

Grama Ridge East 34 State Com 3BS 5H API # 30-025- 4-96-2-9 Updated: 1/9/2019

1	ft-RKB	Tops	Wellbore S		Hole Size	Casing	Drilling Fluids	Cement '	OH Evaluation/Logs
2,000	1,705 F 2,170 S			1,755'	17-1/2"	Surface: 13-3/8" 54.5# J55 BTC	FW Spud Mud 8.5 - 9.2 ppg 38 - 40 Vis 8 - 10 PV 8 - 10 YP	lop of Lead: Surface 13.5 ppg 1.72 cuft/sk 1,050 sks - 100% XS Top of Tail: 1,300' 14.8 ppg 1.33 cuft/sk 475 sks - 100% XS	
4,000	3,740 Y 4,320 C	/ates Capitan Reef		DV Tool & ECP @ 3,900'			Brine	Stage 1 Top of Lead: 3,900' 11.5 ppg 3.66 cuft/sk 205 sks - 100% XS Top of Tail: 5,100' 14.8 ppg 1.33 cuft/sk	
5,000 6,000	5,560 0	Delaware		5,660'	12-1/4"	Intermediate: 9-5/8"40# J55 LTC.	9.7 - 10.3 ppg 28 - 32 Vis 1 - 3 PV 1 - 3 YP	265 sks - 100% XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cuft/sk 585 sks - 200% XS Top of Tail: 3,400' 14.8 ppg 1.33 cuft/sk 235 sks - 200% XS	
7,000									
8,000 9,000	8,375 E	Bone Spring			8-3/4" 8-1/2" Lateral	Production: 5-1/2" 20# P110 BTC	Curve & Lateral OBM 9.0 - 9.5 ppg 15 - 20 PV 8 - 12 YP	Top of Lead: Surface 11.3 ppg 2.95 cuft/sk 1,020 sks - 10% XS Top of Tail: 10,800' 14.5 ppg 1.22 cuft/sk	
	9,475 1	Lst Bone Spring SS					0 - 12 TP	1,205 sks - 10% XS	
0,000	10,040 2	2nd Bone Spring S	s Ž						
1,000	10,915 3	Brd Bone Spring SS						7	
	11,210 \	Wolfcamp							16,085° 11,190°
			10000						



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					5144.6 144.	Top of Lead: Surface	
1,705 Rustler 2,170 Salado		1,755'	17-1/2"	Surface: 13-3/8" 54.5# J55 BTC	FW Spud Mud 8.5 - 9.2 ppg 38 - 40 Vis 8 - 10 PV 8 - 10 YP	13.5 ppg 1.72 cuft/sk 1,050 sks - 100% XS Top of Tail: 1,300' 14.8 ppg 1.33 cuft/sk 475 sks - 100% XS	
·		DV Tool & ECP @ 3,900'	12-1/4"	Intermediate: 9-5/8"40# J55 LTC	Brine 9.7 - 10.3 ppg 28 - 32 Vis 1 - 3 PV 1 - 3 YP	Stage 1 Top of Lead: 3,900' 11.5 ppg 3.66 cuft/sk 205 sks - 100% XS Top of Tail: 5,100' 14.8 ppg 1.33 cuft/sk 265 sks - 100% XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cuft/sk 585 sks - 200% XS Top of Tail: 3,400' 14.8 ppg 1.33 cuft/sk 235 sks - 200% XS	
8,375 Bone S	pring		8-3/4" 8-1/2" Lateral	Production: 5-1/2" 20# P110 BTC	Curve & Lateral OBM 9.0 - 9.5 ppg 15 - 20 PV	Top of Lead: Surface 11.3 ppg 2.95 cuft/sk 1,020 sks - 10% XS Top of Tail: 10,800	
9,475 1st Bor	e Spring SS				8 - 12 YP	14.5 ppg 1.22 cuft/sk 1,205 sks - 10% XS	
10,040 2nd Bo	ne Spring SS				•		
11,190 Target							16,085' I 11,195' T
	2,170 Salado 3,740 Yates 4,320 Capitar 5,560 Delawa 8,375 Bone Si 9,475 1st Bon 10,040 2nd Bo 10,915 3rd Bon 11,190 Target	2,170 Salado 3,740 Yates 4,320 Capitan Reef 5,560 Delaware 8,375 Bone Spring 9,475 1st Bone Spring SS 10,040 2nd Bone Spring SS	2,170 Salado 3,740 Yates 4,320 Capitan Reef 5,560 Delaware 5,660' 8,375 Bone Spring SS 10,040 2nd Bone Spring SS 10,915 3rd Bone Spring SS 10,190 Target 11,210 Wolfcamp	2,170 Salado 3,740 Yates 4,320 Capitan Reef 5,560 Delaware 5,660' 12-1/4" 12-1/4" 8-3/4" 8-1/2" Lateral 10,915 3rd Bone Spring SS 10,040 2nd Bone Spring SS 11,190 Target 11,210 Wolfcamp	2,170 Salado 3,740 Yates 4,320 Capitan Reef 12-1/4" Intermediate: 9-5/8"40# J55 LTC 5,560 Delaware 5,660' 8-3/4" 8-1/2" Lateral 9,475 1st Bone Spring SS 10,040 2nd Bone Spring SS 11,190 Target 11,210 Wolfcamp	1,755 \	2,770 Salado 3,740 Yates 4,320 Capitan Reef DV Tool & ECP 3,900' 12-1/4" Intermediate: 9.7-10.3 ppg 28-32 Vis 15-3 ppg 1.33 cutr/sk 205 siz - 100% XS Top of Tail 5,100 X SS Stage 1 Top of Lead: 3,00 XS Top of Tail 5,100 XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cutr/sk 5.55 siz - 200% XS Top of Tail 5,100 XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cutr/sk 5.55 siz - 200% XS Top of Tail 5,100 XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cutr/sk 5.55 siz - 200% XS Top of Tail 5,100 XS Stage 2 Top of Lead: Surface 11.5 ppg 3.66 cutr/sk 5.55 siz - 200% XS Top of Tail 1,3400 14.8 ppg 1.33 cutr/sk 2.25 siz - 200% XS 8.375 Bone Spring 8-3/4" Production: 5-1/2" 20# P110 BTC 7 Do f Lead: Surface 11.5 ppg 2.95 cutr/sk 1.020 siz - 10% XS Top of Tail: 10,800' 14.5 ppg 1.22 cutr/sk 1.020 siz - 10% XS Top of Tail: 10,800' 14.5 ppg 1.22 cutr/sk 1.20 siz - 10% XS Top of Tail: 10,800' 14.5 ppg 1.22 cutr/sk 1.20 siz - 10% XS Top of Tail: 10,800' 14.5 ppg 1.22 cutr/sk 1.20 siz - 10% XS