



BIT RECORD

H. W. ADDINGTON & ASSOC.
ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W
Baca County, Colo.

Elevation: 5122' K.B.

Run No.	Size	Make	Type	Jet Size			Serial	Depth out	Feet	Hours
				1	2	3				
1	14 3/4	HTC			open		Rerun	99	62	2
2	9 7/8	"	OSC1-G		open		JB678	922	823	20
3	9 7/8	"	OWV		open		Retip	1416	494	12 3/4
4	9 7/8	"	OWV		open		Retip	1568	152	15 1/2
5	8 3/4	"	OWV		open		Retip	1725	157	19 1/4
6	8 3/4	"	OWVJ		open		Retip	1948	223	12 1/2
7	6 1/8	"	OWVJ		open		EW643	2185	237	13 1/4
8	6 1/8	"	OWVJ		open		EZ536	2472	287	14 1/4
9	6 1/8	"	J-33		open		FDol6 Rerun	2747	275	17 3/4
10	6 1/8	"	J-33	10/32	18/32	18/32	BJ937			

2700-2720	3-2-2-3-4-2-1-2-2-3	3-1-3-3-3-5-5-7-6-6
2720-2740	6-6-9-8-11-11-8-6-6-8	17-12-19-18-20-14-7-5-7-14
2740-2760	20-20-23-20-24-17-16-9-12	10-8-5-7-14-14-11-16-7-12
2760-2780	13-15-13-13-12-11-12-11-11-12	11-12-15-15-15-10-8-10-10-9
2780-2800	9-6-6-5-5-5-5-9-9-8	9-6-7-6-10-10-15-15-16-12
2800-2820	12-11-12-14-9-9-12-10-11-12	12-9-12-14-14-11-10-7-8-8
2820-2840	12-12-16-16-10-6-7-8-12-13	14-9-12-9-9-8-10-10-11-11
2840-2860	12-12-13-12-15-13-10-15-17-20	8-15-13-15-14-19-9-11-16-13
2860-2880	15-14-16-15-18-12-16-18-14-10	14-7-6-5-7-6-7-10-15-8
2880-2900	14-14-12-13-13-19-20-11-12-8	9-10-8-10-7-8-8-9-11-10
2900-2910	10-10-9-9-7-10-11-14-10-10	
2910	Total depth - Driller.	

Change over to
mud @ 2714'.

Trip @ 2747'.
Bit #10.

1800-1820	4-3-3-3-2-3-3-3-3-3	3-2-3-2-3-4-5-6-6-5
1820-1840	2-3-3-3-2-3-2-2-3-3	2-3-2-3-3-2-3-3-2-2
1840-1860	3-4-4-2-2-3-3-3-2-2	3-4-4-3-3-3-6-5-4-3
1860-1880	4-3-3-2-2-2-3-2-3-2	2-3-3-3-2-2-4-4-3-3
1880-1900	3-3-3-4-4-3-4-4-2-3	3-4-2-3-3-3-3-3-3-2
1900-1920	3-4-4-4-5-5-5-5-3-4	3-3-4-10-6-4-3-4-2-4
1920-1940	5-3-4-3-2-4-3-3-2-1	2-3-6-4-4-4-2-2-2-1
1940-1960	2-2-4-5-6-6-3-3-2-2	2-2-2-2-2-3-2-2-4-3
1960-1980	3-4-2-2-3-2-3-3-4-4	2-2-5-7-4-4-4-6-5-5
1980-2000	5-5-7-3-3-2-5-5-5-3	5-2-3-3-2-1-1-5-5-5
2000-2020	4-3-2-2-3-4-3-1-1-2	3-2-4-3-2-3-2-2-2-2
2020-2040	5-2-2-3-1-2-2-2-3-3	3-3-1-2-2-2-2-2-2-2
2040-2060	2-2-2-4-2-1-1-1-1-1	4-2-3-2-1-2-1-2-2-1
2060-2080	2-1-2-1-3-4-5-2-2-x	x-3-3-6-x-x-4-5-5-6
2080-2100	2-2-2-3-3-3-4-7-4-4	3-6-5-6-4-8-2-1-9-2
2100-2120	3-4-15-5-7-6-7-8-7-5	7-3-6-2-2-3-3-4-3-3
2120-2140	2-2-7-6-5-4-4-4-5-5	8-5-3-9-15-7-3-2-2-1
2140-2160	3-3-3-3-4-4-5-3-4-4	4-4-4-4-3-4-4-2-3-3
2160-2180	4-4-3-3-2-3-2-4-2-3	4-5-2-1-2-2-2-2-2-3
2180-2200	3-4-3-5-6-2-3-2-3-2	2-2-2-2-3-3-3-3-3-3
2200-2220	2-2-3-2-2-1-2-1-2-1	2-2-2-2-2-2-2-1-1-2
2220-2240	2-1-1-1-1-3-2-3-4-2	3-5-4-3-3-2-1-1-1-1
2240-2260	2-1-2-4-3-4-3-3-2-2	1-2-2-3-2-2-1-1-2-3
2260-2280	3-1-2-3-3-1-1-2-2-2	2-1-1-4-2-2-1-1-2-2
2280-2300	2-2-3-3-3-2-1-1-3-3	3-2-4-3-2-3-3-3-3-3
2300-2320	4-2-3-3-3-4-4-3-4-4	5-5-4-2-3-3-3-3-4-3
2320-2340	3-3-3-3-5-5-5-4-3-2	2-2-4-4-4-4-3-2-4-4
2340-2360	4-4-3-4-3-3-2-2-2-2	3-3-5-3-3-4-2-4-2-2
2360-2380	3-2-2-3-3-3-2-3-3-2	3-2-2-2-3-3-1-3-4-4
2380-2400	4-4-4-3-3-4-4-4-3-3	3-2-2-3-2-2-3-4-4-4
2400-2420	4-3-4-4-4-2-1-2-2-2	1-1-2-1-1-1-2-4-4-4
2420-2440	5-5-5-4-4-7-8-6-5-5	4-5-5-3-4-4-4-2-2-2
2440-2460	3-1-2-3-4-2-2-3-3-3	3-3-5-4-5-4-2-2-2-3
2460-2480	2-1-2-2-2-2-2-4-2-4	8-13-3-2-2-2-2-3-2
2480-2500	3-2-1-1-2-3-2-2-4-3	4-3-3-3-4-4-2-2-4-4
2500-2520	3-3-4-5-4-6-4-5-4-3	2-2-2-3-3-3-2-2-4-4
2520-2540	7-2-5-5-3-5-2-3-4-4	2-4-4-4-4-4-1-3-6-4
2540-2560	2-4-3-2-2-1-1-2-2-3	3-1-3-3-3-9-3-4-3-3
2560-2580	3-6-3-3-5-6-6-5-5-5	4-4-3-7-4-2-2-1-1-1
2580-2600	1/2-1/2-1/2-1/2-1/2-1/2-1-1-1-2	2-1-2-4-2-2-1-1-1-1
2600-2620	2-1-1-3-2-1-1-1-2-2	3-2-2-3-2-2-2-5-2-3
2620-2640	3-3-4-7-3-2-2-2-4-2	2-1-1-2-2-2-2-2-1-3
2640-2660	2-2-1-1-1-2-1-2-1-2	2-1-1-1-2-1-2-3-2-1
2660-2680	3-1-1-1-1-1-2-1-1-1	1-1-1-1-1-1-1-2-2-2
2680-2700	2-1-1-1-1-1-1-1-1-1	2-1-1-1-1-2-2-1-2-2

Trip @ 1948'.
 Ran 7" csg.
 Switch to air.
 Bit #7.

x = No time.
 Working on
 Geol. micro-
 switch.
 ___ Hard foot.
 Brake not work.

Trip @ 2185'.
 Bit #8.

Trip @ 2472'.
 Bit #9. J-33.

DRILLING TIME LOG

H. W. ADDINGTON & ASSOC.
ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W
Baca County, Colo.

Elevation: 5122' K.B.

5' drilling time from 110'.

110- 200	7-13-8-7-7-8-6-4	4-5-6-6-10-10-5-5-5-2
200- 300	3-3-5-7-2-2-3-1-3-2	2-3-3-3-3-3-2-4-3-4
300- 400	2-3-3-3-4-3-3-3-5-4	2-3-4-2-4-7-3-2-
400- 500	3-5-7-3-5-5-12-5-5-8	7-10-6-7-7-5-8-7-7-5
500- 600	2-3-4-5-5-7-6-6-5-6	9-5-3-12-8-6-8-5-5-8
600- 700	7-8-7-12-6-5-8-15-10-13	7-9-9-7-10-13-7-5-5-5
700- 800	7-11-7-7-6-7-8-9-6-3	6-5-9-5-7-8-6-7-9-10
800- 900	9-6-10-10-12-13-13-8-7-10	7-8-22-15-30-14-7-9-15-15
900-1000	12-10-15-13-10-6-9-4-4-2	5-4-5-5-5-3-6-5-4-5

Trip @ 922'.
Bit #3.

1000-1100	5-5-4-6-6-5-7-5-5-3	2-2-7-3-4-4-4-2-3-4
1100-1200	5-4-5-4-5-4-6-6-5-5	5-7-4-4-4-4-6-6-8-7
1200-1300	6-9-6-6-13-9-10-9-12-8	10-9-10-9-9-11-10-10-7-7
1300-1400	6-7-7-12-4-3-4-6-7-5	5-7-5-6-6-7-8-10-3-8
1400-1415	3-9-7	

1' drilling time.

1415-1420		5-3-3-3-3
1420-1440	2-2-2-3-4-3-3-2-3-2	2-2-2-2-2-2-2-3-3-3
1440-1460	4-4-4-3-2-3-2-3-2-3	2-2-2-2-2-3-3-3-2-3
1460-1480	3-3-4-2-2-4-4-4-3-3	4-5-5-2-3-6-6-3-4-6
1480-1500	6-4-5-6-7-6-7-7-7-6	7-5-10-7-9-8-9-7-9-9

Trip @ 1416'.
Bit #4. Change
to mud.

1500-1520	10-9-9-10-8-8-8-8-9-9	9-8-9-9-9-7-6-9-10-9
1520-1540	8-8-6-8-9-8-8-9-9-7	9-8-8-10-9-8-8-8-9-9
1540-1560	7-7-6-7-7-6-7-7-8-7	9-7-9-8-6-8-10-11-9-9
1560-1580	8-7-9-11-9-8-9-10-5-4	7-4-6-11-9-6-9-9-6-8
1580-1600	8-8-7-7-7-7-9-8-7-8	7-8-6-7-7-8-5-6-9-10

Trip @ 1568'.
Bit #5.

1600-1620	6-8-7-8-7-6-8-6-7-7	10-9-11-10-11-2-3-3-3-4
1620-1640	4-4-7-5-7-10-7-6-6-10	10-9-9-6-9-9-11-11-11-9
1640-1660	11-9-12-12-10-9-5-5-5-7	4-4-5-7-5-5-5-6-5-8
1660-1680	11-7-6-5-5-6-5-6-8-8	7-8-9-12-11-8-8-4-6-5
1680-1700	4-5-4-6-5-5-6-6-6-5	7-5-6-7-5-5-5-5-5-5

1700-1720	4-4-4-4-6-5-4-4-8-7	8-7-8-8-8-5-7-9-12-14
1720-1740	11-15-12-16-13-5-5-3-3-2	3-2-3-2-4-7-5-3-2-2
1740-1760	2-2-4-3-2-2-2-3-3-3	3-3-3-3-3-3-4-5-4-4
1760-1780	4-2-1-4-4-3-2-3-3-4	3-3-3-3-2-3-3-3-3-3
1780-1800	3-4-3-3-4-3-3-2-2-2	2-2-3-3-5-5-5-5-5-3

Trip @ 1725'.
Bit #6.

crystalline to finely crystalline toward bottom; Chert, white, gray-white, buff, opaque, rough and smooth, some weathered; with abundant fossil fragments and microfossils (20%-25% Chert).

2910 Total depth - Driller
2906 Total depth - Schlumberger

(Note: The test stopped above the so-called Osage Shale Marker.)

Samples described:

Joseph R. Clair
JOSEPH R. CLAIR
(on well)

- 2748-2750 Shale, highly varicolored, considerable mottled, talcy, splintery, slightly glauconitic.
- 2750 Top - MISSISSIPPIAN (ST. LOUIS) (+2372) ?
- 2750-2768 Dolomite, buff, pink, tan, pale purple, pink-red, very finely crystalline to crystalline and some coarsely crystalline, very tight to slight microvug and some intercrystalline porosity; traces of Chert, white, gray, opaque and semiopaque and trace quartzose.
- 2768-2793 Dolomite, buff, tan, brown, little pale purple, pink, red, crystalline to some coarsely crystalline, in part rhombic, very tight to considerable intercrystalline and trace microvug porosity, little argillaceous and silty; traces of Chert, white, gray, opaque and semiopaque.
- 2793-2813 Dolomite, buff, pale purple, pink, tan, little varicolored, crystalline to some coarsely crystalline, tight to considerable intercrystalline and little microvug porosity.
- 2813-2815 Dolomite, gray, very very finely crystalline, dense, very shaly to trace dark gray, hard, dolomitic Shale.
- 2815-2822 Dolomite, buff and varicolored, crystalline to considerable coarsely crystalline, very tight to considerable intercrystalline and microvug porosity; some argillaceous.
- 2822-2824 Dolomite, gray, dark gray, very very finely crystalline, dense, very shaly to hard, dolomitic Shale.
- 2824 Top - SPERGEN-WARSAW (+2298) ?
- 2824-2830 Dolomite, buff and some varicolored, slightly crystalline to quite crystalline, very tight, little argillaceous; traces of Chert, gray-white, pale purple-gray, opaque, slightly weathered, fossiliferous.
- 2830-2854 Dolomite, buff, pale purple-gray, purple-red, finely crystalline to slightly crystalline, very tight; trace Chert, white, buff, opaque, slightly fossiliferous.
- 2854-2880 Dolomite, pale purple, purple-gray, little gray, finely crystalline to slightly crystalline, very tight, trace glauconite; Chert, white, opaque, rough, weathered, and white, gray-white, trace gray, opaque and semiopaque, fossiliferous and microfossiliferous (trace to 1% Chert).
- 2880 Top - OSAGE (+2242) ?
- 2880-2890 Dolomite, purple, pale purple-red, purple-gray, gray, very finely crystalline to quite crystalline, most very tight; Chert, white, buff, some slightly varicolored with inclusions, opaque, most weathered, rough, some fossiliferous; traces of glauconite in Dolomite and Chert (5% Chert).
- 2890-2910 Dolomite, pale purple, purple-buff, purple-red, buff, purple-gray, very finely crystalline, slightly granular to quite crystalline, tight, with some dark purple-red, argillaceous inclusions; becomes mostly very finely

- 2580-2588 Quartz Wash, trace Arkose, gray-white, coarse to very very coarse, angular to subrounded, most loose grains.
- 2588-2594 Shale, purple, purple-red, pale purple, trace green, talcy, slick, hard.
- 2594-2616 Quartz Wash and Arkose grains, coarse to very very coarse, loose; with Shale, as above; and varicolored, slightly crystalline, dense, nodular Dolomite.
- 2616-2621 Dolomite, varicolored, slightly crystalline, nodular, dense, slightly glauconitic, slightly argillaceous.
- 2621-2623 Shale, purple, purple-red, pale purple, trace pale green, talcy, slick, hard.
- 2623-2636 Shale, as above; with interbedded Dolomite, pale purple, buff, gray, tan, finely crystalline to very crystalline, dense, considerable nodular; trace glauconite and some scattered Quartz Wash grains.
- 2636-2647 Shale, purple, purple-red, green, pale green, pale gray, talcy, slick, fairly hard.
- 2647-2657 Dolomite, buff, brown, gray, pale purple, pink, finely crystalline to quite crystalline, dense, some nodular, slightly glauconitic; with imbedded Quartz Wash grains (very conglomeratic in appearance); little interbedded Shale, as above.
- 2657-2687 Shale, purple, pale purple, purple-red, purple-gray, green, pale green, talcy, some glauconitic; with some varicolored, nodular, finely crystalline to slightly crystalline, dense Dolomite; scattered Quartz Wash and Arkose grains, varicolored, medium to very coarse, loose, traces glauconitic (apparently imbedded).
- 2682-2708 Quartz Wash Sandstone, gray-white with some varicolored grains, medium to very coarse, angular to some subrounded, most loose to little tight, slightly glauconitic; with some Shale stringers, as above.
- 2708-2727 Quartz Wash Sandstone, gray-white and some varicolored, fine to very very coarse, poorly sorted, angular to subangular and some subrounded, tight to most loose, slightly glauconitic; some aggregates have white gypsum and some shaly, Clay cement.
- 2727-2730 Shale, purple, purple-red, purple-gray, talcy; trace with imbedded Quartz grains.
- 2730-2738 Quartz Wash Sandstone, gray and varicolored, fine to very very coarse, very tight to most loose, some dirty; with little, white, siliceous Clay and soft, white, intergranular Gypsum.
- 2738-2748 Dolomite, yellow-gray, pink, pink-red, red, pale purple, finely crystalline to slightly crystalline, dense, some argillaceous; with trace white, opaque, weathered, and gray-white, quartzose Chert; with scattered Quartz Wash, gray and varicolored, coarse to very very coarse, angular to subrounded, tight to most loose grains; some imbedded in Dolomite.

- 2427-2454 Siltstone to very fine Sandstone, red, dark red, orange-red, micromicaceous, very tight, dolomitic, some argillaceous.
- 2454-2461 Shale, red, dark red, chocolate, dark brown, hard; with some Dolomite, red, dark red, little varicolored, very finely crystalline, dense, nodular, some silty and argillaceous.
- 2461 Top - LOWER MADERA ARKOSE (+2655)
- 2461-2476 Arkose, pink, salmon, gray-white, medium to coarse and very coarse, angular to subangular and slightly subrounded, very tightly cemented; with dolomitic nodules.
- 2476-2480 Dolomite, highly varicolored, very finely crystalline to slightly crystalline, dense; considerable nodular.
- 2480-2484 Arkose and Quartz Wash, angular to subrounded, coarse to very coarse, varicolored, loose grains.
- 2484-2486 Shale, red, dark red, chocolate, hard.
- 2486-2492 Arkose and Quartz Wash, as above.
- 2492-2509 Dolomite, highly varicolored, very finely crystalline to crystalline, dense, considerable nodular; looks conglomeratic.
- 2509-2519 Arkose, Quartz Wash and Feldspar grains, all loose, coarse to very coarse.
- 2519-2522 Shale, dark purple-red, dark red, hard.
- 2522-2536 Arkose, Quartz Wash, trace Granite Wash, varicolored, medium to very coarse, subangular to subrounded, tight to loose grains; traces of dolomitic cement; some slightly weathered.
- 2536-2538 Shale, red, dark red, hard.
- 2538-2550 Arkose and Quartz Wash, as above; with some dark red, red and varicolored, very finely crystalline to slightly crystalline, dense, nodular Dolomite.
- 2550-2554 Sandstone, gray-white, pale purple, red, very fine, angular, tight, dolomitic.
- 2554-2568 Arkose and little Quartz Wash, varicolored, medium to very coarse, subangular to subrounded, tight to loose grains; with interbedded Shale, red, dark red, trace brown-red, hard 2554-60.
- 2568-2574 Dolomite, varicolored, very finely crystalline to slightly crystalline, dense, nodular in part, some silty and argillaceous; with interbedded Arkose, varicolored, medium to very coarse, tight, some weathered; and traces of gray-white, opaque Chert and loose Quartz grains (entire section looks conglomeratic).
- 2574 Top - MORROW (+2548)
- 2574-2580 Shale, pale purple, purple-red, purple, hard, talcy.

- 2202-2204 Shale, dark red, chocolate, hard.
- 2204-2210 Dolomite, pink-red, dark red, pale purple, very finely crystalline to little crystalline, dense; some silty and slightly argillaceous; some nodular.
- 2210-2219 Siltstone, dark red, brown-red, micromicaceous, very tight, slightly dolomitic; with interbedded Shale, dark red, hard.
- 2219-2235 Siltstone to very, very fine Sandstone, dark red, red, micromicaceous, slightly dolomitic.
- 2235-2238 Shale, dark red, very hard; with traces of pink-red and red, very finely crystalline, dense, dolomitic (probably nodules).
- 2238-2254 Siltstone to very fine Sandstone, dark red, red-buff, micromicaceous, tight, slightly dolomitic.
- 2254-2256 Shale, dark red, hard.
- 2256-2273 Siltstone to very fine Sandstone, red, buff, dark red, traces of light gray, gray-white.
- 2273-2275 Shale, red, dark red, hard; with traces of Dolomite, red, red-gray, red-tan, finely crystalline, dense (probably nodules).
- 2275-2313 Siltstone to very fine Sandstone, as above; with little interbedded Dolomite, varicolored, very finely crystalline, dense, nodular, some slightly silty and slightly argillaceous.
- 2313-2326 Shale, red, dark red, hard; with interbedded Siltstone to very fine Sandstone, orange-brown, pale purple-red, micromicaceous, tight; with little nodular Dolomite, as above.
- 2326-2336 Siltstone to very fine Sandstone, as above.
- 2336-2338 Shale, red, dark red, hard; with trace Dolomite, as above.
- 2338-2359 Siltstone to very fine Sandstone, dark red, orange-brown-red, orange-brown, red, micromicaceous, very tight, some shaly.
- 2359-2370 Shale, red, dark red, very hard; with some interbedded Siltstone to Sandstone, as above; and traces of varicolored, nodular Dolomite.
- 2370-2407 Siltstone to very fine Sandstone, dark orange-red, orange-brown-red, dark red, micromicaceous, tight, slightly dolomitic, some argillaceous; with little Dolomite, dark red and red, pale purple, very finely crystalline to finely crystalline, dense, some silty, partly as nodules and thin lentils.
- 2407-2412 Shale, dark red, red, purple-red, very hard.
- 2412-2417 Siltstone to Sandstone, as above.
- 2417-2422 Shale, as above.
- 2422-2427 Dolomite, dark red, red, pink-red, pale purple, very finely crystalline, dense, some nodular, some silty and slightly argillaceous.

- 1957 Top - STONE CORRAL (+3165)
- 1957-1971 Dolomite, pale pink, gray-white, finely crystalline to slightly crystalline, very tight to slight vuggy porosity; little rhombic.
- 1971-1990 Siltstone to very, very fine Sandstone, orange-red, little gray-white, micromicaceous, tight; with floating, fine to coarse, angular to subangular and some subrounded grains.
- 1990-1993 Shale, dark red, hard.
- 1993-2050 Siltstone to very, very fine Sandstone, orange-red, trace gray-white, micromicaceous, tight; some slightly dolomitic; with few to considerable, fine to coarse, angular to subrounded, floating grains.
- 2050-2053 Shale, dark red, chocolate, very hard, some micromicaceous; trace Dolomite, red, dark red, orange-buff, very very finely crystalline, dense (probably nodule).
- 2053-2060 Siltstone to Sandstone, as above.
- 2060-2062 Shale, as above.
- 2062-2075 Siltstone to Sandstone, orange-red, dark red, very very fine to little fine, angular, micromicaceous, very tight, slightly dolomitic.
- 2075-2077 Shale, as above.
- 2077-2110 Siltstone to Sandstone, as above; little dark orange-red; more dolomitic.
- 2110-2113 Shale, dark red, chocolate, very hard; some micromicaceous.
- 2113-2133 Sandstone, orange, orange-red, traces of pale orange, pale purple and red, very very fine to fine, angular to subangular, tight to loose, micromicaceous, some silty; few medium, subangular to subrounded, floating grains.
- 2133-2136 Shale, dark red, chocolate, hard; trace very finely sandy.
- 2136-2150 Sandstone, dark orange, orange-red, very very fine to fine, angular to subangular; with scattered medium, subangular to subrounded, floating grains, most tight to some loose, micromicaceous, very slightly dolomitic.
- 2150-2169 Siltstone to very fine Sandstone, orange-red, dark orange, micromicaceous, very tight, very slightly dolomitic; few scattered fine floating grains.
- 2169-2179 Shale, dark red, chocolate, very hard; with interbedded Siltstone, dark orange-red, orange, micromicaceous, very tight, dolomitic, slightly argillaceous.
- 2179 Top - PENNSYLVANIAN (MADERA CARBONATES) (+2943)
- 2179-2186 Dolomite, red, pink-red, pale purple, red-gray, very finely crystalline to finely crystalline, dense; some silty and slightly argillaceous.
- 2186-2202 Siltstone to very, very fine Sandstone, red, dark red, micromicaceous, tight, dolomitic.

- 1681-1682 Shale, dark red, chocolate, red, brown-red, hard.
- 1682-1718 Sandstone, orange, dark orange, orange-buff and dark red, orange-red, brown-red, very very fine, angular, very tight, some micromicaceous, quite dirty; some silty with interbedded Shale, dark red, chocolate, red, brown-red, hard.
- 1718-1761 Sandstone, orange, orange-red, orange-buff, very fine to fine and some medium, angular to subangular, very tight; some with abundant intergranular cement; slightly dolomitic; some silty.
- 1761-1764 Shale, dark red, chocolate, brown-red, hard.
- 1764-1795 Sandstone, red, pink-red, dark red, orange-red, brown-red, very very fine to fine, angular to subangular, very tight; with abundant intergranular cement; some dolomitic; some medium, angular to subangular, floating grains; little silty.
- 1795-1810 Sandstone, dark red, orange-red, red, very very fine to fine, angular to subangular, very tight; with considerable intergranular cement; dolomitic; some silty and dirty.
- 1810-1853 Sandstone, dark red, red, dark orange-red, very fine to medium, angular to subangular and slightly subrounded; with some medium and coarse, subangular to subrounded, floating grains, very tight, dolomitic; some silty and shaly.
- 1853-1860 Shale, chocolate, dark red, red, hard; some silty and micromicaceous.
- 1860-1893 Sandstone, orange-red, red, dark red, orange, very fine to fine, angular to subangular; with considerable medium to coarse, subangular to subrounded, floating grains; some dolomitic; some quite dirty.
- 1893-1894 Shale, chocolate, dark brown-red, hard, some micromicaceous.
- 1894-1907 Siltstone to very, very fine Sandstone, brown-red, orange-brown, micromicaceous, very tight, dirty; with some interbedded Shale, as above.
- 1907-1913 Shale, chocolate, brown-red, orange-brown, hard; with interbedded Siltstone, brown-red, micromicaceous, very tight, dirty.
- 1913-1924 Sandstone, orange-red, orange, dark red, orange-buff, very fine to medium, angular to subangular and slightly subrounded, very tight; much intergranular cement; some quite dirty.
- 1924-1926 Shale, chocolate, dark brown-red, hard.
- 1926-1938 Siltstone, dark brown-red, orange-brown, chocolate, micromicaceous, very tight; some shaly laminae.
- 1938-1948 Sandstone, dark orange, orange-red, dark red, orange, very fine to fine, angular to subangular, very tight, dolomitic; some dirty and shaly.
- 1948-1950 Shale, chocolate, dark red, red, brown-red, hard.
20' samples 1948-
- 1950-1957 Siltstone to very, very fine Sandstone, orange-red, dark red, slightly micromicaceous.

- 1396-1420 Siltstone to very, very fine Sandstone, as above.
10' samples 1416-1948'.
- 1420-1421 Shale, orange-red, brown-red, hard, little gyp.
- 1421-1455 Siltstone to very fine Sandstone, dark orange, orange-red, micromicaceous, very tight, considerable dirty; little interbedded Shale, as above.
- 1455-1460 Shale, dark orange-red, dark brown-red, hard; traces are gyp.
- 1460-1478 Siltstone to very fine Sandstone, orange, orange-red, brown, red, micromicaceous, shaly to some gyp.
- 1478 Top - BLAINE (+3644)
- 1478-1506 Anhydrite, gray-white, massive, dense; with Gypsum, white, soft.
- 1506-1520 Gypsum, white, soft, and Anhydrite, gray, white and little varicolored, massive, dense; with interbedded Dolomite, gray, very very finely crystalline, very dense.
- 1520-1548 Anhydrite, white, gray-white, very finely crystalline, massive, dense; and Gypsum, white, soft and some crystalline; with interbedded Dolomite, gray, tan, brown-red, dark red, pink, very finely crystalline, very dense, little anhydritic.
- 1548-1552 Shale, red, dark red, hard.
- 1552-1580 Anhydrite, white, red, slightly crystalline to massive, dense; and Gypsum, white, soft and some crystalline; with interbedded Dolomite, dark red, tan, brown, gray-brown, very finely crystalline, dense, little anhydritic.
- 1580-1588 Siltstone to very, very fine Sandstone, dark orange, orange-red, micromicaceous, tight.
- 1588-1597 Shale, dark red, red, orange-red, hard, little gyp; with little interbedded Siltstone to Sandstone, as above.
- 1597 Top - GLORIETTA (+3525)
- 1597-1632 Sandstone, orange, orange-buff, dark orange, trace red, very fine to fine, angular to subangular, very tight; with some medium, subangular to subrounded, floating grains; much intergranular cement.
- 1632-1657 Sandstone, orange, dark orange, orange-buff, red and dark red, very fine to fine, angular to subangular, very tight; with some to abundant, medium and some coarse, subangular to subrounded and few rounded floating grains; some to abundant intergranular cement; traces of anhydrite inclusions; some dirty.
- 1657-1681 Sandstone, pale orange, orange, orange-buff, red, gray-white, very fine to fine, angular to subangular; with medium to coarse, subangular to subrounded and rounded, floating grains, very tight; with abundant intergranular dolomitic cement; some dirty.

- 1160-1187 Siltstone to Sandstone, as above; with interbedded Sandstone, pale orange-buff, pale orange, fine to coarse, subangular to subrounded; with abundant white, limey, intergranular Clay.
- 1187-1194 Shale, dark orange-brown, hard.
- 1194-1202 Sandstone, as above.
- 1202-1209 Shale, as above.
- 1209-1229 Siltstone to very fine Sandstone, dark orange, orange-red, brown-red, micromicaceous, very tight, dirty.
- 1229-1231 Shale, dark orange-brown, hard.
- 1231-1250 Sandstone, orange, fine to medium, subangular to subrounded, friable; some with white, limey Clay; some very dirty; with traces of Siltstone to Sandstone, as above (probably interbedded as lentils).
- 1250-1252 Shale, dark orange-brown, very hard, some micromicaceous.
- 1252 Top - DAY CREEK (+3870)
- 1252-1284 Dolomite, buff, pink, tan, gray, red, very finely crystalline to slightly crystalline, very tight to slight oolitic porosity.
- 1284-1290 Shale, dark brown-red, brown, hard.
- 1290-1302 Sandstone, orange, orange-buff, very fine to medium, subangular to subrounded, very friable, dirty.
- 1302-1308 Siltstone, dark orange-red, dark brown-red, micromicaceous, very tight, very shaly.
- 1308-1311 Shale, dark brown-red, brown, hard.
- 1311-1325 Siltstone, as above.
- 1325-1329 Shale, as above.
- 1329-1348 Siltstone to very, very fine Sandstone, orange-red, dark orange-red, brown-red, micromicaceous, very tight, some shaly.
- 1348-1352 Shale, dark brown-red, brown, dark orange-red, hard.
- 1352-1360 Siltstone to Sandstone, as above.
- 1360-1365 Shale, as above.
- 1365-1380 Siltstone to very, very fine Sandstone, dark orange-red, micromicaceous, dirty.
- 1380-1382 Shale, dark orange-red, brown-red, hard; trace gypsiferous.
- 1382-1396 Siltstone to very, very fine Sandstone, as above; with interbedded Shale, as above.

- 608-650 Sandstone, as above.
- 650-683 Sandstone, gray-white and some varicolored, very fine to medium and some coarse, angular to subangular and little subrounded; all loose grains.
- 683-685 Shale, dark purple-red, mottled, hard.
- 685-776 Sandstone, as above; some very coarse grains and traces of aggregates, purple-red, pink, white, very fine, angular, very tightly cemented toward bottom.
- 776-780 Shale, purple-red, mottled, very hard.
- 780-834 Sandstone, gray-white and varicolored, fine to medium and coarse, angular to subangular and subrounded; all loose grains.
- 834-853 Sandstone, gray-white, with some varicolored grains, very fine to medium, angular to subangular; most loose.
- 853-892 Sandstone, as above; but more pale orange and some pink grains; trace pyrite; few aggregates are slightly quartzitic.
- 892-922 Sandstone, as above; most fine to medium; all loose grains.
- 922 Top - TRIASSIC (SANTA ROSA) (+4200)
- 922-950 Sandstone, pale orange, gray-white, fine to medium and some coarse, angular to subangular; all loose.
- 950-982 Sandstone, gray-white, with orange and orange-red grains, very fine to medium, angular to subangular and little subrounded; all loose.
- 982-1008 Sandstone, orange-buff, gray-white, very fine to medium and little coarse, angular to subangular, very friable to loose; some subrounded grains.
- 1008-1058 Sandstone, as above; with interbedded Siltstone, purple-red, brown-red, mottled with gray-white, very hard; with traces of brown-red Shale.
- 1058-1072 Siltstone to highly siliceous Shale, varicolored, very very hard; looks metamorphic in origin.
- 1072-1106 Sandstone, gray-white, with abundant varicolored grains and scattered dark orange aggregates, very very fine to medium, angular to subangular and slightly subrounded, loose to very tightly cemented.
- 1106-1134 Sandstone, dark orange, very very fine to very fine, angular, very tight to slightly friable; with whitish intergranular Clay.
- 1134 Top - PERMIAN SYSTEM (+3988)
- 1134-1157 Siltstone to very fine Sandstone, dark orange-red, brown-red, trace chocolate, micromicaceous, very tight.
- 1157-1160 Shale, brown-red, dark orange-red, very hard.

- 370 Top - JURASSIC (MORRISON) (+4752)
- 370-374 Shale, pale green, green, pale gray, hard, talcy; some with imbedded sand grains.
- 374-381 Sandstone, white, gray-white, very fine to fine, angular, very tight; in part quartzitic; very slightly limey.
- 381-383 Shale, as above.
- 383-391 Sandstone, as above.
- 391-421 Shale, maroon, pale green, hard, talcy; with interbedded Sandstone, gray-white, fine to medium and little coarse, angular to subangular; most loose; with few very tightly cemented aggregates.
- 421-423 Shale, as above.
- 423-428 Sandstone, as above.
- 428-431 Shale, maroon, pale green, pale purple, hard, talcy.
- 431-435 Limestone, pink, pale purple, buff, maroon, very finely crystalline, dense; trace sandy.
- 435-454 Shale, maroon, pale green, pale purple, hard, talcy; some with imbedded sand grains; with interbedded Sandstone, gray-white, very fine to fine, angular to subangular, very tight, limey; with few medium floating grains.
- 454-473 Shale, maroon, pale purple, pale green, hard, talcy.
- 473 Top - ENTRADA (+4648)
- 473-494 Sandstone, gray-white with some varicolored grains, fine to medium and little coarse, angular to subangular and some subrounded; most loose grains.
- 494-501 Shale, green, maroon, hard, talcy.
- 501-521 Sandstone, as above; more varicolored grains; little pyrite.
- 521-524 Shale, as above.
- 524-564 Sandstone, gray-white and varicolored, angular to subangular and subrounded; all loose.
- 564-566 Shale, purple-red, hard.
- 566-583 Sandstone, as above; more medium to coarse, subangular to subrounded grains.
- 583-585 Shale, as above.
- 585-591 Sandstone, as above.
- 591-608 Sandstone, as above; with interbedded stringers of purple-red, hard Shale.

DETAILED SAMPLE LOG

H. W. ADDINGTON & ASSOC.
ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W
Baca County, Colo.

Elevation: 5122' K.B.

Sample study starts at 100' in Dakota. Drilling with air mist. 30' samples.

- 100-122 Sandstone, gray-white, very fine to medium and few coarse grains, angular to subangular and little subrounded; most loose grains; some limonite and siderite cement.
- 122-125 Shale, gray, dark gray, hard.
- 125-132 Sandstone, as above.
- 132-134 Shale, as above.
- 134-152 Sandstone, as above; more limonite cement.
- 152-154 Shale, gray, dark gray, hard, micromicaceous.
- 154-167 Sandstone, gray-white, very fine to fine, angular, tight to slightly friable; considerable limonitic cement; trace Chert, white, opaque.
- 167-172 Shale, as above.
- 172-185 Sandstone, as above.
- 185-187 Shale, as above.
- 187-201 Sandstone, gray-white, very fine to fine, angular, tight; some limonite and hematite cement.
- 201-215 Shale, gray, gray-black, little black, hard; some sandy; with some interbedded Sandstone, as above.
- 215-294 Sandstone, gray-white, very fine to fine, angular to subangular, some limonite stain; all loose.
- 294-322 Sandstone, as above; interbedded with gray, hard, very shaly Sandstone.
- 322-324 Shale, gray, dark gray, gray-black, hard, little sandy.
- 324-344 Sandstone, as above; some limonitic stain; most fine grained.
- 344-370 Sandstone, dark gray, gray, very fine to fine, angular to subangular, tight, shaly; with some lentils of dark gray and gray-black, very hard Shale; trace pyrite.

The Glorietta was quite well developed but was finer grained and more tightly cemented than has been usual in the area. There were no kicks on the chromatograph throughout the section and no attempt was made to test for gas. Also, due to the long 7" casing string there was no possibility for log evaluation.

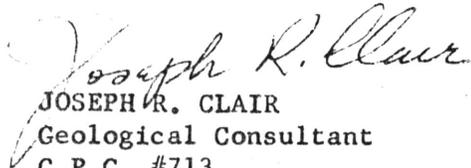
One of the prime targets for this test was possible gas in the Red Cave sandstone series below the Stone Corral, which was present in the Marathom Oil #1 Plage in Sec. 19-31S-49W to the northeast of the Eskew. Unfortunately the sand was not present in this test.

The Madera Clastic sequence was completely missing, but the Madera Carbonates were well developed and considerably thicker than observed in the previous wells in which it had been logged in the area.

The Lower Madera Arkose was thinner than normal for the area, but the underlying Morrow was somewhat thicker. The only gas kick recorded throughout the drilling of the test was at 2714' when the volume of fluid became too much to lift with air and it was necessary to switch to mud. At this point there was a 20 unit kick of CO₂ gas recorded on the chromatograph.

The top of the Pre-Pennsylvanian carbonates was found in the 2760-70' sample and top placed at 2759' by drilling time. This is corrected to 2750' by electric logs. The lithology was definitely that of the St. Louis formation of the Mississippian. This sequence was considerably thinner than normal as was the underlying Spergen-Warsaw section.

The well was carried to 2910' TD and bottomed in upper Osage series of the Mississippian. After electric logs were run no attempt was made to test the carbonate section and orders were given to plug and abandon the well. This was done according to instructions from the State Plugging Engineer and completed on May 5, 1975.


JOSEPH R. CLAIR
Geological Consultant
C.P.G. #713
R.P.E. #8726

Note: Due to a prior committment I was obliged to leave the well before it reached total depth (at 2810'). I subsequently ran the last 100 feet of samples and completed the Detailed Sample Log.

GEOLOGICAL REPORT

H. W. ADDINGTON & ASSOC.
ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W
Baca County, Colo.

Elevation: 5122' K.B.

The Eskew 3250-10-2 was spudded at 9:30 P.M., April 21, 1975. 20" hole was drilled to 39' and 16" conductor pipe was run at 37' and cemented with 20 sacks of common cement plus 5% cal seal. 14 3/4" hole was drilled to 99' and 10 3/4" new surface casing was run and hung on the conductor pipe. The casing job was completed at 8:00 A.M., April 22, 1975. The well went out from under 10 3/4" casing at 7:00 P.M., April 22, 1975, drilling with air-mist in 9 7/8" hole.

The following formation tops, corrected to Schlumberger Electrical Logs, were picked on the well.

Cretaceous System:			
Dakota	-	37	(+5082)
Jurassic System:			
Morrison	-	370	(+4752)
Entrada	-	473	(+4649)
Triassic System:			
Santa Rosa	-	922	(+4200)
Permian System	-	1134	(+3988)
Day Creek	-	1252	(+3870)
Blaine	-	1478	(+3644)
Glorietta	-	1597	(+3525)
Stone Corral	-	1957	(+3165)
Pennsylvanian System:			
Madera Carbonates	-	2179	(+2943)
Lower Madera Arkose	-	2467	(+2655)
Morrow	-	2574	(+2548)
Mississippian System:			
St. Louis	-	2750	(+2372)
Spargen-Warsaw	-	2824	(+2298)
Osage	-	2880	(+2242)
	Total depth	-	2910 Driller
		-	2906 Schlumberger

The Eskew 3250-10-2 was the tenth and last of the wildcat series drilled for The Weyerhaeuser Co. under the direction of H. W. Addington & Assoc. and the only one in Baca County.

The upper hole tops ran much as anticipated and the only real point of interest was the greater thickness of the Blaine interval. (See Detailed Sample Log, 1478-1580.)

- May 3 Drilling @ 2809' at 7:13 A.M. Due to prior committment Geologist had to leave well and return to Denver.
- May 4 Drilled to 2910' TD at 4:00 A.M. Circulated 35 minutes and came out to run logs. Ran Schlumberger Dual Induction-Laterolog and Compensated Neutron-Formation Density logs.
- May 5 Well plugged and abandoned.

WELL CHRONOLOGY

H. W. ADDINGTON & ASSOC.
ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W
Baca County, Colo.

Elevation: 5122' K.B.

1975

- Apr. 21 Spudded at 9:30 P.M. Drilled 20' surface hole to 37'. Ran 16" conductor pipe and set at 37", cemented with 20 sacks of common cement plus 5% cal seal. Drilled 14 3/4" hole to 99'. Ran 10 3/4" casing and hung same on conductor pipe.
- Apr. 22 Finished running casing at 8:00 A.M. Out from under 10 3/4" with 9 7/8" hole at 7:00 P.M. Drilling with air-mist.
- Apr. 23 Drilling @ 542' at 7:55 A.M. Geologist on well at 1:40 P.M., drilling @ 719'. Trip @ 922' at 10:15 P.M.
- Apr. 24 Drilling @ 1214' at 7:55 A.M. Trip @ 1416' at 3:55 P.M. Converted to mud.
- Apr. 25 At 1416' at 8:00 A.M. Mixing mud, trying to fill hole. Finally got hole full. Tripped back in. Broke circulation at bottom of drill collars and then every six stands. With one stand and single from bottom rotary drive clutch went out. Repaired same. Back to drilling at 11:35 P.M.
- Apr. 26 Drilling @ 1500' at 6:03 A.M. Trip @ 1568' at 4:30 P.M.
- Apr. 27 Circulating for samples @ 1650' at 8:00 A.M.
- Apr. 28 Drilling @ 1880' at 8:00 A.M. Drilled to 1948' at 10:40 A.M. Circulated two hours. Came out of hole and laid down drill collars. Ran 7" casing at 1940', cemented with 75 sacks common cement.
- Apr. 29 Picked up sixteen 4 3/4" drill collars. Going in hole to drill cement and dry up hole at 8:00 A.M. Drilled to 1950' at 11:30 A.M. Blew hole for two hours; some moisture showing, increasing after two hours. Drilled to 1955'. Blew hole for one hour, fluid increased immediately. Drilled to 1971' at 3:00 P.M. Circulating, blowing hole one and a half hours, could not decrease fluid. Decision to drill ahead with air and mist. Back to drilling at 11:28 P.M.
- Apr. 30 Drilling @ 2075' at 8:00 A.M.
- May 1 Drilling @ 2432' at 8:00 A.M.
- May 2 Washing to bottom after converting to mud at 2714' at 8:00 A.M. Back to drilling from 2714' at 9:50 A.M. Trip for bit at 2747', bit wore out. Back to drilling from 2747' at 8:19 P.M.

WELL SUMMARY

Operator: H. W. Addington & Assoc.

Well: Eskew 3250-10-2

Location: NW/NE Section 10, Township 32 South, Range 50 West,
Baca County, Colorado.

Field: Wildcat

Elevation: 5111' Ground, 5122' K.B.

Spudded: April 21, 1975 at 9:30 P.M.

Completed: Finished drilling May 4, 1975 at 4:00 A.M.
Plugged May 5, 1975.

Casing: 16" set at 37', 10 3/4" at 99', 7" at 1940' Driller (1948'
Schlumberger)

Cores: None.

Drill Stem Tests: None.

Total Depth: 2910' - Driller.
2906' - Schlumberger.

Mud Logging: Monaco Engineering, Inc. - Jim Schellhase, Logging Engineer.

Air Equipment: Ingersoll-Rand - Two 1500 CFM Compressors, mist pump and related
equipment.

Logs: Drilling Time Log - 110' to 2910'
Detailed Sample Log - 100' to 2910'

Schlumberger:
Dual Induction-Laterolog - 1948-2906'
Compensated Neutron-Formation Density Log - Due to 7" casing,
ran only Gamma Ray-Neutron from 100' to 2906' and
Neutron-Formation Density from 1948' to 2906'.

Contractor: Signal Oilfield Services, Inc. - Rig #8
Buck Taylor - Tool Pusher

Equipment: Mast: Ideco 96' telescoping derrick - 212,000# capacity
Drawworks: Ideco H-37, Drive-in with double drum
Power: One 318 GMC diesel motor - 250 HP through Allison
torque converter.
Pump: Gardner-Denver FXF - 14" x 5 1/2"
Power: Two 671 GMC diesel engines
Drill Collars: 18 - 5 3/4" x 2 1/4" - 566'
16 - 4 3/4" x 2 1/4" - 471'
Drill Pipe: 3 1/2" IF with 4 1/2" OD Collars

Status: Plugged and abandoned May 5, 1975.

H. W. ADDINGTON & ASSOC.

ESKEW 3250-10-2

NW/NE Sec. 10-32S-50W

Baca County, Colo.

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