

NGL Water Solutions
ROY SWD 1

						To be Determined		
Formation (Permitting)		Tops	Btm	Porosity	TDS	Lithology	Frac Gradient	Permeability
Lyons		9107'	9332'	13%		Sandstone, Leonardian age, very fine to fine grained, red, friable to moderately well cemented, fair to moderate porosity		
Lower Satanka		9237'	9582'	3%		Siltstone, VF to locally medium grained, brick red, poor to fair porosity, shale, brick red, anhydritic, tight		
Wolfcamp		9487'	9634'	3%		Dolostone, pink to light brown, massive bedded, fair porosity, local anhydrite, white, massive bedded, sparse, thin beds of siltstone and shale		
Amazon		9539'	9684'	10%		Dolostone, pink to light brown, massive bedded, moderate porosity		
Council Grove		9589'	9900'	3%		Dolostone, pink to light brown, massive bedded, locally anhydritic, poor to fair porosity, thin beds of red shale		
Admire		9805'	9934'	3%		Sandstone, red to light gray, very fine grained, anhydritic to dolomitic, tight, shale and siltstone, tight, sparse thin beds of dolostone, poor porosity		
Virgil		9839'	10,127'	12%		Limestone, pink to light gray, massive to thin bedded, locally anhydritic, tight, Dolostone, light gray to pink, massive bedded, moderate to good porosity, sparse, thin beds of red shale and red siltstone		
Missouri	Carbonate	10,032'	10,212'	4%		Limestone, pink to light gray, massive to thin bedded, tight, Dolostone, light gray to pink, massive bedded, fair to good porosity, sparse, thin beds of red shale and red siltstone		
Fountain	Missouri	10,212'	10,335'	4%		Sandstone, very fine to medium grained, red to pink, calcareous, poor to fair porosity, interbedded with red shale and siltstone, locally micaceous, tight		
	Des Moines	10,335'	10,775'	4%		Sandstone, very fine to medium grained, red to pink, calcareous, poor to fair porosity, interbedded with red shale and siltstone, locally micaceous, tight		
	Atoka	10,775'	11,098'	2%		Sandstone, very fine to medium grained, red to pink, calcareous, tight, interbedded with red shale and siltstone, locally micaceous, tight		

*Depths and porosity are based on the NGL C2C SWD (05-123-42698) and AMOCO M.B. Lehl #1 (05-123-12694)