



JOHN C. LAMB AND COMPANY
PETROLEUM CONSULTANTS



RECEIVED
MAR 21 1994
RECEIVED WITH OIL AND GAS COMM.

**UNION PACIFIC RESOURCES COMPANY
NORTH FLATHEAD PROSPECT
SPEAKER FIELD, NORTHERN EXTENSION
#1 COLMENO 12-30
Section 30, T-11S, R-50W
600' FWL, 1980' FNL
Kit Carson County, Colorado
KB 5083'**

RESUME	1
FORMATION TOPS AND CORRELATION	2
BIT RECORD	3
SURVEYS	3
DAILY CHRONOLOGY	3
LOST CIRCULATION INTERVALS	3
MUD REPORTS	4
DRILL STEM TESTS	4
SUMMARY	5
SAMPLE DESCRIPTIONS	5

RESUME

Operator: Union Pacific Resources Company

Well Name and Number: #1 Colmeno 12-30

Prospect: North Flathead

Location: SW NW Section 30 (600' FWL & 1980' FNL); T-11S, R-50W

County and State: Kit Carson, Colorado

Elevation: GL: 5073'; KB: 5083'

Spud Date: February 26, 1994

Completion Date: March 11, 1994

Hole Sizes: 12 1/4": 0-534'; 7 7/8" 534-6790'

Casing Data: 8 5/8" set at 531'

Logging Data: DIL/CNL/LDT/GR/CAL, BHC/GR, FMS; Schlumberger, Ft. Morgan

Exploration Geologist: Mark P. Germinario

Drilling Foreman: Jack Parrott, Ed Martin

Wellsite Geologist: John C. Lamb

Contractor: Murfin, Rig 14

Tool Pusher: Jim Renner

Mud Type: Native 0-5115'; Chem-Gel: 5115-6790'

Mud Company: Service Mud, Tony Maestas

Drilling Days: 13

Rotating Hours: 202 1/2

Bottom Formation: Spergen

Status: V7 Oil Well

FORMATION TOPS AND CORRELATION

	UPRC #1 Colmeno 12-30 SW NW 30-11S-50W Kit Carson Co., Colo. KB 5083'	UPRC #1 Patricia 43-25 NE SE 25-11S-51W Kit Carson Co., Colo. KB 5107'
DAKOTA	2942(2141)	2948(2159)
CHEYENNE	3248(1835)	3251(1856)
BLAINE SALT	3978(1105)	4042(1065)
STONE CORRAL	4318(765)	4316(791)
NEVA	4923(160)	4932(175)
FORAKER	5005(78)	5012(95)
SHAWNEE	5239(-156)	5236(-129)
HEEBNER	5468(-385)	5477(-370)
TORONTO	5492(-409)	5498(-391)
LANSING	5516(-433)	5520(-413)
MARMATON	5894(-811)	5899(-792)
Pawnee Member	5929(-846)	5952(-845)
Fort Scott Member	5963(-880)	5983(-876)
CHEROKEE	6009(-926)	6032(-925)
ATOKA	6228(-1145)	6242(-1135)
MORROW	6451(-1368)	6471(-1364)
V5 Sandstone	Not Deposited	Not Deposited
V7 Interval	6549(-1466)	6585(-1478)
V7 Sandstone	6580(-1497)	6600(-1493)
V11 Sandstone	6648(-1565)	6650(-1543)
LOWER MORROW LIMESTONE	6670(-1587)	6686(-1579)
KEYES SANDSTONE	6728(-1645)	6751(-1644)
SPERGEN	6744(-1661)	6766(-1659)
TOTAL DEPTH	6797	6822

BIT RECORD

BIT #	SIZE	TYPE	IN	OUT	FOOTAGE	HOURS	JETS
1	12 1/4"	X3A	0'	534'	534'	7 1/2	13-14-13
2	7 7/8"	ATJ-05	534'	4510'	3976'	72 1/2	12-13-12
3	7 7/8"	ATJ-11C	4510'	6607'	2097'	113 1/4	12-13-12
4	7 7/8"	S85F (RR)	6607'	6790'	183'	9 1/4	12-13-12

SURVEYS

133 1/4	534 3/4	3084 1	5524 1 1/2
223 1/2	1050 1 1/2	3584 3/4	6026 1
312 1/2	1580 1 3/4	4113 1	6607 1
402 1/4	2084 1 3/4	4510 1	6790 1
492 1/2	2555 1	5021 1 1/8	

DAILY CHRONOLOGY

DAYS OVER HOLE	DATE	8AM CST DEPTH	24 HOUR FOOTAGE	DAILY ACTIVITY
1	February 26	0'	0'	MIRU, spud at 19.30, drlg
2	February 27	534'	534'	Drlg, run & cem csg, WOC, NU, pressure test BOP, drlg
3	February 28	1350'	'	Drlg
4	March 1	2750'	'	Drlg
5	March 2	3770'	'	Drlg
6	March 3	4510'	'	Drlg, TFB, drlg
7	March 4	5065'	'	Drlg, TF hole in DC, drlg
8	March 5	5335'	'	Drlg
9	March 6	5755'	'	Drlg
10	March 7	6115'	'	Drlg
11	March 8	6440'	'	Drlg, replace swivel packing, drlg, CFS at 6607, prep for DST #1
12	March 9	6607'	'	Prep for & run DST #1, drlg
13	March 10	6790'	'	Drlg, TD at 05.30, prep for & run logs
14	March 11	6790'	'	Logging,

LOST CIRCULATION INTERVALS

No mud was lost while drilling

MUD REPORTS

Date	3-5	3-6	3-7	3-8	3-9	3-10
Depth	5282	5690	6070	6364	6607	6760
Weight	8.8	9.1	9.1	9.2	9.2	9.2
Funnel Viscosity	47	44	50	48	56	55
Plastic Viscosity	13	13	14	14	15	15
Yield Point	17	16	22	21	23	22
Gel Strengths	9/22	9/21	11/25	10/23	11/26	11/26
pH	9.5	8.5	9.0	9.0	9.0	9.0
Water Loss	13.6	14.4	8.8	8.8	8.8	8.8
Filter Cake	1/32	1/32	1/32	1/32	1/32	1/32
Alkalinity Mf	.7	.5	.5	.4	.4	.4
Chlorides	300	300	300	300	300	1100
Calcium	60	100	40	40	40	60
Sand	tr	tr	tr	tr	tr	tr
Solids	3.6	5.6	5.6	6.4	6.4	6.4
LCM	4	3	4	3	3	4

DRILL STEM TESTS

DST #1

Morrow V7 Ss

6423-6607

Times: 15-30-60-60 minutes

Valid Bottom Hole Test

BHT 170F

Pressures:

IHP 3082
IFP 955-984
ISIP 1181
FFP 1023-1141
FSIP 1190
FHP 3032

Remarks:

Packer set OK
Opened with 5" blow, BOB in 1 min
Would not blow down, GTS during ISI
Opened with 5" blow, slowly increased, stabilized at 7 psi at 35 min
Would not blow down
Pulled loose OK

Recoveries:

Drill Pipe:

3685' GIP
651' SGCM
279' G&OCM 18% Oil, 7% Gas, 75 % Mud
186' WCM 10% Water, 90% Mud
558' Clean Oil
186' G&WCM 60% Oil, 20% Gas, 20% Water
1062' SGCW

Sample Chamber:

3150cc Sampler Volume at 900 psi
600cc Oil
900cc Water
11.4 cu. ft. Gas

Sampler Water RW: .13 at 62F Chl: 52,000 ppm

Pit Mud RW: .4 at 62F, Chl: 300 ppm

SUMMARY

The #1 Colmeno 12-30 was drilled on the North Flathead Prospect. The location was selected upon the basis of geological interpretation of sub surface well control and upon interpretation of Formation Micro Scanner data. The primary objectives were the Morrow V11 Sandstone which is oil productive at Speaker Field some two miles to the south and the V7 Sandstone which is gas productive (with small amounts of associated oil) in the adjacent section to the west of the #1 Colmeno 12-30. Secondary objectives included the Marmaton Formation which is oil productive some two and one half miles to the west and the Morrow V5 Sandstone.

The Morrow Clastic Interval was 219'. The Morrow V7 Sandstone was encountered (6580-6606'). Description: unconsolidated and two to four grain clusters; translucent, medium to lower coarse grain, sub round to angular, poor sorted, friable, poorly consolidated with siliceous and occasionally dolomitic cementing, locally heavy siliceous cement, frequently with shattered appearance, possibly good intergranular porosity, very slight trace amount with very light tan oil staining, dull and slightly spotty greenish yellow fluorescence, poor crush cut. Some associated Claystone was also noted. Description: white, soft to brittle, predominately with bright greenish yellow fluorescence, fast milky greenish yellow cut. The V7 Sandstone was evaluated with a drill stem test prior to logging operations, recovering gas, oil and water.

The Morrow V11 Sandstone was also encountered (6648-6654'). Description: Predominately unconsolidated grains: semi translucent to clear, upper medium to very coarse grain, well rounded to angular, poor to very poor sorted, trace with spotty medium-dark brown oil stain, frequently with slightly spotty greenish yellow fluorescence, very faint milky greenish yellow cut; also noted were scattered two to four grain clusters: clear to translucent, coarse to very coarse grain, fair to poor sorted, friable, poor to fair to well consolidated with siliceous and dolomitic cementing, trace with spotty medium to dark brown oil stain, frequently with slightly spotty greenish yellow fluorescence, although some had an immediate streaming cut, most had a milky crush cut. Frequent amounts of associated Claystone were also noted. Description: white, soft to brittle, predominately with bright greenish yellow fluorescence.

Within the Pawnee Member of the Marmaton, a faint show of very limited significance was encountered within tight appearing micro-crystalline limestone. The Morrow V5 Sandstone was not encountered. After logging operations were completed, production casing was run to produce oil from the Morrow V7 Sandstone.

SAMPLE DESCRIPTIONS

Unlagged Sample Depths and Log Tops

5110 Sh gy & rd gen fn txt Ls sm amt buf vfxl lt gysh bn micxl sli fos sli arg
5120 Sh pred md gy flky fn txt
5130 No Sample
5150 Ss uncon rdsh trnsl gen cg & w rnd Ls chng: rdsh arg Mdst pred vool
5160 Ss, Sh, Ls cont'd AA
5170 Ss, Sh, Ls cont'd AA
5180 Ss decr Sh incr rdsh blkly slty-sdy

5190 Sh pred vslty-vsdy Ls sm incr lt gy-lt lav sli arg sdy
 5200 Sh, Ls, Ss cont'd AA
 5210 Ls def incr off wh vfxl-micxl fos sli sparry brit cln Ss cont'd
 5220 Sh hvy amt uphole gy Ls sm amt buf micxl-vfxl fos
 5230 Ls incr lt gy-bnsh gy vfxl dns
 5240 Ls off wh-lt gy-lt tn vfxl frm lóc rthy-clky sft Sh gy's AA

SHAWNEE 5239'

5250 Ls cont'd incr buf-off wh vfxl dns sft-sli brit gen vcln app Sh sm amt vdk gy & blk mod carb
 5260 Ls AA / chng: sme lt gy Mdst fos
 5270 Ls off wh-buf-lt gysh vfxl-micxl gen vdns vfrm-sli hd Cht dk gy opq fos
 5280 Ls lt tn-off wh vfxl-micxl freq sli sdy loc vsparry indist ool Sh red & gy
 5290 Sh incr rd & gy
 5300 Ls incr & chng: buf-off wh vfxl-micxl vdns hd
 5310 Sh & Ls AA
 5320 Ls buf fxl sft-fri cln /lt tn vfxl frm-vfrm Sh cont'd amt
 5330 Sh incr rd & gy Ls chng: wh vfxl fos loc sdy
 5340 Ls lt tn-off wh-vlt gysh vfxl-fxl gen vfos tr buf mxl sft-fri
 5350 Ls lt tn-off wh vfos AA
 5360 Sh gy & rd blk loc sdy Ls wh-lt tn vfxl cln-sli arg vfos
 5370 Sh dist incr rd & gy
 5380 Ls dist chng: m gy Mdst carb /off wh vfxl-fxl rthy txt i.p. Sh red & gy
 5390 Ls lt & dk col's AA Sh freq rd & gy
 5400 Ls off wh-lt tn vfxl cln-sli arg
 5410 Sh lrg incr rd & gy / occ vdk gy-blk mod-vcarb
 5420 Ls incr off wh fxl-vfxl mod sparry dns gen vcln app
 5430 Ls cont'd AA
 5440 Ls lt gy-gysh wh vfxl cont'd fos bec sli arg
 5450 Ls lt tn-vlt bnsh wh vfxl-fxl-micxl gen incrlly dns
 5460 Ls lt tn-off wh vfxl indist fos occ vsli arg
 5470 Sh sm incr rd & gy Ls cont'd AA

HEEBNER 5468'

5480 Sh sm incr blk vcarb Ls off wh-wh-lt tn vfxl-fxl-micxl gen dns brit freq indist fos
 5490 Ls off wh-buf fxl-mxl brit-fri occ pr intrxl poro
 5500 Sh incr rd & gy /occ blk

TORONTO 5492'

5510 Ls wh-off wh vfxl-micxl dns brit sparry & fos Sh cont'd
 5520 Sh incr rd & gy

LANSING 5516'

5530 Sh cvngs AA Ls chng sm amt wh fxl-mxl sft-fri
 5540 Sh rd gy gn cvngs
 5550 Sh rd & gy
 5560 Sh sm decr Ls wh-bnsh vfxl-fxl indist fos freq frag app
 5570 Sh rd & gy
 5580 Ls def incr wh vfxl brit-frm vcln app
 5590 Sh incr blk vcarb
 5600 Ls lt gysh wh vfxl dns hd sli arg

- 5610 Ls lt tn-lt bnsh vfxl rrly chlky fos loc sparry vsli arg
5620 Ls wh-vlt tn fxl-chlky decrly fos Sh vsm amt blk vcarb
5630 Ls cont'd wh fxl-vfxl gen vcln freq fos
5640 Ls off wh vfxl sli-mod ool freq /pr moldic poro NSOC
5650 Ls off wh vfxl-micxl ool Wkst gen cln app loc sli sdy freq sparry gen /pr-fr moldic poro
5660 Ls chng: bnsh wh-lt gy vfxl-micxl sli arg Sh vsm amt gy fn txt
5670 Sh def incr bnsh blk mod-vcarb
5680 Ls lt gy-lt bnsh vfxl-micxl pred sli arg Sh decr
5690 Ls chng: lt gysh-bnsh vfxl-micxl bec pred vfos /rgh txt sli arg
5700 Ls cont'd fos & sli arg-arg Sh sm incr blk & bnsh blk vcarb
5710 Sh cont'd incr blk vcarb /freq rd & gy Ls off wh-lt tn vfxl-fxl sli rthy-sparry gen fos-vfos
5720 Ls chng: bec lt bnsh micxl-vfxl sli arg sli fos Sh AA
5730 Ls buf fxl-mxl fri pr intrxl poro
5740 Ls chng: lt bn-lt gy vfxl-micxl gen dns sparry & hd freq sli fos Sh cont'd amt hvy rd & gy
5750 No Sample
5760 Ls lt bnsh micxl-lith vdns
5770 Sh lrg incr blk carb /freq bnsh blk mod carb all /dism pyr
5780 Sh cont'd amt Ls lt bn-off wh micxl-vfxl dns-vdns loc fos
5790 Ls chng: lt gy-off wh pel Wkst micxl-fxl Sh decr
5800 Sh incr lt gy vfn txt flky sli pyr Ls chng: bed vool grds to Wkst gen mod sparry
5810 Ls lt tn-lt gy vfxl-micxl decrly ool & incrly frag i.p. dns hd-frm Sh sm amt blk gy red
5820 Sh sm incr blk vcarb Ls lt tn-off wh vfxl-micxl rthy-sparry gen frag & ool
5830 Ls chng lt tn-lt bnsh gy vfxl-micxl gen vool /freq Wkst-Pkst loc vsparry
5840 Ls off wh-lt tn vfxl vcln app gen non ool
5850 Sh lrg incr gy & rd fn txt Ls chng: bnsh-gysh vfxl-micxl gen vdns hd sli arg
5860 Sh cont'd /decr Ls bnsh-lt gy-lt tn vfxl dns frm-hd freq ool gen sli arg sm sdy
5870 Ls chng lt tn fxl-vfxl gen rthy txt cln loc sdy Ss tr off wh vfg calc cem
5880 No Sample
5890 Ls bnsh vfxl-micxl ool i.p. freq sdy
5900 Ss freq amt lt tn-off wh l.fg-vfg calc cem
5910 Ss decr Ls bn-gy vfxl-micxl pred dns rrly rthy freq sli arg Sh sme gy fn txt
MARMATON 5894'
5920 Sh sm incr blk & vdk gy Ls chng: lt tn-off wh-buf vfxl vcln app loc vool tr buf mxl fr-pr intrxl poro NSOC
5930 Ls off wh-lt bnsh vfxl-micxl brit gen vool mod-vsparry vsli arg i.p.
5940 Ss tr wh l.fg calc cem Ls sm incr bn-bnsh wh micxl-vfxl dns sli arg
Pawnee Member 5929'
5950 Sh sm amt gy & blk Ls chng: lt bnsh wh-off wh vfxl-micxl sli sparry gen ffos
5960 Ls lt bnsh-lt gysh micxl vdns occ sli fos Sh sm amt gy rd blk
5970 Sh incr gy & blk Ls chng dk bnsh vfxl carb arg
Ft. Scott Member 5963'
5980 Sh sm incr blk & bnsh blk blkly vcarb Ls lt gy-lt bn vfxl gen sli arg
5990 Dol buf fxl-mxl fri-brit fr-pr intrxl poro Ls lt tn-buf fxl-vfxl cln vdolic i.p. freq indist ool /moldic poro all NSFOC
6000 Ls chng lt gy-bnsh gy vfxl mod arg
6010 Ls mot gy & tn vfxl-Mdst sli carb i.p. freq pyr Sh sm amt blk vcarb

CHEROKEE 6009'

- 6020 Sh sm incr blk & bnsh blk mod-vcarb Ls chng: pred lt tn fxl dns hd-frn
 6030 Ls lt gy bnsh gy micxl-vfxl incrly arg & carb Ss vsm amt off wh vfg calc cem
 6040 Ls tn-lt bnsh tn vfxl-micxl brit-hd
 6050 Sh sm incr blk & bnsh blk vcarb dism pyr Ls lt tn-off wh vfxl-micxl-loc rthy txt sli sdy
 Ss cont'd sm amt AA
 6060 Sh gy blk Ls off wh-lt gy vfxl-micxl cln-sli arg
 6070 Sh lrg incr bnsh blk vcarb dism pyr
 6080 Ls lt gy-gysh tn vfxl sli arg freq vfos
 6090 Ls lt gy-gysh bn vfxl-micxl sli rthy txt fos
 6100 Ls lt tn-bnsh gy vfxl-micxl bec ool i.p.
 6110 Ls lt bn-gy fxl-mxl gen fos sli dolie Sh sme blk vcarb
 6120 Ls lt bnsh-off wh vfxl-fxl cont'd fos bec incrly dns Sh sm incr blk vcarb
 6130 Sh decr blk /incr lt gy flky fn txt Ls lt gy-lt bnsh-off wh vfxl-micxl dns fos
 6140 Sh sm incr blk & gy Ls cont'd fos AA
 6150 Ls off wh vfxl-micxl dns brit-hd fos incrly cln app
 6160 Sh incr gn & red cvgs
 6170 Sh cont'd cvgs /incr blk
 6180 Sh incr rd & gy /freq blk
 6190 Sh gy & rd
 6200 Sh cont'd cvgs
 6210 Ls incr & chng: mot lt-m gy fxl-chlky gen /rthy txt Sh decr cvgs
 6220 Ls incrly lt'r col /cln app
 6230 Ls lt gy-lt bn vfxl-micxl dns fos sli pyr
 6240 Sh def incr blk & gy

ATOKA 6228'

- 6250 Ls off wh-vlt gy vfxl-fxl sli fos
 6260 Ls chng: mot lt-m gy vfxl dns
 6270 Ls chng m-dk gy vfxl-micxl vdns mod carb
 6280 Sh incr m-dk gy & blk vcarb i.p. Ls sm incr off wh vfxl brit cln app
 6290 Sh incr blk vcarb
 6300 Sh hvy amt blk & dk gy
 6310 Sh hvy amt vdk gy & blk gen vcarb Ls lt-m-dk gy vfxl-Mdst carb i.p.
 6320 Ls mot dk bnsh gy vfxl-micxl-Mdst carb i.p. gen fos
 6330 Ls lt-m-dk gy mot i.p. micxl-vfxl
 6340 Ls def chng lt tn vfxl-micxl brit vcln app Sh incr blk vcarb
 6350 Ls lt-m-dk gy mot i.p. micxl-vfxl-Mdst Sh blk & gy
 6360 Sh incr blk Ls cont'd gy's
 6370 Sh incr vdk gy & blk mod-vcarb
 6380 Sh AA Ls lt-m-dk gy lt bnsh tn vfxl
 6390 Sh & Ls cont'd AA
 6400 Sh incr blk mod-vcarb
 6410 Sh admixture gy & rd cvgs /blk-vdk gy
 6420 Ls incr lt-m gy Mdst-vfxl sli carb rly Chrty & fos Sh def decr
 6430 Ls cont'd amt
 6440 Ls lt-m gy sli mot vfxl dk bn micxl hd Sh sm incr vdk gy & blk /sme bn spotty
 6450 Ls AA bec rthy txt & fos i.p. Sh cont'd

Lagged Sample Depths

6444 Ls off wh-lt gysh vfxl-fxl incrlly cln app Sh decr

MORROW 6451'

6450 Sh incr blk & vdk gy flky /scat mot gnsh gy sb wxy flky

6463 Sh incr lt-m-dk gy fn txt flky sm amt bn /vcrs carb debr

6467 Sh admixture /incr red cvgs

6475 Sg chng: lt gn-lt gy-buf blkly wxy occ / carb debr sli pyr tr vitr wood-plnt debr

6482 Ls incr lt gy-off wh vfxl sparry fos arg i.p.

6497 Ls cont'd Sh incr ltr col AA /chng: sme mot dk gy-gn plty-flky

6502 Ls decr Sh hvy amt ltr col

6510 Sh chng lt gy-lt gn fn txt sb wxy flky-sb blkly loc sli sdy vhvy tr vitr plnt-wood frags

6518 Sh pos incr dk'r col fn txt

6524 Sh chng: hvy amt lt gn-lt gy-buf flky-blky wxy occ carb debr

6530 Sh gn-gy sb blkly wxy loc sdy tr glau Ss sli tr gn fg vglau calc

6536 Sh cont' gn's pred withd

6543 Coal tr dull arg Sh mot gn-gy

6547 Sh AA

6549 Sh admixture AA

V7 Interval 6549'

6552 Sh pred lt'r col bec incrlly sdy /rgh-vrgh txt

6556 Sh cont'd lt'r col AA

6661 Sh gy-gn flky-blky rgh-sdy occ carb debr

6568 Ss sm amt lrg'r clus: wh-trnsl u.fg sb ang fr srted pr cons sft-frm sli cly filled tight app
NSFOC tr uncon clr: clr mg-l.cg Clyst vfreq amt wh sft-brit NSFOC

6573 Ss cont'd lrg'r clus /scat uncon clr fg-mg Clyst decr amt all NSFOC
Sh gn gy buf blkly freq rgh-sdy txt

6580 Ss sli incr uncon clr mg pos incr clus trnsl-wh u.fg-l.mg sb rnd pr srted frm fr cons / all
NSFOC

V7 Sandstone 6580'

6585 Ss chng: incr 2-5-7 grn clus trnsl u.fg-mg occ l.cg ang-sb rnd pr srted pr cons fri-vfri pos
fr-gd poro NSFOC Clyst freq amt wh sft-brit bri gnsh yel flor mlky gnsh yel ct

6589 Ss gen incr amt uncon 2-4 grn clus trnsl mg-l.cg sb rnd fr-pr srted pr-fr sil cem freq dolie
cem vsli tr /vlt tn oil stn dull sli spotty gn yel flor pr crush Clyst flor AA Sh lt gn-gy
flky-blky

6595 Ss cont'd incr uncon shattered 2-3 grn clus gen trnsl-clr freq /hvy sil & dolie cem pred
/shattered app & / dolie cem on grns

6598 Ss cont'd AA occ /dull flor Sh incr m-dk gy freq mot fn txt

6602 Ss cont'd amt uncon trnsl mg-l.cg freq shattered shardy app /cem on grns

Ss cont'd Sh pos incr mot dk gy-gn flky

Ss decr Sh cont'd incr dk'r col fn txt

6607 Sh blk gy red mixed bag before bottoms up Ss tr clust clr cg hvy dolie cem

6608 Sh def incr lt gy-gysh bn flky wxy sli sdy scat fn carb rrly pyr tr vitr Coal plnt frag Ss
sli incr uncon & shattered 2-4 grn clus trnsl wh-clr cg-u.mg ang-sb ang hvy sil & dolie
cem

6612 Sh admixture lt & dk col's /pos incr dk gy fn txt

6616 Sh chng lt gy-lt bn-dk gy wxy-rgh txt freq vcrs carb debr freq pyr tr lse fos frag

Ss cont'd sm amt bec pred uncon clr-smi trnsl wh l.cg-vcg sb rnd-sb ang

- 6621 Sh cont'd incr lt gy-lt bn-dk gy-m gn wxy-rgh txt freq sli sdy loc sli glau freq pyr lse fos
 6625 Sh gen AA /pos incr dk gy flky wthd i.p.
 6632 Sh def incr dk gy fn txt /incr vlt gy plty fn txt wthd app Ls tr bnsh vfxl fos m bn micxl
 hd dns
 6636 Sh admixture Ls decr fos /sli incr m bn micxl AA
 6641 Sh admixture pred m-dk gy fn fxt hvy amt lt'r col wxy-rgh txt loc glau
 V11 Sandstone 6648'
 6649 Ss def incr pred uncon smi trns-lclr u.mg-l.cg-cg rr u.cg w rnd-sb ang pr-vpr srted /scat
 2-4 grn clus /vhily sil sli dolie cem tr lrg'r clus sli spotty m-dk bn live oil stn even bri
 gnsh yel flor immed g strmg-mlky gnsh yel ct
 6654 Ss sli incr amt 2-5 grn clus clr-trns l.cg-v.cg ang-sb rnd fr-pr srted fri pr-fr w cons /sil
 cem vhy cem i.p. tr clus & uncon /m-dk bn oil stn clus & uncon freq /sli spotty gnsh
 yel flor tr /immed stmg gen /fnt mlky-fr crush ct Clyst freq amt wh sft-bri gen /bri gnsh
 flor
 6658 Ss cont'd amt AA
 6664 Ss def decr amt AA Sh incr dk gy flky fn txt
 Lower Morrow Limestone 6670'
 6668 Ls def incr lt bn micxl fos frag Pkst sli arg tr detrital Ls clasts Ss decr
 6675 Ls incr chng wh-lt gysh wh vfxl-fxl rthy txt i.p. gen sparry & vfos
 6683 Ls wh-lt bnsh AA
 6690 Ls wh-tn-buf-lt bnsh fxl-vfxl-micxl sparry i.p. loc rthy txt gen vfos
 6699 Sh decr Ls incr amt AA
 6709 Sh sm incr vdk gy fn txt
 6717 Ls cont'd wh-buf vfxl-micxl-chlky gen fos loc sm amt glau grns /pos chng wh-trns l micxl
 vsparry vool
 6727 Ls buf-wh vfxl-micxl mod sparry gen fos sli incr glau bec sli sdy i.p.
 Keyes Sandstone 6728'
 6743 Ls bec vsdy & loc grdg to Ss Ss lrg'r clus wh u.fg-l.mg sb rnd pr srted vcalc cem loc arg-
 varg tr clus bnsh trns l cg calc cem arg
 SPERGEN 6744'
 6753 Dol lrg incr lt bn mxl-fxl frm-hd fri i.p. dk bn Mdst
 6763 Dol m-dk bn AA /sme lt gy Mdst Ls incr off wh-lt gysh fxl /rthy txt
 6772 Ls incr gysh-bnsh vfxl fos
 6790 Dol lt bnsh gy Mdst calc Ls lt gy-lt tn fxl/rthy txt gen fos & dolie