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District IV - (505) 827-7131
2040 S. Pacheco
Santa Fe, NM 87505

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-140
Revised 06/99

SUBMIT ORIGINAL
PLUS 2 COPIES
TO APPROPRIATE
DISTRICT OFFICE

APPLICATION FOR
WELL WORKOVER PROJECT

H-0681

I. Operator and Well

Operator name & address Conoco Inc. P.O. Box 1267 Ponca City, OK 74602							OGRID Number 005073 Conoco Cmpl 1893380	
Contact Party Cristy Pannell							Phone 580-767-4880	
Property Name Lockhart A 18					Well Number 7		API Number 30-025-32141	
UL O	Section 18	Township 21S	Range 36E	Feet From The 660	North/South Line South	Feet From The 1800	East/West Line East	County Lea

II. Workover

Date Workover Commenced: 10/25/01	Previous Producing Pool(s) (Prior to Workover): Basin Dakota BUMONT 4 12 024
Date Workover Completed: 10/25/01	

- III. Attach a description of the Workover Procedures performed to increase production. **Wellhead compression installed 10/24/2001, see attached.**
- IV. Attach a production decline curve or table showing at least twelve months of production prior to the workover and at least three months of production following the workover reflecting a positive production increase. **Data tabulation attached.**
- V. AFFIDAVIT:

State of Oklahoma)
) ss.
County of Kay)
Cristy Pannell, being first duly sworn, upon oath states:

- I am the Operator, or authorized representative of the Operator, of the above-referenced Well.
- I have made, or caused to be made, a diligent search of the production records reasonably available for this Well.
- To the best of my knowledge, this application and the data used to prepare the production curve and/or table for this Well are complete and accurate.

Signature Cristy L. Pannell Title Staff Analyst Date August 2002
SUBSCRIBED AND SWORN TO before me this 14 day of August, 2002.

My Commission expires: January 2, 2006
Notary Public Lois Thornton
Commission # 01020120

FOR OIL CONSERVATION DIVISION USE ONLY:

VI. CERTIFICATION OF APPROVAL:

This Application is hereby approved and the above-referenced well is designated a Well Workover Project and the Division hereby verifies the data shows a positive production increase. By copy hereof, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project was completed on 10/25/01.

Signature District Supervisor <u>[Signature]</u>	OCD District <u>1</u>	Date <u>8/24/02</u>
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VII. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT:

Compl Name - Compl	Compl ID - Compl	Compl Legacy Cd - Compl	API Well Cd - Compl	Rsvr Name - Compl	PUN / SUFFIX	Cnty Name - Compl	Sect	TWN	RNG	Dir
LOCKHART A-18 / 7UTL	1893380	6823718 7UTL	300253214100	EUMONT YATES 7RVRS OU-GA	1036990 F 2520	LEA	18	21	36	E

Production Date	Workover Indicator	EUMONT YATES 7RVRS OU-GA
10/2000	1 Pre Workover Period	7,656
11/2000	1 Pre Workover Period	7,190
12/2000	1 Pre Workover Period	7,424
01/2001	1 Pre Workover Period	6,600
02/2001	1 Pre Workover Period	6,964
03/2001	1 Pre Workover Period	6,946
04/2001	1 Pre Workover Period	6,999
05/2001	1 Pre Workover Period	7,025
06/2001	1 Pre Workover Period	798
07/2001	1 Pre Workover Period	7,968
08/2001	1 Pre Workover Period	8,079
09/2001	1 Pre Workover Period	7,588
	Sum:	81,237

10/2001	2 Workover Period	7,968
	Sum:	7,968

11/2001	3 Post Workover Period	10,359
12/2001	3 Post Workover Period	10,002
01/2002	3 Post Workover Period	6,536
	Sum:	26,897

30025321410000

Website shows 1 in print!
 Location: 1800' EL

Case No / Date
 5/22/2002

LOCKHART A-18 #07 (HWR 07/22/99)

API No.	30025321410000
Spud	10/3/1993
Completion	12/27/1993
Abandoned	
Frm. Prod.	453YTES
Well No.	7
Field	EUMONT
Init. Well Class.	development well
Status	GAS
Permit	
RR	
Last Act.	
TD	3800.0 ftKB
PBTD	3753.0 ftKB
Operator	CONOCO INC
Permit No.	
District	
Final Well Class.	gas well
Frm. at TD	453GRBG

Elevations

KB-Grd	5.0 ft
Grd	3633.0 ft
Tub Head	0.0 ft
KB	3638.0 ft
Cas Flng	0.0 ft

Bore Hole Data

Size (in)	Depth (ftKB)
12.2500	420.0
6.5000	3800.0

Casing String - Surface Casing

Grd	Item (in)	Btm (ftKB)	Comments	ID	Thd	Jnts	Wt
K-55	8.6300 in Casing	420.0	Cmt circ	8.1000			24.00

Casing String - Production Casing

Grd	Item (in)	Btm (ftKB)	Comments	ID	Thd	Jnts	Wt
K-55	5.5000 in Casing	3800.0	Cmt circ	4.9500			15.50

Casing Cement

Amount (sx)	Comments	Casing String	Top (ftKB)
250		Surface Casing	5.0
600		Production Casing	5.0

Perforations

Int	Shots (/ft)	Comments	Type	Date
3405.0 - 3405.0	3.3			10/20/1993
3409.0 - 3409.0	3.3			10/20/1993
3418.0 - 3418.0	3.3			10/20/1993
3424.0 - 3424.0	3.3			10/20/1993
3432.0 - 3432.0	3.3			10/20/1993
3444.0 - 3444.0	3.3			10/20/1993
3454.0 - 3454.0	3.3			10/20/1993
3477.0 - 3477.0	3.3			10/20/1993
3482.0 - 3482.0	3.3			10/20/1993
3485.0 - 3485.0	3.3			10/20/1993
3489.0 - 3489.0	3.3			10/20/1993
3493.0 - 3493.0	3.3			10/20/1993
3497.0 - 3497.0	3.3			10/20/1993
3507.0 - 3507.0	3.3			10/20/1993
3511.0 - 3511.0	3.3			10/20/1993
3542.0 - 3542.0	3.3			10/20/1993
3555.0 - 3555.0	3.3			10/20/1993
3589.0 - 3589.0	3.3			10/20/1993
3592.0 - 3592.0	3.3			10/20/1993
3612.0 - 3612.0	3.3			10/20/1993
3630.0 - 3630.0	3.3			10/20/1993
3642.0 - 3642.0	3.3			10/20/1993
3647.0 - 3647.0	3.3			10/20/1993
3651.0 - 3651.0	3.3			10/20/1993

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5/22/2002

Perforations (con't)				
Int	Shots (/ft)	Comments	Type	Date
3657.0 - 3657.0	3.3			10/20/1993
3665.0 - 3665.0	3.3			10/20/1993
3671.0 - 3671.0	3.3			10/20/1993
3677.0 - 3677.0	3.3			10/20/1993
3146.0 - 3146.0	3.3		Jet perforation	10/29/1993
3153.0 - 3153.0	3.3		Jet perforation	10/29/1993
3162.0 - 3162.0	3.3		Jet perforation	10/29/1993
3172.0 - 3172.0	3.3		Jet perforation	10/29/1993
3176.0 - 3176.0	3.3		Jet perforation	10/29/1993
3181.0 - 3181.0	3.3		Jet perforation	10/29/1993
3189.0 - 3189.0	3.3		Jet perforation	10/29/1993
3193.0 - 3193.0	3.3		Jet perforation	10/29/1993
3199.0 - 3199.0	3.3		Jet perforation	10/29/1993
3215.0 - 3215.0	3.3		Jet perforation	10/29/1993
3227.0 - 3227.0	3.3			10/29/1993
3234.0 - 3234.0	3.3			10/29/1993
3240.0 - 3240.0	3.3			10/29/1993
3246.0 - 3246.0	3.3			10/29/1993
3251.0 - 3251.0	3.3			10/29/1993
3276.0 - 3276.0	3.3			10/29/1993
3299.0 - 3299.0	3.3			10/29/1993
3305.0 - 3305.0	3.3			10/29/1993
3315.0 - 3315.0	3.3			10/29/1993
3323.0 - 3323.0	3.3			10/29/1993
3348.0 - 3348.0	3.3			10/29/1993
3353.0 - 3353.0	3.3			10/29/1993

Stimulations & Treatments					
Int	Zone	Comments	Type	Date	Fluid
3405.0 - 3677.0	Lower 7Rvr/Queen	Pumped 2800 gal 7.5% HCl, diverting w/46 - 1.3 ball sealers, flush w/27 bbls kill fluid. AIR 5 bpm, AIP 1472#, ISIP 773#, 5 min well on vacuum. SI 2 hrs, swab back 12 bbls & well dry.	Acid Squeeze	10/21/1993	7.5% HCl
3405.0 - 3677.0	Lower 7Rvr/Queen	Pump 28,000 gal 70 quality CO2 foam pad - followed w/45,000 gal 60 to 50 quality CO2 foam, ramping 194,000 lbs 12/20 Ottawa sand, 1# to 7#, flush w/3400 gallons. AIP 1707#, AIR 51.6 bpm, ISIP 955#, 5 min 860#, 10 min 804#, 15 min 764#. Flowed back 2 dys, RIH, Tagged top of sand @ 3615'.	Fracture	10/25/1993	CO2 foam 12/20 sand
3146.0 - 3353.0	Yates/Upper 7Rvrs	Pump 2200 gal 7.5% HCl diverting w/34 - 1.3 ball sealers, balled out w/32 on formation. Had good action. Flush w/20 bbls kill fluid, AIP 1450#, AIR 5 bpm, ISIP vacuum. RIH w/swab line, no fluid in hole.	Acid Squeeze	10/29/1993	7.5% HCl
3146.0 - 3353.0	Yates/Upper 7Rvrs	22,000 gals CO2, 70 quality foam pad - followed w/30,000 gal 60-50 quality CO2 foam. Ramping 12/20 Ottawa sand, 1# to 8#, displaced w/3120 gal foam. AIR 51 bpm, AIP 2185#, ISIP 1374#, 5 min 1235#, 10 min 1142#, 15 min 1057#, SI 4 hrs & started flowback. 2 days later, tagged sand @ 3200', RU foam air unit & CO to RBP @ 3380'.	Fracture	11/1/1993	CO2 foam 12/20 sand

Tubing String - Primary Tubing

Grd	Item (in)	Comments	ID (in)	Thd	Jnts	Len (ft)	Top (ftKB)	Wt
J-55	2.3740 in Tubing Subs		1.9960	8rd	2	16.0	5.0	4.70
J-55	2.3740 in Buttress Tubing		1.9960	Buttress	112	3579.0	21.0	4.70

Tubing String - Primary Tubing (con't)								
Grd	Item (in)	Comments	ID (in)	Thd	Jnts	Len (ft)	Top (ftKB)	Wt
J-55	2.3740 in IPC tubing jt		1.9960	Buttress	1	31.0	3600.0	4.70
J-55	2.3740 in Seat Nipple		1.7810	8rd	1	1.1	3631.0	4.70
J-55	2.8750 in 2-7/8" SOPMA		2.5000	8rd		29.0	3632.1	6.40

Rod String - Tapered Rod String					
Type	Comments	Size (in)	No.	Len (ft)	Top (ftKB)
Polished Rod		1.5000	1	22.0	0.0
7/8" Class K rods		0.8750	29	769.0	22.0
3/4" Class K rods		0.7500	110	2750.0	791.0
K-bars		1.5000	3	75.0	3541.0
2 x 1.25 RWBC 18'-10 (3-Tube) pump dip tube		1.5000		16.1	3616.0
		1.3000		8.0	3632.1

Completions & Workovers

Reason for Workover	Reason for Failure	Date	Summary
Put on Pump	Change Production Assembly	6/28/1995	Put on Pump - CO frac sand from 3597' to 3753'. RIH w/first rods and pmp. Set 2" SN @ 3684' w/31' OEMA on bottom. Ran 2 x 1.25 RHBC 16' pump, 2 x 1.5" K-bars, 114 x 3/4" and 29 x 7/8" class C rods.
Clean Out	Frac Sand	12/19/1995	Clean Out - Stuck pump, jarred, unseated and POH w/rods and pump. Killed well w/25 bbls 8.6# wtr, NUBOP and stripper head. Tubing stuck. Freed-up & POH w/tubing. RIH w/sand pump & CO from 3662' to 3730', SIOWE. TFF @ 3720', CO w/sand pump to 3753'. Had some sand coming in, waited 1 hr, tagged up again, CO 2', laid down bailer. RIH w/production equipment. Total cost: \$7450.00
Stuck Pump	Frac Sand	4/10/1996	Stuck Pump - Jarred & POH w/rods and pump. Killed well with 2% KCl, clay stay & foamer. NUBOP, TFF @ 3679'. POH w/tubing, found mud anchor full of frac sand. RIH w/bailer, CO 15' of sand. RU foam air unit, tag fill @ 3664', CO to 3753' & circ bottoms up, SION. RIH w/production equipment. Total cost: \$9175.00
Clean Out	Frac Sand	5/8/1996	Clean Out - POH w/rods and pump. Killed csg, NDWH, NUBOP. TFF @ 3688', tallied OOH w/tbg. RIH w/bulldog bailer, tagged at 3688' but unable to make any hole. Pumped 30 bbls water, CO 30'. Pumped 40 more bbls water & CO to PBTD of 3753'. RIH w/production tubing (2-7/8" bull plugged jt w/4" perf sub on top, SN, 113 jts 2-3/8") set SN @ 3575'KB, which is 64' higher. Total cost: \$3600.00
Clean Out	Frac Sand	4/8/1997	Clean Out - POH w/rods & pump. Killed well, NUBOP, TFF @ 3655'. RIH w/bailer on tbg, CO to 3671'. SION. RIH w/4.75" bit on tbg, est circ, CO w/foam air unit from 3668' to 3753', blew well dry w/air, pulled up to top perf & SIOWE. TFF @ 3728', CO to PBTD of 3753', circ clean, POH. RIH with 4' perf sub on jt of 2-3/8" (bottom @ 3667'kb), SN @ 3631', 115 jts 2-3/8" and 10' sub on top. RIH w/2"x 1.25" x 12' pump, 2 x 1.5" k-bars, 113 x 3/4" C-rods and 28 x 7/8" C-rods. Total job cost: \$9367.00
Raise SN	Change Production Assembly	4/12/1997	Raise SN - POH w/rods & pump. Swab 100' of thick, black fluid in 5 runs. SION. Made 3 swab runs, getting mostly wet gas, on 4th run had 15' of solid fluid. Pumped 50 bbls soapy water, made 3 swab runs. NDWH, LD one jt plus a 10' sub, moving SN up hole from 3631' to 3591'. RIH w/rods and pump.
Tubing Leak	Corrosion	2/18/1999	Tubing Leak - POH w/rods & pump. Kill well, NDWH, NUBOP. Install stripper head, tag top of fill w/30'. Scan OOH: 7 yellow, 22 blue, 43 green and 42 red jts. RD testers, LD rest of tubing. Pick up bit on new 2-3/8" buttress tubing, RIH, tagged up @ 3422', est circulation, CO to 3750'. SION. RIH, TFF @ 3743' - RIH w/production equipment (notched collar, SN and 114 jts 2-3/8" buttress tubing). Swabbed dry in 3 runs. SION. RIH w/sand line, TFF @ 3750', made 3 swab runs. RIH w/rods and pump. Total cost of job: \$23,000.

5/22/2002

Completions & Workovers (con't)			
Reason for Workover	Reason for Failure	Date	Summary
Stuck Pump	Scale	7/22/1999	Stuck Pump - MIRU, worked pump free, hot oiled rods & tubing. Pulled rods & pump, rods had severe scale & iron sulfide. RIH w/sandline, TFF @ 3727'. Dropped SV, tested tbg, had slow high-pressure leak. Scan-a-logged OOH: 113 yellow, 1 blue, 0 green and 0 red. Only jt #41 showed > 16% wall lose (due to pitting). Picked up 2-7/8" SOPMA, new seat nipple & started in hydrotesting, did not find any bad jts. Raised SN up hole 85' from previous depth. RIH w/pump and rods. Changed out 27 x 7/8" and 45 x 3/4" rod couplings. CE Pump Report: Plgr & inner bbl severely cut and worn. Balls & seats leaking. Entire SV assembly plugged w/iron sulfide & scale, pump junked and new 3-tube built and ran in well.

WELL: LOCKHART_A_18_7.QIN

Well Time Graph Report

Date	WI Cal Day Oil	WI Cal Day Gas1	WI Eng 2002 Forc G
	Bbl/d	mcf/d	mcf/d
1994 01	0.00	688.55	1,771.62
1994 02	0.00	674.57	1,738.98
1994 03	0.00	761.00	1,706.94
1994 04	0.00	782.00	1,675.49
1994 05	0.00	747.74	1,644.62
1994 06	0.00	684.27	1,614.32
1994 07	0.00	912.55	1,584.58
1994 08	0.00	986.81	1,555.39
1994 09	0.00	1,166.77	1,526.73
1994 10	0.00	1,095.42	1,498.60
1994 11	0.00	1,068.60	1,471.00
1994 12	0.00	1,090.77	1,443.89
1995 01	0.00	948.32	1,417.29
1995 02	0.00	982.29	1,391.18
1995 03	0.00	990.32	1,365.55
1995 04	0.00	954.37	1,340.39
1995 05	0.00	993.81	1,315.70
1995 06	0.00	841.83	1,291.46
1995 07	0.00	597.16	1,267.67
1995 08	0.00	727.68	1,244.31
1995 09	0.00	640.60	1,221.39
1995 10	0.00	842.55	1,198.88
1995 11	0.00	158.30	1,176.80
1995 12	0.00	515.48	1,155.12
1996 01	0.00	912.97	1,133.83
1996 02	0.00	957.45	1,112.95
1996 03	2.90	1,005.74	1,092.44
1996 04	0.50	644.33	1,072.31
1996 05	0.00	348.87	1,052.56
1996 06	0.00	806.93	1,033.17
1996 07	0.00	822.52	1,014.13
1996 08	0.00	757.97	995.45
1996 09	0.00	743.53	977.11
1996 10	0.00	729.55	959.11
1996 11	0.00	657.47	941.44
1996 12	0.00	690.23	924.09
1997 01	0.00	686.29	907.07
1997 02	0.00	689.57	890.36
1997 03	0.00	541.84	873.95
1997 04	0.00	368.23	857.85
1997 05	0.00	587.13	842.05
1997 06	0.00	560.23	826.53
1997 07	0.00	598.71	811.31
1997 08	0.00	573.06	796.36
1997 09	0.00	552.97	781.69
1997 10	0.00	539.55	767.29
1997 11	0.00	546.77	753.15
1997 12	0.00	523.97	739.27
1998 01	0.00	505.58	725.65
1998 02	0.00	492.25	712.29
1998 03	0.65	476.77	699.16
1998 04	0.00	441.60	686.28
1998 05	0.00	470.39	673.64
1998 06	0.00	486.33	661.23
1998 07	0.00	451.58	649.04

Well: LOCKHART_A_18_11QN

Well Time Graph Report

10/05/01

installed
portable compressor
unit

Date	WI Cal Day Oil	WI Cal Day Gas1	WI Eng 2002 Forc G
	Bbl/d	mcf/d	mcf/d
1998 08	0.00	419.35	637.09
1998 09	0.00	411.47	625.35
1998 10	0.00	407.84	613.83
1998 11	0.00	394.97	602.52
1998 12	0.00	0.00	591.42
1999 01	0.00	363.55	580.52
1999 02	0.07	263.86	569.83
1999 03	0.58	360.16	559.33
1999 04	0.00	369.77	549.03
1999 05	0.00	369.23	538.91
1999 06	1.67	367.73	528.98
1999 07	0.00	308.13	519.24
1999 08	0.00	360.61	509.67
1999 09	0.00	357.27	500.28
1999 10	0.00	349.65	491.06
1999 11	0.00	342.73	482.02
1999 12	0.00	348.58	473.14
2000 01	0.00	340.74	464.42
2000 02	0.00	322.76	455.86
2000 03	0.00	308.23	447.46
2000 04	0.00	277.87	439.22
2000 05	0.00	259.45	431.13
2000 06	0.00	247.53	423.19
2000 07	0.65	251.32	415.39
2000 08	0.00	259.58	407.74
2000 09	---	240.73	400.22
2000 10	0.00	246.97	392.85
2000 11	0.00	239.67	385.61
2000 12	0.00	239.48	378.51
2001 01	0.00	212.90	371.53
2001 02	0.00	248.71	364.69
2001 03	0.00	224.06	357.97
2001 04	0.00	233.30	351.38
2001 05	0.00	226.61	344.90
2001 06	0.00	26.60	338.55
2001 07	0.00	257.03	332.31
2001 08	0.00	260.61	326.19
2001 09	0.00	217.87	320.18
2001 10	0.00	257.03	314.28
2001 11	0.00	345.30	308.49
2001 12	0.00	---	302.81
2002 01	0.00	210.84	297.23
2002 02	0.00	321.04	291.75
2002 03	0.00	281.71	286.38
2002 04	0.00	---	281.10
2002 05	---	---	275.92
2002 06	---	---	270.84
2002 07	---	---	265.85
2002 08	---	---	260.95
2002 09	---	---	256.14
2002 10	---	---	251.42
2002 11	---	---	246.79
2002 12	---	---	242.25
2003 01	---	---	237.78

6823718

check w/ Debra

Missing
Data
loaded

3 mo or a day 3 mo?

Wellhead Compression Installation Procedure

1. Obtain necessary permits, if necessary.
2. Hold tailgate safety meeting. Identify potential hazards.
3. Identify and prep compressor location.
4. Shut-in well. Bleed-off lines prior to breaking connections.
5. Install compressor and make-up necessary lines.
6. Return well to production, start compressor in accordance to manufacturers recommendations. Have compressor personnel make adjustments as necessary.
7. Place compressor on maintenance schedule.
8. Thank You.

