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NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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Form C-165
Revised 1-1-64

1a. Initial Type of Lease	
State ☒	Fee ☐
2. State Oil & Gas Lease No.	
647-368	
647-363	647-320

10. TYPE OF WELL

OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐

b. TYPE OF COMPLETION

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESER. ☐

2. Name of Operator *ARC Oil & Gas Co.*

3. Address of Operator *Div. of Atlantic Richfield Co.*
Box 1710, Hobbs, New Mexico 88240

4. Location of Well

UNIT LETTER *B* LOCATED *959* FEET FROM THE *North* LINE AND *2400* FEET FROM

7. Unit Agreement Name
Empire Abo Pressure Maintenance Project

8. Form of Lease Name
Empire Abo Unit "E"

9. Well No.
392

10. Field and Pool, or Wildcat
Empire Abo

THE *East* LINE OF SEC. *35* TWP. *17S* RGE. *28E* SMDM

15. Date Spudded *3/6/79* 16. Date T.D. Reached *3/13/79* 17. Date Compl. (Ready to Prod.) *4/1/79* 18. Elevations (DF, RNB, RT, GR, etc.) *3685.5' GR* 19. Elev. Casinghead

20. Total Depth *6320'* 21. Plug Back T.D. *6281'* 22. If Multi-Dr. Compl., How Many

23. Intervals Drilled By: Rotary Tools *0-6320'* Cable Tools

24. Producing Interval(s), of this completion - Top, bottom, Name
6244-6254' Abo Reef

25. Was Directional Survey Made
Yes

26. Type Electric and Casing Logs Run
DLL-RXO, CNI-FDC w/Caliper, CBL

27. Was Well Cured
No

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8" OD	24# K-55	798'	11"	370	
5-1/2" OD	15.5# K-55	6320'	7-7/8"	1563	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-3/8" OD	6148'	6139'

31. Perforation Record (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
6244-6254' - 20 .48" holes				DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
				6244-6254'	50 gal 15% NE acid, 1500 gal CaCl wtr, 1500 gal gelled LC, 1500 gal 15% NE acid, flushed w/24 BLC

33. PRODUCTION

Date First Production *3/28/79* Production Method (*Flowing, gas lift, pumping - Size and type pump*) *Pumping - Hyd pump* Well Status (*Prod. or Shut-in*) *Prod*

Date of Test <i>4/29/79</i>	Hours Tested <i>24 hrs</i>	Choke Size <i>-</i>	Prod'n. Per Test Period <i>88</i>	Oil - Bbl. <i>88</i>	Gas - MCF <i>76</i>	Water - Bbl. <i>0</i>	Gas - Oil Ratio <i>864:1</i>
Flow Tubing Press. <i>-</i>	Casing Pressure <i>Pkr</i>	Calculated 24-Hour Rate <i>88</i>	Oil - Bbl. <i>88</i>	Gas - MCF <i>76</i>	Water - Bbl. <i>0</i>	Oil Gravity - API (Conn.) <i>44°</i>	

34. Disposition of Gas (Solid, used for fuel, vented, etc.) *Sold*

Test Witnessed By *N. H. Truitt*

35. List of Attachments
Logs as listed in Item 26 above & Multi-shot survey & Inclination Report

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED *L. Roy Love* TITLE *Dist. Drllg Supt.* DATE *5/2/79*

This form is to be filed with the appropriate District Office of the Commission not later than 30 days after the completion of any newly drilled or reopened well. It shall be accompanied by a copy of all observed and radioactivity logs and the well log summary of all special tests conducted, including drill stem tests. All test results shall be measured to the nearest foot, and all well logs shall be filed with the well log. For multiple completions, tests to be reported for each zone. The form is to be filed in quadruplicate with every state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Igua to Quate _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Bluebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____ 5966'	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from..... 6244'.....to..... 6254'.....	No. 4, from.....to.....
No. 2, from.....to.....	No. 5, from.....to.....
No. 3, from.....to.....	No. 6, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.	None encountered
No. 2, from.....to.....feet.	
No. 3, from.....to.....feet.	
No. 4, from.....to.....feet.	

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	798	798	Surface, Caliche, Sd, Red Bed				
798	4106		Anhydrite				
4106	4815		Anhydrite & Lime				
4815	4996		Anhydrite				
4996	5012		Lime & Shale				
5012	5992		Lime				
5992	6012		Lime, Shale				
6012	6115		Lime				
6115	6254		Dolo				
6254	6320		Dolo, Lime				

FIELD Empire Abo COUNTY Edo OCC NUMBER _____
OPERATOR Atlantic Richfield Company ADDRESS P. O. Box 1710, Hobbs, New Mexico 88240
LEASE Empire Abo Unit E WELL NO. 392
SURVEY 600' FNL & 2500' FEL, 35-17S-28E

RECORD OF INCLINATION

<u>DEPTH (FEET)</u>	<u>ANGLE OF INCLINATION (DEGREES)</u>
465	1/2
784	1/2
1248	1 1/2
1741	2
2204	2 1/4
2695	2 1/2
3186	2 3/4
3676	2 3/4
4139	1 3/4
4426	6 N 15 W
4550	6 3/4 N 17 W
4705	7 N 16 W
4859	7 1/2 N 12 W
5041	7 1/4 N 8 W
5224	7 1/2 N 7 W
5411	8 1/2 N 6 W
5597	9 N 5 W
5780	9 1/4 N 4 W
5994	8 3/4 N 10 W
6148	8 1/4 N 11 W
6320	8 3/4 N 9 W

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MAY 2 1979

O. C. C.
ARTEBIA, OFFICE

Certification of personal knowledge inclination data:

I hereby certify that I have personally assembled the data and facts placed on this form, and such information given above is true and complete to the best of my knowledge.

HONDO DRILLING COMPANY

BY: Walter Frederickson

Walter Frederickson
Vice President

Sworn and subscribed to before me the undersigned authority, on this the

3rd day of April, 1979.

Margaret B. Anderson Notary Public in and for Midland County, Texas.
Margaret B. Anderson

ATLANTIC RICHFIELD COMPANY

EMPIRE ABO UNIT WELL NO. E-392

EDDY COUNTY, NEW MEXICO

LASTMAN WHIPSTOCK, INC.

MAGNETIC MULTI SHOT WT-379 S-1180

SURVEYOR: MIKE TEAFF 3-7-79

MAGNETIC MULTI SHOT WT-379 S-1213

SURVEYOR: MIKE TEAFF 3-13-79

MAGNETIC MULTI SHOT WT-379 S-1226

SURVEYOR: LARRY MASSEY 3-19-79

PLANE OF PROPOSED DIRECTION IS N 15 DEG. 58 MIN. W

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

TRUE

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	ANGULAR VALUES FEET	CLOSURE DISTANCE FEET	DIRECTION D M	DOG LEG SEVERITY DEG/100FT
0.	0 0	0	0.00	0.00	0.00	0.00	0.00	0 0	0.0
62.	0 15	N 32 E	62.00	.09	.11 N	.07 E	.14	N 32 0 E	.4
152.	0 30	N 27 E	152.00	.50	.63 N	.36 E	.72	N 29 58 E	.3
242.	0 30	N 32 E	241.99	1.05	1.31 N	.75 E	1.51	N 29 43 E	.0
332.	0 30	N 69 E	331.99	1.23	1.68 N	1.40 E	2.19	N 39 52 E	.5
423.	0 30	S 10 W	422.99	.60	1.15 N	1.86 E	2.16	N 58 9 E	.8
513.	0 45	S 5 E	512.98	-.33	.17 N	1.81 E	1.82	N 84 29 E	.3
603.	0 30	S 20 E	602.98	-1.31	.78 S	2.02 E	2.17	S 68 55 E	.3
694.	0 45	S 6 E	693.97	-2.30	1.75 S	2.25 E	2.85	S 52 10 E	.3
784.	0 30	S 16 W	783.97	-3.21	2.72 S	2.16 E	3.47	S 38 31 E	.4
862.	0 45	S 34 W	861.96	-3.85	3.49 S	1.80 E	3.92	S 27 22 E	.4
924.	0 45	S 47 W	923.96	-4.29	4.10 S	1.28 E	4.30	S 17 19 E	.3
1016.	0 30	N 80 W	1015.95	-4.30	4.38 S	.35 E	4.39	S 4 34 E	.7
1109.	1 15	N 43 W	1108.94	-3.33	3.71 S	.88 W	3.81	S 13 17 W	1.0
1201.	1 45	N 58 W	1200.91	-1.35	2.18 S	2.73 W	3.49	S 51 21 W	.7
1294.	1 45	N 40 W	1293.86	1.02	.33 S	4.86 W	4.88	S 86 9 W	.6
1386.	2 0	N 45 W	1385.81	3.72	1.89 N	6.90 W	7.15	N 74 40 W	.3
1479.	2 0	N 54 W	1478.76	6.42	4.00 N	9.36 W	10.18	N 66 53 W	.3
1571.	2 30	N 35 W	1570.69	9.58	6.56 N	11.88 W	13.57	N 61 6 W	1.0
1664.	2 0	N 52 W	1663.61	12.30	9.20 N	14.39 W	17.08	N 57 24 W	.9
1756.	2 15	N 34 W	1755.55	15.83	11.68 N	16.70 W	20.38	N 55 2 W	.8
1849.	2 0	N 41 W	1848.49	19.03	14.42 N	18.80 W	23.69	N 52 31 W	.4
1941.	2 45	N 36 W	1940.41	22.55	17.40 N	21.17 W	27.41	N 50 35 W	.8
2033.	2 30	N 25 W	2032.31	26.63	21.03 N	23.31 W	31.39	N 47 57 W	.6
2126.	2 30	N 45 W	2125.22	30.44	24.33 N	25.62 W	35.34	N 46 29 W	.9
2216.	2 30	N 30 W	2217.13	34.16	27.51 N	28.06 W	39.29	N 45 34 W	.7
2311.	2 45	N 43 W	2310.04	38.15	30.92 N	30.59 W	43.50	N 44 41 W	.7
2403.	2 45	N 29 W	2401.93	42.28	34.49 N	33.18 W	47.85	N 43 53 W	.7
2456.	2 30	N 46 W	2494.83	46.23	37.85 N	35.76 W	52.07	N 43 22 W	.9
2562.	2 45	N 47 W	2586.74	49.86	40.75 N	38.92 W	56.28	N 43 36 W	.3

MEASURED										TRUE									
DEPTH	DRIFT	ANGLE	DIRECTION	DEPTH	VERTICAL	SECTION	RECTANGULAR	CLOSURE	DOG	DEPTH	DRIFT	ANGLE	DIRECTION	DEPTH	VERTICAL	SECTION	RECTANGULAR	CLOSURE	DOG
FEET	D	M	D	FEET	FEET	FEET	FEET	FEET	LEG	FEET	D	M	D	FEET	FEET	FEET	FEET	FEET	LEG
2681.	2	30	N	34	2679.64	53.72	43.96	N	41.58	W	60.52	N	43	23	W				.7
2773.	2	45	N	38	2771.54	57.68	47.39	N	44.05	W	64.70	N	42	54	W				.3
2866.	2	30	N	46	2864.44	61.47	50.50	N	46.95	W	68.96	N	42	55	W				.6
2958.	2	0	N	47	2956.37	64.55	52.94	N	49.62	W	72.56	N	43	9	W				.5
3051.	2	30	N	43	3049.30	67.74	55.53	N	52.20	W	76.21	N	43	14	W				.6
3143.	1	45	N	53	3141.24	70.63	57.81	N	54.73	W	79.60	N	43	26	W				.9
3236.	2	0	N	44	3234.19	73.19	59.82	N	57.01	W	82.63	N	43	37	W				.4
3328.	1	45	N	34	3326.14	75.96	62.16	N	58.90	W	85.63	N	43	28	W				.4
3421.	2	15	N	45	3419.08	78.93	64.66	N	60.96	W	88.86	N	43	19	W				.7
3513.	1	45	N	62	3511.03	81.47	66.56	N	63.53	W	92.01	N	43	40	W				.8
3606.	1	45	N	53	3603.98	83.59	68.08	N	65.92	W	94.77	N	44	5	W				.3
3698.	2	0	N	45	3695.93	86.11	70.06	N	68.19	W	97.77	N	44	14	W				.4
3791.	1	45	N	44	3788.88	88.79	72.23	N	70.33	W	100.81	N	44	14	W				.3
3883.	1	45	N	57	3880.84	91.10	74.01	N	72.49	W	103.60	N	44	24	W				.4
3976.	1	15	N	61	3973.81	92.87	75.26	N	74.58	W	105.95	N	44	44	W				.5
4068.	1	15	N	47	4065.79	94.45	76.44	N	76.20	W	107.93	N	44	54	W				.3
4161.	1	30	N	48	4158.76	96.35	77.95	N	77.84	W	110.16	N	44	58	W				.3
4253.	1	15	N	51	4250.73	98.19	79.38	N	79.52	W	112.36	N	45	3	W				.3
4294.	1	45	N	36	4291.72	99.14	80.16	N	80.26	W	113.43	N	45	2	W				1.5
4349.	4	0	N	32	4346.65	101.76	82.44	N	81.80	W	116.14	N	44	46	W				4.1
4442.	6	0	N	14	4439.29	109.78	89.87	N	84.95	W	123.67	N	43	23	W				2.7
4534.	6	0	N	16	4530.78	119.39	99.16	N	87.44	W	132.21	N	41	24	W				.2
4626.	6	0	N	14	4622.28	129.01	108.45	N	89.93	W	140.89	N	39	40	W				.2
4718.	6	45	N	17	4713.71	139.22	118.29	N	92.66	W	150.26	N	38	4	W				.9
4811.	7	15	N	9	4806.02	150.53	129.33	N	95.21	W	160.59	N	36	22	W				1.2
4903.	7	15	N	8	4897.28	162.04	140.81	N	96.92	W	170.94	N	34	32	W				.1
4995.	7	0	N	5	4988.57	173.29	152.15	N	98.21	W	181.09	N	32	51	W				.5
5067.	7	45	N	5	5079.81	184.89	163.91	N	99.24	W	191.62	N	31	12	W				.8
5160.	7	0	N	6	5172.04	196.63	175.79	N	100.39	W	202.44	N	29	44	W				.8
5274.	8	0	N	4	5265.23	208.67	188.02	N	101.46	W	213.64	N	28	21	W				1.1

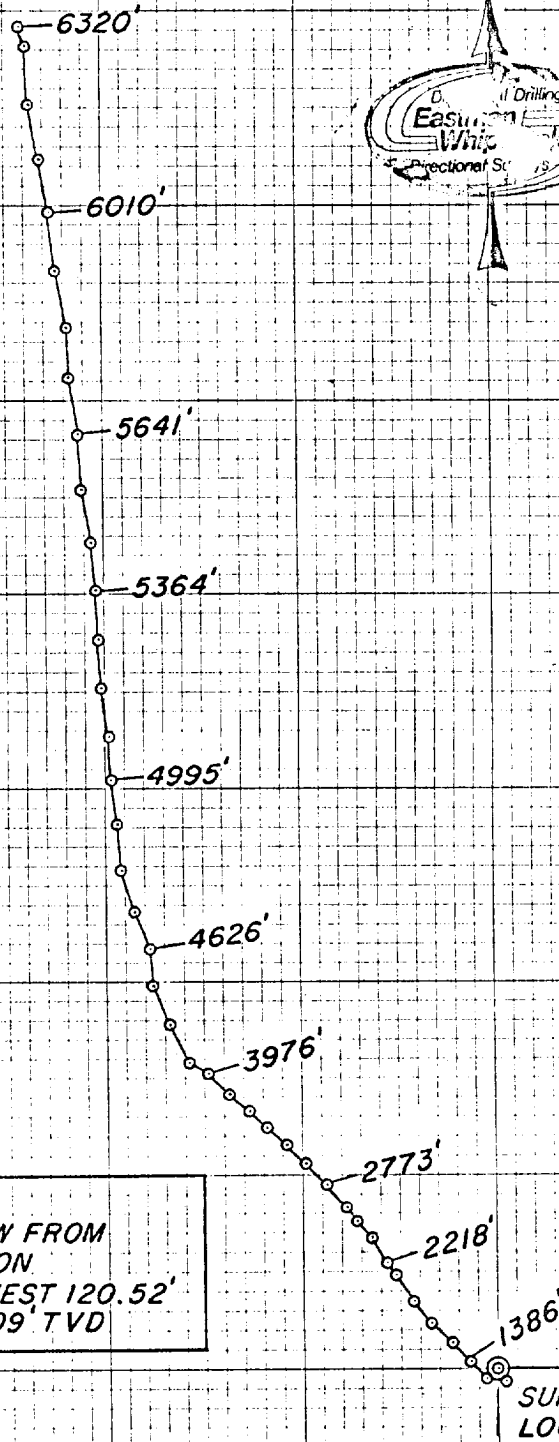
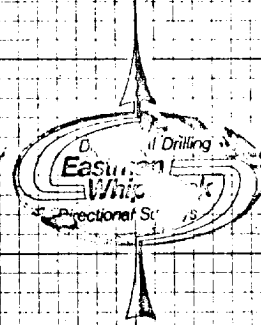
1.1

TRUE									
MEASURED DEPTH	DRIFT ANGLE	DRIFT DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR CLOSURE DISTANCE	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR CLOSURE DISTANCE	DOG LEG SEVERITY
FEET	D M	D	FEET	FEET	FEET	FEET	FEET	D M	DEG/100FT
5364.	8 0	N 2	5354.36	220.88	200.52	102.11	225.03	N 26 59	.3
5456.	8 30	N 9	5445.40	233.85	213.66	103.38	237.35	N 25 49	1.2
5549.	8 30	N 5	5537.38	247.43	227.30	105.05	250.40	N 24 48	.6
5641.	9 0	N 3	5628.31	261.23	241.20	106.64	263.72	N 23 51	.7
5733.	9 15	N 5	5719.15	275.62	255.70	108.29	277.68	N 22 57	.6
5825.	8 45	N 8	5810.01	289.81	269.99	109.92	291.51	N 22 9	.7
5918.	9 0	N 6	5901.90	303.99	284.23	111.67	305.38	N 21 27	.4
6010.	8 45	N 9	5992.80	318.02	298.30	113.52	319.17	N 20 50	.6
6102.	8 15	N 11	6083.79	331.55	311.70	115.88	332.54	N 20 24	.6
6194.	9 0	N 7	6174.75	345.24	325.32	118.04	346.07	N 19 57	1.0
6287.	9 30	N 7	6266.54	360.01	340.16	119.86	360.66	N 19 25	.5
6320.	9 30	N 7	6299.09	365.39	345.56	120.52	365.98	N 19 14	0.0

FINAL CLOSURE - DIRECTION: N 19 DEGS 13 MINS 38 SECS W
 DISTANCE: 365.98 FEET

ATLANTIC RICHFIELD COMPANY
EMPIRE ABO UNIT WELL NO.E-392
LEA COUNTY, NEW MEXICO

SCALE: 1" = 50'



CLOSURE:
365.98' N 19° 14' W FROM
SURFACE LOCATION
NORTH 345.56' WEST 120.52'
6320' MD 6299.09' TVD

SURFACE
LOCATION

46 0700

10 X 10 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.