

11/28/16

Geologic Summary: Flower Draw 2 SWD #1

In the Flower Draw 2 SWD #1, the Devonian formation consists mainly of Dolomite and Limestone. We encountered no hydrocarbon shows of any kind in the Devonian formation.

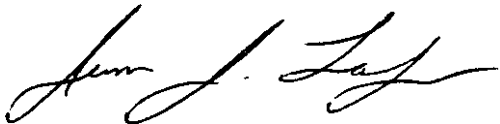
There are no Devonian producers within a fifteen mile radius of the Flower Draw. Of the seven wells in the area that penetrated the Devonian, five are Devonian SWD's and the remaining two had wet drill stem tests in the Devonian.

The closest Devonian SWD to the Flower Draw is the SRO SWD #102 (30-015-21398). It is located about three miles to the southwest and updip of the Flower Draw. It was found to be non-productive in the Devonian due to a wet drill stem test when it was originally drilled in 1974 and then was converted into a Devonian SWD in June of 2010. Since its conversion in 2010, 11,709,422 barrels of water have been injected into the Devonian. It is an active SWD that is currently operated by Concho. Mewbourne's Fuller 14 Fed SWD #1 (30-015-43630) is located about six miles to the southeast and down dip of the Flower Draw. It was recently drilled and approved for injection into the Devonian and we have been injecting since August, 2016.

When the Devonian formation does produce, it tends to be productive because of a closed deep structural feature. When looking at the structure map provided of the top of the Devonian, you can see there are no structural features present that might indicate a potentially productive Devonian.

In conclusion, the Devonian formation around the Flower Draw 2 SWD #1 is not productive. There have been numerous drill stem tests in the area, all of which recovered a substantial amount of formation water and no hydrocarbons. There are also a number of active Devonian SWD's in the immediate vicinity of the Flower Draw. As further confirmation, the open-hole disposal interval was isolated and swab tested, recovering 507 barrels of fluid with no indication of oil or gas. A water sample was caught on 11/20/16 and tested 58,000 mg/L (ppm) Chloride.

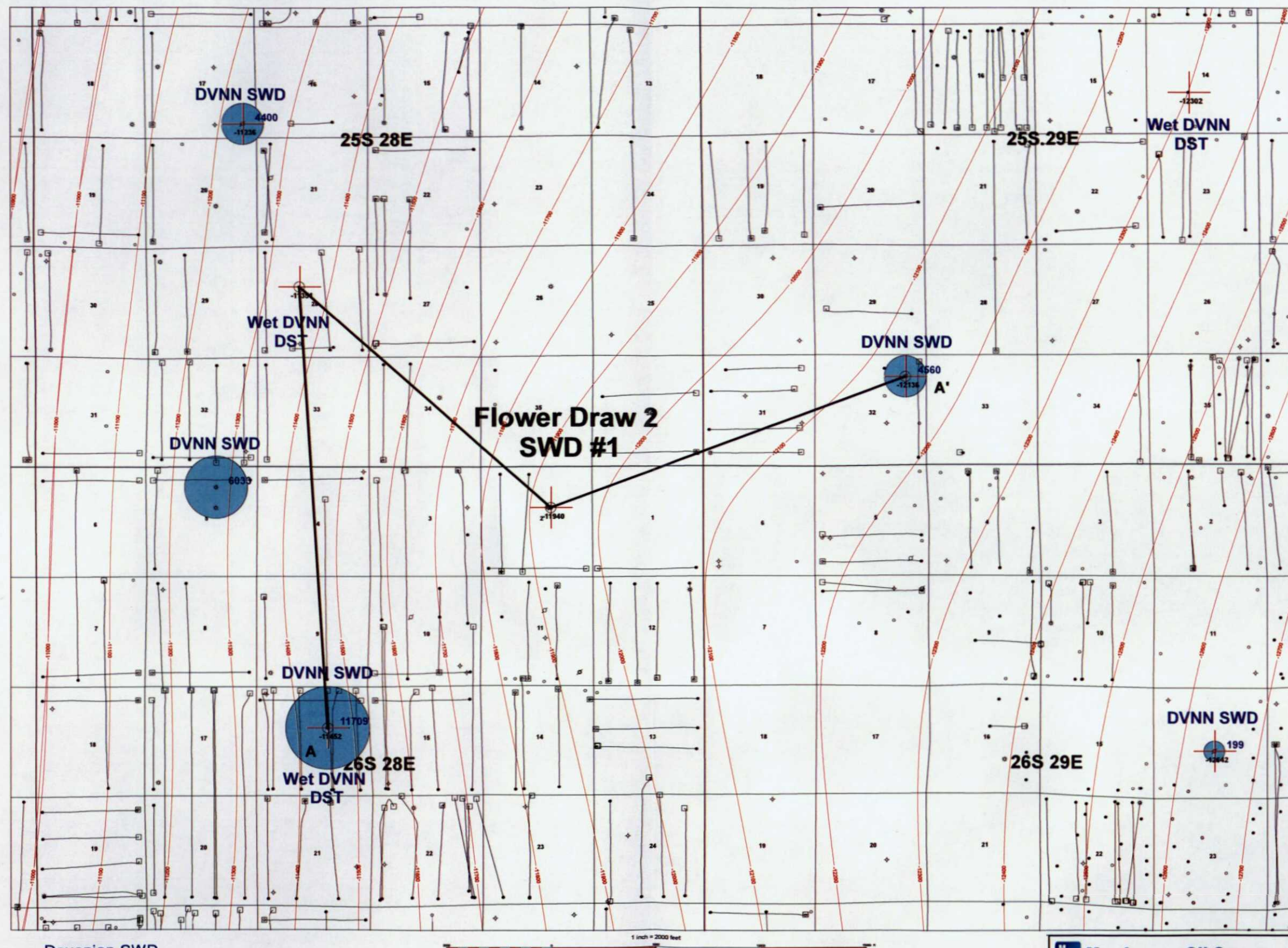
Sincerely,

A handwritten signature in black ink, appearing to read "Jason J. Lodge". The signature is fluid and cursive, with the first name "Jason" and last name "Lodge" clearly distinguishable.

Jason J. Lodge

Geologist

Mewbourne Oil Company



Devonian SWD



Cumulative
Injection (MBW)

Top of Devonian
(Subsea)

MOC Mewbourne Oil Company

Flower Draw 2 SWD #1

Top of Devonian Structure (CI = 100')
Cumulative Injection Bubbles

Author: C. J. Lodge	Date: November 22, 2016
Scale: 1 inch = 2000 ft	

A

300152139800
COG OPERATING LIMITED LIABILITY CORP
SRO SWD 102
1980 FNL/1980 FFL
TWP: 28 S - Range: 28 E - Sec. 16
Reference=KB
Datum=2997.00

16G

12/17/74 Spud Well
Devonian DST: 14522 - 14572
Rec. 3500' of Sulphur water
7/7/75 P&A
6/2/10 Converted to DVNN SWD
Deepen to 15400.
Open Hole Compl: 14543 - 15373. A/ 39k gals.
Cum. Injection: 11,709 MBW

21307 ft

300151672400
COG OPERATING LIMITED LIABILITY CORP
MYOX 28 STATE COM 1
1980 FNL/1980 FFL
TWP: 28 S - Range: 28 E - Sec. 28
Reference=KB
Datum=2997.00

28F

4/12/65 Spud Well
Devonian DST: 14358 - 14410
Rev. 650' of Mud Cut Salt water
7/18/65 P&A
7/23/07 Upper Penn Compl.
10/29/07 Strawn Compl.

16021 ft

300152361501
MOC
FLOWER DRAW 2 SWD 1
1980 FNL/1980 FFL
TWP: 28 S - Range: 28 E - Sec. 2
Reference=KB
Datum=2997.00

2G

18067 ft

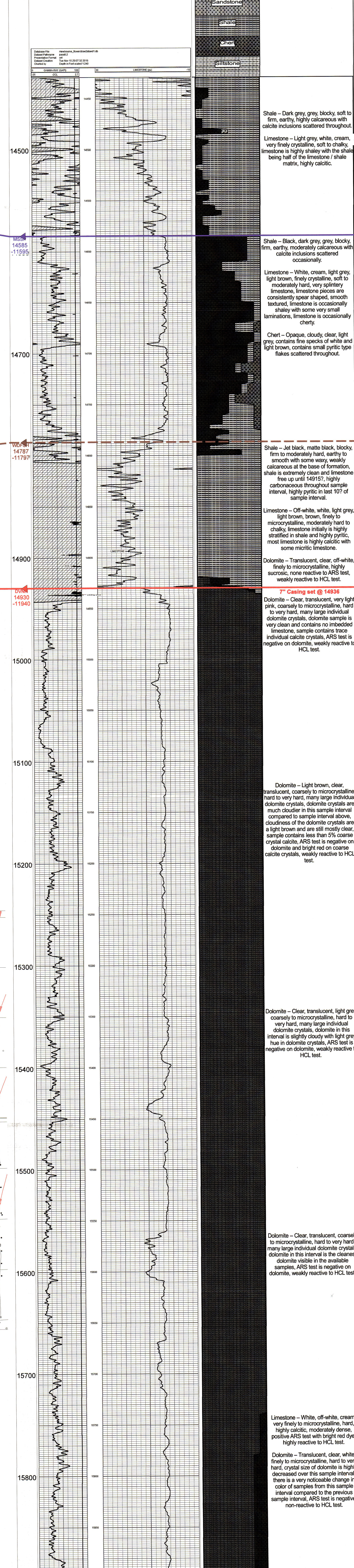
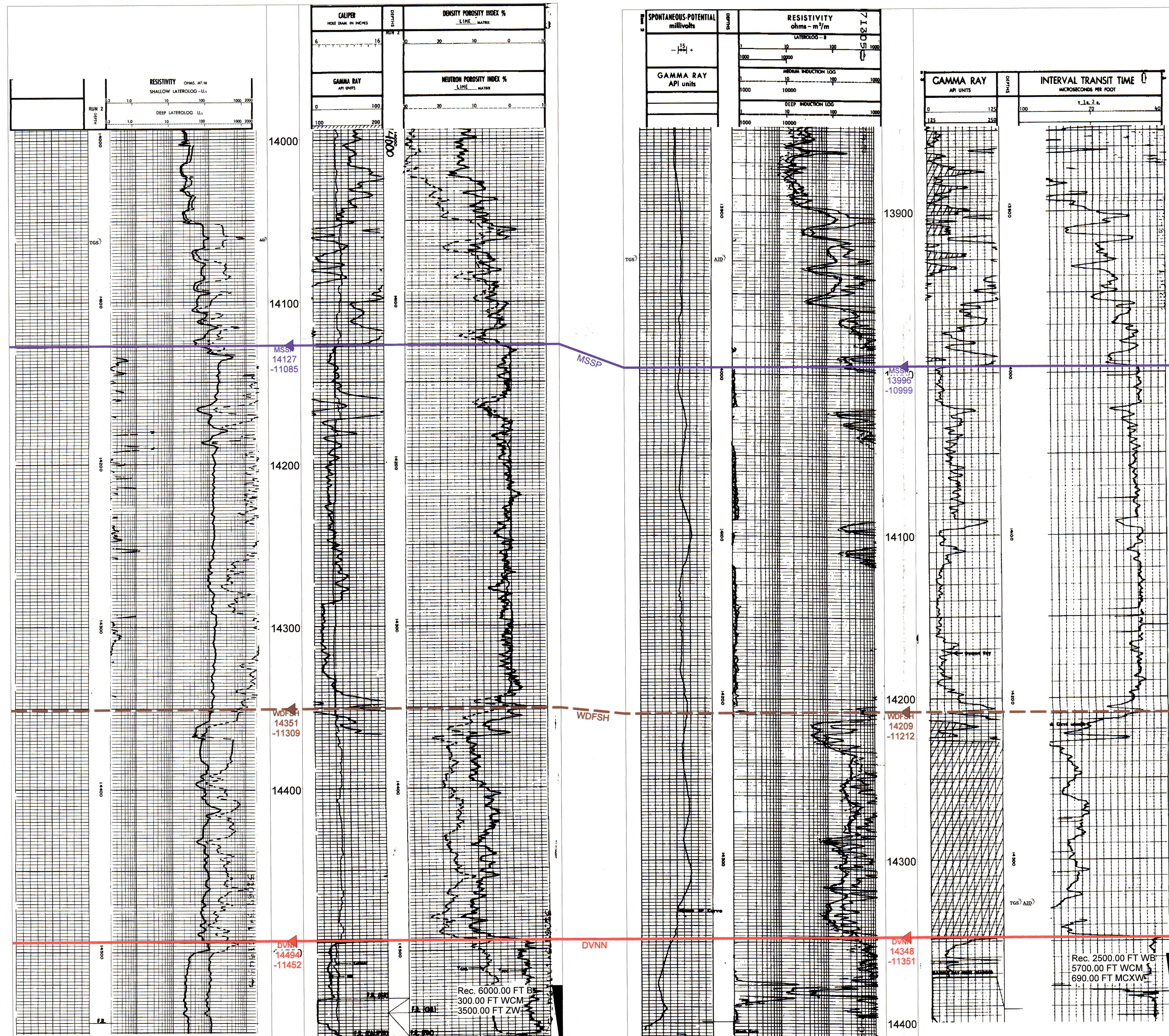
300153947000
YATES PETROLEUM CORPORATION
SHOCKER SWD 1
1000 FNL/2000 FFL
TWP: 28 S - Range: 28 E - Sec. 32
Reference=KB
Datum=3037.00

32A

12/2/11 Spud Well
5/17/12 Devonian SWD Compl.
Open Hole 15200 - 15610. A/ 20k gals.
Cum. Injection: 4,560 MBW

A'

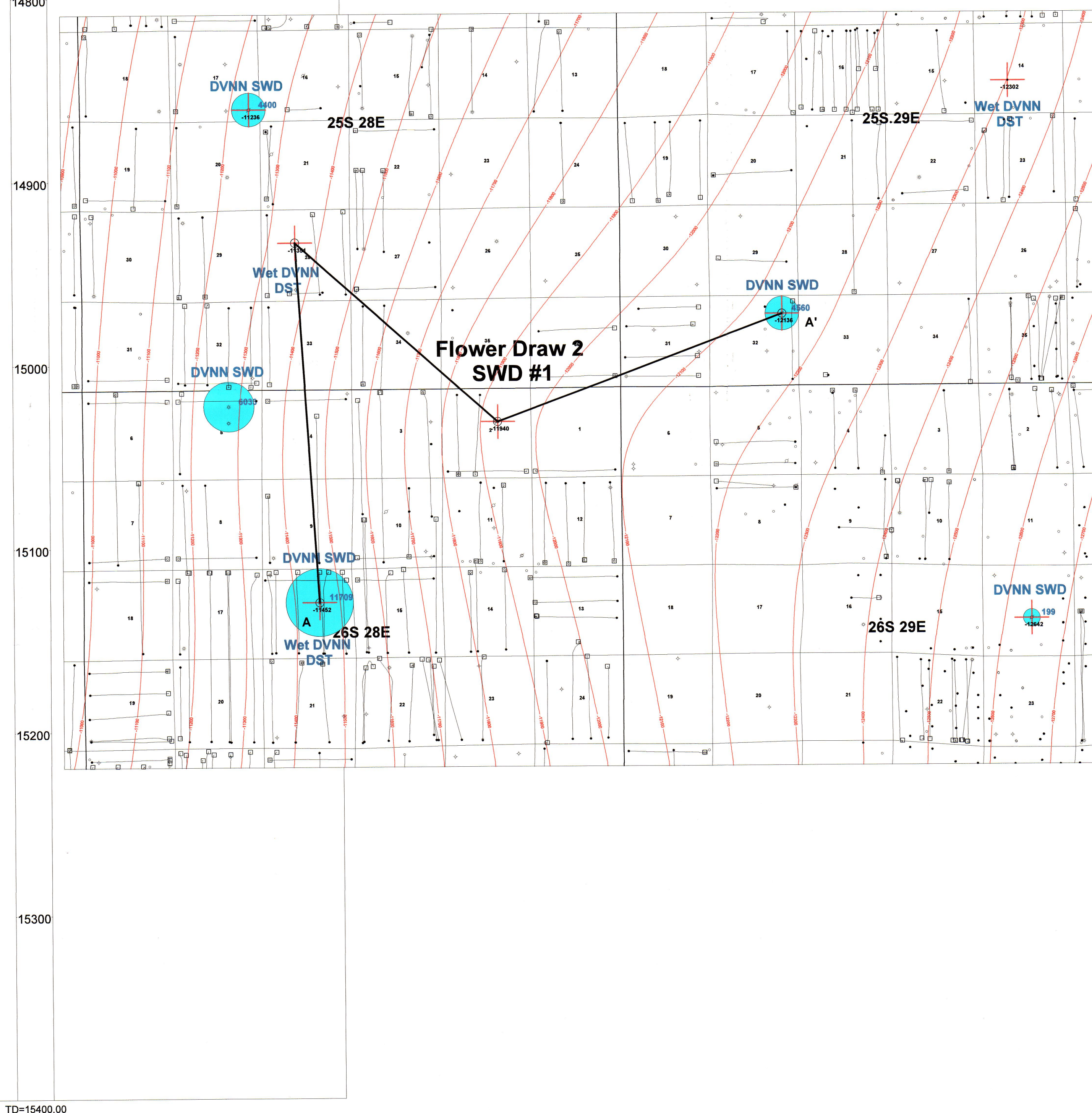
500



500

0

-500



TD=15400.00

TD=15700.00

X-sec Flower Draw 2 SWD #1 A-A'