T. D. Pepe #1

FORMATION	TOP	BOTTOM	REMARKS
From top rotary drive bushing to derrick floor	0	1.35	
From top derrick floor to 13-3/8" OD casing	1.35	14.75	
Surface clay	14.75	45	
Sand and shells	45	443	
			<u>Set 13-3/8" OD csng. @ 411 w/425 sax 4% gel. Circ. 75 sax.</u>
			Tested 13-3/8" OD csng. w/1000# 30 min., no break before drilling plug.
			Tested 13-3/8" OD csng. w/1000# 30 min., after drilling plug no break.
Red bed and shells	443	1280	1/2° @ 700, 1/4° @ 1000
Red bed	1280	1823	1° @ 1500
Shale and anhydrite	1823	2007	1° @ 1900, 3/4° @ 2000
Red bed and shale	2007	2100	
Anhydrite	2100	2138	
Anhydrite and gyp	2138	2242	3/4° @ 2150
Anhydrite	2242	2254	
Anhydrite and salt	2254	2379	1-3/4° @ 2350
Red bed and salt	2379	2500	
Salt and anhydrite	2500	2738	3/4° @ 2700
Anhydrite and gyp	2738	2755	
Anhydrite, gyp and salt	2755	2990	
Anhydrite	2990	3760	1/4° @ 3400, 1/4° @ 3750
Anhydrite and salt	3760	3915	
Lime and anhydrite	3915	3975	
Anhydrite and gyp	3975	4115	
Anhydrite	4115	4146	
No formation logged	4146	4150	
Anhydrite and gyp	4150	4206	1° @ 4200
Anhydrite	4206	4520	3/4° @ 4400
Anhydrite and lime	4520	4575	
Anhydrite	4575	4640	
Anhydrite and sand	4640	4646	
Lime	4646	4702	1-1/2° @ 4684
			<u>Top San Andres @ 4650</u>
Lime and anhydrite	4702	4721	
No formation logged	4721	4746	
Halliburton ran Calipers	423	4746	
			<u>Set 8-5/8" OD csng. @ 4746 w/2488 sax 6% gel. 311 sax neatlite and 100 sax neat. Circ. 800 sax.</u>
			Tested 8-5/8" OD csng. w/1000# 30 min., no break before and after drilling plug.
Lime	4746	6240	3/4° @ 5140, 3/4° @ 5320
Lime and shale	6240	6293	
Lime	6293	6466	
Lime and shale	6466	6530	1-1/4° @ 6525
Lime	6530	6583	
Lime and shale	6583	6935	1-1/4° @ 6615, 1° @ 6735, 1° @ 6800, 1° @ 6870, 1/2° @ 6930.
Sandy lime	6935	6982	1/2° @ 6980
Lime	6982	7382	3/4° @ 7040, 1/2° @ 7155, 1/2° @ 7095, 1/2° @ 7210, 1/2° @ 7315
Lime and shale	7382	7495	1/2° @ 7440, 1/2° @ 7490
Lime	7495	7569	
Lime and shale	7569	7603	1° @ 7570
Lime	7603	8054	1° @ 7630, 3/4° @ 7685, 3/4° @ 7750, 3/4° @ 7805, 1/2° @ 7865, 3/4° @ 7930

[illegible]

[illegible]

[illegible]

Sheet #2

			<u>Top Abe @ 8000'</u>, 8' high to Lowe Dickerson #1.
Lime and shale	8054	8155	1/2° @ 8150
Lime	8155	8225	
Shale and lime	8255	8339	1/4° @ 8270
Lime	8339	8360	
Lime and shale	8360	8416	
Lime	8416	8507	1/4° @ 8475
Shale	8507	8550	1/2° @ 8550
Lime and shale	8550	9032	1° @ 8635, 1° @ 8735, 1-1/4° @ 8880, 1° @ 8940
Dolomite	9032	9044	3/4° @ 9040
Shale and lime	9044	9070	
Lime	9070	9093	
Lime and dolomite	9093	9115	
Lime and shale	9115	9170	1/2° @ 9165
			Circ. for samples @ 9145 in Basal Abe for 2 hrs., no shows and @ 9170 in Basal Abe for 2-1/2 hrs., no shows.
6-5/8" Dia. Core Basal Abe	9170	9200	Rec. 30' Top 8' finely crystalline brown dolomite, 10-20% pin head porosity, bleeding oil, Bottom 22' finely crystalline brown limestone, 10-20% pin head porosity, bleeding oil.
			<u>Top Permo Penn. @ 9178</u>
Drill Stem Test	9134	9200	Lower Abe, 2 pkrs. 3 hrs., 5/8" BHC and 1" SC, No WC, Gas 14 min., too small to measure Rec. 8110' free oil. Gravity 41.5° @ 60°. S/O 1% sulphur water, 240' oil cut sulphur water, BHFP 250-1985#, 15 min S-I BHP did not record, HH 4312-4312#.
6-5/8" Dia. Core Basal Abe	9200	9225	Rec. 25' Finely crystalline brown limestone trace to 10% porosity.
Attempted Drill Stem Test	9200	9225	Basal Abe, leak in tool.
Drill Stem Test	9200	9225	Basal Abe, 2 pkrs., 45 min., 5/8" BHC and 1" SC, No WC, Rec. 390' drlg. mud, No shows, BHFP 0-125#, 15 min. S-I BHP 0#, HH 4350-4325#.
Dolomite	9225	9227	
-7/8" Dia. Core Basal Abe	9227	9250	Rec. 23' Finely crystalline gray limestone, bleeding oil and gas, no visible porosity.
Drill Stem Test	9200	9250	Basal Abe, 2 pkrs., 1 hr., 5/8" BHC and 1" SC, No WC, Rec. 242' slightly gas cut drlg. mud, no oil, BHFP 0-50#, 15 min. S-I BHP 1090#, HH 4360-4310#.
Lime	9250	9252	
-7/8" Dia. Core	9252	9292	Rec. 38' Finely crystalline medium brown limestone, bleeding oil and gas, no visible porosity.
-7/8" Dia. Core	9292	9313-1/2	Rec. 21-1/2' Finely crystalline medium to heavy brown limestone, Top 11' bleeding oil and gas, no visible porosity.
Dolomite and lime	9313-1/2	9349	
Lime	9349	9454	3/4° @ 9350

			Circ. for samples in Bassel Abe @ 9385 for 1-3/4 hrs., no shows.
Lime and shale streaks	9454	9464	Inter-crystalline porosity 9359-9464 by samples, Circ. for samples @ 9464 for 2-1/2 hrs.
Drill Stem Test	9359	9464	Permo Penn, 2 pkrs., 3 hrs., 5/8" BHC and 1" SC, No WC, Rec. 420' heavy oil and gas cut drlg. mud, BHFP 1200-975#, 15 min. S-I BHP 3300#, HH 4600-4590#.
No formation logged	9464	9466	
7-7/8" Dia. Core	9466	9486	Rec. 16-1/2' Finely crystalline tan limestone
Lime	9486	9530	
			Circ. for samples @ 9530 for 2-1/2 hrs. in Penn. no shows.
Shale and lime	9530	9558	
			By samples pin point porosity 9550-9558.
Drill Stem Test	9518	9558	Permo Penn., 2 pkrs., 2-1/2 hrs., 5/8" BHC and 1" SC, No WC, Gas 1-3/4 hrs. too small to measure, Rec. 540' heavy oil and gas cut drlg. mud, 320' slightly oil and gas cut dr. mud, no water. BHFP 110-220#, 15 min. S-I BHP 675#, HH 4360-4360#.
Soft lime	9558	9576	
Lime and shale	9576	9612	1/2° @ 9600
			Circ. for samples @ 9577 for 2 hrs. in Permo Penn., no shows.
Lime	9612	9624	
			Small pin point porosity 9559-9624 scattered by samples.
Drill Stem Test	9559	9624	Permo Penn., 2 pkrs., 2 hrs., 5/8" BHC and 1" SC, No WC, 1080' gas filled drill pipe, 360' gas cut drlg. mud, no oil, BHFP 220-390 15 min. S-I BHP 410#, HH 4415-4390#.
Lime and shale	9624	9638	
Lime	9638	9711	
Lime and shale	9711	9765	Circ. for samples @ 9706 for 2-1/2 hrs. in Permo Penn, no shows and @ 9728 for 3 hrs. in Permo Penn. no shows. Edge pin point porosity @ 9706 by samples. Drilling break 6-8 to 3 MPF @ 9706.
Lime	9765	9793	St. @ 9765
Shale and lime	9793	9835	
Lime	9835	9845	
			Scattered edge and pin point porosity 9765-9845 in Permo. Penn.
Attempted Drill Stem Test	9765	9845	Permo Penn., Tool failed when opened, 2 drill collars cut out.
Drill Stem Test	9815	9845	Permo Penn., 2 pkrs., 1-1/2 hrs. 5/8" BHC and 1" SC, No WC, Rec. 6000' sulphur water, no oil or gas, BHFP 680-2950#, 15 min. S-I BHP 3410#, HH 4640-4580#.
Lime	9845	9850	
Lime and shale	9850	9876	
Dolomite	9876	9938	
Lime and shale	9938	9968	
			Circ. samples for 2-3/4 hrs. in Permo Penn. @ 9960 edge porosity a/c 3-5 MPF drlg. time.

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

Dolomite	9968	10025	
Lime and shale	10025	10117	1-1/2° @ 10115
			Circ. 2-1/2 hrs. for samples @ 10105. Permo Penn. trace edged porosity, no shows.
Dolomite	10117	10138	
Lime and chert	10138	10208	
Lime	10208	10211	
			Circ. samples @ 10211 for 3 hrs. in Permo. Penn., trace inter-crystalline porosity w/traces blue fluorescence 10195-10211.
Drill Stem Test	10150	10211	Permo Penn., 2 pkrs., 3 hrs., 5/8" BHC and 1" SC , No WC, Rec. 3120 salt water w/slight sulphur odor, 90' salt water w/slight oil cut, BHFP 300-1500#, 15 min. S-I BHP 3925#, HH 4850-4820#.
Dolomite	10211	10242	
Lime and dolomite	10242	10278	
Lime	10278	10315	1-1/2° @ 10310
			Circ. for samples @ 10305, for 2-1/2 hrs. in Permo Penn. no shows.
Dolomite and chert	10315	10325	
Junk and lime	10325	10330	
Lime	10330	10370	1-2/4° @ 10350
			Lost circ. @ 10370 for 2 hrs 38 min. Restored w/jelflakes, mobilite, macogel, and cottonseed hulls. Lost circ. again @ 10370, pumped 2600 bbls. mud w/lost circ. material. Restored w/50% oil emulsion mud.
Dolomite	10370	10388	
Lime and dolomite	10388	10398	
Lime	10398	10455	
Lime and dolomite	10455	10490	
			10425-10490, trace pin point and vuggy porosity, trace blue fluorescence in Permo Penn.
Drill Stem Test	10400	10490	Permo Penn., 2 pkrs., 3 hrs. 5/8" BHC and 1" SC, 1350' WC, gas 15 min., too small to measure, Rec. (circ. sub opened) Est. 1350' slightly gas cut WC, 5483' slightly gas cut sulphur water, no oil, BHFP 975-3075#, 15 min. S-I BHP 4150#, HH 4625-4525#.
Dolomite	10490	10540	
Lime and dolomite	10540	10725	1-3/4° @ 10690
No formation logged	10725	10775	
Dolomite	10775	10780	
Drill Stem Test	10720	10780	Permo Penn., 2 pkrs., 2 hrs. 5/8" BHC and 1" SC, 1310' WC, Rec. 1310' WC and 90' sulphur water cut mud and 70' sulphur water, no oil or gas, BHFP 650-775#, 15 min. S-I BHP 3725#, HH 4850-4700#.
Dolomite	10780	10807	
Dolomite and lime	10807	10820	
Lime	10820	10840	1° @ 10835
Drill Stem Test	10795	10840	Lower Penn., 2 pkrs., 2 hrs., 5/8" BHC and 1" SC, 1350' WC, Gas 45 min., too small to measure, Rec. 1350' WC slightly gas cut, 90' slightly oil cut drlg. mud, 185' salt water BHFP 625-675#, 15 min. S-I BHP 2200#, HH 4750-4550#.
Lime and dolomite	10840	10854	

Colorado
Lime and gypsum 1009 1009 1009 1017

Ore. 3-1/2 ins. Can produce 1000#. Ignore
iron. Lower ledge (about 4000#) as above.

Colorado
Lime and gypsum 1017 1020
Lime 1020 1020 1020
Lime 1020 1021

Ore. Analysis 1021: Cu 3 ins. in ore.
iron. Upper ledge-quartzite 1017-1021.
Carries also Chromium 1017-1021.

Brilliant green 1020 1021

Porous iron, 3 ins., 2 ins., 4 ins. and
1# 2# , 10 lb. lump. 1017 with 1 lb. weight is
subject color, 20% will not [illegible] oil
cut. [illegible] 1500), 10 ins. 1-1 1# [illegible],
1# 1500-1600.

Colorado
Lime and Colorado 1021 1022
Lime 1022 1022 1022

Ore. Per sample 1000#. Per 3-1/2 ins.
in Porpo iron. Ignore.

Colorado [illegible]
Dark red lime 1029 1029 1029
Lime 1029 1029 1029

3-2/4 [illegible] 1029

Last ore. 1029 [illegible]
[illegible] [illegible], [illegible],
and conform [illegible] last ore. [illegible]
1027, [illegible] 1029 [illegible] ore [illegible]
[illegible]. [illegible] [illegible] oil [illegible] and.

Gold [illegible]
Lime and Colorado 1027 1028
Lime 1028 1028
Lime 1029 1029
Lime and Colorado 1029 1029

1 [illegible]-1030, [illegible] and [illegible]
[illegible], [illegible] [illegible] [illegible] in [illegible]
[illegible].

[illegible] [illegible] 1030 1030

[illegible] iron, 2 [illegible], 3 ins. [illegible] and
1# 2#, 1320# 2#, [illegible] 2# [illegible], too small [illegible]
[illegible], too. [illegible] [illegible] [illegible]) [illegible]. [illegible]
[illegible] [illegible] [illegible], 1400# [illegible] [illegible]
[illegible] [illegible], [illegible] oil, [illegible] [illegible], 1# [illegible]
[illegible]. 1-1 [illegible] [illegible], [illegible] [illegible].

Colorado
Lime and Colorado 1030 1031
Ore formation limonite 1030 1031
Colorado 1031 1031
Colorado 1031 1031

3-2/4 1029.

[illegible] iron [illegible], 2 [illegible], 2 ins. [illegible] and
1# 2#, 1320# 2#, [illegible] 1# [illegible] [illegible]
[illegible] [illegible] [illegible] and [illegible] 70% [illegible] [illegible],
no oil or [illegible], [illegible] 650-770, 15 mins. 1-1
[illegible] 1025, [illegible] 1500-1700#.

Colorado
Lime and Lime 1031 1032
Lime 1032 1032 1032

1# 1-1 [illegible]

[illegible] iron, 2 [illegible], 1 ins., [illegible] 800 and
1# 2#, 1320# 2#, [illegible] 15 mins., too small to
measure, too. 1350# [illegible] oil [illegible] [illegible], 70%
[illegible] oil cut [illegible], and, 1400# [illegible]
[illegible] 650-770, 15 mins. 1-1 1# 2200#, 1#
1750-1550.

[illegible] [illegible] [illegible] 1032 1032

Lime	10854	11130	
Chert and lime	11130	11169	
Lime	11169	11199	
Chert and lime	11199	11201	
Lime	11201	11222	
Lime and chert	11222	11298	
Shale and lime	11298	11318	
Shale	11318	11331	
Lime and shale	11331	11402	
			Circ. for samples @ 11385 for 3 hrs. no shows.
Lime	11402	11427	
Lime and shale	11427	11492	
Lime	11492	11509	
Lime and shale	11509	11522	
Lime	11522	11536	
Lime and chert	11536	11574	
Chert	11574	11576	
Lime and chert	11576	11598	
Chert	11598	11599	
Lime and chert	11599	11613	
Chert	11613	11615	
Lime and chert	11615	11626	
Chert	11626	11639	
Lime and chert	11639	11688	2- 3/4° @ 11645, 3-1/4° @ 11670
Lime	11688	11710	
Lime and shale	11710	11717	
Lime, shale and sand	11717	11730	
Lime and shale	11730	11747	
Chert	11747	11748	
Lime and chert	11748	11753	
Lime and shale	11753	11779	
Lime and chert	11779	11784	3-1/2° @ 11784
Lime and sand	11784	11794	
Lime and shale	11794	11815	
Lime	11815	11819	
Lime and shale	11819	11880	4° @ 11880
Shale	11880	11889	
Lime and shale	11889	11952	3-1/2° @ 11904
Lime	11952	11968	
Lime and shale	11968	12034	3-1/2° @ 11983
Lime and sand	12034	12046	
Lime and sandy shale	12046	12050	4-1/4° @ 12050
Lime and sand	12050	12056	
Lime	12056	12057	
Lime and sandy shale	12057	12065	
Lime, shale and sand	12065	12071	
Lime and sandy shale	12071	12081	
Lime and chert	12081	12086	
Lime, sand and shale	12086	12093	
Lime and sand	12093	12095	
Lime and chert	12095	12109	
Lime, shale and chert	12109	12005	4-1/4° @ 12115
Lime and shale	12115	12124	
			Tentative top Woodford Shale @ 12120
Lime, shale and chert	12124	12151	
			Circulate for samples @ 12150 for 2-1/2 hrs. for Woodrod shale.
Lime and shale	12151	12306	3-3/4° @ 12163, 3-3/4° @ 12220, 3-3/4° @ 12275, 3-3/4° @ 12300
			Top Devonian 12302
Lime	12306	12343	
No formation logged	12343	12344	
6-3/4" Dia. Core Devonian	12344	12359	Rec. 13' Top 12-1/2' finely crystalline white light gray dolomite w/20% vuggy good porosity, stain, odor and fluorescence, 1/2' anhydrite

[illegible]

[illegible]

[illegible]

Drill Stem Test	12339	12359	Devonian, 2 pkrs., 1 hr. 5/8" BHC and 1" SC 2250' WC, Rst. rec. 11400' fluid, Circ. sub broke, tool opened 4 or 5 times going in. 1350' heavily oil and gas cut drlg. mud, BHFP 4250-4250#, 15 min. S-I BHP no record, HH 5550-5625#.
Drill Stem Test	12339	12359	Devonian, 2 pkrs., 2-1/2 hrs., 5/8" BHC and 1" SC, 2750' WC, Rec. 540' heavy oil and gas cut drlg. mud, 450' oil and gas cut WC, 2850' slightly oil and gas cut WC, BHFP 1677#-1728#, 15 min. S-I BHP 4500#, HH 5300-5400#.
Dolomite	12359	12361	
6-3/4" Dia. Core Devonian	12361	12378	Rec. 14-1/2' Top 6' finely crystalline to coarsely crystalline light gray dolomite w/20% good vuggy porosity, odor and stain, 8-1/2' finely crystalline light gray dolomite w/ many horizontal and vertical fractures w/ stain, odor and fluorescence.
6-3/4" Dia. Core Devonian	12378	12389	Rec. 8' Finely crystalline to medium crystalline light gray to gray green dolomite with abundant fractures w/stain, odor and fluorescence.
6-3/4" Dia. core Devonian	12389	12426	Rec. 37' Top 11' finely crystalline light gray slightly shaley dolomite, abundant fractures w/good odor, stain and fluorescence on fracture planes, 1' finely crystalline to coarsely crystalline light gray dolomite w/good vuggy porosity, good odor, stain and fluorescence in vuggs. 1' finely crystalline light gray dolomite, 24' finely crystalline light gray slightly dolomite limestone w/2" band of anhydrite @ 12425'.
Drill Stem Test	12359	12426	Devonian, 2 pkrs., 2 hrs., 5/8" BHC and 1" SC, 2700' WC, Rec. 360' oil slightly cut w/WC, 2700' oil and gas cut WC, 90' slightly oil and gas cut drlg. mud, BHFP 1113-1182#, 15 min. S-I BHP 3478#, HH, 5718-5664#.
6-3/4" Dia. Core Devonian	12426	12459	Rec. 33' Finely crystalline white, gray to tan limestone w/abundant fractures, fair to good vuggy porosity from 12428-12430, 12434-12437. All porosity and fractures had odor, stain and blue fluorescence, Net pay 2'.
6-3/4" Dia. Core Devonian	12459	12484	Rec. 25' Top 15' finely crystalline white, gray to tan limestone w/abundant fractures, small vuggy porosity 12462-12464, bottom 10' finely crystalline tan limestone, no shows.
Dolomite	12484	12485	
Drill Stem Test	12426	12485	Devonian, 2 pkrs., 30 min., 5/8" BHC and 1" SC, 2700' WC, Rec. 450' drlg. mud, no shows, and 2700' WC, no shows, packer failed when reset, BHFP 1300-800#, 15 min. S-I BHP not taken, HH 5775-5750#.
Dolomite	12485	12487	
Schlumberger ran Electric Survey Gamma Ray, Interelog, and microlog	4747	12465	
Halliburton ran Calipers	4719	12478	Measurements OK by Drill pipe strappings.

Sheffield Steel Corp. — 1,500 — 1,575

Lavoundry, 2 years, 2 mo., 4 wks. and 1 d. 20 [illegible] 40, ret. 1,000, 1,400' fluid, [illegible] smoke, tool opened a or 2 times going in. 1350' heavily oil and gas cut drlg. mud, [illegible] 1,250-1,350', 15 min. [illegible] no reward, 1,1 [illegible].

Jul [illegible] — 1,[illegible] — 1,[illegible]

Lavoundry, [illegible], [illegible], 2 yrs., 2 mo., 1 d. [illegible] 1,[illegible], 1,[illegible], 1,[illegible], 1,[illegible] 1,[illegible] 1,[illegible]

			Set 5-1/2" [illegible] csg. @ 12487. CC @ 10041. Cemented below collar w/[illegible] sax 6% gel, 40 sax mobilite. Circ. [illegible] min. WOC [illegible] hrs. Cemented thru collar w/[illegible] sax [illegible] gel, [illegible] sax mobilite, plug [illegible] w/[illegible]. Last circ. last 10 min. Centraliser @ 12471, 12407, 12330, 12252, 12170.
Halliburton ran Temp. Survey	500	5100	Approx. top of cement 930. Plug stopped @ 5100. Drilled solid cement 5100-10050. Tested cementing collar @ 10041 w/2000# 30 min., no break. Drilled out cement 10050-10060. D/O cement 12400-12487.
4-5/8" Dia. Core Devonian	12487	12529	Rec. 3' Very finely crystalline tan to brown limestone, no visible porosity.
4-5/8" Dia. Core	12529	12539	Rec. 6' Top 4' very finely crystalline tan to brown dolomite limestone, bottom 2' finely crystalline dark brown limestone w/veins of very finely crystalline pink dolomite.
Drill Stem Test	12487	12539	Devonian, 2 pkrs., 1 hr. 5/8" BHC and 1" SC, No WC, Rec. 315' slightly gas cut drlg. mud, no oil, BHFP 0-55#, 15 min. S-I BHP 335#, HH 5520-5520#.
Dolomite	12539	12541	12-16 MPF
4-5/8" Dia. Core	12541	12576	Rec. 22' Top 6' finely crystalline tan pink limey dolomite w/1' nodular anhydrite inclusions Bottom 16' finely crystalline dense pink to tan dolomite, pin point porosity and bleeding gas 12554-12560, 6' net pay
4-5/8" Dia. Core	12576	12579	Rec. 3' Finely crystalline pink tan dolomite, no shows.
No formation logged	12579	12580	
4-5/8" Dia. Core	12580	12599	Rec. 19' 19' finely crystalline light grey fractured dolomite w/scattered small vuggy porosity, 1/16 to 1/8".
4-5/8" Dia. Core	12599	12609	Rec. 10' Finely crystalline tan to light grey fractured dolomite w/scattered small vuggy porosity, 1/16 to 1/8".
Drill Stem Test	12549	12609	Devonian, 2 pkrs., 1-1/2 hrs. , 5/8" BHC and 1" SC, No WC, Rec. 1590' gas cut drlg. mud, 900' slightly oil and gas cut drlg. mud, and 350' heavily oil and gas cut drlg. mud, BHFP 510-880#, 15 min. S-I BHP 1285#, HH 5260-5260#, slight packer leak.
Junk and dolomite	12609	12614	
4-5/8" Dia. Core	12614	12623	Rec. 8-1/2' 8-1/2' finely crystalline tan to light grey fractured dolomite, good odor and stain.

Set 5-1/2" gas dome. Wheat?. 32.1 [illegible] Generated Shaw oolite w/400 sax 6. gel. 40 sax mobilite. Size. 45 sax. 400 3 hrs. Generated thrg oolite w/700 sax 6% gel. 32 sax mobilite. plug released w/4000#. Load size. Lane 10 mile. Contractor - [illegible], [illegible], [illegible], [illegible], [illegible], 12170.			
Drilling on pre lease. Survey	500	3100	Approx. top of cement 130.
			Flue stopped - 2100.
			Drilled solid cement - [illegible].
			Tested casing-only option - [illegible] w/4000#, 30 min., no break.
			Drilled out cement 30-50-1300'.
			D/O cement 1200-1400'.
5-5/8" Dia. Core Devonian	1240'	1250'	Rec. 3' Very finely crystalline tan to brown limestone, no visible porosity.
5-5/8" Dia. Core	1250'	1253'	Rec. 3' Top 1' very finely crystalline tan to brown dolomite fragments, bottom 2' finely crystal. Line dark brown limestone w/veins of very finely crystalline pink dolomite.
Drill Pipe out	1240'	1259	Devonian, 2 pipe, 2 hr. 8/8" and 1" 20, no WO, then. 3:2' slight gas and drip, [illegible] oil, mark 0-4%, 11 min. 5-1 min 1%, at 1250-1320'.
Tolonia	1250	1254	10-10 MCF
5-5/8" Dia. Core	1254	1256	Rec. 2' Top 6' finely crystalline tan pink fine Tolonia w/1' medium crystalline 1 dolostone bottom 1' finely crystal fine dense pink to tan dolomite, pin point porosity and fracture pore 12 0-1250', 6' [illegible]
5-5/8" Dia. Core	1256	1272	Rec. 3' Finely crystalline pink 1 m dolomite, no porosity.
No Correlation Log	1272'	1290	
5-5/8" Dia. Core	1290	1299	Rec. 10' Finely crystalline light gray fracture dolomite w/scattered small vuggy porosity, 1/16 to 1/8".
5-5/8" Dia. Core	1299'	1309	Rec. 10' Finely crystalline tan to light gray fractured dolomite w/scattered small vuggy porosity, 1/16 to 1/8".
Drill Open Hole	1309	1400	Devonian, 2 pipe, 1-1/2 hrs., 1/2" [illegible] 1" 30, 2 [illegible], Rec. 1:30' gas on fire, and 300' slightly oil and gas cut fluid, mud, and 100' heavily oil and gas cut fluid, mud, 8% 310-340, 15 min. 5-7 MC 1200', 30 320-1300', slight water test.
Core and Dolomite	1400'	1414	
5-5/8" Dia. Core	1414	1423	Rec. 9-1/2' 8-1/2' finely crystalline tan to light gray fracture dolomite, good cut and stain.

4-5/8" Dia. Core	12623	12636	Rec. 6-1/2' 6-1/2' finely crystalline light gray fractured dolomite, good odor and stain, slightly bleeding gas.
4-5/8" Dia. Core	12636	12648	Rec. 9' Finely crystalline light gray to tan fractured dolomite w/scattered small vuggy porosity, 1/16 to 1/4".
4-5/8" Dia. Core	12648	12658	Rec. 10' Finely crystalline light gray fractured dolomite, good odor and stain.
Drill Stem Test	12545	12658	Devonian, 2 pkrs., 3 hrs., 5/8" BHC a nd 1" SC, No WC, Rec. 1470' gas cut drlg. mud, 450' oil and gas cut drlg. mud, BHFP 700-950# 15 min. S-I BHP 1300#, HH 5600-5550#.
Lime	12658	12660	
4-5/8" Dia. Core	12660	12676	Rec. 15-1/2' Finely crystalline tan fractured dolomite no shows.
4-5/8" Dia. Core	12676	12699	Rec. 23' Finely crystalline gray to tan fractured dolomite.
			<u>DPE 12699 = 12700</u>
Attempted Drill Stem Test	12658	12700	Devonian, 2 pkrs., test tool cut out before set.
Drill Stem Test	12654	12700	Devonian, 2 pkrs., 2 hrs., 5/8" BHC and 1" SC, No WC, Rec. 360' slightly oil and gas cut drlg. mud, no water, BHFP 60-95#, 15 min S-I BHP 160#, HH 5678-5595#. Dr. packer rubbers 12702
Schlumberger run Elec. Survey, Gamma Ray, Microslog and Laterolog		12687	
Lane Wells run Gamma Ray and Neutron log	0	12699	
Halliburton run calipers		12698	Pick packer seat 12667 Set 2-1/2" tubing @ 12702 w/Sweet Formation packer @ 12667.
Western Co. acidized	12667	12702	w/1500 gals. 20% Special Low Tension, TP 4200-3550-4400#, CP 3000-2900#, 91 min., 4/10 to 1.1 BPM. Swab 12 BFO 5 hrs., 700' OIH, show of gas behind swab, Grav. 42° @ 60°.
Western Co. ReAcidized	12667	12702	w/3000 gals. 20% Low Tension, TP 0-2150#, 1st 48 bbls. in on Vac, CP 800-2050#, 30 min., 3/4 to 8/10 BPM. Swab 21 BFO 4 hrs., 800' OIH, 405 BPH, S/O 1/10% AW, 3/10 % BS, Gas 15-20 min. behind swab.
Western Co ReAcidized	12667	12702	w/6000 gals. 20% Special low tension, TP Vac-2500#110 bbls in when pressure up. CP 500-2000#, 42 min., 4.2 to 1.8 BPM. Swab dry, remained dry 10 hrs. Pulled 2-1/2" tubing and Sweet Form. packer.

6-1/2" Dia. Bore	12023	12036	Sec. 5-1/2' 6-1/2' finely crystalline light gray fracture dolomite, good color and crush, slightly dimming mod.
4-1/2" Dia. Bore	12036	12048	Sec. 9' Finely crystalline light gray to tan fracture dolomite, recovered small gray porosity, 1/16 to 1/4".
4-1/2" Dia. Bore	12048	12058	Sec. 10' Finely crystalline light gray fracture dolomite, good color and crush.
Drill 4-1/2" Hole	12058	12059	Recovered, 4 pieces, [illegible] 1/2" [illegible] no [illegible] 20, 10 in. Sec. 1470' [illegible] one drill, mud, 4.90' oil and gas out drill, mud, 5.00' 7.0-[illegible] 15 min. 5-7 (6) 1300, 15 500-1590.
Bore	12060	12060	
4-5/8" Dia. Bore	12060	12076	Sec. 12-1/2' Finely crystalline tan fractured dolomite no show.
4-5/8" Dia. Bore	12076	12090	Sec. 23' Finely crystalline gray to tan fractured dolomite.
			<u>Sec. 4090 = 12090</u>
Attempted Drill Stem Test	12092	12100	Recovered, 2 pieces, mud cut out on bottom sect.
Drill Stem Test	12094	12100	Recovered, 2 pieces, 1 [illegible], [illegible] in [illegible] 20, 10 40, Sec. 2000' [illegible] oil and [illegible] mud cut, mud, no water, [illegible] 5-1 MC Job, HP 2[illegible]-[illegible].
			Sec. packer failure 12100.
Microanalyzer run Flow, Survey, Gamma Ray, Microlog and Sonicolog		12097	
Core - Gamma Ray and Sonic Log and Neutron Log	0	12096	
Drill Surface and Intermediate		12098	Set packer part 12097
Cement Sq. Squeeze	12000	12100	Set 4-1/2" tubing [illegible] Cement [illegible] packer 12000'. w/1500 gals. 20% Special Acid Treatment, [illegible] 4200-3000-4100, [illegible] 3000-[illegible], [illegible] 4/10 to 1.1 BPM. Swab 12 BPD 3 hrs., [illegible] 0%, [illegible] of gas [illegible] swab, Grav. 42.2 - 60°.
Perforate & Acidized	12017	12040	w/2000 gals. 20% Acid Treatment, [illegible] 4-1/2", Set 48 Shots, 1 in on Tbg, 20 300-2050#, 30 min., 3/4 to 4/10 BPM. Swab 12 BPD 4 hrs., 8000 [illegible], [illegible] 4/10 [illegible], 3/10 [illegible] 12-30 min. [illegible] swab.
Treatment in [illegible] Zone	12000	12102	w/4000 gals. 20% Special Acid Treatment, [illegible] 4500-2500#110 [illegible] in vacuum [illegible], 12 300-2000#, 42 min., 4.2 to 1.[illegible] BPM. Swab dry, recovered dry 10 hrs. Tubing 4-1/2" [illegible] and Jones [illegible] Packer.

Western ran Baker Model			Western ran Baker Model "K" C-I Bridge plug set @ 12662 to 12663-1/2. w/6/10 of 1 sax cement 12662-12657. Ran 2-1/2" tubing 12657 and sweat formation packer @ 12619.
Western acidized open hole	12619	12657	w/2000 gals. 20% special low tension, TP 3000-1600-2800#, CP 3550-3800#, 75 min. 1/10 to 1.5 BPM. Swab 54 BFO 14 hrs., S/O 2% BS, 1% AW, last hour 4 bbls. Bridging plug @ 12657 gave way and released formation packer. Pulled 2-1/2" tubing and sweat formation packer.
Halliburton plug back	12702	12668	w/15 sax common cement, Rev. out 11 sax. Western ran shooting line to check hole, top plug @ 12693.
Halliburton plug back	12693	12660	w/20 sax cement, Rev. out 17 sax. Ran 2-1/2" tubing 12660 w/Sweat formation packer @ 12618.
Western Acidized	12618	12660	w/5000 gals. 20% special low tension, CP 1550-4000#, TP 2800-4100#, 253 min. 2 BPM to 3/10 BPM. After swab 68 BLO and 2 BAW 6 hrs. packer gave way. Pulled 2-1/2" tubing and Sweat Form. packer. Ran 2-1/2" tubing to 12660 w/Sweat Form. packer @ 12612. w/all load oil recovered and 30 BAW to rec., 2000' OIH, show of gas swabbing @ rate of 5.4 BPH, packer gave way. Swab 20 BFO, 2 BAW, 5 hrs., 7000' OIH, 4 BPH, S/O 2% AW and 6/10 of 1% BS. Pulled tubing and Sweat Formation packer. Western set Baker C-I Drillable retainer 12608-12610.
l sax cement	12600	12608	WOC 5 hrs. Western dumped 1/2 sax calseal 12600-12597, WOC 4 hrs. Found top of plug w/Western perf. gun @ 12597 Ran 2-1/2" tubing @ 12597 w/Sweat Formation packer @ 12560.
estern Acidized	12560	12597	w/3500 gals. 20% Special Low Tension, TP 900-3900#, CP 1850-3600#, 59 min., 2.8 to 1 BPM. Packer failed at beginning of treatment. Swab 35 BFO and 18 BAW 10 hrs., 1 BAW to rec. 200' OIH, flow gas and spray oil 5 min., behind swab, 1% [illegible] water, CP 350#. Western attempted to spot 4 bbls. jel block on top packer, bridging plug failed, fluid went down hole.

			Pulled 2-1/2" tubing and Sweat Form. Pkr.
			Western set Baker Bridging plug @ 12610-12608.
1 sax cement	12608	12601	WOC 6 hrs.
1 sax calseal	12601	12593	WOC 4 hrs.
			Top plug @ 12610
1 sax calseal	12610	12607	WOC 4 hrs.
1 sax cement	12607	12604	WOC 4 hrs.
1 sax calseal	12604	12600	WOC 14 hrs.
			Ran 2-1/2" tubing @12600 w/Sweat Form. packer @ 12558, 30000# w/tubing on plug.
Western Attempted Acidize	12558	12600	w/7000 gals. 20% Special Low Tension, spotted acid, pressure 4000# on CP, 2500# TP, 11 min. 2 bbls. in formation, TP 2500-Vac., Weight 30000#-0#, CP 4000-Vac. Rev. out 69 bbls. acid leaving 6 bbls. acid in hole.
			Tubing lowered 12600-12637, could not feel plug.
			Pulled tubing and Sweat Form. packer.
			Western set Baker bridge plug 12612-12610.
1 sax cement	12610	12608	WOC 4 hrs.
1 sax cement	12608	12604	WOC 5-1/2 hrs.
1 sax cement	12604	12600	WOC 4-1/2 hrs.
1 sax cement	12600	12591	
1/3 sax cement	12591	12588	
			Western dumped 4 gals. oil on plug @ 12588.
			Ran 2" tubing @ 12588 w/Sweat Form. packer @ 12552.
Western attempted to acidize	12552	12588	w/6000 gals. 20% Special Low Tension, Vac. on casing, tubing lowered 8', held 30000#, packer would not seat, circ. w/oil.
			Pulled tubing and packer.
			Ran 2-1/2" tubing @ 12594 w/Sweat Form. packer @ 12550, 3000# pressure on CP, OK.
Western Attempted to acidize	12550	12594	w/6000 gals. 20% special low tension, spotted acid, attempt rese t packer packer, no seat, Treated CP 200-4500#, TP 1000-3000# 16 hrs., 7 bbls. acid in formation, reversed out remainder acid.
			Pulled tubing and packer.
			4-5/8" bit on 2-1/2" tubing to 12596.
McCullough cone shot open hole	12560	12588	w/3 SPF (Jet)
			Ran 2-1/2" to 12596 held 3000# w/Sweat Form. packer @ 12560.
Western acidized	12560	12596	w/4750 of 6000 gals. 20% special low tension T 3500-5200-4400# on oil flush w/acid 1/2 in formation, CP 4000-4500-4300#, 11 hr., 52 min., 1/10 bbl. min. to 1 BPM.

Sheet #11

			Flowed without swabbing.
Western acidized	12560	12588	w/10000 gals. 20% special low tension, TP 4450-3400#, CP 4500-3900#. 1 hr. 49 min., 4.6 BPM to 1.6 BPM, average 2.2 BPM.

Potential Test: Flowed 485.7 bbls. oil, 24 hrs., 24/64" choke, GOR 936/1, Gravity 45.4° @ 60°, S/O 4/10 of 1%, No Water, TP 300-330#, CP 0-0#, last hour 18.9 BPH.

Total Depth Drilled	12788	
Total Depth Casing Set	12487	(Liner)
PBTD	12596	