	ن. ۲			
Submit 1 Copy To Appropriate District	State of New Me	xico		Förm C-103
District I (575) 393-6161	Energy, Minerals and Natur	ral Resources	Revis	ed July 18, 2013
District II - (575) 748-1283	OIL CONSERVATION	DIVISION	20-015-428	78
811 S. First St., Artesia, NM 88210 District III – (505) 334-6178	1220 South St. Fran	cis Dr.	5. Indicate Type of Lease	
1000 Rio Brazos Rd., Aztéč. NM 87410 District IV - (505) 476-3460	Santa Fe, NM 87	505	6 State Oil & Gas Lease No	
1220 S. St. Francis Dr., Santa Fe, NM	· · · ,/		29255	
SUNDRY NOT	CES AND REPORTS ON WELLS		7 Lease Name or Unit Agre	ement Name
(DO NOT USE THIS FORM FOR PROPO DIFFERENT RESERVOIR. USE "APPLI	SALS TO DRIEL OR TO DEEPEN OR PLU CATION FOR PERMIT" (FORM C-101) FC	JG BACK TO A		المحمد المحمد المحمد
PROPOSALS.)	Con Wall St Oilar	· · · · ·	8. Well Number 4	-15 State
2. Name of Operator		<u></u>	9 OGRID Number	, <del>uitimmunininini, <u>17</u>,</del>
ParaRiel	Petroleum		2 303 87	
3. Address of Operator	ð <b>n</b>		10. Pool name or Wildcat	
4. Well Location	1109 MIDLAND TX.	Mod	JUC HORE MOUND	Junivane
Unit Letter <u>M</u>	HAD feet from the SOUT	L line and	$\frac{330}{330}$ feet from the $\omega$	<u>est</u> line
Section 5	Township 185 Ra	nge 21 E	NMPM はーム County	EDOY
	11. Elevation (Show whether DR.	RKB, RT, GR, etc.	)	
	1/2-20			
12. Check	Appropriate Box to Indicate N	ature of Notice,	Report or Other Data	
NOTICE OF IN	ITENTION TO	SUB	SEQUENT REPORT O	۶.
	PLUG AND ABANDON	REMEDIAL WOR		
		COMMENCE DR		<b>*K</b> :
		CASING/CEMEN	IL JOB []	
	_			_
13. Describe proposed or com	leted operations. (Clearly state all r	OTHER:	d give pertinent dates includin	g estimated date
of starting any proposed w	ork). SEE RULE 19.15.7.14 NMAC	C. For Multiple Co	mpletions: Attach wellbore dia	agram of
proposed completion or rec	ompletion.		1-06111100'- N	A DH TOT TH
UMP I CATILUS (	524 C2 OF CLASS M	"J-MUHI	+ 1000 4,400 - M	101910551
. Pump 2 " PLUS (Si	XOF CLASS "H") - N	UH TO 3.5	13' E POMP 3" PLU	3 (52" 5F class" H")
MUHTO LEIGIER.	NP LITHON CONT	۲۵۰۰ میں	A MARINA	
5th Pina Parse		CHERRAR "	H J - MUH TO 51	SEPOMP
, 100 (25 OF	(Lass "c") - MU	H To 60' 1	PUMP GTH FIDAL	PLUA
175× DELIOSS M/ M)	- ( RE 454 60 50	R Fare -	Cat of Franker Un	
		· \$ \$€		A CONTRACTOR
ON LOVER FLATE			Approved for	r plugging of well bore only.
1715			Listellity und	er bond is retained pending re
pud Date: 1-6-15	2:00 AM Rig Release Da	ite: 1-4.	-15 10100 Pwhich may b	e found at OCD Web Page un
, <u>.</u>	· · ·		Forms, www.	cmnrd.state.nm.us/ocd.
hereby certify that the information	above is true and complete to the be	est of my knowledg	ge and belief.	
1 1.				
IGNATURE //ad/1-toots	TITLE WE	Ilisite co	NSULTANT DATE 2	-9-15
	Lai Émilada			an drummer
For State Use Only	C-mail address	Doi ton	- THIS DOL PHUNE: 7	<u>21 0247 103</u>
KIY	NO ler	A Dinn	un ga	11 2015
APPROVED BY ( / // // // // // // // // // // // //	TITLE CON	Je equa	DATE DATE	11,0015
(	<b>\</b>	•		
15. hill n 11	The I AME	S. here.	. +	
Journa C-10	5 JAUO (-103	Just	ny .	
for Final Kelease		, 0		

#### **CEMENT JOB REPORT**



CUSTOMER PARALLEL PETROLEUM COR	DATE 08-FEB-15	F:R. # 1364	21156	SER	V. SUPV. j	esus Z Valenzuela	
LEASE & WELL NAME HIGH CALLING 1821 15 STATE 1 - API 3001540367(	OCATION	· · · · · · · · · · · · · · · · · · ·		COU	NTY-PARISH	-BLOCK	····
DISTRICT Hobbs	UDI 41	CTOR RIG #	. a' •	TYPI P	E OF JOB lug & Abando	ņ	
SIZE & TYPE OF PLUGS	SG-HARDWARE	MECHAN	ICAL BARRIE	RS MD	TVD	NGER TYPES N	D TVD
HIM I ENINED FURNIGHED BY BU	LAD REFURI			TTSICAL SLU	RKT PRUPE	<u> (11:5)</u>	
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER. GPS	PUMP TIME BU IR:MIN SLURRY	Bbi MIX WATER
FW	······		8.34				
PLUG 1- CLASS H+2% CACL			2 15.6	1.18	5.18	.11	6.46
MUD		-	9.6			104	
PLUG 2- CLASS H+2% CACL		53	2 15.6	1:18	5.18	11	6.46
MUD			9.6			75	, .
PLUG 3- CLASS H+2% CACL		5	2 15.6	1.18	5.18	11	6.46
MUD			9.6	l		- 47	
PLUG 4- CLASS H+2% CACL		31	8 15.6	1.18	5.18	8	4.69
MUD			9.6		, , ,	17	
PLUG 5- CLASS C+ 2% CACL		2!	5 14.8	1.33	6.33		3.82
MUD			9.6			. 5	,
PLUG 6- CLASS C+ 2% CACL		1	7 14.8	1.33	6.33	4	2.55
FW			8.34			0.5	,
Available Mix Water 900 Bbl.	Available Displ. F	Fluid 8:	35 Bb	4.	TOTAL	. 304:5	30.42
HOLE	TBG-	-CSG-D.P.			C	OLLAR DEPTHS	
SIZE % EXCESS DEPTH ID (	D WGT.	TYPE	AD TVD	GRADE	SHOE	FLOAT	STAGE
		/ 	530 7530	t j		<u>t</u>	
	RAND & TYPE		PERF. DEPIN	SIZE			WGT
8.1 8.625 24 CSG 1504 1504 NO	PACKER	0	<u>.</u> 0	0 4.5 X	H W	ATER BASED M	9.6
DISPL. VOLUME DISPL. FLUID	CAL. PSI CA	L MAX PSI OP.	MAX MA	X TBG PSI	MAX	CSG PSI	MIX
VOLUME UOM TYPE WGT	BUMP PLUG	TO REV. SQ.	PSI RATE	D Operato	r RATED	Operator	WATER
105 BBLS MUD S	.6 0	0	0	0	0 295	50 2360 R	IG
EXPLANATION: TROUBLE SETTING TOOL, RUNNING	SG, ETC. PRIOR TC	D CEMENTING: 1	NONE	<u> </u>			

TIME	PRESSU	RE - PSI	RATE	Bbl. FI UID	FI UID	SAFETY MEETING: BICREW X CO REP X
HR:MIN.	PIPE	ANNULUS	BPM	PUMPED	TYPE	TEST LINES 3500 PSI
			· · · ·			CIRCULATING WELL - RIG X BJ
						FEB: 8, 2015
13:20						ARRIVE LOCATION- RIG BROKE DOWN
13:35		ŀ				WATER TESTED- CHLO<500; SULF<200; PH 7
14:00						EQUIPMENT SPOTTED
16.00						PUMP TEST
17:00				, , , , , , , , , , , , , , , , , , ,	1	SAFETY MEETING
						1st PLUG @ 7533 FT.
17:50	4200	0	1	1	FW	FILL//TEST LINES
17:52	205	0	2.7	5	FW	SPAÇER
17:54	214	Ó	5	12-	CEMENT	CEMENT @ 15.6 PPG
17:57	118	. O	4.7	104.	MUD	DISPLACEMENT
18:25				:		SHUT DOWN: WASH UP

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# CEMENT JOB REPORT

Antonio - 11		PRESSURE/	RATE DETAIL			EXPLANATION
TIME	PRESSUR	E-PSI	RATE	Bbi, FLUID	FLUID	SAFETY MEETING; BJ CREW X CO. REP. X
HR:MIN.	PIPE	ANNULUS	BPM	PUMPED	TYPE	TEST LINES 3500 PSI
				(الندار)		CIRCULATING WELL - RIG X BJ
					· · · · · · · · · · · · · · · · · · ·	FEB. 9 2015
						2nd PLUG @ 5530 FT.
01:17						SAFETY MEETING
01:24	4200	0	1	1	FW	FILL/TEST LINES
01:27	200	0	4	5	FW	SPACER -
01:31	367	0	5	12	CEMENT	CEMENT @ 15.6 PPG
01:35	115	0	6	75	MUD	DISPLACEMENT
01:49		1				SHUT DOWN; WASH UP
<u></u> .						3rd PLUG @ 3530 FT.
03:20		·····			· · · · ·	SAFETY MEETING
03:29	4200	0	1	1	FW	FILL/TEST LINES
03:32	98	Q	3	5	FW	SPACER
03:35	113	0	3:5	13	CEMENT	CEMENT @ 15.6 PPG
03:38	125	0	6.5	47	MUD	DISPLACEMENT
03:47						SHUT DOWN; WASH UP
						4th PLUG @ 1504 FT.
05:15						SAFETY MEETING
05:22	4700	0	1	1	FW	FILL/ TEST LINES
05:26	92	0	3.7	5	FW	SPACER
05:29	107	.0	3.6	9	CEMENT	CEMENT @ 15.6 PPG
05:33	85	0,	5.5	17	MUD	DISPLACEMENT
05:37				tradition of the second second		SHUT DOWN; WASH UP
						5th PLUG @ 573 FT.
06:30						SAFETY MEETING
06:41	4400	0	1	1	FW	FILL/ TEST LINES
06:43	.135	0	3.5	5	FW	SPACER
06:45	125	0	3.9	<b>.</b>	CEMENT	CEMENT @ 14.8 PPG
06:48	106	0	3.6	-5	MUD	DISPLACEMENT
06:50	Santati da anta				-	SHUT DOWN; WASH UP
						6th PLUG @ 60 FT.
09:25	l.					SAFETY MEETING
09:33	4300	0	1	1	FW	FILL/ TEST LINES
09:36	70	Ö	2.6	5	FW'	SPACER
09:38	48	0	3	5	CEMENT	CEMENT @ 14.8 PPG
09:42	37	0	.3	1	FW	DISPLACMENT
09:43		• • •			(	SHUT DOWN; WASH UP
10:00	· · · · · · · · · · · · · · · · · · ·		L			BHIRELEASED
	·				ļ	CIRCULATED- 2 BBLS/ 8 SX
						THANK YOU JESSE & CREW
BUMPED PLUG Y	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT



Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156 Customer: PARALLEL Well Name: HIGH CALLING 1821 15 STAT 1



Job Start: Sunday, February 08, 2015

Baker Hughes



1

Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156

Customer: PARALLEL

Well Name: HIGH CALLING 1821 15 STAT 1







Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156 Customer: PARALLEL Well Name: HIGH CALLING 1821 15 STAT 1



**Baker Hughes** 



Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156 Customer: PARALLEL

Well Name: HIGH CALLING 1821 15 STAT 1



Baker Hughes



Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156 Customer: PARALLEL

Well Name: HIGH CALLING 1821 15 STAT 1



**Baker Hughes** 



Baker Hughes JobMaster Program Version 4.02 Job Number: 136421156 Customer: PARALLEL Well Name: HIGH CALLING 1821 15 STAT 1



Baker Hughes

AKIR NUGHDI			PERN Ce	IIAN R ment La	EGION I ab Repor	LAB t			·		
			Phone: (4)	32) 530-2667	Fax: (432)-530	0-0279					
Test Nu	mber: 529476	5409					Tes	t Date: 🤇	2/8/2015		
Report Nur	nber:										
			WELI	. INFOR	MATION						
Ор	erator: Parall	lel Petroleum				County:	Ëddv				
•	API #:					State:	NM				
Well	Name: High	Calling 1821	15 State #1	Y	Reque	sted By:	Vanessa	Guerra			
Slurry	Type: Single	9				TVD:	7530	MD:	7530		
Blend	Type: Lab					District:	Hobbs			· .	
Com	ments:	,,,									
÷		,	TEST DA	TA AND	SCHEDÜ	LE					
Time To T	emp (min):	39.00			Mud De	nsity (1b/e	al):	10			
Initial	Press (psi):	530		M	ix Water De	nsity (lb/g	al):	8.34			
Final.	Press (psi):	4430			Mix	Water Ty	pe: Tap	Water		3	
BH	ST (deg F):	129			Surf T	emp (deg	F):	80			
BHO	CT (deg F):	129				Job Ty	pe: Plug	3			
	omments: K-	• was added	to the field i	olena.		<del></del>	<u></u>	<u></u>		<u></u>	
		5	SLURRY	AND TE	ST RESU	LTS					
Vondor: Cor	may				-						
Vendor: Cei Slurry: Cla	mex ass 'H' + 0.10%	<b>R-3</b> + 0.005	lb/sk Static	Free					<u>,</u> *		
Vendor: Cei Slurry: Cla	mex ass 'H' + 0.10%	<b>R-3</b> + 0.005	lb/sk Static	Free	- - -				,		
Vendor: Cei Slurry: Cla Der	mex ass'H'+0.10% asity: 15.6 lb	5 R-3 + 0.005 9/gal	lb/sk Static	Free Pump 7	<b>Fime</b> (50 Bc	); );			ڊ		
Vendor: Cei Slurry: Cla Der Y Mix W	mex ass'H'+0.10% asity: 15.6 lb /ield: 1.18 C	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46 4)	lb/sk Static	Free Pump 7 Pump 7 Pump 7	Fime (50 Bc Fime (70 Bc Fime (100 Bc	); ); 2:52					
Vendor: Cer Slurry: Cla Der Y Mix W Total Mix Li	mex ass'H'+0.10% ass'H'+0.10% field: 1.18 C fater: 5.229 f quid: 5.229 f	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46.4 gal/sk	lb/sk Static %)	Free Pump 7 Pump 7 Pump 7	Fime (50 Bc Fime (70 Bc Fime (100 Bc	); ); 2:52 );					•
Vendor: Cei Slurry: Cla Der Y Mix W Fotal Mix Li Fluid	mex ass'H'+0.10% Ass'H'+0.10% Asity: 15.6 b Aield: 1.18 C Aield: 1.18 C Aield: 5.229 g Auid: 5.229 g Loss: cc/30	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46.4 gal/sk 9 min	lb/sk Static %)	Free Pump 7 Pump 7 Pump 7 Fra	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml	): ): 2:52 ): ): (Tes	ted át <sup>.</sup> 90 <sup>c</sup>	° Angle)			
Vendor: Cei Slurry: Cla Der Y Mix W Fotal Mix Li Fluid	mex ass 'H' + 0.10% nsity: 15.6 lb /ield: 1.18 C /ater: 5.229 g quid: 5.229 g Loss: cc/30	5 R-3 + 0.005 9/gal uPt/sk gal/sk (46.4 gal/sk min	lb/sk Static %)	Free Pump 1 Pump 1 Pump 1 Fra	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml	); ); 2:52 ); (Tes	ted at <sup>.</sup> 90 <sup>c</sup>	° Angle)			
Vendor: Cei Slurry: Cli Der Y Mix W Fotal Mix Li Fluid Compressive Tim	mex ass 'H' + 0.10% Ass 'H' +	5 R-3 + 0.005 o/gal uFt/sk gal/sk (46.4 gal/sk min Type	lb/sk Static %) Rheology Temp 6	Free Pump 7 Pump 7 Pump 7 Fr (PL=Pow 00 300	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP== 200 100	); ): 2:52 ): ): (Tes Bingam P 6 3	ted at 90 ° lastic) n'	° Angle) k'	Υp	Pv	Be
Vendor: Cer Slurry: Cla Der Y Mix W Fotal Mix Li Fluid Compressive Yemp Tim 146 2:2	mex ass 'H' + 0.10% field: 1.18 C fater: 5.229 f quid: 5.229 f Loss: cc/30 Strength se Strength 9 500	5 R-3 + 0.005 b/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA	lb/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Pump 7 Fro (PL=Pow 00 <b>300</b> 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	); ); 2:52 ); (Tes Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	° Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be
Vendor: Cer Slurry: Cla Der Y Mix W Total Mix Li Fluid Compressive emp Tim 146 2:2 146 1	mex ass 'H' + 0.10% nsity: 15.6 lb /ield: 1.18 C /ater: 5.229 g quid: 5.229 g quid: 5.229 g Loss: cc/30 e Strength se Strength 9 500 2 2143	5 R-3 + 0.005 b/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA	1b/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): ): (Tes: Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	° Angle) k' 0.066	<b>Yp</b> 12.4	<b>Ρ</b> ν 17.9	Be
Vendor: Cer Slurry: Clr Der Y Mix W Fotal Mix Li Fluid Compressive Yemp Tim 146 2:2 146 1 146 2	mex ass 'H' + 0.10% field: 1.18 C 'ater: 5.229 f quid: 5.229 f Quid: 5.229 f Loss: cc/30 Strength Strength Strength 9 500 2 2143 4 2476	5 R-3 + 0.005 b/gal uFt/sk gal/sk (46.4 gal/sk min <b>Type</b> UCA UCA UCA UCA	lb/sk Static %) Rheology Temp 6 80	Free Pump 1 Pump 1 Pump 1 Fr (PL=Pow 00 300 45 29	<b>Fime</b> (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= <b>200</b> 100 24 19	); ); 2:52 ); (Tes Bingam P 6 3 11 10	ted at 90 ° lastic) n' 0.235	<sup>o</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be E
Vendor: Cer Slurry: Clr Der Y Mix W Fotal Mix Li Fluid Compressive Yemp Tim 146 2:2 146 I 146 2	mex ass 'H' + 0.10% Asity: 15.6 lb Aield: 1.18 C Aier: 5.229 g Quid: 5.229 g Loss: cc/30 Strength Strength Strength 500 2 2143 4 2476	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA	lb/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12.4	<b>Pv</b> 17.9	Be
Vendor: Cer Slurry: Cla Der Y Mix W Fotal Mix Li Fluid Compressive Yemp Tim 146 2:2 146 1 146 2	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 ( quid: 5.229 ( Loss: cc/30 Strength se Strength 9 500 2 2143 4 2476	5 R-3 + 0.005 y/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA	1b/sk Static %) <b>Rheology</b> Temp 6 80	Free Pump 7 Pump 7 Pump 7 Fre (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	); ); 2:52 ); (Tes Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	<sup>o</sup> Angle) k' 0.066	<b>Yp</b> 12.4	<b>Pv</b> 17.9	Be
Vendor: Cer Slurry: Cli Der Y Mix W Fotal Mix Li Fluid Compressive 'emp Tim 146 2:2 146 1 146 2	mex ass 'H' + 0.10% field: 1.18 C 'ater: 5.229 f quid: 5.229 f Loss: cc/30 Strength Strength Strength 9 500 2 2143 4 2476	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA	lb/sk Static %) <b>Rheology</b> Temp 6 80	Free Pump 7 Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP== 200 100 24 19	); ); 2:52 ); (Tes Bingam P 6 3 11 10	ted at 90 ° lastic) n' 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be
Vendor: Cer Slurry: Cli Der Y Mix W Fotal Mix Li Fluid Compressive emp Tim 146 2:2 146 1 146 2	mex ass 'H' + 0.10% Asity: 15.6 lb Aield: 1.18 C Aiter: 5.229 g Quid: 5.229 g Loss: cc/30 Strength Strength Strength 9 500 2 2143 4 2476 Reported by: B	5 R-3 + 0.005 9/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA UCA	lb/sk Static %) Rheology Temp 6 80 r Compres	Free Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19 test #75447 (	): ): 2:52 ): (Tes: Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be
Vendor: Cei Slurry: Cli Der Y Mix W Fotal Mix Li Fluid Compressive emp Tim 146 2:2 146 1 146 2 146 1 146 2	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 quid: 5.229 Loss: cc/30 Strength Strength Strength Strength 2 2143 4 2476	o R-3 + 0.005 o/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA	1b/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10	ted at 90 ° lastic) 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Ρ</b> ν 17.9	Be
Vendor: Cer Slurry: Cla Der Y Mix W Fotal Mix Li Fluid Compressive Tim 146 2:2 146 1 146 2 146 1	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 quid: 5.229 Loss: cc/30 Strength Strength Strength Strength 2 2143 4 2476	o R-3 + 0.005 Jogal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA UCA	1b/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10 12/24/14)	ted at 90 ° lastic) n' 0.235	° Angle) k' 0.066	<b>Yp</b> 12.4	<b>Pv</b> 17.9	Be E
Vendor: Cer Slurry: Cli Der Y Mix W Fotal Mix Li Fluid Compressive 'emp Tim 146 2:2 146 1 146 2	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 quid: 5.229 Loss: cc/30 Strength Strength Strength Strength Strength 2 2143 4 2476	5 R-3 + 0.005 9/gal uFt/sk gal/sk min Type UCA UCA UCA UCA UCA	lb/sk Static %) <b>Rheology</b> <b>Temp 6</b> 80	Free Pump 7 Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10 12/24/14)	ted at 90 ° lastic) n' 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be E
Vendor: Cer Slurry: Clr Der Y Mix W Fotal Mix Li Fluid Compressive Temp Tim 146 2:2 146 1 146 2 Comments: H	mex ass 'H' + 0.10% Ass 'H' +	5 R-3 + 0.005 9/gal wFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA UCA UCA	lb/sk Static %) <b>Rheology</b> <b>Temp 6</b> 80	Free Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	); ); 2:52 ); (Tes Bingam P 6 3 11 10	ted at 90 <sup>c</sup> lastic) 0.235	° Angle) <b>k'</b> 0.066	<b>Yp</b> 12:4	<b>Pv</b> 17.9	Be E
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Vendor: Cer Slurry: Clr Mix W Fotal Mix Li Fluid Compressive Temp Tim 146 2:2 146 T 146 2 Comments: F	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 f quid: 5.229 f Loss: cc/30 Strength se Strength 9 500 2 2143 4 2476 Reported by B	o R-3 + 0.005 o/gal uFt/sk gal/sk (46.4 gal/sk min Type UCA UCA UCA UCA	lb/sk Static %) Rheology Temp 6 80	Free Pump 7 Pump 7 Fr (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10	ted at 90 4 lastic) 0.235	<sup>9</sup> Angle) <b>k'</b> 0.066	<b>Yp</b> 12.4	<b>Ρ</b> ν 17.9	Be B
Vendor: Cer Slurry: Cla Der Y Mix W Fotal Mix Li Fluid Compressive emp Tim 146 2:2 146 1 146 2 Comments: F	mex ass 'H' + 0.10% vield: 1.18 C vield: 1.18 C vield: 5.229 f quid: 5.229 f Loss: cc/30 Strength se Strength 9 500 2 2143 4 2476 Reported by: B	o R-3 + 0.005 o/gal uFt/sk gal/sk (46.4' gal/sk min Type UCA UCA UCA UCA UCA	lb/sk Static %) <b>Rheology</b> Temp 6 80	Free Pump 7 Pump 7 From (PL=Pow 00 300 45 29	Fime (50 Bc Fime (70 Bc Fime (100 Bc ee Water (ml ver Law, BP= 200 100 24 19	): ): 2:52 ): (Tes: Bingam P 6 3 11 10 12/24/14)	ted at 90 ° lastic) 0.235	° Angle) k' 0.066	<b>Yp</b> 12.4	<b>Pv</b> 17.9	Be E

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				Phone	: (432) 5	30-2667	Fax: (	432) 530	0279					
Tes Report	t Numbe t Numbei	r: 5294764 'i	116	WF	T T T	NFOR	NA A T	IÓN		Te	st Date:	2/9/2015		
				** 12		UL OR	<b></b>	IQN						
	Operat API	or: Paralle #:	el Petroleur	n 1.16 Same	2137		·	, 1 <b>0 -</b>	County: 1 State:	Eddy NM	Cuerre			
S	lurry Ty Blend Ty Commer	pe: Single pe: Lab	annig 162	1 15 State	#11			neque	TVD: District:	5530 Hobbs	MD	: 5530		
				TEST I	DATA	ANI	) SCF	EDU	LE	1				
Time Ir I	To Temp nitial Pre Final Pre BHST ( BHCT ( Com	(min): ss (psi): ss (psi): deg F): deg F): ments: R-3	28.67 430 3330 116 116 was adde	d to the fie	ld blen	.M	M lix Wa	ud Der ter: Der Mix Surf T	nsity (lb/g nsity (lb/g Water Ty 'emp (deg Job Ty	al): al): pe: Ta F): pe: Plu	10 8.34 p Water 80 Ig			·
		line i		SLURR	Y AP	ND TI	EST R	ESU	LTS		<u> </u>			
Vendor Slurry N Total M	: Cemex : Class' Density Yield Iix Wate Iix Liqui Fluid Los	H'+ 0.05% 1: 15.6 lb/ 1: 1.18 Cu 1: 5.232 g 1: 5.232 g 1: 5.232 g	R-3 + 0.00 /gal 1Ft/sk al/sk (46: al/sk min	05 lb/sk Sta 42%)	atic Fre	e Pump Pump Pump Fi	Time Time Time (	(50 Bc (70 Bc 100 Bc	): ): 3:15 ): ): (Tes	ted at 90	• Angle)		*	
-										10u ui 20	, ingroj	•		
Compro Temp 146 146 146	essive St Time 2:29 12 24	ength Strength 500 2143 2476	Type UCA UCA UCA	Rheolog Temp 80	gy (1 600 65	PL=Po 300 37	wer Lav 200 30	v, BP= 100 23	Bingam F 6 3 13 12	lastic) <b>n'</b> 0.252	<b>k'</b> 0.075	<b>Yp</b> 14.5	<b>Py</b> 24.0	Best BP
Comme	nts: Con	pressives fi	rom test #7	7 <u>5447(</u> 12/2	4/2014	1) Rej	ported	oy: Bru	ice Wheeld	er				

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Test	Number:	5294764	17								Test	Date:	2/9/2015		
Report	Number:			***	тт г	NEOT	5 B. # 3 78	TANT							
				WE	ا بلنا	NFUH		ION							
ι.	Operator:	Paralle	l Petroleur	'n				C	County	: Eddy					
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v Si	veil Name:	Hign C	alling 182	i is state	ŦĮΫ		•	Keques	sted By	: van • 2.52	essa U	Juerra	3530		
B	lend Type:	: Lab						:	District	: 100 : Hol	obs	. 198 8.			
Ċ	Comments:														
		<u></u>	<u></u>	TEST I	DAT	ANI	D SCH	IEDU	LE		- <u>-</u>	<u>.</u>			
Time 7	Ín Tamn (r	ninte	18 22				M	ud Dar	city (lb	(oal).		10			
Ini	tial Press (	inny: (psi):	340			N	ivi Iix Wa	ter Den	isity (lb	/gal):	.8	.34		.:	
Fi	inal Press (	(psi):	2190			1.		Mix	Water 3	Гуре:	Tap	Water			
	BHST (de	g F):	103					Surf T	emp (de	eg F):		80			
	BHCT (de	gF):	103						Job	Гуре:	Plug				
				SLUK	(YA)	ND TI	EST R	(ESUI	.18						
Vendör: Slurry: M Fotal Mi Fl	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss:	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30	CaCl2 + 0. (gal CuFt/sk al/sk (56. al/sk min	SLUKF 20% R-3 18%)	(Y A)	ND TI 5 lb/sk Pump Pump Pump Fi	EST R Static F Time Time Time ( ree Wa	(ESUI (50 Bc) (70 Bc) 100 Bc) ter (ml)	): ): 2.26 ): ): (T	ested a	tt 90 °	Angle)		۶	
Vendör: Slurry: M Fotal Mi Fl Compres	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth	CaCl2 + 0, /gal /uFt/sk al/sk (56, al/sk min	SLUKF 20% R-3 18%) Rheolo	ΥΑ. +0.00	ND TI 5 lb/sk Pump Pump Pump Fi Fi PL=Po	EST R Static F Time Time Time ( ree Wa wer Lay	(ESUI (70 Bc) (70 Bc) 100 Bc) ter (ml) w, BP=	): ): 2:26 ): ): (T Bingam	ested a	ut 90 ° c)	Angle)		• •	
Vendör: Slurry: Fotal Mi Fl Compres 'emp	Cemex Class 'C' + Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength	CaCl2 + 0. /gal CuFt/sk al/sk (56. al/sk min Type	SLUKF 20% R-3 18%) Rheolo Temp	₩ 0.00 + 0.00 gy ( 600	ND TI 5 lb/sk Pump Pump Pump Fi PL=Po 300	EST R Static F Time Time Time ( ree Wa wer Lay 200	(ESUI (50 Bc) (70 Bc) (70 Bc) 100 Bc) ter (ml) w, BP= 100 27	): ): 2:26 ): (T Bingam 6	ested a Plasti 3	ut 90 ° c) <b>n'</b>	Angle) k'	Yp	Pv	Bes
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/endör: Slurry: Fotal Mi Fl Compres Yemp 1 18 1 18	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4:39 12 24	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024	CaCl2 + 0. (gal CuFt/sk al/sk (56. al/sk min Type UCA UCA UCA UCA	SLUKF 20% R-3 18%) Rheolo Temp 80	<b>gy (</b> 600 64	ND TI 5 lb/sk Pump Pump Fump Fi PL=Po 300 50	EST R Static F Time Time Time ( ree Wa ver Lay 200 44	(ESUI (70 Bc) (70 Bc) 100 Bc) ter (ml) w, BP= 100 37	): ): 2:26 ): (T Bingam 6 -25 1	ested a Plasti 3 8 0.	tt 90 ° c) <b>n'</b> 169	Angle) k' 0.177	<b>Ур</b> 28 4	<b>Pv</b> 24.9	Bes
Vendör: Slurry: Fotal Mi Fl Compres Yemp 1 (8 1 (8 1 (8 1 (8 1 18 1 18	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4.39 12 24 48	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024 2344	CaCl2 + 0. 'gal CuFt/sk al/sk (56. al/sk min Type UCA UCA UCA UCA UCA	SLUKF 20% R-3 18%) Rheolo Temp 80	<b>gy (</b> 600 64	ND TI 5 lb/sk Pump Pump Pump Fi PL=Po 300 50	EST R Static F Time Time Time ( ree Wa wer Lay 200 .44	(ESUI (50 Bc) (70 Bc) 100 Bc) ter (ml) w, BP= 100 37	): : 2:26 : (T Bingam <u>6</u> 25 1	ested a Plasti 3 8 0.	ut 90 ° c) <b>n'</b> 169	<b>Angle)</b> <b>k'</b> 0.177	<b>Yp</b> 28.4	<b>Pv</b> 24.9	Bes
Vendör: Slurry: Fotal Mi Fl Compres 'emp 1 18 1 18 1 18 1 18 1 18	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4:39 12 24 48 72	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024 2344 2505	CaCl2 + 0, /gal /uFt/sk al/sk (56, al/sk min Type UCA UCA UCA UCA UCA UCA	SLURF 20% R-3 18%) Rheolo Temp 80	gy ( 600 64	ND T 5 lb/sk Pump Pump Pump FI PL=Po 300 50	EST R Static F Time Time ( ree Wa wer Lay 200 .44	(ESUI (70.Bc) (70.Bc) 100 Bc) ter (ml) w, BP= 100 37	): ): 2:26 ): (T Bingam 6 .25 1	ested a Plasti 3 8 0.	nt 90° c) n' 169	<b>Angle</b> ) <b>k'</b> 0.177	<b>Ур</b> 28 4	<b>Pv</b> 24.9	Bes Pl
Vendör: Slurry: Fotal Mi Fotal Mi Fi Compres 'emp 1 18 1 18 1 18 1 18 1 18 1 18 1 18 1 1	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4 39 12 24 48 72 ts: Compression	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024 2344 2505 essives fi	CaCl2 + 0, gal 2uFt/sk al/sk (56, al/sk min Type UCA UCA UCA UCA UCA UCA UCA UCA	SLURF 20% R-3 18%) Rheolo Temp 80 5864 (1/1	<b>gy (</b> 600 64	ND T 5 lb/sk Pump Pump Pump Fi PL=Po 300 50 Report	EST R Static F Time Time ( ree Wa wer Lay 200 .44	(ESUI (50 Bc) (70 Bc) 100 Bc) 100 Bc) ter (ml) w, BP= 100 37	): ): 2:26 ): (T Bingam 6 25 1 Vheeler	ested a Plasti 3 8 0.	ut 90 ° c) <b>n'</b> 169	Angle) k' 0.177	<b>Үр</b> 28.1	<b>Pv</b> 24.9	<b>B</b> es P
Vendör: Slürry: M Fotal Mi F Compres Temp 1 18 1 18 1 18 1 18 1 18 1 18	Cemex Class 'C' - Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4:39 12 24 48 72 ts: Compression	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024 2344 2505 essives fi	CaCl2 + 0, (gal CuFt/sk al/sk (56, al/sk min Type UCA UCA UCA UCA UCA UCA UCA UCA	SLUKF 20% R-3 18%) Rheolo Temp 80 5864 (1/1	<b>gy (</b> 600 64	ND T 5 lb/sk Pump Pump Pump Fi PL=Po 300 50 Report	EST R Static F Time Time Time ( ree Wa wer Lay 200 44	(ESUI (70 Bc) (70 Bc) 100 Bc) ter (ml) w, BP= 100 37	): :: 2:26 :: (T Bingam 6 25 1 Vheeler	ested a Plasti 3 8 0.	tt 90 ° c) n' 169	Angle) k' 0.177	<b>Үр</b> 28.4	<b>Pv</b> 24.9	Bes Pl
Vendör: Slürry: Slürry: M Fotal Mi Fl Compres Temp 1 (8 1 (8 1 (8 1 (8 1 (8 1 (8 1 (8 1 (8	Cemex Class 'C' + Density: Yield: ix Water: ix Liquid: luid Loss: ssive Stren Time St 4.39 12 24 48 72 ts: Compression	+ 1.00% 14.8 lb/ 1.336 C 6.332 g 6.332 g cc/30 gth rength 500 1626 2024 2344 2505 essives fi	CaCl2 + 0, /gal /uFt/sk al/sk (56, al/sk min Type UCA UCA UCA UCA UCA UCA UCA	SLURF 20% R-3 18%) Rheolo Temp 80 5864 (1/1	gy ( 600 64	ND T 5 lb/sk Pump Pump Pump Fi PL=Po 300 50 Report	EST R Static F Time Time Time ( ree Wa wer Lay 200 .44	(ESUI iree (50 Bc) (70 Bc) 100 Bc) ter (ml) w, BP= 100 37	): ): 2:26 ): (T Bingam 6 25 1 Vheeler	ested a Plasti 3 8 0.	ut 90 ° c) n' 169	Angle) k' 0.177	<b>Үр</b> 28.1	<b>Pv</b> 24.9	Bes P

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	Phone: (432) 530-2	2667 Fax: (432) 53	0:0279					
Test Number: 529476412				Test	Date: 2	/8/2015		
Report Number:	NATES & BAITS	ÓDIATTION	•					
	WELL INF	URMATION						
<b>Operator:</b> Parallel Petrole	um		County: Ed	dy				
API #:		<b>D</b> • • •	State: N	M				
Well Name: High Calling 18 Shurry Type: Single	321 15 State #1Y	Kequ	TVD: 1	anessa G 554	nuerra MD:	1554		
Blend Type: Lab			District: 1	lobbs	. ( <b>1</b>			
Comments:								
	TEST DATA A	ND SCHEDU	J <b>LE</b>					
Time To Temp (min) · 8 000		Mird De	nsity (lh/oal)	•	10			
Initial Press (psi): 280		Mix Water De	nsity (lb/gal)	/• ): 8:	34			•
Final Press (psi): 1080		Mix	Water Type	: Tap \	Nater			
BHST (deg F): 90		Surf	Femp (deg F)	): 51.000	80			
Comments: 90			aan tahi	s ring				
	SLUPPVAND	TFST BFSI	LTS			<del>, ii.i</del> i	•	
Vendor: Cemex Slurry: Class C + 1.00% CaCl2 + Density: 14.8 lb/gal	0.005 lb/sk Static Free Pu	e mp Time (50 B	c):				•	
Mix Water: 6 341 gal/sk (5	6 26%) Pu	mp Time (100 B	c): 1:38					
Total Mix Liquid: 6.341 gal/sk		······ (	-);					
Fluid Loss: cc/30 min		Free Water (m	l): (Teste	d at 90 °	Angle)			
Compressive Strength	Rheology (PL	Power Law, BP	= Bingam Pla	stic)			_	
remp Time Strength Type	Temp 600 3	<u>60</u> 200 100	6 3 -27 20	n' 0.211	6.173	¥p 31.0	26 7	Bes
00 615 500 LCA	80 83	04 00 80	21 20	U.211	9.175	.51.0	50.7	1.
90 6:15 500 UCA 90 12 1117 UCA								
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA	•>						۰.	
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA           92         48         2524         UCA	*						• .	
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA           92         48         2524         UCA	•						• .	
90 6:15 500 UCA 90 12 1117 UCA 90 24 1836 UCA 92 48 2524 UCA	7					·	• . :	
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA           92         48         2524         UCA	#75745 (1/10/15) Rep	ported by: Bruce	Wheeler				• .	
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA           92         48         2524         UCA	#75745 (1/10/15) Rep	ported by: Bruce	Wheeler				• . :	
90       6:15       500       UCA         90       12       1117       UCA         90       24       1836       UCA         92       48       2524       UCA         Comments: Compressives from test in the second seco	#75745 (1/10/15) Rep	oorted by: Bruce	Wheeler			·	· . :	·
90       6:15       500       UCA         90       12       1117       UCA         90       24       1836       UCA         92       48       2524       UCA         Comments:       Compressives from test and the second	#75745 <u>(1</u> /10/15) Rep	ported by: Bruce	Wheeler			·	:	
90         6:15         500         UCA           90         12         1117         UCA           90         24         1836         UCA           92         48         2524         UCA	#75745 (1/10/15) Rep	ported by: Bruce	Wheeler				· · ·	
90 6:15 500 UCA 90 12 1117 UCA 90 24 1836 UCA 92 48 2524 UCA Comments: Compressives from test	#75745 (1/10/15) Rep	ported by: Bruce	Wheeler				•••	

Baki	e de la composition de la comp		-	PERM Ce	lIAN R ment L	EGI ab R	ON I épor	LAB t						
 				Phone: (4)	2) 530-2667	Fax: (	432) 530	-0279	<del>.</del>					
Т	est Number:	5294764	13							Test	t Date: 2	2/8/2015		
Repo	ort Number:			<b>11/15/1</b> - 1	INFOI	эмат	ION							
				VV CILI	JINFUI	NIVIZA I	IUN							
	Operator	: Paralle	el Petroleu	m.			ĺ	County	: Edd	y				
	API# Well Name	: High (	Calling 182	1 15 State #1	Y	:	Reane	State sted By	e: NN /: Va	1 nëssa (	Gilerra			
	Slurry Type	: Single		12 01010 //1				TVD	: 62	3	MD	623		
	Blend Type	: Lab					•	Distric	t: Hộ	obbs		1		
	Comments							. <u></u>						
	2			TEST DA	TA ANI	D SCH	IEDU	LE						
Tin	ne To Temp (	min):	3,333			М	ud Dei	nsity (ll	o/gal):		10			•.
	<b>Initial Press</b>	(psi):	250		N	lix Wa	ter Dei	nsity (It	o/gal):		8:34			
	Final Press	(psi):	740				Mix	Water.	Type:	Tap	Water			
	BHCT (d	egr): egF):	84 84				SULL 1	Job	Type:	Plug	00. L			
	Comm	ents:							•••	-	•		1	
	<u></u>			SLURRY	AND T	EST R	ESU	LTS						
				<u>550</u> 1411										
Vendo	or: Cemex													
Slurr	ry: Class 'C'	+ 2.00%	ÇaCl2 + 0	.005 lb/sk Sta	tic Free								*	
Slurr	ry: Class 'C' Density:	+ 2.00% 14.8 lb	CaCl2 + 0 /gal	.005 lb/sk Sta	tic Free <b>Pump</b>	.Time	(50 Bc	):					*	
Slurr	ry: Class 'C' Density: Yield: Mix Watory	+ 2.00% 14,8 lb 1.345 C	CaCl2 + 0 /gal CuFt/sk	.005 lb/sk Sta	tic Free Pump Pump Pump	Time Time Time (	(50 Bc (70 Bc	): ): 1:42	2				* .	
Slurr Total	ry: Class 'C' Density: Yield: Mix Water: Mix Liquid:	+ 2.00% 14.8 lb 1.345 0 6.354 g 6.354 g	CaCl2 + 0 /gal CuFt/sk ;al/sk (56 ;al/sk	.005 lb/sk Sta .38%)	tic Free Pump Pump Pump	Time Tìme Time (	(50 Bc (70 Bc 100 Bc	): ): 1:42 ):	2				*	
Slurr Total	y: Class 'C' Density: Yield: Mix Water: Mix Liquid: Fluid Loss:	+ 2.00% 14.8 lb. 1.345 C 6.354 g 6.354 g cc/30	CaCl2 + 0 /gal CuFt/sk gal/sk (56 gal/sk min	.005 lb/sk Sta .38%)	tic Free Pump Pump Pump Fi	Time Tìme Time ( ree Wa	(50 Bc (70 Bc 100 Bc ter (ml	): ): 1:42 ): ): (1	Fested	at 90 °	' Angle)		*	
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Slurr Total Comp 83 83 83	ry: Class 'C' Density: Yield: Mix Water: Mix Liquid: Fluid Loss: pressive Stree Time S 6:27 12 24	+ 2.00% 14.8 lb. 1.345 C 6.354 g cc/30 bgth trength 500 926 1503	CaCl2 + 0 /gal CuFt/sk (56 (al/sk) min Type UCA UCA UCA	.005 lb/sk Sta .38%) 	tic Free Pump Pump Pump (PL=Po 00 300 00 84	Time Time Time ( ree Wan wer Lav 200 78	(50 Bc (70 Bc 100 Bc ter (ml v, BP= 100 70	): ): 1:42 ): ): ): (1 Bingan 6 45	Fësted n Plast 3 32 (	at 90 ° tic) n' ),158	' Angle) <b>k'</b> 0.331	<b>Y</b> .p 53.3	<b>Pv</b> 37.9	<b>Best</b> PL
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	 	<u> </u>		Phone	(432) 53	0-2667 Fax	e (432) 530-0279	)						
Tes	t Number	: 5294764	14						Test	Date: 2	/8/2015			
Report	Number	:		WF	I I IN	FODMA	TION							
				VV E	און הונים	UNIVIA								
	Operato	r: Paralle	l Petroleu	m			Cour	nty: Edd	y					
,	ALI Well Nam	#: we: High (	alling 187	1.15 State	#1Y		Requested	ate: NM	1 nessa C	hierra				
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<u></u> ,,	Comment	15:		<u>_</u> iu <sup>#</sup> "		<u></u>	<u>.</u>							
				TEST I	)ATA	AND SC	HEDULE							
Time	To Temp	(min): (	).3333				Mud Density	(lb/gal):		10				
ln	itial Pres	<b>s (</b> psi):	250			Mix W	ater Density	(lb/gal):	8	.34				
F	inal Pres	s (psi):	700				Mix Wat	er Type:	Tap V	Water				
	BHST (deg F): 80 BHCT (deg F): 80						Suri Temp	(deg r):	Ding	RU				
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Vendor:	: Čemex		<i>t</i> .	SLURR	Y AN	D TEST	RESULTS	<b>)</b>			*			
Vendor: Slurry: M Total M	: Cemex Class C Density Yield lix Water	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g	CaĊĺŻ + 0 (gal LuFt/sk al/sk (56 al/sk	SLURR .005 lb/sk ; 38%)	Y AN Static Fi .F F F	D TEST ree Pump Time Pump Time	RESULTS e (50 Bc): e (70 Bc): 1 e (100 Bc):	:56			۶			
Vendor: Slurry: M Total M	Cemex Class C Density Yield Iix Water Iix Liquid Fluid Loss	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g : cc/30	CaCl2 + 0 /gal SuFt/sk al/sk (56 al/sk min	SLURR .005 lb/sk.3 38%)	Y AN Static Fr F F F	D TEST ree Pump Time Pump Time Pump Time Free W	RESULTS (50 Bc): (70 Bc): 1 (100 Bc): /ater (ml):	.56 (Tested	at 90 °.	Angle)	*			
Vendor: Slurry: M Total M F Compre	: Cemex Class C Density Yield Iix Water Iix Liquid Fluid Loss essive Stree	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g : cc/30 ength	CaČĺŽ + 0 /gal SuFt/sk al/sk (56 ál/sk min	SLURR .005 lb/sk 3 38%) Rheolog	Y AN Static Fr F F Sy (P	D TEST ree Pump Time Pump Time Pump Time Free W L=Power L	RESULTS (50 Bc): (70 Bc): 1 (100 Bc): /ater (ml): .aw, BP= Bing	: 56 (Tested gam Plast	at 90 °. ic)	Angle)	*			
Vendor: Slurry: M Fotal M F Compre Femp	Cemex Class <sup>-1</sup> C Density Yield Iix Water Iix Liquid Fluid Loss essive Stra Time	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g : cc/30 ength Strength	CaCl2 + 0 (gal CuFt/sk al/sk (56 al/sk min Type	SLURR .005 lb/sk. 38%) Rheolog Temp	Y AN Static Fr F F Sy (P 600	D TEST ree Pump Time Pump Time Pump Time Free W L=Power L 300 200	RESULTS (50 Bc): (70 Bc): 1 (100 Bc): (100 Bc): (ater (ml): aw, BP= Bing 100 6 70 45	56 (Tested gam Plast 32	at 90 °. ic) n'	Angle) k'	Ý.p. 52.2	<b>Pv</b>	Best	
Vendor: Slurry: M Total M F Compre Eemp 80 80	Cemex Class C Density Yield Iix Water Iix Liquid Cluid Loss essive Stru Time 6.53 12	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g : cc/30 ength Strength 500 887	CaCl2 + 0 /gal uFt/sk al/sk (56 al/sk min Type UCA UCA	SLURR .005 lb/sk 3 38%) Rheolog Temp 80	Y AN Static Fi F F F Sy (P 600 100	D TEST ree Pump Time Pump Time Pump Time Free W L=Power L 300 200 84 78	RESULTS (50 Bc): (70 Bc): 1 (100 Bc): /ater (ml): .aw, BP= Bing 100 6 3 70 45	56 (Tested gam Plast 3 32 0	at 90 °. ic) n' 0.158	Angle) <b>k'</b> 0:331	Ýp 53.3	<b>Pv</b> 37.9	<b>Bes</b> t PL	
Vendor: Slurry: M Total M F Compro Femp 80 80 80 80 80 80	Cemex Class C Density Yield Iix Liquid Cluid Loss essive Stree Time 6:53 12 24	" + 2.00% : 14.8 lb/ : 1.345 C : 6.354 g : 6.354 g : cc/30 ength Strength 500 887 1453	CaCl2 + 0 /gal SuFt/sk al/sk (56 al/sk min Type UCA UCA UCA	SLURR .005 lb/sk 3 38%) Rheolog Temp 80	Y AN Static Fr F F Sy (P 600 100	D TEST ree Pump Time Pump Time Pump Time Free W L=Power L 300 20( 84 7)	RESULTS (50 Bc): (70 Bc): 1 (100 Bc): /ater (ml): aw, BP= Bing 100 6 3 70 45	56 (Tested gam Plast 3 32 0	at 90 °. ic) n' 0.158	Angle) <b>k'</b> 0:331	Ý.p 53.3	<b>Pv</b> 37.9	<b>Bes</b> PL	
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## NEW MEXICO OIL CONSERVATION DIVISION DISTRICT 2 OFFICE 811 S. FIRST STREET ARTESIA, NM 88210 (575)748-1283

CONDITIONS OF APPROVAL FOR PLUGGING & ABANDONMENT
Operator: ParAllEC
Well Name & Number: High Calling
API #: 30. 015-42878

- 1. Produced water <u>will not</u> be used during any part of the plugging & abandonment operation.
- 2. Notify NMOCD Dist. 2 office at least 24 hrs before beginning work.
- 3. Closed Loop System is to be used for entire plugging operation. Upon completion, contents of steel pit are to be hauled to a permitted disposal location.
- 4. Trucking companies being used to haul oilfield waste fluids to a disposal commercial or private shall have an approved NMOCD C-133 permit. A copy of this permit shall be available in each truck used to haul waste products. It is the responsibility of the operator, as well as the contractor, to verify that this permit is place prior to performing work. Drivers shall produce a copy upon request of NMOCD Field Inspectors.
- 5. A subsequent C-103 will serve as notification that the well bore has been plugged ONLY. A C-103 FINAL shall be filed before any bonding can be released on the well. Upon receipt of the Final, an inspection will be performed to verify that the location has been satisfactorily cleaned to NMOCD standards.
- 6. If work has not begun within 90 days of the approval of this procedure, an extension request must be filed, stating reason that well has not been plugged.
- 7. Every attempt must be made to clean the well bore out to below the perfs, before any plugs can be set, by whatever means possible.
- 8. Cement Retainers may not be used.

9. Squeeze pressures are not to exceed 500 PSI, unless approval is given by NMOCD.
10. Plugs may be combined after consulting with and getting approval from NMOCD.
11. Minimum WOC time for tag plugs will be 4 Hrs.

DATE:

2/11/15

APPROVED BY:

## **GUIDELINES FOR PLUGGING AND ABANDONMENT**

#### DISTRICT II / ARTESIA

- All cement plugs will be a minimum of 100' in length or a minimum of 25 sacks of cement, whichever is greater.
- Mud laden fluids must be placed between all cement plugs.
- Mud laden fluids must be mixed at 25 sacks of gel per 100 bbls of water.
- A cement plug is required to be set 50' below and 50' above all casing shoes and casing stub plugs. These plugs must be tagged.
- A CIBP with 35' of cement on top may be set in lieu of 100' cement plug.
- A plug as indicated above must be placed within 100' of top perforation. This plug must be tagged.
- Plugs set below and above salt zones must be tagged.
- No more than 2000' is to be allowed between cement plugs in open hole and no more than 3000' in cased hole.
- DV tools are required to have a 100' cement plug set 50' above and below the tool and must be tagged.
- Formations to be isolated with plugs placed at the top of each formation are:
  - o Fusselman
  - o Devonian
  - o Morrow
  - o Wolfcamp
  - o Bone Spring
  - o Delaware
  - Any Salt Section (Plug at top and bottom)
  - o Abo
  - o Glorieta
  - Yates (this plus is usually at base of salt section)
- If cement does not exist behind casing strings at recommended formation depths, the casing
  must be cut and pulled with plugs set at these depths or casing must be perforated and cement
  squeezed behind casing at the formation depths.
- In the R-111-P area (Potash Mine area) a solid cement plug must be set across the salt section.
   Fluid used to mix the cement shall be saturated with the salts common to the section penetrated and in suitable proportions, but not more than a 3% calcium chloride by weight of cement will be considered the desired mixture whenever possible (50' below and 50' above).