

	A	B	C
1	NGL Water Solutions DJ LLC		
2	NGL-C1B (was SWD #1-8B)		
3	API: 123-29536		
4	SESE 8-4N-64W		
5	Weld County		
6	UIC Facility # 159264		
7			
8	Form 7 Injection Reporting (6/18/2019)	3/2009-4/2019	
9	Permit maximum injection pressure (Sundry 401231200, 4/24/2017)	2,000	psi
10	Actual injection pressure for last year	1000-1650	psi
11			
12	Formation Tops-Bottoms	9050-9176	Amazon
13		9176-9328	Council Grove
14		9563-9728	Missouri
15			
16	Injection perfs (Forms 5A/7= ACGMI)	9050-9174	Amazon
17		9200-9208	Council Grove
18		9594-9688	Missouri
19	Total perf thickness	226	ft
20	<b>REQUEST TO INCREASE INJECTION</b>		
21	<b>VOLUME BASED ON 1/2*-MILE RADIUS</b>		
22			
23	Total injected volume	19,484,499	bbl
24	Average monthly injected volume (120 months)	162,371	bbl
25	Average daily injected volume (3496 days)	5,573	bbl
26	Permit maximum volume 1/2-mile	35,269,513	bbl
27	Estimated maximum daily injection volume	10,000	bbl
28			
29	Unused injection volume as of 6/18/2019	15,785,014	bbl
30	Months remaining at current inj rate (B29/B24))	94	months
31	Years remaining at current inj rate (B30/12)	8.00	years
32			
33		$\pi = 3.14159$	
34	Calculations:	R = radius	
35	$V = (\pi \times R^2 \times H \times \Phi)/5.6146$	H = inj interval	
36	Originally: $10092800 = (\pi \times (1320 \text{ ft})^2 \times 266 \text{ ft} \times \Phi\%)/5.6146\text{ft}^3/\text{bbl}$	$\Phi = \text{porosity } \%$	
37	So, $\Phi = 3.4\%$		
38		5.6146 = conversion from $\text{ft}^3$ to bbls	
39	New 1/2-mile radius = 2640 ft		
40	$\text{Vol}_{1/2} = (\pi \times (2640 \text{ ft})^2 \times 266 \text{ ft} \times 0.034 \text{ \%})/5.6146 \text{ ft}^3/\text{bbl} =$	35,269,513	bbl