



00514480

RESUME

Operator: Union Pacific Resources Company

Well Name and Number: #5 Christopher 41-1

Prospect: Speaker Field, Northern Extension

Location: 1300' FNL, 400' FEL, Section 1, T-12S, R-51W

County and State: Cheyenne County, Colorado

Elevation: KB: 5080', GL: 5070'

Spud Date: August 20, 1993

Completion Date: August 30, 1993

Hole Sizes: 12 1/4: 0-527', 7 7/8: 527'-TD

Casing Data: 8 5/8" set at 524', 5 1/2" set through Morrow

Logging Data: Schlumberger, DIL, LDT/CNL, BHC

Exploration Geologist: Mark P. Germinario

Drilling Foreman: Jack Parrott

Wellsite Geologist: Gregg Smith

Contractor: Murfin, Rig 14

Tool Pusher: Jim Renner

Mud Type: Chem-gel

Mud Company: Service Mud, Tony Maestas

Drilling Days: 11

Rotating Hours: 201 1/2

Bottom Formation: Pennsylvanian L. Morrow Ls /Mississippian Spergen

Status: Oil Well-V11 Sandstone

FORMATION TOPS AND CORRELATION

	UPRC #5 Christopher 41-1 NE NE 1-12S-51W Cheyenne Co., Colo KB 5080'	UPRC #4 Christopher 43-1 NE SE 1-12S-51W Cheyenne Co., Colo KB 5052'
DAKOTA	2881(2199)	2840(2212)
CHEYENNE	3194(1886)	3154(1898)
BLAINE SALT	3976(1104)	3886(1166)
STONE CORRAL	4241(839)	4202(850)
NEVA	4863(217)	4822(230)
FORAKER	4945(135)	4908(144)
SHAWNEE	5174(-94)	5131(-79)
HEEBNER	5420(-340)	5386(-334)
TORONTO	5439(-359)	5406(-354)
LANSING	5464(-384)	5430(-378)
MARMATON	5832(-752)	5801(-749)
Pawnee Member	5866(-786)	5847(-795)
Fort Scott Member	5922(-842)	5886(-834)
CHEROKEE	5966(-886)	5927(-875)
ATOKA	6181(-1101)	6151(-1099)
MORROW	6407(-1327)	6382(-1330)
V5 Interval	6496(-1416)	6468(-1416)
V7 Interval	6538(-1458)	6504(-1452)
V11 Sandstone	6597(-1517)	6566(-1514)
LOWER MORROW LIMESTONE	6626(-1146)	6590(-1538)
SPERGEN	Possibly Not Penetrated	6678(-1626)
TOTAL DEPTH	6750'	6723'

BIT RECORD

BIT #	SIZE	TYPE	IN	OUT	FOOTAGE	HOURS
1	12 1/4"	S33SF	0'	527'	527'	9 1/4
2	7 7/8"	ATJ05	527'	4561'	4034'	76 1/4
3	7 7/8"	ATJ22	4561'	6750'	2189'	116

SURVEYS

133 1/2	1027 1	3531 1	6005 1/2
224 1/2	1528 2	4036 1 1/4	6508 1/2
315 1/2	2026 1 1/2	4561 1	6750 1 1/4
406 1/2	2526 1	5095 3/4	
527 3/4	3029 7/8	5559 3/4	

DAILY CHRONOLOGY

DAYS OVER HOLE	DATE	8AM CDT DEPTH	24 HOUR FOOTAGE	DAILY ACTIVITY
1	August 20	0'	0'	MIRU, spud, drlg, run & cem surf csg
2	August 21	527'	527'	WOC, NU, drlg
3	August 22	1660'	1333'	Drlg
4	August 23	3150'	1490'	Drlg
5	August 24	3980'	830'	Drlg
6	August 25	4625'	645'	Drlg
7	August 26	5176'	551'	Drlg
8	August 27	5605'	429'	Drlg
9	August 28	6020'	415'	Drlg
10	August 29	6360'	340'	Drlg, CFS: 6500', 6605', drlg
11	August 30	6715'	355'	Drlg, prep for & attempt log, TIH /bit, attempt log, TIH /bit
12	August 31	6750'	35'	Circ, TOH, logging
13	September 1	0'	0'	Logging, run & cem prod csg

LOST CIRCULATION INTERVALS

Depth Of Occurrence	Barrels Lost	Prior LCM lb/gal	After LCM lb/gal
6750'	350	3	10

MUD REPORTS

Date	8-26	8-27	8-28	8-29	8-30
Depth	5095	5557	5970	6307	6750
Weight	8.6	9.1	9.2	9.2	9.3
Funnel Viscosity	44	48	48	55	67
Plastic Viscosity	11	12	13	15	16
Yield Point	16	18	18	26	29
Gel Strengths	5/15	9/22	10/23	11/31	12/32
Water Loss	13.6	13.6	9.6	9.6	8.8
Filter Cake	1/32	1/32	1/32	1/32	1/32
Solids	2.2	5.6	6.4	6.4	7.2
Sand	tr	tr	tr	tr	tr
Ph	10.0	8.5	9.0	9.0	9.0
Alkalinity Mf	.9	.3	.4	.4	.4
Calcium	80	100	40	40	60
Chlorides	300	300	300	300	300
LCM	2	2	2	4	3

SUMMARY

The #5 Christopher 41-1 was drilled as a northerly stepout from Speaker Field. The location was selected upon the basis of subsurface geologic mapping and interpretation of Formation Micro Scanner Log data. The primary objective was the V11 Sandstone which produces oil at the Speaker Field. Secondary objectives included the Morrow V7 Sandstone and the Marmaton Formation. The UPRC #4 Christopher 43-1 was used for correlative purposes.

The oil productive V11 Sandstone was encountered in the #5 Christopher 41-1. It was poorly seen in the samples (less than 1% of sample) and was not drill stem tested. The Sand was described as: possibly coarsening downward; unconsolidated, white to clear, medium to lower coarse grain, angular to sub round, fair sorted, no shows were noted. A 35 unit gas increase over a 45 unit background was lagged to the Sandstone. Production casing was set through the Morrow to complete the V11 Sandstone as an oil well.

Total Morrow Clastic Interval was 219', which is significantly thicker than in the correlative well (208'). The V5, V7, V9 valley fill systems were identified in the samples. Of these intervals, only the V5 exhibited Sandstone development, which is not unlike other wells at Speaker Field.

Within the Ft. Scott Member of the Marmaton Formation, a porous Dolomite with oil shows was encountered (5920-30' drl's depth). Description: light brown to tan, fine to micro sucrosic, firm and friable, poor to fair intercrystalline porosity; occasionally with light brown oil stain, bright yellow fluorescence and a weak streaming cut. A 110 unit gas increase over a 20 unit background was lagged primarily to a carbonaceous shale immediately overlying the Dolomite.

SAMPLE DESCRIPTIONS

Unlagged Sample Depths and Log Tops

5100-5130 Sh gy-dk gy frm-sft sb blkly fn grty occ blk carb com red orng grty-slty tr sb wxy
Ls bn-lt bn frm-hd blkly fxl tr lav fxl com gran

5130-5150 Sh gy-dk gy frm blkly sb fis com grty occ carb tr pyr abdt red orng grty-slty
Ls bn-lt bn frm-hd blkly fxl rr fos

5150-5160 Sh red orng frm blkly plty pred grty-slty abdt gy-dk gy occ carb Ls AA

5160-5170 Ls bn-lt bn frm-hd blkly fxl-micxl pred dns tr pyr Sh AA

SHAWNEE 5174'

5170-5200 Ls dist incr amt bn-lt bn-gy hd blkly micxl dns tr fos tr sft clky

5200-5210 Ls bn-dk bn hd blkly fxl-micxl dns rr fos Sh gy-dk gy frm sb blkly occ sb fis blk carb

5210-5220 Ls wh-lt bn sft-frm fxl occ clky mot fn fos tr pr-fr intrprt poro tr micxl dns

5220-5250 Ls bn-dk bn hd micxl dns tr fos tr blk Sh prt

5250-5260 Ls tn-lt bn frm-hd fxl-micxl blkly occ mic gran Dol i.p. tr fos

5260-5270 Ls wh-lt bn frm fxl com fn gran clky occ /pr intrprt poro rr mic suc Dol NSOC

5270-5280 Ls dk bn-gy vhd blkly micxl dns com pyr Sh blk-dk gy frm-hd blkly tr pyr tr lse pyr occ carb

5280-5290 Ls bn-lt bn hd blkly fxl-micxl dns occ gran arg Sh dk gy-blk frm-hd sb blkly occ sb fis carb

5290-5310 Dol lt bn-lt gy frm fn mic suc blkly occ fxl n-pr vis poro NSOC

5310-5330 Ls dk bn-lt bn frm-hd fxl com mic gran mot fos Sh gy-dk gy-blk frm sb blkly fn grty occ sb fis carb

5330-5340 Ls lt bn-bn frm-sft fxl com clky fos occ gran tr sdy tr fr-pr intrprt poro NSFOC tr Dol i.p. Sh cont'd AA

5340-5350 Ls lt bn-bn frm fxl abdt gran occ fos tr fn sdy Sh blk-dk gy frm-hd blkly-sb blkly com grty carb

5350-5360 Ls dk bn-dk gy hd blk fxl pred fn gran varg tr Dol i.p. rr fos Sh AA

5360-5380 Ls bn-lt bn frm-hd fxl com fos occ sft clky Sh blk-dk gy frm sb blkly occ splnt sb fis com carb

5380-5400 Ls bn-lt bn occ gy frm-hd blkx fxl com fn mot fos com arg i.p. Sh gy-dk gy frm sb blkx fngrtx occ pyr occ blk carb
 5400-5410 Ls lt bn-tn frm-hd blkx fxl-micxl occ fos Sh lt gy frm sb blkx fn grty occ carb
 5410-5420 Ls bn-lt bn frm-hd fxl com c fos tr fr intrfos poro com sft clkx NSOC
 5420-5430 Ls cont'd AA tr fr intrprt poro occ Dol i.p. NSOC Sh AA

HEEBNER 5420'

5430-5440 Sh gy-dk gy frm-hd sb blkx occ sb fis pro d grty occ carb Ls bn-dk bn hd blkx micxl tr fos
 5440-5450 Ls lt tn-lt bn frm-hd fxl-micxl com mot fos tr clkx Sh AA

TORONTO 5439'

5450-5460 Sh gy-lt gy frm sb blkx fn grty tr sb fis carb Ls wh-lt tn frm-hd fxl-micxl occ mic gran
 5460-5480 Ls lt tn-lt bn frm-hd blkx fxl com fn-mic gran occ clkx fos

LANSING 5464'

5480-5500 Ls lt tn-wh frm-sft fxl occ fn gran fos abdt clkx fos tr pr-fr intrprt poro NSOC
 5500-5520 Ls tn-lt bn frm-hd blkx fxl-micxl occ sft clkx tr Chrty
 5520-5530 Ls wh-lt tn sft-frm plty-blkx fxl abdt sft clkx fos tr fr intrprt poro & rr intra fos poro NSOC
 5530-5540 Ls lt bn-lt tn frm-hd blkx fxl-micxl tr pyr tr fos tr mic gran Dol i.p. com sft clkx abdt Cht n-pr vis poro NSOC
 5540-5560 Ls tn-bn frm-hd blkx fxl-micxl com dns occ fos Sh blk-dk gy frm-hd plty-blkx sb fis com carb
 5560-5570 No Sample
 5570-5580 Ls wh-lt bn frm-hd blkx fxl-micxl occ cxl fos Sh dk gy-blk frm plty sb fis com carb
 5580-5600 Ls bn-lt bn frm-hd fxl com ool occ /fr-gd oom poro occ clk filled occ gd intrfos poro NSOC
 5600-5630 Ls tn-bn frm-hd blkx micxl-fxl occ fos tr oom poro AA NSOC Sh cont'd
 5630-5640 Sh gy-dk gy frm blkx sb blkx occ sb fis occ carb Ls bn-lt bn frm-hd blkx fxl-micxl occ ool tr fr oom poro NSOC
 5640-5650 Ls bn-lt bn frm-hd blkx fxl occ fn suc Dol i.p. pr vis poro NSOC
 5650-5670 Ls bn-lt bn frm-hd blkx fxl com gran tr pr intrprt poro NSOC
 5670-5680 Ls wh-lt bn frm-hd fxl com ool tr clk filled oom poro tr lse m gr ool NSOC
 5680-5690 Ls bn-lt bn frm-hd blkx fxl-micxl com fos tr Dol i.p.
 5690-5710 Dol bn-lt bn frm-hd fn-mic suc n-pr vis poro Sh dk gy-blk frm plty blkx sb fis com carb Ls AA
 5710-5730 Ls tn-bn frm-hd fxl-micxl pred dns tr fos
 5730-5750 Ls lt tn-lt bn frm-hd blkx fxl com ool tr clkx /pr oom poro NSOC Sh gy-dk gy frm plty-blkx sb fis com grty carb
 5750-5780 Ls bn-dk bn frm-hd blkx fxl-micxl occ fos occ mic gran Dol i.p. Sh blk-dk gy
 5780-5800 Ls bn-lt bn frm fxl pred vooll pred /clk rings occ clkx poro n-pr vis poro NSOC
 5800-5820 Ls bn-lt bn frm micxl-fxl pred dns occ ool clkx
 5820-5830 Ls wh-lt bn sft-frm fxl com vooll /sft clkx mtx n-pr vis poro NSOC
 5830-5850 Ls gy-lt gy frm-fri fxl-micxl com vslty-sdy NSOC Sh gy-dk gy frm plty-sb blkx

MARMATON 5832'

- 5850-5860 Ls bn-lt bn frm-hd fxl com ool tr clkyl /pr oom poro NSOC Sh AA
 5860-5890 Ls lt bn-bn frm-hd fxl-micxl occ fos occ rthy-clky tr pyr
 5890-5910 Ls wh-lt tn frm-hd blkyl fxl com sft rthy-clky tr Dol i.p. tr pr intrprt poro
 5910-5930 Ls bn-lt bn frm-hd blkyl fxl com mot ool occ micxl
 5930-5940 Ls bn-dk bn hd blkyl micxl dns tr fos rr ool tr mic gran Dol i.p.
 5940-5960 Dol lt bn-tn frm-fri fn-mic suc tr pr-fr intrxl poro occ /bri yel gn flor wk strmg
 ct NSO Sh blk-dk gy frm sb blkyl com fn grty occ fis carb
 5960-5980 Ls bn-dk bn-dk gy hd blkyl micxl dns occ gran arg Sh blk-dk gy frm plty-blky
 occ splnt sb fis com carb

CHEROKEE 5966'

- 5980-5990 Sh blk-dk gy frm blkyl occ fn grty pred carb
 5990-6010 Ls lt bn-tn frm-hd plty-blky fxl com gran mot arg tr Dol i.p. Sh AA
 6010-6020 Sh blk-dk gy frm plty blkyl occ splnt sb fis fn grty pred carb
 6020-6040 Ls lt tn-bn frm-hd fxl occ fos occ mic gran Dol i.p. Sh blk-dk gy frm plty-sb blkyl
 sb fis carb
 6040-6060 Ls lt bn-gy frm-hd fxl-micxl occ fos tr lse fos frag Sh AA
 6060-6070 Ls tn-lt bn frm-hd fxl-micxl occ fos tr pr intrfos poro NSOC Sh blk-dk gy frm
 plty splnt grty occ fis carb
 6070-6080 Ls bn-lt gy frm-sft fxl com fn-mic gran rthy-clky tr pr intrprt poro NSOC
 6080-6100 Ls bn-lt bn frm-hd blkyl fxl-micxl com dns occ mot gran fos Sh cont'd
 6100-6130 Ls bn-lt bn frm-hd blkyl fxl-micxl occ c fos occ dns Sh gy-lt gy frm sb blkyl com
 fn grty occ blk carb
 6130-6150 Ls bn-lt bn cont'd Sh AA
 6150-6170 Ls bn-lt bn frm-hd fxl pred mot c fos Sh gy-lt gy frm sb blkyl fn grty occ blk carb
 6170-6190 Ls bn-lt bn frm-hd blkyl fxl-micxl com fos tr rthy-clky
 6190-6200 Sh gy-dk gy frm plty sb blkyl fn grty com fis-sb fis carb Ls cont'd AA

ATOKA 6181'

- 6200-6220 Ls dk bn-dk gy hd blkyl micxl pred dns tr gran arg Sh cont'd
 6220-6240 Ls bn-dk gy AA occ lt bn fxl-micxl Dol i.p. occ arg Sh gy-dk gy frm blkyl-plty
 sb fis occ carb
 6240-6250 Ls bn-dk bn hd blkyl micxl occ c fos pred dns tr Dol i.p. NSOC
 6250-6260 Ls bn-lt bn frm-hd blkyl fxl-micxl occ fos occ fn gran rthy Sh blk frm plty sb fis-
 fis pred carb
 6260-6300 Ls dk bn-dk gy hd blkyl micxl dns occ lt bn fos tr gran arg Sh dk gy-blk frm plty
 sb fis-fis occ splnt com carb tr pyr Cht blk-dk bn shp opq
 6300-6320 Ls bn-dk bn hd blkyl micxl dns Sh dk gy-blk cont'd AA
 6320-6340 Ls bn-dk bn frm-hd fxl-micxl pred dns occ mot fos Sh blk-dk gy frm plty sb fis-
 fis pred carb tr pyr rr lt gn vgtid
 6340-6360 Ls bn-dk bn frm-hd blkyl micxl-fxl com fn gran occ dk gy micxl dns tr arg
 6360-6380 Ls dk bn-bn hd blkyl micxl occ gran arg tr fos Sh blk-dk gy frm plty splnt sb fis-
 fis com carb
 6380-6400 Ls gy-dk gy-bn hd blkyl micxl occ rthy mot fos Sh blk frm plty-blky splnt sb fis
 com carb

6400-6420 Ls gy-lt gy-bn frm-hd blkyl fxl-micxl occ mot fos occ mic gran arg Sh blk-dk gy frm blkyl-pty occ splnt sb fis-fis com carb

Lagged Sample Depths

MORROW SHALE 6407'

6402-6416 Sh dk gy-blk frm pty splnt sb fis occ lt gy grty tr lt gn splnt vgtl Ls AA
6416-6423 Sh dk gy-blk frm pty splnt com fis carb tr lt gn sb wxy vgtl Ls tn-lt bn frm-hd blkyl fxl-micxl rr fos
6423-6432 Sh dk gy-blk frm pty splnt sb fis-fis occ fn grty tr lt gn vgtl sb wxy
6432-6435 Sh cont'd AA occ pyr tr vit vcarb
6435-6438 Ls bn-lt bn tr lt gy frm-hd blkyl fxl-micxl tr gran fos Sh cont'd
6438-6443 Ls bn-lt bn AA occ lt gy vgran arg occ fos tr carb incl Sh dk gy-blk frm pty splnt pred fis carb tr Coal
6443-6448 Sh lt gn-lt bn frm-sft splnt sb wxy com fis sb wxy vgtl com blk vcarb tr lse Coal
6448-6451 Sh cont'd AA com vgrty slty occ pyr
6451-6463 Sh lt gn-lt gy occ bn sft-frm splnt sb fis-fis com fn grty tr blk carb
6463-6466 Sh blk-dk gy frm pty splnt sb fis-fis occ fn grty pred carb
6466-6469 Sh blk-dk gy cont'd AA occ /pyr strg tr lse pyr in sample Ls bn-dk bn hd micxl dns
6469-6473 Sh blk-dk gy splnt fis carb tr pyr tr lt gn-gy sb wxy vgtl
6473-6484 Sh lt gn-lt gy frm sb wxy splnt occ vgtl tr grty-slty abdt blk carb
6484-6494 Sh lt gn-lt gy sft-frm splnt pty-sb wxy occ fn grty /carb incl occ vgtl abdt blk fis carb

V5 Sandstone 6496'

6494-6500 Sh cont'd AA Ss tr only wh-clr frm fn-vfn gr sb rnd-sb ang mod w-pr srtl w con mlti gr clust pred sil /occ calc mtx tr glau n-pr vis poro NSFOC
6500-6502 Sh lt gy-gy gn frm-sft pty splnt com blk fis carb
6502-6508 Sh lt gn-gy frm splnt pty sb fis occ sb wxy vgtl
6508-6515 Sh cont'd AA tr bn vthn splnt abdt blk carb
6515-6522 Sh blk-dk gy frm pty splnt sb fis-fis pred carb abdt gn sb wxy vgtl
6522-6528 Sh cont'd AA
6528-6534 Sh lt gy-gn frm sb wxy splnt pty occ vgtl occ blk carb
6534-6537 Sh gn-lt gn tr yel-bn-mar sft splnt pty sb wxy sb fis occ vgtl
6537-6541 Sh blk-dk gy frm splnt sb fis-fis com carb com lt gn AA
6541-6551 Sh lt gn-lt gy frm-sft splnt com fn grty tr slty tr sb wxy vgtl
6551-6556 Sh cont'd AA occ vcol bn-mar-lav vgtl sb wxy rr slty-sdy com blk carb
6556-6560 Sh vcol AA pred wxy-sb wxy
6560-6565 Sh lt gn-gy sft-frm sb wxy splnt sb wxy com vgtl tr blk carb incl com blk fis carb Ss tr only gy-drty gy frm-hd fn gr-slty pr srtl w con mlti gr clust com glau com /fn blk Sh strg NSFOC
6565-6569 Sh lt gn-gy sb wxy cont'd AA tr thn blk carb strg
6569-6573 Sh dk gy-blk frm pty splnt sb fis-fis carb com lt gn sb wxy vgtl rr slty sdy
6573-6586 Sh dk gy-blk cont'd tr vfn gr uncon ang sd gr abdt lt gn sb wxy
6586-6592 Sh gn-lt gy frm-sft splnt pty sb fis sb wxy tr vgtl rr slty com blk fis carb
6592-6596 Sh gn-gy cont'd tr yel-bn wxy vgtl

V11 Sandstone 6597'

- 6596-6603 Sh cont'd AA SS tr only wh-clr uncon sb ang-sb rnd m-l.c gr qtz gr rr 5 gr clust sil NSFOC
- 6603-6605 Sh blk-dk gy frm plty splnt sb fis-fis pred carb com vcol sb wxy vgt'd
Ss tr only AA
- 6605-6607 Sh blk-dk gy frm plty splnt sb fis-fis pred carb tr lse c gr ang qtz gr
- 6607-6612 Sh gy gn-gy-bn sft-frm sb wxy splnt sb fis-fis occ vgt'd Ss tr only wh-clr u.pr m-l.c gr sb ang-ang qtz gr NSFOC
- 6612-6620 Sh vcol gn-bn-gy-mar frm plty splnt sb fis-fis occ sb wxy tr vgt'd Ss tr lse sd gr
- 6620-6626 Sh cont'd vcol AA Ss AA

Lower Morrow Limestone 6626'

- 6626-6628 Sh AA Ls bn-lt bn frm plty fxl occ rthy tr fos
- 6628-6634 Ls bn-lt bn frm-hd blkly fxl-micxl com rthy fos Sh vcol sb wxy AA abdt blk fis carb
- 6634-6645 Ls tn-bn frm-hd blkly fxl-micxl occ fos occ rthy tr sdy ool
- 6645-6654 Ls cont'd AA tr vfn sdy Sh lt gn-gy frm plty-blky fn grty occ sb wxy vgt'd
- 6654-6661 Ls lt bn-bn frm-hd fxl com rthy tr fos rr vfn sdy Sh cont'd
- 6661-6668 No Sample
- 6668-6677 Ls bn-lt bn frm-hd blkly fxl-micxl com rthy fos tr c frag
- 6677-6686 Ls tn-lt bn frm-hd fxl-micxl com rthy tr fos tr glau
- 6686-6710 Ls bn-lt bn frm fxl com c frag tr c gr qtz incl tr lse c gr sb ang qtz n vis poro NSOC
- 6710-6718 Ls tn-lt bn frm rthy AA occ vsdy glau occ lse c gr qtz gr n vis poro NSFOC
- 6718-6726 Ls tn-lt bn frm-hd blkly fxl-micxl com dns com rthy sft fos occ sdy glau

SPERGEN 6725'?

- 6726-6737 Ls bn-lt bn cont'd AA Dol tr only tn-lt bn frm-hd blkly fxl occ mic suc mot fos
- 6737-6741 Dol tr AA Ls bn-dk bn frm-hd blkly micxl dns
- 6750 Dol bn-dk bn hd blkly fn-mic suc com mot /dk gy fos incl pr-vis poro NSOC
Ls bn-lt bn frm fxl com rthy sdy tr fos