

South Justis Unit (SJU)

Blinebry Horizontal Well Analysis

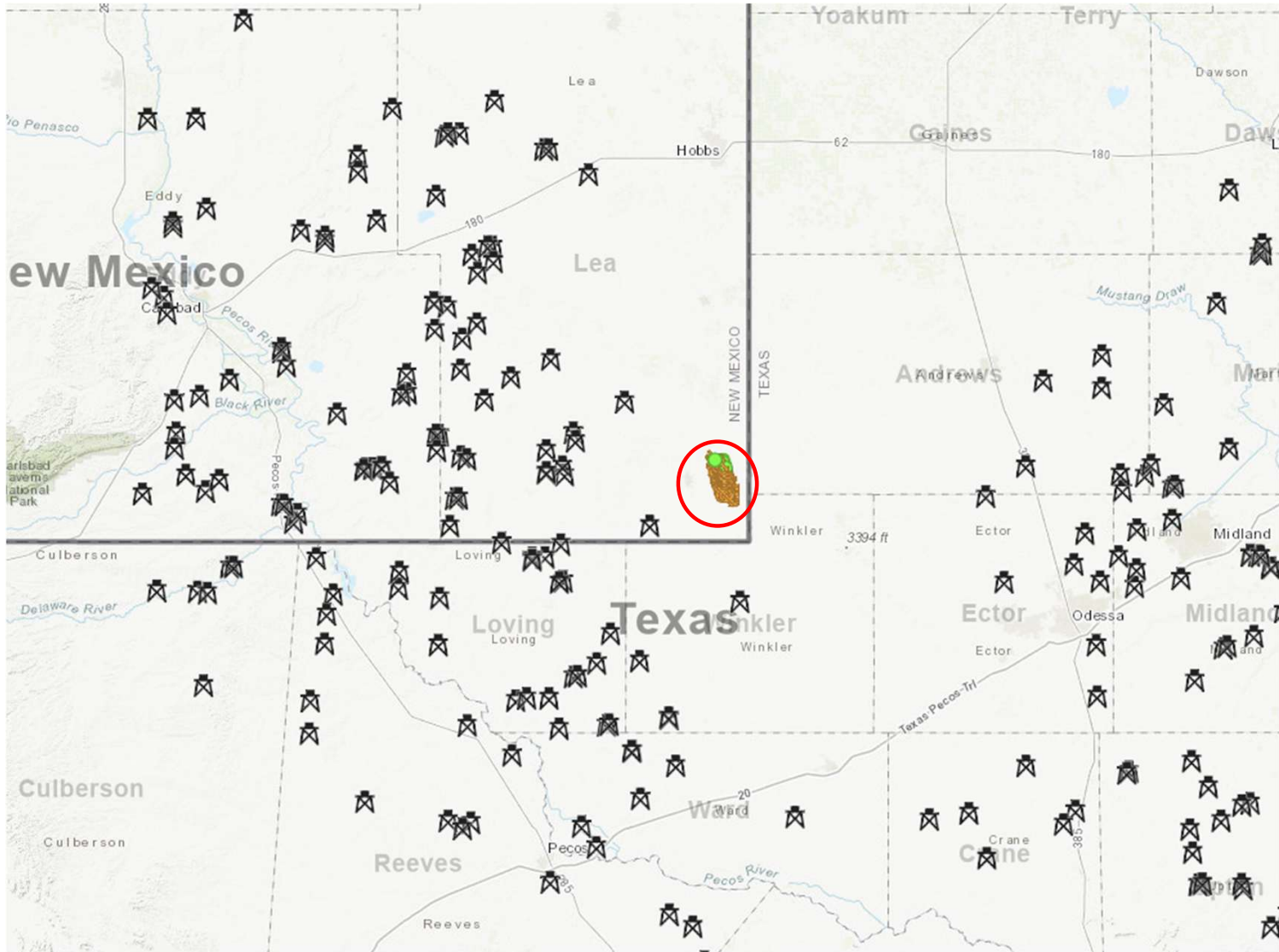
Lea County, New Mexico

Robert Barba, Gerard Bono & Jesse Allen

June 25, 2026



South Justis Unit Location



38 miles south of Hobbs, SE Lea County, New Mexico

SJU Unit High-Level Takeaway

- Large remaining OIP opportunity
- Is a multi-zone carbonate with under recovered reserves and failed waterflood
- Substantial reserves remain best recovered utilizing multi-frac horizontal wells
- The rock properties that doomed the waterflood
 - ✓ High heterogeneity
 - ✓ Poor lateral connectivity
 - ✓ Are ideal for exploitation by horizontal multi-frac wells

SJU High-Level Takeaway (contd. 1)

- Additionally, permeabilities are many orders of magnitude better than any shale development which will result
 - ✓ In high IP's and
 - ✓ Higher EURs
- Zone of interest in the Blinbry at about 5,100 ft MD (gross thickness of 400 - 500 ft)
- Expected EUR's depend on lateral length and frac density
 - ✓ Minimum EUR of 245 MBO
 - ✓ Max EUR 1,250 MBO

South Justis Unit History

SJU History

- Located on the Central Basin Platform in south-central Lea Co., New Mexico
- Mature Leonardian-age carbonate system
 - ✓ Producing oil and gas from the Blinebry and Tubb/Drinkard formations (Clearfork).
 - ✓ The field occupies an elongated north–south anticline roughly 9 miles long and 2 miles wide
 - ✓ With approximately 250 ft of structural closure at the Blinebry level.
- Oil development began in 1958
- By 1989 the field had accumulated over 28.7 MMBO, 176 BCF of gas, and 18.8 MMBW
- Current cumulative oil production of approximately 30 MMBO

SJU History (contd. 1)

- Early development targeted the best dolomitized intervals within a complex, laterally discontinuous sequence of intertidal to shallow-subtidal facies.
- The ARCO unitization report (1990) states:
 - ✓ The Blinebry–Tubb / Drinkard interval consists of “*a complex sequence of interfingering reservoir and non-reservoir dolomitic rock units,*”
 - ✓ With individual pay zones correlating poorly beyond two to three 40-acre well spacings.
 - ✓ Core analyses showed average porosity of ~5.4%
 - ✓ Permeability averaged 3 mD, with local enhancement from vugs and microfractures.

SJU History (contd. 2)

- By the 1980s, operators recognized
 - ✓ Primary recovery was limited by poor lateral continuity and lack of systematic vertical permeability
 - ✓ Through 1989, the combined reservoirs had recovered 14.6% of OOIP, with an estimated 1.67 MMBO of primary reserves remaining.
 - ✓ Water production patterns revealed a weak edge-water drive along the southern and western flanks
 - Where 12% of wells produced 40% of the water
 - But only 16% of the oil
 - ✓ Gas production from the Blinbry exceeded volumetric OGIP estimates
 - “138.3 BCF versus 126.6 BCF”
 - Suggesting wellbore communication with the overlying Glorieta in wells perforated near 5,000–5,100 ft.

SJU History (contd. 3)

- Efforts to unitize the field began in 1984
 - ✓ Leading ARCO and other WI owners to commission T.S. Hickman & Associates for a feasibility study (1987)
 - ✓ Hickman recommended forming North and South Justis Units and pursuing secondary recovery.
 - ✓ ARCO accelerated the South Justis effort in 1988, forming a Technical Committee
 - ✓ A comprehensive reservoir, production, and economic evaluation was initiated
- ARCO made a regional comparison of seven mature Clearfork waterfloods in West Texas
 - ✓ These were used as analogs for secondary recovery performance
 - ✓ These analogs indicated that South Justis was “*quite similar to Mobil’s Russell (Clearfork 7,000’) Unit*”
 - ✓ This supported the feasibility of waterflooding

SJU History (contd. 4)

- Two development scenarios were evaluated:
 - ✓ 80-acre line-drive flood
 - Expected 22 MMBO secondary recovery ($S/P = 0.85$)
 - But characterized by low injectivity
 - Delayed response (>20 years to peak)
 - High operating cost
 - Negative economics ($PW10 = -\$13.8\text{MM}$)
 - ✓ 40-acre five-spot flood
 - 20-acre infill drilling
 - Expected 34 MMBO total recovery ($S/P = 1.15$)
 - With higher injectivity
 - Faster response
 - Higher peak rates
 - Positive economics ($PW10 = \$44.6\text{MM}$).

SJU History (contd. 5)

- By 1989, ARCO concluded:
 - ✓ Unitization and 20-acre infill drilling with 40-acre five-spot waterflooding
 - ✓ Represented the only economically viable path forward
- ARCO recommended a unitized interval extended from
 - ✓ Top of the Blinbry to the top of the Abo
 - ✓ Next steps included establishing tract participation
 - ✓ Securing regulatory approval
 - ✓ Initiating injector-focused infill drilling.

Summary of EON Resources

SJU Evaluation

- The Blinebry is the primary target for horizontal well development
- 5,360-acre position with 90 producers and 85 injectors active, 13 inactive
- On going field water disposal is available
- Determined vertical well primary and secondary total recovery factor less than 5% based on recent petrophysical analyses.
- Analyzed 49 open hole logs determined porosity, Sw, net pay, and OIP
- Identified possible 21 Blinebry horizontal locations from 2,640 to 13,200 ft lateral length

Summary of EON Resources

SJU Evaluation

AVERAGE OF 21 PROPOSED LATERALS

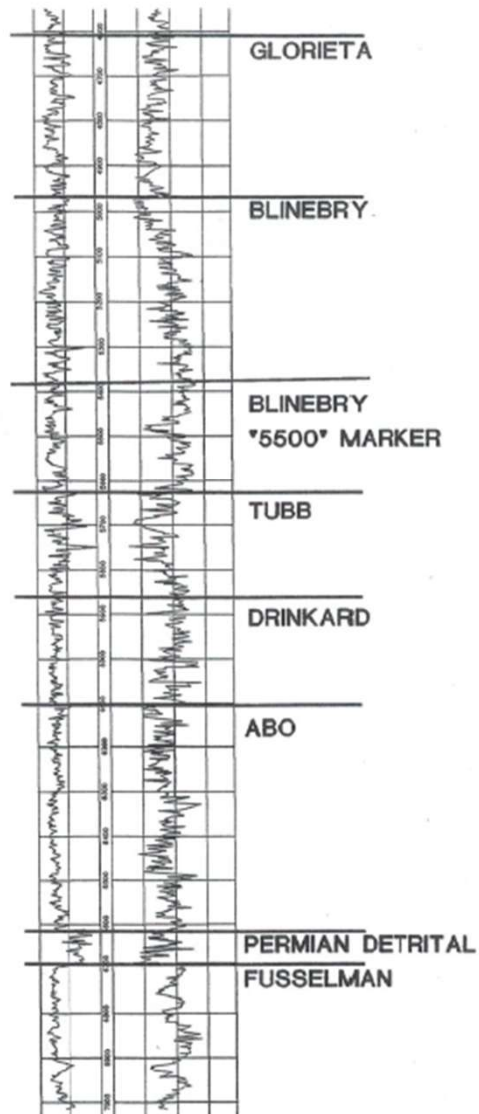
- Lateral length 8,423 ft
- Oil EUR 780 MBO at 15 years
- Gas EUR 5,030 MMSCF at 15 years
- AFE \$4.7 million
 - ✓ NPV0= \$18.9 mm
 - ✓ NPV10= \$10.6 mm
 - ✓ ROI= 394.8%
 - ✓ IRR= 122.5%
 - ✓ Avg Payout= 1.08 years or ~13 months
- IP 30 days= 840 BOPD

EON SJU Petrophysics

Suth Justis Field Type Log

SOUTH JUSTIS FIELD TYPE LOG

Gulf Oil Company
Learcy McBuffington 4-E
El. 3092



Petrophysical Methodology For Current OIP Estimation

- OH logs from 49 wells were analyzed
 - ✓ Drilled from Q4 1989 to end of 1990
 - ✓ Used to determine a modern OIP estimate
- Archie model $m=n=2$
- R_w of 0.096 at 77 F (from ARCO Report) and is probably conservative based on SPE R_w catalog of 0.06
- Neutron-density cross-plot used on most wells, some had SNP or CNL with resistivity
- OIP per acre calculated from porosity, S_w , and feet of pay $> 4\%$
- Assumes 1,320 ft spacing total acres = perf interval * $1,320/43,560$
- Total OIP for 5,000 ft lateral = $151.5 \text{ ac} * \text{OIP/acre}$

Rw Data – Blinebry, Lea County

NO. 2 Produced water - taken from Wimberly #10. 10-22-87 PRE-WATERFLOOD SAMPLE ←===

REMARKS: 1. Fusselman 2. Blinebry Blinebry

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	me/l	NO. 2	me/l
Specific Gravity at 60° F.	1.0478		1.0675	
pH When Received	7.60		7.30	
Carbonate as CO ₃	0	0.0	0	0.0
Bicarbonate as HCO ₃	1,013	16.6	714	11.7
Supersaturation as CaCO ₃	130		75	
Undersaturation as CaCO ₃	---		---	
Total Hardness as CaCO ₃	10,900		17,300	
Calcium as Ca	2,780	139.0	4,760	238.0
Magnesium as Mg	960	79.0	1,312	108.0
Sodium and/or Potassium	21,365	929.0	31,208	1,356.9
Sulfate as SO ₄	2,829	58.9	1,869	38.9
Chloride as Cl	37,995	1,071.5	58,591	1,652.3
Iron as Fe	0.24	0.0	0.40	0.0
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	66,942		98,454	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide - Total	437		3.8	
Resistivity, ohms/m at 77° F.	0.127		0.096	

BLINEBRY

#3002512190

STATE S

2

32-22S-38E

0. 0.068

BLINEBRY

#3002506764

ROY BARTON

23-21S-37E

5733. 0.054 PROD

Terry-Blinebry

Shell

State

15

15

21

37

5908

.057

Used higher Rw than water catalog should be conservative

Petrophysical Methodology For Current OIP Estimation

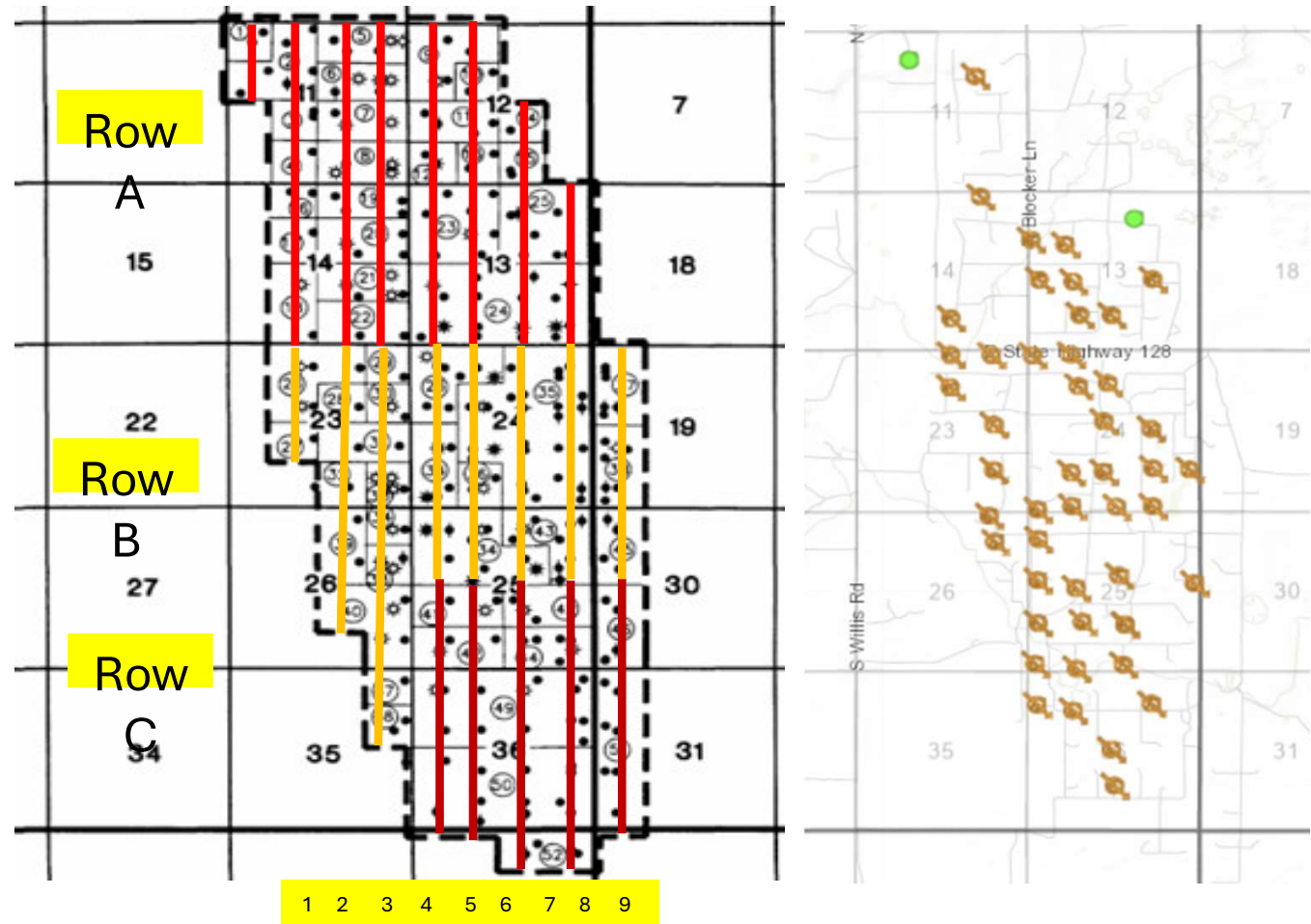
- Mobile OIP for lateral = total OIP * 15%
- Remaining OIP = mobile OIP – (OIP * 5%)
(to subtract cumulative oil)
- Estimated recovery= 3.3%, used 5% in analysis to be conservative
- EUR per ft = remaining OIP/5,000
- Lateral average EUR/ft = average of all log analyses along cross section
- Decline curve uses month to month decline rate from type log
- IP varied until EUR = remaining oil

Recovery Factor Analysis Details

- Again, used R_w of 0.096 at 77 F from Arco report for Blinebry
- Average of three Blinebry water samples SPE catalog 0.06
- Cum numbers for all producing horizons, lower Glorieta oil, Tubb oil, and Drinkard oil production included as well as Blinebry below proposed 200 ft vertical lateral drainage
- 5% cumulative recovery estimate proposed to evaluate remaining OIP in partially drained reservoir

21 Proposed Laterals vs Logs Analyzed

Lat No	40 ac blks	Ft/block	Ft	Standoff	Lateral ft
A1	2	1320	2640	500	2140
A2	8	1320	10560	500	10060
A3	8	1320	10560	500	10060
A4	8	1320	10560	500	10060
A5	8	1320	10560	500	10060
A6	8	1320	10560	500	10060
A7	6	1320	7920	500	7420
A8	4	1320	5280	500	4780
B2	3	1320	3960	500	3460
B3	7	1320	9240	500	8740
B4	10	1320	13200	500	12700
B5	6	1320	7920	500	7420
B6	6	1320	7920	500	7420
B7	6	1320	7920	500	7420
B8	6	1320	7920	500	7420
B9	6	1320	7920	500	7420
C5	6	1320	7920	500	7420
C6	6	1320	7920	500	7420
C7	7	1320	9240	500	8740
C8	7	1320	9240	500	8740
C9	6	1320	7920	500	7420
	40 acs				
21	134				



5,360 acres total
8,423 ft average length
Range from 2,640 to 13,200 ft laterals

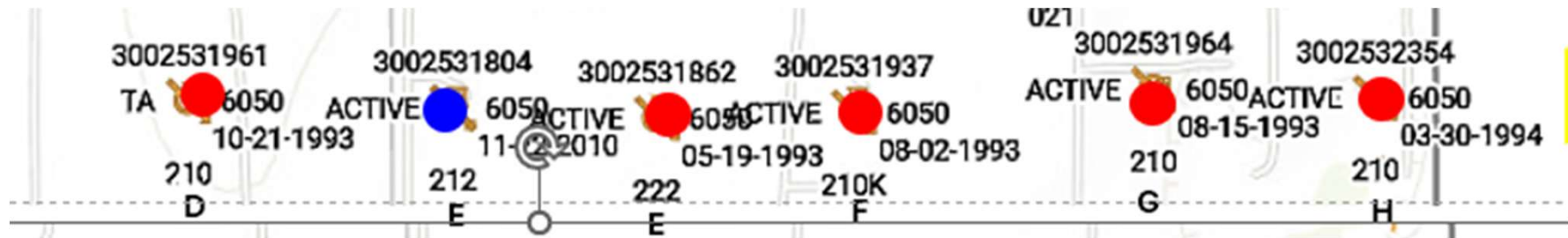
Petrophysical Analysis Summary 1

XSEC	SEC	Zone	API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	EUR/ft	IP	FVF
1	23	Blinebry	3002531861	SOUTH JUSTIS UNIT	190C	5117.5	5298	95.5	0.066	0.269	28,459	86	388	1.256
1	24	Blinebry	3002531825	SOUTH JUSTIS UNIT	190D	5050	5222.5	107.25	0.074	0.198	39,315	119	536	1.256
1	24	Blinebry	3002531860	SOUTH JUSTIS UNIT	190E	4977	5086	48.5	0.069	0.239	15,730	48	214	1.256
1	24	Blinebry	3002531868	SOUTH JUSTIS UNIT	190F	4987	5124.5	59.5	0.066	0.218	18,968	57	259	1.256
2	23	Blinebry	3002531866	SOUTH JUSTIS UNIT	192C	5110	5265	70.5	0.063	0.302	19,149	58	261	1.256
2	24	Blinebry	3002531867	SOUTH JUSTIS UNIT	192F	4981	5172	101	0.064	0.262	29,466	89	402	1.256
2	24	Blinebry	3002531938	SOUTH JUSTIS UNIT	190G	4963.5	5146	116.5	0.075	0.245	40,747	123	556	1.256
3	23	Blinebry	3002531865	SOUTH JUSTIS UNIT	202D	5057.5	5245.5	84	0.067	0.271	25,342	77	346	1.256
3	24	Blinebry	3002531939	SOUTH JUSTIS UNIT	200F	4942.5	5127	127.5	0.07	0.227	42,614	129	581	1.256
3	24	Blinebry	3002531941	SOUTH JUSTIS UNIT	200G	5016.5	5204.5	86	0.067	0.295	25,091	76	342	1.256
4	23	Blinebry	3002531961	SOUTH JUSTIS UNIT	210D	5054	5237.5	98	0.068	0.257	30,583	93	417	1.256
4	24	Blinebry	3002531862	SOUTH JUSTIS UNIT	222E	4972	5162.5	152	0.07	0.17	54,548	165	744	1.256
4	24	Blinebry	3002531937	SOUTH JUSTIS UNIT	210F	4960	5141	112	0.076	0.1	47,319	143	645	1.256
4	24	Blinebry	3002531964	SOUTH JUSTIS UNIT	210G	5011	5196	136.5	0.065	0.2	43,843	133	598	1.256
4	24	Blinebry	3002532354	SOUTH JUSTIS UNIT	210H	5068.5	5236.5	40	0.063	0.358	9,993	30	136	1.256
5	26	Blinebry	3002531864	SOUTH JUSTIS UNIT	232 D	5062	5251.5	139.5	0.061	0.252	39,316	119	536	1.256
5	24	Blinebry	3002531863	SOUTH JUSTIS UNIT	220 E	4990	5186	113.25	0.079	0.275	40,065	121	546	1.256
5	24	Blinebry	3002531940	SOUTH JUSTIS UNIT	220 F	4960	5151.5	133.25	0.075	0.189	50,062	152	683	1.256
5		Blinebry	3002531963	SOUTH JUSTIS UNIT	220 G	4956	5135.5	85.5	0.076	0.191	32,470	98	443	1.256
5	24	Blinebry	3002531962	SOUTH JUSTIS UNIT	222 G	5003.5	5200	105.75	0.07	0.228	35,298	107	481	1.256
6	26	Blinebry	3002531779	SOUTH JUSTIS UNIT	230D	5004.5	5191.5	56	0.058	0.212	15,809	48	216	1.256
6		Blinebry	3002531780	SOUTH JUSTIS UNIT	230E	5000	5188.5	80.25	0.073	0.266	26,560	80	362	1.256
7	25	Blinebry	3002531736	SOUTH JUSTIS UNIT	240E BB	5000	5197.5	101.25	0.084	0.23	40,451	123	552	1.256
7	25	Blinebry	3002531985	SOUTH JUSTIS UNIT	240F BB	4966.5	5149	126	0.075	0.258	43,311	131	591	1.256
7	25	Blinebry	3002531988	SOUTH JUSTIS UNIT	240G BB	4947.5	5114	89.5	0.074	0.237	31,213	95	426	1.256
		Blinebry	3002532356	SOUTH JUSTIS UNIT	242H	5032	5230	77.25	0.069	0.289	23,409	71	319	1.256
		Blinebry											523	
8	25	Blinebry	3002532081	SOUTH JUSTIS UNIT	250 E	5004.5	5168	108.5	0.077	0.232	39,632	120	540	1.256
8	25	Blinebry	3002532076	SOUTH JUSTIS UNIT	250 F	4983.5	5162.5	125	0.075	0.209	45,804	139	625	1.256
8	25	Blinebry	3002532075	SOUTH JUSTIS UNIT	250 G	4970.5	5170	116.75	0.072	0.271	37,851	115	516	1.256

Petrophysical Analysis Summary 2

XSEC	SEC	Zone	API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	EUR/ft	IP	FVF
9	25	Blinebry	3002532077	SOUTH JUSTIS UNIT	260E	5020.5	5220	98.75	0.065	0.252	29,656	90	404	1.256
9	25	Blinebry	3002532078	SOUTH JUSTIS UNIT	260F	5005.5	5193	116.5	0.069	0.227	38,381	116	523	1.256
9	25	Blinebry	3002532080	SOUTH JUSTIS UNIT	260G	4973.5	5160.5	107	0.072	0.208	37,688	114	514	1.256
		Blinebry												
10	36	Blinebry	3002532633	SOUTH JUSTIS UNIT	295	5025.5	5177	54	0.056	0.271	13,617	41	186	1.256
10	36	Blinebry	3002532634	SOUTH JUSTIS UNIT	294	5006.5	5187	102	0.064	0.253	30,120	91	411	1.256
10	36	Blinebry	3002532406	SOUTH JUSTIS UNIT	270G	4965.5	5137	95.5	0.081	0.204	38,033	115	519	1.256
		Blinebry												
12	36	Blinebry	3002532344	SOUTH JUSTIS UNIT	290G	5015.5	5207	95.5	0.061	0.338	23,821	72	325	1.256
OUTSIDE		Blinebry	3002531760	SOUTH JUSTIS UNIT	182F	4972.5	5170	128.25	0.074	0.176	48,303	146	659	1.256
OUTSIDE	13	Blinebry	3002531777	SOUTH JUSTIS UNIT	170E	5036	5229.5	74.5	0.075	0.217	27,023	82	368	1.256
OUTSIDE	13	Blinebry	3002531983	SOUTH JUSTIS UNIT	170F	5000	5200	128.5	0.073	0.2	46,353	140	632	1.256
OUTSIDE	13	Blinebry	3002531984	SOUTH JUSTIS UNIT	180F	4970	5159	117.75	0.075	0.197	43,802	133	597	1.256
OUTSIDE	14	Blinebry	3002532073	SOUTH JUSTIS UNIT	180C	5110	5309	117.25	0.065	0.272	34,270	104	467	1.256
OUTSIDE	13	Blinebry	3002532083	SOUTH JUSTIS UNIT	162E	5054.5	5242.5	116	0.074	0.246	39,978	121	545	1.256
OUTSIDE	13	Blinebry	3002532084	SOUTH JUSTIS UNIT	160E	5061	5234	110	0.062	0.235	32,226	98	439	1.256
OUTSIDE	13	Blinebry	3002532240	SOUTH JUSTIS UNIT	172G	5031.5	5230	128.75	0.071	0.26	41,783	127	570	1.256
OUTSIDE	14	Blinebry	3002532304	SOUTH JUSTIS UNIT	150C	5090	5264.5	86.25	0.064	0.263	25,129	76	343	1.256
OUTSIDE	11	Blinebry	3002532318	SOUTH JUSTIS UNIT	120C	5044.5	5226	138.5	0.069	0.242	44,743	136	610	1.256
12		Blinebry	3002532637	SOUTH JUSTIS UNIT	282F	4976	5175	128.75	0.072	0.217	44,833	136	611	1.256
OUTSIDE		Blinebry	3002532321	SOUTH JUSTIS UNIT	110B	4891.5	5088.5	155	0.097	0.339	61,385	186	837	1.256
OUTSIDE		Blinebry	3002532308	SOUTH JUSTIS UNIT	15G	5103	5300	149.75	0.084	0.288	55,321	168	754	1.256

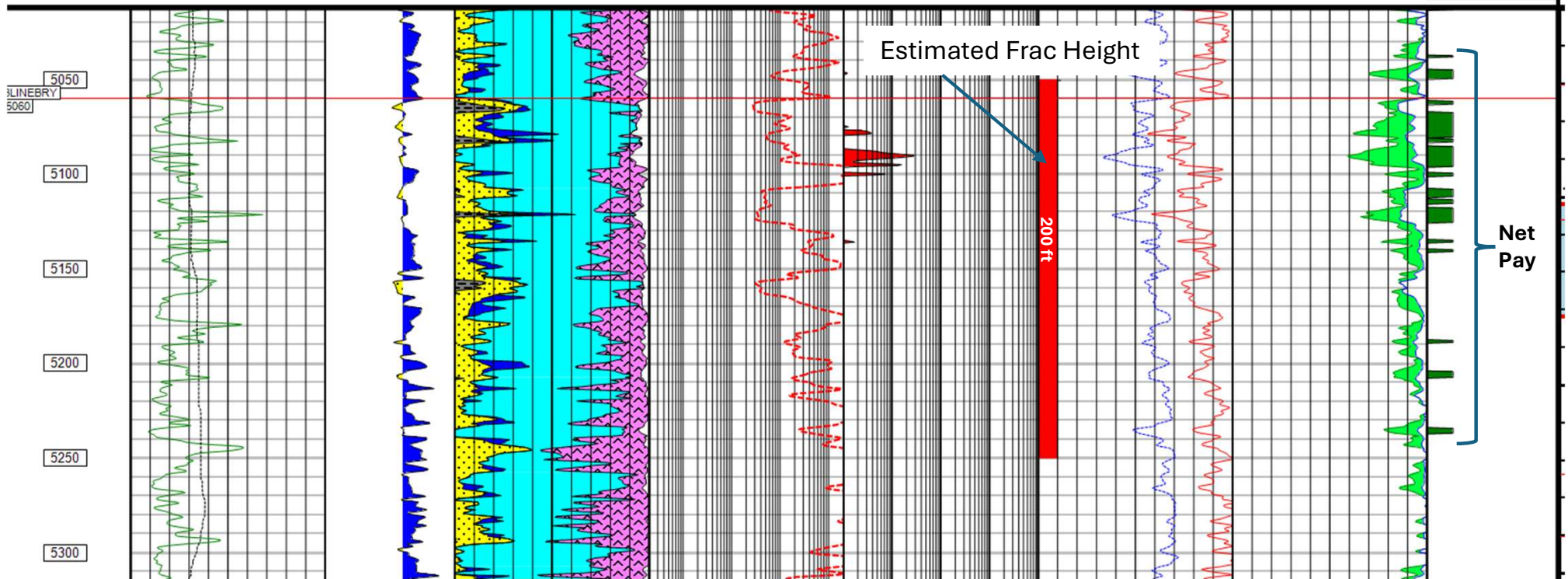
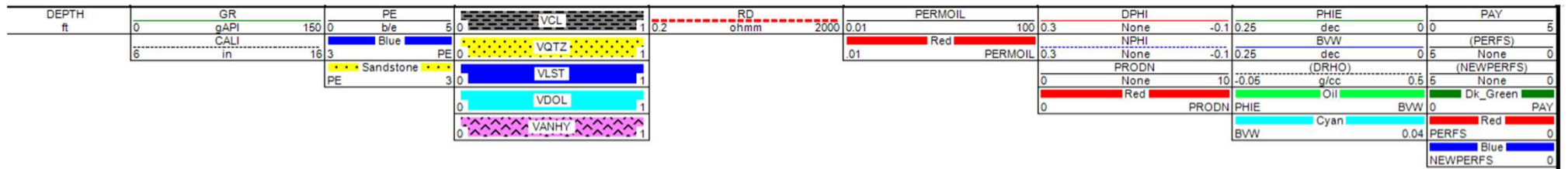
Blinebry Cross Section Example (Log Analyses are below)



Additional cross sections made from North to South. Each can be provided as needed.

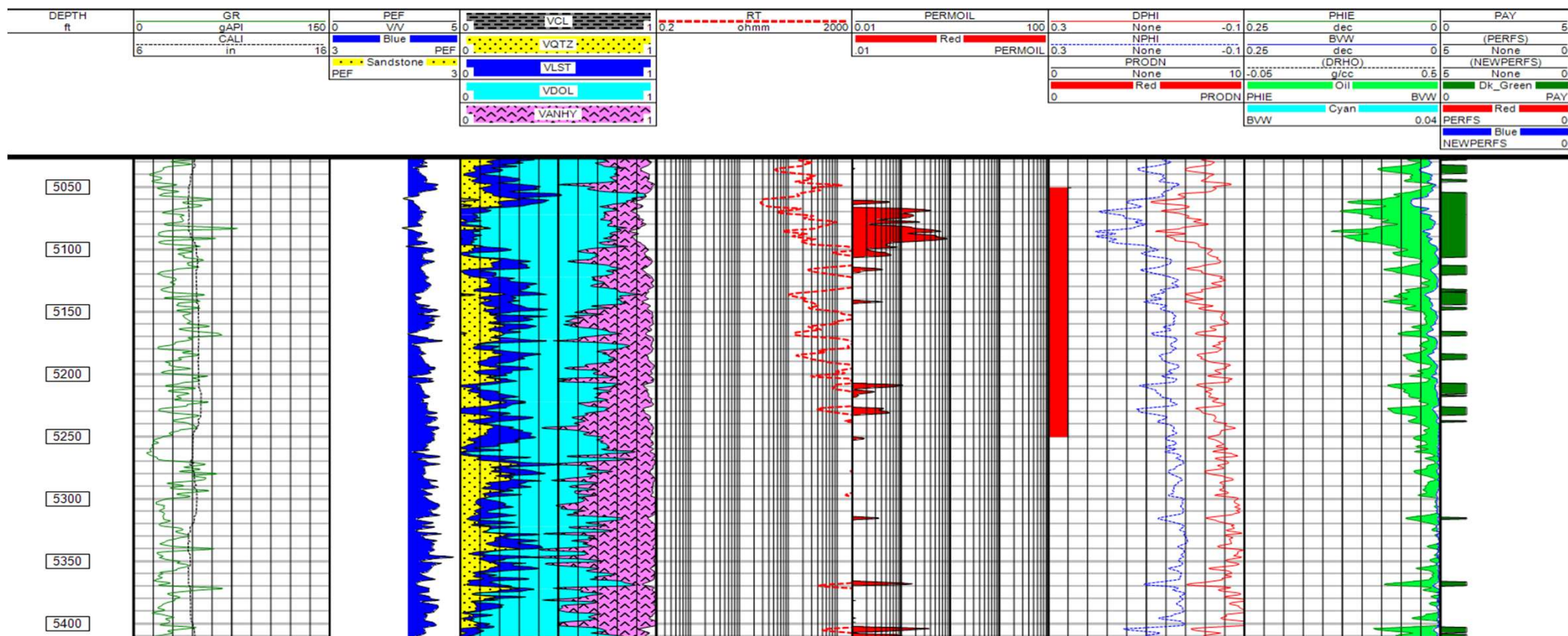
3002532354 SOUTH JUSTIS UNIT 210H

Below is 1/6 logs in this section. This is the petrophysical answer log and the methodology used here is the same for all logs analyzed. The picture below is annotated, and the same annotation applies to the other five examples shown in this section.



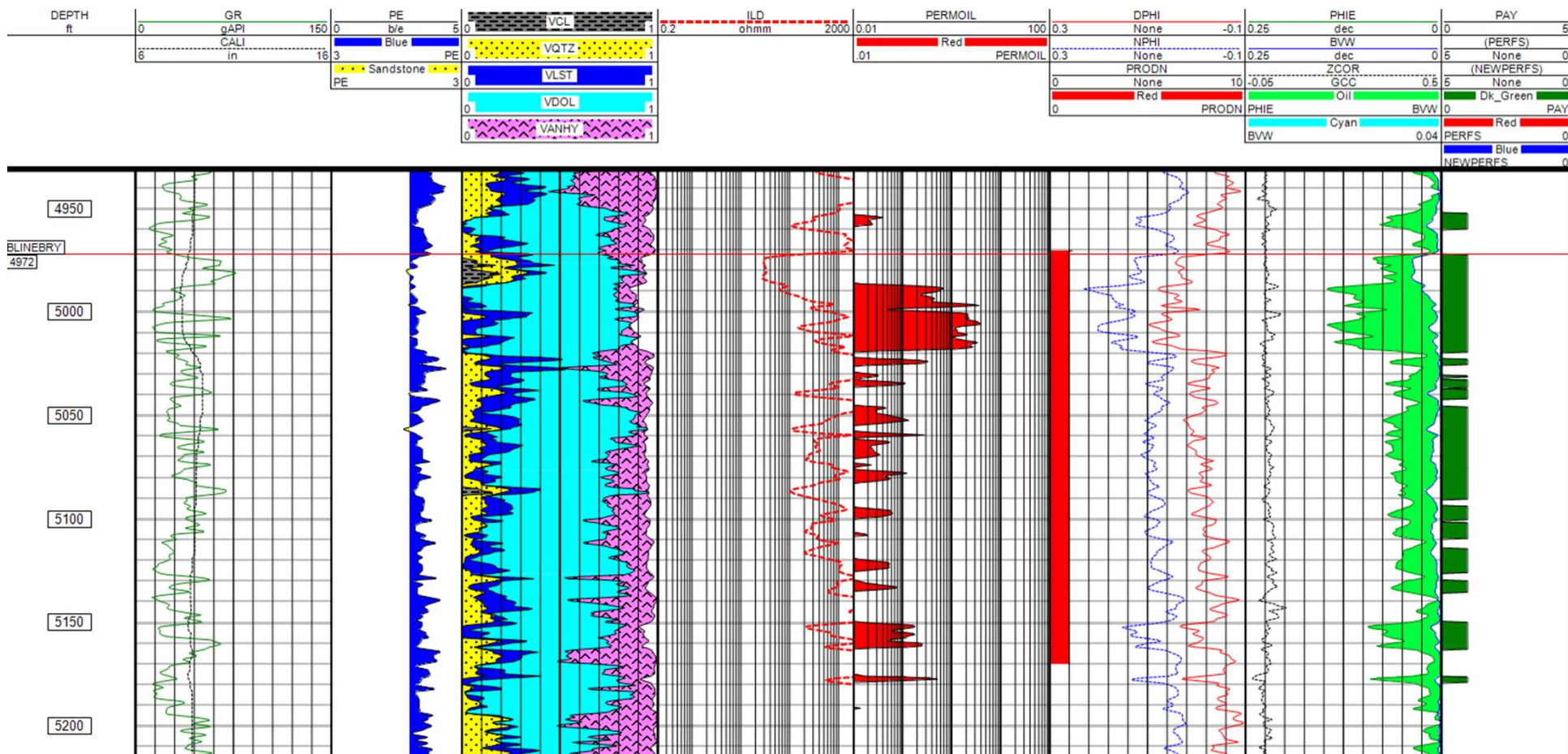
API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002532354	SOUTH JUSTIS UNIT	210H	5061	5236.5	56.5	0.06	0.3	14,657	5,000	151.5	2,220,823	333,123	111,041	222,082	24	200

3002531961 SOUTH JUSTIS UNIT 210D



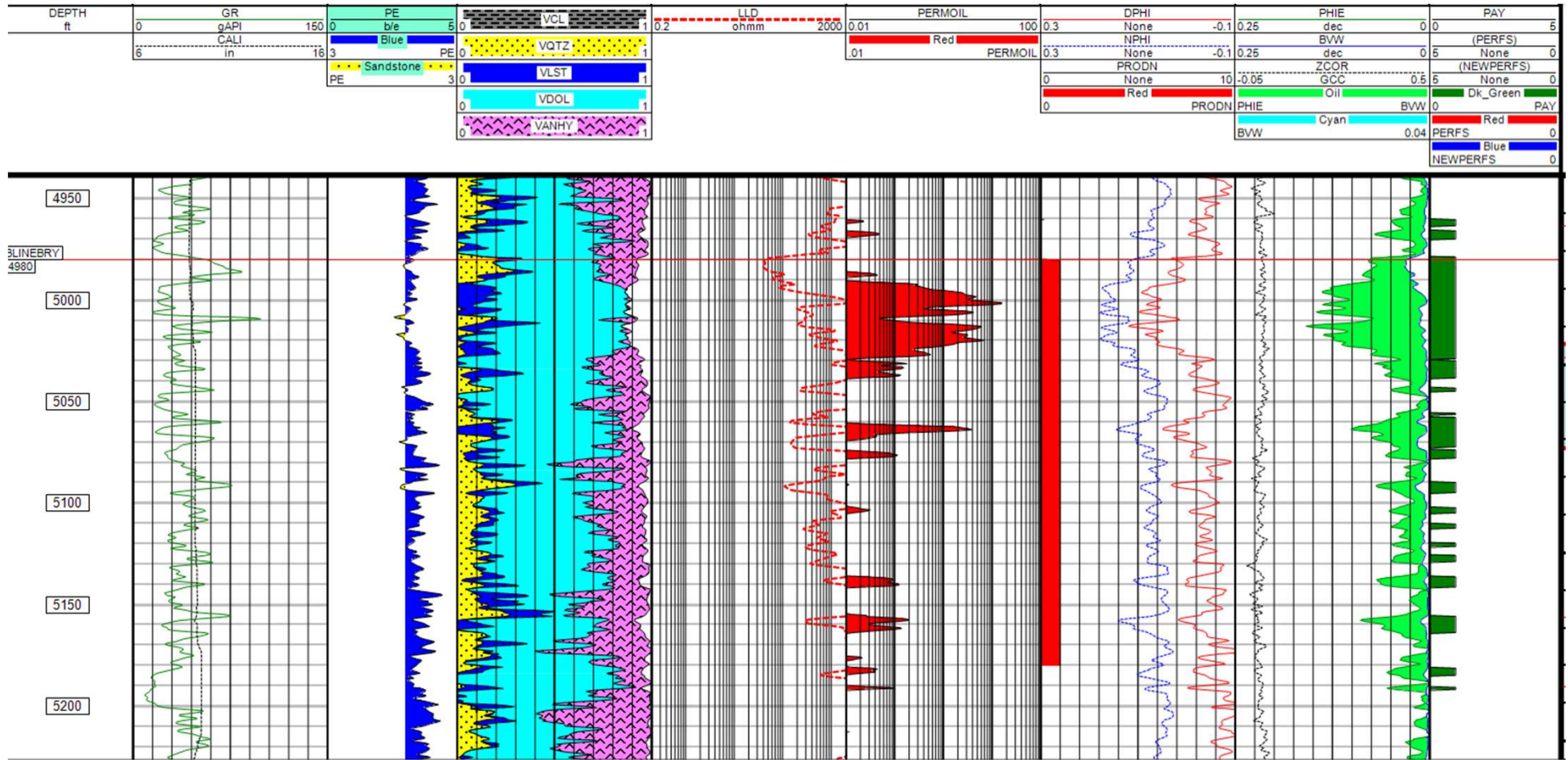
API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002531961	SOUTH JUSTIS UNIT	210D	5054	5237.5	98.5	0.068	0.193	33,387	5,000	151.5	5,058,653	758,798	252,933	505,865	101	455

3002531862 SOUTH JUSTIS UNIT 222E



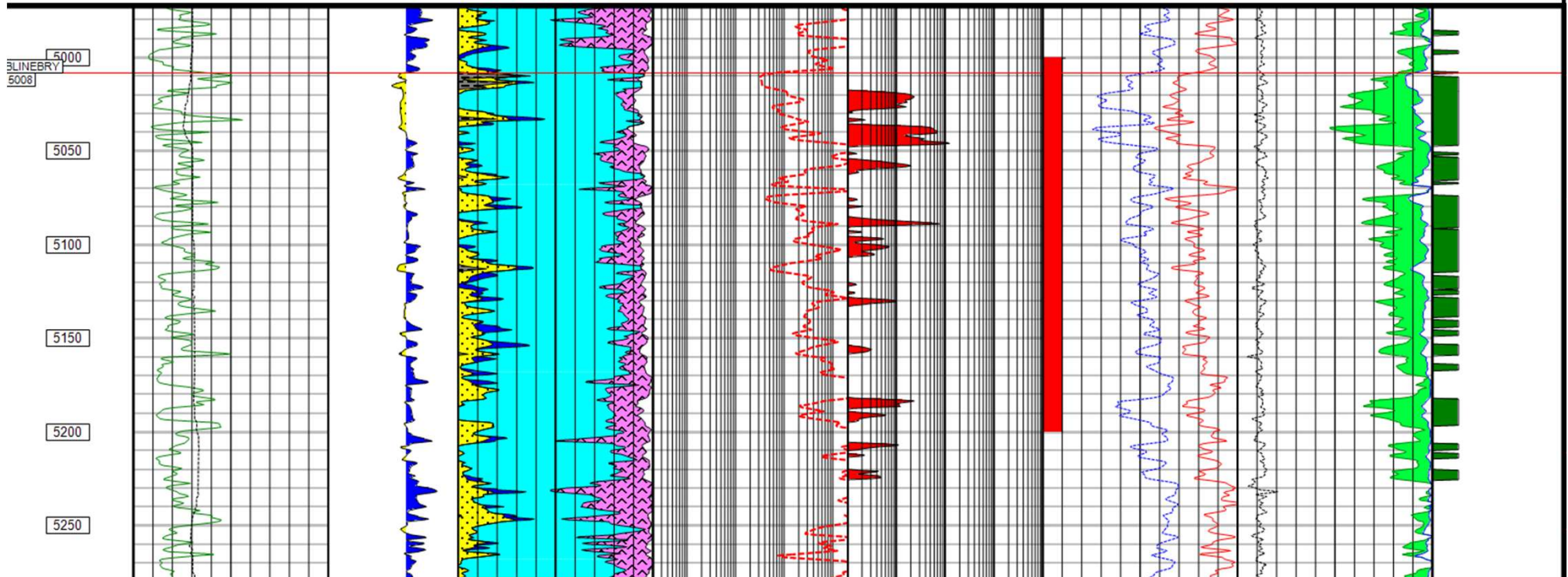
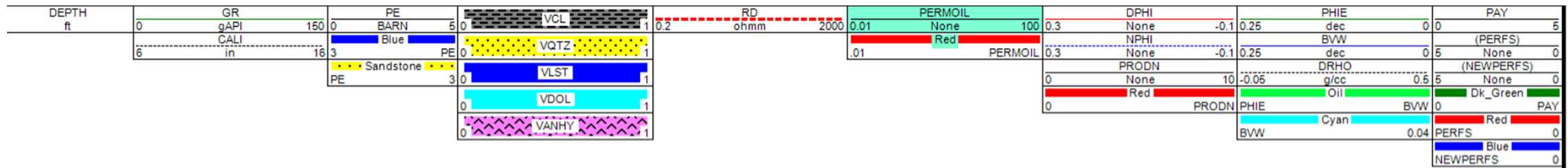
API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002531862	SOUTH JUSTIS UNIT	222E	4972	5162.5	152	0.07	0.17	54,548	5,000	151.5	8,264,868	1,239,730	413,243	826,487	165	744

3002531937 SOUTH JUSTIS UNIT 210F



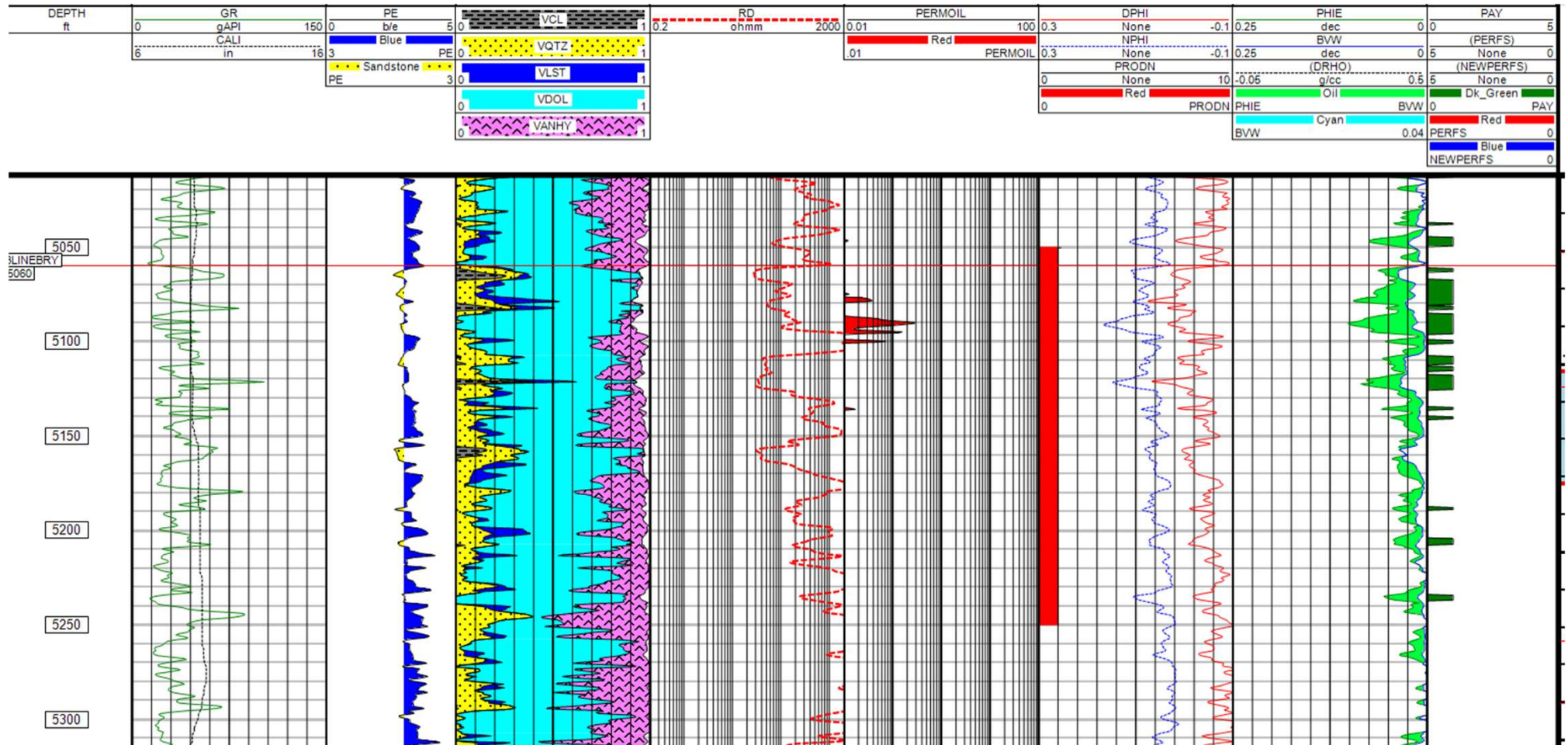
API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002531937	SOUTH JUSTIS UNIT	210F	4960	5160	116.5	0.076	0.142	46,923	5,000	151.5	7,109,565	1,066,435	355,478	710,956	142	640

3002531964 SOUTH JUSTIS UNIT 210G



API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002531964	SOUTH JUSTIS UNIT	210G	4980	5163.5	110.75	0.077	0.137	45,457	5,000	151.5	6,887,498	1,033,125	344,375	688,750	138	620

3002532354 SOUTH JUSTIS UNIT 210H



API	Well/Lease Name	No	Top Pay	Base Pay	H	PHI	Sw	BOIP/Acre	Lateral	Acres	BOIP/Lateral	15% RF EUR	5% cum RF	Recoverable	EUR/ft	IP
3002532354	SOUTH JUSTIS UNIT	210H	5061	5236.5	56.5	0.06	0.3	14,657	5,000	151.5	2,220,823	333,123	111,041	222,082	44	200

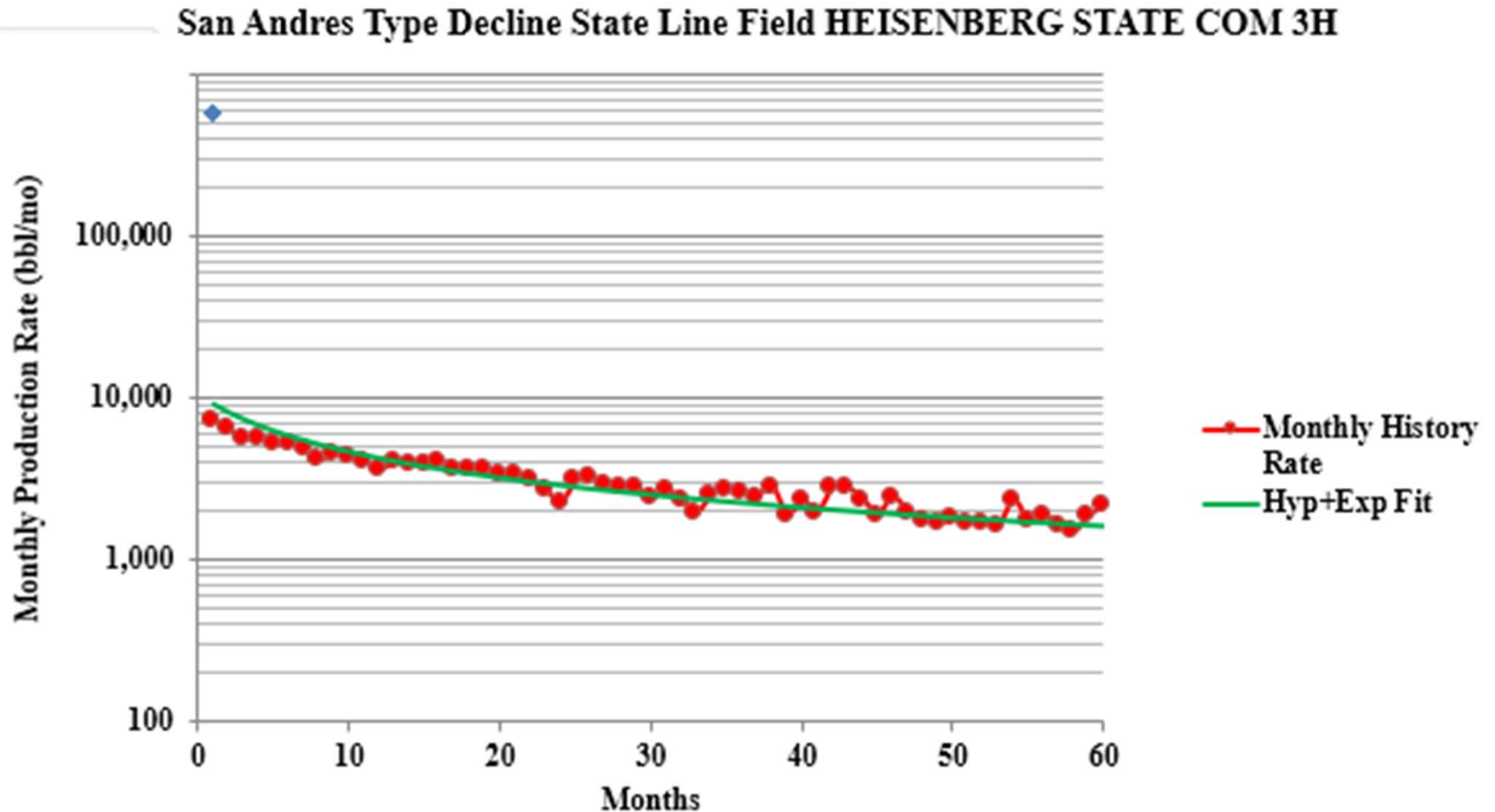
EON SJU Engineering

GENERATING THE TYPE WELL

Two methods were employed for type curve generation:

- Method 1 type decline for month-to-month degradation from actual San Andres data for the Steward/Virtus State line area (Heisenberg State Com 3H)
- Method 2 type decline for month-to-month degradation from assumed Blinbry reservoir typical properties in South Justis field utilizing a reservoir simulation model

Type Decline Method 1



Horizontal well with similar permeability and completion programs

Type Decline Method 2

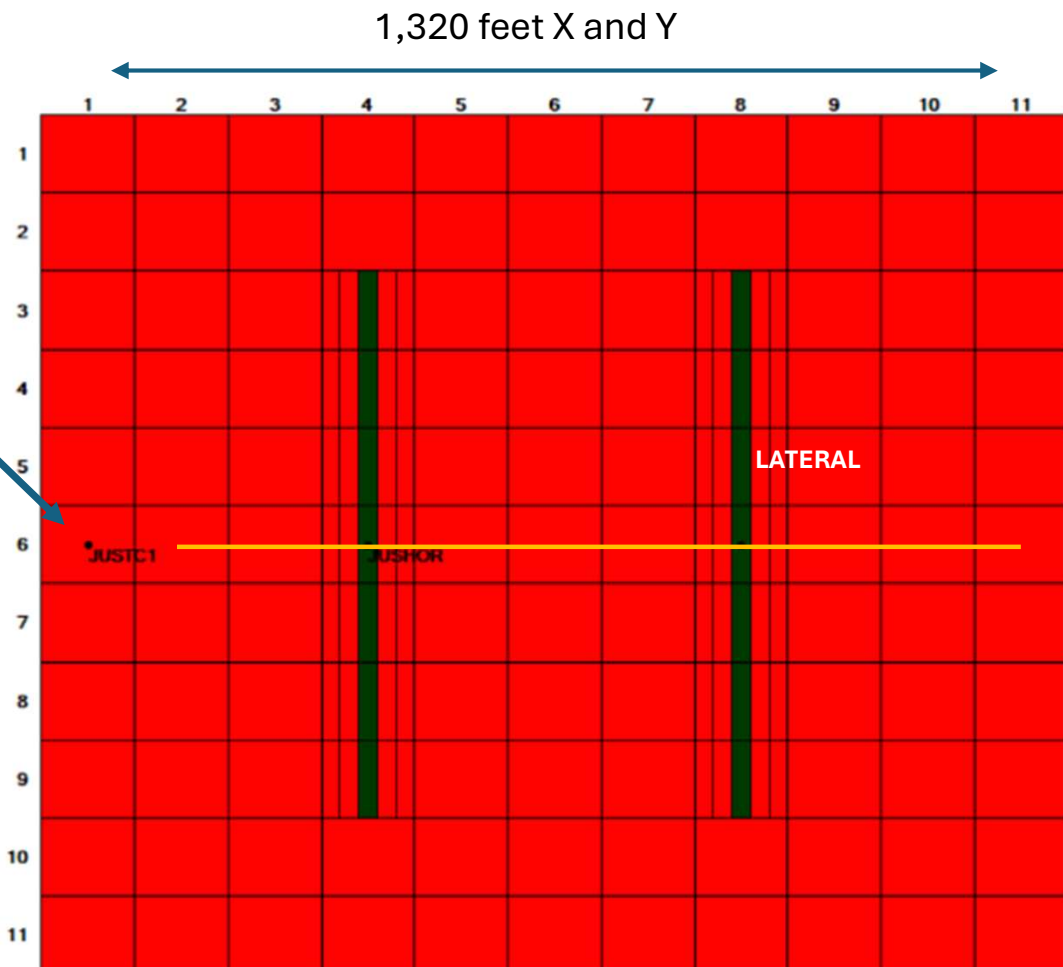
- With no analogous wells in the immediate area to use for the expected shape of the decline the San Andres example was a good first pass evaluation
- A second approach is to use South Justis reservoir properties to estimate a decline shape and expected volumes using a reservoir simulator
- With +/- 1 md perm and economic vertical wells on 20-to-40-acre spacings cluster spacing can be significantly wider than most horizontal matrix plays like the Bone Springs (0.46 md core or +/- 0.05 md oil perm)
- Two simulation runs were done with one stage per 40 acres (1,320 ft clusters) and two stages (660 ft) utilizing 0.5 mD matrix permeability
- The Steward State line project with slightly higher permeability developed a “best practice” of 160 ft cluster spacing with the sliding sleeve completions
- This is recommended in South Justis to increase the probability that most of the porosity “pods” are being accessed
- The estimates from the 660 and 1,320 ft cluster spacings should under promise and overdeliver

PLAN VIEW OF 40 ACRE TYPE CURVE MODEL

Two 40-acre type models were constructed for the SJU horizontal project. The purpose of this effort was to create a physics-based unit type curve to be used for the economic analysis. The picture below shows the one with two fracs. The original model had one frac in the center in column 6. The one below was used for the economic evaluation.

The Justis1 well was used to create the primary depletion conditions from which the lateral will start from in the future. This is a vertical well stimulated and produced from all vertical layers.

Since the lateral well is assumed to be cased then it can only produce where the frac intersects the well path so there is no flow into the lateral hole in areas away from the frac plane.

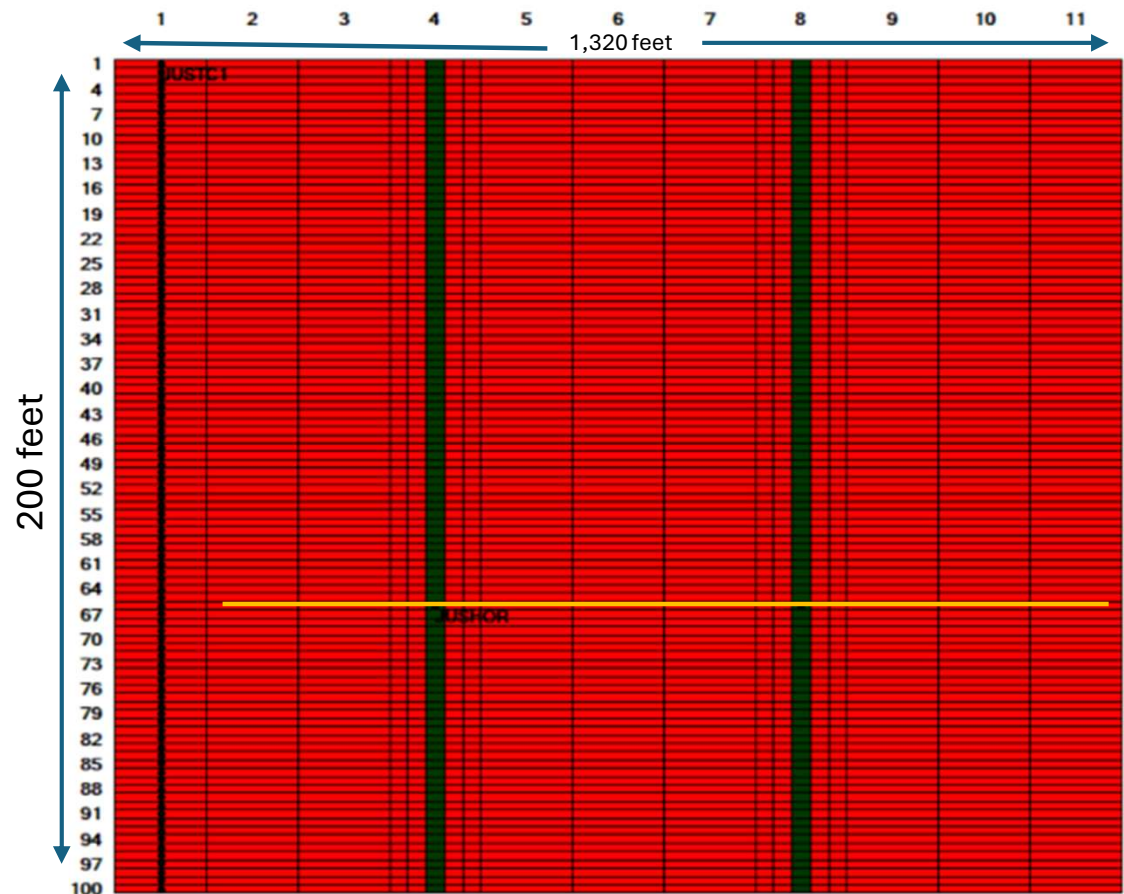


SIDE VIEW OF 40 ACRE TYPE CURVE MODEL

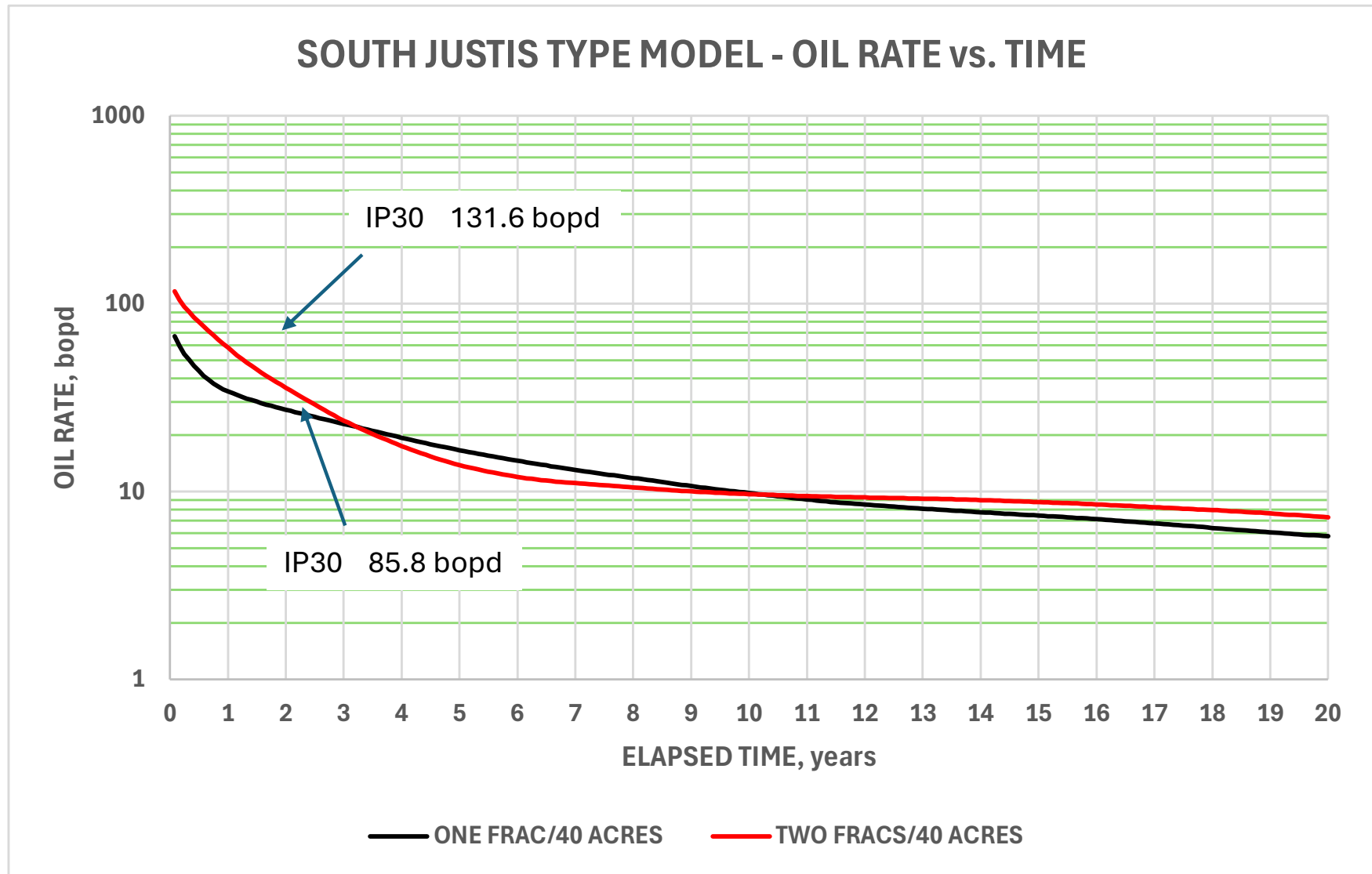
The picture below shows a side view through the model along the plane of the lateral traverse. The vertical depletion well is also in the central position and is completed in every layer and is located to the left in column 1. Each layer is two feet thick. The lateral path is the yellow line and is located 1/3 from the bottom. The lateral is connected to the fracs at that position and propagates upward 133 feet and downward 67 feet.

The matrix permeability is 0.5 mD (red). The relative permeability functions were derived from the Honapour correlation for limestone-dolomite water wet.

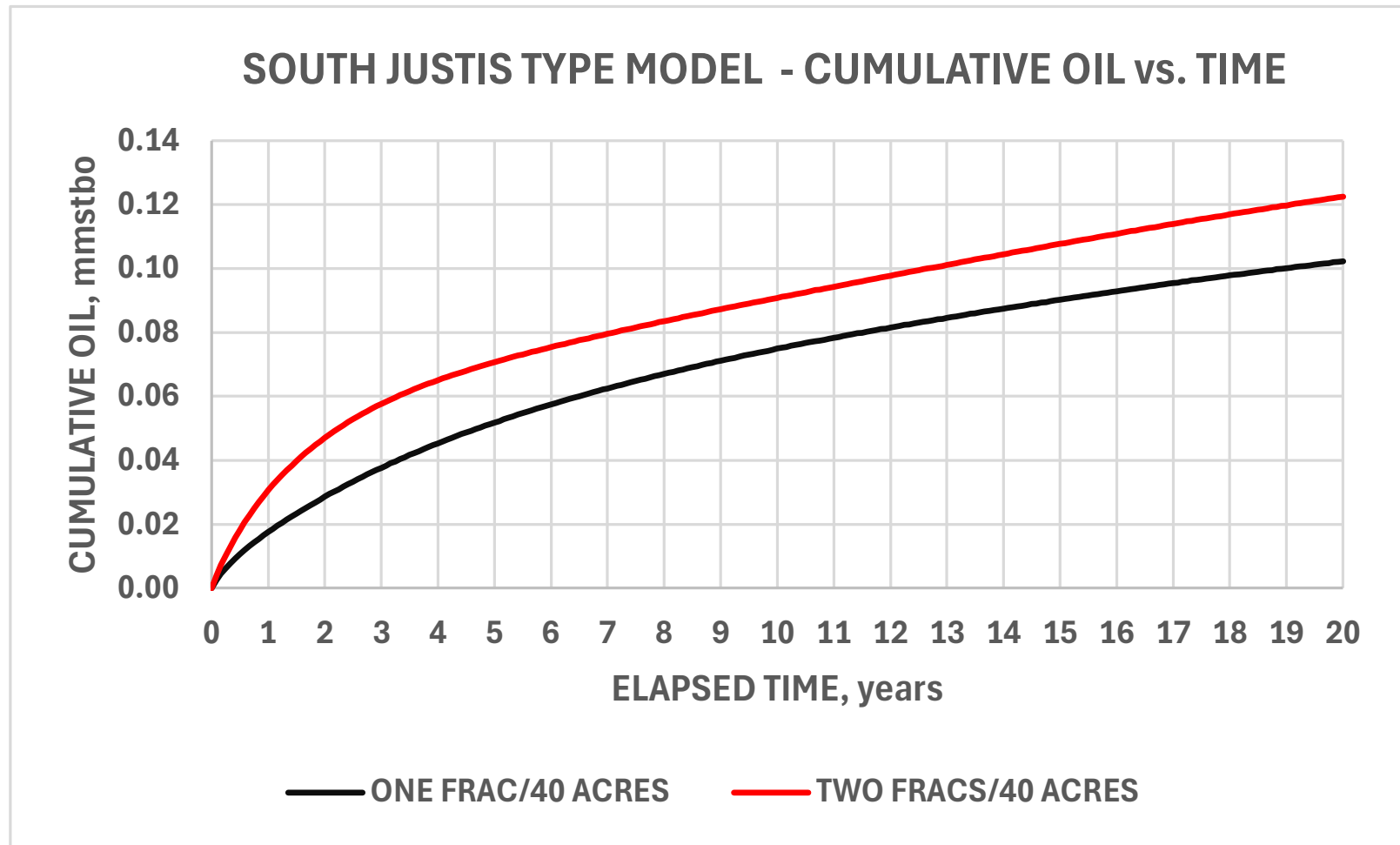
Since the model fracture is a discrete fracture the relative permeability in the fracture was assumed to be straight line functions with perfect fluid segregation. The Larson-Hirasaki correlation was used for this with exponent equal to 1.0.



Comparison Single vs Dual Fracs



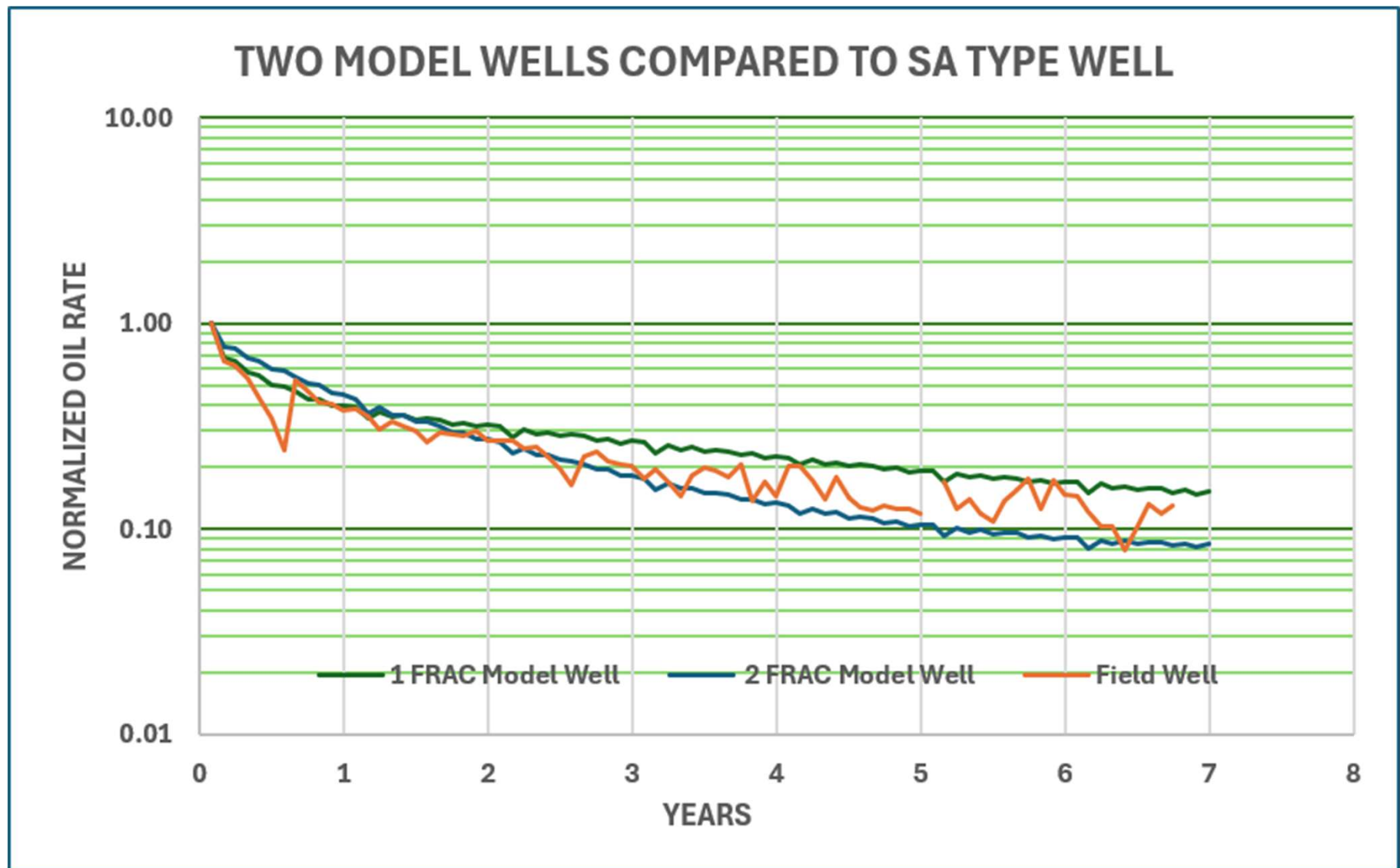
Comparison Single vs Dual Fracs



ONE FRAC/40 ACRES = 102,249 stbo

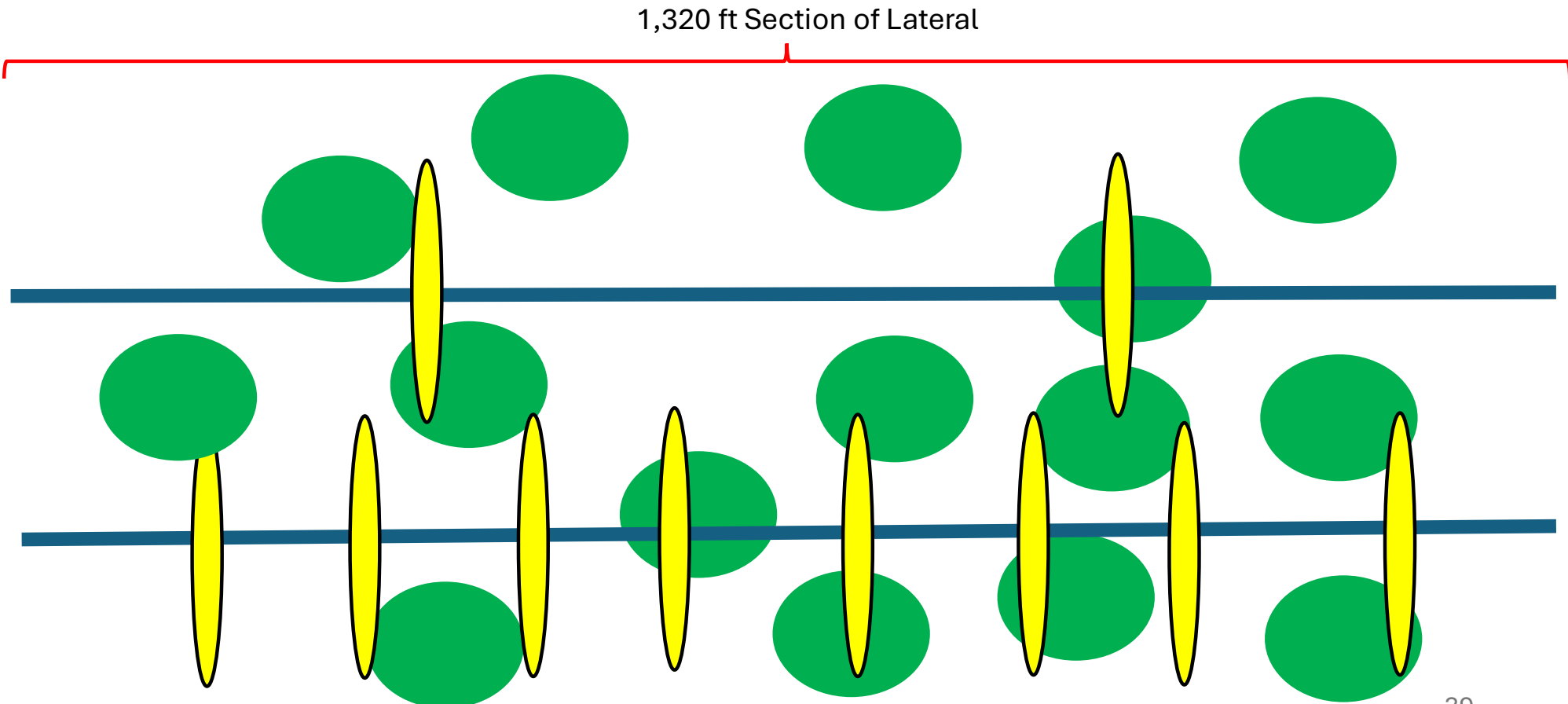
TWO FRACS/40 ACRES = 122,458 stbo

Below is a comparison of the two simulation cases compared to the original type well from the San Andres formation.



Why Close Cluster Spacings Are Needed in SJU

Much higher probability of contacting heterogeneous pods with high frac density. Possibly up to 8 frac clusters per 1,320 ft section (40-acre area). Rock permeability at this level, +/- 1 mD, ideally only needs 1 to 2 clusters to drain 1,320 ft in reservoir if poro/perm is homogeneous. The degree of heterogeneity dictates the frac density.



EON SJU Economics

Economic Analysis

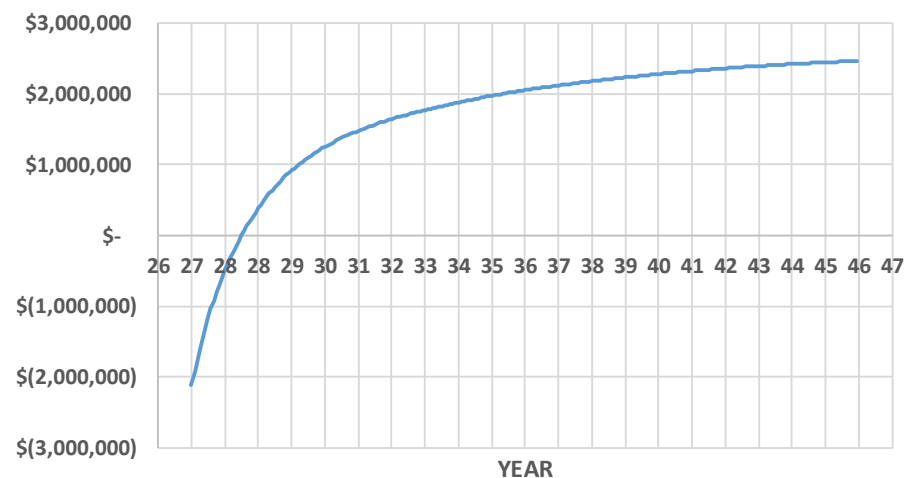
- 1,320 spacing proposed for 660 ft drainage radius, 200 ft vertical interval
- AFE formula \$1.5MM plus \$400 per lateral foot, \$3.5MM for 5,000 ft lateral in line with Virtus Loco Hills wells similar completion program proposed for South Justis
- Method 1 type decline for month-to-month degradation from San Andres data (Steward State line area the Heisenberg State Com 3H), which has similar reservoir properties to SJU, and plan to perform identical completions @ SJU
- Method 2 type decline for month-to-month degradation from assumed Blinbry reservoir properties in South Justis Field

ECONOMIC COMPARISON OF TWO EXTERME CASES

2x40 ACRE BLOCKS vs. 10x40 ACRE BLOCKS

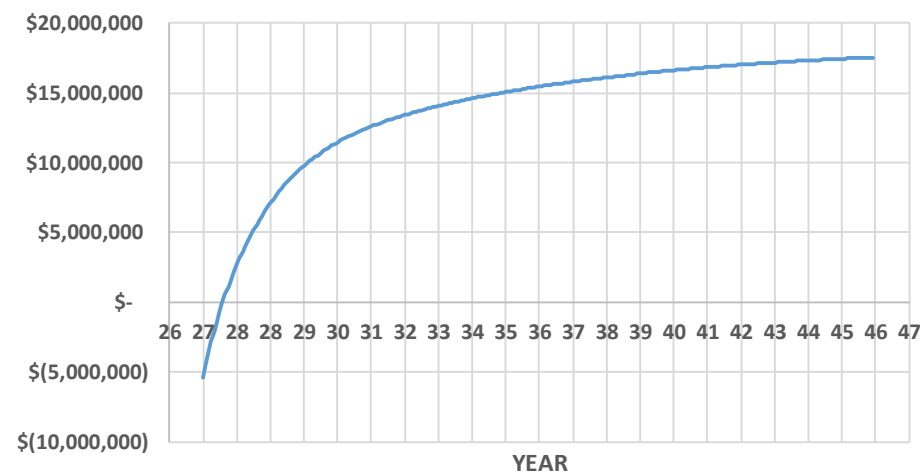
INPUT DATA	HORIZONTAL WELL TYPE 2 - 4 FRACS		LL= 2140'
			IP (1st month)= 263 BOPD
Fcst. Start Date	Jan-27		
NRI	82.0%		PEAK Oil BOPM 8,162
Wint	94.2%		EUR Oil BO 244,916
Disc Rate/IRR	10.0%		EUR Gas MCF 788,344
LOE 2026 Avg. Budget	\$ 4.59	\$/boe	Total Cash Flow undisc \$ 5,032,089
LOE Escalation	0.0%		2 Year NPV Cash Flow \$ 324,032
Oil severance	8.00%		
Gas severance	9.00%		10 Year NPV Cash Flow \$ 2,029,197
Ad Valorem	0.08%		
Oil Price (\$/bbl)	64.25		20 Year NPV Cash Flow \$ 2,445,140
Gas Price (\$.Mcf)	3.79		
GOR (scf/stb)			IRR % 54.00
Oil Eco Limit (bopm)	30		ROI % 113.6
Other Deducts			PAYOUT (yrs.) 1.58
Initial Gross CAPEX	\$ 2,356,000		

South Justis Cumulative Discounted Cash Flow

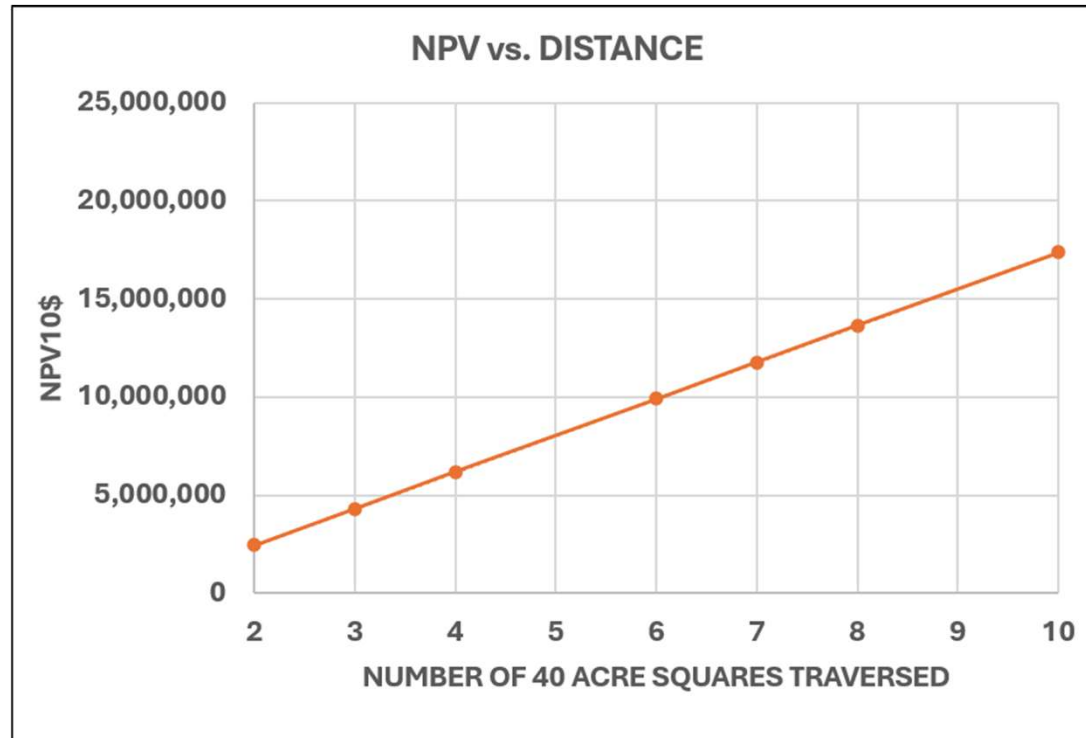


INPUT DATA	HORIZONTAL WELL TYPE 10 - 20 FRACS		LL= 13,240'
			IP (1st month)= 1316 BOPD
Fcst. Start Date	Jan-27		
NRI	82.0%		PEAK Oil BOPM 40,810
Wint	94.2%		EUR Oil BO 1,224,580
Disc Rate/IRR	10.0%		EUR Gas MCF 3,941,722
LOE 2026 Avg. Budget	\$ 4.59	\$/boe	Total Cash Flow undisc \$ 30,360,445
LOE Escalation	0.0%		2 Year NPV Cash Flow \$ 6,777,187
Oil severance	8.00%		
Gas severance	9.00%		10 Year NPV Cash Flow \$ 15,303,009
Ad Valorem	0.08%		
Oil Price (\$/bbl)	64.25		20 Year NPV Cash Flow \$ 17,382,723
Gas Price (\$.Mcf)	3.79		
GOR (scf/stb)			IRR % 149.00
Oil Eco Limit (bopm)	30		ROI % 361.4
Other Deducts			PAYOUT (yrs.) 0.67
Initial Gross CAPEX	\$ 6,580,000		

South Justis Cumulative Discounted Cash Flow



NPV10 vs Distance for TWO FRACS/Block



NUMBER OF Wells	40 AC	IP 30 bopd	NEW OPEX \$4.59/BOE	AFE \$
1	2	263	2,445,140	2,356,000
1	3	395	4,312,338	2,884,000
1	4	526	6,179,535	3,412,000
9	6	790	9,913,931	4,468,000
3	7	921	11,781,129	4,996,000
5	8	1,053	13,648,327	5,524,000
1	10	1,316	17,382,723	6,580,000
21				

Proposed Laterals With In-House Model Results

LAT NO.	#40 ac. BLOCKS	FT PER BLOCK	LENGTH feet	STANDOFF	NET LATERAL feet	EUR/ft stbo	EUR TOTAL stbo	MODEL1 EUR 1/40 ACRES	MODEL2 EUR 2/40 ACRES	WELL IP's 30 day	MOD1 IP's 30 day avg	MOD2 IP's	AFE \$	\$/Foot	NPV0 \$	NPV10 \$	IRR %	ROI %
A1	2	1,320	2,640	500	2,140	107	228,980	204,498	244,916	191	138	263	2,356,000	1,101	5,032,089	2,445,140	54.0	113.6
A2	8	1,320	10,560	500	10,060	107	1,076,420	817,992	979,664	898	552	1,053	5,524,000	549	24,028,356	13,648,327	137.7	335.0
A3	8	1,320	10,560	500	10,060	107	1,076,420	817,992	979,664	898	552	1,053	5,524,000	549	24,028,356	13,648,327	137.7	335.0
A4	8	1,320	10,560	500	10,060	107	1,076,420	817,992	979,664	898	552	1,053	5,524,000	549	24,028,356	13,648,327	137.7	335.0
A5	8	1,320	10,560	500	10,060	107	1,076,420	817,992	979,664	898	552	1,053	5,524,000	549	24,028,356	13,648,327	137.7	335.0
A6	8	1,320	10,560	500	10,060	107	1,076,420	817,992	979,664	898	552	1,053	5,524,000	549	24,028,356	13,648,327	137.7	335.0
A7	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
A8	4	1,320	5,280	500	4,780	107	511,460	408,996	489,832	427	276	526	3,412,000	714	11,364,178	6,179,535	96.8	233.1
B2	3	1,320	3,960	500	3,460	107	370,220	306,747	367,374	309	207	395	2,884,000	834	8,198,133	4,312,338	78.6	184.3
B3	7	1,320	9,240	500	8,740	107	935,180	715,743	857,206	780	483	921	4,996,000	572	20,862,311	11,781,129	130.4	317.6
B4	10	1,320	13,200	500	12,700	107	1,358,980	1,022,490	1,224,580	1,134	690	1,316	6,580,000	518	30,360,445	17,382,723	149.0	361.4
B5	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
B6	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
B7	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
B8	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
B9	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
C5	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
C6	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
C7	7	1,320	9,240	500	8,740	107	935,180	715,743	857,206	780	483	921	4,996,000	572	20,862,311	11,781,129	130.4	317.6
C8	7	1,320	9,240	500	8,740	107	935,180	715,743	857,206	780	483	921	4,996,000	572	20,862,311	11,781,129	130.4	317.6
C9	6	1,320	7,920	500	7,420	107	793,940	613,494	734,748	662	414	790	4,468,000	602	17,696,267	9,913,931	121.6	296.1
							17,802,740	13,701,366	16,409,372	14,849	9,246	17,634	98,052,000		396,949,961	223,130,137		
								102,249	122,458		69	132			18,902,379	10,625,245	121.5	304.8
								MODEUR	MOD2EUR		MOD IP	MOD2 IP			AVERAGES			
								PER 40 ACRES			PER 40 ACRES							

8,423 ft average length (2,640 to 13,200 ft lengths)

Total AFE \$98,052,000, Average AFE \$4,669,143

Average NPV0= \$18,902,379 / NPV10= 10,625,245 / IRR= 122.5% / ROI= 304.8%