	456	5	3	0	0
5178	75	4.7	456	5	3	0	0
5179	77	4.6	443	5	2	0	0
5180	79	4.9	477	5	2	0	0
5181	76	5.1	495	5	2	0	0
5182	75	5.3	513	5	2	0	0
5183	63	5.7	550	5	3	0	0
5184	84	5.7	550	5	3	0	0
5185	79	7.6	741	6	3	1	0
5186	81	7.6	741	6	3	1	0
5187	84	8.6	837	6	3	1	0
5188	86	8.6	837	6	3	1	0
5189	84	9.3	903	7	4	1	0
5190	79	9.3	903	7	4	1	0
5191	74	9.2	895	7	4	0	0
5192	97	10.0	973	7	4	0	0
5193	112	10.0	973	7	4	0	0
5194	101	10.5	1026	7	4	1	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5195	105	10.5	1026	7	4	1	0
5196	96	11.2	1093	8	4	1	0
5197	104	11.2	1093	8	4	1	0
5198	90	10.8	1049	8	4	1	0
5199	89	11.4	1113	8	4	1	0
5200	110	11.4	1113	8	4	1	0
5201	94	12.0	1172	8	4	1	0
5202	94	12.0	1172	8	4	1	0
5203	108	13.1	1284	7	4	1	0
5204	108	14.4	1414	9	4	1	0
5205	91	14.4	1414	9	4	1	0
5206	115	15.4	1514	9	4	1	0
5207	84	16.8	1648	9	4	1	0
5208	82	15.7	1542	8	4	1	0
5209	90	15.7	1542	9	4	1	0
5210	100	15.2	1489	9	4	1	0
5211	116	15.8	1552	9	4	1	0
5212	114	15.8	1552	9	4	1	0
5213	99	15.8	1552	9	4	1	0
5214	108	15.3	1502	8	4	1	0
5215	109	15.3	1502	8	4	1	0
5216	90	13.4	1316	7	4	1	0
5217	85	8.3	810	6	3	0	0
5218	95	8.3	810	6	3	0	0
5219	107	5.0	485	4	2	0	0
5220	113	10.8	1054	7	3	1	0
5221	85	7.6	741	6	3	0	0
5222	81	7.6	741	6	3	0	0
5223	109	8.6	837	6	3	0	0
5224	120	8.6	837	6	3	0	0
5225	90	9.3	903	7	4	0	0
5226	112	9.3	903	7	4	0	0
5227	112	9.2	895	7	4	0	0
5228	111	10.0	973	7	4	0	0
5229	108	10.0	973	7	4	0	0
5230	113	10.5	1026	7	4	0	0
5231	125	8.2	801	6	3	0	0
5232	101	8.2	801	6	3	0	0
5233	120	7.8	761	6	3	0	0
5234	127	8.0	778	6	3	0	0
5235	103	8.0	778	5	3	0	0
5236	94	9.0	874	7	3	0	0
5237	106	9.0	874	7	3	0	0
5238	118	9.2	894	7	3	0	0
5239	129	10.0	967	7	3	0	0
5240	103	10.0	967	7	3	0	0
5241	113	11.1	1081	7	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5242	104	11.3	1102	8	3	0	0
5243	104	11.3	1102	8	3	0	0
5244	108	12.7	1235	8	3	0	0
5245	101	14.0	1368	9	4	0	0
5246	87	32.9	3221	17	6	1	0
5247	29	4.5	421	6	3	0	0
5248	34	4.5	421	6	3	0	0
5249	80	4.0	375	5	2	0	0
5250	76	3.9	365	5	2	0	0
5251	73	3.8	355	5	2	0	0
5252	68	3.5	328	4	2	0	0
5253	68	3.1	289	4	2	0	0
5254	60	2.8	263	4	2	0	0
5255	72	2.8	263	4	2	0	0
5256	75	2.8	261	4	2	0	0
5257	62	2.6	246	4	2	0	0
5258	64	2.7	256	3	2	0	0
5259	58	2.9	277	3	2	0	0
5260	53	2.9	277	3	2	0	0
5261	63	3.1	297	4	2	0	0
5262	52	3.2	304	4	2	0	0
5263	59	3.3	313	4	2	0	0
5264	55	3.4	323	4	2	0	0
5265	55	3.4	325	4	2	0	0
5266	63	3.5	334	4	2	0	0
5267	55	3.7	355	4	2	0	0
5268	56	3.7	355	4	2	0	0
5269	64	3.9	370	4	2	0	0
5270	51	3.9	370	4	2	0	0
5271	71	3.9	373	4	2	0	0
5272	74	3.9	377	4	2	0	0
5273	66	3.9	377	4	2	0	0
5274	69	4.0	381	4	2	0	0
5275	58	4.0	381	4	2	0	0
5276	53	3.9	372	4	2	0	0
5277	57	3.8	366	4	2	0	0
5278	60	3.9	377	4	2	0	0
5279	59	4.0	386	4	2	0	0
5280	61	4.1	388	4	2	0	0
5281	53	4.1	388	4	2	0	0
5282	64	3.9	375	4	2	0	0
5283	58	4.2	404	4	2	0	0
5284	58	4.2	404	5	2	0	0
5285	56	4.2	399	5	2	0	0
5286	55	4.1	389	5	2	0	0
5287	61	4.1	389	5	2	0	0
5288	71	4.1	387	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5289	72	4.0	385	5	2	0	0
5290	81	4.0	378	5	2	0	0
5291	66	4.1	388	5	2	0	0
5292	62	4.3	413	5	2	0	0
5293	63	4.5	427	5	2	0	0
5294	57	4.7	447	5	2	0	0
5295	53	4.7	447	5	2	0	0
5296	62	4.5	431	5	2	0	0
5297	64	4.3	406	5	2	0	0
5298	81	4.0	381	4	2	0	0
5299	82	3.6	343	4	2	0	0
5300	76	3.1	293	3	2	0	0
5301	72	3.0	283	3	1	0	0
5302	79	2.9	273	3	1	0	0
5303	54	2.8	265	3	1	0	0
5304	49	3.2	301	4	1	0	0
5305	55	3.2	307	4	2	0	0
5306	64	3.4	322	3	2	0	0
5307	66	3.6	344	4	1	0	0
5308	63	3.7	357	4	1	0	0
5309	47	3.7	357	4	1	0	0
5310	42	3.8	361	4	2	0	0
5311	50	3.8	361	4	2	0	0
5312	52	3.7	350	4	1	0	0
5313	52	3.4	325	3	1	0	0
5314	50	3.4	328	4	1	0	0
5315	50	3.4	326	4	1	0	0
5316	53	3.4	331	3	1	0	0
5317	51	3.7	358	4	1	0	0
5318	51	4.2	401	4	2	0	0
5319	34	4.2	401	4	2	0	0
5320	20	3.9	377	4	2	0	0
5321	51	2.7	253	3	1	0	0
5322	60	3.7	353	4	2	0	0
5323	75	4.8	454	5	2	0	0
5324	63	4.1	387	4	2	0	0
5325	61	1.7	161	3	1	0	0
5326	64	0.7	69	0	0	0	0
5327	62	0.3	31	0	0	0	0
5328	63	0.1	14	0	0	0	0
5329	57	0.3	31	0	0	0	0
5330	58	2.1	201	3	1	0	0
5331	62	4.0	377	5	2	0	0
5332	66	4.4	424	5	2	0	0
5333	68	4.7	448	5	2	0	0
5334	49	4.9	472	5	2	0	0
5335	67	5.2	496	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5336	70	5.2	496	5	3	0	0
5337	69	4.9	469	5	3	0	0
5338	70	4.3	414	4	2	0	0
5339	74	4.3	414	5	2	0	0
5340	61	2.6	247	3	2	0	0
5341	56	12.9	1252	10	3	0	0
5342	58	3.9	379	5	2	0	0
5343	91	3.4	321	5	2	0	0
5344	90	2.9	279	4	2	0	0
5345	95	2.6	245	4	2	0	0
5346	76	2.4	223	4	2	0	0
5347	80	2.4	223	4	2	0	0
5348	88	2.0	192	3	2	0	0
5349	94	1.9	180	3	1	0	0
5350	90	1.9	180	3	1	0	0
5351	87	1.9	180	3	1	0	0
5352	86	1.4	134	2	1	0	0
5353	7	0.9	89	0	0	0	0
5354	7	1.2	116	3	1	0	0
5355	8	1.0	95	2	0	0	0
5356	8	0.7	72	0	0	0	0
5357	8	0.8	76	0	0	0	0
5358	11	0.9	90	0	0	0	0
5359	1	0.8	79	0	0	0	0
5360	7	0.8	83	0	0	0	0
5361	7	0.8	80	0	0	0	0
5362	8	1.2	117	2	1	0	0
5363	6	1.1	111	2	0	0	0
5364	6	1.7	162	3	1	0	0
5365	11	2.2	206	3	2	2	0
5366	6	2.2	209	4	2	0	0
5367	10	1.5	136	3	1	0	0
5368	5	1.4	134	3	1	0	0
5369	77	1.4	134	3	1	0	0
5370	93	1.4	135	2	1	0	0
5371	73	1.4	137	2	1	0	0
5372	62	1.4	137	2	1	0	0
5373	33	1.4	136	2	1	0	0
5374	77	1.5	140	2	1	0	0
5375	59	1.5	150	2	1	0	0
5376	67	1.7	162	2	1	0	0
5377	80	1.9	176	3	1	0	0
5378	66	1.9	181	3	1	0	0
5379	63	1.9	181	3	1	0	0
5380	69	1.9	181	3	1	0	0
5381	64	1.9	182	2	0	0	0
5382	70	1.9	183	3	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5383	48	1.9	183	3	0	0	0
5384	48	2.0	193	3	1	0	0
5385	54	2.2	210	2	1	0	0
5386	57	2.2	210	2	1	0	0
5387	85	2.2	211	3	0	0	0
5388	63	2.4	230	3	1	0	0
5389	68	2.4	230	3	1	0	0
5390	82	2.4	237	3	1	0	0
5391	72	2.5	239	3	1	0	0
5392	81	2.6	251	3	1	0	0
5393	80	2.6	252	3	1	0	0
5394	57	2.6	252	3	1	0	0
5395	73	2.7	257	3	1	0	0
5396	75	2.7	262	3	1	0	0
5397	72	2.7	262	3	1	0	0
5398	51	2.7	260	3	1	0	0
5399	59	2.9	276	3	1	0	0
5400	52	3.0	289	3	1	0	0
5401	47	3.2	308	3	1	0	0
5402	56	3.3	319	3	1	0	0
5403	75	3.3	319	3	1	0	0
5404	68	2.9	281	3	1	0	0
5405	75	2.6	253	3	1	0	0
5406	62	2.3	221	2	1	0	0
5407	62	2.1	202	2	0	0	0
5408	56	2.2	211	2	1	0	0
5409	47	2.2	209	2	1	0	0
5410	55	2.2	210	2	1	0	0
5411	55	2.5	241	3	1	0	0
5412	49	2.5	241	3	1	0	0
5413	56	2.5	238	3	1	0	0
5414	44	2.4	229	3	1	0	0
5415	49	2.3	227	3	1	0	0
5416	60	2.3	219	3	1	0	0
5417	65	2.1	204	3	1	0	0
5418	48	2.4	232	3	1	0	0
5419	49	1.8	171	2	0	0	0
5420	55	0.9	90	2	0	0	0
5421	64	0.4	41	0	0	0	0
5422	62	0.6	65	0	0	0	0
5423	61	1.1	104	1	0	0	0
5424	75	1.5	143	2	0	0	0
5425	71	2.5	241	3	1	0	0
5426	62	3.1	303	4	1	0	0
5427	73	3.7	354	4	1	0	0
5428	55	4.2	399	5	2	0	0
5429	59	4.2	399	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5430	66	4.1	396	5	2	0	0
5431	65	4.4	420	5	2	0	0
5432	63	4.6	445	4	2	0	0
5433	46	4.6	445	5	2	0	0
5434	73	4.2	403	5	2	0	0
5435	52	3.9	378	4	2	0	0
5436	71	3.7	355	4	2	0	0
5437	67	4.8	457	5	2	0	0
5438	64	1.2	113	2	1	0	0
5439	80	1.2	113	2	1	0	0
5440	85	1.7	161	3	1	0	0
5441	23	2.1	193	3	1	0	0
5442	104	2.1	193	3	1	0	0
5443	99	1.9	185	3	1	0	0
5444	83	1.9	185	3	1	0	0
5445	91	1.8	172	3	1	0	0
5446	86	1.8	172	3	1	0	0
5447	92	1.6	155	3	1	0	0
5448	87	1.6	155	3	1	0	0
5449	78	1.5	143	3	1	0	0
5450	64	1.5	143	3	1	0	0
5451	82	1.5	146	3	1	0	0
5452	77	1.6	148	3	1	0	0
5453	80	1.7	158	3	1	0	0
5454	65	1.7	158	3	1	0	0
5455	71	1.8	169	3	1	0	0
5456	57	1.9	177	3	1	0	0
5457	64	2.2	207	3	1	0	0
5458	46	2.3	221	3	1	0	0
5459	50	2.5	235	3	1	0	0
5460	64	2.7	255	4	2	0	0
5461	62	2.8	274	4	2	0	0
5462	71	2.8	274	4	2	0	0
5463	83	3.6	346	4	2	0	0
5464	74	4.2	401	5	2	0	0
5465	80	4.2	401	5	2	0	0
5466	78	5.3	504	6	2	0	0
5467	74	6.4	615	7	3	0	0
5468	72	6.4	615	7	3	0	0
5469	60	6.4	615	7	3	0	0
5470	47	5.7	549	6	3	0	0
5471	56	7.4	713	9	3	0	0
5472	56	6.3	606	7	2	0	0
5473	65	5.7	542	7	2	0	0
5474	45	5.2	492	7	2	0	0
5475	40	4.2	395	6	2	0	0
5476	55	3.4	325	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5477	46	3.2	298	5	2	0	0
5478	49	3.0	283	4	2	0	0
5479	46	2.4	224	4	2	0	0
5480	50	2.3	220	4	2	0	0
5481	65	2.5	232	4	2	0	0
5482	54	2.7	257	4	2	0	0
5483	67	3.5	329	5	2	0	0
5484	78	3.9	365	5	3	0	0
5485	68	4.3	402	6	3	0	0
5486	63	5.0	468	6	3	1	0
5487	83	6.6	624	8	4	1	0
5488	88	6.6	624	8	4	0	0
5489	89	7.6	717	8	4	1	0
5490	104	7.8	735	8	4	1	0
5491	108	7.8	735	8	4	1	0
5492	79	7.3	691	8	4	1	0
5493	93	7.2	681	8	4	1	0
5494	58	6.5	618	8	4	1	0
5495	87	5.9	554	7	4	1	0
5496	73	5.1	482	6	3	0	0
5497	81	5.1	482	6	3	0	0
5498	75	5.2	499	6	3	0	0
5499	85	5.4	515	7	3	0	0
5500	71	5.6	531	7	3	1	0
5501	51	5.8	548	7	3	1	0
5502	58	6.0	564	7	4	1	0
5503	12	8.2	783	10	4	1	0
5504	43	8.2	783	10	4	1	0
5505	67	6.3	598	9	4	0	0
5506	62	6.3	598	9	4	0	0
5507	51	6.3	598	9	4	0	0
5508	48	5.6	523	8	4	0	0
5509	54	5.0	470	7	4	0	0
5510	59	2.8	262	5	3	0	0
5511	59	1.6	147	3	2	0	0
5512	55	0.8	74	2	1	0	0
5513	52	0.3	26	0	0	0	0
5514	50	0.3	25	0	0	0	0
5515	61	1.3	127	2	1	0	0
5516	60	2.1	192	4	2	0	0
5517	83	2.1	192	4	2	0	0
5518	68	2.3	216	4	2	0	0
5519	82	2.3	215	4	2	0	0
5520	72	2.3	215	4	2	0	0
5521	78	2.4	217	4	2	0	0
5522	63	2.4	224	4	2	0	0
5523	96	2.5	231	5	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5524	92	2.5	231	5	3	0	0
5525	89	2.9	269	5	3	0	0
5526	85	3.9	362	6	4	0	0
5527	84	4.7	430	7	4	1	0
5528	78	5.5	510	8	5	1	0
5529	65	7.5	695	9	6	2	0
5530	66	8.5	798	10	6	2	0
5531	61	11.1	1046	12	7	2	0
5532	75	12.6	1186	14	8	2	0
5533	71	5.9	533	9	6	2	0
5534	57	5.0	460	9	5	2	0
5535	77	4.9	448	9	5	2	0
5536	113	4.8	437	9	5	2	0
5537	167	4.8	433	8	5	2	0
5538	109	4.3	389	7	5	1	0
5539	95	3.8	349	6	5	1	0
5540	112	3.4	310	5	4	1	0
5541	69	2.4	226	5	3	0	0
5542	73	2.5	231	4	3	0	0
5543	88	2.8	258	5	3	1	0
5544	76	4.5	406	7	5	2	0
5545	49	4.9	447	8	5	2	0
5546	48	8.6	780	12	10	4	0
5547	41	8.6	780	13	10	4	0
5548	42	4.6	411	8	6	2	0
5549	44	3.5	316	6	5	2	0
5550	36	3.6	329	6	5	2	0
5551	37	4.5	409	7	5	2	0
5552	61	4.5	409	7	5	2	0
5553	58	4.6	418	8	6	2	0
5554	64	4.8	431	8	6	2	0
5555	59	5.5	493	9	7	3	0
5556	73	5.6	502	9	7	3	0
5557	78	5.2	461	9	7	2	0
5558	78	5.5	487	10	7	3	0
5559	68	5.5	487	10	7	3	0
5560	48	5.8	517	10	7	3	0
5561	51	6.3	563	10	8	3	0
5562	46	8.2	748	12	9	3	0
5563	49	9.2	841	13	10	3	0
5564	49	11.7	1076	14	11	4	1
5565	44	11.1	1028	13	10	4	0
5566	50	9.0	821	12	9	3	0
5567	58	6.6	596	10	7	3	0
5568	59	5.2	474	8	6	2	0
5569	50	4.3	393	7	5	2	0
5570	59	4.3	393	7	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5571	51	3.8	340	6	5	2	0
5572	59	3.8	340	6	5	2	0
5573	71	3.4	306	6	4	2	0
5574	71	3.0	272	5	4	2	0
5575	77	3.0	272	5	4	2	0
5576	62	2.8	254	5	4	1	0
5577	55	2.8	254	5	4	1	0
5578	60	2.8	254	5	4	1	0
5579	55	2.5	226	4	3	2	0
5580	54	2.0	186	3	3	1	0
5581	45	2.0	186	3	3	1	0
5582	58	2.0	177	4	3	1	0
5583	72	2.0	177	4	3	1	0
5584	67	2.0	179	4	3	1	0
5585	61	2.0	179	4	3	1	0
5586	52	2.1	187	4	3	1	0
5587	60	2.1	187	4	3	1	0
5588	47	2.7	239	4	4	0	2
5589	63	2.7	239	4	4	0	2
5590	65	3.5	316	6	4	1	0
5591	71	3.5	316	6	4	1	0
5592	53	3.6	325	6	4	1	0
5593	88	3.6	325	6	4	1	0
5594	79	3.6	325	6	4	1	0
5595	69	3.5	311	6	4	2	0
5596	77	4.4	396	7	5	2	0
5597	75	4.4	396	7	5	2	0
5598	65	5.2	469	8	6	2	0
5599	56	5.2	469	8	6	2	0
5600	71	6.9	631	10	7	3	0
5601	59	6.9	631	10	7	3	0
5602	60	6.9	623	10	7	3	0
5603	58	3.1	275	6	4	2	0
5604	56	3.2	289	6	4	2	0
5605	69	4.1	360	7	5	2	0
5606	71	3.5	305	6	4	2	0
5607	62	2.0	177	4	3	2	0
5608	72	1.1	95	3	2	0	0
5609	66	0.6	57	2	1	0	0
5610	56	0.3	31	0	1	0	0
5611	68	0.3	31	0	1	0	0
5612	77	1.0	93	2	2	0	0
5613	66	2.0	184	4	3	0	0
5614	69	2.7	243	5	4	1	0
5615	69	3.2	282	6	4	2	0
5616	73	3.2	289	6	4	1	0
5617	73	3.6	321	6	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5618	66	3.6	321	6	5	2	0
5619	93	4.1	374	7	5	2	0
5620	78	4.1	374	7	5	2	0
5621	87	4.6	416	8	6	3	0
5622	73	5.4	486	9	6	3	0
5623	70	5.4	486	9	6	3	0
5624	69	6.1	552	9	7	3	0
5625	86	6.1	552	9	7	3	0
5626	71	12.5	1155	16	12	4	0
5627	67	4.0	353	8	6	2	0
5628	118	4.0	353	8	6	2	0
5629	101	3.4	295	6	5	2	0
5630	107	3.4	295	6	5	2	0
5631	98	2.9	258	6	5	2	0
5632	99	2.9	258	6	5	2	0
5633	119	2.7	233	6	4	2	0
5634	83	2.6	231	5	4	2	0
5635	82	2.6	228	5	4	2	0
5636	92	2.6	228	5	4	2	0
5637	75	2.8	246	5	4	2	0
5638	69	2.8	246	5	4	2	0
5639	74	2.8	246	5	4	2	0
5640	63	3.9	356	6	4	2	0
5641	44	3.9	356	6	4	2	0
5642	51	4.7	426	7	5	2	0
5643	50	5.6	512	8	6	2	0
5644	47	5.6	512	8	6	2	0
5645	57	5.6	505	8	6	2	0
5646	43	6.5	597	9	6	3	0
5647	44	6.5	597	9	6	3	0
5648	56	6.3	578	8	6	3	0
5649	49	5.9	535	7	6	2	0
5650	58	3.9	358	6	5	2	0
5651	71	3.6	327	5	4	2	0
5652	77	2.4	216	4	3	2	0
5653	83	1.6	137	3	3	2	0
5654	64	1.3	116	3	3	1	0
5655	61	1.5	136	3	3	1	0
5656	54	2.2	199	4	3	1	0
5657	48	3.6	329	5	4	1	0
5658	32	3.7	342	6	4	1	0
5659	45	3.8	349	6	4	2	0
5660	48	4.0	360	6	5	2	0
5661	62	4.3	390	7	5	2	0
5662	45	4.3	390	7	5	2	0
5663	41	4.3	387	7	5	2	0
5664	52	4.3	387	7	6	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5665	24	4.3	383	8	6	3	0
5666	36	4.0	354	7	6	3	0
5667	50	3.8	334	7	6	3	0
5668	55	3.8	334	7	6	3	0
5669	52	3.4	294	7	5	2	0
5670	56	3.4	294	7	5	2	0
5671	13	3.2	278	6	5	2	0
5672	44	3.2	278	6	5	2	0
5673	55	2.9	254	6	5	2	0
5674	55	2.9	250	6	5	2	0
5675	55	2.9	250	6	5	2	0
5676	53	4.5	393	8	7	3	0
5677	46	4.5	393	8	7	3	0
5678	63	5.6	490	10	8	4	0
5679	79	6.2	550	10	8	4	0
5680	82	12.9	1176	17	12	5	2
5681	83	10.7	981	15	11	4	0
5682	77	7.4	671	11	8	3	0
5683	46	4.1	361	7	6	2	0
5684	31	3.9	351	7	5	2	0
5685	56	6.7	610	10	7	2	0
5686	55	9.6	889	13	8	3	0
5687	69	11.3	1054	14	9	3	0
5688	87	11.6	1078	15	10	4	0
5689	82	11.6	1078	15	10	4	1
5690	66	11.0	1012	15	10	4	1
5691	80	8.1	731	12	9	3	1
5692	70	6.3	569	11	8	3	0
5693	48	5.8	522	10	6	3	0
5694	50	6.5	591	9	7	3	0
5695	79	8.9	823	11	8	3	0
5696	54	11.6	1078	14	10	3	1
5697	55	13.0	1209	14	10	3	1
5698	57	13.0	1209	14	10	3	1
5699	61	12.2	1135	13	10	4	1
5700	56	10.9	1007	13	9	4	1
5701	66	8.7	796	11	8	3	1
5702	56	6.5	599	9	6	3	0
5703	74	5.4	493	7	6	2	0
5704	78	4.9	446	7	5	2	0
5705	60	4.2	379	7	5	2	1
5706	50	3.9	344	6	4	2	1
5707	56	3.3	296	5	4	2	0
5708	5	9.5	870	12	9	4	1
5709	25	8.9	850	11	7	0	0
5710	30	3.1	300	4	1	0	0
5711	37	2.8	274	3	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5712	21	3.0	288	4	3	0	0
5713	22	3.6	346	4	2	0	0
5714	25	3.5	338	4	2	0	0
5715	19	3.6	347	4	2	0	0
5716	11	3.4	330	3	1	0	0
5717	20	3.1	300	3	1	0	0
5718	12	0.2	18	0	0	0	0
5719	41	0.2	20	0	0	0	0
5720	50	0.2	20	0	0	0	0
5721	25	0.2	20	0	0	0	0
5722	20	0.2	16	0	0	0	0
5723	17	0.2	24	0	0	0	0
5724	28	0.3	31	0	0	0	0
5725	44	0.5	47	0	0	0	0
5726	41	0.5	49	0	0	0	0
5727	39	0.5	48	0	0	0	0
5728	49	0.5	54	0	0	0	0
5729	37	0.6	57	0	0	0	0
5730	51	0.7	69	0	0	0	0
5731	32	0.7	72	0	0	0	0
5732	38	1.3	124	1	0	0	0
5733	38	1.8	176	2	0	0	0
5734	14	1.8	176	2	0	0	0
5735	30	1.5	148	2	0	0	0
5736	48	1.2	123	0	0	0	0
5737	17	0.6	59	0	0	0	0
5738	19	0.4	40	0	0	0	0
5739	31	0.4	43	0	0	0	0
5740	17	0.4	44	0	0	0	0
5741	35	0.6	57	0	0	0	0
5742	35	0.9	93	0	0	0	0
5743	27	1.0	102	0	0	0	0
5744	46	1.0	102	0	0	0	0
5745	33	0.8	83	0	0	0	0
5746	51	0.7	65	0	0	0	0
5747	55	0.6	58	0	0	0	0
5748	35	0.6	63	0	0	0	0
5749	55	0.8	75	0	0	0	0
5750	39	0.8	82	0	0	0	0
5751	28	0.8	82	0	0	0	0
5752	32	0.8	80	0	0	0	0
5753	39	0.7	72	0	0	0	0
5754	53	0.8	82	0	0	0	0
5755	52	1.1	108	0	0	0	0
5756	65	1.1	113	0	0	0	0
5757	59	1.1	113	0	0	0	0
5758	55	1.1	111	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5759	62	1.1	109	0	0	0	0
5760	57	1.0	104	0	0	0	0
5761	53	1.1	107	0	0	0	0
5762	71	1.2	117	2	0	0	0
5763	55	1.3	124	2	0	0	0
5764	53	1.3	124	2	0	0	0
5765	46	1.3	123	2	0	0	0
5766	38	1.3	127	2	0	0	0
5767	33	1.3	123	2	0	0	0
5768	34	1.1	107	0	0	0	0
RIO BRAVO Fm.							
5769	26	1.1	110	0	0	0	0
5770	26	2.2	198	4	3	2	0
5771	32	2.7	227	5	5	3	0
5772	37	3.0	245	6	5	3	0
5773	35	3.1	254	6	6	3	0
5774	16	3.0	248	6	5	3	0
5775	46	3.0	242	6	6	4	0
5776	36	3.0	242	6	6	4	0
5777	25	2.9	239	6	6	4	0
5778	34	3.0	248	6	5	4	0
5779	31	3.2	265	6	5	4	0
5780	40	3.2	265	5	5	4	0
5781	36	3.1	261	5	4	3	0
5782	27	2.1	183	4	4	2	0
5783	44	1.8	162	4	3	2	0
5784	35	2.4	198	5	5	3	0
5785	79	3.0	241	6	6	3	0
5786	84	3.6	292	7	7	4	0
5787	68	3.6	297	7	7	4	0
5788	72	3.6	297	7	6	4	0
5789	55	3.0	249	6	5	4	0
5790	55	2.2	196	4	4	3	0
5791	82	2.2	196	4	4	3	0
5792	76	2.7	219	6	5	4	0
5793	33	4.8	385	11	9	7	0
5794	74	25.0	2117	40	33	25	5
5795	33	38.7	3315	59	52	34	7
5796	44	11.0	952	16	14	9	2
5797	60	1.0	88	0	2	2	0
5798	42	1.1	96	3	2	2	0
5799	59	1.1	96	3	2	2	0
5800	45	1.1	94	3	2	2	0
5801	72	1.0	84	2	2	2	0
5802	141	1.0	84	2	2	2	0
5803	191	1.0	84	2	2	2	0
5804	166	0.7	69	2	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5805	169	0.7	69	2	0	1	0
5806	217	0.7	69	2	0	2	0
5807	168	0.7	62	0	0	2	0
5808	146	0.7	62	0	0	2	0
5809	173	0.7	64	0	0	2	0
5810	50	1.1	84	3	3	2	0
5811	90	1.4	112	4	3	2	0
5812	88	1.9	156	4	4	2	0
5813	74	2.7	218	5	5	3	0
5814	47	9.7	790	49	19	10	2
5815	72	40.7	3506	60	56	29	7
5816	58	63.4	5511	93	91	42	10
5817	30	92.9	8048	140	139	67	14
5818	32	101.7	8724	169	157	81	16
5819	36	101.7	8724	169	157	81	16
5820	39	100.8	8649	167	155	81	15
5821	39	100.0	8573	166	154	81	15
5822	18	92.5	7944	146	136	78	14
5823	51	85.7	7346	138	124	73	14
5824	81	66.2	5654	106	93	61	12
5825	57	66.2	5654	106	93	61	12
5826	63	47.0	3971	76	67	46	9
5827	75	33.2	2774	57	48	36	7
5828	98	33.2	2774	57	48	36	7
5829	106	25.0	2052	45	42	29	6
5830	121	19.6	1579	39	38	23	5
5831	86	19.6	1579	40	38	23	5
5832	91	16.8	1320	36	34	20	5
5833	73	16.2	1276	34	33	20	5
5834	90	19.4	1554	39	37	23	6
5835	120	26.4	2176	49	46	28	6
5836	67	25.6	2103	46	44	27	6
5837	94	24.7	2031	43	43	27	6
5838	77	23.9	1961	42	41	27	6
5839	55	23.6	1938	40	39	27	6
5840	48	19.3	1566	36	33	23	5
5841	47	15.5	1248	29	27	20	5
5842	49	13.8	1142	25	23	17	4
5843	81	13.8	1142	24	21	17	4
5844	18	13.8	1142	23	19	16	4
5845	76	14.3	1207	21	18	15	3
5846	106	14.3	1207	21	18	15	3
5847	102	12.8	1075	20	16	13	3
5848	109	12.8	1075	20	16	13	3
5849	68	9.4	786	16	12	11	2
5850	133	7.3	601	12	12	8	2
5851	151	7.3	601	12	12	8	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5852	101	5.9	476	10	11	6	2
5853	25	5.4	436	12	10	6	2
5854	86	5.2	410	10	10	6	2
5855	110	5.8	459	11	11	7	2
5856	97	5.8	459	11	11	7	2
5857	108	9.1	747	17	16	10	3
5858	95	8.7	747	18	16	10	3
5859	104	14.9	1329	16	24	14	4
5860	126	14.9	1329	17	24	14	4
5861	123	17.6	1560	28	26	17	4
5862	110	17.6	1560	28	26	17	4
5863	78	16.8	1485	26	24	17	4
5864	79	17.8	1578	27	26	18	4
5865	83	17.8	1578	27	26	18	4
5866	98	17.8	1578	27	26	18	4
5867	80	19.5	1733	31	28	19	4
5868	82	20.2	1792	33	29	20	4
5869	71	21.9	1940	35	30	22	5
5870	81	26.1	2341	38	32	25	5
5871	90	26.1	2341	38	32	25	5
5872	91	28.9	2603	40	33	27	6
5873	93	27.2	2448	39	30	25	6
5874	58	22.5	2016	32	27	22	5
5875	50	20.4	1810	31	26	22	6
5876	40	21.5	1901	32	30	22	6
5877	44	22.3	1972	36	35	21	6
5878	48	23.2	2044	39	36	22	6
5879	58	22.5	1984	37	35	23	6
5880	94	22.6	1984	39	35	23	6
5881	126	20.7	1814	35	33	22	6
5882	99	20.8	1814	39	33	22	6
5883	112	18.0	1548	35	31	21	6
5884	114	13.3	1130	28	24	18	5
5885	97	13.3	1130	29	24	18	5
5886	95	10.3	858	24	20	16	5
5887	102	10.2	831	25	21	17	5
5888	68	6.2	492	19	17	9	4
5889	88	5.6	446	18	15	9	3
5890	115	5.7	446	19	15	9	3
5891	116	6.6	521	21	17	10	4
5892	35	13.2	1089	30	28	20	6
5893	82	74.8	6571	137	119	76	16
5894	66	74.8	6571	137	119	76	16
5895	84	44.4	3956	77	58	40	10
5896	48	23.9	2091	47	35	27	6
5897	52	14.2	1206	31	25	19	5
5898	91	14.2	1206	31	25	19	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5899	116	10.1	832	26	24	13	5
5900	74	7.8	634	20	19	11	4
5901	69	6.4	510	18	16	10	5
5902	72	5.3	414	17	14	9	4
5903	77	5.3	414	18	14	9	4
5904	73	4.6	353	17	11	8	3
5905	74	4.2	324	15	10	7	3
5906	73	4.1	327	13	9	7	3
5907	77	4.5	361	15	9	7	3
5908	68	5.7	451	12	10	7	3
5909	48	5.7	451	12	9	7	3
5910	74	5.0	399	11	8	6	2
5911	77	4.3	335	10	7	6	2
5912	70	3.5	269	8	6	5	2
5913	65	3.0	238	8	5	5	0
5914	72	3.0	228	7	5	5	2
5915	71	2.4	197	6	5	4	0
5916	68	2.1	172	5	4	3	0
5917	73	2.8	219	6	5	3	2
5918	83	3.0	232	6	6	3	2
5919	59	3.1	249	6	6	4	2
5920	63	3.1	249	6	6	4	2
5921	59	4.2	341	8	7	5	2
5922	59	4.2	341	8	7	5	2
5923	66	4.8	394	9	8	5	2
5924	64	4.9	405	9	7	5	2
5925	55	6.0	500	10	9	7	3
5926	61	7.3	611	12	10	8	3
5927	49	7.5	626	12	10	8	3
5928	52	7.9	660	13	11	8	2
5929	63	9.9	843	15	12	10	3
5930	59	11.0	937	16	13	11	3
5931	69	10.5	937	16	13	11	3
5932	29	58.2	5076	109	103	57	14
5933	98	58.3	5076	115	103	57	14
5934	76	31.8	2732	69	60	36	8
5935	70	19.0	1583	49	40	26	6
5936	85	17.0	1424	40	35	24	6
5937	80	17.1	1424	42	35	24	6
5938	75	56.8	5007	99	88	56	12
5939	75	66.9	5904	112	104	67	14
5940	77	70.4	6204	121	110	72	14
5941	78	70.4	6204	121	110	72	14
5942	72	70.5	6203	121	109	74	15
5943	76	70.6	6242	117	102	75	15
5944	65	85.1	7490	147	137	85	17
5945	76	85.1	7490	147	137	85	17

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5946	81	105.8	9217	220	203	92	21
5947	55	153.6	13114	360	346	148	29
5948	65	223.9	19023	639	400	262	45
5949	69	267.9	22369	867	500	351	56
5950	70	268.4	22369	867	520	351	56
5951	76	249.4	20821	776	480	329	54
5952	75	213.3	17947	618	400	273	47
5953	62	193.3	16376	521	350	246	42
5954	66	180.0	15411	456	290	225	39
5955	55	164.9	14148	406	270	201	35
5956	50	145.8	12642	350	200	176	30
5957	33	123.2	10721	262	180	147	26
5958	34	107.8	9370	218	170	126	23
5959	38	69.4	6088	120	108	76	15
5960	42	60.4	5305	109	102	56	14
5961	34	49.5	4348	90	85	44	12
5962	48	42.4	3705	82	73	40	10
5963	62	42.4	3705	85	73	40	10
5964	74	36.4	3175	72	61	36	9
5965	66	31.0	2696	59	53	32	8
5966	69	26.5	2304	52	45	28	7
5967	73	24.1	2088	49	41	27	7
5968	75	24.4	2120	48	39	28	6
5969	65	24.3	2120	45	39	28	6
5970	95	24.3	2116	45	39	28	6
5971	101	26.1	2274	49	40	29	7
5972	84	26.1	2274	50	40	29	7
5973	88	31.9	2814	51	47	34	8
5974	84	31.9	2814	51	47	34	8
5975	73	39.2	3475	60	55	41	9
5976	68	77.2	6906	118	100	75	14
5977	57	97.6	8684	160	132	97	18
5978	74	99.9	8833	175	139	106	19
5979	63	114.2	10074	208	198	98	20
5980	71	114.3	10074	210	198	98	20
5981	66	125.1	10834	269	244	115	27
5982	80	124.3	10834	226	244	115	27
5983	79	99.3	8658	193	178	97	21
5984	74	88.4	7734	160	153	90	19
5985	73	10.6	858	26	30	15	5
5986	52	24.8	2052	51	53	39	11
5987	153	24.8	2052	51	53	39	11
5988	52	24.3	2009	50	52	39	11
5989	41	93.0	7938	180	186	119	25
5990	38	97.2	8401	191	175	110	25
5991	114	72.0	6272	132	114	82	19
5992	157	72.0	6272	132	114	82	19

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
5993	137	51.6	4485	90	80	63	16
5994	111	51.6	4485	90	80	63	16
5995	136	51.6	4485	90	80	63	16
5996	142	38.8	3335	71	62	53	14
5997	114	38.8	3335	71	62	53	14
5998	74	39.4	3401	71	59	53	13
5999	53	67.5	5921	110	102	77	17
6000	71	94.5	8247	171	155	102	25
6001	53	91.9	7958	180	155	98	30
6002	77	93.7	8107	191	166	98	27
6003	71	217.0	18361	637	420	241	43
6004	58	217.8	18361	637	450	241	43
6005	43	245.5	20408	765	535	306	50
6006	56	198.2	16654	540	440	230	40
6007	58	197.9	16654	540	430	230	40
6008	104	148.9	12707	352	300	168	30
6009	65	133.7	11446	292	279	148	26
6010	62	307.3	24048	1070	990	497	67
6011	54	307.4	24048	1070	992	497	67
6012	42	178.3	14844	488	359	265	42
6013	39	163.7	13600	412	380	233	38
6014	65	169.3	14053	430	389	244	40
6015	70	169.4	14037	438	390	246	40
6016	78	169.4	14037	438	391	246	40
6017	91	173.5	14433	448	387	246	40
6018	80	160.5	13428	400	387	191	39
6019	110	159.1	13400	389	365	185	35
6020	92	137.2	11647	325	297	147	35
6021	92	137.2	11647	325	297	147	35
6022	87	113.7	9733	254	229	120	30
6023	102	90.8	7804	195	173	97	25
6024	50	75.7	6515	152	139	87	22
6025	46	75.7	6540	148	135	85	21
6026	43	120.6	10341	250	240	138	28
6027	32	179.7	15027	448	420	229	41
6028	29	149.3	12688	350	290	187	36
6029	38	83.5	7119	167	160	108	24
6030	54	63.1	5396	121	111	87	19
6031	64	49.0	4176	96	86	70	16
6032	62	49.0	4176	96	86	70	16
6033	70	40.1	3372	90	84	53	14
6034	80	34.3	2845	85	78	44	15
6035	79	34.4	2845	89	78	44	15
6036	65	30.4	2528	75	63	39	14
6037	60	27.8	2309	68	57	38	13
6038	51	28.2	2353	66	56	39	13
6039	137	31.9	2682	72	63	43	13

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6040	137	32.0	2682	73	63	43	13
6041	107	32.0	2682	75	63	43	13
6042	136	42.7	3650	85	78	52	15
6043	80	65.1	5645	125	112	71	18
6044	64	95.2	8216	195	182	101	23
6045	34	126.6	10913	179	271	154	32
6046	33	118.2	10069	248	238	145	31
6047	22	285.5	22639	974	785	480	71
6048	20	170.9	14299	436	329	251	48
6049	19	43.4	3606	97	85	68	20
6050	19	33.6	2762	77	65	57	17
6051	61	33.6	2762	78	66	58	17
6052	95	38.4	3166	85	78	65	17
6053	99	38.4	3166	87	78	65	17
6054	97	40.2	3320	89	80	68	18
6055	92	40.4	3320	92	80	70	19
6056	79	39.3	3234	85	78	70	19
6057	98	39.3	3234	84	78	70	19
6058	103	39.5	3246	89	78	70	19
6059	77	38.3	3171	78	72	69	18
6060	79	38.3	3171	78	72	69	18
6061	77	35.6	2940	73	67	66	17
6062	75	34.6	2848	71	64	65	17
6063	82	36.2	2971	77	73	66	18
6064	94	36.3	2971	78	73	66	18
6065	111	37.9	3159	87	74	55	18
6066	134	37.9	3159	87	74	55	18
6067	113	39.0	3247	89	76	57	18
6068	119	39.1	3252	88	76	59	19
6069	87	39.1	3252	89	76	59	19
6070	109	38.8	3230	87	74	59	19
6071	82	38.9	3230	87	75	59	19
6072	103	40.5	3378	86	78	62	19
6073	97	41.9	3506	86	78	64	19
6074	99	42.6	3531	98	88	65	19
6075	90	36.2	3007	75	65	61	18
6076	102	36.3	3007	78	67	61	18
6077	93	25.0	2052	51	45	48	13
6078	77	26.7	2187	60	56	45	13
6079	69	26.7	2187	62	58	45	15
6080	25	13.4	1017	37	33	30	14
6081	25	12.0	924	31	27	25	14
6082	41	11.4	842	35	32	24	14
6083	35	10.9	802	36	31	23	14
6084	45	10.1	700	38	32	27	13
6085	41	11.5	803	42	36	30	16
6086	61	13.0	904	48	40	31	20

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6087	44	11.5	790	41	36	30	19
6088	68	10.0	674	42	30	28	16
6089	2	7.4	519	29	22	18	10
6090	87	7.0	489	25	22	17	10
6091	66	6.3	434	27	20	15	10
6092	85	5.6	375	26	18	14	10
6093	58	4.9	321	24	16	12	9
6094	5	5.3	362	20	15	14	10
6095	83	5.3	362	21	15	13	10
6096	45	5.5	389	20	15	13	9
6097	35	5.9	397	26	19	15	10
6098	21	5.9	397	24	17	17	10
6099	38	4.9	325	13	14	17	9
6100	92	4.7	309	12	14	17	9
6101	152	4.7	309	12	14	17	9
6102	180	12.7	1010	28	27	26	10
6103	215	12.7	1010	28	27	26	10
6104	177	12.2	971	27	25	25	10
6105	168	12.2	971	27	25	25	10
6106	142	12.2	971	27	25	25	10
6107	103	10.1	785	26	23	20	10
6108	80	8.7	680	25	20	15	9
6109	84	8.7	680	25	20	15	9
6110	126	8.4	644	24	19	16	9
6111	112	8.1	622	22	18	15	10
6112	92	7.7	595	21	17	15	9
6113	53	7.7	595	21	16	14	9
6114	96	8.0	647	21	14	12	8
6115	80	8.1	656	14	16	13	8
6116	68	8.1	656	14	16	13	8
6117	92	23.9	2170	29	26	18	8
6118	112	26.3	2401	30	26	19	8
6119	70	26.1	2401	27	22	19	8
6120	78	26.1	2401	27	22	19	8
6121	90	27.3	2524	28	21	19	8
6122	45	41.2	3824	40	29	29	10
6123	34	36.0	3308	41	27	28	10
6124	46	30.2	2752	37	24	26	10
6125	68	36.3	3281	50	32	35	11
6126	83	67.0	6018	104	65	67	17
6127	87	70.1	6267	112	78	69	18
6128	99	70.1	6267	112	78	69	18
6129	111	62.7	5581	97	89	54	18
6130	125	62.7	5581	97	89	54	18
6131	128	62.7	5581	97	89	54	18
6132	136	53.8	4764	83	76	51	18
6133	144	53.8	4764	83	76	51	18

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6134	126	47.0	4159	71	65	46	16
6135	105	47.0	4159	71	65	46	16
6136	113	42.8	3785	64	56	43	16
6137	115	42.8	3785	64	56	43	16
6138	116	42.8	3785	64	56	43	16
6139	113	39.0	3454	59	50	40	14
6140	157	35.9	3162	56	45	40	15
6141	111	35.9	3162	56	45	40	15
6142	117	33.9	2988	52	41	38	14
6143	96	33.9	2988	52	41	38	14
6144	113	31.8	2824	48	35	33	13
6145	94	31.8	2824	48	35	32	13
6146	85	30.3	2694	48	33	30	12
6147	83	29.3	2603	47	32	28	12
6148	91	28.3	2512	46	30	27	12
6149	77	26.1	2311	44	28	25	12
6150	91	26.0	2311	44	28	23	12
6151	98	25.1	2249	42	23	20	12
6152	83	25.1	2249	42	23	19	12
6153	71	25.8	2327	44	24	18	11
6154	89	33.2	3002	54	27	25	14
6155	83	33.2	3002	54	27	24	14
6156	99	34.5	3136	56	27	23	13
6157	66	25.7	2238	44	38	28	12
6158	107	25.7	2238	44	38	28	12
6159	50	39.4	3452	68	62	38	14
6160	45	81.4	7121	153	136	77	22
6161	47	131.0	11207	301	260	141	32
6162	40	217.1	17874	653	520	283	53
6163	39	247.4	20009	805	650	347	62
6164	78	247.6	20009	805	660	347	62
6165	90	273.2	21623	966	780	425	73
6166	90	273.0	21637	954	740	450	74
6167	67	232.8	18574	740	650	367	67
6168	73	176.2	14536	487	380	263	53
6169	84	176.5	14536	487	390	263	53
6170	78	130.5	11019	318	225	185	41
6171	87	101.5	8677	218	160	140	33
6172	74	101.7	8677	218	168	140	33
6173	75	79.7	6971	159	105	88	26
6174	81	84.4	6971	161	185	102	27
6175	120	22.6	1930	46	27	35	12
6176	82	23.3	1990	47	26	37	12
6177	69	23.3	1990	47	26	37	12
6178	112	36.4	3156	61	59	40	16
6179	136	36.4	3156	61	59	40	16
6180	108	45.8	4021	74	69	45	18

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6181	150	45.8	4021	74	69	45	18
6182	138	39.7	3451	65	60	44	18
6183	128	39.7	3451	65	60	44	18
6184	119	38.9	3366	65	58	47	19
6185	134	38.9	3366	65	58	47	19
6186	138	38.9	3366	65	58	47	19
6187	134	50.8	4434	84	72	58	21
6188	124	50.8	4434	84	72	58	21
6189	130	46.8	4060	80	67	55	21
6190	118	46.8	4060	80	67	55	21
6191	99	40.7	3511	74	59	52	19
6192	113	40.7	3511	74	59	52	19
6193	118	60.4	5309	106	78	68	20
6194	138	60.4	5309	106	78	68	20
6195	105	89.8	7903	170	117	97	24
6196	143	89.8	7903	170	117	97	24
6197	134	127.1	11058	280	185	142	32
6198	160	127.3	11058	280	190	142	32
6199	143	127.4	11058	280	195	142	32
6200	151	222.8	18370	694	495	302	53
6201	140	222.9	18370	694	499	302	53
6202	149	293.6	22792	1026	980	486	75
6203	84	293.1	22792	1026	960	486	75
6204	98	313.4	24148	1168	1000	561	83
6205	82	317.2	24562	1150	1020	547	82
6206	101	375.0	29235	1464	1105	612	100
6207	94	469.1	34862	1928	1750	911	131
6208	95	293.3	22672	1060	920	516	92
6209	95	188.8	15472	558	380	307	62
6210	100	20.9	1576	50	44	36	10
6211	105	34.3	2884	74	67	52	11
6212	118	45.6	3825	109	92	63	15
6213	97	29.3	2419	75	65	40	12
6214	109	22.7	1836	62	56	35	10
6215	108	7.6	563	28	23	17	5
6216	104	1.1	99	5	0	0	0
6217	115	1.8	141	8	5	3	0
6218	72	3.5	256	16	13	8	0
6219	104	6.5	512	22	15	10	4
6220	104	21.7	1818	51	39	29	11
6221	107	0.6	0	0	0	0	13
6222	99	0.0	0	0	0	0	0
6223	84	0.0	0	0	0	0	0
6224	121	0.2	22	0	0	0	0
6225	118	0.0	0	0	0	0	0
6226	98	0.0	0	0	0	0	0
6227	107	0.0	0	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6228	101	0.0	0	0	0	0	0
6229	99	0.0	0	0	0	0	0
6230	107	0.2	24	0	0	0	0
6231	100	0.5	48	0	0	0	0
6232	91	0.2	18	0	0	0	0
6233	83	0.0	0	0	0	0	0
6234	117	0.0	0	0	0	0	0
6235	130	0.0	0	0	0	0	0
6236	116	6.9	505	18	12	12	4
6237	130	0.2	25	0	0	0	0
6238	122	0.2	24	0	0	0	0
6239	111	0.2	16	0	0	0	0
6240	82	70.7	6072	118	68	68	15
6241	80	7.0	542	20	17	14	5
6242	71	6.0	465	17	15	13	4
6243	71	6.0	465	17	15	13	4
6244	55	1.2	102	6	5	0	0
6245	82	1.3	103	7	6	4	0
6246	94	1.3	103	7	6	4	0
6247	113	0.7	71	0	0	0	0
6248	119	1.2	95	6	5	4	0
6249	112	1.6	116	7	6	4	0
6250	113	1.6	116	7	6	4	0
6251	90	1.7	124	7	6	5	0
6252	99	1.7	124	7	6	5	0
6253	137	1.7	124	7	6	5	0
6254	116	1.7	124	7	6	5	0
6255	127	1.7	125	7	5	5	0
6256	143	1.7	125	7	5	5	0
6257	127	1.9	138	8	6	6	0
6258	120	1.9	138	8	6	6	0
6259	119	2.3	174	9	6	6	0
6260	112	3.1	255	9	7	6	0
6261	116	3.1	255	9	7	6	0
6262	113	3.2	261	9	8	5	0
6263	87	3.2	261	9	8	5	0
6264	91	3.2	268	8	7	5	0
6265	87	3.2	268	8	7	5	0
6266	104	1.8	145	7	6	3	0
6267	89	1.8	145	7	5	2	0
6268	96	4.1	342	11	9	6	0
6269	48	1.1	113	0	0	0	0
6270	116	1.1	113	0	0	0	0
6271	152	1.1	113	0	0	0	0
6272	138	1.1	106	0	0	0	0
6273	119	1.1	112	0	0	0	0
6274	124	1.1	112	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6275	127	1.1	112	0	0	0	0
6276	128	1.1	108	0	0	0	0
6277	114	1.3	134	0	0	0	0
6278	82	0.6	58	0	0	0	0
6279	25	0.5	45	0	0	0	0
6280	15	0.5	47	0	0	0	0
6281	10	0.9	88	0	0	0	0
6282	10	0.6	59	0	0	0	0
6283	15	0.1	7	0	0	0	0
6284	18	0.1	7	0	0	0	0
6285	18	0.1	5	0	0	0	0
6286	9	0.1	5	0	0	0	0
6287	18	1.0	104	0	0	0	0
6288	129	1.0	104	0	0	0	0
6289	83	1.0	99	0	0	0	0
6290	71	0.9	91	0	0	0	0
6291	85	0.8	76	0	0	0	0
6292	95	0.8	76	0	0	0	0
6293	80	0.7	68	0	0	0	0
6294	89	0.7	74	0	0	0	0
6295	76	0.7	74	0	0	0	0
6296	90	0.7	74	0	0	0	0
6297	82	0.7	74	0	0	0	0
6298	78	0.7	74	0	0	0	0
6299	75	0.9	87	0	0	0	0
6300	70	1.0	99	0	0	0	0
6301	58	1.2	124	0	0	0	0
6302	60	1.2	124	0	0	0	0
6303	56	1.2	119	0	0	0	0
6304	45	1.1	105	0	0	0	0
6305	50	0.9	87	0	0	0	0
6306	54	0.9	94	0	0	0	0
6307	70	0.9	94	0	0	0	0
6308	77	1.1	110	0	0	0	0
6309	71	1.0	103	0	0	0	0
6310	90	1.2	116	0	0	0	0
6311	92	0.3	34	0	0	0	0
6312	119	0.3	34	0	0	0	0
6313	75	0.3	25	0	0	0	0
6314	100	0.3	25	0	0	0	0
6315	82	0.8	76	0	0	0	0
6316	81	0.9	87	0	0	0	0
6317	78	0.9	94	0	0	0	0
6318	93	0.9	94	0	0	0	0
6319	113	1.1	110	0	0	0	0
6320	55	1.0	103	0	0	0	0
6321	128	1.2	116	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6322	107	1.2	116	0	0	0	0
6323	90	1.0	104	0	0	0	0
6324	109	1.1	112	0	0	0	0
6325	95	1.2	121	0	0	0	0
6326	95	1.3	129	0	0	0	0
6327	78	1.2	115	0	0	0	0
6328	95	1.2	118	0	0	0	0
6329	77	1.2	118	0	0	0	0
6330	106	1.0	103	0	0	0	0
6331	95	1.0	98	0	0	0	0
6332	90	0.9	94	0	0	0	0
6333	81	0.9	94	0	0	0	0
6334	53	1.0	101	0	0	0	0
6335	61	1.1	109	0	0	0	0
6336	36	1.1	107	0	0	0	0
6337	34	1.0	102	0	0	0	0
6338	38	0.9	92	0	0	0	0
6339	26	0.8	82	0	0	0	0
6340	34	0.8	76	0	0	0	0
6341	60	0.7	74	0	0	0	0
6342	144	0.9	89	0	0	0	0
6343	91	1.4	140	0	0	0	0
6344	95	1.9	192	0	0	0	0
6345	78	1.9	192	0	0	0	0
6346	108	1.9	192	0	0	0	0
6347	131	1.8	176	0	0	0	0
6348	80	1.3	130	0	0	0	0
6349	59	1.2	122	0	0	0	0
6350	74	1.2	121	0	0	0	0
6351	79	1.5	154	0	0	0	0
6352	90	1.5	154	0	0	0	0
6353	72	1.5	153	0	0	0	0
6354	94	1.4	144	0	0	0	0
6355	84	1.4	144	0	0	0	0
6356	82	1.3	135	0	0	0	0
6357	98	1.5	148	0	0	0	0
6358	80	1.5	148	0	0	0	0
6359	74	1.4	144	0	0	0	0
6360	105	1.4	144	0	0	0	0
6361	65	1.6	156	0	0	0	0
6362	72	0.7	69	0	0	0	0
6363	108	0.7	69	0	0	0	0
6364	110	0.7	70	0	0	0	0
6365	75	0.7	72	0	0	0	0
6366	126	1.4	142	0	0	0	0
6367	88	0.8	80	0	0	0	0
6368	106	0.8	80	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6369	111	0.7	69	0	0	0	0
6370	107	0.7	69	0	0	0	0
6371	98	0.9	91	0	0	0	0
6372	117	0.9	91	0	0	0	0
6373	98	1.1	109	0	0	0	0
6374	119	0.6	59	0	0	0	0
6375	68	0.5	48	0	0	0	0
6376	23	1.4	142	0	0	0	0
6377	5	0.7	73	0	0	0	0
6378	4	0.5	45	0	0	0	0
6379	4	0.5	45	0	0	0	0
6380	10	0.6	64	0	0	0	0
6381	12	0.8	77	0	0	0	0
6382	7	0.4	44	0	0	0	0
6383	18	0.6	61	0	0	0	0
6384	25	0.6	62	0	0	0	0
6385	145	1.1	108	0	0	0	0
6386	116	1.1	108	0	0	0	0
6387	139	1.1	108	0	0	0	0
6388	113	1.0	96	0	0	0	0
6389	119	0.9	93	0	0	0	0
6390	35	1.1	111	0	0	0	0
6391	61	1.3	132	0	0	0	0
6392	70	1.4	135	0	0	0	0
6393	68	1.3	128	0	0	0	0
6394	69	1.3	128	0	0	0	0
6395	53	1.6	163	0	0	0	0
6396	106	1.6	163	0	0	0	0
6397	101	1.9	185	0	0	0	0
6398	49	2.2	217	0	0	0	0
6399	46	2.8	279	0	0	0	0
6400	75	2.9	289	0	0	0	0
6401	58	2.8	280	0	0	0	0
6402	33	3.3	320	7	0	0	0
6403	40	3.7	341	8	3	1	0
6404	47	1.8	182	0	0	0	0
6405	60	1.8	182	0	0	0	0
6406	67	1.6	158	0	0	0	0
6407	82	1.7	167	0	0	0	0
6408	88	1.8	181	0	0	0	0
6409	79	1.9	193	0	0	0	0
6410	56	2.1	214	0	0	0	0
6411	66	2.1	214	0	0	0	0
6412	79	2.1	210	0	0	0	0
6413	68	2.2	220	0	0	0	0
6414	52	2.2	220	0	0	0	0
6415	79	3.0	279	7	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6416	93	4.4	393	9	7	4	0
6417	103	4.4	393	9	7	4	0
6418	110	4.4	393	9	7	4	0
6419	120	8.2	724	16	13	9	0
6420	120	6.8	602	13	10	7	0
6421	102	6.6	600	12	9	5	0
6422	89	4.5	405	9	6	4	0
6423	102	4.5	405	9	6	4	0
6424	96	3.1	298	7	0	0	0
6425	96	2.8	266	7	0	0	0
6426	118	2.8	266	7	0	0	0
6427	189	6.2	532	13	8	6	0
6428	178	6.2	532	13	8	6	0
6429	96	14.2	1235	25	14	13	0
6430	81	23.2	2033	38	19	19	4
6431	73	32.6	2878	51	25	26	5
6432	40	32.6	2878	51	27	26	5
6433	49	25.3	2199	41	27	21	4
6434	66	15.3	1308	26	26	12	0
6435	54	10.1	850	20	18	9	0
6436	109	10.6	896	20	18	9	0
6437	81	14.8	1265	26	22	13	0
6438	35	14.8	1265	26	22	13	0
6439	47	13.9	1184	26	21	13	0
6440	96	13.9	1184	26	21	13	0
6441	47	25.7	2239	40	30	20	4
6442	47	36.0	3172	52	37	27	5
6443	53	36.0	3172	52	37	27	5
6444	79	24.2	2085	40	27	21	4
6445	73	16.2	1376	31	20	16	0
6446	85	16.2	1376	31	20	16	0
6447	104	15.3	1299	29	19	15	0
6448	197	18.6	1597	32	23	17	0
6449	126	18.6	1597	32	23	17	0
6450	98	18.6	1597	32	23	17	0
6451	96	31.6	2835	54	50	20	5
6452	94	31.6	2835	55	50	20	5
6453	114	60.1	5462	90	87	34	7
6454	118	59.0	5362	87	84	33	7
6455	93	59.8	5264	84	82	33	8
6456	115	41.8	3670	59	58	24	6
6457	91	41.8	3670	59	58	24	6
6458	72	41.8	3670	59	58	24	6
6459	90	33.4	2908	49	46	22	5
6460	80	18.1	1527	32	29	15	4
6461	90	32.0	2900	49	45	20	4
6462	150	3.1	252	9	6	4	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6463	140	2.2	179	8	5	3	1
6464	144	2.2	179	8	5	3	0
6465	144	1.9	146	7	5	4	0
6466	129	1.9	146	7	5	4	0
6467	158	1.9	146	7	5	4	0
6468	142	2.0	156	8	5	4	0
6469	110	2.8	235	6	6	5	0
6470	130	4.8	421	9	7	6	0
6471	8	1.0	103	0	0	0	0
6472	19	1.3	133	0	0	0	0
6473	24	1.3	127	0	0	0	0
6474	51	1.4	144	0	0	0	0
6475	7	0.8	84	0	0	0	0
6476	4	0.8	78	0	0	0	0
6477	3	0.5	51	0	0	0	0
6478	3	0.6	59	0	0	0	0
6479	5	0.8	78	0	0	0	0
6480	11	1.0	102	0	0	0	0
6481	83	1.1	107	0	0	0	0
6482	98	1.1	107	0	0	0	0
6483	74	1.0	104	0	0	0	0
6484	98	1.0	104	0	0	0	0
6485	102	1.4	140	0	0	0	0
6486	107	2.2	223	0	0	0	0
6487	110	2.2	223	0	0	0	0
6488	145	2.8	279	0	0	0	0
6489	83	2.9	292	0	0	0	0
6490	83	3.1	305	0	0	0	0
6491	78	3.1	305	0	0	0	0
6492	87	2.8	282	0	0	0	0
6493	96	2.8	282	0	0	0	0
6494	103	2.8	277	0	0	0	0
6495	81	2.4	241	0	0	0	0
6496	65	2.4	239	0	0	0	0
6497	76	2.5	250	0	0	0	0
6498	77	2.5	250	0	0	0	0
6499	79	2.7	267	0	0	0	0
6500	72	3.1	308	0	0	0	0
6501	62	3.0	296	0	0	0	0
6502	71	2.8	281	0	0	0	0
6503	82	2.8	281	0	0	0	0
6504	86	2.6	264	0	0	0	0
6505	83	2.2	223	0	0	0	0
6506	70	2.2	223	0	0	0	0
6507	82	1.5	150	0	0	0	0
6508	66	1.3	125	0	0	0	0
6509	70	1.4	143	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6510	70	1.4	143	0	0	0	0
6511	39	2.6	259	0	0	0	0
6512	40	3.0	302	0	0	0	0
6513	34	2.4	242	0	0	0	0
6514	27	2.4	244	0	0	0	0
6515	41	2.4	236	0	0	0	0
6516	34	4.6	406	9	6	5	0
6517	84	6.1	551	12	6	6	0
6518	88	5.6	500	12	6	6	0
6519	83	5.6	500	12	6	6	0
6520	94	177.9	15520	422	300	161	28
6521	157	178.2	15520	422	310	161	28
6522	108	329.8	26998	1060	950	352	56
6523	118	330.1	26998	1060	960	352	56
6524	105	91.3	8255	134	124	63	17
6525	75	91.3	8255	134	124	63	17
6526	88	58.0	5264	81	76	38	10
6527	61	44.1	3997	65	57	30	7
6528	63	29.4	2554	40	37	21	5
6529	88	16.7	1435	24	22	13	4
6530	81	16.7	1435	24	22	13	4
6531	92	10.9	941	17	15	9	0
6532	80	9.2	789	16	13	8	0
6533	89	9.2	789	16	13	8	0
6534	86	11.7	1031	16	12	8	0
6535	65	11.7	1031	16	12	8	0
6536	60	11.3	1014	15	10	7	0
6537	52	8.2	756	11	7	6	0
6538	74	8.2	756	11	7	6	0
6539	84	5.7	521	10	6	5	0
6540	92	4.6	434	8	0	4	0
6541	85	6.5	602	10	5	5	0
6542	92	6.5	602	10	5	5	0
6543	79	6.5	602	10	6	5	0
6544	84	5.8	529	10	8	4	0
6545	73	6.4	584	10	9	4	0
6546	72	6.5	598	10	9	4	0
6547	68	6.5	598	10	8	4	0
6548	57	11.6	1069	13	10	6	0
6549	84	11.6	1069	13	10	6	0
6550	101	2.5	253	0	0	0	0
6551	116	0.4	36	0	0	0	0
6552	94	0.0	0	0	0	0	0
6553	109	0.2	17	0	0	0	0
6554	109	0.2	17	0	0	0	0
6555	85	10.8	1012	14	10	5	0
6556	96	3.6	302	8	7	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6557	29	3.6	302	8	7	6	0
6558	61	3.4	288	8	7	6	0
6559	102	3.3	274	8	7	6	0
6560	78	3.3	277	8	7	6	0
6561	75	3.3	277	8	7	6	0
6562	81	3.9	336	8	7	6	0
6563	78	5.2	453	10	7	7	0
6564	87	5.2	453	10	7	7	0
6565	59	10.1	882	16	12	11	5
6566	64	8.6	751	15	10	10	4
6567	46	5.7	506	11	7	7	0
6568	56	4.3	380	9	6	0	0
6569	72	3.5	323	7	5	0	0
6570	79	3.3	299	7	5	0	0
6571	68	3.3	299	7	4	0	0
6572	83	3.5	306	7	5	4	0
6573	67	3.5	306	7	5	4	0
6574	57	3.3	304	6	6	0	0
6575	38	3.2	296	6	5	0	0
6576	59	3.2	297	6	5	0	0
6577	77	3.3	306	6	5	0	0
6578	61	3.4	319	6	5	0	0
6579	73	3.8	352	7	5	0	0
6580	46	3.8	358	7	5	0	0
6581	57	3.9	375	7	0	0	0
6582	80	3.9	382	7	0	0	0
6583	67	3.9	382	7	0	0	0
6584	71	3.7	360	6	0	0	0
6585	65	3.7	356	7	0	0	0
6586	43	3.2	311	6	0	0	0
6587	50	3.2	311	6	0	0	0
6588	55	3.0	292	6	0	0	0
6589	77	3.1	302	7	0	0	0
6590	72	3.5	319	7	5	0	0
6591	72	3.4	319	6	5	0	0
6592	76	3.4	311	6	5	0	0
6593	64	3.4	317	7	5	0	0
6594	59	3.5	325	7	5	0	0
6595	58	3.8	360	6	5	0	0
6596	67	3.7	348	6	4	0	0
6597	83	3.7	348	6	4	0	0
6598	73	3.6	338	6	4	0	0
6599	76	3.3	316	6	0	0	0
6600	62	3.4	327	6	0	0	0
6601	82	3.4	327	7	0	0	0
6602	83	3.4	324	7	0	0	0
6603	96	3.4	327	7	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6604	95	3.6	347	7	0	0	0
6605	68	3.6	347	7	0	0	0
6606	68	3.4	327	7	0	0	0
6607	47	3.4	323	7	0	0	0
6608	69	4.0	384	8	0	0	0
6609	46	6.8	621	10	7	5	0
6610	49	7.6	699	11	9	5	0
6611	37	9.5	887	12	9	5	0
6612	52	23.4	2114	28	24	13	0
6613	38	60.4	5394	81	64	37	7
6614	35	60.4	5394	81	64	37	7
6615	60	30.8	2751	42	31	19	5
6616	63	30.8	2751	42	31	19	5
6617	78	22.9	2052	29	21	14	3
6618	79	18.6	1684	24	15	11	0
6619	51	19.0	1757	21	13	9	0
6620	56	20.6	1915	20	11	9	0
6621	50	20.1	1915	22	10	9	0
6622	48	19.8	1873	22	12	9	0
6623	65	21.0	1972	22	20	9	0
6624	47	25.6	2406	28	23	11	0
6625	44	25.6	2406	28	23	11	0
6626	43	23.0	2165	26	21	10	0
6627	58	22.9	2153	24	20	10	0
6628	79	21.8	2055	23	18	10	0
6629	90	25.5	2400	28	20	12	0
6630	71	25.5	2400	28	20	12	0
6631	65	27.3	2569	30	22	12	0
6632	67	27.3	2569	30	22	12	0
6633	122	23.2	2181	27	19	11	0
6634	111	23.2	2181	27	19	11	0
6635	94	18.7	1756	22	16	10	0
6636	112	18.7	1756	22	16	10	0
6637	119	15.1	1420	18	12	8	0
6638	70	13.3	1241	18	11	8	0
6639	84	9.9	916	15	9	7	0
6640	87	9.9	916	15	9	7	0
6641	124	8.3	765	14	8	6	0
6642	103	8.3	765	14	8	6	0
6643	96	7.9	730	12	6	6	0
6644	90	6.7	608	12	9	5	0
6645	81	6.7	608	11	9	4	0
6646	86	6.7	608	11	10	4	0
6647	87	6.5	586	11	10	4	0
6648	66	5.6	508	9	7	4	0
6649	73	5.6	508	9	7	4	0
6650	70	12.1	1110	18	16	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6651	57	12.3	1116	20	18	7	0
6652	1	19.5	1807	27	23	10	0
6653	85	2.1	197	4	0	0	0
6654	73	1.7	170	0	0	0	0
6655	74	2.5	222	6	4	0	0
6656	81	9.3	844	18	9	9	0
6657	77	9.3	844	18	9	9	0
6658	96	44.7	4141	62	30	30	7
6659	88	54.0	4995	72	44	35	8
6660	58	54.2	4995	72	50	35	8
6661	60	47.1	4349	59	50	26	6
6662	60	40.8	3783	46	44	20	5
6663	90	40.8	3783	46	44	20	5
6664	105	35.3	3271	42	37	17	5
6665	101	35.3	3271	42	37	17	5
6666	99	30.2	2787	38	33	16	4
6667	88	28.4	2618	36	30	15	4
6668	65	34.0	3155	41	33	18	4
6669	81	34.0	3155	41	33	18	4
6670	112	44.4	4121	55	42	24	5
6671	107	56.3	5231	71	52	29	6
6672	150	56.3	5231	71	52	30	6
6673	77	55.6	5161	70	51	30	6
6674	95	55.6	5161	70	51	30	6
6675	104	50.4	4678	63	45	28	6
6676	119	45.1	4195	56	38	26	5
6677	103	32.2	2976	42	29	20	4
6678	123	32.2	2976	42	29	20	4
6679	79	24.6	2257	37	23	17	4
6680	75	20.2	1855	32	19	15	0
6681	69	24.2	2257	34	18	16	0
6682	82	29.3	2724	41	20	18	2
6683	89	34.3	3190	48	22	21	4
6684	80	44.3	4130	62	29	26	4
6685	67	55.6	5145	74	53	32	6
6686	66	55.6	5145	74	53	32	6
6687	89	58.9	5427	75	68	32	6
6688	105	58.8	5427	75	68	29	6
6689	116	58.8	5427	75	68	29	6
6690	105	57.7	5327	75	67	29	6
6691	91	56.7	5228	74	65	29	6
6692	98	43.6	4002	59	51	24	6
6693	109	33.6	3065	48	42	21	5
6694	110	33.6	3065	48	42	21	5
6695	120	38.4	3541	48	40	22	5
6696	58	49.6	4583	66	49	29	6
6697	32	32.9	3019	45	34	22	5

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6698	49	20.8	1889	32	22	16	3
6699	89	20.8	1889	32	22	16	3
6700	107	16.5	1515	26	17	13	0
6701	131	16.5	1515	26	17	13	0
6702	122	19.8	1842	27	17	13	0
6703	101	25.4	2379	31	19	15	0
6704	73	35.4	3307	43	23	21	4
6705	75	35.4	3307	43	23	21	4
6706	82	43.2	4026	50	35	24	5
6707	95	50.7	4702	61	53	25	6
6708	98	51.1	4726	62	56	25	6
6709	141	51.4	4751	63	60	25	6
6710	81	51.4	4751	63	60	24	6
6711	107	57.5	5325	69	65	26	7
6712	119	58.2	5392	69	65	26	7
6713	75	58.2	5392	69	64	27	7
6714	100	58.2	5392	69	63	28	7
6715	89	57.4	5317	69	61	28	7
6716	100	51.2	4738	63	54	26	6
6717	86	51.2	4738	63	54	26	6
6718	113	51.2	4738	63	54	26	6
6719	119	49.2	4562	59	51	25	6
6720	86	48.3	4497	55	46	25	5
6721	73	54.1	5036	64	49	28	6
6722	84	57.4	5324	72	54	32	6
6723	110	57.4	5324	72	54	32	6
6724	90	61.3	5675	80	59	36	6
6725	128	61.3	5675	80	59	36	6
6726	151	61.3	5675	80	59	36	6
6727	167	61.4	5675	80	59	36	7
6728	120	58.9	5464	72	51	36	7
6729	57	63.7	5895	86	55	39	8
6730	53	71.4	6584	101	63	46	9
6731	41	60.4	5569	84	52	41	8
6732	50	53.1	4882	71	50	36	7
6733	77	53.3	4882	71	61	36	7
6734	127	40.2	3665	56	50	26	6
6735	138	42.1	3850	58	52	26	6
6736	106	49.3	4516	65	57	30	7
6737	139	49.3	4516	65	57	30	7
6738	125	49.4	4516	67	57	32	8
6739	151	48.6	4441	67	54	32	8
6740	139	49.3	4517	67	54	32	8
6741	58	49.4	4519	67	57	32	8
6742	44	48.6	4443	69	53	32	8
6743	122	48.6	4441	67	54	32	8
6744	103	48.9	4439	65	55	41	9

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6745	79	164.3	13634	356	311	146	32
6746	82	164.3	13634	356	311	146	32
6747	54	164.3	13634	356	311	146	32
6748	85	91.8	8016	147	125	62	16
6749	36	16.9	1407	33	25	17	5
6750	47	21.5	1847	35	26	19	5
6751	117	21.5	1847	35	26	19	4
6752	128	24.0	2087	36	26	20	5
6753	28	26.5	2327	37	26	20	5
6754	112	26.5	2327	37	26	20	5
6755	115	26.5	2327	37	26	20	5
6756	110	20.1	1740	31	21	18	4
6757	112	27.0	2326	39	26	24	7
6758	119	27.0	2326	39	26	24	7
6759	103	42.1	3695	56	36	34	9
6760	117	42.1	3695	56	36	34	9
6761	146	42.1	3695	56	36	34	9
6762	138	38.5	3435	49	28	28	7
6763	98	38.5	3435	49	30	28	7
6764	99	36.7	3290	46	32	24	6
6765	62	28.9	2568	35	32	17	6
6766	106	28.9	2568	35	32	17	6
6767	100	25.6	2269	32	31	14	5
6768	131	25.6	2269	32	31	14	5
6769	70	23.3	2053	28	28	14	4
6770	132	23.3	2053	28	28	14	4
6771	109	21.4	1882	27	25	14	4
6772	136	24.4	2171	31	27	15	4
6773	128	24.4	2171	31	27	15	4
6774	123	24.4	2171	31	27	15	4
6775	106	22.5	1991	29	25	14	4
6776	101	16.6	1457	24	20	12	0
6777	107	16.6	1457	24	20	12	2
6778	57	16.6	1457	24	20	12	4
6779	70	14.3	1226	21	18	12	4
6780	79	12.1	1014	20	16	11	3
6781	91	12.1	1014	20	16	11	3
6782	111	10.2	845	18	14	10	3
6783	96	9.8	827	18	14	11	0
6784	88	10.2	851	18	14	11	3
6785	93	10.2	851	18	13	11	3
6786	113	10.2	851	18	13	11	3
6787	133	9.1	765	17	11	10	0
6788	99	10.5	890	18	12	11	0
6789	60	10.7	908	18	12	11	0
6790	87	10.7	908	18	11	11	0
6791	112	10.1	908	18	11	11	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6792	91	9.9	890	17	11	11	0
6793	74	9.2	812	17	9	10	4
6794	91	9.2	812	17	9	10	4
6795	109	8.3	735	15	14	9	0
6796	87	8.3	735	15	14	9	0
6797	133	8.9	776	16	14	9	4
6798	104	8.9	776	16	14	9	4
6799	144	9.1	785	16	14	10	4
6800	95	8.2	717	14	12	9	4
6801	82	8.2	717	14	12	9	4
6802	111	8.2	717	14	12	9	4
6803	108	8.2	707	15	12	9	4
6804	101	8.2	707	15	12	9	4
6805	127	7.5	661	15	12	9	0
6806	112	7.5	661	15	12	9	0
6807	91	7.3	623	14	11	9	4
6808	131	7.3	623	14	11	9	4
6809	133	6.8	597	13	10	9	0
6810	109	6.6	576	13	10	9	0
6811	71	6.6	576	13	10	9	0
6812	72	6.3	561	13	10	8	0
6813	84	6.3	557	13	10	9	0
6814	77	6.4	566	13	10	9	0
6815	86	6.4	566	13	10	9	0
6816	76	6.0	525	13	11	9	0
6817	88	6.2	523	13	10	9	4
6818	85	6.2	523	13	10	9	4
6819	136	5.1	458	12	10	9	0
6820	143	5.1	458	12	10	9	0
6821	117	5.9	492	12	10	9	4
6822	107	6.6	562	13	12	8	4
6823	84	6.6	562	13	12	8	4
6824	62	6.9	580	13	13	9	4
6825	108	6.9	580	13	13	9	4
6826	107	6.9	581	13	12	9	4
6827	105	7.2	606	14	13	9	4
6828	140	6.9	593	12	11	9	4
6829	123	6.7	575	13	11	9	3
6830	50	6.7	575	13	11	9	3
6831	70	6.8	572	13	11	9	4
6832	111	6.7	575	13	11	9	3
6833	119	6.8	572	13	11	9	4
6834	81	6.8	572	13	11	9	4
6835	62	6.8	572	13	11	9	4
6836	46	3.2	278	7	6	5	0
6837	67	3.2	278	7	6	5	0
6838	90	3.2	278	7	6	5	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6839	58	4.4	382	8	9	6	0
6840	119	4.8	414	9	9	6	0
6841	97	4.8	414	9	9	6	0
6842	9	6.5	570	12	10	8	0
6843	82	75.2	6769	127	101	54	13
6844	84	75.2	6769	127	101	54	13
6845	98	24.2	2138	45	35	21	6
6846	53	6.4	556	13	10	8	0
6847	75	6.4	556	13	10	8	0
6848	91	13.2	1224	16	12	10	0
6849	150	13.2	1224	16	12	10	0
6850	174	13.2	1224	16	12	10	0
6851	123	27.8	2613	27	18	15	4
6852	183	27.8	2613	27	18	15	4
6853	156	27.8	2613	27	18	15	4
6854	117	33.0	3114	26	16	18	6
6855	107	33.0	3114	26	16	18	6
6856	122	20.4	1898	20	12	13	5
6857	145	20.4	1898	20	12	13	5
6858	130	20.4	1898	20	12	13	5
6859	115	19.8	1838	20	17	12	4
6860	108	19.8	1838	20	17	12	4
6861	60	29.4	2750	28	25	14	4
6862	85	23.5	2189	23	21	12	4
6863	94	17.0	1573	18	16	10	3
6864	91	17.0	1573	18	16	10	3
6865	106	7.0	635	12	9	6	0
6866	135	7.0	635	12	9	6	0
6867	120	6.9	625	11	8	6	0
6868	102	6.9	625	11	8	6	0
6869	71	5.2	467	9	7	5	0
6870	81	4.5	410	7	5	4	0
6871	66	4.5	410	7	5	4	0
6872	63	3.6	346	6	0	0	0
6873	62	3.6	346	6	0	0	0
6874	74	3.2	320	0	0	0	0
6875	78	2.9	288	0	0	0	0
6876	66	3.0	298	0	0	0	0
6877	82	3.0	298	0	0	0	0
6878	63	3.6	345	6	0	0	0
6879	75	3.9	363	7	4	0	0
6880	84	3.1	301	6	0	0	0
6881	81	3.1	301	6	0	0	0
6882	126	2.7	271	0	0	0	0
6883	129	2.7	271	0	0	0	0
6884	117	2.8	282	0	0	0	0
6885	112	2.8	282	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6886	112	3.2	306	5	0	0	0
6887	102	3.2	306	5	0	0	0
6888	79	3.1	294	5	0	0	0
6889	74	3.0	282	5	0	0	0
6890	58	2.9	283	4	0	0	0
6891	36	3.0	287	4	0	0	0
6892	57	2.9	287	0	0	0	0
6893	134	2.9	294	0	0	0	0
6894	141	2.9	294	0	0	0	0
6895	104	2.8	280	0	0	0	0
6896	93	2.8	280	0	0	0	0
6897	95	3.0	302	0	0	0	0
6898	92	3.3	322	6	0	0	0
6899	92	3.3	322	6	0	0	0
6900	103	3.3	322	6	0	0	0
6901	90	3.5	324	6	4	0	0
6902	77	3.2	298	6	4	0	0
6903	77	3.2	298	6	4	0	0
6904	95	3.7	343	7	4	0	0
6905	116	3.8	358	6	4	0	0
6906	80	3.8	358	6	4	0	0
6907	35	12.1	1110	19	15	8	0
6908	39	14.8	1369	21	15	10	0
6909	78	15.5	1418	21	15	10	4
6910	75	15.5	1418	21	15	10	4
6911	107	10.4	948	16	13	8	0
6912	81	8.4	759	12	11	7	0
6913	70	8.4	759	12	11	7	0
6914	102	8.2	747	11	10	6	0
6915	116	9.3	856	12	10	7	0
6916	128	9.3	856	12	10	7	0
6917	122	9.2	851	12	10	7	0
6918	141	9.2	845	12	10	7	0
6919	156	9.2	845	12	10	7	0
6920	121	9.6	888	12	10	7	0
6921	195	9.6	888	12	10	7	0
6922	131	8.7	803	12	9	6	0
6923	118	8.7	803	12	9	6	0
6924	116	8.1	750	11	8	6	0
6925	112	8.7	800	12	8	7	0
6926	95	8.7	800	12	8	7	0
6927	47	7.9	725	12	8	7	0
6928	78	8.7	795	13	8	7	0
6929	71	8.6	795	13	7	7	0
6930	80	8.4	771	13	6	7	0
6931	3	8.1	747	12	6	6	0
6932	15	7.5	690	12	7	6	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6933	44	7.7	701	12	8	6	0
6934	16	7.8	712	12	10	6	0
6935	65	7.8	712	12	10	5	0
6936	76	7.2	660	11	8	5	0
6937	93	53.3	4815	84	76	34	8
6938	87	53.3	4815	84	76	34	8
6939	118	53.3	4815	84	76	34	8
6940	128	21.4	1900	39	33	16	5
6941	166	21.4	1900	39	33	16	5
6942	105	7.1	622	16	13	8	0
6943	84	4.2	363	10	8	5	0
6944	65	4.2	363	10	8	5	0
6945	123	3.8	338	8	6	4	0
6946	121	3.8	339	8	6	4	0
6947	158	3.7	339	7	5	0	0
6948	129	3.7	339	7	5	0	0
6949	144	3.7	339	7	5	0	0
6950	132	3.3	318	6	0	0	0
6951	44	3.4	333	6	0	0	0
6952	128	5.5	504	8	5	5	0
6953	173	5.5	504	8	5	5	0
6954	168	5.5	504	8	5	5	0
6955	88	5.5	504	8	5	5	0
6956	81	4.3	402	7	0	4	0
6957	105	3.4	341	0	0	0	0
6958	93	3.4	341	0	0	0	0
6959	84	3.2	316	0	0	0	0
6960	73	3.2	316	0	0	0	0
6961	114	3.2	318	0	0	0	0
6962	146	3.2	318	0	0	0	0
6963	118	3.2	324	0	0	0	0
6964	115	3.2	324	0	0	0	0
6965	129	3.4	341	0	0	0	0
6966	109	3.5	345	0	0	0	0
6967	92	3.5	348	0	0	0	0
6968	110	3.5	348	0	0	0	0
6969	81	3.6	359	0	0	0	0
6970	122	3.6	359	0	0	0	0
6971	110	3.6	359	0	0	0	0
6972	112	3.6	359	0	0	0	0
6973	131	3.6	359	0	0	0	0
6974	68	3.5	352	0	0	0	0
6975	84	3.5	352	0	0	0	0
6976	81	3.2	318	0	0	0	0
6977	129	3.2	318	0	0	0	0
6978	97	2.7	273	0	0	0	0
6979	100	2.8	278	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
6980	83	2.8	278	0	0	0	0
6981	100	2.8	283	0	0	0	0
6982	101	2.8	283	0	0	0	0
6983	85	2.9	285	0	0	0	0
6984	107	2.9	290	0	0	0	0
6985	98	2.9	290	0	0	0	0
6986	102	2.9	290	0	0	0	0
6987	109	2.9	288	0	0	0	0
6988	127	3.1	305	0	0	0	0
6989	72	3.1	305	0	0	0	0
6990	111	3.1	305	0	0	0	0
6991	104	3.0	298	0	0	0	0
6992	115	3.0	304	0	0	0	0
6993	107	3.0	304	0	0	0	0
6994	108	3.0	304	0	0	0	0
6995	123	3.2	321	0	0	0	0
6996	60	3.2	321	0	0	0	0
6997	118	3.2	321	0	0	0	0
6998	122	3.6	364	0	0	0	0
6999	118	3.6	364	0	0	0	0
7000	192	3.4	343	0	0	0	0
7001	103	3.4	343	0	0	0	0
7002	99	3.3	328	0	0	0	0
7003	81	3.9	376	6	0	0	0
7004	125	3.9	376	6	0	0	0
7005	127	5.6	517	8	5	4	0
7006	127	5.6	517	8	5	4	0
7007	114	6.0	554	9	6	4	0
7008	117	6.0	554	9	6	4	0
7009	116	4.9	462	9	4	2	0
7010	96	4.9	462	9	4	1	0
7011	118	4.9	462	9	4	0	0
7012	101	4.8	452	8	4	0	0
7013	134	4.7	442	8	4	0	0
7014	75	3.5	344	6	0	0	0
7015	38	3.5	337	6	0	0	0
7016	31	2.8	277	0	0	0	0
7017	78	2.8	278	0	0	0	0
7018	150	2.8	280	0	0	0	0
7019	116	2.8	277	0	0	0	0
7020	98	2.6	255	0	0	0	0
7021	73	2.6	255	0	0	0	0
7022	66	2.5	254	0	0	0	0
7023	112	2.5	254	0	0	0	0
7024	66	2.6	255	0	0	0	0
7025	158	2.6	255	0	0	0	0
7026	91	3.0	302	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7027	134	3.0	302	0	0	0	0
7028	68	3.0	298	0	0	0	0
7029	128	3.0	300	0	0	0	0
7030	134	3.0	300	0	0	0	0
7031	178	3.0	300	0	0	0	0
7032	147	3.8	374	6	0	0	0
7033	147	3.8	374	6	0	0	0
7034	178	7.2	681	10	7	0	0
7035	178	7.8	689	18	14	7	0
7036	94	7.8	689	18	14	7	0
7037	73	3.7	322	8	7	4	0
7038	75	2.6	250	6	0	0	0
7039	103	2.6	250	6	0	0	0
7040	136	2.6	250	6	0	0	0
7041	122	2.4	243	0	0	0	0
7042	126	2.4	243	0	0	0	0
7043	123	2.8	278	0	0	0	0
7044	96	2.9	292	0	0	0	0
7045	100	2.9	292	0	0	0	0
7046	104	4.5	421	7	4	0	0
7047	153	4.5	421	7	4	0	0
7048	103	4.4	408	7	4	0	0
7049	49	3.1	312	0	0	0	0
7050	48	2.8	281	0	0	0	0
7051	95	2.7	270	0	0	0	0
7052	72	2.7	270	0	0	0	0
7053	118	2.5	254	0	0	0	0
7054	127	2.4	235	0	0	0	0
7055	91	2.4	235	0	0	0	0
7056	66	2.7	266	0	0	0	0
7057	76	3.2	315	0	0	0	0
7058	86	3.2	315	0	0	0	0
7059	93	3.6	358	0	0	0	0
7060	105	3.6	358	0	0	0	0
7061	141	3.7	368	0	0	0	0
7062	107	3.7	368	0	0	0	0
7063	46	3.9	384	6	0	0	0
7064	40	4.1	395	6	0	0	0
7065	94	4.1	395	6	0	0	0
7066	62	3.9	378	7	0	0	0
7067	89	3.6	346	6	0	0	0
7068	85	3.6	346	6	0	0	0
7069	162	3.8	366	6	0	0	0
7070	141	3.8	366	6	0	0	0
7071	34	4.4	424	7	0	0	0
7072	125	4.4	424	7	0	0	0
7073	128	4.6	443	8	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7074	64	4.7	453	8	0	0	0
7075	41	4.7	453	8	0	0	0
7076	125	4.4	430	7	0	0	0
7077	130	4.4	430	7	0	0	0
7078	131	3.8	371	7	0	0	0
7079	136	3.8	371	7	0	0	0
7080	124	3.8	371	6	4	0	0
7081	114	3.5	354	0	0	0	0
7082	108	3.5	354	0	0	0	0
7083	132	1.4	137	0	0	0	0
7084	119	0.3	29	0	0	0	0
7085	134	1.1	113	0	0	0	0
7086	132	1.1	113	0	0	0	0
7087	122	2.9	292	0	0	0	0
7088	132	2.9	292	0	0	0	0
7089	115	3.2	319	0	0	0	0
7090	109	3.2	319	0	0	0	0
7091	107	3.2	319	0	0	0	0
7092	94	3.0	300	0	0	0	0
7093	98	3.3	332	0	0	0	0
7094	117	3.3	332	0	0	0	0
7095	105	3.4	344	0	0	0	0
7096	108	3.4	344	0	0	0	0
7097	65	3.4	344	0	0	0	0
7098	60	3.5	345	0	0	0	0
7099	93	3.5	345	0	0	0	0
7100	116	3.5	345	0	0	0	0
7101	93	3.3	332	0	0	0	0
7102	103	3.2	321	0	0	0	0
7103	84	3.2	321	0	0	0	0
7104	121	3.2	321	0	0	0	0
7105	118	3.2	311	4	0	0	0
7106	92	3.2	311	4	0	0	0
7107	92	3.4	329	4	0	0	0
7108	112	3.6	346	4	0	0	0
7109	93	3.6	346	4	0	0	0
7110	75	3.7	363	4	0	0	0
7111	96	3.7	363	4	0	0	0
7112	114	3.7	363	4	0	0	0
7113	99	3.7	358	4	0	0	0
7114	100	3.7	358	3	0	0	0
7115	96	3.4	340	0	0	0	0
7116	78	3.4	340	0	0	0	0
7117	67	3.5	352	0	0	0	0
7118	100	3.5	352	0	0	0	0
7119	100	3.6	355	0	0	0	0
7120	111	3.8	380	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7121	67	18.4	1635	29	18	13	0
7122	50	1.8	179	0	0	0	0
7123	89	0.4	39	0	0	0	0
7124	96	2.4	236	0	0	0	0
7125	82	2.2	220	0	0	0	0
7126	65	2.2	220	0	0	0	0
7127	176	2.2	220	0	0	0	0
7128	159	2.3	227	0	0	0	0
7129	145	2.3	227	0	0	0	0
7130	157	53.4	4690	88	54	39	7
7131	1	18.1	1602	34	16	14	0
7132	125	18.1	1602	34	16	14	0
7133	163	12.1	1065	24	11	10	0
7134	174	6.1	527	15	7	6	0
7135	125	6.1	527	15	7	6	0
7136	97	3.3	305	8	5	4	0
7137	59	2.8	269	5	0	0	0
7138	111	3.0	293	5	0	0	0
7139	57	3.1	310	4	0	0	0
7140	61	3.2	322	1	0	0	0
7141	67	3.2	322	0	0	0	0
7142	121	5.4	512	7	5	0	0
7143	113	5.4	512	7	5	0	0
7144	126	5.4	512	7	5	0	0
7145	98	4.8	464	6	0	0	0
7146	115	4.8	464	6	0	0	0
7147	130	3.8	379	0	0	0	0
7148	90	3.8	379	0	0	0	0
7149	128	3.5	355	0	0	0	0
7150	96	3.7	368	0	0	0	0
7151	62	3.7	368	0	0	0	0
7152	106	3.8	384	0	0	0	0
7153	104	3.8	384	0	0	0	0
7154	137	3.6	358	0	0	0	0
7155	99	3.6	358	0	0	0	0
7156	120	3.1	312	0	0	0	0
7157	88	3.4	340	0	0	0	0
7158	69	3.4	340	0	0	0	0
7159	87	3.4	340	0	0	0	0
7160	96	3.3	333	0	0	0	0
7161	98	3.6	345	6	0	0	0
7162	128	3.6	345	6	0	0	0
7163	101	3.7	364	4	0	0	0
7164	99	3.7	364	4	0	0	0
7165	92	3.7	359	4	0	0	0
7166	91	3.7	360	4	0	0	0
7167	112	3.6	360	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7168	96	3.7	366	0	0	0	0
7169	94	3.7	366	0	0	0	0
7170	96	3.5	354	6	0	0	0
7171	27	3.8	374	6	0	0	0
7172	34	3.8	374	6	0	0	0
7173	32	3.6	360	0	0	0	0
7174	60	3.2	323	0	0	0	0
7175	118	3.1	312	0	0	0	0
7176	99	3.0	300	0	0	0	0
7177	94	2.9	288	0	0	0	0
7178	84	2.9	289	0	0	0	0
7179	117	2.9	289	0	0	0	0
7180	136	3.0	298	0	0	0	0
7181	135	3.0	298	0	0	0	0
7182	119	3.3	318	6	0	0	0
7183	109	3.3	318	6	0	0	0
7184	77	3.3	318	6	0	0	0
7185	127	3.4	328	6	0	0	0
7186	71	4.6	428	9	6	0	0
7187	38	4.6	427	8	6	0	0
7188	85	4.6	427	8	6	0	0
7189	47	2.7	258	6	0	0	0
7190	42	2.9	276	6	0	0	0
7191	37	2.9	276	6	0	0	0
7192	77	2.7	261	6	0	0	0
7193	97	2.7	261	6	0	0	0
7194	59	2.3	226	0	0	0	0
7195	82	2.8	281	0	0	0	0
7196	101	2.8	281	0	0	0	0
7197	84	4.4	430	7	0	0	0
7198	82	4.4	430	7	0	0	0
7199	166	4.4	430	7	0	0	0
7200	186	6.9	659	11	4	0	0
7201	175	6.9	659	11	4	0	0
7202	149	6.9	659	11	4	0	0
7203	141	6.6	630	10	4	0	0
7204	111	6.6	630	10	5	0	0
7205	142	7.2	669	10	6	4	0
7206	123	7.2	669	10	6	4	0
7207	108	7.1	673	10	8	0	0
7208	86	7.1	673	10	8	0	0
7209	144	7.1	673	11	8	0	0
7210	134	6.3	588	11	7	0	0
7211	125	6.3	588	11	7	0	0
7212	107	5.6	523	10	7	0	0
7213	62	5.3	493	9	6	0	0
7214	98	5.1	481	9	5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7215	110	5.1	481	9	5	0	0
7216	120	6.8	639	11	6	0	0
7217	136	6.8	639	11	6	0	0
7218	79	7.3	689	12	6	0	0
7219	120	7.3	689	12	6	0	0
7220	122	7.3	689	12	6	0	0
7221	128	5.9	555	10	5	0	0
7222	124	54.5	4713	82	70	32	16
7223	59	34.0	2976	52	40	19	11
7224	160	5.3	466	12	8	5	0
7225	101	5.3	466	12	8	5	0
7226	191	5.3	466	12	8	5	0
7227	185	3.4	315	8	5	0	0
7228	85	3.4	315	8	5	0	0
7229	115	3.1	301	7	0	0	0
7230	137	3.1	301	7	0	0	0
7231	86	3.3	319	6	0	0	0
7232	123	3.3	319	6	0	0	0
7233	148	3.4	328	6	0	0	0
7234	126	3.4	328	6	0	0	0
7235	143	3.4	328	6	0	0	0
7236	137	3.8	368	7	0	0	0
7237	120	3.8	368	7	0	0	0
7238	137	6.1	590	10	0	0	0
7239	152	6.1	590	10	0	0	0
7240	160	6.1	590	10	0	0	0
7241	189	6.1	590	10	0	0	0
7242	145	5.7	556	9	0	0	0
7243	147	5.7	556	9	0	0	0
7244	131	4.5	434	7	0	0	0
7245	126	4.5	434	7	0	0	0
7246	148	4.5	434	7	0	0	0
7247	128	3.9	383	6	0	0	0
7248	144	3.9	383	6	0	0	0
7249	147	3.6	359	0	0	0	0
7250	149	3.6	359	0	0	0	0
7251	137	3.7	367	0	0	0	0
7252	163	3.9	391	0	0	0	0
7253	73	3.9	391	0	0	0	0
7254	84	4.4	439	0	0	0	0
7255	48	4.4	439	0	0	0	0
7256	51	3.7	370	0	0	0	0
7257	58	3.6	362	0	0	0	0
7258	104	3.6	362	0	0	0	0
7259	33	3.6	356	0	0	0	0
7260	101	3.6	356	0	0	0	0
7261	100	3.4	338	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7262	98	3.5	354	0	0	0	0
7263	116	3.5	354	0	0	0	0
7264	142	3.5	355	0	0	0	0
7265	134	3.5	355	0	0	0	0
7266	142	3.5	355	0	0	0	0
7267	124	3.9	388	0	0	0	0
7268	126	3.9	388	0	0	0	0
7269	93	3.9	388	0	0	0	0
7270	124	3.9	385	0	0	0	0
7271	122	3.9	388	0	0	0	0
7272	130	3.9	388	0	0	0	0
7273	149	3.9	388	0	0	0	0
7274	65	4.3	431	0	0	0	0
7275	47	4.5	448	0	0	0	0
7276	75	4.5	448	0	0	0	0
7277	133	5.4	543	0	0	0	0
7278	95	5.4	543	0	0	0	0
7279	109	5.7	570	0	0	0	0
7280	104	5.7	570	0	0	0	0
7281	118	6.0	600	0	0	0	0
7282	124	6.0	600	0	0	0	0
7283	83	6.6	656	0	0	0	0
7284	82	6.7	674	0	0	0	0
7285	62	5.8	583	0	0	0	0
7286	46	5.8	583	0	0	0	0
7287	84	5.0	505	0	0	0	0
7288	126	5.0	505	0	0	0	0
7289	109	6.0	604	0	0	0	0
7290	107	8.0	789	6	0	0	0
7291	90	8.0	789	6	0	0	0
7292	101	8.9	880	7	0	0	0
7293	73	8.9	880	7	0	0	0
7294	84	6.8	685	0	0	0	0
7295	81	5.7	572	0	0	0	0
7296	109	5.7	572	0	0	0	0
7297	125	5.8	577	0	0	0	0
7298	121	6.1	603	3	0	0	0
7299	116	6.4	629	6	0	0	0
7300	104	7.2	710	7	0	0	0
7301	126	7.2	710	7	0	0	0
7302	117	7.2	710	7	0	0	0
7303	99	7.0	685	7	0	0	0
7304	148	7.0	685	7	0	0	0
7305	129	7.5	735	7	0	0	0
7306	139	7.5	735	7	0	0	0
7307	152	6.7	668	0	0	0	0
7308	128	6.7	668	0	0	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7309	66	5.4	542	0	0	0	0
7310	81	4.2	417	0	0	0	0
7311	75	5.1	509	0	0	0	0
7312	105	5.1	509	0	0	0	0
7313	122	5.7	572	0	0	0	0
7314	123	5.7	572	0	0	0	0
7315	76	6.1	610	0	0	0	0
7316	89	6.1	610	0	0	0	0
7317	72	5.7	574	0	0	0	0
7318	108	4.3	370	11	8	5	0
7319	29	7.7	652	18	17	12	0
7320	53	4.5	368	12	10	8	0
7321	51	3.0	244	9	7	5	0
7322	49	2.6	212	8	6	4	0
7323	43	2.6	224	7	5	3	0
7324	69	2.9	245	7	7	5	0
7325	58	2.9	245	8	6	5	0
7326	61	3.1	259	8	7	5	0
7327	67	3.8	336	8	6	5	0
7328	62	3.8	336	8	6	4	0
7329	71	4.1	364	8	6	4	0
7330	86	4.1	364	8	6	3	0
7331	84	3.6	320	6	6	3	0
7332	106	3.6	315	8	7	4	0
7333	86	3.6	315	8	7	4	0
7334	81	3.6	310	8	6	5	0
7335	91	3.7	323	9	6	5	0
7336	92	3.7	323	9	6	5	0
7337	61	3.7	326	8	5	4	0
7338	48	3.7	326	8	5	4	0
7339	35	3.7	326	8	5	4	0
7340	63	3.6	322	8	5	3	0
7341	66	3.6	322	7	5	3	0
7342	63	3.5	312	7	5	3	0
7343	86	3.6	315	7	5	4	0
7344	76	3.6	322	7	5	3	0
7345	48	3.7	350	5	3	1	0
7346	33	3.7	327	10	5	4	0
7347	79	3.6	311	9	5	4	0
7348	95	3.6	311	9	6	5	0
7349	93	3.1	278	7	5	3	0
7350	52	2.8	244	6	4	3	0
7351	75	2.7	241	5	3	2	0
7352	71	3.3	303	6	5	2	0
7353	58	3.9	356	7	5	3	0
7354	69	3.9	356	7	4	3	0
7355	44	4.1	360	9	7	4	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7356	59	3.7	312	12	7	5	1
7357	79	3.5	300	11	6	4	1
7358	53	3.8	325	12	7	5	0
7359	80	3.8	325	12	7	5	0
7360	75	3.7	314	10	7	4	0
7361	105	3.7	314	10	7	4	0
7362	100	3.6	311	9	7	4	0
7363	106	3.7	330	9	6	3	0
7364	82	3.7	328	8	6	3	0
7365	73	3.7	328	8	6	3	0
7366	62	3.6	317	8	6	3	0
7367	44	3.5	316	7	5	2	0
7368	60	3.6	323	7	5	2	0
7369	74	3.9	353	7	6	2	0
7370	74	4.2	372	8	6	3	1
7371	76	4.3	378	8	7	3	1
7372	76	4.4	384	9	7	4	1
7373	75	4.7	407	10	8	5	1
7374	64	4.7	414	11	7	4	1
7375	79	4.8	414	11	7	4	2
7376	57	4.8	415	10	7	4	2
7377	82	4.8	420	9	6	5	2
7378	96	4.7	420	8	6	4	1
7379	98	4.8	431	8	6	3	1
7380	85	4.8	428	8	6	4	1
7381	87	4.9	444	7	5	4	2
7382	64	4.9	438	6	5	4	3
7383	32	4.8	438	6	4	3	2
7384	32	3.9	363	5	4	2	0
7385	46	3.8	363	5	4	0	0
7386	63	3.4	318	5	3	0	0
7387	64	3.4	309	5	3	3	0
7388	69	3.4	312	5	3	2	0
7389	58	3.7	339	5	4	3	1
7390	53	4.5	400	6	5	4	2
7391	67	4.9	447	6	5	3	2
7392	107	4.9	447	6	5	3	1
7393	103	4.2	380	5	4	3	2
7394	72	4.2	380	5	4	3	2
7395	80	4.2	374	6	4	3	2
7396	51	4.5	407	6	4	3	2
7397	69	4.5	407	6	4	3	2
7398	103	4.5	407	6	4	3	2
7399	109	4.4	408	6	3	2	2
7400	77	4.4	408	6	3	2	2
7401	79	4.4	408	6	3	2	2
7402	99	4.3	393	6	3	2	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7403	80	4.0	369	6	3	2	2
7404	94	4.2	384	6	3	2	2
7405	75	4.2	398	6	2	1	1
7406	73	4.2	398	6	2	1	1
7407	89	2.8	259	5	2	1	1
7408	51	4.1	384	6	3	2	1
7409	70	4.2	398	6	2	1	1
7410	58	4.2	398	6	2	1	1
7411	47	2.8	259	5	2	1	1
7412	56	7.1	644	10	5	3	3
7413	77	9.1	830	17	8	3	3
7414	38	6.6	590	12	8	4	3
7415	56	6.6	590	12	8	4	3
7416	88	3.4	294	6	5	3	3
7417	88	2.7	230	5	4	3	2
7418	96	2.7	230	5	4	3	2
7419	95	2.1	183	4	3	2	2
7420	82	2.2	193	4	3	2	2
7421	64	2.8	243	5	3	2	2
7422	93	5.3	476	10	5	3	2
7423	69	5.3	476	10	5	3	2
7424	94	4.0	358	8	4	2	2
7425	84	4.0	358	8	4	2	2
7426	84	3.1	275	6	3	2	2
7427	87	2.7	233	6	2	2	2
7428	79	2.6	235	6	2	1	1
7429	72	2.8	256	6	2	1	0
7430	79	3.0	277	6	2	1	0
7431	73	3.0	277	6	2	1	0
7432	79	3.2	295	6	3	1	0
7433	74	3.4	306	7	4	2	1
7434	58	3.5	310	7	4	2	2
7435	65	3.5	310	7	4	2	2
7436	65	3.5	318	6	3	2	2
7437	85	3.8	336	7	4	2	2
7438	57	3.9	340	7	4	2	2
7439	88	4.0	344	7	4	2	2
7440	70	4.0	336	7	3	2	2
7441	29	3.9	333	7	3	2	2
7442	56	3.6	307	7	3	1	2
7443	58	3.3	279	6	2	0	1
7444	34	3.3	287	6	2	0	2
7445	47	3.5	306	7	2	0	2
7446	60	4.0	338	7	3	2	2
7447	65	4.1	347	7	4	2	2
7448	29	4.0	335	7	4	2	2
7449	25	3.6	298	7	4	2	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7450	50	3.7	313	6	4	2	2
7451	53	3.8	322	7	4	2	2
7452	39	3.5	299	7	3	1	2
7453	72	3.5	299	7	3	1	2
7454	76	3.8	327	7	3	2	2
7455	69	3.8	327	7	3	2	2
7456	55	3.8	325	7	3	1	2
7457	66	3.6	314	7	3	2	2
7458	56	3.7	322	7	3	2	2
7459	65	3.7	322	7	3	2	2
7460	52	3.8	323	8	3	2	0
7461	46	3.8	322	8	3	2	2
7462	42	3.7	307	7	4	2	2
7463	43	3.5	296	7	4	2	2
7464	51	3.4	286	7	4	2	2
7465	41	3.4	282	7	4	2	2
7466	16	2.9	243	6	3	2	1
7467	41	2.7	222	5	3	2	1
7468	47	2.5	206	5	2	1	0
7469	40	2.6	223	6	2	1	0
7470	65	2.8	239	6	2	1	0
7471	62	2.9	250	6	2	1	1
7472	78	2.9	256	6	2	0	0
7473	52	3.3	274	6	4	2	2
7474	49	3.4	284	6	4	2	2
7475	34	3.4	293	7	4	2	2
7476	36	3.4	292	7	3	2	2
7477	80	3.4	292	7	3	2	2
7478	76	3.4	290	7	3	2	2
7479	75	3.4	290	7	3	2	2
7480	118	3.4	294	7	3	1	1
7481	48	3.4	294	7	3	1	0
7482	69	5.8	516	12	5	2	1
7483	97	8.2	737	18	7	2	1
7484	111	8.2	737	18	7	2	1
7485	93	16.2	1485	30	11	2	1
7486	79	24.1	2233	42	15	2	2
7487	92	18.3	1683	34	11	2	2
7488	93	18.3	1683	34	11	2	2
7489	75	10.4	947	22	7	1	1
7490	74	6.9	629	15	5	0	0
7491	69	6.7	629	15	5	0	0
7492	77	5.3	501	12	4	0	0
7493	70	4.6	436	10	4	0	0
7494	104	4.9	449	10	5	2	1
7495	99	4.9	449	10	5	2	1
7496	96	4.9	449	10	5	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7497	82	4.5	417	9	4	2	0
7498	81	4.3	395	8	4	2	1
7499	99	4.2	387	9	4	2	0
7500	68	4.2	387	9	4	2	0
7501	83	4.3	401	9	4	1	0
7502	88	3.8	354	9	3	0	0
7503	58	2.7	252	6	2	0	0
7504	77	2.7	251	7	3	0	0
7505	96	2.8	260	7	3	0	0
7506	79	3.3	301	10	5	0	0
7507	62	9.3	860	19	10	2	1
7508	136	7.2	662	16	7	2	1
7509	142	5.1	460	12	5	2	1
7510	104	5.1	460	12	5	2	1
7511	105	3.1	285	9	3	0	0
7512	86	3.1	285	9	3	0	0
7513	107	2.3	208	7	3	0	0
7514	84	2.3	208	7	3	0	0
7515	105	2.1	195	6	2	0	0
7516	79	2.2	207	6	2	0	0
7517	39	1.9	176	5	3	0	0
7518	23	2.6	228	6	4	2	0
7519	37	2.2	197	5	3	1	0
7520	36	1.7	158	4	2	0	0
7521	30	1.7	160	4	2	0	0
7522	47	2.0	187	4	2	0	0
7523	95	2.3	215	5	3	0	0
7524	43	2.5	227	5	2	1	0
7525	38	3.0	280	6	3	0	0
7526	41	3.0	282	6	3	0	0
7527	53	2.6	245	5	2	0	0
7528	34	2.8	258	5	3	0	0
7529	93	2.8	258	5	3	0	0
7530	148	3.1	283	6	4	1	0
7531	106	3.2	285	6	4	2	1
7532	28	3.2	287	6	3	2	1
7533	92	3.2	287	6	3	2	1
7534	126	3.4	302	7	4	2	1
7535	104	3.3	302	7	4	0	0
7536	102	2.9	274	6	3	0	0
7537	108	2.6	246	6	3	0	0
7538	110	2.3	219	5	2	0	0
7539	112	2.3	219	5	2	0	0
7540	109	2.2	203	4	2	0	0
7541	114	2.3	214	5	2	0	0
7542	85	2.3	214	5	2	0	0
7543	99	2.2	205	5	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7544	98	2.3	216	5	2	0	0
7545	101	2.4	225	5	2	0	0
7546	66	2.4	225	5	2	0	0
7547	87	2.5	239	5	2	0	0
7548	101	2.5	239	5	2	0	0
7549	86	2.4	224	5	2	0	0
7550	83	2.4	224	5	2	0	0
7551	81	2.1	197	5	2	0	0
7552	74	2.0	190	4	2	0	0
7553	71	2.1	196	4	2	0	0
7554	96	2.1	196	5	2	0	0
7555	80	2.3	213	5	2	0	0
7556	57	2.4	225	5	3	0	0
7557	63	2.4	225	5	3	0	0
7558	66	2.5	236	5	3	0	0
7559	78	2.5	236	5	3	0	0
7560	54	2.2	205	5	2	0	0
7561	48	2.1	200	5	2	0	0
7562	88	2.3	211	5	2	0	0
7563	79	2.3	219	5	2	0	0
7564	69	2.4	223	5	2	0	0
7565	66	2.4	225	5	2	0	0
7566	89	2.4	227	5	2	0	0
7567	76	2.5	235	5	2	0	0
7568	59	2.5	235	5	2	0	0
7569	57	2.5	235	5	2	0	0
7570	57	2.5	233	5	2	0	0
7571	36	2.5	233	5	2	0	0
7572	4	2.2	211	4	0	0	0
7573	54	2.2	211	4	0	0	0
7574	37	2.5	235	5	2	0	0
7575	61	2.5	235	5	2	0	0
7576	48	2.3	216	4	2	0	0
7577	53	2.3	220	4	2	0	0
7578	70	2.4	224	4	2	0	0
7579	64	2.4	226	4	2	0	0
7580	50	3.3	312	5	2	0	0
7581	63	3.3	312	5	2	0	0
7582	65	2.7	255	5	2	0	0
7583	69	2.2	211	4	2	0	0
7584	93	2.2	211	4	2	0	0
7585	117	2.3	214	4	2	0	0
7586	109	2	214	4	2	0	0
7587	58	2	233	4	2	0	0
7588	77	4	345	6	2	0	0
7589	92	3	324	6	2	0	0
7590	64	3	324	6	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7591	108	2	234	4	1	0	0
7592	79	2	234	4	1	0	0
7593	49	4	403	6	3	0	0
7594	59	4	403	6	3	0	0
7595	84	4	402	5	2	0	0
7596	121	4	400	5	2	0	0
7597	71	4	380	3	1	0	0
7598	75	2	153	3	1	0	0
7599	98	2	153	3	1	0	0
7600	75	2	153	3	1	0	0
7601	101	2	164	3	2	0	0
7602	77	1	117	2	0	0	0
7603	94	1	117	2	0	0	0
7604	1	6	556	12	7	2	2
7605	46	4	327	7	4	0	0
7606	113	2	213	5	3	0	0
7607	115	2	213	5	3	0	0
7608	112	2	154	4	2	0	0
7609	117	2	154	4	2	0	0
7610	130	2	154	4	2	0	0
7611	137	2	147	4	2	0	0
7612	107	2	170	4	2	0	0
7613	106	2	170	4	2	0	0
7614	81	2	196	4	2	0	0
7615	79	2	214	5	2	0	0
7616	61	2	214	5	2	0	0
7617	71	2	200	4	1	0	0
7618	112	2	211	4	1	0	0
7619	77	2	211	4	1	0	0
7620	113	3	303	6	2	0	0
7621	98	3	303	6	2	0	0
7622	95	3	321	6	3	0	0
7623	87	3	321	6	3	0	0
7624	66	3	252	5	2	0	0
7625	96	2	231	4	2	0	0
7626	116	2	231	4	2	0	0
7627	69	2	231	4	2	0	0
7628	94	3	238	4	2	0	0
7629	60	2	218	4	2	0	0
7630	87	2	210	4	2	0	0
7631	36	2	211	4	2	0	0
7632	29	2	206	4	2	0	0
7633	46	2	206	4	2	0	0
7634	75	2	188	4	2	0	0
7635	93	2	232	4	2	0	0
7636	39	2	232	4	1	0	0
7637	58	2	236	4	1	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7638	113	3	246	4	1	0	0
7639	51	3	248	5	2	0	0
7640	77	3	266	5	2	0	0
7641	36	3	273	5	2	0	0
7642	42	3	276	5	2	0	0
7643	43	3	250	5	2	0	0
7644	106	3	250	5	2	0	0
7645	100	3	242	5	2	0	0
7646	83	3	266	5	2	0	0
7647	103	3	288	5	2	0	0
7648	102	3	310	6	2	0	0
7649	93	3	310	6	2	0	0
7650	103	4	340	6	2	0	0
7651	81	4	352	7	2	0	0
7652	60	4	365	8	3	0	0
7653	88	4	365	8	3	0	0
7654	86	4	373	8	3	0	0
7655	95	4	373	8	3	0	0
7656	105	4	359	8	2	0	0
7657	94	4	353	8	2	0	0
7658	96	4	353	8	2	0	0
7659	82	4	373	9	2	0	0
7660	119	5	434	10	4	0	0
7661	112	5	434	10	4	0	0
7662	77	5	503	10	5	1	0
7663	51	6	555	10	5	2	0
7664	47	6	555	10	5	2	0
7665	153	6	572	10	5	1	0
7666	57	5	496	8	4	1	0
7667	30	4	428	7	3	0	0
7668	31	4	428	6	3	0	0
7669	36	4	415	6	3	0	0
7670	23	4	356	5	2	0	0
7671	39	3	305	5	2	0	0
7672	96	3	250	4	1	0	0
7673	89	3	250	4	1	0	0
7674	89	2	232	4	1	0	0
7675	127	3	253	5	1	0	0
7676	105	4	340	6	2	0	0
7677	48	7	634	7	4	0	0
7678	55	10	955	9	5	0	0
7679	94	10	955	9	5	0	0
7680	100	10	955	9	5	0	0
7681	62	9	847	8	4	0	0
7682	46	5	439	5	3	0	0
7683	58	5	440	6	3	0	0
7684	66	10	942	10	4	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7685	97	10	942	10	5	0	0
7686	144	10	942	10	5	0	0
7687	26	10	922	10	4	0	0
7688	54	11	1092	11	5	0	0
7689	34	11	1090	10	4	0	0
7690	38	5	509	7	2	0	0
7691	34	6	567	7	4	0	0
7692	34	5	444	6	4	0	0
7693	50	4	422	6	3	0	0
7694	39	1	134	3	1	0	0
7695	61	1	133	3	1	0	0
7696	74	1	133	2	1	0	0
7697	68	1	128	2	1	0	0
7698	40	1	125	2	0	0	0
7699	1	8	714	12	8	2	2
7700	65	2	170	4	2	0	0
7701	64	2	170	4	2	0	0
7702	68	2	175	3	1	0	0
7703	82	3	303	4	2	0	0
7704	70	3	303	4	2	0	0
7705	63	5	465	5	2	0	0
7706	77	9	877	9	3	0	0
7707	71	28	2724	27	10	2	0
7708	79	28	2724	27	10	2	0
7709	74	37	3583	34	19	4	2
7710	98	37	3583	34	19	4	2
7711	88	22	2076	21	13	3	1
7712	47	11	1088	12	8	2	0
7713	36	21	2078	16	8	1	0
7714	28	21	2078	16	8	1	0
7715	64	17	1692	13	6	0	0
7716	40	6	576	9	4	0	0
7717	34	6	611	10	4	0	0
7718	30	6	583	10	4	0	0
7719	34	5	447	7	3	0	0
7720	53	5	447	7	4	0	0
7721	58	5	438	7	5	0	0
7722	53	5	470	8	5	0	0
7723	54	7	711	9	5	0	0
7724	55	10	984	11	6	1	0
7725	52	10	984	12	6	1	0
7726	60	10	945	12	6	0	0
7727	55	9	815	12	6	0	0
7728	45	8	757	11	6	0	0
7729	50	8	768	13	5	0	0
7730	52	8	768	13	5	0	0
7731	42	7	689	12	5	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7732	58	6	550	10	4	0	0
7733	46	6	521	11	4	0	0
7734	48	5	519	11	4	0	0
7735	53	5	519	11	4	0	0
7736	45	6	573	11	6	1	0
7737	68	6	573	11	6	1	0
7738	60	6	560	11	6	0	0
7739	61	5	496	10	5	0	0
7740	95	5	498	9	4	0	0
7741	59	5	498	10	4	0	0
7742	51	6	529	10	4	0	0
7743	56	6	529	10	4	0	0
7744	77	7	655	12	5	0	0
7745	71	7	696	12	5	0	0
7746	65	7	696	12	4	0	0
7747	63	6	554	10	4	0	0
7748	43	5	436	9	3	0	0
7749	64	4	395	8	3	0	0
7750	63	4	381	8	3	0	0
7751	46	4	381	8	2	0	0
7752	74	4	391	9	3	0	0
7753	54	4	390	9	4	0	0
7754	51	4	388	8	4	0	0
7755	65	4	339	7	4	0	0
7756	92	3	297	6	3	0	0
7757	50	3	297	6	3	0	0
7758	55	3	285	6	3	0	0
7759	58	3	306	6	3	0	0
7760	61	3	312	6	3	0	0
7761	63	3	319	7	3	0	0
7762	11	3	326	7	3	0	0
7763	52	3	326	7	3	0	0
7764	56	3	286	6	3	0	0
7765	54	3	285	6	2	0	0
7766	43	3	287	6	2	0	0
7767	27	3	319	7	2	0	0
7768	49	3	319	7	2	0	0
7769	48	3	313	7	2	0	0
7770	57	3	291	7	3	0	0
7771	48	3	263	6	3	0	0
7772	41	3	260	6	3	0	0
7773	53	3	272	6	3	0	0
7774	32	3	311	7	3	0	0
7775	56	4	406	8	3	0	0
7776	59	4	406	8	3	0	0
7777	85	4	379	8	3	0	0
7778	72	3	321	7	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7779	57	3	273	6	2	0	0
7780	62	3	246	5	2	0	0
7781	68	3	246	6	2	0	0
7782	56	3	306	7	2	0	0
7783	53	4	368	8	2	0	0
7784	48	4	397	8	3	0	0
7785	63	4	397	8	4	0	0
7786	104	4	363	7	4	0	0
7787	84	3	307	6	3	0	0
7788	102	3	236	5	2	0	0
7789	65	3	298	6	3	0	0
7790	52	4	384	8	4	0	0
7791	40	4	385	9	4	0	0
7792	25	441	42642	811	0	0	0
7793	114	539	51378	1388	0	0	0
7794	117	539	51378	1388	0	0	0
7795	82	443	42329	1085	0	0	0
7796	85	232	22480	373	0	0	0
7797	37	110	10653	108	38	5	0
7798	97	49	4742	43	14	2	0
7799	107	49	4742	43	14	2	0
7800	84	21	2048	21	7	0	0
7801	85	10	949	14	5	0	0
7802	78	10	949	14	5	0	0
7803	67	7	622	10	4	0	0
7804	87	7	622	10	5	0	0
7805	67	7	610	10	5	0	0
7806	59	7	610	11	6	1	0
7807	85	7	609	11	6	1	0
7808	60	5	497	9	4	0	0
7809	66	4	411	7	3	0	0
7810	53	4	365	7	3	0	0
7811	50	4	335	7	3	0	0
7812	49	3	292	6	2	0	0
7813	54	3	275	6	2	0	0
7814	28	3	288	6	2	0	0
7815	42	3	301	6	2	0	0
7816	44	4	328	6	2	0	0
7817	52	4	328	6	3	0	0
7818	44	3	284	6	3	0	0
7819	49	3	298	6	3	0	0
7820	44	3	292	6	3	0	0
7821	44	3	311	7	3	0	0
7822	71	4	333	7	3	0	0
7823	45	4	333	7	3	0	0
7824	50	4	333	7	3	0	0
7825	42	4	374	8	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7826	44	4	387	8	3	0	0
7827	44	4	404	9	3	0	0
7828	58	4	404	9	3	0	0
7829	39	4	391	9	3	0	0
7830	41	5	411	10	5	0	0
7831	36	5	434	10	6	2	0
7832	46	5	434	10	6	2	0
7833	74	5	481	11	7	2	0
7834	63	6	554	13	7	2	0
7835	47	7	604	14	8	2	0
7836	64	7	604	15	8	2	0
7837	72	7	604	15	8	2	0
7838	75	6	568	14	7	2	0
7839	64	6	530	13	7	2	0
7840	52	6	519	12	6	2	0
7841	80	6	550	14	6	2	0
7842	47	6	554	14	6	0	0
7843	38	6	554	13	6	0	0
7844	65	6	550	13	5	0	0
7845	65	6	526	13	6	2	0
7846	48	5	482	12	6	2	0
7847	36	5	427	10	6	2	0
7848	54	5	431	10	6	1	0
7849	76	5	431	10	6	1	0
7850	109	5	427	10	5	0	0
7851	60	5	451	10	5	1	0
7852	33	5	475	11	5	1	0
7853	6	6	500	11	5	1	0
7854	80	6	500	11	5	1	0
7855	66	5	490	11	5	0	0
7856	75	5	429	10	4	0	0
7857	77	5	429	10	4	0	0
7858	47	4	363	9	3	0	0
7859	73	4	375	8	3	0	0
7860	77	4	376	9	3	0	0
7861	31	4	354	9	3	0	0
7862	28	3	308	7	2	0	0
7863	51	3	321	6	3	0	0
7864	44	6	545	8	4	0	0
7865	54	10	918	12	6	0	0
7866	62	13	1207	15	7	1	0
7867	84	13	1207	15	7	1	0
7868	73	18	1683	18	8	2	0
7869	94	18	1683	18	8	2	0
7870	97	20	1956	19	9	2	0
7871	99	20	1956	19	9	2	0
7872	100	19	1826	17	8	2	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7873	108	19	1826	17	8	2	0
7874	99	16	1541	17	7	0	0
7875	108	13	1205	16	6	0	0
7876	97	10	932	14	5	0	0
7877	84	10	932	14	5	0	0
7878	58	8	794	13	5	0	0
7879	81	8	712	13	4	0	0
7880	58	7	644	13	4	0	0
7881	71	7	644	13	4	0	0
7882	69	7	623	13	4	0	0
7883	78	8	764	14	7	1	0
7884	110	8	764	14	7	1	0
7885	85	7	602	13	6	1	0
7886	90	391	37257	1196	58	10	20
7887	0	249	23433	573	0	0	11
7888	46	111	10675	157	20	3	5
7889	34	16	1458	24	8	1	0
7890	98	16	1458	24	9	2	0
7891	80	9	798	15	9	2	0
7892	79	6	572	13	8	2	0
7893	61	6	572	13	8	2	0
7894	87	5	459	11	6	2	0
7895	71	6	581	12	7	2	0
7896	77	19	1740	29	15	3	1
7897	88	31	2898	46	23	5	2
7898	80	31	2898	46	23	5	2
7899	101	31	2898	46	23	5	2
7900	85	26	2475	40	18	4	1
7901	53	24	2225	32	14	3	0
7902	73	43	4081	54	21	4	0
7903	66	57	5383	73	28	5	2
7904	25	68	6425	94	34	6	2
7905	18	68	6425	94	33	6	2
7906	59	59	5574	88	29	5	2
7907	66	45	4198	69	22	4	1
7908	76	35	3269	53	17	3	0
7909	70	31	2912	44	17	3	0
7910	65	35	3250	51	24	5	1
7911	71	42	3978	63	29	6	2
7912	73	42	3978	63	29	6	2
7913	64	41	3840	60	27	5	2
7914	73	37	3482	55	23	4	2
7915	67	33	3075	49	20	4	0
7916	60	36	3448	53	21	4	1
7917	25	36	3448	50	19	3	0
7918	74	46	4393	61	20	3	0
7919	47	46	4393	61	20	3	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7920	46	40	3846	56	18	3	0
7921	51	40	3760	57	16	3	0
7922	63	45	4216	70	18	3	0
7923	46	51	4788	80	26	5	0
7924	82	54	5078	80	38	7	2
7925	87	54	5078	77	38	7	2
7926	75	46	4305	66	32	6	2
7927	74	46	4305	66	32	6	2
7928	65	29	2681	48	24	5	2
7929	64	29	2681	48	24	5	2
7930	64	25	2306	44	22	5	2
7931	50	23	2073	40	19	4	2
7932	44	20	1862	38	18	4	1
7933	60	20	1829	38	18	4	1
7934	64	18	1677	36	17	4	1
7935	77	18	1623	35	16	3	1
7936	73	17	1566	33	14	3	1
7937	74	16	1434	32	13	3	1
7938	58	16	1434	32	13	3	1
7939	60	15	1327	31	12	3	1
7940	70	13	1196	28	11	3	0
7941	71	12	1067	25	9	2	0
7942	63	11	1026	25	8	2	0
7943	70	11	980	24	10	2	0
7944	58	11	986	24	12	3	1
7945	35	11	993	24	14	3	1
7946	68	11	991	23	14	3	1
7947	51	11	980	22	13	3	1
7948	62	11	941	22	12	3	0
7949	55	10	845	21	12	3	1
7950	53	10	857	21	11	3	1
7951	38	10	857	21	11	3	0
7952	52	10	850	21	11	3	0
7953	76	9	824	21	10	3	0
7954	69	9	824	21	10	3	0
7955	53	9	782	20	9	2	0
7956	50	8	740	20	8	2	0
7957	60	8	675	19	8	2	0
7958	63	7	642	18	7	1	0
7959	47	7	642	18	6	1	0
7960	60	8	703	19	12	3	1
7961	55	9	745	19	12	3	1
7962	49	9	745	19	12	3	0
7963	87	14	1284	28	17	4	1
7964	80	29	2630	44	25	6	2
7965	59	29	2632	46	25	6	2
7966	37	25	2330	41	22	5	2

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
7967	65	25	2330	40	21	5	2
7968	83	25	2330	40	21	5	2
7969	95	24	2183	37	19	4	2
7970	81	19	1762	34	17	4	1
7971	71	17	1539	32	15	4	1
7972	88	17	1548	32	15	4	1
7973	90	17	1548	32	15	4	1
7974	67	16	1442	30	13	3	0
7975	52	15	1336	30	12	3	1
7976	70	14	1276	29	12	3	1
7977	65	11	1020	25	10	2	0
7978	66	11	1020	25	10	2	0
7979	78	4	329	11	5	0	0
7980	35	3	288	8	5	2	0
7981	93	3	288	8	5	2	0
7982	107	3	265	8	5	1	0
7983	127	3	265	8	5	1	0
7984	104	2	215	7	2	0	0
7985	65	2	158	5	4	0	0
7986	65	2	158	5	4	0	0
7987	104	2	185	6	5	2	0
7988	78	2	185	6	5	2	0
7989	84	2	160	5	4	2	0
7990	88	1	132	4	3	0	0
7991	73	1	119	4	3	0	0
7992	83	1	119	4	3	0	0
7993	76	1	120	4	2	0	0
7994	90	1	123	4	2	0	0
7995	80	1	128	4	2	0	0
7996	60	1	128	4	2	0	0
7997	72	2	228	6	3	0	0
7998	57	2	201	5	2	0	0
7999	40	2	197	5	2	0	0
8000	33	2	183	5	2	0	0
8001	45	2	162	5	2	0	0
8002	35	2	175	5	2	0	0
8003	62	2	188	5	3	0	0
8004	67	2	202	5	3	0	0
8005	82	2	215	5	3	0	0
8006	67	2	211	5	3	0	0
8007	42	2	219	5	3	0	0
8008	56	2	204	5	3	0	0
8009	53	2	188	5	2	0	0
8010	51	2	176	4	2	0	0
8011	58	2	164	4	2	0	0
8012	65	2	163	4	2	0	0
8013	55.6	1.7	161	4	2	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8014	49.8	1.7	160	4	2	0	0
8015	47.5	1.6	151	4	2	0	0
8016	56.0	1.1	104	3	1	0	0
8017	53.4	1.4	133	3	2	0	0
8018	37.3	1.1	100	3	2	0	0
8019	65.2	1.0	91	2	2	0	0
8020	48.6	1.1	104	3	2	0	0
8021	58.3	1.1	104	3	2	0	0
8022	53.8	0.3	34	0	0	0	0
8023	58.9	1.3	112	3	2	0	0
8024	57.5	2.2	191	5	3	0	0
8025	50.8	2.1	185	5	3	0	0
8026	62.5	2.1	180	5	2	0	0
8027	43.0	2.2	187	5	3	0	0
8028	38.6	2.6	216	6	4	1	0
8029	54.3	3.2	270	7	5	1	0
8030	54.7	3.2	276	7	5	1	0
8031	58.7	2.9	249	6	4	1	0
8032	62.6	2.7	227	6	4	1	0
8033	51.1	2.5	215	5	4	0	0
8034	50.2	2.3	199	5	3	0	0
8035	49.4	55.2	5193	62	35	8	3
8036	55.6	32.0	3002	38	21	4	2
8037	38.0	32.0	3002	38	21	4	2
8038	65.7	22.1	2049	31	16	4	2
8039	79.8	10.7	978	19	9	2	0
8040	70.7	7.9	718	15	7	1	0
8041	77.3	5.1	458	11	5	0	0
8042	72.9	3.2	285	7	3	0	0
8043	91.6	2.3	201	5	2	0	0
8044	71.5	2.3	201	5	2	0	0
8045	74.2	2.0	175	4	2	0	0
8046	56.8	1.8	159	4	2	0	0
8047	65.6	1.7	151	3	1	0	0
8048	75.2	1.9	168	4	2	0	0
8049	53.5	2.9	260	5	2	0	0
8050	56.4	3.2	295	6	2	0	0
8051	48.4	3.6	324	6	3	0	0
8052	57.5	3.9	351	6	4	0	0
8053	73.3	4.7	428	6	4	1	0
8054	65.3	4.7	428	6	4	1	0
8055	61.6	4.4	405	7	4	0	0
8056	85.7	4.4	403	7	4	0	0
8057	81.3	4.4	403	7	4	0	0
8058	54.6	3.8	345	6	3	0	0
8059	59.4	3.8	345	6	3	0	0
8060	65.1	4.3	397	7	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8061	73.2	4.5	412	7	3	0	0
8062	69.2	4.7	434	7	3	0	0
8063	76.9	5.2	486	7	3	0	0
8064	61.4	5.7	523	8	3	0	0
8065	63.1	5.7	523	8	3	0	0
8066	57.4	4.4	410	7	3	0	0
8067	74.7	4.1	378	7	3	0	0
8068	68.6	4.1	378	7	2	0	0
8069	67.4	5.0	458	8	2	0	0
8070	75.8	5.1	469	8	3	0	0
8071	77.3	5.5	497	8	5	2	0
8072	78.3	4.0	382	6	4	0	0
8073	72.7	4.1	390	7	4	0	0
8074	38.0	98.0	9123	132	68	15	7
8075	75.0	124.5	11770	204	54	19	9
8076	71.5	124.5	11770	204	44	19	9
8077	86.5	68.3	6384	94	44	10	4
8078	80.2	25.0	2313	38	17	4	2
8079	56.2	25.0	2313	38	17	4	2
8080	63.5	7.5	667	15	7	2	2
8081	66.4	3.9	366	8	4	0	0
8082	59.8	3.6	340	7	3	0	0
8083	78.8	3.3	314	6	3	0	0
8084	73.2	3.6	344	6	2	0	0
8085	77.1	3.8	362	7	2	0	0
8086	72.2	5.4	511	9	3	0	0
8087	63.7	6.3	602	10	4	0	0
8088	40.3	6.4	602	10	6	2	0
8089	56.2	5.9	557	8	6	2	0
8090	55.9	5.2	498	8	4	0	0
8091	48.1	5.2	498	8	4	0	0
8092	50.5	5.3	502	7	4	0	0
8093	69.8	5.4	520	7	4	0	0
8094	49.5	5.0	479	7	3	0	0
8095	51.0	4.5	434	7	3	0	0
8096	61.2	4.6	438	7	3	0	0
8097	49.2	4.3	416	6	3	0	0
8098	56.4	4.1	396	7	2	0	0
8099	49.8	4.1	396	7	2	0	0
8100	62.3	4.2	403	7	2	0	0
8101	58.5	4.1	393	6	2	0	0
8102	47.8	3.8	359	6	2	0	0
8103	39.2	3.7	353	6	2	0	0
8104	44.3	4.3	411	6	4	0	0
8105	54.5	4.4	417	6	3	0	0
8106	54.8	4.4	417	6	3	0	0
8107	56.2	3.9	372	6	3	0	0

DEPTH ft.	R.O.P. ft/h.	T. GAS units	CHROMATOGRAPHY (ppm)				
			C1	C2	C3	C4	C5
8108	59.2	3.5	332	5	3	0	0
8109	48.7	3.5	332	5	3	0	0
8110	47.1	3.6	344	6	3	0	0
8111	46.3	4.2	382	7	3	0	0
8112	47.7	4.4	401	7	3	0	0
8113	45.3	4.4	401	8	3	0	0
8114	41.2	4.3	398	8	3	0	0
8115	48.2	3.9	351	7	3	0	0
8116	68.6	3.9	360	7	3	0	0
8117	57.9	4.5	400	8	4	1	0
8118	61.5	4.8	428	8	5	1	0
8119	46.6	5.4	483	9	6	2	0
8120	47.2	5.7	505	10	6	2	0
8121	58.1	5.7	505	10	6	2	0
8122	45.2	5.1	450	10	5	2	0
8123	45.0	5.2	458	10	5	2	0
8124	46.1	5.3	471	10	5	2	0
8125	63.2	5.3	471	10	5	2	0
8126	47.1	4.9	437	10	5	1	0
8127	50.9	4.8	435	9	4	0	0
8128	48.8	4.6	419	9	4	0	0
8129	54.6	4.6	419	9	4	0	0
8130	58.0	3.7	336	8	3	0	0
8131	51.0	3.7	336	8	3	0	0
8132	62.7	3.7	336	8	3	0	0
8133	68.7	4.3	393	9	4	0	0
8134	62.2	4.5	404	9	4	0	0
8135	43.7	4.5	404	9	4	0	0
8136	60.0	4.2	382	8	4	0	0
8137	57.5	4.7	427	9	4	0	0
8138	44.3	4.7	427	9	4	0	0
8139	56.3	4.6	418	9	4	0	0
8140	38.8	4.6	418	9	4	0	0
8141	35.7	4.1	378	8	3	0	0
8142	42.6	4.3	391	8	3	0	0
8143	51.8	4.2	387	8	3	0	0
8144	24.7	4.2	382	8	3	0	0
8145	26.0	4.2	382	8	3	0	0
8146	35.0	4.2	382	8	3	0	0
8147	39.0	4.4	406	7	4	0	0
8148	40.0	4.3	398	7	4	0	0
8149	45.5	3.8	345	7	3	0	0
8150	73.1	3.8	343	7	3	0	0



FLUORESCENCE DATA RECORD

WELL: LO6-33D



INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
2710 - 2740	CHACRA						7	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2740 - 2770	CHACRA						10	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2770 - 2800	CHACRA						15	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2800 - 2830	CHACRA						10	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2830 - 2860	CHACRA						15	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2860 - 2890	CHACRA						10	PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2890 - 2920	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2920 - 2950	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
2950 - 2980	CHACRA		X					PL YEL		X				X			X			X			PL YELSH WH	MKY WH	NIL
5760 - 5770	RIO BRAVO						5	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5770 - 5780	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5780 - 5790	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5790 - 5800	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5800 - 5810	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5810 - 5820	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5820 - 5830	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5830 - 5840	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5840 - 5850	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5850 - 5860	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5860 - 5870	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

WELL: LO6-33D



INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
5870 - 5880	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5880 - 5890	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5890 - 5900	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5930 - 5940	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5940 - 5950	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5950 - 5960	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5960 - 5970	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5970 - 5980	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5980 - 5990	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
5990 - 6000	RIO BRAVO						50	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6000 - 6010	RIO BRAVO						50	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6010 - 6020	RIO BRAVO						50	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6020 - 6030	RIO BRAVO						40	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6030 - 6040	RIO BRAVO						30	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6040 - 6050	RIO BRAVO						25	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6050 - 6060	RIO BRAVO						20	YELSH WH		X				X			X			X			YELSH WH	MKY WH	NIL
6150 - 6160	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6160 - 6170	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6170 - 6180	RIO BRAVO						30	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6180 - 6190	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

WELL: LO6-33D



INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6190 - 6200	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6200 - 6210	RIO BRAVO						50	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6210 - 6220	RIO BRAVO						50	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6220 - 6230	RIO BRAVO						50	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6230 - 6240	RIO BRAVO						40	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6240 - 6250	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6250 - 6260	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6410 - 6420	RIO BRAVO						5	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6420 - 6430	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6430 - 6440	RIO BRAVO						15	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6440 - 6450	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6450 - 6460	RIO BRAVO						25	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6460 - 6470	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6470 - 6480	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6510 - 6520	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6520 - 6530	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6530 - 6540	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6540 - 6550	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6550 - 6560	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6560 - 6570	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

WELL: LO6-33D



INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6610 - 6620	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6620 - 6630	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6630 - 6640	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6640 - 6650	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6650 - 6660	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6660 - 6670	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6670 - 6680	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6680 - 6690	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6690 - 6700	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6700 - 6710	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6710 - 6720	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6720 - 6730	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6730 - 6740	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6740 - 6750	RIO BRAVO						25	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6750 - 6760	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6760 - 6770	RIO BRAVO						25	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6770 - 6780	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6780 - 6790	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6790 - 6800	RIO BRAVO						20	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6800 - 6810	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL



FLUORESCENCE DATA RECORD

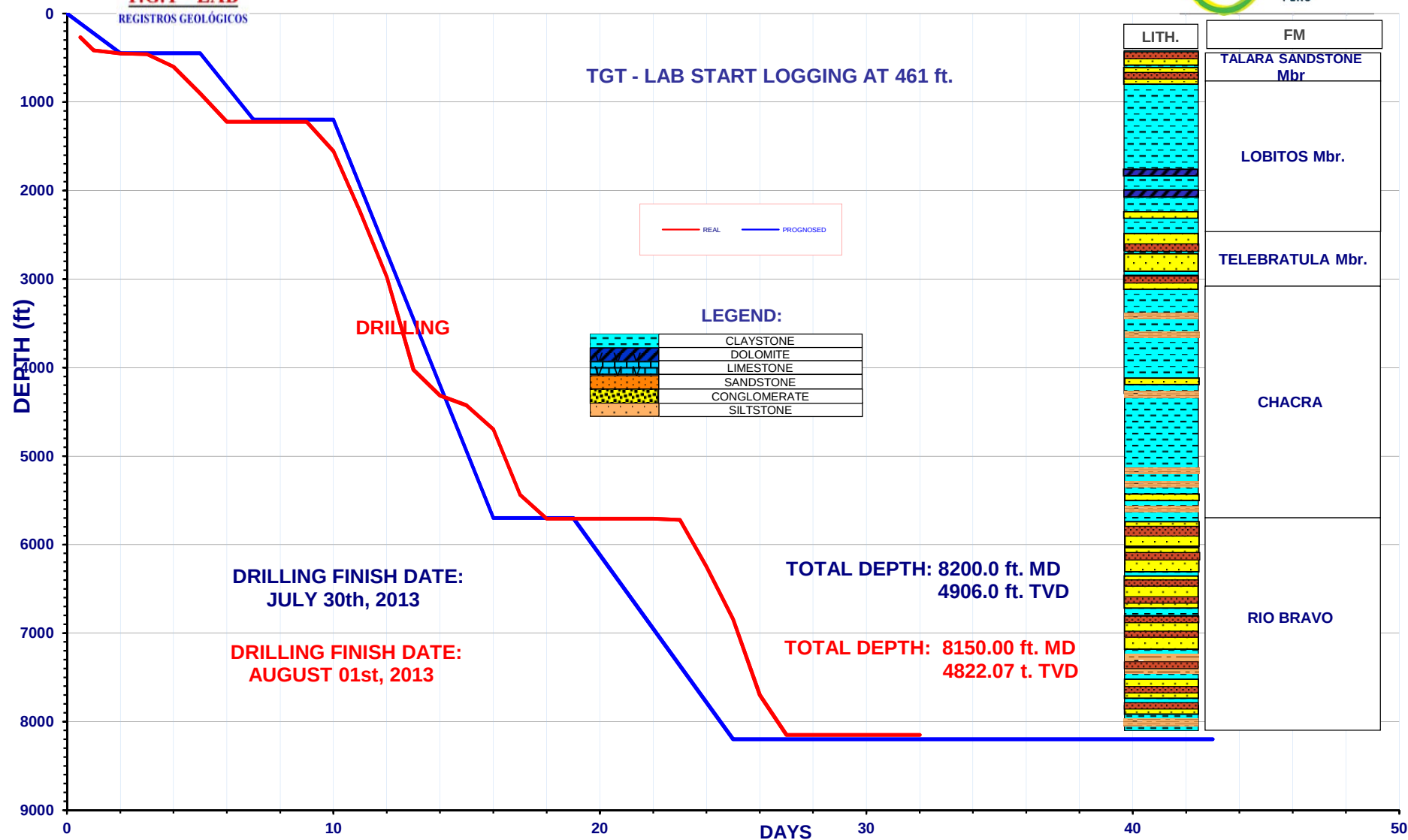
WELL: LO6-33D



INTERVALS (Meters)	FORMATION	NATURAL FLUORESCENCE						COLOR	SPEED CUT				REACTION			INTENSITY CUT				FORM CUT			COLOR CUT	RESIDUAL RING	
		NIL	TRACES	POOR	FAIR	GOOD	%		CRUSH	SLOW	FAST	FLASH	FAINT	WEAK	STRONG	DULL	FAINT	PALE	BRIGHT	EVEN	BLOOMING	STREAMING		U.V.L.	NAT. L.
6810 - 6820	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6820 - 6830	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6830 - 6840	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6840 - 6850	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6850 - 6860	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6860 - 6870	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6870 - 6880	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6900 - 6910	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6910 - 6920	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
6920 - 6930	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7200 - 7210	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7210 - 7220	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7900 - 7910	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7910 - 7920	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7920 - 7930	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7930 - 7940	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7940 - 7950	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7950 - 7960	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7960 - 7970	RIO BRAVO						10	PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL
7970 - 7980	RIO BRAVO		X					PL YELSH		X				X			X			X			YELSH WH	MKY WH	NIL



DRILLING PROGRESS CURVE WELL : LO6-33D





BIT RECORD



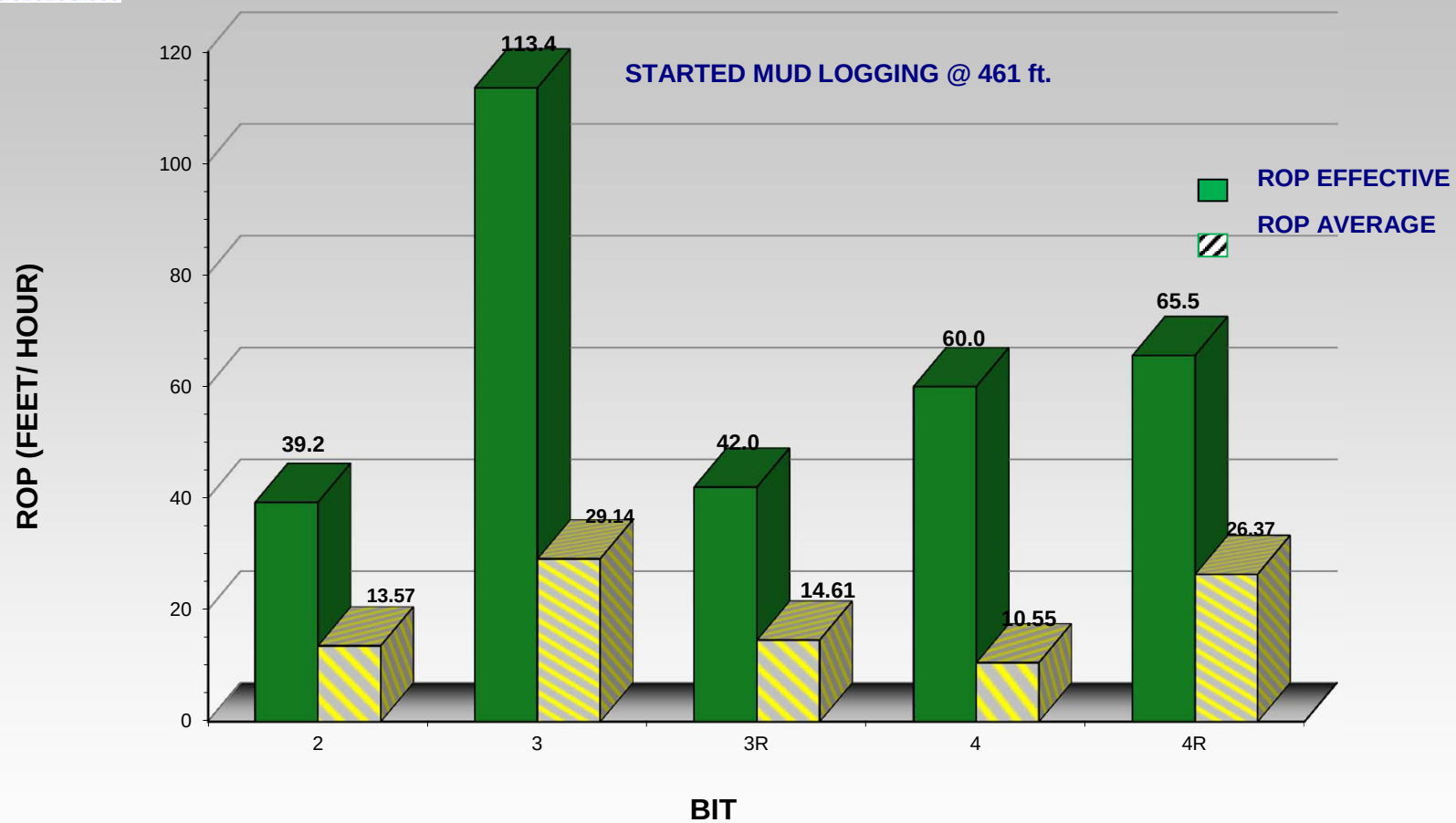
WELL: LO6-33D

* STARTED MUD LOGGING @ 461 ft.

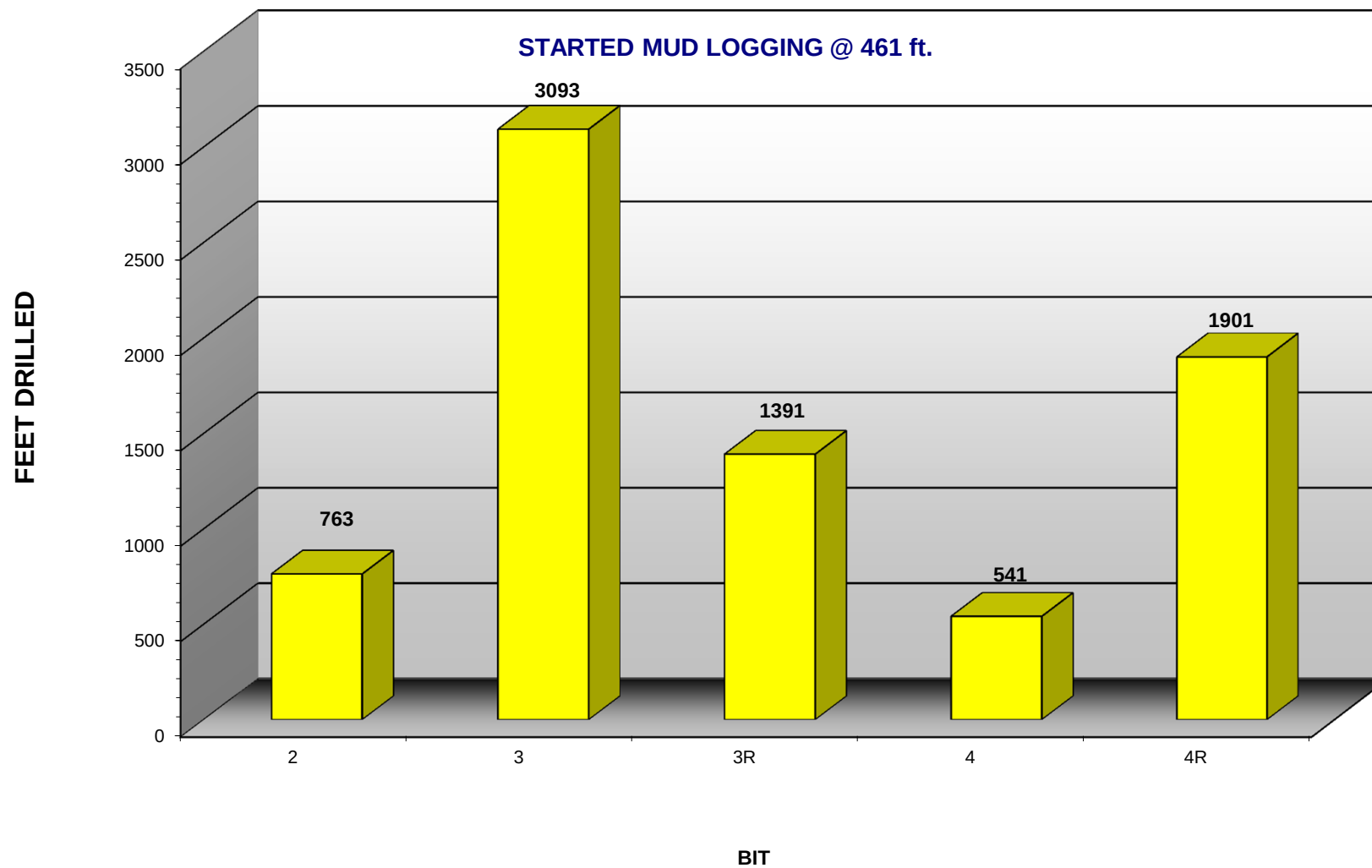
BIT	SIZE	MAKE	TYPE	SERIAL	DEPTH		HOLE	ROP Effective	HOURS		JETS	GPM/PSI	WOB/RPM Klbs / rpm	IADC
	IN				IN	OUT		M/HR	Total	Drilling				
2	17	SMITH	MSDSHD	STPW69	461	1224	763	39.2	56.2	19.4	4X16	760/1650	25/65	1-1-WT-N-O-NO-I-TD
3	12 1/4	SMITH	MD419HMABPX	JG2134	1224	4317	3093	113.4	106.2	27.3	6X14	760/2650	15/70	1-2-CT-G-X-I-NO-BHA
3R	12 1/4	SMITH	MD419HMABPX	JG2134	4317	5708	1391	42.0	95.2	33.1	1X14;2X15;3X16	740/2900	13/70	1-2-CT-G-X-I-NO-TD
4	8 1/2	REED HYCLOG	RSH519M-A10	224891	5708	6249	541	60.0	51.3	9.0	1X11;4X12;3X13	545/2780	15/65	0-1-CT-N-X-I-NO-DMF
4R	8 1/2	REED HYCLOG	RSH519M-A10	224891	6249	8150	1901	65.5	72.1	29.0	1X11;4X12;3X13	545/2700	16/65	1-1-CT-S-X-I-NO-TD

FORMATIONS: MD (ft) TVD (ft)		
TALARA SANDSTONE	0	0.0
LOBITOS	772	769.0
TEREBRATULA	2473	1942.5
CHACRA	3049	2191.9
RIO BRAVO	5769	3401.4
TD	8150	4822.1

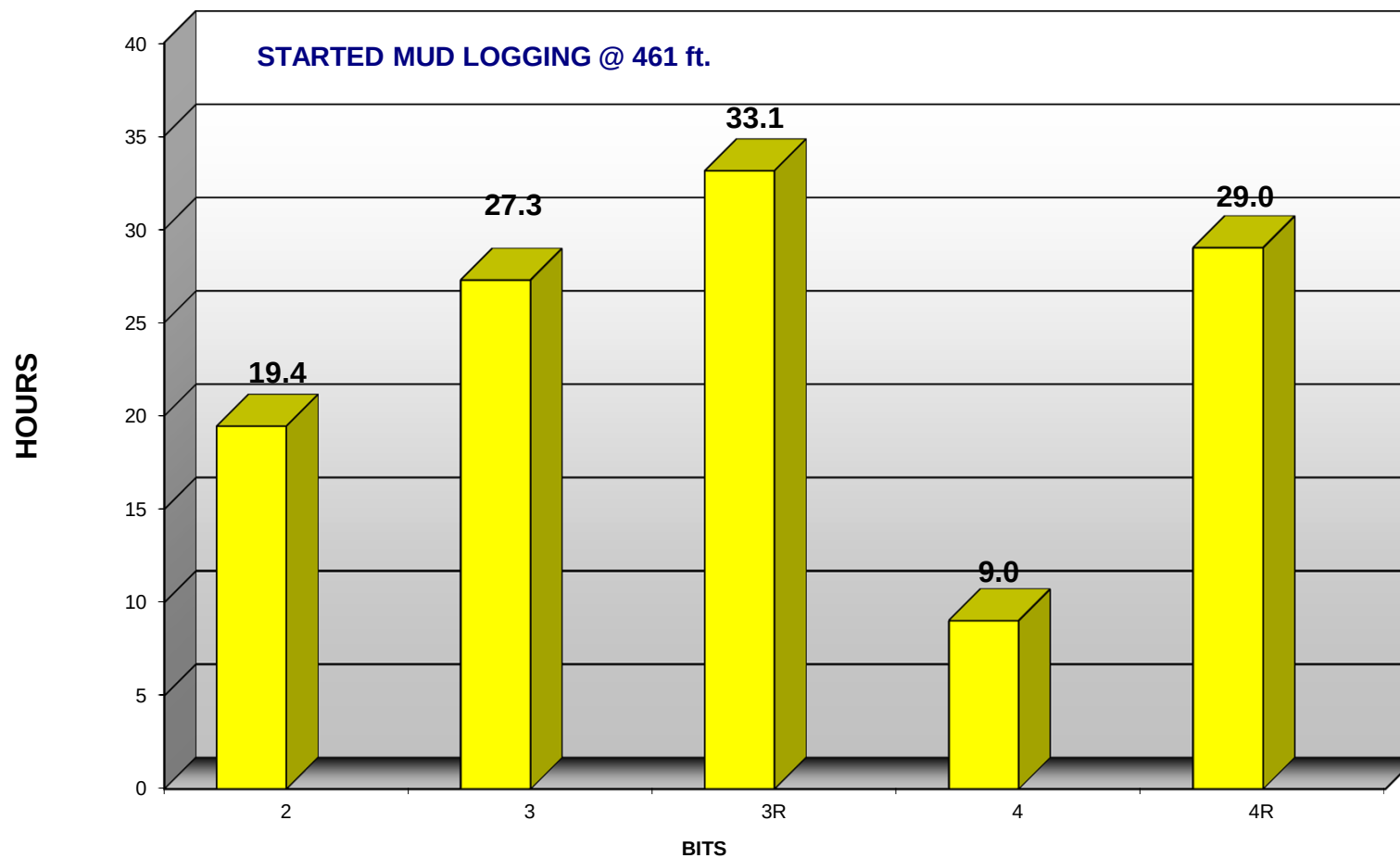
WELL : LO6-33D
**EFFECTIVE AND AVERAGE RATE OF
PENETRATION BY BIT (ft/hr)**



WELL : LO6-33D
FEET DRILLING BY BIT



WELL : LO6-33D
EFFECTIVE DRILLING HOURS



DAILY OPERATIONS REPORTS

WELL: LO6-33D

July 09th, 2013

00:00 – 05:00 Waiting directional & gyro tools and chemicals products. At 05:00 hrs arrive to location Ruvy River tugboat.

05:00 – 06:30 P/U directional & gyro tools from Ruvy river tugboat to platform.

06:30 – 07:30 Tramarsa crew perform review Ruvy River tugboat and don't find Gyro UBHO, this was download on rig Petrex 24. Perform safety and operation meeting to M/U 17" directional BHA.

07:30 – 10:00 Coordinates with production supervisor to support us with production boats and can move the UBHO from LO19 to LO6. At 09:45 hrs arrived production boat with UBHO.

10:00 – 12:00 M/U & RIH 17" tooth bit, Model MSDSHD, n/s STPW6970, jet 4x16 TFA:0.787, 9 5/8" PDM Phoenix (BH 1.5^a, 0.11 rev/gal & 16 3/4" sleeve stb), x/o, 8" UBHO, 8" Flex Monel, 8" Monel, RIH to 92 ft.

12:00 – 13:00 M/U Gyro slick line and take Gyro survey at 43 ft. incl 0.76 deg, azm 272.80 deg, Gyro TF 270.54 deg. P/U BHA with TD to check mud motor bend housing orientation, ok.

13:00 – 15:00 Continue M/U & RIH BHA: 2 jt 7 3/4" DC, 8" hyd jar, 1 jt 7 3/4" DC, x/o, 1jt 6 1/4" DC and 7 jt 5" HWDP to 448 ft.

15:00 – 17:00 M/U Gyro slick line and take Gyro survey at 400 ft. incl 1.43 deg, azm 266.38 deg, Gyro TF 48.08 deg. Connect TD and right turn BHA up to Gyro TF 200 deg. M/U slick line and take Gyro survey again at 400 ft. incl 1.42 deg, azm 264.36 deg, Gyro TF 195.42 deg.

17:00 – 19:00 Directional drill slide from 461 ft. to 509 ft. w/600/700 gpm, 800/1000 psi, 10/15 klb wob, ROP avg 24 ft/hr.

19:00 – 20:00 M/U Gyro slick line and take Gyro survey at 460 ft. incl 1.13 deg, azm 227.39 deg, Gyro TF 170.22 deg. Connect TD and right turn BHA up to Gyro TF 200 deg.

20:00 – 21:00 Directional drill slide from 509 ft. to 542 ft. w/ 700 gpm, 15/20 klb wob, 1050 psi, ROP avg 33 ft/hr.

21:00 – 22:00 M/U Gyro slick line and take Gyro survey at 491 ft, incl 1.57 deg, azm 227.35 deg, Gyro TF 235.91 deg. Connect TD and right turn BHA up to Gyro TF 200 deg.

22:00 – 23:30 Directional drill slide from 542 ft to 601 ft. w/ 720 gpm, 15/20 klb wob, 1150 psi, ROP avg 39 ft/hr.

23:30 – 00:00 M/U Gyro slick line and take Gyro survey at 553 ft, in progress.

July 10th, 2013

00:00 – 01:00 Continue take gyro survey: incl 4.05 deg, azm 186.49 deg, Gravity TF 323.05 deg. Connect TD and right turn BHA up to Gravity TF 40 deg.

01:00 – 01:30 Directional drill slide from 601 ft to 620 ft. w/ 740 gpm, 1200 psi, 15/20 klb wob, ROP avg 48 ft/hr.

01:30 – 02:00 Directional drill rotary 620 ft to 633 ft. w/ 750 gpm, 1200 psi, 15/20 klb wob, 55 rpm, tq 4 klb-ft, ROP avg 39.3 ft/hr.

02:00 – 03:00 M/U Gyro slick line and take Gyro survey at 581 ft, incl 5.57 deg, azm 178.92 deg, Gravity TF 315.28 deg. Connect TD and right turn BHA up to Gravity TF 50

deg.

03:00 – 04:30 Directional drill slide from 633 ft to 692 ft. w/ 800 gpm, 1350 psi, 15/22 klb wob, ROP avg 39.5 ft/hr.

04:30 – 05:30 M/U Gyro slick line and take Gyro survey at 644 ft, incl 8.56 deg, azm 177.63 deg, Gravity TF 54.13 deg. Connect TD and right turn BHA up to Gravity TF 40 deg.

05:30 – 06:30 Dir. drill sliding from 692 ft to 704 ft. w/ 800 gpm, 1350 psi, 15/22 klb wob, ROP avg 12 ft/hr.

06:30 – 08:00 Dir. drill rotating from 704' to 772'. w/ 800 gpm, 1350 psi, 15/25 klb wob, 62 rpm, tq 4/5 klb-ft, ROP avg 45 ft/hr.

08:00 – 09:00 Circulate and M/U Gyro slick line. Take Survey @ 706 ft, incl 11.16 deg, azm 180.6 deg.

09:00 – 09:30 Dir. drill sliding from 772' to 7870'. WOB 25 klbs, pres 1380 psi, 813 gpm.

09:30 – 10:30 Circulate and M/U Gyro slick line. Take Survey @ 732 ft, incl 11.54 deg, azm 182.41 deg.

10:30 – 12:30 Dir. drill sliding from 787' to 856'. WOB 26 klbs, pres 1450 psi, 830 gpm, ROP avg 35 ft/hr.

12:30 – 13:30 Dir. drill rotating from 856' to 881' WOB 24 klbs, pres 1460 psi, 830 gpm, 65 rpm, TQ 4.5 kft-lb.

13:30 – 14:30 Circulate and M/U Gyro slick line. Take Survey @ 832 ft, incl 15.9 deg, azm 177.53 deg, Gravity tool face 299.57 deg.

14:30 – 15:30 Make connection and reciprocate. Take survey to position tool face.

15:30 – 16:30 Dir. drill sliding from 881' to 902'. WOB 35 klbs, pres 1550 psi, 820 gpm.

16:30 – 17:00 Pepesa rig service.

17:00 – 19:30 Leak Pepesa top drive hydraulic hose , Pull out into 17" shoe at 451 ft. Pepesa change hydraulic hose and piston to top drive.

19:30 – 22:00 Continue Pooh dir. BHA with 17" tricone bit, L/D UBHO.

22:00 – 00:00 Install MWD tool, and TIH 17" tricone bit, perform MWD test @ 328 ft with 415 gpm, 450 psi, ok.

July 11th, 2013

00:00 – 01:30 Continue TIH directional BHA with 17" from 328' to 902'.

01:30 – 02:00 Circulate, and take survey with MDW.

02:00 – 04:30 Dir. drill sliding from 902' to 946'. WOB 28 klbs, 810 gpm, 1800 psi.

04:30 – 05:00 Dir. drill sliding from 946' to 976'. WOB 28 klbs, 820 gpm, pres 1840 psi, 62 rpm, TQ 4/5 kft-lb.

05:00 – 05:30 Circulate and take survey @ 918', incl 18.8 deg, azm 184.5 deg. DL 4.14 deg.

05:30 – 07:30 Dir. drill sliding from 976' to 1051'. WOB 29 klbs, pres 1930 psi, 825 gpm.

07:30 – 08:30 Dir. drill rotating from 1051' to 1072'. WOB 26 klbs, pres 1900 psi, 810 gpm, 64 rpm, TQ 5 kft-lb.

08:30 – 09:00 Circulate and take survey @ 918', incl 18.8 deg, azm 184.5 deg.

09:00 – 10:30 Dir. drill sliding from 1072' to 1135' WOB 29 klbs, pres 1940 psi, 814 gpm.

10:30 – 11:30 Dir. drill rotating from 1135' to 1165' WOB 28 klbs, pres 1980 psi, 815 gpm, 65 rpm, TQ 5 kft-lb.

11:30 – 12:00 Circulate and take survey @ 1016 ft, incl 21.2 deg, azm 194 deg.

12:00 – 13:30 Dir. drill sliding from 1165' to 1224' WOB 31 klbs, pres 2020 psi, 815 gpm. Last survey @ 1172 ft, incl 26.4 deg, azm 209 deg.

13:30 – 14:00 Circulate bottom up, obtain geology sample. 100% Claystone.

14:00 – 15:00 Pump vis pill, circulate, shakers clean, ok.

15:00 – 21:00 Pooh directional BHA with near bit and 17" tricone bit from 1224' to surface.

21:00 – 00:00 M/U and TIH slick BHA with near bit and 17" tricone bit to 528 ft.

July 12th, 2013

00:00 – 01:00	Continue TIH slick BHA with near bit and 17" tricone bit from 528' to 1224'. Last 2 stands w/ pump, ok.
01:00 – 02:00	Circulate and pump vis pill, shakers clean, ok.
02:00 – 05:30	Pooh slick BHA with near bit and 17" tricone bit from 1224' to surface.
05:30 – 07:30	Preparing drilling rig, M/U and install Sertong hydraulic tongs, elevator and spider.
07:30 – 12:30	Run 13 3/8" casing K-55, BTC, 54.5 lb/ft, to 1224 ft.
12:30 – 14:00	Install circulation head, and circulate with 290 gpm, pres 260 psi.
14:00 – 16:30	Wait on cement vessel, loading diesel at dock. Continue circulating with 170 gpm, 90 psi.
16:30 – 21:00	Position Baker Hippo vessel next to barge. Rig up and M/U cement lines. Prepare spacers on tanks and cements.
21:00 – 21:30	Perform safety meeting with Baker and Pepesa crew.
21:30 – 00:00	Baker test cement lines with 2550 psi, 10 min. ok. Pump 20 bbls see water, 8.34 ppg, 5 bpm; 20 bbls mud sweep, 8.4 ppg, 5.5 bpm; 30 bbls spacer, 11 ppg, 4 bpm. Drop bottom plug, pump 106 bbls lead slurry 12.5 ppg, 5.5 bpm; 100 bbls tail slurry, 15.2 ppg, 5 bpm. Drop top plug, displace with 184 bbls mud 9.6 ppg. Return to surface spacers and 11 bbls cement 12.6 ppg. Top plug sit with 350 psi, increase pressure to 815 psi, test csg, ok. Back flow 2 bbls, ok.

July 13th, 2013

00:00 – 07:00	WOC. Baker R/D cement lines. Pepesa welder open window on 18" csg. cut and weld ring between 18" conductor and 13 3/8" csg. Cut 13 3/8" csg, L/D bell nipple. N/D diverter.
07:00 – 08:00	Fepco personnel cut and bevel on 13 3/8" casing and install 13 3/8" x 13 5/8" x 3M casing head type slick lock. Perform slick lock test with 1250 psi, 10 min, ok.
08:00 – 11:00	Pepesa install 13 3/8"x11"x3M extension, install 13 3/8"x5M drilling spool, secure bolts. Lobitos Express vessel arrived to location, bring 5" DP, moved from vessel to Perla barge.
11:00 – 14:00	N/U 13 5/8"x5M double ram BOP Hydrill w/ 13 5/8"x5M annular preventer Hydrill.
14:00 – 15:00	Tighten bolts to 13 5/8" BOP. Installing bell nipple.
15:00 – 18:00	Install 5" pipe rams in 13 5/8" BOP. prepare hydraulic pump to perform 13 5/8" BOP test.
18:00 – 18:30	M/U and install plug tester with 5" DP.
18:30 – 21:00	Perform BOP test: blind rams w/ valve 300/3000 psi, mechanical and hydraulic HCR. Pepesa prepare maneuver to level drilling rig with hydraulic cats.
21:00 – 00:00	Pepesa level drilling rig with hydraulic cats.

July 14th, 2013

00:00 – 02:30	Continue level drilling rig.
02:30 – 06:00	Continue BOP test: all manifold valves with 300/3000 psi, x 10 min each. Pepesa Rig up 5" DP from barge to platform, take serial number and measure.
06:00 – 07:00	Test annular 300/3000 psi, ok. Test pipe rams, no hold pressure. Pepesa open rams section for inspection. Continue Rig up 5" DP from barge to platform.
07:00 – 09:00	Pepesa second test 13 5/8" BOP rams, no hold pressure. Perform maneuver with crane to change 5" rams.

09:00 – 10:30	Continue rig up 5" DP from barge to platform. Pepesa inspection BOP and testing rams, no hold pressure.
10:30 – 13:00	Pepesa inspection 13 5/8" BOP doble rams section.
13:00 – 18:00	M/U 5" HWDP and 5" DP in stands. Pepesa change rubbers to 5" rams.
18:00 – 00:00	Pepesa perform BOP test: pipe rams w/ all valves of manifold with 300/3000 psi x 10 min each. Pressure test annular BOP with 300/1500 psi each ok. P/T mud hose to pump & kill valve 300/3000 psi, 10 min, ok. Pressure test Blind rams & HCR hydraulic valve with 300/3000 psi x 10 min. ok.

July 15th, 2013

00:00 – 09:00	M/U HWDP in stands and 5" DP in stands. Pepesa make seal below bell nipple and drilling table.
09:00 – 10:30	Phoenix personnel measure tools and M/U slim pulse tool.
10:30 – 15:00	M/U 12 1/4" PDC bit (SDI419, TFA 0.905, Jets 6x14), mud motor, pony Monel, 12 1/8" stabilizer, UBHO, 2 Monels, cross over, 6 1/2" DC, cross over, 12 HWDP 5", jar, 12 HWDP 5" to 880 ft. Test mud motor.
15:00 – 15:30	Continue TIH dir. BHA w/ 12 1/4" PDC bit from 880' to 1181'. TOC @ 1181 ft.
15:30 – 17:00	Drill out top plug, bottom plug, float valve and cement from 1181' to 1210'.
17:00 – 17:30	Perform casing integrity test with 1000 psi, ok.
17:30 – 18:00	Drill out cement from 1210' to 1224'.
18:00 – 18:30	Dir. drill rotating from 1224' to 1235'. WOB 8 klbs, pres 1430 psi, 500 gpm, 50 rpm.
18:30 – 19:00	Circulate, geology confirm 100% formation, ok.
19:00 – 19:30	Displace contaminate mud for new mud 9.6 ppg. Perform FIT, MW 9.6 ppg, pres 241 psi, EMW 13.5 ppg.
19:30 – 21:00	Dir. drill with 12 1/4" PDC bit. Drill rotating 5 ft. from 1235' to 1240'. And continue drilling sliding from 1240' to 1304'. WOB 10 klbs, pres 1980 psi, 740 gpm.
21:00 – 21:30	Dir. drill rotating from 1304' to 1335'. WOB 16 klbs, pres 2230 psi, 740 gpm, 65 rpm, TQ 7 kft-lb.
21:30 – 22:30	Dir. drill sliding from 1335' to 1409'. WOB 12 klbs, pres 2175 psi, 740 gpm.
22:30 – 23:00	Dir. drill rotating from 1409' to 1462'. WOB 13klbs, pres 2300 psi, 700 gpm, 60 rpm, TQ 6 kft-lb.
23:00 – 00:00	Dir. drill sliding from 1462' to 1556', WOB 11 klbs, pres 2270 psi, 740 gpm.

July 16th, 2013

00:00 – 02:30	Dir. drill sliding from 1556' to 1734'. WOB 19 klbs, pres 2450 psi, 740 gpm.
02:30 – 03:30	Accumulate ream, circulation and surveys.
03:30 – 04:00	Pepesa rig service.
04:00 – 04:30	Pepesa repair stand pipe.
04:30 – 07:00	Dir. drill rotating from 1734' to 2031'. WOB 10 klbs, 800 gpm, pres 350 psi, 65 rpm, TQ 8 kft-lb. Last survey @ 1865', incl 57.5 deg, azm 237.9 deg. Geology sample FM Talara @ 1900', 100% claystone.
07:00 – 08:00	Halliburton NPT. Clean possum belly, full of claystone. Halliburton condition mud.
08:00 – 08:30	Circulate.
08:30 – 09:00	Pepesa generator #3 fail with electrical problems.
09:00 – 10:00	Pump vis pill, circulate bottom up, shaker clean, ok. No possible to drill, no enough power.
10:00 – 10:30	Perform wiper trip to shoe. Pull out from 2031' to 1224'. with out pump or rotation.

10:30 – 12:30	Pepesa continue repairing generator #3. no enough power to drill.
12:30 – 15:00	Pooh for inspection bit, pressure 500 psi over hydraulic program. Continue waiting on repairing Pepesa generator #3.
15:00 – 15:30	Observed 2 jets plug with oxide particles. Clean bit. Pepesa finish to repair generator at 14:30 hrs.
15:30 – 18:00	TIH dir. BHA with 12 1/4" PDC bit. to 2031 ft. Pressure with 800 gpm, 2450 psi.
18:00 – 19:00	Circulate, pump vis pill, shaker clean, ok.
19:00 – 20:00	Dir. drill rotating from 2031' to 2124', WOB 11 klbs, pres 2500 psi, 800 gpm, 65 rpm, TQ 7 kft-lb. Survey @ 2054', incl 62.6 deg, azm 238.3 deg.
20:00 – 20:30	Clean possum belly, full of claystone.
20:30 – 21:30	Pump dispersed pill and vis pill, circulate, clean annular, ok.
21:30 – 23:00	Dir. drill sliding from 2124' to 2240'. WOB 10 klbs, pres 2510 psi, 812 gpm.
23:00 – 00:00	Clean possum belly, full of claystone. Halliburton condition mud.

July 17th, 2013

00:00 – 04:30	Dir. drill sliding from 2124' to 2504'. WOB 14 klbs, pres 2590 psi, 820 gpm.
04:30 – 06:30	Pressure drop from 2600 psi to 2000 psi. Possible wash out. Pepesa inspection surface equipment, pumps, filters. Last survey @ 2434', incl 62.3 deg, azm 230.4 deg. Geology sample FM Talara @ 2504', 80% claystone, 20% sand.
06:30 – 12:00	Pooh 12 1/4" PDC bit from 2504' to surface, for inspection possible washout.
12:00 – 16:00	TIH dir. BHA with 12 1/4" PDC bit from surface to 235 ft, shallow test, w/ 405 gpm, 514 psi. Continue TIH to 2034'.
16:00 – 17:00	Circulate, pump vis pill, shaker clean, ok.
17:00 – 17:30	Dir. drill rotating from 2504' to 2569'. WOB 10 klbs, pres 2570 psi, 825 gpm, 65 rpm, 7.5 kft-lb.
17:30 – 18:00	Dir. drill sliding from 2569' to 2589'. WOB 18 klbs, pres 2650 psi, 800 gpm.
18:00 – 23:00	Survey @ 2529', incl 64.4 deg, azm 227.3 deg. Dir. drill rotating from 2589' to 2957'. WOB 10 klbs, pres 2700 psi, 810 gpm, 66 rpm, 7 kft-lb.
23:00 – 23:30	Dir. drill sliding from 2957' to 2977' WOB 12 klbs, pres 2740 psi, 820 gpm.
23:30 – 00:00	Accumulate circulation, ream, and survey @ 2905' incl 64.7 deg, azm 227.1 deg. Geology, Top Chacra formation @ 2575 ft.

July 18th, 2013

00:00 – 01:00	Accumulate Dir. drill sliding from 2977' to 3007'. WOB 14 klbs, pres 2990 psi, 800 gpm.
01:00 – 02:30	Circulate, pump vis pill, clean annular, ok.
02:30 – 07:00	Accumulate Dir. drill rotating from 3007' to 3336'. WOB 10 klbs, pres 3060 psi, 800 gpm, 62 rpm, TQ 7.5 kft-lb, ROP avg 90 ft/hr. Last survey @ 3192', incl 64.2 deg, azm 226.7 deg. Geology sample FM Chacra @ 3250', 100% claystone.
07:00 – 07:30	Dir. drill sliding from 3336' to 3387' WOB 14 klbs, pres 3140 psi, 800 gpm.
07:30 – 08:00	Dir. drill rotating from 3387' to 3452' WOB 9 klbs, pres 3035 psi, 800 gpm, 67 rpm, 8 kft-lb.
08:00 – 09:00	Circulate, pump vis pill, possum belly full claystone.
09:00 – 11:00	Clean possum belly and unplug mud lines on second level of platform.
11:00 – 11:30	Dir. drill sliding from 3452' to 3483'. WOB 12 klbs, pres 2850 psi, 780 gpm.
11:30 – 15:00	Dir. drill rotating from 3483' to 3683' WOB 12 klbs, pres 3100 psi, 800 gpm, 70 rpm, 10 kft-lb. Last survey @ 3667' incl 62.4 deg, azm 226.9 deg. Geology sample FM Chacra @ 3670', 100% claystone.

15:00 – 17:00	Dir. drill rotating from 3694' to 3931'. WOB 13 klbs, pres 3150 psi, 800 gpm, 70 rpm, 10.5 kft-lb.
17:00 – 18:00	Accumulate circulation, ream and surveys.
18:00 – 19:00	Dir. drill sliding from 3931' to 3956'. WOB 15 klbs, pres 3000 psi, 790 gpm, ROP avg 25 ft/hr.
19:00 – 20:30	Dir. drill rotating 3956' to 4024'. WOB 12 klbs, pres 3100 psi, 800 gpm, 70 rpm, TQ 11 kft-lb. ROP avg 70 ft/hr.
20:30 – 21:00	Pepesa rig service.
21:00 – 21:30	Circulate and obtain geology sample FM Chacra @ 4024', 100% claystone.
21:30 – 22:30	Pump vis pill, circulate bottoms up, shakers clean, ok. Sunrise Confidence arrived to location, bring 9 5/8" casing.
22:30 – 00:00	Wiper trip. Pull out from 4024' to 3636' with pump. MW 10.4 ppg.

July 19th, 2013

00:00 – 03:00	Continue wiper trip to calibrate hole from 3636' to 1124'.
03:00 – 06:00	TIH 12 1/4" PDC bit from 1124' to 4024'. Last 2 stands with pump.
06:00 – 08:00	Circulate bottom up, pump vis pill, condition hole, ok.
08:00 – 10:00	Dir. drill rotating from 4024' to 4130'. WOB 10 klbs, pres 3000 psi, 780 gpm, 65 rpm, 10 kft-lb.
10:00 – 10:30	Pepesa rig service.
10:30 – 12:00	Pepesa repairing pump #3 and #1. circulate with 500 gpm.
12:00 – 13:00	Dir. drill rotating from 4130' to 4216'. WOB 10 klbs, pres 3200 psi, 800 gpm, 65 rpm, TQ 10 kft-lb.
13:00 – 13:30	Circulate, ream and survey @ 4144 ft, incl 64 deg, azm 227 deg.
13:30 – 14:00	Pepesa repair pump #1.
14:00 – 15:30	Dir. drill sliding from 4216' to 4237'. WOB 15 klbs, pres 3150 psi, 800 gpm.
15:30 – 16:00	Accumulate ream, circulate, and surveys.
16:00 – 17:00	Dir. drill rotating from 4237' to 4310'. WOB 9 klbs, pres 3150 psi, 785 gpm, 67 rpm, TQ 10 kft-lb.
17:00 – 18:00	Dir. drill sliding from 4310' to 4317'. WOB 15 klbs, pres 3150 psi, 770 gpm. Problems to slide, possible well geometry.
18:00 – 20:00	Circulate, pump vis pill, prepare to Pooh to change directional BHA configuration. Last survey @ 42.4 ft. incl 64.4 deg, azm 226.9 deg. Geology sample FM Chacra @ 4317', 100% claystone.
20:00 – 00:00	Pooh directional BHA w/ 12 1/4" PDC bit from 4317' to 1328'.

July 20th, 2013

00:00 – 04:00	Continue Pooh 12 1/4" PDC bit, from 1328' to surface. L/D flex monels, slim pulse, mud motor, bit.
04:00 – 06:00	RIH new directional BHA configuration w/12 1/4" PDC bit (MD419HMABPX, Jets 1x14, 2x15, 3x16), mud motor, cross over, stabilizer, UBHO, 2 spiral monels, X/O, 6 1/2 DC, X/O, 5" HWDP to 200 ft.
06:00 – 10:00	TIH with 12 1/4" PDC bit from 200' to 1238'.
10:00 – 11:30	Pepesa cut off and slip drilling lines 100 ft.
11:30 – 14:00	Continue TIH with 12 1/4" PDC bit from 1238' to 4317'. Last 2 stands with pump.
14:00 – 15:00	Circulate, pump vis pill, shakers clean, ok.
15:00 – 15:30	Dir. drill sliding from 4317' to 4323'. WOB 18 klbs, pres 2955 psi, 795 gpm.
15:30 – 19:30	Dir. drill rotating from 4323' to 4397'. WOB 8/9 klbs, pres 3000 psi, 800 gpm, 66 rpm, TQ 9 kft-lb. Phoenix take survey @ 4333 ft, incl 64.9 deg, azm 226.1 deg.
19:30 – 22:00	Pepesa repair pump #2, leak from module below dumper. Circulate with 1 pump 480 gpm.

22:00 – 23:30 Dir. drill sliding from 4337' to 4413' WOB 18 klbs, pres 2850 psi, 770 gpm.
23:30 – 00:00 Dir. drill rotating from 4413' to 4428' WOB 7 klbs, pres 2900 psi, 800 gpm, 67 rpm, TQ 9 kft-lb.

July 21st, 2013

00:00 – 01:00 Dir. drill rotating from 4428' to 4460'. WOB 7 klbs, pres 2800 psi, 800 gpm, 70 rpm.
01:00 – 05:00 Pepesa repair pump #2, dumper no hold pressure.
05:00 – 06:30 Dir. drill sliding from 4460' to 4477'. WOB 25 klbs, pres 2370 psi, 720 gpm. Drill w/ pump #1 & #3. Geology sample FM Chacra @ 4469 ft, 100% claystone.
06:30 – 07:00 Pepesa repair packing pump #1.
07:00 – 07:30 Dir. drill sliding from 4477' to 4482'. WOB 28 klbs, pres 2350 psi, 725 gpm.
07:30 – 08:00 Dir. drill rotating from 4482' to 4489' WOB 12 klbs, pres 2350 psi, 720 gpm, 65 rpm, TQ 10 kft-lb. Survey @ 4428', incl 65.6 deg, azm 226.1 deg.
08:00 – 09:00 Pepesa repair packing pump #1.
09:00 – 09:30 Dir. drill rotating from 4489' to 4504' WOB 6 klbs, pres 2500 psi, 740 gpm, 70 rpm, TQ 10 kft-lb.
09:30 – 10:00 Pepesa repair piston pump #1. Keep circulating with pump #3 with 250 gpm, while repair pump #1. Pump #2 out of service, dumper no hold pressure.
10:00 – 13:00 Dir. drill sliding from 4504' to 4519'. WOB 10/25 klbs, pres 2300 psi, 770 gpm.
13:00 – 13:30 Dir. drill rotating from 4519' to 4529'. WOB 8 klbs, pres 2270 psi, 770 gpm, 60 rpm, 9.5 kft-lb.
13:30 – 15:00 Pepesa repair packing of pump #1.
15:00 – 16:00 Pepesa continue repairing pump #1, Pull string out from 4529' to 4200'.
16:00 – 16:30 TIH back to bottom to 4529'.
16:30 – 17:30 Pump dispersed pill and vis pill, circulate bottoms up, shakers clean, ok.
17:30 – 18:30 Dir. drill rotating from 4529' to 4569'. WOB 10 klbs, pres 2450 psi, 740 gpm, 65 rpm, 9 kft-lb. work w/ pump #1 & #3. ROP avg 45 ft/hr.
18:30 – 19:00 Halliburton condition mud, pressure drop 900 psi, mud show bubble, Halliburton add defoamer. MW 10.5 ppg.
19:00 – 19:30 Dir. drill rotating from 4569' to 4588'. WOB 10 klbs, pres 2430 psi, 735 gpm, 65 rpm, 9 kft-lb. ROP avg 45 ft/hr. Survey @ 4522', incl 63.3 deg, azm 226.4 deg.
19:30 – 20:00 Dir. drill rotating from 4588' to 4599'. WOB 11 klbs, pres 2550 psi, 730 gpm, 65 rpm, 11 kft-lb.
20:00 – 20:30 Pepesa repair and change piston in pump #1.
20:30 – 00:00 Dir. drill rotating from 4599' to 4691'. WOB 9/10 klbs, pres 2680 psi, 730 psi, 68 rpm, 10.5 kft-lb.
Dir. drill sliding from 4691' to 4696'. WOB 25-28 klbs, pres 2550 psi, 730 gpm.

July 22nd, 2013

00:00 – 01:30 Dir. drill sliding from 4696' to 4708'. WOB 25-28 klbs, pres 2550 psi, 730 gpm.
01:30 – 02:00 Pepesa repair motor generator #3 system down, P/U string to 4600 ft, circulate with 500 gpm.
02:00 – 02:30 Rig service, circulate with 500 gpm.
02:30 – 03:00 Dir. drill sliding from 4708' to 4712'. WOB 25-28 klbs, pres 2600 psi, 730 gpm.
03:00 – 05:00 Dir. drill rotating from 4712' to 4775'. WOB 10 klbs, pres 2680 psi, 730 psi, 68 rpm, 10-11 kft-lb.
05:00 – 06:30 Dir. drill rotating from 4775' to 4870'. WOB 10-12 klbs, pres 3020 psi, 745 psi, 68 rpm, 10-11 kft-lb.
Geology sample FM Chacra @ 4780', 100% claystone. Last Survey @ 4712', incl 63.0 deg, azm 227.4 deg.

06:30 – 07:00	Accumulate ream, circulation and surveys.
07:00 – 10:00	Dir. drill rotating from 4870' to 5060'. WOB 12 klbs, pres 3040 psi, 740 gpm, 70 rpm, 12 kft-lb.
10:00 – 11:00	Accumulate ream, circulation and surveys. Survey @ 4996', incl 63.8, azm 226.8 Geology sample @ 5030', 90% claystone, 10% siltstone.
11:00 – 11:30	Dir. drill rotating from 5060' to 5071'. WOB 11 klbs, pres 2990 psi, 730 gpm, 70 rpm, 11 kft-lb.
11:30 – 14:00	Dir. drill sliding from 5071' to 5091'. WOB 28 klbs, pres 2950 psi, 740 gpm.
14:00 – 15:00	Dir. drill rotating from 5091' to 5145'. WOB 10 klbs, pres 2960 psi, 740 gpm, 65 rpm, 11 kft-lb.
15:00 – 15:30	Pepesa repair pump #1.
15:30 – 20:30	Dir. drill rotating from 5145' to 5354'. WOB 10 klbs, pres 3100 psi, 760 gpm, 67 rpm, 11 kft-lb.
20:30 – 22:30	Dir. drill sliding from 5354' to 5370'. WOB 28 klbs, pres 3030 psi, 760 gpm.
22:30 – 00:00	Dir. drill rotating from 5370' to 5437'. WOB 10 klbs, pres 3140 psi, 760 gpm, 67 rpm, 11 kft-lb.

July 23rd, 2013

00:00 – 06:00	Dir. drill rotating from 5437' to 5708', WOB 10-11 klbs, pres 3140 psi, 760 gpm, 67 rpm, 10-11 kft-lb. Geology Sample FM Chacra at 5680 ft: 100% claystone, Last survey @ 5644 ft: Incl: 64.0 deg, Azm: 276.7 deg. MW: 10.9 ppg.
06:00 – 08:30	Circulate, obtain geology sample @ 5708', 100% claystone. Pump vis pill, shakers clean, ok.
08:30 – 15:00	Pooh dir. BHA w/ 12 1/4" PDC bit from 5708' to 3977'. with pump and rotation. Tight points at 5235', 5150', 5100', 4950'.
15:00 – 20:00	Continue Pooh 12 1/4" PDC bit w/ pump and rotation from 3977' to 1224', 13 3/8" csg shoe.
20:00 – 20:30	Circulate, perform flow check, ok.
20:30 – 00:00	Continue Pooh 12 1/4" PDC bit from 1224' to surface. L/D directional tools, monels, slim pulse, mud motor, bit.

July 24th, 2013

00:00 – 00:30	Condition rig floor to M/U slick BHA.
00:30 – 02:00	M/U and TIH slick BHA with 12 1/4" Tricone bit to 889', 12 1/8" Stab, bit sub w/valve, 03 DC 8", 01 DC 6 1/2", 12 HWDP 5", Jar, 12 HWDP 5".
02:00 – 07:00	TIH slick BHA with 12 1/4" tricone bit from 889' to 4200'. no restriction. ream up/down. ok.
07:00 – 09:00	Circulate and condition hole. Received Osinergmin visit, perform inspection to platform.
09:00 – 11:00	Continue TIH slick BHA w/ 12 1/4" tricone bit from 4200' to 5708'.
11:00 – 13:00	Circulate bottoms up, pump vis pill, shakers clean, ok.
13:00 – 17:00	Pooh 12 1/4" tricone bit from 5708' to 3400'. w/ pump and rotation.
17:00 – 22:00	Continue pooh 12 1/4" tricone bit from 3400' to surface. free. L/D jar, stabilizer and bit.
22:00 – 23:00	L/D and download to B/Perla 03 DC 8", stabilizer and Jar, organize drilling floor.
23:00 – 23:30	Retrieve wear bushing.
23:30 – 00:00	R/U casing tools.

July 25th, 2013

00:00 – 01:30	Continue R/U and M/U ITS tools, install fill up tool, spider, power unit, hydraulic tongs, casing board and change links to top drive.
01:30 – 02:00	Perform safety and operational meeting to run casing.
02:00 – 06:00	Run 9 5/8" casing (N-80, 43.5 lb/ft, BTC) to 1500 ft. M/U 3 joints 9 5/8" casing (N-80, 43.5 lb/ft, BTC) shoe and float valve.
06:00 – 12:00	Continue run 9 5/8" casing from 1500' to 3675 ft. Circulate at 3596'.
12:00 – 15:00	Continue run 9 5/8" casing from 3675' to 4847 ft. circulate at 4084'.
15:00 – 23:00	Continue run 9 5/8" casing, from 4847' to 5708'. circulating and washing with fill up tool. Medomack arrived to location, rig up cement lines.
23:00 – 23:30	Circulate bottoms up.
23:30 – 00:00	L/D ITS fill up tool, R/U and install 9 5/8" cement head.

July 26th, 2013

00:00 – 01:00	Continue to circulate, homogenize and condition mud.
01:00 – 01:30	Perform safety and operational meeting cement job.
01:30 – 05:00	Test cement lines with 2600 psi, Ok. Perform cement job: Pump 20 bbls of mud flush 8.4 ppg x 5bpm, pump 40 bbls of tuned spacer 12 ppg x 5 bpm, drop bottom plug, pump 211 bbls of Extenda Cement V 13.5 ppg x 4 bpm and 64 bbls cement Halcem V 15.2 ppg x 4 bpm. Drop top plug, displace with Mud 11 ppg-415 bbls, plug arrived with 700 psi, perform csg test to 1500 psi, Ok. Back flow 1.5 bbls.
05:00 – 06:30	WOC, Halliburton open cement head and discharge. R/D cementing lines and Pepesa crew L/D flow line, kill line, HCR and clean BOP, clean tanks and shakers.
06:30 – 07:30	Lift 13 5/8" BOP w/raiser, center 9 5/8" csg, set slips 125 klbs. L/D bell nipple.
07:30 – 09:30	L/D spider and elevators, Cut and retrieve 9 5/8" csg landing joint on first level.
09:30 – 12:00	Lobitos Express arrived to location, moved material from platform to barge. ITS power units, hydraulic tons, Savia tools. Organize platform. Received Laura cutting barge. (chata).
12:00 – 15:00	Savia M&R mechanical repair platform crane Link Belt 043. WOC. Pepesa L/D 13 5/8" BOP, Cut and bevel 9 5/8" csg on first level. Install casing spool 13 5/8 x 3M - 11 x3M, tight bolts.
15:00 – 17:30	Continue repairing platform crane. Perform casing spool test w/ 1500 psi by 10 min, ok.
17:30 – 18:00	Install double flange drill extension 13 5/8"x3M ; 11x3M.
18:00 – 22:30	Install 13 5/8" x 5M drilling spool, BOP stack and tighten bolts. Connect choke line and kill lines.
22:30 – 00:00	Center 13 5/8" BOP stack on second level of platform, weld stops.

July 27th, 2013

00:00 – 00:30	M/U 5" DP with 9 5/8" Plug Tester.
00:30 – 04:00	Test Annular BOP with 300/1500 psi x 10 min, Ok, pipe rams, with 300/3000 psi x 10 min, Ok, HCR, Kill line valve, choke valve with 300/3000 psi, Ok. Test choke manifold valves, BOP, stand pipe manifold, rotary hose with 300/3000 psi x 10 min, Ok. Test blinds rams with 300/3000 psi x 10 min, Ok.
04:00 – 04:30	Retrieve plug tester and install wear bushing.
04:30 – 07:00	Install bell nipple and flow line.
07:00 – 11:00	Center 13 5/8" BOP, and weld support on second level. Ruby River vessel,

	arrived to location, bring 5" DP, directional tools, chemical products. R/U directional tool.
11:00 – 15:30	Savia mechanical M&R arrived to location, repair and change platform crane cable. Pepesa organize 2nd and 3rd level of platform.
15:30 – 18:00	R/U directional tools, measure and take serial number.
18:00 – 21:00	M/U and RIH dir. BHA w/ 8 1/2" PDC bit (RSH519M), mud motor BH 1.5, 8 1/4" stabilizer, UBHO, 2 monels, X/O 6 1/2" DC, X/O, 5" HWDP to 162'. Perform shallow test with 404 gpm, 550 psi, ok.
21:00 – 23:00	Continue TIH dir. BHA w/ 8 1/2" PDC bit from 162' to 1066'. 01 DC 6 1/2", 12 HWDPD 5", 01 Jar 6 3/4", 18 HWDP 5".
23:00 – 00:00	Continue TIH dir. BHA and 8 1/2" PDC w/ DP 5" in singles from 1066' to 1700'. Drifting, take measurement and serial.

July 28th, 2013

00:00 – 03:00	Continue TIH dir. BHA and 8 1/2" PDC bit w/ DP 5" in singles from 1700' to 3500', drifting, take measurement and serial.
03:00 – 06:00	Continue TIH dir. BHA and 8 1/2" PDC bit w/DP 5" in stands from 3500' to 5618' (TOC).
06:00 – 08:00	Drill out top and bottom plug, float valve and cement from 5618' to 5690'. WOB 5/8" klbs, pres 1423 psi, 400 gpm.
08:00 – 08:30	Circulate and perform casing test with 1500 psi, 10 min, ok.
08:30 – 09:00	Drill out cement from 5690' to 5708', WOB 7 klbs, pres 1400 psi, 400 gpm.
09:00 – 09:30	Dir. drill rotating with 8 1/2" PDC bit from 5708' to 5720'.
09:30 – 10:00	Circulate, geology confirm 100% formation, ok. FM Chacra, Claystone.
10:00 – 11:00	Displace contaminate mud with cement, for new mud 10.9 ppg.
11:00 – 12:30	Clean shakers pits on second level, and tanks on Perla barge. Perform FIT. Mud weight 10.9 ppg, pres 456 psi, EMW 13.5 ppg. ok.
12:30 – 13:00	Halliburton change shaker screen mesh. Pepesa take drilling parameters, reduced pressure @ 5720', 40 gpm, 235 psi. string weight up/down 185/70 klbs.
13:00 – 13:30	Circulate and pressure increase, with 40 spm, 1700 psi. Disconnect stands, check pipe filter, observed welded oxide particules and chemical bags cuts.
13:30 – 14:00	Change pipe filter, circulate 40 gpm, press 1500 psi. pressure out of range.
14:00 – 19:00	Pooh dir. BHA w/ 8 1/2" PDC bit from 5720' to surface.
19:00 – 20:00	Check and clean 8 1/2" PDC bit, observed debris and machining shaving inside and 01 jet plug with weld particles. Check directional tools, check mud motor, Ok.
20:00 – 21:30	M/U and TIH 8 1/2" PDC bit, 6 3/4" mud motor, 8 3/8" Stab, UBHO, 02 6 3/4" Flex Monel, 6 1/2" DC. Perform shallow test, 400 gpm, 810 psi, Ok.
21:30 – 22:30	Continue to TIH 12 HWDP 5", 01 Jar 6 3/4", 18 HWDP 5".
22:30 – 00:00	Continue to TIH BHA directional and 8 1/2" PDC bit with DP 5" from 1066' to 2980'.

July 29th, 2013

00:00 – 02:30	TIH BHA directional with 8 1/2" PDC bit from 2980' to 5720'.
02:30 – 03:30	Circulate and condition mud 10.9 ppg, at 5720' 40 gpm, PL: 245 psi. string weight up/down 185/75 klbs.
03:30 – 06:00	Dir. drill rotating from 5720' to 5810' with 550 gpm, WOB 10-14 Klbs, TQ 9-11klb-ft, Pres 2610 psi, 60 rpm. Last survey: 5736', Incl: 64 deg, Az: 227.1 deg, Last geology sample: 5780', 50% Sandstone, 30% Sand, 20% Claystone.

06:00 – 12:30	Dir. drill rotating from 5810' to 6091'. WOB 16 klbs, pres 2850 psi, 542 gpm, 65 rpm, TQ 12.6 kft-lb.
12:30 – 13:00	Circulate, ream and survey.
13:00 – 13:30	Dir. drill sliding from 6091' to 6103'. WOB 35 klbs, pres 2975 psi, 542 gpm.
13:30 – 15:30	Dir. drill rotating from 6103' to 6249'. WOB 15 klbs, pres 2900 psi, 550 gpm, 60 rpm, TQ 13.5 kft-lb. Last survey @ 6115', incl 61.10 deg, azm 227.8 deg.
15:30 – 16:00	Pressure increase from 2900 psi to 4100 psi, shut down pumps. Start pump with 214 gpm, press 2890 psi. Pull out 1 stands, check 5" pipe filter, clean.
16:00 – 22:30	Pooh dir. BHA with 8 1/2" PDC bit from 6249' to surface. L/D dir. BHA and 8 1/2" PDC bit, observed 8 1/2" PDC bit plugged with mud motor rubber (03 Jets).
22:30 – 00:00	M/U and TIH dir. BHA (PHOENIX) with 8 1/2" PDC bit, change mud motor 6 3/4" (1.5 BH, 0.29 Rev/gal) at 221', perform shallow test, 400 gpm, SPP: 570 psi.

July 30th, 2013

00:00 – 06:00	Continue to TIH dir. BHA and 8 1/2" PDC bit from 221' to 5630'.
06:00 – 07:00	Pepesa cut off 120 ft and slip drilling line.
07:00 – 08:30	TIH dir. BHA and 8 1/2" PDC bit from 5630' to 6249', last 04 stands wash down, circulate bottom up, pump vis pill, shakers clean, ok.
08:30 – 10:00	Dir. drill rotating from 6249' to 6281' WOB 15 klbs, pres 2165 psi, 545 gpm, 65 rpm, TQ 14.5 kft-lb.
10:00 – 11:00	Dir. drill sliding from 6281' to 6291' WOB 40 klbs, pres 2173 psi, 550 gpm.
11:00 – 11:30	Accumulate circulate, ream and surveys.
11:30 – 12:00	Dir. drill rotating from 6291' to 6366' WOB 17 klbs, pres 2290 psi, 545 gpm, 69 rpm, 14.6 kft-lb.
12:00 – 13:30	Dir. drill sliding from 6366' to 6387' WOB 40 klbs, pres 2189 psi, 542 gpm.
13:30 – 15:30	Dir. drill rotating from 6387' to 6470'. WOB 16 klbs, pres 2290 psi, 545 gpm, 69 rpm, 15 kft-lb. Last survey @ 6401', 58.8 deg, azm 227.1 deg. Geology sample FM Rio Bravo @ 6460', 70% sand, 20% sandstone, 10% siltstone. Fluorescence 10%.
15:30 – 17:30	Dir. drill sliding from 6470' to 6480'. WOB 38 klbs, pres 2231 psi, 547 gpm.
17:30 – 00:00	Dir. drill rotating from 6480' to 6843'. WOB 14 klbs, pres 2380 psi, 550 gpm, 65 rpm, TQ 13 kft-lb.

July 31st, 2013

00:00 – 02:00	Dir. drill rotating from 6843' to 6939'. WOB 14-15 klbs, pres 2480 psi, 550 gpm, 65 rpm, TQ 13-14 kft-lb.
02:00 – 02:30	Circulate, pump hi-viscous pill until clean shakers.
02:30 – 06:30	Dir. drill rotating from 6939' to 7224'. WOB 14-15 klbs, pres 2580 psi, 550 gpm, 65 rpm, TQ 13-14 kft-lb. Last survey MD: 7069', Incl: 51.9 deg, Az: 226.5 deg, last geology sample FM Rio Bravo, @ 7131', 90% claystone, 10% Siltstone.
06:30 – 07:30	Circulate bottom up, pump vis pill, shakers clean, ok.
07:30 – 08:30	Dir. drill rotating from 7224' to 7320'. WOB 16 klbs, pres 2650 psi, 550 gpm, 65 rpm, TQ 16 kft-lb.
08:30 – 10:00	Circulate, obtain geology sample, pump vis pill, shakers clean, ok.
10:00 – 12:00	Wiper trip with directional BHA and 8 1/2" PDC bit to 5708 ft.
12:00 – 12:30	Circulate bottom up, ok.
12:30 – 13:00	Pepesa Rig service, ok.
13:00 – 14:30	TIH back to bottom w/ 8 1/2" PDC bit to 7320 ft.
14:30 – 15:30	Pump vis pill, circulate bottom up, shakers clean, ok. Show 1200 gas units, drop to cero.

15:30 – 00:00 Dir. drill rotating from 7320' to 7700'. WOB 14/16 klbs, pres 2720 psi, 545 gpm, 65 rpm, TQ 15/16 kft-lb.

August 01st, 2013

00:00 – 04:30 Dir. drill rotating from 7700' to 7888'. WOB 14/16 klbs, pres 2780 psi, 550 gpm, 65 rpm, TQ 15/16 kft-lb.

04:30 – 05:30 Circulate and pump hi viscous pill until clean shakers.

05:30 – 06:00 Dir. drill rotating from 7888' to 7910'. WOB 14/16 klbs, pres 2800 psi, 550 gpm, 65 rpm, TQ 15/16 kft-lb.

Last survey @ 7826', Incl: 45.5 deg, Az: 221.5 deg; last geology sample @ 7886', 70% claystone, 10% sand, 10% sandstone, 10% siltstone.

06:00 – 12:00 Dir. drill rotating from 7910' to 8150' WOB 16 klbs, pres 2850 psi, 550 gpm, 70 rpm, TQ 18 kft-lb.

12:00 – 13:30 Geology requires circulate to obtain formation sample, @ 8150', 100% claystone.

13:30 – 15:00 Geology department confirm TD section @ 8150 ft. Continue circulating, pump hi vis pill, shakers clean, ok.

15:00 – 19:30 Pooh directional BHA w/ 8 1/2" PDC bit from 8150' to 5708' with pump and rotation.

19:30 – 20:00 Circulate bottom up at 9 5/8" shoe.

20:00 – 00:00 Continue Pooh directional BHA with 8 1/2" PDC bit from 5708' to 1066'.

August 02nd, 2013

00:00 – 02:00 POOH and L/D dir. BHA and 8 1/2" PDC bit.

02:00 – 03:00 M/U and TIH slick BHA with tricone 8 1/2" bit, bit sub, 8 1/8" Stab, 04 Dc 6 1/2", 12 HWDP 5", 01 Jar 6 3/4", 18 HWDP 5" to 1069'.

03:00 – 06:30 TIH slick BHA and 8 1/2" tricone bit with DP 5" from 1069' to 5708'.

06:30 – 07:00 Circulate bottom up, ok.

07:00 – 09:00 TIH slick BHA w/ 8 1/2" tricone bit from 5708' to 7000'. Circulate bottom up, show gas 134 units, drop to cero, ok.

09:00 – 10:00 TIH slick BHA w/ 8 1/2" tricone bit from 7000' to 8150'. Last 3 stands with pump.

10:00 – 11:00 Circulate bottom up, show gas 600 units, drop to cero, ok.

11:00 – 12:00 Pump hi vis pill, circulate bottom up, shakers clean, ok.

12:00 – 16:30 Pooh slick BHA w/ 8 1/2" tricone bit from 8150' to 5595' with circulation and rotation.

16:30 – 17:00 Circulate bottoms up, ok.

17:00 – 21:30 Continue Pooh from 5595' to surface. L/D jar, stabilizer and 8 1/2" tricone bit.

21:30 – 22:00 Perform safety and operational meeting to run electrical logs.

22:00 – 23:00 R/U SLB wireline logging tools (HRLT: Resistivity, TLD: Density, HGNS: Porosity and GR), Ultratrak system and equipment.

23:00 – 23:30 SLB calibrate logging tools at surface, test Ultratrak system, open 04 drive sections and 08 wheels, Ok.

23:30 – 00:00 Run logging tools to 2500'.

August 03rd, 2013

00:00 – 01:00 Continue to run logging tools from 2500' to 5710', tag logging tools. Length of logging tool: 75 ft, length of Ultratrak system: 19 ft.

01:00 – 03:00 Pick up from 5710' to 5650', action and check Ultratrak system, Ok, continue to run from 5710' to 5792', tag logging tool.

Attempt several times to run logging tool at 5792', negative, tag logging tool. (At 5785' Ultratrak system without traction), check traction POOH logging tools, Ok.

03:00 – 04:30 POOH SLB logging tools from 5792' to surface with normal tension.

04:30 – 05:30 R/D SLB logging tools, Ultratrak system and wireline equipment.

05:30 – 06:00 M/U and RIH BHA slick with 8 1/2" tricone bit at 120'.

06:00 – 09:30 Received confirmation from Geology to change electrical log company. Continue TIH slick BHA from 120' to 5500 ft.

09:30 – 10:00 Circulate bottom up at 5500', ok.

10:00 – 12:00 Weatherford moving electrical log tools to Mc Donald. Continue TIH Slick BHA from 5500' to 8150'.

12:00 – 14:00 Circulate bottoms up, pump hi vis pill, ok.

14:00 – 18:30 Pooh slick BHA w/ 8 1/2" tricone bit from 8150' to 4000'. Continue waiting on WTF log tools.

18:30 – 22:00 Received Weatherford log tools from Lobitos Express. Continue Pooh Slick BHA from 4000' to surface, L/D slick BHA and 8 1/2" tricone bit.

22:00 – 00:00 Weatherford M/U and TIH Shuttle Compact logging BHA tools. Mule shoe, shuttle landing and circulating sub, 05 x 3 1/2" pipe, lower latch, upper latch, 01 x 3 1/2" pipe to 207'.

August 04th, 2013

00:00 – 02:00 Weatherford install logging tool inside BHA to 207 ft. Install radioactive source inside BHA. TIH to 300'. Perform test circulation with 126 gpm-433 psi.

02:00 – 03:30 TIH logging tools with DP5" from 300' to 2100'. Perform test circulation with 126 gpm-483 psi.

03:30 – 05:00 TIH logging tools with DP 5" from 2100' to 4100'. Perform test circulation with 126 gpm-558 psi.

05:00 – 06:00 TIH logging tools with DP 5" from 4100' to 5100'.

06:00 – 10:30 TIH logging tools with DP 5" from 5100' to 8150 ft. Tag bottom with 10 klbs, ok. Test circulation with 127 gpm, 734 psi.

10:30 – 11:00 Pick up 2 stands from 8150' to 7980'. weight up/down 255/90 klbs.

11:00 – 11:30 Weatherford drop dart inside 5" DP. Set depth in passon computers.

11:30 – 12:30 Make connection, displace dart with 84/42 gpm, 527/375 psi.

12:30 – 13:00 Dart tag and pressure increase from 375 psi to 600 psi, drop pressure to 300 psi, dart break pins and pressure increase to 640 psi, logging tool out in open hole, pressure stable at 325 psi.

13:00 – 15:30 Pooh 5" DP and logging open hole with WTF log tools, at rate of 25 ft/min. From 7980' to 5550'.

15:30 – 16:00 Circulate bottom up at 9 5/8" shoe, show gas 356 units, drop to cero, ok.

16:00 – 16:30 Pepesa rig service.

16:30 – 21:00 Continue Pooh 5" DP w/ WTF logging tool. from 5550' to surface. L/D Shuttle Compact logging BHA tools. Mule shoe, shuttle landing and circulating sub, 05 x 3 1/2" pipe, lower latch, upper latch, 01 x 3 1/2" pipe, lower latch, upper latch, 01 x 3 1/2" pipe to 2900'.

21:00 – 00:00 M/U and TIH slick BHA with 8 1/2" tricone bit to 2900'.

August 05th, 2013

00:00 – 02:00 Continue to TIH slick BHA with 8 1/2" Tricone bit from 2900' to 5600'.

02:00 – 03:00 Pepesa cut off 120 ft. and slip drilling line.

03:00 – 05:30 Continue to TIH Slick BHA with 8 1/2" Tricone bit from 5600' to 7600'.

05:30 – 07:00 TIH slick BHA from 7600' wash down to 8050, observed gas 1800 units, circulate, gas unit drop to 22 units.

07:00 – 07:30 Continue TIH from 8050' to 8150'. show gas 77 units.

07:30 – 08:30	Pump hi vis pill, circulate bottom up, shakers clean, ok.
08:30 – 12:00	Pooh slick BHA w/ 8 1/2" tricone bit from 8150' to 6850' with circulation and rotation. Savia mechanical M&R arrived to location and repair Linkbelt platform crane and Monitowoc barge crane.
12:00 – 18:00	Pooh slick BHA from 6850' to surface'. L/D Jar, near bit and tricone bit. Rig up 2 joints 7" casing BTC, 26 lbs/ft. Install float valve and shoe.
18:00 – 18:30	Pepesa retrieve wear bushing.
18:30 – 19:30	Change 13 5/8" BOP rams, from 5" to 7" rams, operative test open/close, ok. Pepesa L/D Hawkjaw and condition rig floor and platform.
19:30 – 21:00	Cia. ITS, R/U power unit and hydraulic hoses w/ hydraulic power tong. L/D 6 ft links and install 12 ft links and 7" casing elevator.
21:00 – 21:30	Perform safety meeting with Cia. ITS, Pepesa and Tramarsa.
21:30 – 22:30	P/U & M/U 7" csg shoe, 2 jts 7" csg 26 ppf, N-80, BTC, install 1jt BS & 1jt BS centralizer, install 7" drillable float collar 26 ppf, N-80, BTC, at 79 ft perform float equipment test, ok.
22:30 – 00:00	Continue to run 7" csg, 26 ppf, N-80, BTC, from 79 ft to 1300'.

August 06th, 2013

00:00 – 03:30	Continue to run 7" casing, 26ppf, N-80, BTC from 1300' to 3700'.
03:30 – 04:30	ITS change power casing tong 7" due to fail in spinner system.
04:30 – 07:00	Continue to run 7" casing, 26 ppf, N-80, BTC from 3700' to 5600'.
07:00 – 08:00	Cia. ITS install fill up tool.
08:00 – 09:00	Circulate at shoe with 300 gpm, 540 psi.
09:00 – 13:00	Continue run 7" casing 26 ppf, N-80, BTC from 5600' to 7015'. Show restriction to run casing.
13:00 – 14:00	Circulate with fill up tool and clean annular, with 600 psi, increase gradually caudal from 1 bbl/min to 8 bbls/min. show gas 58 units, drop to cero.
14:00 – 18:00	Continue run 7" casing 26 ppf, N-80, BTC, from 7015' to 8150'. Medomak cement vessel arrived to location.
18:00 – 20:00	Circulate bottom up. with 600 psi, increase gradually caudal from 1 bbl/min to 8 bbls/min.
20:00 – 21:00	L/D ITS fill up tool and spider elevator. M/U cement head and lines from Halliburton.
21:00 – 22:00	Continue circulate & reciprocate on bottom with 280 gpm, 585 psi, w/ full return by shakers. While perform safety and operation meeting with Pepesa, Halliburton, TGT, Tramarsa and Savia crew.
22:00 – 00:00	Halliburton perform cement lines test w/ 3500 psi by 10 min, Ok. Cement job as follows: pump 30 bbl Mud Flush 8.4 ppg w/5 bpm, 700 psi. Pump 40 bbl Turned Spacer 12.5 ppg w/5bpm, 700 psi. Drop bottom plug. Halliburton begin mix cement and pump 149 bbl Expandam Cem V, 15.2 ppg w/4 bpm, press 900 - 550 psi.

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00:00 – 01:00	Drop top plug and displace w/309 bbl of sea water 8.5 ppg w/7 -1.5 bpm 850-1400 psi, plug arrive with 1400 psi, overpressure with 2000 psi x 5 min, Ok. Back flow 2 bbls, float collar valve, Ok. Casing shoe: 8149', Float collar: 8069.9', Total cement used: 680 sxs Pacasmayo V.
01:00 – 01:30	WOC while Halliburton L/D cement lines and Pepesa untight riser bolts.
01:30 – 02:30	Maneuver to lift 13 5/8" BOP stack, set casing hanger (slips) with 120 klb, Ok. L/D Halliburton quick latch cement head, ok, cut and retrieve 7" landing joint.

02:30 – 04:00	L/D kill line, HCR, lines and hydraulics lines from Koomy. L/D Bell nipple and flow line sleeve.
04:00 – 06:30	N/D BOP 13 5/8" X 5M, drilling spool 13 5/8" x 5M, riser 13 5/8" x 5M.
06:30 – 08:00	Pepesa welder bevel 7" casing and install tubing spool Fedco (section "C"), tighten bolts. Section "C" perform pressure test with 2600 psi x 10 min, ok.
08:00 – 14:00	N/U 7 1/16" shooting valve, 7 1/16" extension, drilling spool and 7 1/16" BOP Stack. Tight bolts and Pepesa mechanics connect Install kill line and choke line to drilling spool, install hoses to trip.
14:00 – 14:30	Pepesa aligns 7 1/16" BOP with rotary table and weld stops.
14:30 – 15:00	M/U and install plug tester 7 1/16" with tbg 2 7/8".
15:00 – 19:00	Perform BOP test: Blind Ram w/HCR manual 1 & 2 w/300 & 3000 psi by 10 min, Ok. Blind Ram with external, medium and internal valves of manifold w/ 300 & 3000 psi x 10 min, Ok. Blind Ram w/ HCR manual, stand pipe and TD IBOP with 300/3000 psi x 10 min, Ok, test annular 7 1/16" with 300/3000 psi x 10 min, Ok, test pipe ram with 300/1500 psi x 10 min, Ok.
19:00 – 00:00	Install Hawk Jaw and L/D 35 DP 5" in singles, 04 DC 6 1/2", 28 HWDP 5", download to B/Perla.

CONCLUSIONS AND RECOMMENDATIONS

- The **LO6-33D**, is an Development well, and was drilled in four phases for 7" Casing from 451 feet to 8149 feet.
- During 8.5" phase, it was used mud BARADRIL-N type with mud weight between 10.9 ppg and 11.5 ppg.
- The last survey took was at 8090.00 feet MD, 4777.54 feet TVD with 42.40° of inclination and 220.90 degrees azimuth.
- The reservoir Rio Bravo top structurally was found at 5769.00 ft MD (RT), 3401.39 ft. TVD (RT), at 28.61 ft. more upper structurally.
- During trip, as is usual in petroleum industry, in order to a best control is recommended used Trip Tank, checking displacement or filling hole.
- It is necessary send lubricated pill in the finished run casing for cleaning hole before of the cementing operation.
- Due to high ROP's reached with the PDC bit, was pumped heavy pills for clean hole.
- It is necessary to take care over all in sands in inclined wells due to the difficulty to maintain the pressure differential for controlling overpulls and then stuck pipes.