

Oil Cons.
N.M. DIV-Dist. 2
301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2004

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

2. Name of Operator

St. Mary Land & Exploration Company

3. Address

P.O. Box 7168, Billings, MT 59103-7168

3a. Phone No. (include area code)

(406) 245-6248

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface 2570' FSL & 2225' FEL UL:J

At top prod. interval reported below Same

At total depth

Same

14. Date Spudded

10/27/03

15. Date T.D. Reached

11/10/03

16. Date Completed

☐ D&A ☒ Ready to Prod.

12/21/03

5. Lease Serial No.
NM-24160

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

Parkway Delaware Unit 19265

8. Lease Name and Well No.

PDU #511

9. API Well No.

30-015-33073 SI

10. Field and Pool, or Exploratory

Parkway Delaware

11. Sec., T., R., M., on Block and Survey
or Area 35-19S-29E

12. County or Parish

Eddy

13. State

NM

17. Elevations (DF, RKB, RT, GL)*

3331' RKB

18. Total Depth: MD 4550
TVD 4550

19. Plug Back T.D.: MD 4504
TVD 4504

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

GR/CAL; MCFL; TDD/CNL; CMR; RFT; DI POLE SONIC; CBL

22. Was well cored? ☐ No ☒ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2	13-3/8 H40	48	0	304		350 "C"		0 (Circ)	
12-1/4	8-5/8 J55	32 & 24	0	3210	1565	1250 "C"	469	0 (Circ.)	
7-7/8	5-1/2 J55	15.5	0	4550		495 "C"	167	340 (CBL)	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8	4254							

25. Producing Intervals

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Delaware "C"	4132	4278	4200 - 4210	.4	40	Open
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
4220 - 4210	1000g 7-1/2% HCl; Frac w/45,066g Gel + 75,340 # 20/40 RCS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/21/03	2/4/04	24	☐	5	10	204	40		2" Insert Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			☐	5	10	204	2000	Producing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			☐						
Choke Size	Tbg. Press. Flwg. SI	Call Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			☐						

ACCEPTED FOR RECORD

FEB 9 2004

ALEXIS C. SWOBODA
PETROLEUM ENGINEER

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			☐						
Choke Size	Thg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			☐						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			☐						
Choke Size	Thg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			☐						

29. Disposition of Gas (Sold used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
CAPITAN	1706	3200	WATER	SALADO	350
				TANSILL	1242
				YATES	1587
				7 RIVERS	1610
				CAPITAN	1706
DELAWARE	3917	4300	CORED DELAWARE BRUSHY CANYON	DELAWARE	3678

32. Additional remarks (include plugging procedure):

Completion report delayed as we were unable to accurately test until we added a FWKO at the battery.

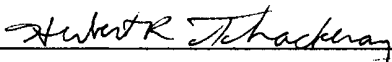
33. Circle enclosed attachments:

- ☒ 1 Electrical/Mechanical Logs (1 full set req'd.)
 ☒ 2 Geologic Report
 ☒ 3 DST Report
 ☒ 4 Directional Survey
☒ 5 Sundry Notice for plugging and cement verification
☒ 6 Core Analysis
☒ 7 Other: Inclination Survey

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) HERB THACKERAYTitle OPERATIONS ENGINEER

Signature

Date 2/5/04

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

WELL NAME AND NUMBER PDU No. 511
LOCATION Section 35, T19S, R29E, Eddy County NM
OPERATOR St. Mary Land & Exploration Company
DRILLING CONTRACTOR United Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation tests and obtained the following results:

<u>Degrees @ Depth</u>	<u>Degrees @ Depth</u>	<u>Degrees @ Depth</u>
<u>1-1/4° 138'</u>	<u>1° 2551'</u>	<u></u>
<u>1-1/4° 270'</u>	<u>1-1/2° 2991'</u>	<u></u>
<u>1° 576'</u>	<u>1° 3206'</u>	<u></u>
<u>1-1/4° 1082'</u>	<u>1/2° 3488'</u>	<u></u>
<u>1-1/4° 1513'</u>	<u>1° 4550'</u>	<u>RECEIVED</u>
<u>1-1/2° 1734'</u>	<u></u>	<u>FFR 11 7004</u>
<u>1-1/2° 1954'</u>	<u></u>	<u>OCD-ARTESIA</u>
<u>1-1/2° 2237'</u>	<u></u>	<u></u>

Drilling Contractor United Drilling, Inc.

By: George A. Aho

Title: Business Manager

Subscribed and sworn to before me this _____ day of _____,
20____.

Notary Public

My Commission Expires:

County State

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence	Sample Description
Number		Permeability	Permeability		Density			Units		
	ft	mD	mD	%	g/cc	%	%		%	Description
1	3,917.3	0.0028	0.0009	0.82	2.57	62.5	15.7		60 YI	Cht:grn-tn nvp sm calc sm pyr sm gyp
2	3,918.1	0.0086	0.0031	4.70	2.61	61.1	0.0		0	Dol/Sh:brn intgran por sm pyr
3	3,919.2	0.0009	0.0003	3.69	2.70	64.3	0.0		0	Dol/Sh:brn intgran por sm pyr
4	3,920.2	0.0007	0.0002	2.83	2.70	74.1	0.0		0	Sh:brn intgran por sm pyr sm dol
5	3,921.2	0.0291	0.0150	8.85	2.63	65.1	0.0		0	Ss:brn vfg wl srt sbrnd sm dol sm pyr shly
6	3,922.3	1.23	1.04	11.86	2.65	71.3	6.8		10 YI	Ss:brn vfg wl srt rnd shly sm dol
7	3,923.2	2.28	1.97	10.74	2.66	68.6	5.0		10 YI	Ss:gry-brn vfg wl srt rnd sm sh sm dol
8	3,924.2	1.16	0.97	10.78	2.65	65.8	6.5		10 YI	Ss:brn vfg wl srt rnd sm sh sm dol
9	3,925.2	0.4961	0.4052	6.44	2.69	65.2	6.9		10 YI	Ss:mottgry-brn vfg wl srt rnd sm dol sl sh sl pyr
10	3,926.2	12.10	11.28	16.90	2.64	67.6	5.7		10 YI	Ss:brn vfg wl srt rnd shly sl pyr
11	3,927.2	4.15	3.72	12.33	2.65	72.1	5.3		10 YI	Ss:brn vfg wl srt rnd sh sm dol
12	3,928.2	12.63	11.78	16.69	2.65	65.7	7.4		10 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
13	3,929.2	19.15	18.08	17.27	2.65	71.2	6.7		10 YI	Ss:brn vfg wl srt rnd shly sl dol sl pyr
14	3,930.2	9.83	9.10	16.91	2.66	64.5	6.1		10 YI	Ss:brn vfg wl srt rnd shly sl dol sl pyr
15	3,931.4	9.99	9.27	15.91	2.66	66.2	5.4		10 YI	Ss:brn vfg wl srt rnd shly sm pyr
16	3,932.2	11.16	10.36	16.41	2.65	63.9	6.0		10 YI	Ss:brn vfg wl srt rnd sh sl dol sm pyr
17	3,933.2	7.85	7.21	17.16	2.66	69.7	0.0		0	Ss:brn vfg wl srt rnd sh sl dol sm pyr
18	3,934.2	1.03	0.856	14.51	2.67	72.5	0.0		0	Ss:brn vfg wl srt rnd shly sm pyr
19	3,935.2	1.71	1.45	15.46	2.66	70.0	0.0		0	Ss:brn vfg wl srt rnd sm sh sm pyr
20	3,936.2	0.239	0.177	12.18	2.66	67.6	11.2		20 Brt yl	Ss:brn vfg wl srt rnd sm sh sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production

File No. : 03189

Well : PDU #511

Location :

Field:

Formation:

County : Eddy County, New Mexico

Sample Number	Depth ft	Air		Klinkenberg		Porosity		Grain Density g/cc	Sw		So		Gas		Fluorescence		Sample Description
		Permeability mD	Permeability mD	Permeability mD	Permeability mD	%	%		%	%	%	%	Units	%	%	Description	
21	3,937.2	0.054		0.033		7.21		2.63	56.7		0.0				0		Sh:dkbrn nvp sm snd sm pyr
22	3,938.2	0.0315		0.0174		6.17		2.59	58.3		0.0				0		Sh:dkbrn-brn sm cht sm pyr sl gyp
23	3,939.2	3.74		3.33		13.88		2.64	66.9		0.0				0		Ss:brn vfg wl srt rnd sh
24	3,940.4	1.11		0.934		14.02		2.64	78.7		0.0				0		Ss:brn vfg wl srt rnd sh sm pyr
25	3,941.3	31.47		30.02		19.95		2.64	53.8		0.0				0		Ss:brn vfg wl srt rnd sh sm pyr
26	3,942.4	8.67		7.99		16.32		2.64	66.9		0.0				0		Ss:brn vfg wl srt rnd sm sh sm pyr
27	3,943.2	2.01		1.72		12.48		2.64	69.7		0.0				0		Ss:brn vfg wl srt rnd shly sm pyr
28	3,944.2	2.20		1.89		12.68		2.65	69.1		0.0				0		Ss:brn vfg wl srt rnd shly sl dol sm pyr
29	3,945.2	8.69		8.01		15.65		2.64	70.5		0.0				0		Ss:brn vfg wl srt rnd shly sm pyr
30	3,946.7	2.40		2.07		15.31		2.67	67.1		0.0				0		Ss:brn vfg wl srt rnd shly sm pyr sl dol
31	3,947.4	35.77		34.22		20.21		2.64	75.3		0.0				0		Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
32	3,948.2	22.97		21.77		19.95		2.64	76.5		0.0				0		Ss:brn vfg wl srt rnd sm sh sm pyr
33	3,949.6	30.47		29.04		19.94		2.67	60.1		0.0				0		Ss:brn vfg wl srt rnd sm dol sl sh sl pyr
34	3,950.5	12.62		11.77		16.55		2.66	69.0		0.0				0		Ss:brn vfg wl srt rnd sm dol sl sh sl pyr
35	3,951.3	4.38		3.93		13.87		2.67	66.2		0.0				0		Ss:brn vfg wl srt rnd sm dol sl sh sl pyr
36	3,952.2	3.69		3.28		14.35		2.67	69.8		0.0				0		Ss:brn vfg wl srt rnd shly sm dol sl pyr
37	3,953.2	4.52		4.06		16.38		2.65	66.5		0.0				0		Ss:brn vfg wl srt rnd sm sh sm pyr
38	3,954.2	0.0450		0.0259		7.69		2.61	60.8		0.0				0		Ss:brn-bik vfg wl srt rnd shly sm cht sm pyr
39	3,955.2	0.0682		0.0420		10.34		2.64	67.5		0.0				0		Ss:brn vfg wl srt rnd shly sm pyr
40	3,956.2	0.2584		0.1921		12.77		2.64	56.5		18.4				80	Brt yl	Ss:brn vfg wl srt rnd shly sm pyr sl cht

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
File No. : 03189
Well : PDU #511
Location :

Field:
Formation:
County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
41	3,957.4	9.67	8.95	16.43	2.65	57.2	18.7		80	YI	Ss:brn vfg wl srt rnd shly sl pyr
42	3,958.2	10.35	9.60	16.72	2.66	57.5	19.2		80	YI	Ss:brn vfg wl srt rnd shly sm pyr
43	3,959.2	6.92	6.33	15.55	2.66	60.9	18.6		80	YI	Ss:brn vfg wl srt rnd shly sm pyr sl dol
44	3,960.3	17.11	16.11	17.42	2.65	59.8	19.2		80	YI	Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
45	3,961.2	4.98	4.49	14.79	2.66	59.0	19.6		80	YI	Ss:brn vfg wl srt rnd shly sm pyr
46	3,962.2	22.68	21.50	17.93	2.66	56.7	18.8		80	YI	Ss:brn vfg wl srt rnd sl sh sl dol
47	3,963.3	12.64	11.79	16.54	2.66	59.8	17.6		80	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
48	3,964.2	9.17	8.47	16.38	2.66	59.4	19.5		80	YI	Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
49	3,965.9	1.13	0.950	11.88	2.67	57.7	18.3		80	YI	Ss:brn vfg wl srt rnd shly sm dol sl pyr
50	3,966.2	5.11	4.61	14.27	2.67	57.5	14.0		50	YI	Ss:brn vfg wl srt rnd shly sm pyr sm dol
51	3,967.5	0.1778	0.1268	12.51	2.66	58.7	15.7		50	YI	Ss:brn vfg wl srt rnd shly sm pyr
52	3,968.2	3.90	3.48	14.81	2.66	59.1	15.5		50	YI	Ss:brn vfg wl srt rnd shly sm pyr
53	3,969.2	5.68	5.15	17.32	2.65	56.9	16.0		50	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
54	3,970.2	0.0839	0.0531	11.59	2.67	76.0	0.0		0		Ss:brn vfg wl srt rnd shly pyr
55	3,971.3	0.1326	0.0915	10.58	2.66	69.0	0.0		0		Ss:brn vfg wl srt rnd shly pyr
56	3,972.2	6.10	5.55	14.95	2.66	62.1	0.0		0		Ss:brn vfg wl srt rnd shly pyr
57	3,973.2	2.93	2.54	14.99	2.66	66.2	0.0		0		Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
58	3,974.2	5.61	5.09	15.71	2.66	61.1	0.0		0		Ss:brn vfg wl srt rnd shly sm dol sm pyr
59	3,975.2	6.74	6.15	16.25	2.66	54.5	0.0		0		Ss:brn vfg wl srt rnd sm sh sm dol sm pyr
60	3,976.4	7.21	6.60	17.07	2.66	58.3	0.0		0		Ss:brn vfg wl srt rnd sm sh sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
61	3,977.2	4.62	4.15	16.25	2.64	53.5	0.0		0	Ss:brn vfg wl srt rnd sm sh sm dol sl pyr
62	3,978.2	4.53	4.07	15.43	2.68	64.7	0.0		0	Ss:brn vfg wl srt rnd sm sh sm dol sm pyr
63	3,979.2	4.97	4.48	15.85	2.63	60.3	0.0		0	Ss:brn vfg wl srt rnd sm sh sm dol sm pyr
64	3,980.2	6.14	5.59	15.31	2.64	62.1	0.0		0	Ss:brn vfg wl srt rnd sh sm dol sl pyr
65	3,981.2	2.56	2.20	14.32	2.63	62.5	0.0		0	Ss:brn vfg wl srt rnd shly sl pyr
66	3,982.2	2.09	1.79	13.84	2.63	67.7	0.0		0	Ss:brn vfg wl srt rnd shly sl pyr sl dol
67	3,983.2	2.94	2.60	13.92	2.63	58.9	0.0		0	Ss:brn vfg wl srt rnd sh sl pyr sl dol
68	3,984.2	0.0661	0.0408	10.59	2.62	65.8	0.0		0	Ss:brn vfg wl srt rnd shly sl pyr
69	3,985.2	0.0145	0.0066	4.17	2.63	69.2	0.0		0	Ss:brn vfg wl srt rnd shly sl pyr sl dol
70	3,986.2	0.0849	0.0550	7.76	2.58	64.7	0.0		0	Sh:brn-blk sndy vfg wl srt rnd sm pyr
71	3,987.2	0.4202	0.3750	4.19	2.48	65.8	0.0		0	Sh:blk nvp sm pyr sl snd sl gyp
72	3,988.2	0.0507	0.0298	8.63	2.64	64.1	0.0		0	Ss:brn vfg wl srt rnd dol sm sh sl pyr
73	3,989.2	0.2193	0.1617	10.52	2.63	65.4	0.0		0	Ss:brn vfg wl srt rnd sm sh dol sm pyr
74	3,990.2	0.3368	0.2595	13.14	2.63	63.6	0.0		0	Ss:brn vfg wl srt rnd sh sm pyr sl dol
75	3,991.1	0.0170	0.0083	5.06	2.63	73.4	0.0		0	Sh:dkbrn nvp sm pyr sm snd
76	3,992.2	0.1843	0.1340	11.59	2.63	66.7	0.0		0	Ss:brn vfg wl srt rnd sh sm pyr
77	3,993.2	2.09	1.79	14.29	2.65	71.4	0.0		0	Ss:brn vfg wl srt rnd sm sh sm pyr
78	3,994.2	2.42	2.09	14.32	2.65	77.2	0.0		0	Ss:brn vfg wl srt rnd sm sh sm pyr
79	3,995.2	2.90	2.57	13.85	2.65	72.9	0.0		0	Ss:brn vfg wl srt rnd sm sh sm pyr
80	3,996.2	4.64	4.17	15.15	2.65	73.8	0.0		0	Ss:brn vfg wl srt rnd sm sh sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
File No. : 03189
Well : PDU #511
Location :

Field:
Formation:
County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
81	3,997.2	4.71	4.24	15.25	2.65	54.3	24.9		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
82	3,998.2	4.08	3.65	14.96	2.65	50.9	23.6		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
83	3,999.2	2.94	2.61	14.58	2.65	48.2	24.4		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
84	4,000.2	3.95	3.53	15.11	2.64	54.8	23.0		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
85	4,001.2	1.62	1.38	13.41	2.65	55.5	22.6		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
86	4,002.2	4.12	3.69	14.81	2.66	50.9	26.7		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
87	4,003.2	2.10	1.80	14.26	2.65	52.0	24.9		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
88	4,004.2	5.11	4.62	13.97	2.66	46.9	23.3		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
89	4,005.2	2.16	1.85	13.62	2.66	56.5	22.0		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr
90	4,006.2	4.36	3.91	14.15	2.68	44.6	23.4		100	YI	Ss:brn vfg wl srt rnd sl pyr sl dol sl sh
91	4,007.2	3.45	3.07	14.79	2.66	51.1	27.7		100	YI	Ss:brn vfg wl srt rnd sl sh sl pyr
92	4,008.2	4.38	3.93	15.20	2.65	53.0	22.2		100	YI	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
93	4,009.2	0.0419	0.0241	6.25	2.68	57.7	15.2		50	YI	Ss:gry vfg wl srt rnd sl sh dol sl pyr
94	4,010.2	0.0166	0.0081	4.34	2.70	68.1	9.4		15	YI	Ss:gry vfg wl srt rnd dol sl sh sl pyr
95	4,011.2	0.0706	0.0449	7.55	2.70	49.9	24.9		100	YI	Ss:gry-tn vfg wl srt rnd dol sl pyr sl sh
96	4,012.2	2.98	2.65	13.93	2.66	57.5	20.2		100	YI	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
97	4,013.2	2.41	2.10	21.94	2.67	50.1	20.3		100	YI	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
98	4,014.2	5.10	4.60	15.15	2.65	52.2	21.7		100	YI	Ss:brn vfg wl srt rnd sm sh sl pyr
99	4,015.2	2.95	2.62	14.26	2.66	46.1	24.0		100	YI	Ss:brn vfg wl srt rnd sm sh sl pyr
100	4,016.3	3.66	3.26	14.18	2.67	48.1	22.8		100	YI	Ss:brn vfg wl srt rnd sm sh sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence	Sample Description
Number		Permeability	Permeability		Density			Units		
	ft	mD	mD	%	g/cc	%	%		%	Description
101	4,017.2	3.71	3.31	13.18	2.67	56.8	21.2		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
102	4,018.2	2.13	1.83	14.75	2.67	54.0	25.2		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
103	4,019.2	2.08	1.79	14.87	2.66	53.4	26.5		100 YI	Ss:brn vfg wl srt rnd sh sm pyr
104	4,020.2	1.25	1.06	14.37	2.66	57.9	20.8		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
105	4,021.2	1.60	1.36	14.26	2.67	52.7	24.1		100 YI	Ss:brn vfg wl srt rnd sh sm pyr
106	4,022.2	0.2913	0.2230	12.70	2.71	37.7	22.5		100 YI	Ss:brn vfg wl srt shly sm pyr
107	4,023.2	0.1913	0.1392	12.10	2.65	50.2	22.4		100 YI	Ss:brn vfg wl srt shly sm pyr
108	4,024.2	0.0361	0.0198	9.79	2.67	49.8	26.8		20 YI	Ss:brn vfg wl srt rnd shly sm pyr sl cht
109	4,025.2	3.19	2.79	14.05	2.65	54.9	20.1		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
110	4,026.2	0.0519	0.0303	10.48	2.66	63.8	14.7		50 YI	Ss:brn vfg wl srt rnd shly pyr
111	4,027.2	1.71	1.46	15.50	2.65	54.0	22.2		100 YI	Ss:brn vfg wl srt rnd sm pyr sl sh
112	4,028.2	5.09	4.60	16.42	2.65	52.1	26.5		100 YI	Ss:brn vfg wl srt rnd sl sh sm pyr
113	4,029.1	3.54	3.15	15.41	2.66	54.3	22.8		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
114	4,030.2	2.13	1.83	14.09	2.67	50.4	21.5		100 YI	Ss:brn vfg wl srt rnd sl sh sm pyr
115	4,031.2	1.15	0.9659	13.09	2.67	50.7	25.1		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
116	4,032.2	0.7033	0.5810	13.79	2.66	52.3	24.3		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
117	4,033.2	1.08	0.9060	15.08	2.69	40.2	22.1		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
118	4,034.2	0.9089	0.7578	14.03	2.66	52.5	22.4		100 YI	Ss:brn vfg wl srt rnd sm sh sm pyr
119	4,035.2	8.07	7.42	16.37	2.65	50.9	21.3		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
120	4,036.2	8.39	7.73	16.89	2.66	45.9	27.8		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
File No. : 03189
Well : PDU #511
Location :

Field:
Formation:
County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
121	4,037.0	5.08	4.59	14.35	2.67	49.2	23.4		100	Yl sp-lam	Ss:tn vfg wl srt rnd sm pyr sl sh
122	4,038.0	3.19	2.83	13.07	2.67	51.7	24.2		100	Yl sp-lam	Ss:tn vfg wl srt rnd sl sh sl pyr
123	4,039.0	4.09	3.66	14.52	2.66	46.6	28.4		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
124	4,040.0	3.00	2.66	13.56	2.67	54.5	23.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
125	4,041.0	3.75	3.34	15.18	2.66	51.8	25.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
126	4,042.0	4.02	3.59	14.40	2.67	51.5	25.2		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl pyr sl dol
127	4,043.0	4.23	3.79	15.18	2.66	47.6	28.4		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
128	4,044.0	4.63	4.18	15.16	2.66	51.8	25.2		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
129	4,045.0	3.21	2.85	11.49	2.67	59.0	23.2		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl dol sl pyr sl sh
130	4,046.0	4.70	4.23	15.23	2.68	55.0	23.5		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
131	4,047.0	3.73	3.33	14.89	2.65	46.7	23.6		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
132	4,048.0	5.67	5.14	14.91	2.70	39.0	25.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
133	4,049.0	3.06	2.72	14.08	2.66	48.4	21.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
134	4,050.0	3.76	3.35	13.70	2.67	50.3	22.8		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
135	4,051.0	5.17	4.68	14.54	2.66	46.3	26.3		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
136	4,052.0	4.69	4.22	14.82	2.66	45.5	26.0		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
137	4,053.0	3.16	2.81	14.18	2.67	57.6	21.2		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
138	4,054.0	3.44	3.05	14.81	2.67	43.2	28.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
139	4,055.0	2.49	2.15	13.39	2.67	52.0	20.5		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
140	4,056.0	3.89	3.48	15.05	2.66	48.6	25.6		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
141	4,057.0	3.04	2.71	14.87	2.65	49.3	25.4		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
142	4,058.0	2.78	2.40	13.60	2.66	51.0	22.6		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
143	4,059.0	0.6385	0.5237	12.57	2.66	55.5	23.8		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sl pyr
144	4,060.0	1.36	1.15	14.06	2.66	45.8	22.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
145	4,061.0	1.84	1.57	14.21	2.66	58.6	21.2		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
146	4,062.0	2.36	2.03	14.56	2.66	56.1	22.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
147	4,063.0	1.00	0.8379	14.44	2.66	50.6	21.4		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
148	4,064.0	1.17	0.9837	14.43	2.67	47.3	24.6		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
149	4,065.0	0.8958	0.7468	14.34	2.66	51.8	22.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sm pyr
150	4,066.0	0.8355	0.6936	14.69	2.67	50.2	22.1		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sm pyr sl dol
151	4,067.0	2.64	2.29	15.50	2.66	47.1	24.3		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr
152	4,068.0	1.32	1.12	15.19	2.66	52.3	22.0		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
153	4,069.0	0.7074	0.5825	14.65	2.66	54.2	21.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl pyr
154	4,070.0	0.1939	0.1413	12.49	2.67	47.3	22.8		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sm dol sm pyr
155	4,071.0	0.5422	0.4415	14.27	2.66	53.8	23.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
156	4,072.0	0.2013	0.1472	12.53	2.67	46.7	25.5		100	Yl sp-lam	Ss:brn vfg wl srt rnd sh sm pyr
157	4,073.0	0.2003	0.1461	13.33	2.66	46.9	24.3		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sl pyr
158	4,074.0	0.1992	0.1449	12.92	2.65	46.5	24.0		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sl pyr
159	4,075.0	0.1903	0.1378	12.89	2.64	50.6	27.9		100	Yl sp-lam	Ss:brn vfg wl srt rnd sh sm pyr
160	4,076.0	1.60	1.36	13.50	2.65	51.9	25.7		100	Yl sp-lam	Ss:brn vfg wl srt rnd sm sh sm pyr sl cht

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
161	4,077.0	0.8813	0.7330	11.79	2.67	46.1	26.6		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
162	4,078.0	1.40	1.18	13.67	2.66	44.4	27.0		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
163	4,079.1	1.61	1.37	14.61	2.65	48.9	22.8		100 YI	Ss:brn vfg wl srt rnd sm sh sl pyr
164	4,080.1	3.89	3.47	14.60	2.66	47.0	24.2		100 YI	Ss:brn vfg wl srt rnd sm sh sl pyr
165	4,081.1	3.15	2.79	15.30	2.65	50.4	22.9		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
166	4,082.1	1.98	1.69	12.85	2.66	45.8	24.9		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
167	4,083.1	0.0302	0.0162	6.74	2.70	65.7	13.9		40 YI	Ss:gry vfg wl srt rnd sl pyr sl sh
168	4,084.1	2.70	2.33	14.12	2.65	48.6	23.0		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
169	4,085.1	2.51	2.16	14.46	2.65	57.3	21.8		100 YI	Ss:brn vfg wl srt rnd sl pyr sl sh
170	4,086.1	2.27	1.95	13.76	2.65	52.6	24.4		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
171	4,087.1	0.3484	0.2698	9.46	2.67	54.0	26.9		100 YI	Ss:brn vfg wl srt rnd sl dol
172	4,088.1	1.35	1.14	12.57	2.66	49.2	25.4		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
173	4,089.1	1.83	1.56	12.96	2.66	48.3	26.3		100 YI	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
174	4,090.1	2.59	2.24	13.55	2.66	48.4	25.0		100 YI	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
175	4,091.1	2.95	2.62	14.75	2.65	55.1	22.2		100 YI	Ss:brn vfg wl srt rnd
176	4,092.1	2.61	2.26	14.22	2.65	57.6	21.8		100 YI	Ss:brn vfg wl srt rnd sl sh sl pyr
177	4,093.1	2.49	2.14	13.97	2.65	49.8	25.7		100 YI	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
178	4,094.1	1.19	1.01	12.79	2.65	54.7	23.0		100 YI	Ss:brn vfg wl srt rnd sl sh sl dol
179	4,095.2	1.86	1.59	12.93	2.66	48.2	26.8		100 YI	Ss:brn vfg wl srt rnd sl sh sl dol
180	4,096.1	2.19	1.89	13.12	2.66	48.9	24.1		100 YI lam	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
181	4,097.1	4.09	3.66	15.31	2.65	49.1	25.4		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
182	4,098.1	2.10	1.80	14.51	2.65	56.0	23.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl sl pyr
183	4,099.1	3.57	3.17	15.76	2.64	49.6	27.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr
184	4,100.1	0.4459	0.3494	12.89	2.65	53.3	18.3		80	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr
185	4,101.1	0.0418	0.0236	8.82	2.61	60.7	10.0		20	Yl lam SdySh drk brn vfg wl srt rnd sm pyr
186	4,102.1	1.24	1.05	14.87	2.62	42.7	27.3		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
187	4,103.1	1.42	1.20	14.31	2.65	55.9	22.6		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
188	4,104.1	3.68	3.28	15.50	2.65	51.4	21.4		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
189	4,105.1	2.89	2.50	15.26	2.66	53.4	24.8		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
190	4,106.1	3.78	3.36	15.04	2.66	51.3	23.3		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
191	4,107.1	2.84	2.46	12.53	2.68	49.5	23.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sm pyr
192	4,108.1	3.45	3.06	15.05	2.67	46.9	21.2		100	Yl lam Ss:brn vfg wl srt rnd sl sh sm pyr
193	4,109.1	2.57	2.22	14.91	2.66	57.4	21.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr
194	4,110.1	1.77	1.51	14.61	2.66	48.2	23.4		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
195	4,111.1	1.20	1.01	14.04	2.66	47.3	24.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
196	4,112.1	0.6248	0.5127	13.14	2.66	51.7	23.5		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
197	4,113.1	0.6001	0.4909	13.56	2.66	49.7	25.0		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
198	4,114.1	0.8608	0.7156	13.89	2.66	61.1	18.7		80	Yl lam Ss:brn vfg wl srt rnd shly sm pyr
199	4,115.1	0.0395	0.0219	9.99	2.63	65.9	0.0		tr	Yl lam ShlySs:drk brn vfg wl srt rnd sm pyr
200	4,116.1	0.2677	0.2027	11.96	2.66	61.8	14.3		40	Yl lam Ss:brn vfg wl srt rnd sm sh sm dol sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
201	4,117.1	0.0450	0.0259	10.03	2.69	57.7	21.0		100	Yl lam ShlySs:gry vfg wl srt rnd sm pyr
202	4,118.1	0.0276	0.0142	9.54	2.69	60.6	12.3		30	Yl lam ShlySs:brn vfg wl srt rnd sm pyr
203	4,119.1	0.0131	0.0059	7.62	2.67	71.2	6.8		10	Yl lam ShlySs:brn vfg wl srt rnd pyr
204	4,120.1	0.0101	0.0041	7.17	2.66	60.1	13.9		40	Yl lam ShlySs:brn vfg wl srt rnd pyr
205	4,121.1	0.0461	0.0263	10.20	2.69	52.9	25.2		100	Yl lam Ss:brn vfg wl srt rnd shly pyr
206	4,122.1	0.1012	0.0671	9.30	2.67	45.9	24.5		100	Yl lam Ss:brn vfg wl srt rnd sh sm dol sm pyr
207	4,123.1	1.82	1.55	12.81	2.67	57.2	21.8		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
208	4,124.1	1.72	1.46	14.16	2.66	50.2	21.5		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr vsl dol
209	4,125.2	1.69	1.44	13.08	2.67	46.0	24.6		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl dol vsl pyr
210	4,126.1	0.4119	0.3213	10.72	2.67	53.4	23.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sm dol vsl pyr
211	4,127.1	0.2716	0.2059	5.45	2.67	51.7	23.9		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl dol sl pyr
212	4,128.1	0.4890	0.3960	11.49	2.67	51.9	23.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sm dol sl pyr
213	4,129.1	0.1055	0.0700	10.98	2.68	48.4	26.7		100	Yl lam ShlySs:brn vfg wl srt rnd sm pyr
214	4,130.1	0.1355	0.0930	11.11	2.68	54.1	17.0		80	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
215	4,131.1	0.0103	0.0043	5.74	2.64	60.1	18.2		90	Yl lam Sh:Dkbrn nvp sl sd pyr
216	4,132.1	0.0220	0.0111	6.12	2.72	54.2	16.3		70	Yl lam Sh:Dkbrn nvp vsl sd sm pyr
217	4,133.1	1.07	0.8941	14.33	2.66	60.2	15.7		60	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
218	4,134.1	2.84	2.46	15.62	2.66	63.5	15.3		50	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
219	4,135.1	11.04	10.26	18.04	2.68	50.9	22.4		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr vsl dol
220	4,136.1	8.81	8.13	18.11	2.67	50.0	24.9		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
221	4,137.1	7.77	7.13	17.54	2.67	61.7	14.6		40	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
222	4,138.1	4.73	4.26	17.58	2.67	63.1	16.6		60	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
223	4,139.1	5.83	5.30	16.47	2.68	55.7	17.7		70	Yl lam Ss:brn vfg wl srt rnd sl sh sm pyr
224	4,140.1	5.53	5.02	17.03	2.67	58.3	18.4		80	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr vsl dol
225	4,141.1	4.15	3.71	16.39	2.67	58.6	14.2		40	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
226	4,142.1	0.2933	0.2234	12.30	2.67	58.2	16.3		50	Yl lam Ss:brn vfg wl srt rnd shly sm pyr
227	4,143.1	0.1384	0.0951	11.86	2.67	56.8	19.1		90	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
228	4,144.1	1.17	0.9839	15.34	2.65	47.8	22.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr
229	4,145.1	3.12	2.71	16.00	2.66	48.3	27.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
230	4,146.1	14.20	13.29	17.42	2.67	38.0	24.7		100	Yl lam Ss:brn vfg wl srt rnd vsl sh sl pyr
231	4,147.2	2.59	2.24	16.99	2.67	46.3	23.8		100	Yl lam Ss:brn vfg wl srt rnd vsl sh vsl pyr
232	4,148.2	12.94	12.08	18.50	2.67	48.9	25.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr vsl dol
233	4,149.1	5.81	5.28	17.98	2.68	49.7	25.1		100	Yl lam Ss:brn vfg wl srt rnd vsl sh sl pyr
234	4,150.1	11.03	10.25	18.32	2.67	46.6	21.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sm pyr
235	4,151.1	3.86	3.44	16.46	2.67	53.8	22.9		100	Yl lam Ss:brn vfg wl srt rnd vsl sh sl pyr
236	4,152.1	8.63	7.96	17.73	2.67	45.5	26.7		100	Yl lam Ss:brn vfg wl srt rnd sl sh vsl pyr
237	4,153.1	6.31	5.75	17.41	2.66	50.8	23.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
238	4,154.1	1.87	1.60	15.05	2.68	43.8	26.8		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
239	4,155.1	3.30	2.93	16.44	2.66	43.6	23.6		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr
240	4,156.1	4.05	3.61	17.04	2.66	52.5	21.8		100	Yl lam Ss:brn vfg wl srt rnd sm sh vsl pyr vsl dol

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
241	4,157.1	3.38	2.99	17.28	2.64	51.8	21.6		100	YI lam	Ss:brn vfg wl srt rnd sm sh vsl pyr
242	4,158.1	3.91	3.49	17.94	2.65	52.9	22.1		100	YI lam	Ss:tn vfg wl srt rnd sl sh
243	4,159.1	3.66	3.26	17.61	2.63	62.0	13.1		30	YI lam	Ss:tn vfg wl srt rnd sm sh vsl pyr
244	4,160.1	3.58	3.18	17.48	2.63	58.2	17.2		70	YI lam	Ss:brn vfg wl srt rnd sm sh vsl pyr
245	4,161.1	0.2259	0.1656	13.09	2.63	63.9	14.1		40	YI lam	Ss:brn vfg wl srt rnd shly sl pyr rsl chrt
246	4,162.1	2.68	2.31	15.58	2.63	56.8	13.7		30	YI lam	Ss:brn vfg wl srt rnd sm sh vsl pyr
247	4,163.1	0.6516	0.5343	12.68	2.64	46.9	tr		5	YI lam	Ss:brn vfg wl srt rnd shly sm pyr
248	4,164.1	1.38	1.16	15.27	2.64	56.3	13.7		30	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr
249	4,165.1	2.38	2.13	16.67	2.63	69.8	0.0		tr	YI lam	Ss:brn vfg wl srt rnd sl sh vsl pyr
250	4,166.2	3.27	2.90	16.21	2.65	66.0	4.9		10	YI lam	Ss:tn vfg wl srt rnd sl sh sl pyr
251	4,167.1	2.56	2.27	15.95	2.64	62.1	tr		5	YI lam	Ss:brn vfg wl srt rnd sl sh vsl pyr
252	4,168.1	1.05	0.8801	14.20	2.64	54.5	24.5		100	YI lam	Ss:brn vfg wl srt rnd sl sh vsl pyr
253	4,169.1	9.63	8.90	16.49	2.63	52.4	22.2		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr
254	4,170.1	3.97	3.55	15.23	2.65	47.9	23.4		100	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
255	4,171.1	2.44	2.10	12.51	2.67	50.6	22.8		100	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
256	4,172.1	7.70	7.07	14.69	2.67	62.3	0.0		tr	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
257	4,173.1	1.46	1.24	14.40	2.65	62.5	tr		5	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
258	4,174.1	5.52	5.00	16.33	2.65	65.6	0.0		tr	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
259	4,175.1	10.81	10.03	17.57	2.65	58.1	13.4		30	YI lam	Ss:brn vfg wl srt rnd vsl sh vsl pyr
260	4,176.1	1.83	1.56	13.77	2.65	51.7	21.5		100	YI lam	Ss:brn vfg wl srt rnd sl sh vsl pyr rsl chrt

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		% Description	
261	4,177.1	2.75	2.38	12.63	2.66	50.6	23.7		100 Yl lam	Ss:brn vfg wl srt rnd sm sh sl pyr
262	4,178.1	1.31	1.10	11.76	2.66	53.3	24.5		100 Yl lam	Ss:brn vfg wl srt rnd sh sm pyr
263	4,179.1	6.52	5.95	15.36	2.65	44.0	26.3		100 Yl lam	Ss:brn vfg wl srt rnd
264	4,180.1	3.28	2.91	14.34	2.65	55.4	24.0		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
265	4,181.1	7.44	6.82	15.41	2.65	55.6	22.9		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
266	4,182.1	4.81	4.33	15.43	2.65	48.6	23.5		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
267	4,183.1	4.71	4.24	14.88	2.65	50.5	22.8		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
268	4,184.1	2.00	1.72	14.32	2.65	56.3	21.4		100 Yl lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
269	4,185.1	7.19	6.59	16.12	2.66	52.0	24.3		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
270	4,186.1	4.32	3.88	15.81	2.66	50.3	26.8		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
271	4,187.1	2.39	2.12	14.47	2.66	49.1	25.2		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
272	4,188.1	4.53	4.07	15.51	2.66	50.9	25.5		100 Yl lam	Ss:brn vfg wl srt rnd sl dol sl pyr
273	4,189.1	11.32	10.53	16.96	2.66	50.7	23.1		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
274	4,190.1	7.76	7.13	15.96	2.66	52.9	22.3		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
275	4,191.1	9.95	9.23	16.27	2.66	48.6	26.6		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
276	4,192.1	6.17	5.62	16.05	2.66	48.4	27.1		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
277	4,193.1	5.14	4.65	15.19	2.66	52.5	24.3		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
278	4,194.2	4.74	4.27	15.57	2.66	50.5	21.2		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr
279	4,195.1	9.16	8.46	16.08	2.65	51.6	23.2		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
280	4,196.1	5.91	5.37	15.26	2.64	53.2	21.7		100 Yl lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
281	4,197.1	14.87	13.94	16.79	2.65	46.2	22.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
282	4,198.1	8.60	7.93	15.94	2.66	44.4	27.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
283	4,199.1	7.99	7.35	16.66	2.66	53.7	24.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
284	4,200.1	9.64	8.92	17.02	2.66	50.8	23.5		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
285	4,201.1	6.60	6.03	16.26	2.66	46.4	26.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
286	4,202.1	10.20	9.45	17.14	2.66	51.0	22.5		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
287	4,203.1	10.07	9.33	16.73	2.66	49.8	28.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
288	4,204.1	8.57	7.89	16.30	2.66	55.3	21.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
289	4,205.1	6.52	5.96	16.20	2.66	54.4	22.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
290	4,206.1	9.01	8.32	16.45	2.66	50.8	22.2		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
291	4,207.1	7.04	6.44	16.60	2.67	54.0	23.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
292	4,208.1	13.43	12.55	17.41	2.66	47.1	23.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
293	4,209.1	13.40	12.52	17.97	2.67	48.9	24.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
294	4,210.1	10.93	10.15	17.23	2.66	51.4	24.5		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
295	4,211.1	7.95	7.31	16.74	2.66	54.8	22.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
296	4,212.1	10.72	9.96	17.10	2.66	53.5	21.7		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
297	4,213.1	9.20	8.49	17.06	2.66	52.8	22.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
298	4,214.1	1.44	1.21	14.44	2.67	53.7	23.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
299	4,215.1	4.34	3.89	14.68	2.67	47.3	22.7		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
300	4,216.1	11.98	11.16	17.59	2.67	42.8	20.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
301	4,217.1	11.01	10.22	17.57	2.66	49.4	21.1		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
302	4,218.1	10.23	9.48	16.55	2.66	49.6	25.8		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr sl dol
303	4,219.1	10.73	9.96	17.47	2.66	52.0	25.2		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
304	4,220.1	9.03	8.34	16.89	2.66	52.6	24.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
305	4,221.1	14.72	13.79	17.54	2.66	57.3	21.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
306	4,222.1	7.56	6.94	16.95	2.67	54.5	22.5		100	Yl lam Ss:ltgry vfg wl srt rnd sl sh sl pyr sl dol
307	4,223.1	11.62	10.82	17.35	2.67	46.7	24.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
308	4,224.1	9.59	8.88	16.95	2.66	51.3	22.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
309	4,225.1	9.70	8.97	16.69	2.66	53.1	25.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
310	4,226.1	12.11	11.28	17.14	2.65	51.5	24.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
311	4,227.1	8.31	7.65	17.17	2.65	51.3	26.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
312	4,228.1	12.62	11.78	17.83	2.66	51.1	27.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
313	4,229.2	6.51	5.93	17.69	2.65	44.5	26.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
314	4,230.1	5.71	5.18	17.42	2.65	51.9	23.3		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
315	4,231.1	8.78	8.09	17.50	2.65	56.3	23.7		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
316	4,232.1	5.77	5.24	16.98	2.65	52.7	21.5		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
317	4,233.1	0.0329	0.0176	11.80	2.69	54.6	23.4		100	Yl lam Ss:grn-gry vfg wl srt rnd sl sh sl pyr
318	4,234.1	2.51	2.20	16.58	2.65	49.1	24.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
319	4,235.5	11.75	10.95	18.22	2.64	57.1	22.2		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
320	4,236.5	7.83	7.20	17.49	2.64	48.3	22.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample Number	Depth	Air Permeability	Klinkenberg Permeability	Porosity	Grain Density	Sw	So	Gas Units	Fluorescence	Sample Description
	ft	mD	mD	%	g/cc	%	%		%	Description
321	4,237.5	7.09	6.49	17.27	2.65	50.9	24.4		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
322	4,238.8	9.46	8.75	17.69	2.65	53.1	20.2		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
323	4,239.2	2.60	2.27	16.01	2.69	56.1	23.7		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
324	4,240.7	3.30	2.92	16.98	2.65	53.9	23.5		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
325	4,241.2	3.65	3.25	16.62	2.58	52.6	22.7		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
326	4,242.7	6.44	5.88	17.59	2.65	41.7	25.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
327	4,243.7	3.46	3.07	16.50	2.61	47.8	24.7		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
328	4,244.2	5.50	4.99	19.55	2.65	46.4	24.5		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
329	4,245.7	2.86	2.54	15.60	2.65	50.2	25.3		100	Yl lam Ss:tn vfg wl srt rnd sl sh sl pyr
330	4,246.7	3.16	2.80	15.80	2.63	46.9	23.5		100	Yl lam Ss:tn vfg wl srt rnd sm sh sm pyr
331	4,247.7	2.82	2.49	14.72	2.64	53.6	22.4		100	Yl lam Ss:tn vfg wl srt rnd sm sh sm pyr
332	4,248.1	3.12	2.76	14.81	2.65	48.3	27.5		100	Yl lam Ss:tn vfg wl srt rnd sm sh sl pyr
333	4,249.2	3.52	3.12	15.49	2.65	50.9	22.1		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
334	4,250.1	2.15	1.84	14.12	2.65	48.9	22.8		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
335	4,251.1	2.33	1.99	14.45	2.65	55.6	23.4		100	Yl lam Ss:brn vfg wl srt rnd sm sh sm pyr
336	4,252.1	2.14	1.83	14.60	2.62	56.6	24.3		100	Yl lam Ss:ltgry vfg wl srt rnd sm sh sl pyr sl dol
337	4,253.1	1.86	1.59	14.68	2.65	56.2	26.7		100	Yl lam Ss:gry-brn vfg wl srt rnd sl sh sl pyr
338	4,254.1	2.48	2.13	15.45	2.65	53.4	24.9		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
339	4,255.1	0.6060	0.4941	13.86	2.66	48.6	22.0		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
340	4,256.1	1.10	0.9226	13.45	2.66	55.0	21.2		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence	Sample Description
Number		Permeability	Permeability		Density			Units		
	ft	mD	mD	%	g/cc	%	%		%	Description
341	4,257.1	2.45	2.11	15.52	2.65	48.6	21.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl pyr
342	4,258.1	0.6037	0.4933	12.76	2.65	51.4	22.3		100	Yl lam Ss:gry-brn vfg wl srt rnd sm sh sm dol sl pyr
343	4,259.1	2.83	2.52	15.52	2.66	51.2	26.4		100	Yl lam Ss:tn vfg wl srt rnd sm sh sl dol sl pyr
344	4,260.2	2.51	2.16	15.12	2.65	53.2	26.2		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
345	4,261.1	1.61	1.36	15.31	2.65	67.2	10.2		20	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
346	4,262.1	0.9627	0.8030	14.20	2.65	60.3	17.6		80	Yl lam Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
347	4,263.1	0.1189	0.0804	11.96	2.65	69.4	5.3		10	Yl lam Ss:dkbrn vfg wl srt rnd shly sl pyr sl dol
348	4,264.1	0.0908	0.0584	12.49	2.64	60.7	tr		5	Yl lam Ss:gry-brn vfg wl srt rnd sm sh sl pyr sl dol
349	4,265.1	0.1130	0.0765	9.64	2.64	72.1	4.1		10	Yl lam Ss:dkbrn vfg wl srt rnd shly sl pyr
350	4,266.1	0.0585	0.0355	9.48	2.65	70.2	0.0		0	Ss:dkbrn vfg wl srt rnd shly sm pyr sl dol
351	4,267.1	6.26	5.70	13.73	2.65	60.9	16.5		70	Yl sp Ss:brn vfg wl srt rnd sm sh sl pyr
352	4,268.1	0.1815	0.1314	11.63	2.66	65.7	10.9		20	Yl sp Ss:dkbrn vfg wl srt rnd shly sm pyr sl dol
353	4,269.1	0.3025	0.2313	13.87	2.65	69.4	5.9		10	Yl sp Ss:brn vfg wl srt rnd sh sl pyr sl dol
354	4,270.1	0.1191	0.0807	12.59	2.66	70.0	5.0		10	Yl sp Ss:brn vfg wl srt rnd sh sl pyr sl dol
355	4,271.1	0.2970	0.2265	13.40	2.66	50.5	20.8		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
356	4,272.1	0.1702	0.1211	11.72	2.67	50.2	23.1		100	Yl lam Ss:gry-tn vfg wl srt rnd sh sl pyr sl dol
357	4,273.1	0.1987	0.1448	12.09	2.65	49.9	22.8		100	Yl lam Ss:gry-tn vfg wl srt rnd sm sh sl dol sl pyr
358	4,274.1	0.2733	0.2038	12.67	2.66	50.1	23.6		100	Yl lam Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
359	4,275.1	0.0926	0.0603	10.87	2.66	53.1	22.7		100	Yl lam Ss:gry-tn vfg wl srt rnd sm sh sl dol sl pyr
360	4,276.1	0.1943	0.1415	11.94	2.66	56.2	22.3		100	Yl lam Ss:brn vfg wl srt rnd sm sh sl dol sl pyr

Drilled Plug Analysis Report

@ 2000 psi confining pressure

Company : St. Mary's Exploration & Production
 File No. : 03189
 Well : PDU #511
 Location :

Field:
 Formation:
 County : Eddy County, New Mexico

Sample	Depth	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence		Sample Description
Number		Permeability	Permeability		Density			Units			
	ft	mD	mD	%	g/cc	%	%		%	Description	
361	4,277.1	0.3133	0.2401	11.88	2.65	53.1	23.9		100	YI lam	Ss:tn vfg wl srt rnd sm sh sl pyr sl dol
362	4,278.1	0.4366	0.3412	12.61	2.65	50.6	26.7		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl dol sl pyr
363	4,279.1	0.2838	0.2160	11.95	2.65	45.2	26.2		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
364	4,280.1	0.2128	0.1560	11.46	2.66	46.3	24.2		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
365	4,281.1	0.5591	0.4555	12.86	2.65	51.7	26.2		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
366	4,282.1	0.3913	0.3035	11.76	2.65	46.7	25.9		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
367	4,283.1	0.2855	0.2173	11.98	2.65	48.8	23.0		100	YI lam	Ss:brn vfg wl srt rnd sm sh sm pyr sl dol
368	4,284.1	0.3544	0.2740	12.11	2.65	50.5	22.4		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
369	4,285.1	0.4594	0.3599	12.02	2.65	48.0	22.1		100	YI lam	Ss:brn vfg wl srt rnd sm sh sl pyr sl dol
370	4,286.1	0.7683	0.6345	13.42	2.64	46.7	25.2		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
371	4,287.1	0.7995	0.6619	13.45	2.64	47.5	24.3		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
372	4,288.1	0.6895	0.5675	13.35	2.64	45.2	25.9		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
373	4,289.1	0.5253	0.4271	12.75	2.64	49.8	21.9		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr
374	4,290.1	0.5194	0.4211	13.27	2.64	49.3	23.5		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol
375	4,291.1	0.3997	0.3103	13.58	2.65	46.5	24.1		100	YI lam	Ss:brn vfg wl srt rnd sl sh sl pyr sl dol