200,152.1 • (200) 393-6161 1 O. Box 1980 lobbs, NM 88241-1980 District II • (505) 748-1283 11 S. First vrtesia, NM 88210 District III • (505) 334-6178 000 Rio Brazos Road vztec, NM 87410 District IY

# New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 2040 South Pacheco Street

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 Form C-140 Originated 11/1/95

Submit Original
Plus 2 Copies
to appropriate
District Office

### APPLICATION FOR QUALIFICATION OF WELL WORKOVER PROJECT AND CERTIFICATION OF APPROVAL

THREE	E COPIES E OF TH	S OFTHIS APPLICATION AND ALL ATTACHMENTS MUST BE FILE IE OIL CONSERVATION DIVISION.	DWITHTHE APP	ROPRIATE DISTRICT
l.	Operato	or: RM Energy, LLC	OGRID #:	122820
	Address	s: P.O. Box 831, Casper, Wy. 82602		
	Contact	t Party: Lance Neiberger Phone:	307/234-6419	
II.	Name o		30 0/F 0	6700
	Section	8 , Township 27N , Range 12W , NMPM, San Juar		rom the <u>E</u> line, line, County
Ш.	Date Wo	orkover Procedures Commenced: October 7, 1996 orkover Procedures were Completed: October 26, 1996		
IV.		a description of the Workover Procedures undertaken to increase t	ne projection from	the Mail
V.	Attach a	an estimate of the production rate of the Well (a production decline owing monthly oil and/or gas Project Production) based on at least twe hows the future rate of production based on well performance prior	curve of other ac	ceptable method, and
VI.		on which Production Projection is based: West Rutz Pictured Cliffs	DECE	
VII.	AFFIDA	WIT:	NOV 1 8	11 //
	State of	WYOMING )	<b>OH</b> CO	a reduct
	County	of <u>NATRONA</u> ) ss.	DIST	
Lance	R. Nei	berger, being first duly sworn, upon oath states:		
	1.	I am the Operator or authorized representative of the Operator of the	ne above referenc	ed Well.
	2.	I have made, or caused to be made, a diligent search of the pro available and contain information relevant to the production history	eduction records v	which are reasonably
	3.	To the best of my knowledge, the data used to prepare the Product and accurate and this projection was prepared using sound petrole	tion Projection for	this Well is complete rinciples.
		She Total	2	
		(Name) Lance R. Ne	iberger	
		Partner (Title)		

			•
UBSC	CRIBED AND SWORN TO before me this <u>14t</u> da	y of <u>November</u> 19 <u>9</u> 6	
8	MARILYN C. BURTON NOTARY PUBLIC  COUNTY OF STATE OF WYOMING  MY COMMISSION EXPIRES OCT. 23, 1997-23 1997  MINISSION EXPIRES OCT. 23, 1997-23 1997	Mariem C. Buston  Notary Public	
FOR C	DIL CONSERVATION DIVISION USE ONLY:		
VIII.	CERTIFICATION OF APPROVAL:		
	This Application for Qualification of Well Workov designated as a Well Workover Project pursuant to Chapter 15, Sections 1 through 8). The Oil Conse Workover Project attached to this application. By notifies the Secretary of the Taxation and Revenue Project has been completed as of	the "Natural Gas and Crude Oil Production Invation Division hereby verifies the Production copy of this Application and Certification of A Department of this Approval and certifies that	centive Act" (Laws 1995, Projection for the Well pproval, the Division
		District Supervisor, District Oil Conservation Division	8
		Date:	
IX.	DATE OF NOTIFICATION TO THE SECRETAL	RY OF THE TAXATION AND REVENUE DE	PARTMENT.

## APPLICATION FOR QUALIFICATION OF WELL WORKOVER PROJECT AND CERTIFICATION OF APPROVAL

Sarah E. Lilly B #1 NE/4 Section 8, T27N-R12W San Juan County, New Mexico West Kutz Pictured Cliffs field

#### Part IV - Description of workover process.

RM Energy, LLC decided to re-stimulate the Pictured Cliffs formation in the subject well to see if production could be increased. The well was re-fraced October 10, 1996 as per the attached BLM sundry notice. After testing the well for a week it was decided to install compression. Compression was installed October 26, 1996.

#### Part V - Production Rates

The Sarah E Lilly B #1 well was drilled and completed in 1958. It produced for many years prior to changing ownership in the 1990's. When RM Energy bought the well and lease, the well was shut-in. RM Energy returned the well to production upon transfer of ownership and has produced it continuously since November 1993 with the exception of a two month period. A production curve is attached. It shows the well's history between 1970 and 1996.

Also attached is a tabulation that includes a column of actual gas sales prior to the recent work and numerous columns of estimated production assuming the work was not performed. An annual decline rate of 7.5% was used for the estimated future production. This rate was determined based upon the well's performance from 1970 to 1986. This decline rate has been super-imposed upon the curve.

It should be noted that the estimated ultimate recovery (EUR) of the well would have been 579 MMCF based on our projection. We feel that this is a reasonable volume based on the December 1993 cumulative production of 501 MMCF and the low production rate since returning the well to production.

orm 3160-5 une 1990)

### **UNITED STATES** BUREAU OF LAND MANAGEMENT. 96 OCT 30 PM 1: 11 DEPARTMENT OF THE INTERIOR

RECEIVED BLM

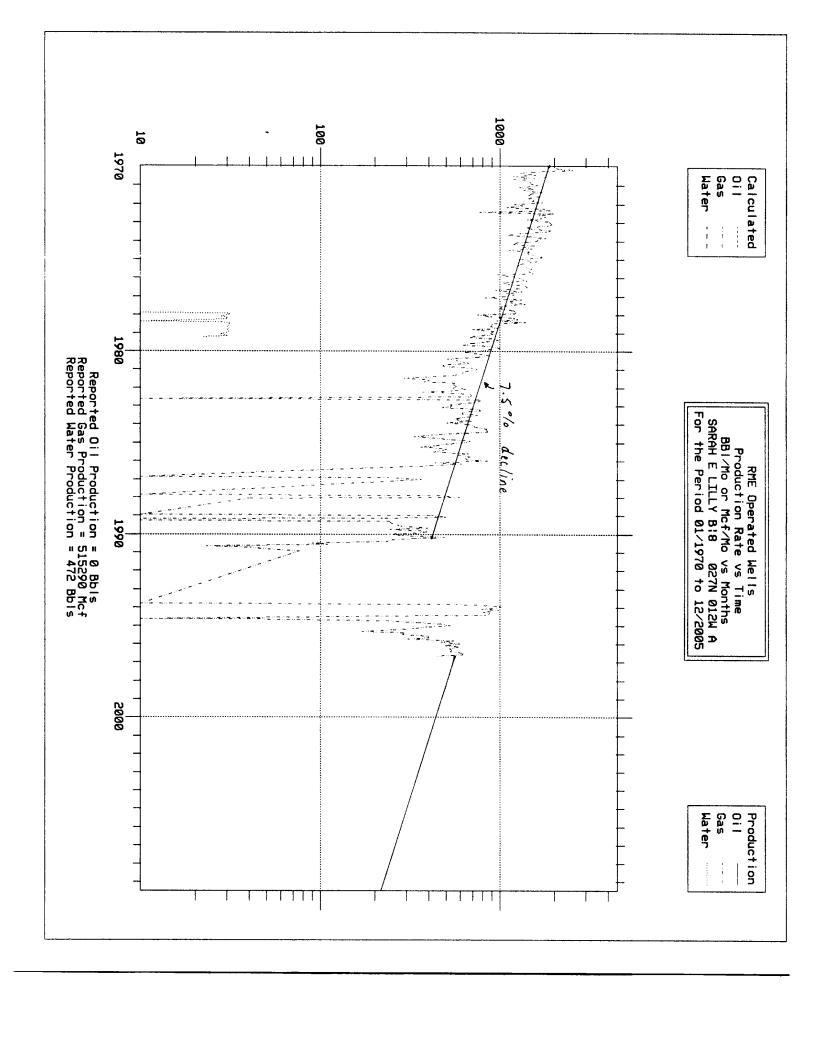
FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.

SUNI	DRY NOTICES	S AND REPOR	rts on w	ELLS	
form for	nronosale to d	Irill or to deepe		u tour different	

NM 032325

Do not use this form for proposals to Use "APPLICATION F	drill or to deepen or reentry to a different reservoir. FOR PERMIT—" for such proposals	V. II IMMAN, ANOME OF PRIOR PLANTS						
SUBM	7. If Unit or CA, Agreement Designation							
Type of Well Oil Well Well Other Name of Operator	8. Well Name and No. Sarah E. Lilly "B" No. 1							
RM Energy, A Limited Liabi  Address and Telephone No.	9. API Well No.							
P.O. Box 831, Casper, Wy.	82602 (307)234-6419	30-045-06728  10. Field and Pool, or Exploratory Area						
Location of Well (Footage, Sec., T., R., M., or Surve	West Kutz Pictured Cliffs							
990' FNL & 990' FEL Section	on 8 T27N-R12W	11. County or Parish, State San Juan, NM						
CHECK APPROPRIATE BO	X(s) TO INDICATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA						
TYPE OF SUBMISSION	TYPE OF ACTION							
Notice of Intent  Subsequent Report	Abandonment Recompletion Plugging Back	Change of Plans New Construction Non-Routine Fracturing						
Final Abandonment Notice	Casing Repair Altering Casing Other Routine Restimulation	(Note: Report results of multiple completion on Well						
<ul> <li>Describe Proposed or Completed Operations (Clearly stage) give subsurface locations and measured and true v</li> </ul>	ate all pertinent details, and give pertinent dates, including estimated date of starting vertical depths for all markers and zones pertinent to this work.)*	g any proposed work. If well is directionally drilled,						
The subject was restimulat								
10-7-96 MI RUWU. Kij	lled well w/2% KCl water. NU BOPE. TOO 2 7/8" workstring. Ran bit and scraper	H and layed down 1 ½" to 1329' (PBTD). TOOH.						
10-8-96 Reperf'd Pict	cured Cliffs from 1302'-1318' w/2 JSPF. and pressure tested casing to 500 psi for	Ran 5 3" packer to 1210'.						
of 15% HCl fo	on backside to 200 psi. Frac'd down two pllowed by 28,500 gals of $70-60 \text{ Q N}_2$ foat well back to frac tank.	bing at 30 BPM with 500 gals m with 63,000# of 20/40						
PU and TIH w/	ls down tubing and killed well. Release /2 3/8" tubing to 1329'. PU and landed ead. Swab well in.	d packer and TOOH w/workstri tubing at 1317'. ND BOP						
10-12-96 Flowed well o	overnight to clean up and then shut-in.							
10-17-96 Turned well i	into sales line.							
10-19 - 10-25-96 Avera	age production 211 MCFD, 3 BLWPD.	the commence of the control of the c						
I hereby certify that the foregoing is true and correct Signed Land Bertoyte		October 28, 1996						
(This space for Federal or State office use)  Approved by Conditions of approval, if any:	Tide	ACCEPTED FOR RECORD						



Estimated production without workover & compression (MCF/Mo)	

	Sep-96	Aug-96	Jul-96	Jun-96	May-96	Apr-96	Mar-96	Feb-96	Jan-96	Dec-95	Nov-95	Oct-95	Sep-95	Aug-95	Jul-95	Jun-95	May-95	Apr-95	Mar-95	Feb-95	Jan-95	Dec-94	Nov-94	Oct-94	Sep-94	Aug-94	Jul-94	Jun-94	May-94	Apr-94	Mar-94	Feb-94	Jan-94	1		ec 93 cum
	434	621	617	525	539	518	588	497	593	469	549	305	400	396	284	293	170	250	333	393	528	462	351	235	35	0	0	685	725	662	830	681	875	MCFM		501,271
Oct-99 Nov-99 Dec-99	Sep-99	Aug-99	Jul-99	99-nuL	May-99	Apr-99	Mar-99	Feb-99	Jan-99	Dec-98	Nov-98	Oct-98	Sep-98	Aug-98	Jul-98	Jun-98	May-98	Apr-98	Mar-98	Feb-98	Jan-98	Dec-97	Nov-97	Oct-97	Sep-97	Aug-97	Jul-97	Jun-97	May-97	Apr-97	Mar-97	Feb-97	Jan-97	Dec-96	Nov-96	Oct-96
439 436 433	442	444	447	450	453	456	459	461	464	467	470	473	476	479	482	485	488	491	494	498	501	504	507	510	513	517	520	523	52 <b>6</b>	530	533	53 <b>6</b>	540	<b>543</b>	547	550
Oct-2002 Nov-2002 Dec-2002	Sep-2002	Aug-2002	Jul-2002	Jun-2002	May-2002	Apr-2002	Mar-2002	Feb-2002	Jan-2002	Dec-2001	Nov-2001	Oct-2001	Sep-2001	Aug-2001	Jul-2001	Jun-2001	May-2001	Apr-2001	Mar-2001	Feb-2001	Jan-2001	Dec-2000	Nov-2000	Oct-2000	Sep-2000	Aug-2000	Jul-2000	Jun-2000	May-2000	Apr-2000	Mar-2000	Feb-2000	Jan-2000			
350 348 346	352	355	357	359	361	36 <b>4</b>	366	368 8	371	373	375	378	380	382	385	387	390	392	395	397	399	<b>4</b> 02	405	407	410	412	415	417	420	423	425	428	431			
Oct-2005 Nov-2005 Dec-2005	Sep-2005	Aug-2005	Jul-2005	Jun-2005	May-2005	Apr-2005	Mar-2005	Feb-2005	Jan-2005	Dec-2004	Nov-2004	Oct-2004	Sep-2004	Aug-2004	Jul-2004	Jun-2004	May-2004	Apr-2004	Mar-2004	Feb-2004	Jan-2004	Dec-2003	Nov-2003	Oct-2003	Sep-2003	Aug-2003	Jul-2003	Jun-2003	May-2003	Apr-2003	Mar-2003	Feb-2003	Jan-2003			
279 278 276	281	283	285	287	288	290	292	294	296	298	299	301	303	305	307	309	311	313	315	317	319	321	323	325	327	329	331	333	335	337	339	342	344			
Oct-2008 Nov-2008 Dec-2008	Sep-2008	Aug-2008	Jul-2008	Jun-2008	May-2008	Apr-2008	Mar-2008	Feb-2008	Jan-2008	Dec-2007	Nov-2007	Oct-2007	Sep-2007	Aug-2007	Jul-2007	Jun-2007	May-2007	Apr-2007	Mar-2007	Feb-2007	Jan-2007	Dec-2006	Nov-2006	Oct-2006	Sep-2006	Aug-2006	Jul-2006	Jun-2006	May-2006	Apr-2006	Mar-2006	Feb-2006	Jan-2006			
223 222 220	224	226	227	229	230	232	233	234	236	237	239	240	242	243	245	247	248	250	251	253	254	256	258	259	261	262	264	266	267	269	271	273	274			
Oct-2011 Nov-2011 Dec-2011	Sep-2011	Aug-2011	Jul-2011	Jun-2011	May-2011	Apr-2011	Mar-2011	Feb-2011	Jan-2011	Dec-2010	Nov-2010	Oct-2010	Sep-2010	Aug-2010	Jul-2010	Jun-2010	May-2010	Apr-2010	Mar-2010	Feb-2010	Jan-2010	Dec-2009	Nov-2009	Oct-2009	Sep-2009	Aug-2009	Jul-2009	Jun-2009	May-2009	Apr-2009	Mar-2009	Feb-2009	Jan-2009			
178 177 176	179	180	181 1	182	184	185	186	187	188	189	191	192	193	194	195	197	198	199	200	202	203	204	206	207	208	209	211	212	213	215	216	217	219			
								EUR (MCF)= 578,967	without workove	Estimated Ultimate Recovery					Jul-2013	Jun-2013	May-2013	Apr-2013	Mar-2013	Feb-2013	Jan-2013	Dec-2012	Nov-2012	Oct-2012	Sep-2012	Aug-2012	Jul-2012	Jun-2012	May-2012	Apr-2012	Mar-2012	Feb-2012	Jan-2012			
								8,967	without workover & compression	ate Recovery					156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	174	175			