

Submit To Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised June 10, 2003
		WELL API NO. 30-015-35513
		5. Indicate Type of Lease STATE ☒ FEE ☐
		State Oil & Gas Lease No.
WELL COMPLETION OR RECOMPLETION REPORT AND LOG		
1a. Type of Well: OIL WELL ☐ GAS WELL ☐ DRY ☒ OTHER <u>Injection</u>		7. Lease Name or Unit Agreement Name South Culebra Bluff 23
b. Type of Completion NEW ☐ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF. WELL OVER BACK RESVR. ☐ OTHER ☒ Injection		
2. Name of Operator Range Operating New Mexico, Inc.		8. Well No. 020
3. Address of Operator 100 Throckmorton Street Suite 1200 Fort Worth TX 76102		9. Pool name or Wildcat Loving; Brushy Canyon, East 40350
4. Well Location Unit Letter <u>K</u> : <u>2460</u> Feet From The <u>South</u> Line and <u>2460</u> Feet From The <u>East</u> Line Section <u>23</u> Township <u>23S</u> Range <u>28E</u> NMPM County <u>Eddy</u>		
10. Date Spudded 07-18-07	11. Date T.D. Reached 07-27-07	12. Date Compl. (Ready to Prod.) 08-24-07
		13. Elevations (DF& RKB, RT, GR, etc.) GR 3001'
		14. Elev. Casinghead 3001'
15. Total Depth 6350'	16. Plug Back T.D. 6255'	17. If Multiple Compl. How Many Zones? 18. Intervals Drilled By Rotary Tools X Cable Tools
19. Producing Interval(s), of this completion - Top, Bottom, Name Lower Brushy Canyon		20. Was Directional Survey Made Vertical Well
21. Type Electric and Other Logs Run Compensated Z - Densilog Compensated Neutron GR Log		22. Was Well Cored No
23. CASING RECORD (Report all strings set in well)		
CASING SIZE	WEIGHT LB./FT.	DEPTH SET
8 5/8"	24	345
5 1/2	15.5	6347
24. LINER RECORD		
SIZE	TOP	BOTTOM
25. TUBING RECORD		
SIZE	DEPTH SET	PACKER SET
2 3/8	6095	6088
SN @	6086	
26. Perforation record (interval, size, and number) 6128' - 6177' 6188' - 6192' 6198' - 6210' 6228' - 6240'		
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC DEPTH INTERVAL 6128'-6240' Amount and Kind Material Used Acidize w/3,850 gals 15% NEFE HCL / 42 bbls Produced H ₂ O.		
28. PRODUCTION		
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)
		Well Status (Prod or Shut-in)
Date of Test	Hours Tested	Choke Size
		Prod'n For Test Period
		Oil - Bbl
		Gas - MCF
		Water - Bbl.
		Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate
		Oil - Bbl.
		Gas - MCF
		Water - Bbl.
		Oil Gravity - API - (Corr.)
29. Disposition of Gas (Sold, used for fuel, vented, etc.)		Test Witnessed By
30. List Attachments		
31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief		
Signature <u>Bill May for LCS</u>		Printed Name Linda C. Stiles
		Title Sr. Engineering Tech
		Date 08-29-2007
E-mail Address lstyles@rangeresources.com		

INSTRUCTIONS

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OPERATOR RANGE PRODUCTION CO.
WELL/LEASE SCB 23-20
COUNTY EDDY

141-0083

STATE OF NEW MEXICO
DEVIATION REPORT

304	1.00
584	1.75
997	2.00
1,479	2.75
1,955	2.75
2,464	2.50
2,969	1.75
3,448	1.50
3,923	0.50
4,398	0.75
4,588	0.25
5,032	1.00
5,448	2.00
5,952	1.00
6,332	0.25

AUG 29 2007

OCD-ARTESIA

STATE OF TEXAS

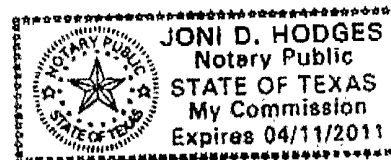
BY: Steve Moore

COUNTY OF MIDLAND

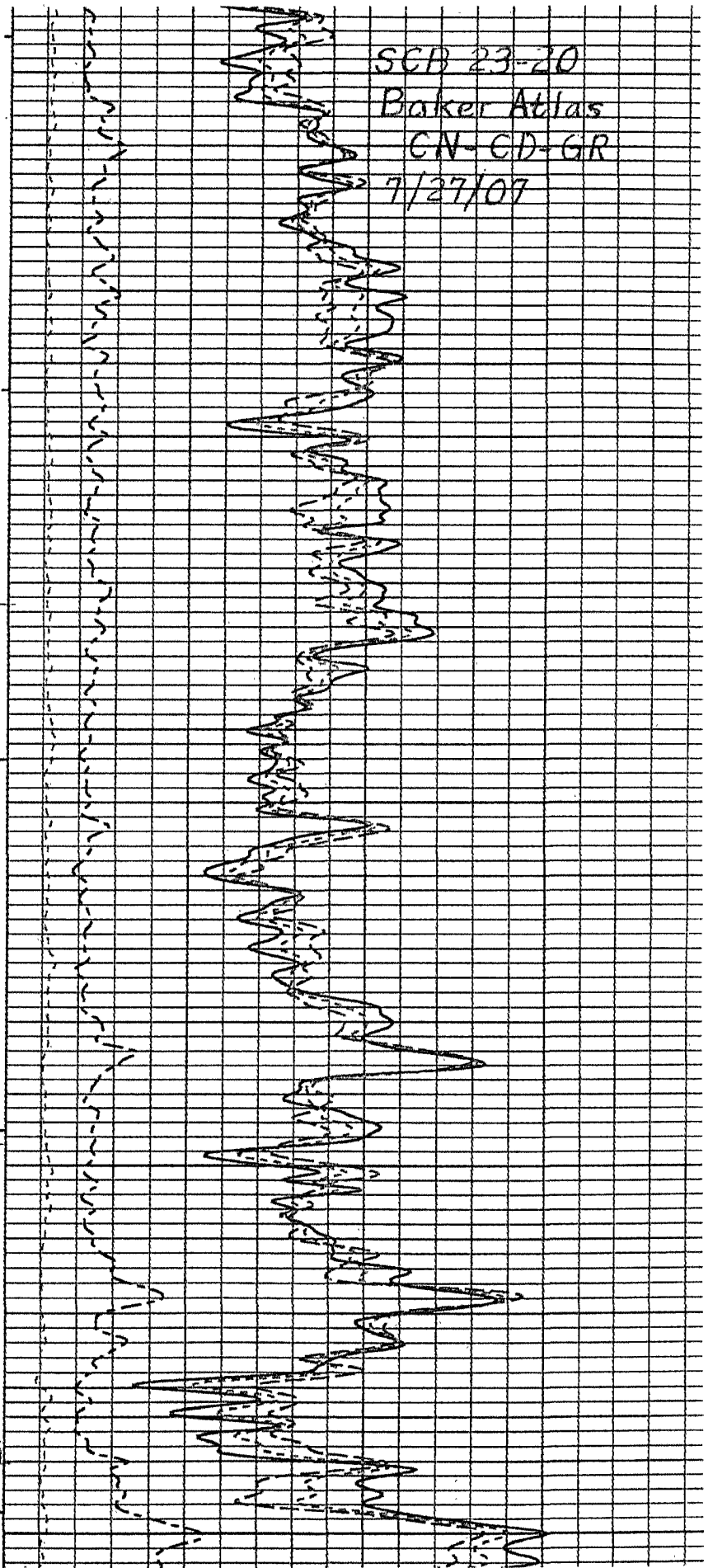
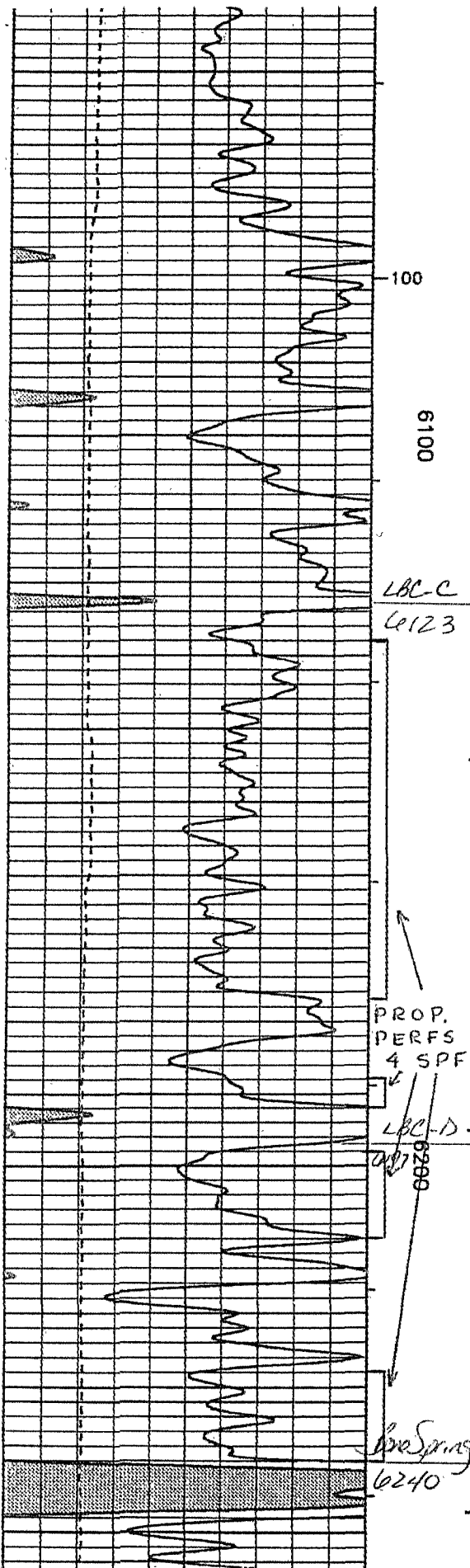
The foregoing instrument was acknowledged before me on
Moore on behalf of Patterson-UTI Drilling Company LLC.

August 6, 2007 by Steve

Joni D. Hodges
Notary Public for Midland County, Texas
My Commission Expires: 4/11/11



SCD 23-20
Baker Atlas
CN-CD-GR
7/27/07



CASING DETAIL AND CEMENTING REPORT

Well:	SCB 23-20	Field	East Loving	County	Eddy	State:	NM	
Total depth:	6350	Bit Size:	7.875	Avg Hole size:		Mud wt:	10.3	

String detail (list each item in order run)									
Length	Cum Length	No Jts	OD	Description	Mfg	Wt	Grade	Threads	Cond
1.65	1.65		5.500	Guide Shoe	BJ			LTC	New
85.98	87.63	2	5.500	Casing		15.5	J55	LTC	New
1.4	89.03		5.500	Float Collar	BJ			LTC	New
6260.38	6349.41	147	5.500	Casing		15.5	J55	LTC	New
	6349.41								
	6349.41								
	6349.41								
	6349.41								
	6349.41								
	6329.61	Total length							
MINUS	20	Cut-off							
PLUS	17.44	RIG KB							
	6346.85	Setting depth							
Wt of csg string in mud:		950000							
Wt of csg set on slips:		950000							

Cement used		Cementing company:						Design
Stage	No. sacks	Cement type and additives	PPG	YIELD	BBLS	BPM	TOC	
SPACER		H2O	8.3		10	4		
Lead	350	35-65-6C+5%Salt+FL-52A+4#LCM	12.5	2.1	131	4	4300	
Tail	100	15-61-11-C+6/10%FL-25+6/10%FL-52A+5/10%BA-1	13.2	1.64	29	4		
Displacement								
STAGE 2	IF APPLICABLE							
Displacement								

Full circ (Y/N):	Y	Pipe reciprocated?	Y
Cement to Surface	N	Pipe rotated?	N
Bbls to Surface	0	Float held (Y/N):	Y
		Plug bumped (Y/N):	Y

Centralizer and scratcher placement (type, depth and amount):

Centralizers at - 6329', 6262', 6133', 6004', 5875', 5746', 5617', 5487', 5358', 5230', 5101', 4972', 4843', 4714', 4585' = 15 centralizers

Casing on location NOT RUN							
Length	No Jts	OD	Description - Mfg	Wt	Grade	Threads	Cond
128.23	3	5.5		15.5	J-55	LTC	New

Remarks:

Bumped plug. Circulating pressure 900 psi. Pressured up to 1511 psi. check floats did not hold. Bump back up to 1500 psi. check floats (Ok)

Reported by: Kevin W. Carter	Date: 7/29/2007
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CASING DETAIL AND CEMENTING REPORT

Well:	SCB 23-20	Field	East Loving	County	Eddy	State:	NM	
Total depth:	348	Bit Size:	12.25	Avg Hole size:	12.25	Mud wt:	8.7	
String detail (list each item in order run)								
Length	Cum Length	No Jts	OD	Description	Mfg	Wt	Grade	Threads
0.8	0.8			Texas Guide Shoe	BJ			ST&C
43.24	44.04	1	8.675			24	J-55	ST&C
1.44	45.48		8.675	Float Collar	BJ			ST&C
301.72	347.2	7	8.675			24	J-55	ST&C
	347.2							
	347.2							
	347.2							
	347.2							
	347.2							
	347.2							
MINUS	20	Total length						
PLUS	17.44	Cut-off						
	344.64	RIG KB						
		Setting depth						
Wt of csg string in mud:		14000						
Wt of csg set on slips:		N/A						
Cement used		Cementing company:					BJ Services	
Stage	No. sacks	Cement type and additives				PPG	YIELD	BBLS
SPACER		Fresh water				8.3		10
Lead	300	Class C+2%CACL2				14.8	1.32	70
								4.5
								0
Displacement								
STAGE 2	IF APPLICABLE							0
								0
								0
Displacement								
	Full circ (Y/N)	Y	Pipe reciprocated?					Y
	Cement to Surface	N	Pipe rotated?					N
	Bbls to Surface	0	Float held (Y/N):					Y
			Plug bumped (Y/N):					Y
Centralizer and scratcher placement (type, depth and amount):								
Centralizers at - 326', 258', 215', 172', 129', 86', 42' = 7								
Casing on location NOT RUN								
Length	No Jts	OD	Description - Mfg			Wt	Grade	Threads
172.4	4	8.675				24	J-55	STC
								New
Remarks:								
Bumped plug 500 psi. over, release pressure no flow back								
Circulating 201 psi., Pressure to 1092 psi. (Ok)								
Reported by: Kevin W. Carter								
Date: 7/18/2007								



Baker Atlas

COMPENSATED Z-DENSILOGSM
COMPENSATED NEUTRON LOG
GAMMA RAY LOG

FILE NO: MD7009	COMPANY WELL	RANGE OPERATING NM, INC.
API NO: 30-015-35513	FIELD	SCB 23 NO.20
	COUNTY	LOVING EAST (BRUSHY CANYON)
		EDDY STATE NEW MEXICO
Ver. 3.87 FINAL PRINT	LOCATION: 2460' FSL & 2460' FEL	OTHER SERVICES MLL/DLL/GR
	SEC 23 TWP 23S RGE 28E	
PERMANENT DATUM LOG MEASURED FROM DRILL MEAS. FROM	GL ELEVATION 3001 FT KB 17 FT ABOVE P.D. KELLY BUSHING	ELEVATIONS: KB 3018 FT DF 3017 FT GL 3001 FT

DATE	27-JUL-2007		
RUN	TRIP	1	1
SERVICE ORDER	536787		
DEPTH DRILLER	6350 FT		
DEPTH LOGGER	6351 FT		
BOTTOM LOGGED INTERVAL	6348 FT		
TOP LOGGED INTERVAL	100 FT		
CASING DRILLER	8.625 IN	@ 347 FT	@
CASING LOGGER	347 FT		
BIT SIZE	7.875 IN		
TYPE OF FLUID IN HOLE	BRINE/STRACH		
DENSITY	VISCOSITY	10.4 LB/G	32 S
PH	FLUID LOSS	10	NA
SOURCE OF SAMPLE	CIRC. PIT		
RM AT MEAS. TEMP.	0.04 OHMM	@ 88 DEGF	@
RMF AT MEAS. TEMP.	0.04 OHMM	@ 88 DEGF	@
RMC AT MEAS. TEMP.	--	@ --	@
SOURCE OF RMF	RMC	CALCULATED	
RM AT BHT	0.03 OHMM	@ 111 DEGF	@
TIME SINCE CIRCULATION	10 HRS.		
MAX. RECORDED TEMP.	111 DEGF		
EQUIP. NO.	LOCATION	4109	MIDLAND, TX