



DEPT. EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
TEXACO	PERMIT NO. <u>1</u>
CASE NO.	<u>9373</u>

March 25, 1988

State of New Mexico
Department of Energy & Minerals
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. David Catanach

RE: CONVERSION TO SALT WATER DISPOSAL
SALT MOUNTAIN 36 STATE WELL NO. 1
UNIT LETTER D, SEC. 36, T-26-S, R-24-E
EDDY COUNTY, NEW MEXICO

Gentlemen:

Texaco Producing Inc. respectfully requests administrative approval of the reference application by provision in Rule 701.B.3 and 701.D.

In support of this application, you will find attached:

- 1) Form C-108
- 2) Map identifying wells and leases within 2-mile radius and the 1/2 mile radius area of review.
- 3) Table containing data on wells in area of review that penetrate the disposal zone.
- 4) Injection well data sheet.
- 5) List of offset operators and surface owner.
- 6) Letters mailed to offset operator and grazing lease notifying them of this application.
- 7) Affidavit of publication and copy of legal notice.

Average injection rate into the well will be 600 barrels per day with a maximum of 2000 barrels per day. Average injection pressure will be 1000 psi and the maximum pressure will be 2000 psi. If necessary, the perforations from 6152-70' will be acidized with 1000 gallons of 7-1/2" NEFE HCl acid. If rate and/or pressure is not satisfactory into the interval from 6152-70', then perforations from 5417' to 5931' will be added and acidized with a total of 3500 gallons of 15% NEFE HCl acid. The total injection interval will be from 5417-6170'.

State of New Mexico
Dept. of Energy & Minerals
Oil Conservation Division

- 2 -

March 25, 1988

The Quaternary Alluvium (Triassic Redbeds) lie above the disposal zone from the surface to a depth of approximately 400'. Three water wells are in the proximity of the proposed disposal well and an analysis of water from each is attached.

Texaco Producing Inc. has examined available geologic and engineering data and found no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Your timely consideration of this application will be greatly appreciated.

Yours very truly,



L. J. Seeman
District Petroleum Engineer

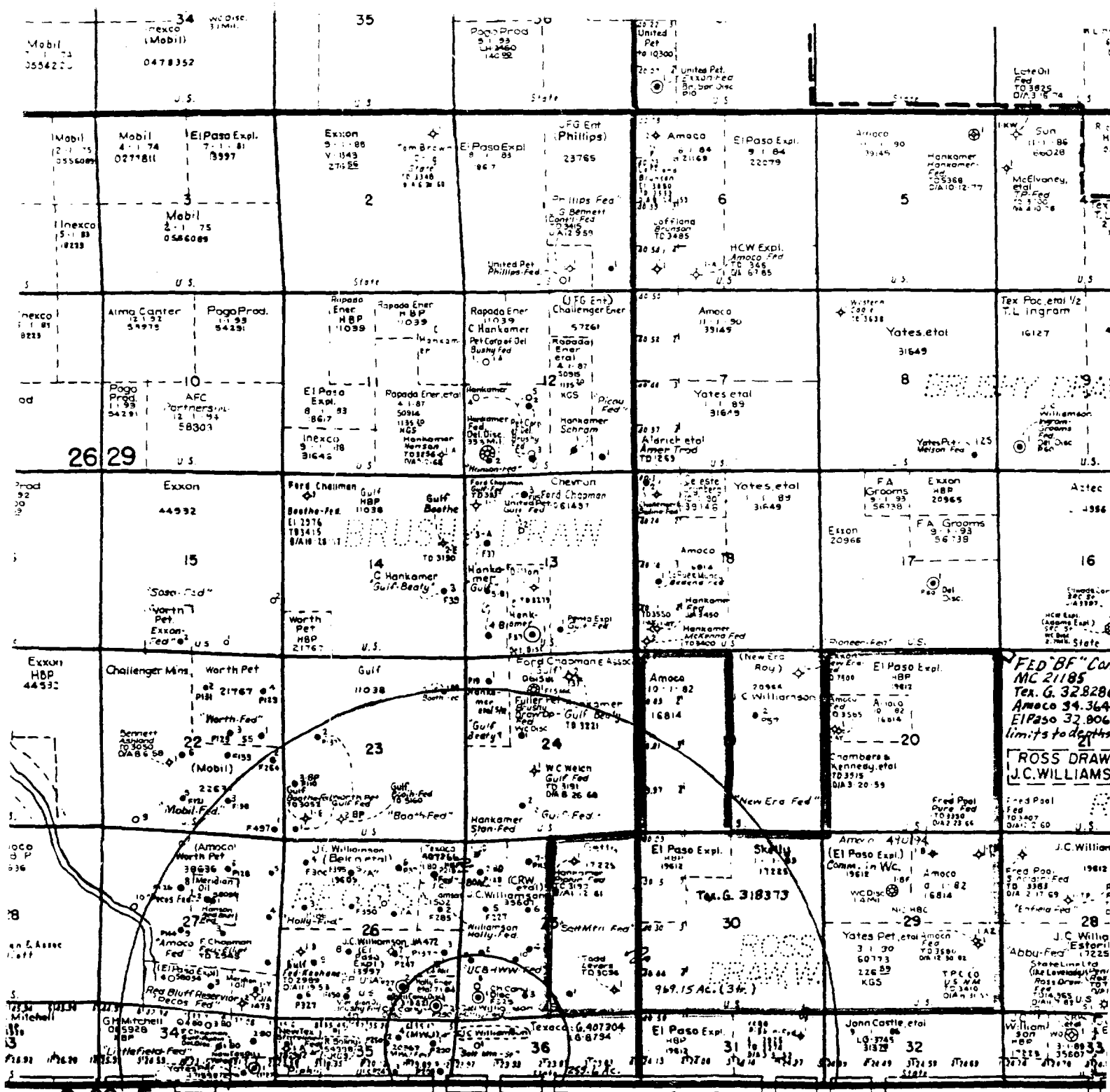
LDR:jss

Attachments

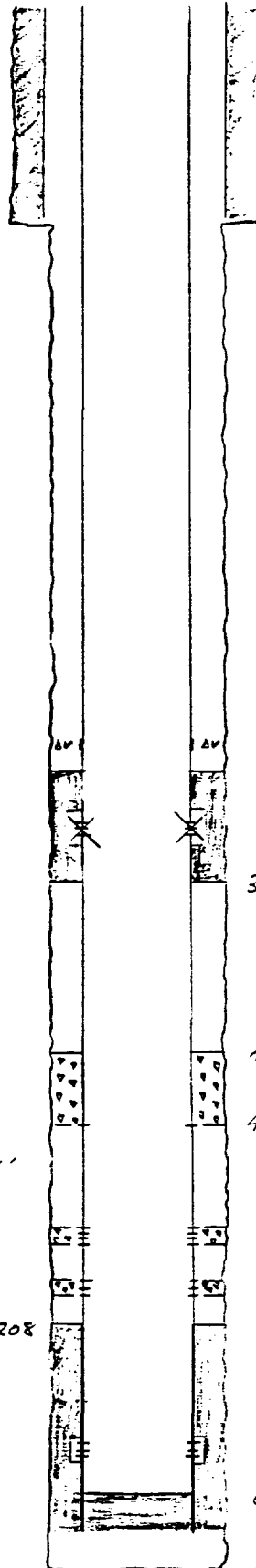
cc: NMOCD
Artesia, NM

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Texaco Producing Inc.
Address: P. O. Box 728, Hobbs, New Mexico, 88240
Contact party: L. J. Seeman Phone: (505) 393-7191
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: L. J. Seeman Title: Dist. Petr. Engr.
Signature: *L. J. Seeman* Date: March 25, 1988
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.



SALT MOUNTAIN 36 STATE WELL NO. 1



8 5/8" 24# J-55 CSG SET @ 485' WITH 525 SX. CEMENT DID NOT CIRCULATE. DUMPED 200 SX DOWN ANNULUS. DUMPED 3/4 YARDS RED-MIX. 30T CEMENT TO SURFACE. HOLE SIZE: 12 1/4".

5 1/2" 15.5# K-55 CSG SET @ 6256' WITH 1000 SX IN TWO STAGES:
1ST STAGE: 700 SX. CEMENT DID NOT CIRCULATE. T/CMT @ 5208 BY CBL. (DV TOOL @ 2888')
2ND STAGE: 300 SX. CEMENT DID NOT CIRCULATE. T/CMT @ 2960' BY CBL. BOTTOM OF CMT @ 3650'. (APPEARS THAT CEMENT WENT DOWN.)
HOLE SIZE: 7 7/8".

RAMSEY PERFS:

1 USPF: 3014' - 3050',
3072' - 3088'

Squeezed into

SQUEEZE HOLES AT 4800 -
SQUEEZED WITH 200 SX.
CEMENT FROM 4800' TO 4674'
BY SR LOG.

DELAWARE PERFS -

1 USPF: 5080' - 5101',
5110' - 5120'

Squeezed w/ no st.

1000'

DELAWARE PERFS -

1 USPF: 6152' - 6170'

ORIGINAL PERFS 5077 - 5160 WERE SQUEEZED WITH 200 SX, BROKE DOWN WITH ACID AND FRAC'D, AND SQUEEZED WITH A SECOND 200 SX.

6245 PBTD

6300 TD

T-26-S
R-29-E

T-26-S
R-30-E

22	23		TEXACO PROD. INC.		TEXACO PROD. INC.	24	19
			BD Federal				
					J. C. WILLIAMSON UCBHW Federal		
		J. C. WILLIAMSON EP-USA Federal					
		J. C. WILLIAMSON Holly Federal					
27	26					25	30
34	35	J. C. WILLIAMSON MWJ Federal			TEXACO PROD. INC. Salt Mountain "36" State	36	31

TEXAS

WELLS WITHIN 1/2 MILE RADIUS OF TPI'S SALT MOUNTAIN 36 STATE WELL NO. 1
THAT PENETRATE THE PROPOSED INJECTION INTERVAL

<u>OPERATOR, WELL NAME & NO.</u>	<u>FORMATION</u>	<u>TOTAL DEPTH</u>	<u>DATE DRILLED</u>	<u>CURRENT STATUS</u>	<u>HOLE SIZE</u>	<u>CASING SIZE</u>	<u>DEPTH</u>	<u>CEMENT (SX)</u>	<u>TOC</u>	<u>DETERMINED BY</u>
C. Williamson	Brushy Draw Delaware	6250'	7-23-82	Producing	17-1/2"	12-3/4"	378'	650	Surface	Circulated Calc. 60% fill up Temp. Survey
					11"	8-5/8"	2900'	150	2483'	
					7-7/8"	4-1/2"	6250'	900	2450'	
WJ Federal No. 1	Brushy Draw Delaware	6220'	9-26-82	Producing	17-1/2"	12-3/4"	350'	425	Surface	Circulated Temp. Survey Calc. 60% fill up
					11"	8-4/8"	2850'	150	2500'	
					7-7/8"	4-1/2"	6220'	1050	2956'	
WJ Federal No. 2	Brushy Draw Delaware	6250'	11-11-83	Producing	17-1/2"	12-3/4"	373'	375	36'	Calc. 60% fill up Calc. 60% fill up Calc. 60% fill up
					11"	8-5/8"	2790'	150	2372'	
					7-7/8"	4-1/2"	6250'	1450	1743'	
WJ Federal No. 3	Brushy Draw Delaware	6350'	1-09-84	Producing	17-1/2"	12-3/4"	365'	375	Surface	Circulated Calc. 60% fill up Temp. Survey
					11"	8-5/8"	2822'	150	2404'	
					7-7/8"	4-1/2"	6350'	1350	2070'	
WJ Federal No. 5	Brushy Draw Delaware	6260'	1-12-86	Producing	17-1/2"	13-3/8"	413'	450	Surface	Calc. 60% fill up Calc. 60% fill up Calc. 60% fill up
					11"	8-5/8"	2800'	200	2243'	
					7-7/8"	5-1/2"	6260'	950	2378'	
BHMW Federal No. 1	Brushy Draw Delaware	6250'	4-29-82	Producing	17-1/2"	12-3/4"	358'	720	Surface	Circulated Calc. 60% fill up Temp. Survey
					11"	8-5/8"	2959'	125	2611'	
					7-7/8"	4-1/2"	6250'	900	2840'	
BHMW Federal No. 2	Brushy Draw Delaware	6285'	9-14-82	Producing	17-1/2"	12-3/4"	358'	425	Surface	Circulated Temp. Survey Temp. Survey
					11"	8-5/8"	2936'	150	2620'	
					7-7/8"	4-1/2"	6285'	1375	1900'	
BHMW Federal No. 3	Brushy Draw Delaware	6270'	4-18-83	Producing	17-1/2"	12-3/4"	363'	425	Surface	Circulated Temp. Survey Temp. Survey
					11"	8-5/8"	2869'	150	2200'	
					7-7/8"	4-1/2"	6270'	1400	2000'	

INJECTION WELL DATA SHEET

OPERATOR		LEASE			
Texaco Producing Inc.		Salt Mountain 36 State			
WELL NO.	FOOTAGE	LOCATION	SECTION	TOWNSHIP	RANGE
1	660'	FNL & 660' FWL	36	26-S	29-E

Schematic

See Attached Diagram

Tabular DataSurface Casing

Size 8-5/8 " Cemented with 725 sx.
 TOC Surface feet determined by Visual Inspection
 Hole size 12-1/4"

Intermediate Casing

Size _____ " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string

Size 5-1/2" " Cemented with 1000 sx.
 TOC 2960 feet determined by Cement Bond Log
 Hole size 7-7/8"
 Total depth 6300'

Injection interval

5417 feet to 6170 feet
 (perforated or open-hole, indicate which)

Tubing size 2-7/8" lined with Cement set in a
 (material)
Baker Model TSN II packer at + 5375 feet
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Delaware
- Name of Field or Pool (if applicable) Brushy Draw Delaware
- Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? Oil Production
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) 5077-5170 sqz. w/200 sxs, resqueezed w/another 200 sxs, 3014-3088 sqz w/400 sxs, 5080-5120 current perforated interval will be sqzd w/100 sxs during conversion work 6152-6170 CIBP set @ 6050 these perfs will be used in injection interval.
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Ramsey 3000', Wolfcamp 11, 479'

OFFSET OPERATOR
SALT MOUNTAIN 36 STATE
EDDY COUNTY, NEW MEXICO

J. C. Williamson
P. O. Box 16
890 One First City Center
Midland, Texas 79707

SURFACE OWNER

State Owned Leased To: Robert Boling
305 S. 5th St.
Artesia, New Mexico 88210



March 25, 1983

J. C. Williamson
P. O. Box 16
890 One First City Center
Midland, Texas 79707

RE: CONVERSION TO SALT WATER DISPOSAL
SALT MOUNTAIN 36 STATE WELL NO. 1
UNIT LETTER D, SEC. 36, T-26-S, R-29-E
EDDY COUNTY, NEW MEXICO

Gentlemen:

This is to notify you, as an Offset Operator, that Texaco Producing Inc. is requesting the New Mexico Oil Conservation Division to approve disposal of water into the Delaware formation at a depth of 5417-6170' into the referenced well. A copy of our request, Form C-108, plat and legal notice are attached for your information.

Objection to this request or a request for hearing should be filed with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days following receipt of this letter.

Yours very truly,

L. J. Seeman
District Petroleum Engineer

LDR:jss

Attachments



March 25, 1988

Mr. Robert Boling
305 S. 5th Street
Artesia, New Mexico 88210

RE: CONVERSION TO SALT WATER DISPOSAL
SALT MOUNTAIN 36 STATE WELL NO. 1
EDDY COUNTY, NEW MEXICO

Dear Sir:

In compliance with New Mexico Oil Conservation Division Rule 701.B.2, Texaco Producing Inc. hereby notifies you that an application to convert the reference well to a salt water disposal well has been submitted to the Oil Conservation Division. The water will be injected into the Delaware formation at a depth of 5417-6170'. The well is located 660' FNL and 660' FWL of Section 36, T-26-S, R-29-E.

Only the surface area absolutely required will be used in operating the well. The well is cased and cemented in such a way that all surface and subsurface fresh waters will be protected.

Objections to this request or a request for hearing should be filed with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days following receipt of this letter.

A copy of our request and a map are attached for your information. If there are any questions, please do not hesitate to call this office.

Yours very truly,

J. A. Schaffer
District Operations Manager

LDR:jss

Attachments

TECHNICAL LABORATORY, Dallas, Texas Phone (972) 337-0100 L 337-0503
 TECHNICAL LABORATORY, Houston, Texas Phone (713) 431-1331
 TECHNICAL LABORATORY, Dallas, Texas Phone (972) 337-0505

TECHNICAL
 LABORATORY

CONTRACT Edith Williamson DATE SAMPLED 1/27/77
 NO 100 BROOKS DATE REPORTED 2/8/77
 CC Anthony Skidmore FIELD, LEASE, OR WELL MINOR 1170
 CC _____ COUNTY _____ STATE _____
 COMPANY Williamson & Williamson FORMATION _____
 ADDRESS _____ DEPTH _____
 SOURCE ENGINEER Kathy Marshall SUBMITTED BY ARCHY SKIDMORE

Field, Lease, or Well

Chemical Component	Water Well				
Chloride (Cl)	3000				
Iron (Fe)	0				
Total Hardness (CaCO ₃)					
Sodium (Na)	1218				
Magnesium (Mg)	255				
Bicarbonate (HCO ₃)	100				
Carbonate (CO ₃)	0				
Sulfate (SO ₄)	1125				
Fluoride (F)	0				
Ammonia Nitrogen (NH ₃ -N)	1.0				
PH (25°C)	10.03				
PH - Dickman [] Strip []	7.4				
Sulfide	2513				
Sulfate & Sulfide	1125				
Calcium (Ca)	1.33				
Magnesium (Mg)	0.212				
Sulfate (SO ₄)	1.33				
Sulfide (S)	Negative				
Sulfate & Sulfide	Positive				

OTHER DESCRIPTION, REMARKS AND RECOMMENDATIONS

ILLEGIBLE

REPORTED BY Joe Edwards TITLE Test 1

CONFIDENTIAL

PROJECT NO.	100-111111-100	DATE SAMPLED.	1/11
CC	100-111111-100	DATE RECORDED.	1/11/11
CC		FIELD, PLANT, OR OTHER.	100-111111-100
CC		COUNTY.	STATE.
COUNTRY.	100-111111-100	FORMATION.	
ADDRESS.		DEPTH.	
DESIGN ENGINEER.	100-111111-100	SUBMITTED BY.	100-111111-100

1992, 1993, 1994, 1995, 1996, 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, 26

[illegible]

THE DISCUSSION, REMARKS AND RECOMMENDATIONS

ILLEGIBLE

REPORTED BY Joe Edwards JE TITLE Tech Support

TECH SERVICE LABORATORY: Odessa, Texas Phone (915) 337-0055 & 337-0057
 RESEARCH LABORATORY: Houston, Texas Phone (713) 401-2551
 PLANT: Odessa, Texas Phone (915) 337-0055

CON. 548
 12138, TEL. 373739

REPORT FOR	Ralph Williamson	DATE SAMPLED	1/11/60
CC	Jerry Skidmore	DATE REPORTED	1/11/60
CC		FIELD, LEASE, OR WELL	12138, 12139, 12140
CC		COUNTY	STATE
COMPANY	Williamson L. Williamson	FORMATION	
ADDRESS		DEPTH	
SERVICE ENGINEER	Kathy Marshall	SUBMITTED BY	Kathy Marshall

12138, 12139, 12140					
Chemical Component					
Chloride (Cl)	5200				
Iron (Fe)	0				
Total Hardness (Ca CO ₃)	5000				
Calcium (Ca)	320				
Magnesium (Mg)	720				
Bicarbonate (HCO ₃)	140				
Carbonate (CO ₃)	0				
Sulfate (SO ₄)	30				
Hydrogen Sulfide (H ₂ S)	0				
Specific Gravity	1.007				
Density, 60°F	1.00				
pH - Beckman (1; Strip 1)	7.10				
Sodium	3554				
Scale Index					
CaCO ₃ - 30°F	-0.11				
CaCO ₃ - 70°F	+1.63				
CaSO ₄	inactive				

OTHER DESCRIPTION, REMARKS AND RECOMMENDATIONS

ILLEGIBLE

REPORTED BY Joe Edwards TITLE Tech S. 1/11/60



P.O. BOX 2187
HOBBS, N.M. 88240

PHONE: (505) 393-7726

WATER ANALYSIS REPORT

Report for: JOHN BRADY
cc: DAN WESTOVER-DAN JONES
cc:
cc:
Company: TEXACO
Address:
Service Engineer: JIM SPRADLEY

Date sampled: 11-23-87
Date reported: 11-24-87
Lease or well #: SALT MT 25-F
County: State:
Formation:
Depth:
Submitted by: JIM SPRADLEY

CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	196000	5529
Iron (Fe) (total)	52.0	
Total hardness	116200	
Calcium (Ca)	30195	1507
Magnesium (Mg)	9938	798
Bicarbonates (HCO3)	61	1
Carbonates (CO3)	n/a	
Sulfates (SO4)	29	1
Hydrogen sulfide (H2S)	8	
Carbon dioxide (CO2)	n/a	
Sodium (Na)	74194	3226
Total dissolved solids	310419	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	
Specific Gravity	1.221	
Density (#/gal.)	10.175	
pH	5.600	
IONIC STRENGTH	6.68	
RESISTIVITY	0.046 @76.8F	

Stiff-Davis (CaCO3) Stability Index :
SI = pH - pCa - pAlk - K

SI @ 86 F = +1.46
104 F = +1.69
122 F = +1.94
140 F = +2.23
158 F = +2.55

This water is 906 mg/l (-95.67%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 947 mg/L PRESENT= 41 mg/L

REPORTED BY RANDOLPH SCOTT

CHEMIST

REPRESENTATIVE WATER ANALYSIS FROM DELAWARE 15

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

E. C. Cantwell, being first duly sworn,
on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

March 17, , 19 88
_____, 19 ____
_____, 19 ____
_____, 19 ____

that the cost of publication is \$ 9.70 ,
and that payment thereof has been made
and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this

22 day of March , 19 88
Donella Taylor

My commission expires 6/01/88
Notary Public

March 17, 1988
LEGAL NOTICE

Notice is hereby given of the application of Texaco Producing, Inc., Attention: L.J. Seeman, District Petroleum Engineer, P.O. Box 728, Hobbs, New Mexico, 88240, telephone (806) 393-7197, to the Oil Conservation Division, New Mexico Energy & Minerals Department, for approval of the following injection well(s) for the purpose of SWD:

Well(s) No(s): 1
Lease/Unit Name: Salt Mountain
36 State
Location: 660' FNL & 660' FWL
Section 36, T-26-S, R-29-E
Eddy County, New Mexico.
The injection formation is Delaware at a depth of 5417 feet below the surface of the ground.

Expected maximum injection rate is 2000 barrels per day, and expected maximum injection pressure is 3000 pounds per square inch. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days of this publication.

P-562 874 923

POSTAGE AND CERTIFIED MAIL
FIRST CLASS PERMIT NO. 1000
INTERNATIONAL MAIL

Sent to	
Robert Boling	
Street and No.	305 S. 5th St.
P.O. State and ZIP Code	Artesia, N.M. 88210
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing Date and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

U.S.G.P.O. 153-506

Form 3800, June 1985

P-562 874 924

POSTAGE AND CERTIFIED MAIL
FIRST CLASS PERMIT NO. 1000
INTERNATIONAL MAIL

Sent to	
J.C. Williamson	
Street and No.	P.O. Box 16
P.O. State and ZIP Code	890 One First City Center Midland, Texas 79707
Postage	
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing Date and Address of Delivery	
TOTAL Postage and Fees	
Postmark or Date	

U.S.G.P.O. 153-506

Form 3800, June 1985

SENDER: Complete items 1, 2, 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
J.C. Williamson
P.O. Box 16
890 One First City Center
Midland, Texas 79707

4. Type of Service: ☐ Registered ☐ Insured ☐ Certified ☐ COD ☐ Express Mail
Article Number
P 562 874 924

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
X *J.C. Williamson*
6. Signature - Agent
X
7. Date of Delivery
MAR 31 1988
8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, July 1983

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
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3. Article Addressed to:
Robert Boling
305 S. 5th St.
Artesia, NM 88210

4. Type of Service: ☐ Registered ☐ Insured ☐ Certified ☐ COD ☐ Express Mail
Article Number
P 562 874 923

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
X *Robert Boling*
6. Signature - Agent
X
7. Date of Delivery
3-30-88
8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

OFFSET COMPLETION INTERVALS
THAT PENETRATE PROPOSED INJECTION
INTERVAL OF
SALT MOUNTAIN 36 STATE NO. 1
CONVERSION TO SWD
PROPOSED INJECTION INTERVAL 5417'-6170'

<u>Lease</u>	<u>Well No.</u>	<u>TD</u>	<u>Perforations</u>
MWJ Federal	1	6220 (PBDT 5290)	5021 - 5065
	2	6250	4987 - 6187
	3	6350	4959 - 6269
<i>MWJ # 4</i>	5	6260	4978 - 5061
UCBHW Federal	1	6250	5082 - 5118
	2	6285	5071 - 5161
	3	6270 (BP @ 5590)	5073 - 5153
Holly Federal	1	6250	5036 - 5104

Prod. from

*MWJ Fed No 1 -
Fed No. 2
Fed No. 3
Fed No. 4*

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
<u>TEXACO</u>	EXHIBIT NO. <u>2</u>
CASE NO. <u>9373</u>	

OFFSET COMPLETION INTERVALS

MWJ Federal No. 1

660' FNL & 660' FEL, Section 35, T-26-S, R-29-E
TD 6220'

10-29-82 1st set perforations 6104, 08, 18, 20, 22, 24, 26,
28, 33, 34, 41
12-22-82 BP @ 5300' + 10' cement on top (PBTD 5290')
2nd set perforations 5024-65 11 shots (exact
perforations not given)
08-20-85 BP @ 5121' Reperforate 5021, 23, 32, 35, 36, 48,
54, 57, 63, 65, 70 (apparently left BP @ 5121' in
hole)

MWJ Federal No. 2

660' FNL & 1980' FEL, Section 35, T-26-S, R-29-E
TD 6250'

01-07-83 Perforations 6097 - 6187 12 holes
5680 - 5701 8 holes
5421 - 5453 9 holes
5149 - 5167 7 holes
4987 - 5068 14 holes

MWJ Federal No. 3

330' FSL & 1800' FEL, Section 35, T-26-S, R-29-E
TD 6350'

03-16-84 Perforations 6167 - 6269 12 holes
6060 - 6107 12 holes
5933 - 5955 8 holes
5850 - 5883 8 holes
5754 - 5756 3 holes
5676 - 5709 11 holes
5389 - 5431 10 holes
4973 - 4959 22 holes

MWJ Federal No. 5

330' FSL & 330' FEL, Section 35, T-26-S, R-29-E
TD 6260' PBTD 6220'

02-21-86 Perforations 4978 - 5061 32 holes

OFFSET COMPLETION INTERVALS (Continued)

UCBHWW Federal No. 1

660' FSL & 660' FWL, Section 25, T-26-S, R-29-E
TD 6250' PBTD 5500'

06-07-82 Perforations 6150 - 6164 2SPF
07-19-82 Perforations 5082 - 5118 25 holes
07-19-82 PBD 5500'

UCBHWW Federal No. 2

1980' FSL & 660' FWL, Section 25, T-26-S, R-29-E

10-27-82 Perforations 5117 - 5161 17 holes
11-04-85 Bridge plug @ 5350'
Perforations 5071 - 5107
Apparently left plug in @ 5350'

UCBHWW Federal No. 3

1980' FWL & 660' FSL, Section 25, T-26-S, R-29-E

05-28-83 Perforations 6173 - 6313 15 holes
03-25-85 RBP @ 5590'
Perforations 5073 - 5153 24 holes
Tubing total 4984'
Apparently left RBP in

Holly Federal No. 1

460' FSL & 660' FEL, Section 26, T-26-S, R-29-E
TD 6250'

09-01-82 Perforations 5060 - 5104 20 holes
10-09-87 Intent to perforate 5036 - 55 No subsequent

SILT MOUNTAIN 35 STATE WELL NO. 1
PROPOSED

12 101 20 SHEETS 3 SQUARE
42 182 100 SHEETS 3 SQUARE
42 384 200 SHEETS 3 SQUARE



RAMSEY PERFS:

1 USPF: 3014' - 3050',
3072' - 3088'

SQUEEZE HOLES AT 4800 -

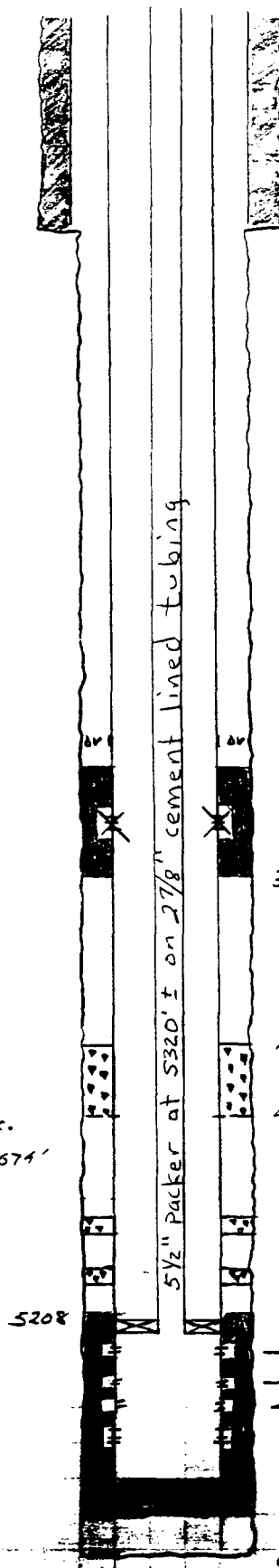
SQUEEZED WITH 200 SX.
CEMENT FROM 4800' TO 4674'
BY SR LOG.

DELAWARE PERFS -

1 USPF: 5080' - 5101',
5110' - 5120' ¹⁰⁰ SQUEEZED
WITH 100 SX.

DELAWARE PERFS -

1 USPF: 6152' - 6170



5 7/8" 24# J-55 CCG SET @
485' WITH 525 SX. CEMENT
DID NOT CIRCULATE. DUMPED
200 SX DOWN ANNULUS. DUMPED
3/4 YARDS RED-MIX. 30T CEMENT
TO SURFACE. HOLE SIZE: 12 1/4".

5 1/2" 15.5# K-55 CCG SET @
6256' WITH 1000 SX IN TWO STAGES:
1ST STAGE: 700 SX. CEMENT DID
NOT CIRCULATE. T/CMT @
5208 BY CBL. (DV TOOL @ 2888')
2ND STAGE: 300 SX. CEMENT DID
NOT CIRCULATE. T/CMT @
2960' BY CBL. BOTTOM OF CMT
@ 3650'. (APPEARS THAT CEMENT
WENT DOWN.)
HOLE SIZE: 7 7/8".

3650

4674

4800

5208

ORIGINAL PERFS 5077 - 5160 WERE
SQUEEZED WITH 200 SX, BROKE DOWN
WITH ACID AND FRAC'D, AND SQUEEZED
WITH A SECOND 200 SX.

— 5417' - 5532' } NEW PERFS
— 5738' - 5784' }
— 5900' - 5931' }

6215 PBTD

6300 TD

Schlumberger

COMPENSATED NEUTRON LOG

CASED HOLE

DDY N. M.

COUNTY

FIELD _____

OCCASION

TEAM

1

COMPANY GETTY OIL COMPANY

GOC W.I. 100%

WELL _____ SALT MOUNTAIN STATE 36 #1

FIELD BRUSHY DRAW (DELAWARE)

COUNTY EDDY STATE NEW MEXICO

660' FNL & 660' FWL

Other Services:

API SERIAL NO.

SEC.

TWP

RANGE

36

26-5

29-E

CBI
GETTY OIL CO.
MIDLAND DISTRICT
- WELL FILE COPY

Permanent Datum: GL; Elev.: 2881.5
Log Measured From KB 12 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 2893.5
D.F. _____
G.L. 2881.5

Date	11-5-82	ALL CORRELATIONS VS.			
Run No.	ONE	WILLIAMSON-UCB HWW #1			
Depth-Driller	6256	(1320' to the North)			
Depth-Logger (Schl.)	6242				
Btm. Log Interval	6216	Plmr Lm	2966'	(-73')	
Top Log Interval	SURFACE	Pbe	3007'	(-114')	
Type fluid in hole	FRESH WATER	Pcn	3890'	(-997')	
Salinity ppm Na Cl.		Phr	5036'	(-2143')	
Density	1.0				
Fluid level	658				
Max. rec. temp., deg F.	118				
Operating rig time					
Truck no. D Truck no.	8215				
Location	ROSWELL				
Recorded by	CROFUT				
Witnessed by		PREPARED BY W.R.C.			

[illegible]

CAMPBELL & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
J. SCOTT HALL
PETER N. IVES
JOHN H. BEMIS
MARTE D. LIGHTSTONE

GUADALUPE PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

April 27, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

To all affected Interest Owners or Offset Operators

Re: Application of Texaco Producing, Inc. for Salt Water
Disposal, Eddy County, New Mexico

Dear Interest Owner or Offset Operator:

This letter is to advise you that Texaco Producing, Inc. has filed an application with the New Mexico Oil Conservation Division for Salt Water Disposal, Eddy County, New Mexico.

This application has been set for hearing before a Division Examiner on May 11, 1988. You are not required to attend this hearing, but as an interest owner you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Very truly yours,



J. Scott Hall

JSH/dmg
encl.

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
TEXACO	EXHIBIT NO. <u>4</u>
CASE NO. <u>9373</u>	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:
Robert Boling
305 S. 5th Street
Artesia, NM 88210

4. Article Number
P307895270

Type of Service:
☒ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED**.

5. Signature - Addressee
Robert Boling

6. Signature - Agent
X

7. Date of Delivery
4-29-88

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

P 307 895 270

RECEIPT FOR CERTIFIED MAIL

PS Form 3800 June 1985

Robert Boling
 305 S. 5th Street
 Artesia, NM 88210

25
85
90
2.00

4/27/88

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address.	2. ☐ Restricted Delivery.
3. Article Addressed to: J.C. Williamson P.O. Box 16 890 One First City Center Midland, Texas 79707	
4. Article Number P307895271	
Type of Service: ☒ Registered ☐ Certified ☐ Express Mail ☐ Insured ☐ COD	
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Agent X. Paula Bygones	8. Addressee's Address (ONLY if requested and fee paid) 500 W. Yancey #890
7. Date of Delivery 4/27/88	

DOMESTIC RETURN RECEIPT

PS Form 3811, Feb. 1986

P 307 895 271

J.C. Williamson
P.O. Box 16
890 One First City Center
Midland, TX 79707
25
85

4/27/88

90
2.00