P. O. Box 19 Hobbs, NM <u>District II</u> - 811 S. First Artesia, NM	1 88241-1930 - (505) 748-1283Energy Minerals and Natural Resource: JepartmentOriginated II- (505) 748-1283Oil Conservation DivisionOil Conservation Division4 88210 - (505) 334-6178 razos Road 874102040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131Submit Or Plus 2 C to appro District C	igir Copi pria
	APPLICATION FOR QUALIFICATION OF WELL WORKOVER PROJECT AND CERTIFICATION OF APPROVAL	
	E COPIES OFTHIS APPLICATION AND ALL ATTACHMENTS MUST BE FILED WITH THE APPROPRIATE DISTRIC	Г
I.	Operator:	_
	Address: P.O. Box 2267, Midland, Texas, 79702	_
	Contact Party: Lee Roark Phone: 9152686-3608	_
И.	Name of Well: Hallwood 1 Federal No. 5 API #: 3002533070 Location of Well: Unit Letter G , 2130 Feet from the North line and 2130 feet from the East line Section 1 , Township 25S , Range 33E , NMPM, Lea County	-
111.	Date Workover Procedures Commenced: 2-18-98 Date Workover Procedures were Completed: 3-14-98	-
IV.	Attach a description of the Workover Procedures undertaken to increase the projection from the Well.	
V.	Attach an estimate of the production rate of the Well (a production decline curve or other acceptable method, and table showing monthly oil and/or gas Project Production) based on at least twelve (12) months of established production which shows the future rate of production based on well performance prior to performing Workover.	
VI.	Pool(s) on which Production Projection is based:	
	Red Hills (Bone Spring)	
VII.	AFFIDAVIT:	
	State of <u>Texas</u>)	
) ss. County of <u>Midland</u>)	
	Lee Roark, being first duly sworn, upon oath states:	
	1. I am the Operator or authorized representative of the Operator of the above referenced Well.	
	2. I have made, or caused to be made, a diligent search of the production records which are reasonably available and contain information relevant to the production history of this Well.	'
	3. To the best of my knowledge, the data used to prepare the Production Projection for this Well is complete and accurate and this projection was prepared using sound petroleum engineering principles.	;

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	Mile	Roah	3
(Name)	/		

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Engineer Tech (Title)

FOR OIL CONSERVATION DIVISION USE ONLY:

VIII. CERTIFICATION OF APPROVAL:

This Application for Qualification of Well Workover Project is hereby approved and the above referenced Well is designated as a Well Workover Project pursuant to the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8). The Oil Conservation Division hereby verifies the Production Projection for the Well Workover Project attached to this application. By copy of this Application and Certification of Approval, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project has been completed as of 3-14-1925

District Supervisor, District

Oil Conservation Division

Date:

IX. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT.

DATE: _____

HALLWOOD 1 FEDERAL NO. 5 2,130 FNL & 2,130' FEL Sec 1, T25S, R33E LEA Co., NM Spud Date: 08/24/95 Nearest Lease Line: 510' GR: 3,447'

02/18/98 Install surface and subsurface pumping equipment to return the well to production.

Fulfer Electric set 4 dead man anchors. WTG spread caliche, set concrete base and set Lufkin 456-365-120 pumping unit. DWC \$41,568. CWC \$41,568.

02/20/98 Fulfer electric finished electric line construction. DWC \$10,596. CWC \$52,164.

03/03/98 WTG add costs for setting unit. DWC \$481. CWC \$52,645.

- 03/11/98 3 hrs FCP 90-120 psi. MIRU Yale E. Key. Offload and strap 2-7/8" 6.50# N80 tbg. Slug 5-1/2" csg with 50 bbls PW. ND tree. Pull solid hanger. NU BOP's and stripper. 3 hrs flow annulus to battery. PU and RIH with notched collar, tbg disc and 2-7/8" tbg to 6,605'. SWI. SDON. DWC \$5,290. CWC \$57,935.
- 03/12/98 3 hrs SICP TSTM. Blew csg down. Pump 100 bbls lease oil @ 250 deg down tbg. Pumped out tbg disc with 2000 psi. Pumped 140 bbls PW down tbg with partial returns. 4-1/2 hrs PU 2-7/8" tbg and RIH. Tagged fill @ 12,408'. Bone Springs perfs 12,266'-12,360'. PBTD @ 12,428'. 3 hrs POOH. LD 6 jts. TOOH to 2,750'. SWI. SDON. DWC \$46,330. CWC \$104,265.

HALLWOOD 1 FEDERAL NO. 5 ENRON OIL & GAS COMPANY 2,130 FNL & 2,130' FEL DEV W/O: 12,600' BONE SPRING Sec 1, T25S, R33E RED HILLS Field LEA Co., NM EOG%: 71.8125% WI 58.3476% NRI Spud Date: 08/24/95 AFE No.: 10-1514 Nearest Lease Line: 510' DHC: 0; CWC: 176,000 GR: 3,447' SITP and SICP TSTM. 1-1/2 hrs Blew down. FOOH with 2-7/8" tbg. 03/13/98 7 hrs PU and TIH with purge valve. MA, perf sub, 2-3/8" SN, 7 jts 2-7/8" tbg, TAC & 2-7/8" tbg to 3,365'. Tbg and csg began flowing. SWI. Flow tbg to battery. WO pump truck. Circ out with 70 bbls PW. On vacuum. Finish TIH with total of 386 jts 2-7/8" tbg. ND BOP's. NU tbg, slip type flange. Set TAC 11,993.89' with 15K tension. SN @ 12,218.54'. Perf sub @ 12,219.64'. EOT @ 12,256.18'. Bone Springs perfs 12,266-12,360'. Install wellhead. Remove VR plug and gate valves. Build risers. TLTR 260 bbls. 2-1/2 hrs PU and RIH with GA pump, 1" x 2' steel pony rod, 26K shear tool, 10-1" steel rods and 240-3/4" steel rods. SWI. SDON. Detail: Purge valve .75 12255.43 1 MA, 2-7/8", 6.5#, N80, EUE 31.69 12223.74 Perf sub 4.10 12219.64 SN 1.10 12218.54 7 jts tbg 2-7/8" 6.5# N80 EUE 221.85 11996.69 TAC 2-7/8" x 5-1/2" 2.80 11993.89 378 jts tbg 2-7/8" 6.5# N80 EUE 11980.39 Total ftg picked up 12242.68 Plus KB to GL 13.50 Setting depth @ RKB 12256.18 Bone Springs 12,266'-12,360'. Tagged fill @ 12,408'. Tree and tbg hanger to Cooper 3/12/98. Hallwood "1" No. 7 and "1" #5 (tbg head and csg head gate valves to Cooper 3/12/98) Rod Detail: 1-1" X 12' gas anchor 1-2" x 1-1/4" x 20' x 22' x 26' Pump (Harbison-Fischer EOG 004) 1-1" x 2' steel pony rod 1-26K shear tool 10-1" steel rods 250-3/4" steel rods 120-7/8" steel rods 105-1" steel rods 1-8' steel pony rods 1-6' steel pony rod 1-4' steel pony rod 1 x 26' PR 1-1/2" x 1-3/4" x 14' liner LWC \$35,000. CWC \$139,265.

 HALLWOOD I FEDERAL NO. 5
 ENRON OIL & GAS COMPANY

 2,130 FNL & 2,130' FEL
 DEV

 Sec 1, T255, R33E
 DEV

 LEA Co., NM
 RED HILLS Field

 Spud Date: 08/24/95
 AFE No.: 10-1514

 Nearest Lease Line: 510'
 DHC: 0; CWC: 176,000

- 03/14/98 8 hrs SITP and SICP TSTM. PU and RIH with total of 250 3/4" steel rods, 120-7/8" steel rods and 1" steel rods. Seated pump. PU and space out. Install PR and liner. Hung well on, Start unit. Good pump action. Plumb in wellhead. Had fluid to surface in 1 hr @ 8 SPM. Pressure tbg to 500 psi. RD Yale E. Key. Well on pump @ 4:00 p.m. 3/13/98. TLTR 260 bbls. DWC \$2,390. CWC \$141,655.
- 03/15/98 16 hrs pump, 19 MCF, 64 BO, 8-1/2 x 100" SPM, 140 TP, 72 BLW, 72 cum BLW, 188 BLWTR. CWC \$141,655.
- 03/16/98 24 hrs pump, 97 MCF, 95 BO, 8-1/2 x 100" SPM, 110 TP, 200 CP, 83 BLW, 155 cum BLW, 33 BLWTR. CWC \$141,655.
- 03/17/98 24 hrs pump, 113 MCF, 108 BO, 8-1/2 x 144" SPM, 90 TP, 200 CP, 25 BLW, 180 cum BLW, 8 BLWTR. CWC \$141,655.
- 03/18/98 24 hrs flow, 64 MCF, 101 BO, 8.6 x 100" SPM, 180 TP, 101 CP, 18 BW, 296 cum BLW, 39 BLWTR. CWC \$141,655.
- 03/19/98 24 hrs pump, 111 MCF, 117 BO, 8-1/2 x 100" SPM, 110 TP, 80 CP, 12 BW, 218 cum BW. CWC \$141,655.
- 03/20/98 24 hrs pump, 127 MCF, 103 BO, 8-1/2 x 100" SPM, 100 TP, 80 CP, 16 BW, 234 cum BW. CWC \$141,655.
- 03/21/98 24 hrs pump, 128 MCF, 81 BO, 8-1/2 x 100" SPM, 100 TP, 80 CP, 9 BW, 259 cum BLW. Drop from report. CWC \$141,655.
- 04/16/98 Production Before PU: 20 BOPD, 50 MCFD, FCP 50. Production After PU: 100 BOPD, 120 MCFD, 9 BWPD. Estimated well cost: \$153,000. AFE cost: \$176,000.

FINAL REPORT



Hallwood 1 Federal No. 5

Future Production Before Workover					
	IP Rate at WO on 02/98	De			
Oil	700 BOPM				
Gas	1200 mcf/mo				

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ecline(exp) 54 %/yr 38 %/yr

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	Oil	Gas
Date	BOPM	MCF/Mo
4/15/98	700.0	
5/15/98	669.2	1162.6
6/15/98	639.8	1126.4
7/15/98	611.6	1091.2
8/15/98	584.7	1057.2
9/15/98	559.0	1024.3
10/15/98	534.4	992.4
11/15/98	510.9	961.4
12/15/98	488.4	931.5
1/15/99	466.9	902.4
2/15/99	446.3	874.3
3/15/99	426.7	847.0
4/15/99	407.9	820.6
5/15/99	390.0	795.1
6/15/99	372.8	770.3
7/15/99	356.4	746.3
8/15/99	340.7	723.0
9/15/99	325.7	700.5
10/15/99	311.4	678.6
11/15/99	297.7	657.5
12/15/99	284.6	637.0
1/15/00	272.1	617.1
2/15/00	260.1	597.9
3/15/00	248.7	579.3
4/15/00	237.7	561.2
5/15/00	227.3	543.7
6/15/00	217.3	526.8
7/15/00	207.7	510.3
8/15/00	198.6	494.4
9/15/00	189.8	479.0
10/15/00	181.5	464.1
11/15/00	173.5	449.6
12/15/00	165.8	435.6
1/15/01	158.6	422.0
2/15/01	151.6	408.9
3/15/01	144.9	396.1
4/15/01	138.5	383.8
5/15/01	132.4	371.8
6/15/01	126.6	360.2
7/15/01	121.0	349.0
8/15/01	115.7	338.1
9/15/01	110.6	327.6
10/15/01	105.8	317.4

	Oil	Gas
Date	BOPM	MCF/Mo
11/15/01	101.1	0.0
12/15/01	96.6	
1/15/02	92.4	0.0
2/15/02	88.3	0.0
3/15/02	84.4	0.0
4/15/02	80.7	0.0
5/15/02	77.2	0.0
6/15/02	73.8	0.0
7/15/02	70.5	0.0
8/15/02	67.4	0.0
9/15/02	64.5	0.0
10/15/02	61.6	0.0
11/15/02	58.9	0.0
12/15/02	56.3	0.0
1/15/03	53.8	0.0
2/15/03	51.5	0.0
3/15/03	49.2	0.0
4/15/03	47.0	0.0
5/15/03	45.0	0.0
6/15/03	43.0	0.0
7/15/03	41.1	0.0
8/15/03	39.3	0.0
9/15/03	37.6	0.0
10/15/03	35.9	0.0
11/15/03	34.3	0.0
12/15/03	32.8	0.0
1/15/04	0.0	0.0