

SUBMIT IN DUPLICATE*

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

SF 072707

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Gr. 55

9. WELL NO.

10

10. FIELD AND POOL, OR WILDCAT

EASIN OF

11. SEC., T., R., M., OR BLOCK AND SURVEY
OR AREA

SEC 7 31X 123

14. PERMIT NO. _____

DATE ISSUED _____

12. COUNTY OR PARISH

13. STATE

CAN JIVAS

2284

15. DATE SPOTDED

10. DATE 1.D. REACHED:

17. DATE COMPL. (Ready to prod.)

18. ELEVATIONS (DF, BKE, BT, GB, ETC)*

19. ELEV. CASINGHEAD

1997

224

345 13

5032

20. TOTAL DEPTH, MD & TVD

21. PLUG BACK TAIL MD & TYPE

22 IF MULTIPLE COMPL.,
HOW MANY*

692

23. INTERVALS
DRILLED BY

Figure 1: Experimental setup. A participant is seated at a table, viewing a screen. The screen displays a horizontal line and a vertical line intersecting at a point. The participant is looking at the intersection point. The diagram is labeled 'Figure 1' and 'Experimental setup'.

433

24. PRODUCING INTERVAL(S) OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

92

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

NO

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED

352

2. CASING RECORD (Report all strings set in well)

*(See Instructions and Spaces for Additional Data on Reverse Side)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form Approved.
Budget Bureau No. 42-R1424

Work file Copy w/ State Info

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other ☐
2. NAME OF OPERATOR
CONSOLIDATED OIL AND GAS COMPANY
3. ADDRESS OF OPERATOR
1800 LINCOLN ST., DENVER, COLORADO
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1200' and 700' FEL SEC 7 31N
AT TOP PROD. INTERVAL: 12N
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☐

ABANDON* ☐

(other) ☐

5. LEASE

AP 022707

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

CLONES

9. WELL NO.

1-1

10. FIELD OR WILDCAT NAME

PAULIN DAKOTA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SEC 7 31N 12W

12. COUNTY OR PARISH

SAN JUAN

13. STATE

N.M.

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

5933 CL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

18 ATTACHED DAILY REPORT

Subsurface Safety Valve: Manu. and Type

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE

DATE

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY.

Set @

MAR 31 1980

2-26-80
FBL CONL. COM.
DIST. 3

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)
Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan
County.

12-8-79

Days: 1; Present Operation: PM. Moved on Astec Well Service.

12-9-79

Days: 2; Present Operation: SD for Sunday. Finished RU. PU 4-3/4" bit, bit sub, sing scraper. 4-3/4" TC's. 40 lbs tubing. Tagged cement @ 1362'. SDON. Drilled 1 hrs on DV tool @

12-10-79

Days: 3; Present Operation: Drilling on stage collar. SD for Sunday.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)
Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan
County.

12-11-79

Days: 4; Present Operation: Trip for bit. Finish drilling out IV tool @ 1352'. Continued RT 2-7/8" tubing. Tagged cement @ 4934'.

COG ET AL - GROSS NO. 1-M (continued)

12-11-79

Drilled 10' cement and IV tool @ 4944'. Continued RIH w/tubing. Tagged cement 7032'. Drilled 8' cement & float collar. Drilled 2-1/2 hrs on float collar. SDON.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)
Location: 1850' FSL & 790' FEL Section 7 T31N, R12S, San Juan
County.

12-12-79

Days: 5; Present Operation: POOH w/mill. POOH for new bit. Found 1 blade off casing scraper had been left in hole. RIH w/4-3/4" mill 4 DC's. 2-7/8" tubing. Tagged up on float collar. Drilled float collar and 26' cement to 7000'. Circ & cleaned up hole. RU Western. Press test casing to 3800#. Held OK. Changed out hole to 1% KCl water. SDON.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)
Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan
County.

12-13-79

Days: 6; Present Operation: Prep to acidize perfs. POOH w/2-7/8" workstring. LD 4 DC's and mill. Ran CBL log. TD- 6170' good bonding. Second stage cement across MV 5050-4630', good bonding, 4630'-2570' good to poor bonding. Perf'd 7037', 40', 43', 46', 49', 52', 55', 58', 61' & 64' (10 holes) with .41" holes. RIH w/Bowen casing scraper on 2-7/8" to knock off balls after acidizing today. SDON.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-14-79

Days: 7; Present Operation: Blowing down w/air. FIH w/tubing to 7026'. Spotted 200 gals 15% N E Acid from 7026'-6826'. Pull up 5 stands to 6760'. Pressure up. BD perfs @ 3200# @

(continued)

12-14-79

COG ET AL - GROSS NO. 1-M (continued)

12-14-79

4-1/2 BPM. Pumped 300 gals 15% NE acid. Dropped 10 balls in last 150 gal acid plus 10 balls in first 100 gal flush. Acidized @ 2700# @ 5 BPM. Had good ball action. Balled out @ 3400# with 1 bbl overflush. RIH and knocked off balls. POOH w/ tubing. RU Western. Started frac with following fluid: Minimax III 40, 1% K Cl, 1/2 gal ASP 248 (Bacteriacide) and gel Aquaflow per 1000 gal
Pumped at surface 6000 gal pad
7000 gal 1 ppg 20-40 sand
6500 gal 2 ppg 20-40 sand
250 gal flush

SD because screened off

Description of pressure and rate as fluid went into formation

6000 gal pad 15 BPM @ 3000#

6000 gal 1 ppg 15 BPM @ 3000#

1000 gal 1 ppg 13 BPM @ 3400#

250 gal 2 ppg 4 BPM @ 3900#

Screened off

SD 14 minutes. Pressure bled to 2150#. Opened casing and flowed back 15 minutes.

Pumped 1850 gal @ 2-1/2 BPM @ 3100#

200 gal @ decreasing rate with pressure increasing to 3800#

SD 8 minutes. Pressure dropped to 2200#

Opened well & flowed back 1 hr & 45 minutes, pumped 800 gal @ 2-1/2 BPM. Pressure increased to 3500#. SD 4 minutes - 2000#

Opened well & flowed back. Started in hole w/2-7/8" tubing blowing down. RIH to 3400 in stages. Released crew & continued blowing overnight.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)
Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan
County.

12-15-79

Days: 8; Present Operation: Prep to RIH w/tubing blowing down. RIH in stages to 7071' blowing down. Had show of gas. POOH started re-frac w/4000 gal MiniMaxIII 40 w/25# Aqua Seal, 1 gal Aquaflo & 1/2 gal ASP 428 (Bactericide) /1000 gal followed by 3056 gal MiniMaxIII 40 containing 1 ppg 100 mesh sand (as fluid loss additive), 1 gal Aqua flow, & 1/2 gal ASP 428. Pressured up to 3800 before any had gone out perfs. Bled back for 5 minutes. Tried to pump in again w/no success. SDON.

(continued)

This report covers period

COG ET AL - GROSS NO. 1-M (continued)

12-16-79

Days: 9; Present Operation: SD for Sunday. RIH w/2-7/8" tubing blowing down in stages to 7061'. Had show of gas. (Had 10' fill) RU Western. Filled hole w/2% K Cl. Circ 10' sand out of hole. PU to 7055'. Spotted 1000 gal 15% NE acid. SI casing. Broke down and pumped in @ 3700# @ 6 BPM. Hooked up to casing & overflushed acid in casing 20 bbls. Pumped into tubing & casing 178 bbls. Max press 3800#, min press 3450#. Max rate 13 BPM, min rate 11.4#. ISIP on various pumping operations varied from 2450-2800#. Pulled tubing up 65' and SDON.

12-17-79

Days: 10; Present Operation: POOH to re-perf. SD for Sunday.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan
County.

12-18-79

Days: 11; Present Operation: Prep to POOH w/tubing. Tagged bottom. No fill. POOH w/2-7/8" tubing. RU Schlumberger & re-perf 7037', 40', 43', 46', 49', 52', 55', 58', 61' & 64' (10 holes .41"). RIH w/casing scraper & 2-7/8" tubing to 7065'. Spotted 200 gals 15% NE acid 7065'-6865'. Pulled 6 stands. Press to 3700#. Pumped in @ 4-1/2 BPM. Acidized w/800 gals 15% NE acid. Dropped 2 balls/bbl in last 10 bbl acid and 20 balls in first 200 gal flush. Acidized @ 2700# @ 1-1/2 BPM. Overflushed 10 bbls. No ball action, no ball off. ISIP 2500#. Flowed back to flow balls off. SI for 1 hr to let balls fall to bottom. Pumped 50 bbls down casing @ 2800# @ 4 BPM. Pumped 25 bbls down tubing and casing @ 3000# @ 7 BPM. Pumped 40 bbls down tubing and casing @ 3100# @ 9 BPM. Pumped 110 bbls down tubing and casing @ 3750# @ 16 BPM. ISIP 2950#. SI well. SDON. All water was 2% K Cl. Total load 311 bbls.

COG ET AL - GROSS NO. 1-M (COG.W.I. 81.07%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-19-79

Days: 12; Present Operation: Release packer & RIH to check for apparent split in casing. POOH w/2-7/8" tubing. PU Baker full bore packer. RIH & set packer @ 6489'. RU Western. Press'd backside to 1500#. Frac'd perfs 7037'-64' w/40,828# gal frac fluid & 44,450# 20-40 sand as follows:
4000 gal MiniMax III 40 containing 25#/1000 Aquasand, 1 gal/1000 Aquaflow and 1/2 gal/1000 ASP 248 as pad

COG ET AL - GROSS NO. 1-M (continued)

12-19-79

6000 gal MiniMax III 40 w/1 ppg 100 mesh sand as FLA, 1 gal/1000 Aquaflow, & 1/2 gal/1000 ASP 248
9870 gal Minimax III 40 w/1/2 ppg 20-40 sand & Aquaseal, Aquaflow & ASP 248
4535 gal " 1 " " " " "
4200 gal " 1-1/2 " " " "
6300 gal " 2 " " " "
3360 gal " 2-1/2 " " " "
2560 gal " 3 " " No " "

Flushed w/62 bbls 1% K Cl water

Min rate 12 bpm; Max rate 18 bpm; Average rate 17 bpm; Min press 5500#
Max press 6500#; Average press 6000#; HHP 2500; ISIP 600# (probably not meaningful) Total load to recover 1041 bbls.

Toward end of job and during flush in, was necessary to reduce rate to keep from exceeding pressure. Had numerous indications throughout job (fluctuations in rate & pressure) that zone was trying to sand off or was extending fracture. After 44 bbls of 62 bbl flush, had immediate increase in rate and decrease in pressure from 6 bpm & 6500# to 15 bpm @ 2600#. Suspect casing failure in poor cement area between packer and perfs.

Pressured up backside to 3500#. Held OK. SDON.

Will continue dropping downhole & pressure testing backside to check for possible split between where packer was set & perfs.

COG ET AL - GROSS NO. 1-M (COG W.I. 81.07%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-20-79

Days: 13; Present Operation: Blowing well w/air. Released packer. RIH in stages testing backside. Tagged sand @ 6839'. Picked up 10'. Set packer, pressure tested backside to 3500# - held OK. POOH. LD full bore packer. RIH w/2-7/8" tubing open ended blowing down in stages to 4526'. Left air blowing overnight. 7 A.M. this morning 275# air pressure. Making heavy spray water w/ occasional slugs of water.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-21-79

Days: 14; Present Operation: Blowing well w/air. RIH in stages blowing down from 4526'-6800'. Turned around down casing & up tubing. Continued in hole from 6800'-7020'. Plugged tubing w/

COG ET AL - GROSS NO. 1-M (continued)

12-21-79

sand. Pulled up to 6370'. Press down tubing & blew plug out. Circ down tubing & up casing. Released rig crew & continued blowing overnight. Did not get sand cleaned off perfs 7037'-64'. 7 A.M. this morning 700# TP (air) 0 CP. Unloading heavy spray and 1/4" stream water.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-22-79

Days: 15; Blowing w/air to clean up Lower Dakota. 7 A.M. heavy spray water after blowing all night from 6370'. 300# air pressure. Blow down casing, up tubing. Run in hole blowing down to 7037'. Could not get past 7037'. Pulled up to 6400', left blowing overnight.

12-23-79

Days: 16; Blowing Lower Dakota w/air. 7 A.M. 220# down casing up tubing. Making heavy spray, 1/4" stream water. RIH w/tubing, tagged up, checked depths - 7066'. Continue blowing. SD air compressors for 1-1/2 hrs, making 8-10' flame, gas TSTM. Casing pressure 25#. Start compressors & let run overnight.

12-24-79

Days: 17; Blowing Lower Dakota. 7 A.M. 210# on casing. SD air @ 2 P.M. 1 hr - light mist w/20# on casing, 200 Mcf. Start air & blew overnight.

12-25-79

Days: 18; Blowing Lower Dakota. 200# air & lite spray water. Shut air off @ 6:45 A.M. 1 hr had 25# on casing, 150 Mcf, 1-1/2 hrs 35# on casing, 139 Mcf. Turned air back on casing, SI.

12-26-79

Days: 19; Well SI. SI pressure 1500#.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-27-79

Days: 20; Present Operation: Preparing to RIH w/tubing. SIP 1625#. Opened tubing - flowed 4 hrs. CP 1625-100#, gas TSTM. Next 3 hr CP to 300#, well unloaded. Flowed for 2 hrs as follows:

1/2 hr	1020 Mef
1/2 hr	747 Mef
1/2 hr	310 Mef
1/2 hr	98 Mef
1/2 hr	TSTM, CP 100#

Pressure started to build again.

6:30 A.M. CP 260, gas TSTM

7:00 A.M. CP 300, well started to unload. Flowing heavy slugs water - decreased to light mist in 1 hr. Gradual decrease to no fluid & very little gas. Fluid appears to be all frac fluid - no indication of formation fluid.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-28-79

Days: 21; Present Operation: Prep to pull out of hole. Will run in to find casing split. RIH blowing down w/air to 7070'. PO to 6790'. Unloaded w/air. Shut down compressors 12:30 P.M. At 1:30 O/90 light mist 340 Mef; 2:30 O/75 light mist 196 Mef; 3:30 O/50 light mist 139 Mef; 4:30 O/70 light mist 139 Mef. SDON. @ 6:30 A.M. this morning O/120 light mist 196 Mef.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

12-29-79

Days: 22; Present Operation: Testing casing. POOH w/2-7/8" tubing. RIH w/Model "C" BP and Baker retrievematic packer. Set BP @ 7035'. Pressure tested. Set packer @ various depths. Isolated hole 6814'-6846'. SD for dark.

12-30-79

Days: 23; Present Operation: SD for Sunday. Reset packer @ various depths, pinpointed leak between 6830'-35'. Established rate @ 4.4 BPM with 1150#. POOH. SD for Sunday.

12-31-79

Days: 24; Present Operation: SD for weather. SD for Sunday.

1-1-80

Days: 25; Present Operation: SD for Holiday. SD for weather.

1-2-80

Days: 26; Present Operation: Prep to retrieve BP. Found 62 hr SIP was 2200#. SD for holiday

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

1-3-80

Days: 27; Present Operation: TIH to press test BP. After 62 hr SI, press 2200#. Blew well down. Took over 1 hr to blow down enough to proceed. RIH w/retrieving head & 2-7/8" tubing. Circ 10' sand off RBP. Retrieved BP & POOH. RU Schlumberger. Set retrievable wireline BP @ 7012'. RIH w/Baker full bore packer to test BP. Checked split w/collar locator, but could not get any indication of split. RI to 3000' and SDON.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

1-4-80

Days: 25; Present Operation: Prep to acidize perfs 6869'-6987'. FIH w/2-7/8" tubing & packer to 6876'. Tried to fill hole. Would fill, but not hold pressure. Set packer & tested BP to 3800#. Held OK. Released packer & POOH. Rigged up Western and established rate down casing thru split of 14 BPM @ 1600#. RU Schlumberger, ran collar log strip 6750'-6950'. Strip indicated possible split from 6832'-37' (length and pressure not conclusive but does correspond with packer isolation of 6830'-35'). Perf 6869', 81', 83', 6907', 10', 13', 16', 28', 31', 38', 41', 71', 73', 84' and 87' w/.41" hole, (15 holes). RIH w/Baker fullbore packer to 6500'. SDON.

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%)

Location: 1850' FSL & 790' FEL Section 7 T31N, R12W, San Juan County.

1-5-80

Days: 26; Present Operation: Cleaning up after Upper Dakota frac. RIH to 6854'. RU Western. Broke circ. Spotted 10 gal sand on BP. Set packer at 6854'. Broke down and acidized perfs 6869' - 6987' @ 4-1/2 BPM @ 1600'. Pumped 1,000 gal 15% NE acid. Dropped 1 ball each 1-1/2 bbl acid for 15 balls. Dropped another 15 balls in first 5 bbl flush. Had good ball action throughout but no ball off. Finished job at 3-1/2 BPM @ 2050#. Released pkr. RIH and knocked off balls. POH. RU Western and frac'd split and perfs 6830'-6987' with 115,000 gal Minimax III 40 and 53,000 gal Minimax III 30 plus 189,250# 20-40 sand. (first 80,000 gal contained 25# Aqua Seal, 1 gal Aqua Flow & 1/2 gal ASP 428 (Bacteriacide) per 100 gal and breaker w/remainder of fluid containing no Aqua Seal) as follows:

First Stage -

17,000 gal pad Minimax III 40
30,000 gal Minimax III 40 plus 1/2 ppg 20-40 sand
25,000 gal Minimax III 40 plus 3/4 ppg
20,000 gal Minimax III 40 plus 1-1/2 ppg
15,000 gal Minimax III 40 plus 2-1/2 ppg

(continued)

This report covers period
from 1-5-80 to 1-7-80

1-5-80

COG ET AL - GROSS NO. 1-M (COG W.I. 68.64%), continued
Dropped 250# Benzoic Acid Flakes as plugging agent 8,000 gal pad
Minipax III 40. Mixed & dropped additional 250# Benzoic Acid
Flakes. The two plugs increased pressure 150#.

Second Stage -

10,000 gal Minimax III w/1/2 ppg
10,000 gal Minimax III 30 w/3/4 ppg
15,000 gal Minimax III 30 w/1-1/2 ppg
10,000 gal Minimax III 30 w/2-1/2 ppg
8,000 gal Minimax III 30 w/3-1/2 ppg
Flushed w/7,000 gal 1% K Cl water.

First Stage - Min 1600#, Max 2200#, Avg 2100#, Min Rate 45, Max
Rate 47, Avg Rate 46. Second Stage - Min 16000#, Max 2200#,
Avg 2100#, Min Rate 28, Max Rate 44, Avg Rate 35. ISIP 1500#,
15 min 975#, 1 hour 550#, total load to recover 4166 bbl.

1-6-80

Days: 27; Present Operation: Flow test upper Dakota zone.
SIP 160#. Opened casing & flowed heavy slugs of water for 1
hour. Started in hole w/2-7/8" tbg w/well flowing out casing. Ran
43 stands to 2665' w/well flowing out tubing and casing. Landed
tbg. Started air compressors and started air down tbg. Well
started flowing hard out casing immediately. Flowed out casing
3 hours making heavy slugs water. SI casing. Started flowing
out tubing immediately. Flowed 2 hours. 0/160# flowing heavy
slugs. Started air compressors. Inj air down casing overnight.
5:45 this morning 0/280#. Making heavy spray & 1" stream. SD air
compressors @ 6:45 a.m. 0/250# Flowing gas TSTM to 3 MMcf. Making
very hvy slugs. Left well flowing.

1-7-80

Days: 28; Present Operation: Prepare to pull tubing and run
ret head for BP.
Yesterday morning - 8 a.m. 0/250# Hvy slugs water. TSTM to 3 MMcf
9 a.m. 0/240# TSTM to 3 MMcf
11 a.m. 0/225 Hvy slugs water. TSTM to 2.5 MMcf
Released air compressor crew and left well flowing. 6 a.m. this
morning 0/60#. Well blowing dry gas TSTM.