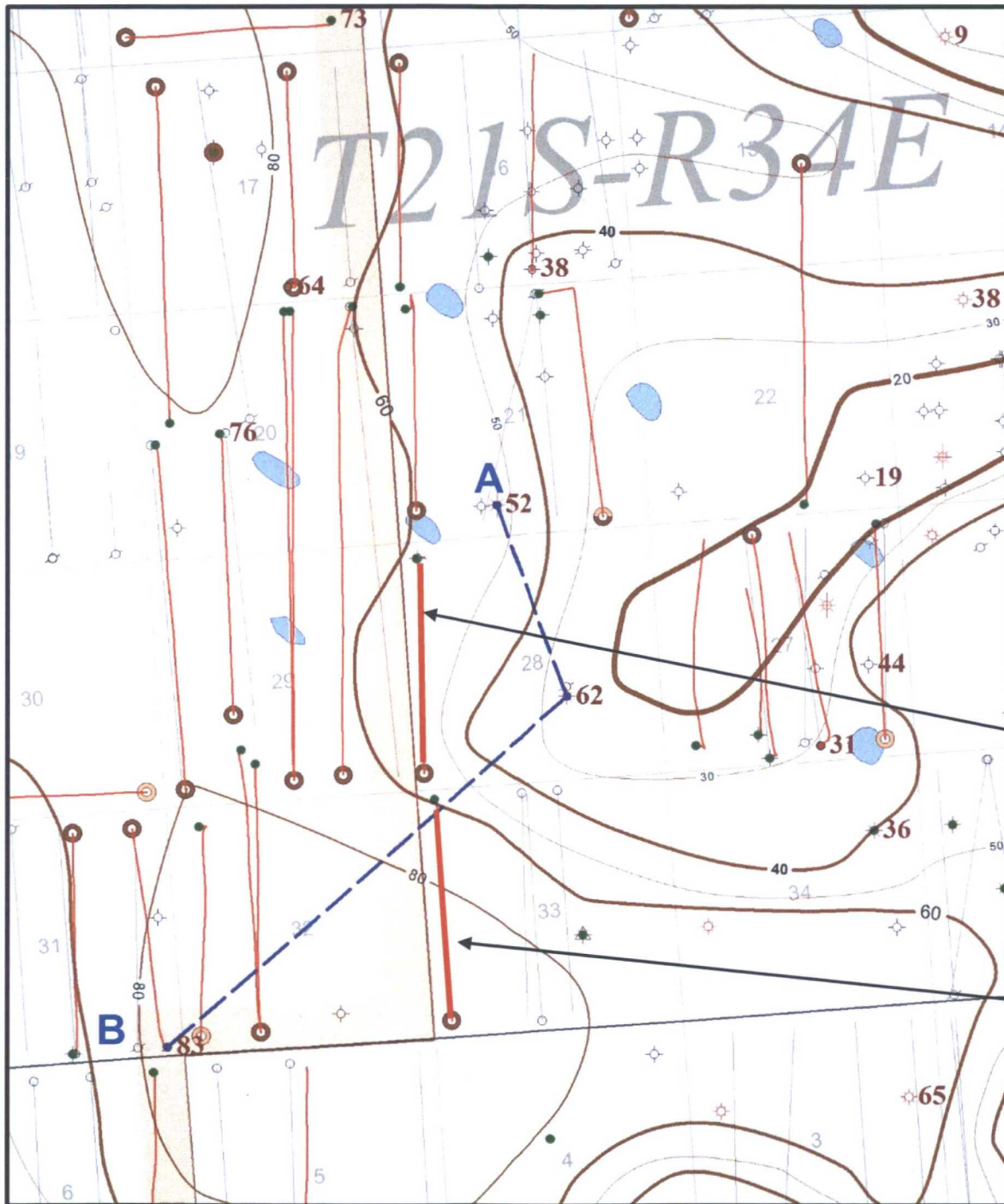




Compulsory Pooling Hearing

July 20 2017





ISOPACH MAP

2nd Bone Spring
#2 Sand
CI 20

GMT Example 2nd Bone Spring Sand quality reservoir rock makes difference in EUR.

Devon and GMT drilled in a thick quality reservoir area. The Devon Chiles well was targeting poor reservoir rock – while the GMT Vitalizer well was targeting quality reservoir. (see X-section)

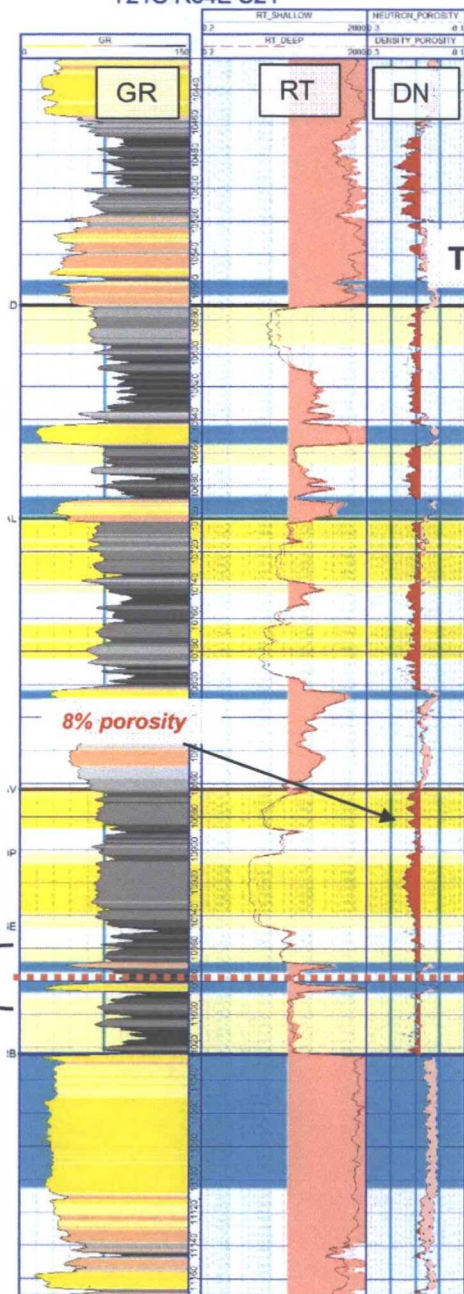
Devon Chiles 28
55' Den por > 8%
EUR – 135 MBOE
Frac. – 1,445 # / ft
2016

GMT Vitalizer
70' Den por > 8%
EUR – 558 MBOE
Frac. – 2,276 # / ft
2016

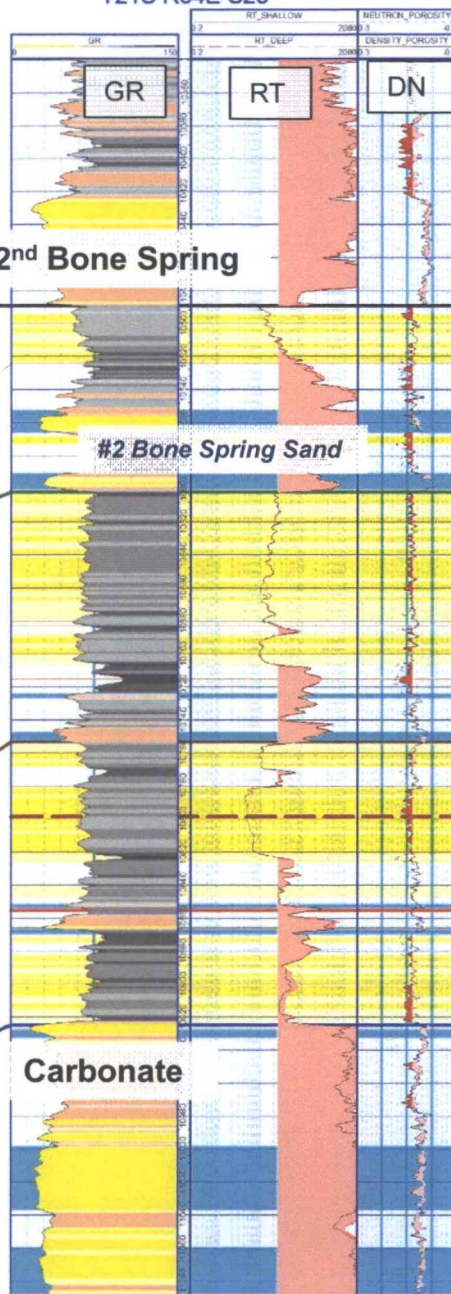
A

POGO
STATE 'L-921'

T21S R34E S21

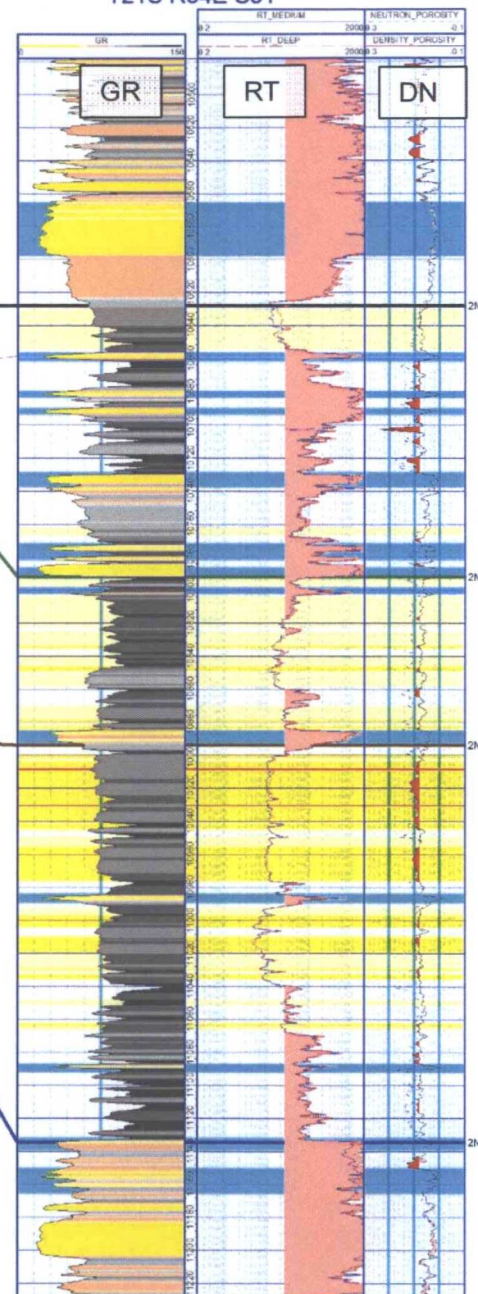
OXY
STATE 'L-922'

T21S R34E S28



COG

T21S R34E S31

HZ target
GMT

ISOPACH MAP

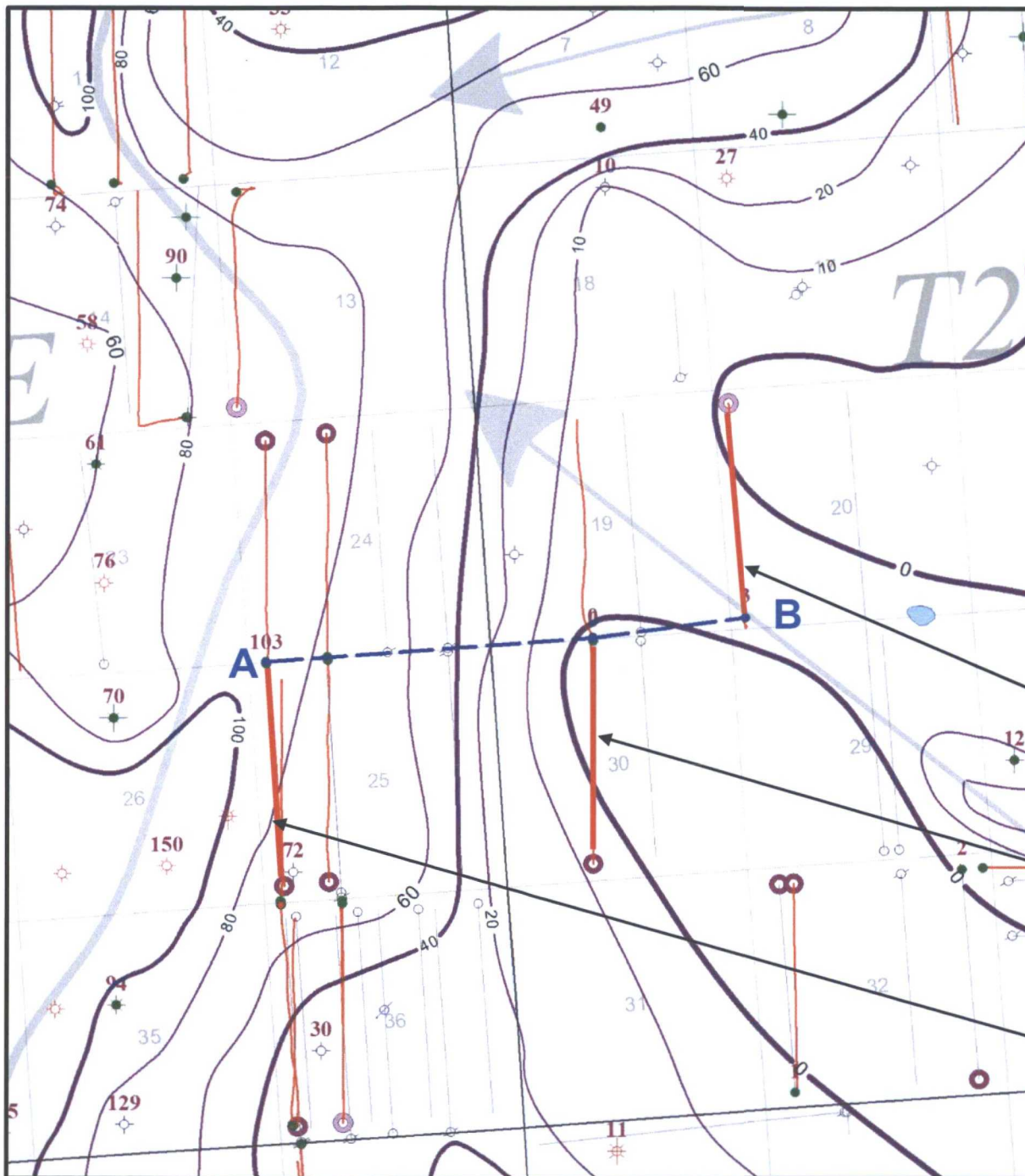
3rd Bone Spring

Lower Sand

CI 20

GMT Example 3rd Bone Spring Sand
Quality reservoir rock makes a difference in EUR.

Three 3rd Bone Spring wells drilled in same area with different reservoir quality. This shows better EURs in wells with better porosity - using 8% wells have from 0-3 then to 103' of sand. The best EUR is the well with the thickest sand over 8% Density porosity - while poor wells do not have much porosity over 8%.



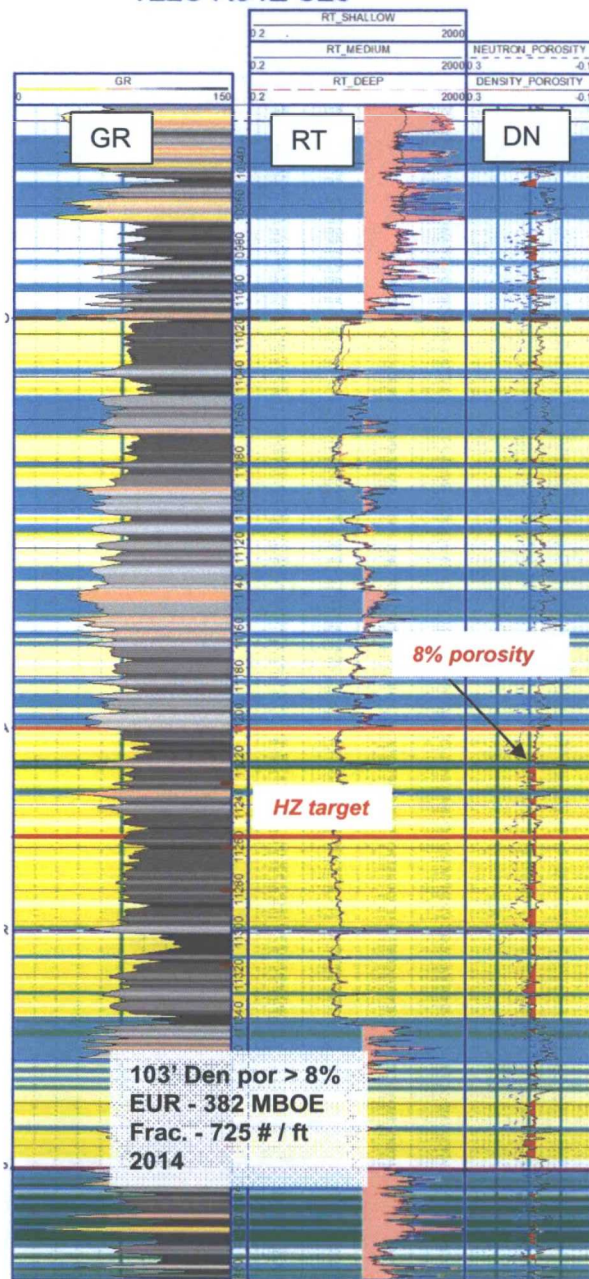
EOG Bridge State
3' Den por > 8%
EUR - 207MBOE
Frac. - 1,809 # / ft
2016

GMT 30 H
0' Den por > 8%
EUR - 115 MBOE
Frac. -
2014

GMT 25 State Com
103' Den por > 8%
EUR - 382 MBOE
Frac. - 725 # / ft
2014

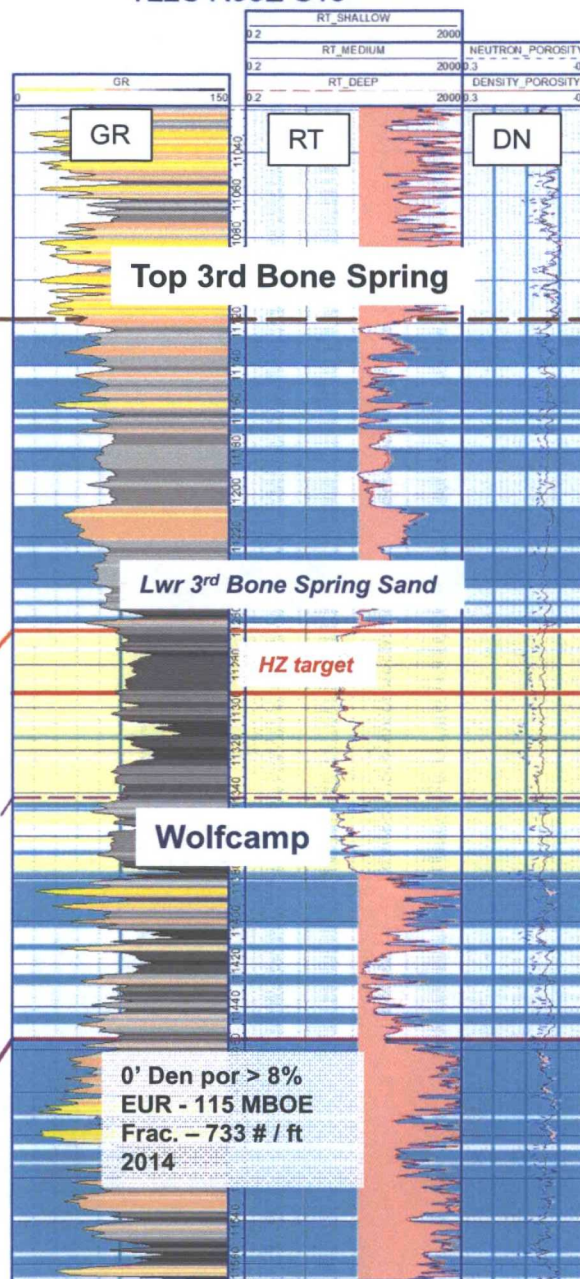
A **GMT** *Good well*
Merchant Livestock State Com 25

T22S R34E S25



GMT
Merchant Livestock 19 2H

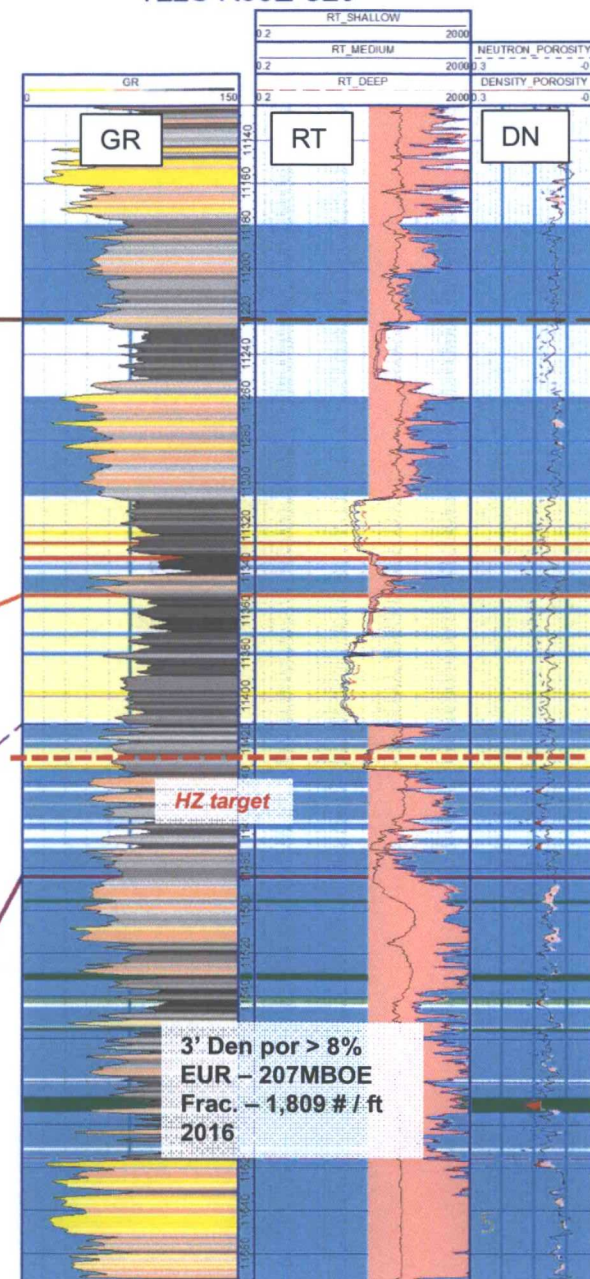
30
T22S R35E S19



Poor wells

EOG

T22S R35E S20



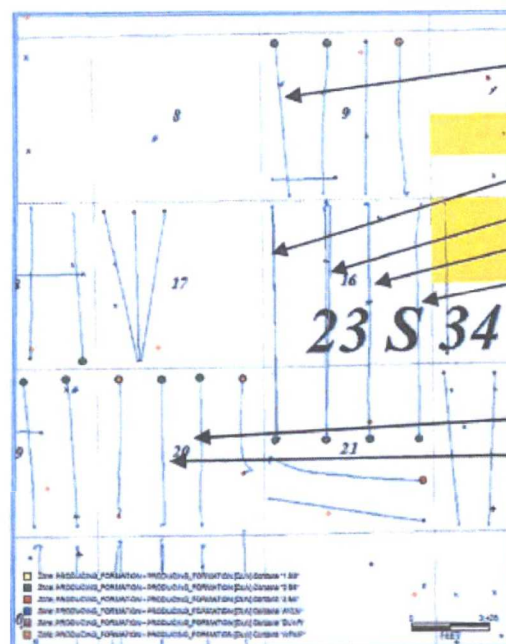
B

Effects of Lateral Length on Well Performance

Comparison Area 1: 2nd Bone Spring



- Longer laterals EURs are higher than shorter laterals
- EUR scales slightly less than linear (82%) with lateral length for these wells, but shorter wells have 18% more proppant per foot on average



Mewbourne: Antelope 9 B2MD State 1H (2 BS)

COG: Gettysburg State Com 1H (2 BS)

COG: Gettysburg State 2H (2 BS)

COG: Gettysburg State Com 3H (2 BS)

COG: Gettysburg State Com 4H (2 BS)

Endurance: Stratocaster 20 Fed 3H (2 BS)

Endurance: Stratocaster '20' Fed 2H (2 BS)

- 1 section long laterals
- 1.5 section long laterals

Well Name	API	1st Prod Date (MM/YY)	CLL (ft)	Proppant (lb/ft)	Gross Cum To-Date		Gross Rem. Reserves		Gross EUR		BOE
					Oil (MB)	Gas (MMCF)	Oil (MB)	Gas (MMCF)	Oil (MB)	Gas (MMCF)	
ANTELOPE 9 B2MD STAT 1H	30025423660000	Jun-15	4120	1572	119	185	32	58	152	163	179
STRATOCASTER 20 FEDE 3H	30025414470000	Apr-14	3802	893	217	373	320	747	537	1120	723
STRATOCASTER '20' FE 2H	30025413810000	Mar-14	3911	880	84	171	158	530	242	701	359
Short Lateral Averages			3944	1115	140	216	170	445	310	661	420
GETTYSBURG STATE COM 1H	30025419280100	Jun-15	6480	1697	221	287	508	948	729	1234	935
GETTYSBURG STATE 2H	30025408740100	Aug-13	6930	525	114	116	179	290	292	405	360
GETTYSBURG STATE COM 3H	30025409160000	Feb-14	6988	756	187	236	360	649	547	885	694
GETTYSBURG STATE COM 4H	30025419290000	Dec-14	6797	797	141	326	111	448	252	774	381
Long Lateral Averages			6799	944	166	241	289	584	455	825	592
Ratios			1.72	0.85					1.47	1.25	1.41

ISOPACH MAP

2nd Bone Spring

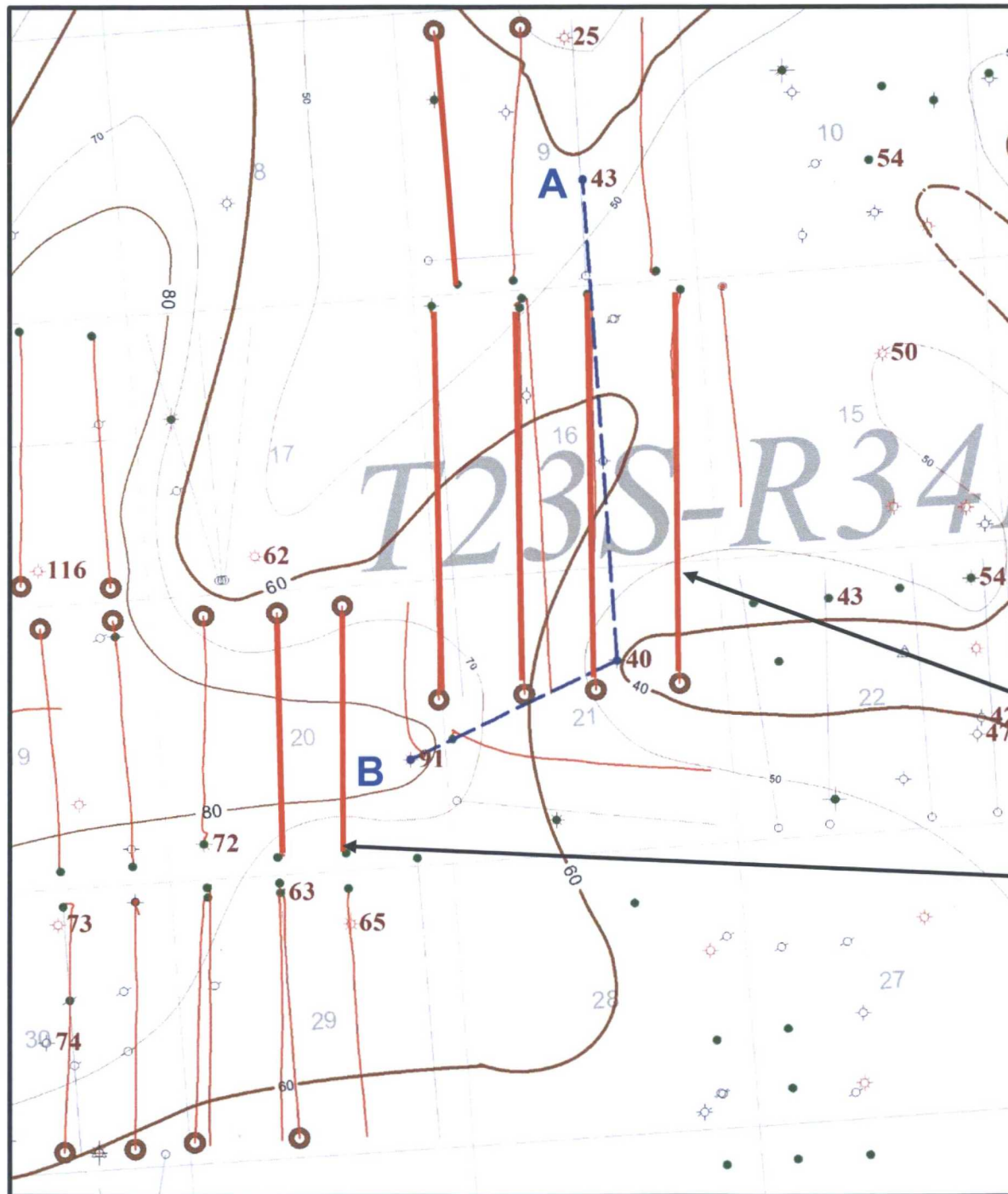
#2 Sand

CI 20

Black Mountain Testimony Area
2nd Bone Spring Sands

This is an area of excellent reservoir
quality with 40 – 75' of 8% Den porosity
Longer laterals may be advantageous, in
good reservoir rock.

This is not the case in the GMT / Black
Mountain area.

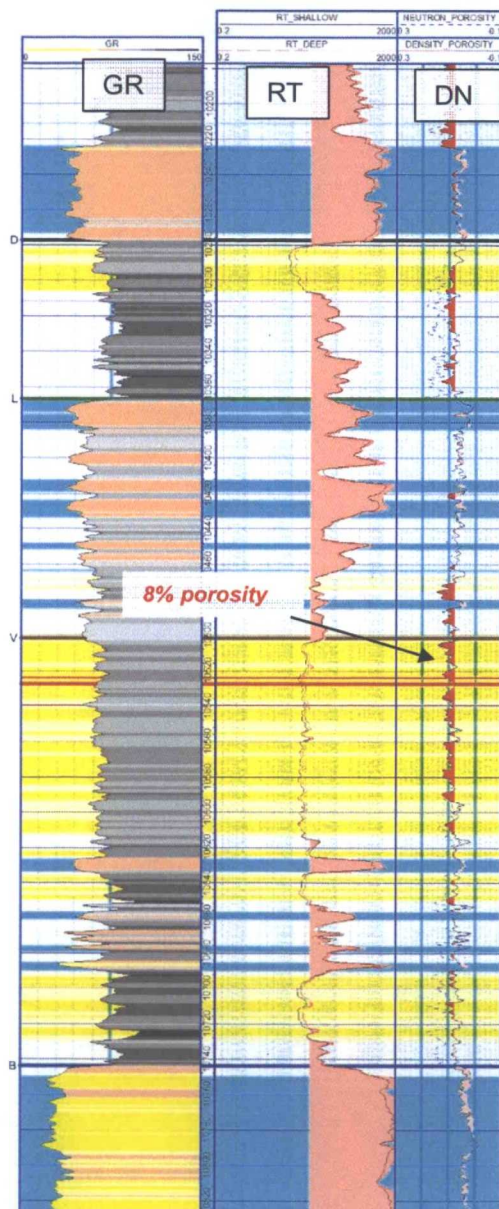


Longer Laterals

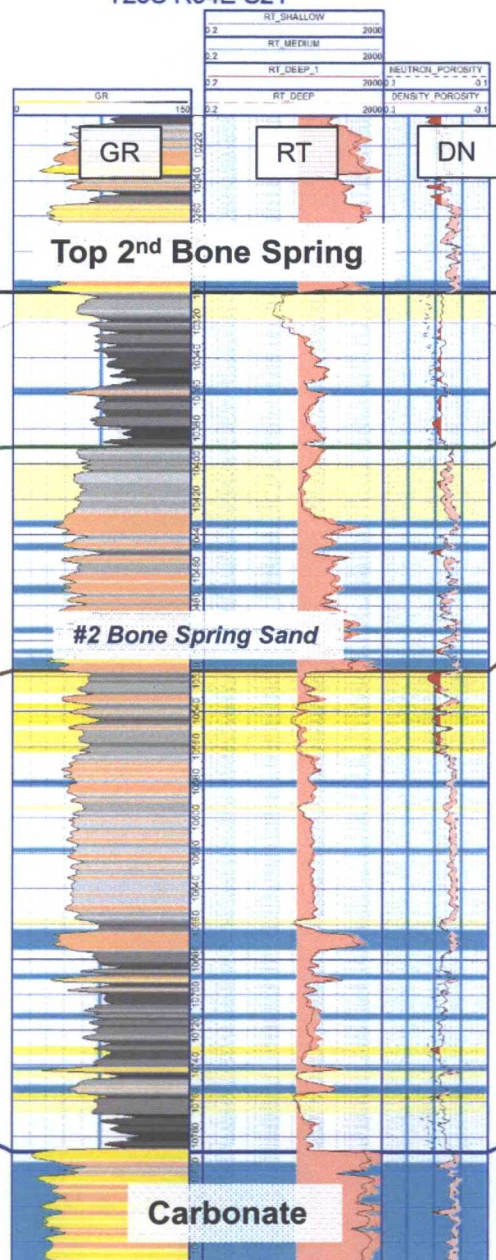
Shorter Laterals

B

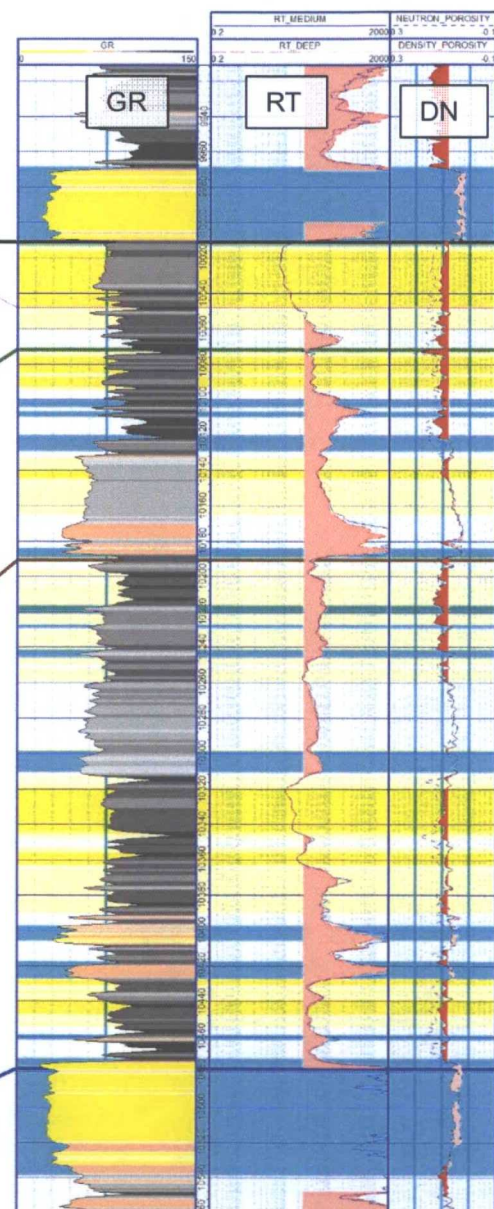
COG
BACK BASIN UNIT
T23S R34E S20



YATES
SEDCO '21' STATE
T23S R34E S21



WILLIAMSON
PRONGHORN STATE
T23S R34E S9



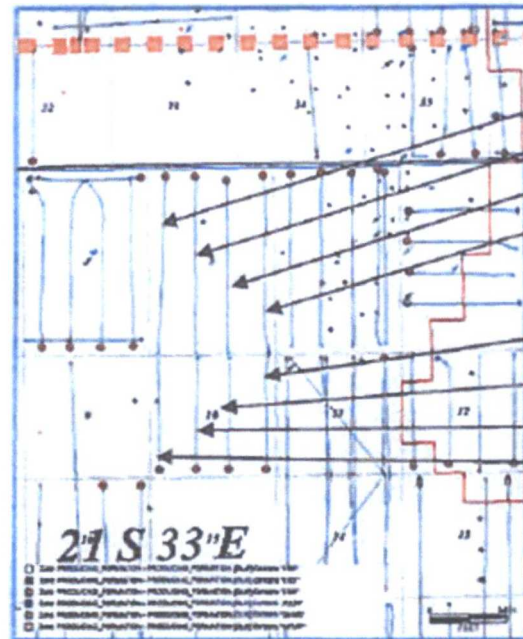
A

Effects of Lateral Length on Well Performance

Comparison Area 2: 3rd Bone Spring



- Longer laterals EURs are higher than shorter laterals
- EUR scales greater than linear (108%) with lateral length for these wells
- Average proppant load is similar between long and short laterals (within 1%)



COG: Corazon State Unit 5H (3 BS)

COG: Corazon State Unit 3H (3 BS)

COG: Corazon State Unit 2H (3 BS)

COG: Corazon State Unit 1H (3 BS)

COG: Corazon State Unit 9H (3 BS)

COG: Corazon State Unit 8H (3 BS)

COG: Corazon State Unit 7H (3 BS)

COG: Corazon State Unit 6H (3 BS)

- 1 section long laterals
- 1.5 section long laterals

Well Name	API	1st Prod Date (MM/YY)	CLL (ft)	Proppant (lb/ft)	Gross Cum To-Date		Gross Rem. Reserves		Gross EUR		
					Oil (MB)	Gas (MMCF)	Oil (MB)	Gas (MMCF)	Oil (MB)	Gas (MMCF)	BOE
CORAZON STATE UNIT 6H	30025409480000	Oct-13	4380	754	74	90	53	60	127	149	152
CORAZON STATE UNIT 7H	30025409490000	Aug-14	4303	1588	99	178	217	395	316	573	411
CORAZON STATE UNIT 8H	30025409500000	Jun-13	4264	768	106	106	123	178	230	284	277
CORAZON STATE UNIT 9H	30025409510000	Jul-14	4214	826	126	216	303	341	429	557	522
Short Lateral Averages			4290	984	101	147	174	243	275	391	341
CORAZON STATE UNIT 5H	30025409470000	Sep-14	6866	1590	244	451	579	1748	823	2199	1190
CORAZON STATE UNIT 3H	30025409460000	Jan-14	6868	784	137	195	18	16	155	212	190
CORAZON STATE UNIT 2H	30025409450000	Apr-14	6784	797	201	323	227	434	428	758	554
CORAZON STATE UNIT 1H	30025407140100	Mar-13	7052	807	195	307	131	279	326	586	423
Long Lateral Averages			6893	995	194	319	239	619	433	939	589
Ratios			1.61	1.01					1.57	2.40	1.73

ISOPACH MAP

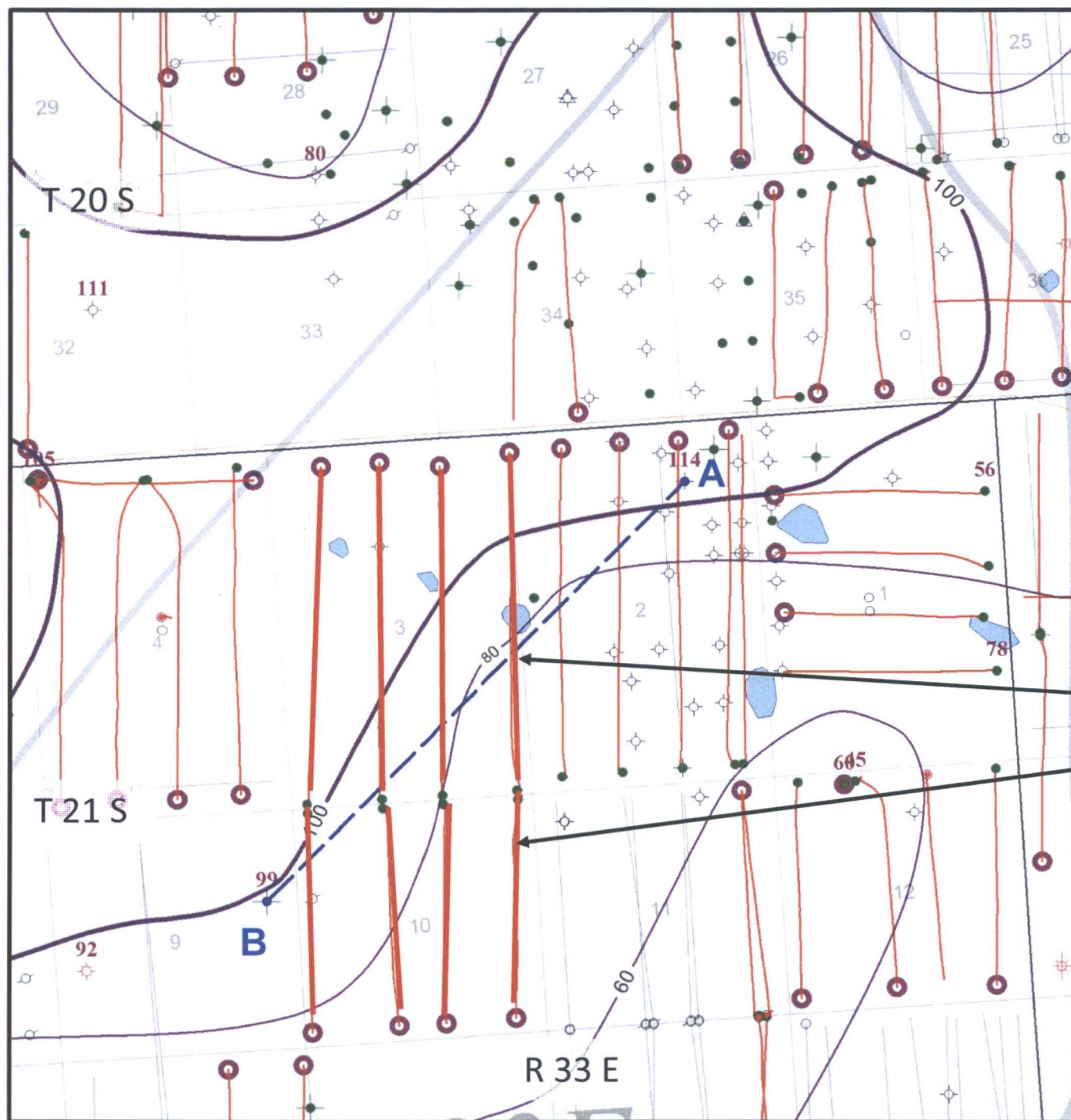
3rd Bone Spring Lower Sand

Sand w/ D por > 8%
CI 20

Black Mountain Testimony Area
3rd Bone Spring Sands
Examples Longer laterals (see map)
perform better than short laterals.

This is an area of excellent reservoir
quality with over 100' of 8% Den
porosity
Longer laterals may be advantageous.

This is not the case in the GMT / Black
Mountain area.



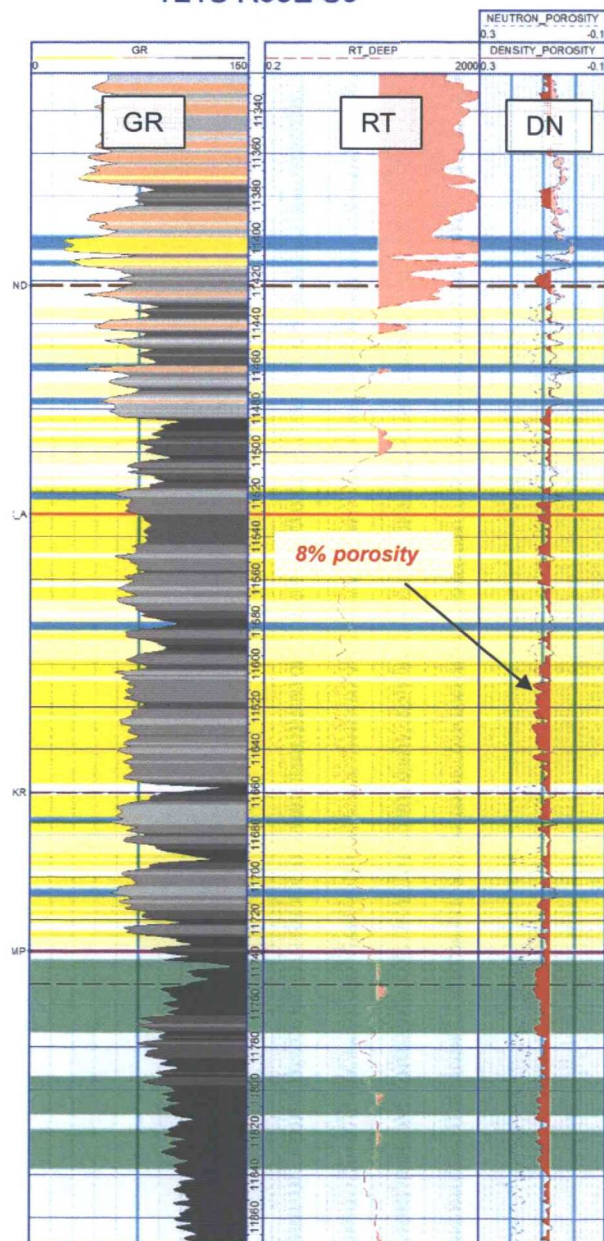
Longer Laterals

Shorter Laterals

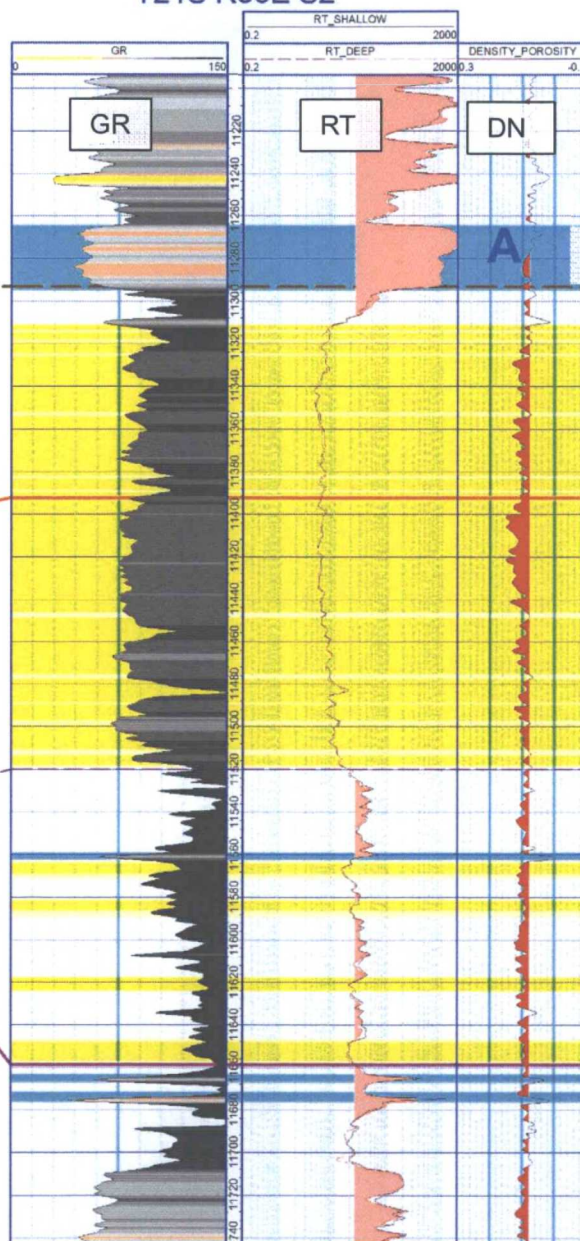
B

GULF
SOUTH LYNCH

T21S R33E S9

**TRAINER**
ENTERPRISES DEEP U2

T21S R33E S2



A

Top 3rd Bone Spring

Lwr 3rd Bone Spring Sand

HZ target

Wolfcamp