30-039-31171

ENERVEST OPERATING, LLC

Jicarilla A # 7F (As Completed)

TYPE	Dakota/MV	RIG	TBD	DATE	28-May-2014
FIELD	Tapicito	COUNTY	Rio Arriba	ELEVATION	6640' GL; 6653' KB
GAS/OIL	Gas/Oil	MUD	LSND	BHT/BHP	160 deg- <1675 psi

LOCATION	SHL; 660' FNL & 2053' FWL Unit C, Sec 18, T26N, R5W	SHL:	Long: -107.38439, Lat: 36.492607, (NAD 27)
	BHL: Same as SHL	BHL:	same as SHL

COMMENTS: OBJECTIVE FORMATION: Dakota and Mesa Verde

NOTES:

	DEPTH TVD	
Surface Section		
12 1/4" Hole >		Cement to surface
8-5/8", 24#,J-55, ST&C	**505'**	Water based bentonite mud Drill w/PDC and 4 1/2" DP
Production Section		
7 7/8" Hole to TD >		Drill w/PDC or Tri-Cone, motor, 4-1/2" DP
Production tubing: 2 3/8" 4.7# J-55 set @ 7479', SN @ 7477' >>>>>>>>>		8.7- 9.0 PPG Bentonite Mud
Ojo Alamo >	**2524'**	
	2521'	Stage Collar Cementing Tool (log depth)
Kirtland >	**2713'**	
Fruitland Coal >	**3004'**	
Pictured Cliffs >	**3107'**	
Lewis Shale >	**3198'**	
Chacra >	**4047'**	
	4420'	Stage Collar Cementing Tool (Log depth)
Cliffhouse >	**4787'**	Drill w/PDC bit, motor, 4-1/2" DP 8.7-9.0 PPG Bentonite Mud
Menefee >	**4840'**	
Point Lookout >	**5354'**	
Mancos >	**5521'**	
(Regulatory MancoS) >	5854'	
Gallup >	**6532'**	
Greenhorn >	**7270'**	
Graneros Shale >	**7330'**	Logs: Cased-hole GR / Neutron after casing
Dakota >	**7359'**	
FC >>>>	7570'	
4-1/2", 11.6#, N-80 LT&C - To Surface >>>>	**7614'**	Cement to surface in 3 stages.
TD >>>>	**7619'**	

Fracture Treatments

- Upper MV, Stg6: 4862-4903, 63 0.40" holes. Acidize with 1000 gal 15% HCl and balls. Frac with 90000 gal 70-60% N2 foam (34860 gal 20# gel + 1099000 scf N2) and 124710# 20/40 sand @ 50-60 bpm and 2164 psi.
- Upper/Middle MV, Stg 5: 5028-5080, 81 0.40" holes. Acidize with 1000 gal 15% HCl and balls. Frac with 105000gal 70-60% N2 foam (43134 gal 20# gel + 1283000scf N2) and 153685# 20/40 sand @ 50-60 bpm and 3100 psi.
- Lower/Middle MV, Stg 4: 5164-5246, 84 0.40" holes. Acidize with 1000 gal 15% HCl and balls. Frac with 117000 gal 70-60% N2 foam(51156 gal 20# gel + 1523500 scf N2 and 167680# 20/40 sand @ 50-60 bpm and 3570 psi
- Lower MV, Stg3: 5306-5422, 105 0.40" holes. Acidize with 1000 gal 15% HCl and balls, Frac with 155000gal 70-60% N2 foam. (60900 gal 20# gel + 1903000 scf N2)and 249160# 20/40 sand @ 50-60 bpm and 3086 psi
- Upper Dakota, Stg 2: 7360-7410, 84 0.40" holes. Acidize with 1000 gal 15% HCl and balls. Frac with 113400 gal 20# XL gel and 175180# 20/40 sand @ 50,3 bpm and 3830 psi.
- Lower Dakota, Stg1: 7449-7588, 156 0.40" holes. Acidize 1000 gal 15% HCl and balls, Frac with 135660 gal 20# XL gel and 255262# 20/40 sand @ 50 bpm & 3492 psi.

- Stg1: 30 bbl SealBond, 1048 cu ft (522 sx) Prem Lite HS @ 12.5 ppg, 2.01 yld. 40 bbl cement returns
- Stg 2: 10 bbl SAPP, Lead, 581 cu ft (273 sx) Prem Lite @ 12.1 ppg, 2.13 yld. Tail, 69 cu ft, (50 sx) Type III @ 14.6 ppg, 1.38. 20 bbl cement returns
- Stg3: 10 bbl SAPP, Lead; 756 cu ft (355 sx) Prem Lite @ 12.1 ppg, 2.13 yld, Tail; 70 cu ft (50 sx) TypeIII @ 14.6 ppg, 1.38 yld, 1 bbl cement returns

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