

Team Exxon

November 3rd, 2021

Dr. Paul M. Bommer, Ph.D.
Distinguished Senior Lecturer
Department of Petroleum and
Geosystems Engineering
The University of Texas at Austin
2601 Speedway
Austin, TX 78712

Re: Gates7H, Blakeway, Martin, and Gates3H Wells Reserve Report.

Dear Dr. Bommer:

We have prepared an estimate of PDP (Provided developed producing) oil and gas reserves for Gates7H, Blakeway, Martin, and Gates3H wells in Dimmit, Texas. Our study is effective as of November 1, 2021:

Lease	Oil	Gas	Net Rev	Net Rev Disc 15%/yr
	MBbls	MMscf	M\$	M\$
Gates7H	0	135	461.18	392.05
Blakeway	7.59	14.42	469.60	389.06
Martin	5.33	63.39	489.75	401.49
Gates3H	16.07	219.94	1884.61	1687.00
Total	28.99	432.74	3305.15	2869.60

We can speculate that the oil will be recovered in 5 years. The estimates show the amount of oil to be recovered in thousands of barrels and millions of standard cubic feet for gas. The net revenue estimates on the summary are shown in thousands of U.S. dollars. The economic summary projection is shown in Table 1. The details of our economic projects for each of the leases are shown in Appendix A. The team members responsible for each part of the evaluation are listed in Appendix B.

Date : 11/05/2021 7:18:23PM
Partner : All Cases

ECONOMIC SUMMARY PROJECTION

Total

wtf
Custom Selection
Discount Rate : 15.00
As of : 11/01/2021

Est. Cum Oil (Mbbbl) : 851.85
Est. Cum Gas (MMcf) : 6,309.08
Est. Cum Water (Mbbbl) : 0.00

Year	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invest. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)
2021	2.95	63.27	2.22	47.46	81.17	5.62	446.73	0.00	51.88	39.51	0.00	355.34	351.20
2022	15.51	339.37	11.63	254.53	80.23	5.39	2,303.89	0.00	281.90	203.60	0.00	1,818.39	2,016.40
2023	12.62	80.69	9.46	60.52	74.04	3.95	939.80	0.00	166.27	73.78	0.00	699.75	2,573.64
2024	7.21	63.73	5.41	47.80	68.80	3.12	520.91	0.00	105.90	41.38	0.00	373.62	2,834.64
2025	0.35	22.44	0.26	16.83	66.96	2.87	65.94	0.00	13.22	6.10	0.00	46.62	2,863.46
2026	0.00	7.49	0.00	5.62	0.00	2.89	16.23	0.00	3.18	1.63	0.00	11.43	2,869.60

Rem.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.7	38.64	576.99	28.98	432.74	76.03	4,293.49	0.00	622.35	365.99	0.00	3,305.15	2,869.60
Ult.		890.49	6,886.06										

Eco. Indicators

Return on Investment (disc) : 0.000
Return on Investment (undisc) : 0.000
Years to Payout : 0.00
Internal Rate of Return (%) : 0.00

Present Worth Profile (M\$)

PW 5.00% :	3,141.31	PW 20.00% :	2,755.72
PW 8.00% :	3,052.73	PW 30.00% :	2,561.22
PW 10.00% :	2,997.24	PW 40.00% :	2,401.16
PW 12.00% :	2,944.38	PW 50.00% :	2,267.07
PW 15.00% :	2,869.60	PW 60.00% :	2,153.00

Table 1 Summary Economics for all leases.

Reserve Estimates

The amounts of oil and gas that we estimate that can be recovered from existing completions under specific economic scenarios are known as proved developed producing (PDP) reserves. Extrapolating the producing trends and a statistical examination of area wells were used to calculate reserve estimates.

We estimate that these reserves will be obtained in approximately six years. The units given in the report for oil and gas are thousands of barrels (Mbbbl) and millions of standard cubic feet of gas (MMscf). The declining pattern established by leases has been used to estimate future oil and gas reserves. The net revenue estimates are given in thousands of dollars (M\$).

Based on all of the decline curves, they start around the same time of mid 2010's and go into the 2020s. Around the 2012-2013 years, all wells experienced a skyrocket in gas production, most likely from the shale boom back in the early 2010s. We then see a steady, exponential decline up until late 2019/early 2020 where there is a slight upshot of oil and gas production only to go back down in mid-2020 around the time of COVID-19. Finally, we see in early 2021 production starts to pick up again but then starts to go down at a sharp, linear rate as 2021 closes. The details of our economic summaries for each of the leases are shown in Appendix A.

Reserve Probability

Along with our 4 leases, we also included 6 other wells that are nearby into the reserve probability report. Figures 2 and 3 below show the reserve cumulative probability for oil and gas. The lack of data to compare the four wells to could increase the uncertainty of the plot, however the majority of points are close which increases the legitimacy. According to figure 1, the mean ultimate oil recovery amongst the wells falls within 48% of recovering our estimated reserve or more. Looking at figure 2, our mean ultimate gas recovery falls within 49% of recovering our estimated reserve or more.

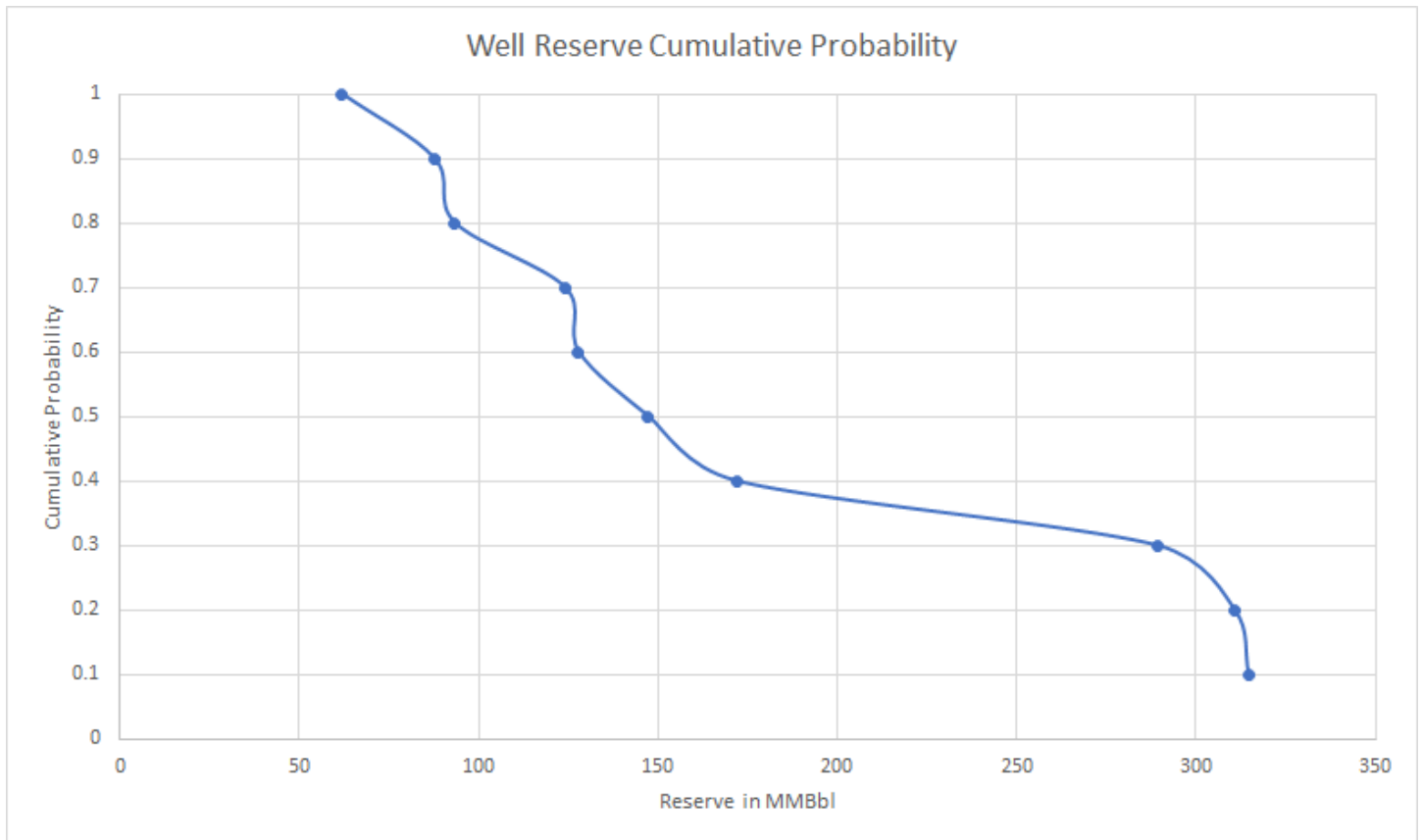


Figure 2: Well reserve cumulative probability curve for oil

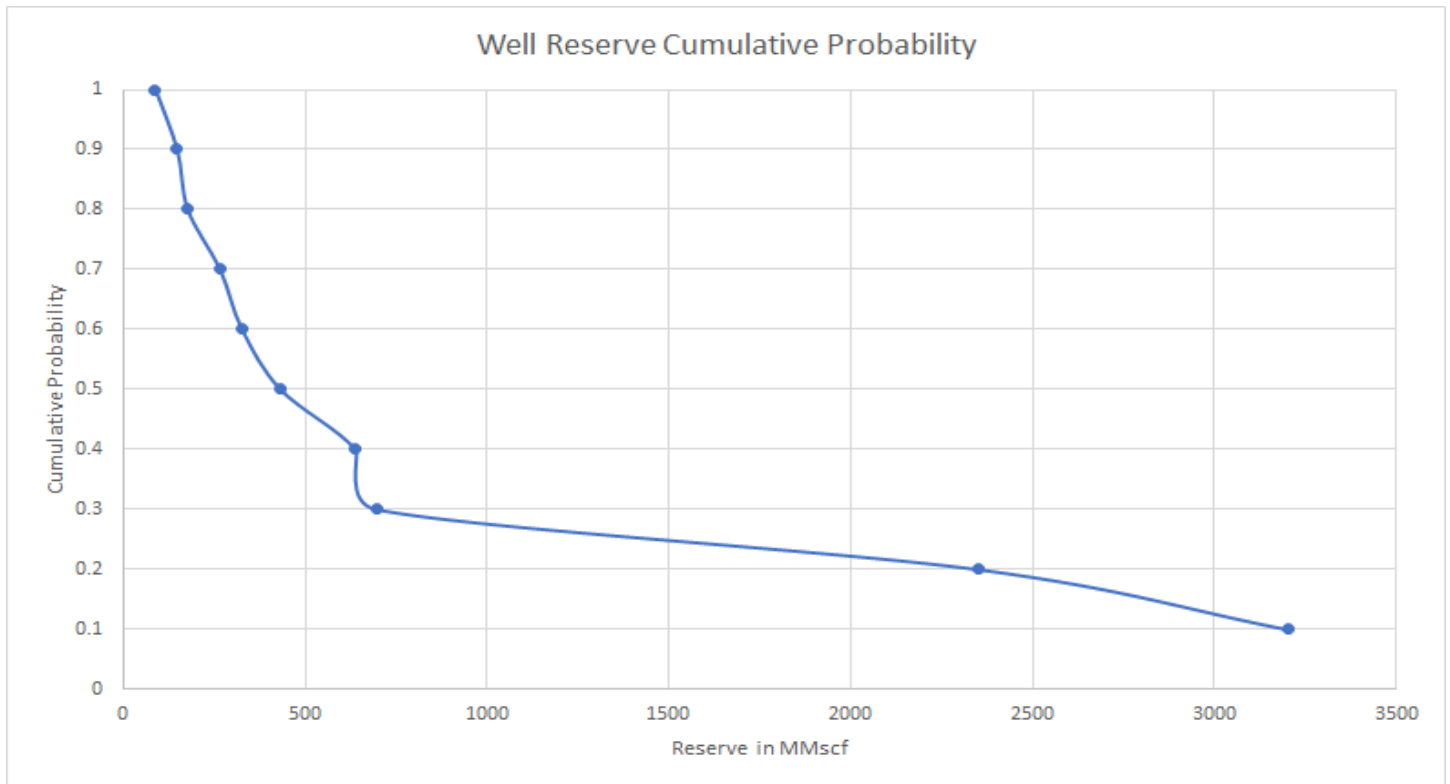


Figure 3: Well reserve cumulative probability for gas

Oil and Gas Prices, Operations, Costs, and Inflation

The oil and gas prices in this report are the current New York Mercantile Exchange future prices for the oil and gas sold at the Henry Hub. The prices are shown in the table below. It is important to note that these prices were averaged to yearly prices of oil and gas (CME Group, 2021).

Year	WTI	Henry Hub
	\$/STBO	\$/MScf
2021	81.17	5.623
2022	74.97	4.088
2023	68.97	3.162
2024	66.96	2.867
2025	61.93	2.89
2026	60.25	2.88
2027	58.75	2.868
2028	58.55	2.983
2029	58.63	2.971

Table 2: CME Group Crude oil future quotes/ CME Group Henry Hub Natural Gas

Table 2 represents a 2% per year decline rate in the oil price over the next 10 years. The gas decline rate is about .3% per year. The operating costs are expected to inflate about 4.43%/yr for gas, while the inflation rate for oil is expected to be 4.63%. (Official Data Foundation, 2013)

HENRY HUB NATURAL GAS FUTURES - QUOTES

VENUE: **GLOBEX**

AUTO-REFRESH IS OFF Last Updated 05 Nov 2021 08:48:31 PM CT. Market data is delayed by at least 10 minutes.

MONTH	OPTIONS	CHART	LAST	CHANGE	PRIOR SETTLE	OPEN	HIGH	LOW	VOLUME	UPDATED
DEC 2021 NGZ1	OPT		5.623	-0.093 (-1.63%)	5.716	5.670	5.760	5.501	122,611	16:38:18 CT 05 Nov 2021
JAN 2022 NGF2	OPT		5.730	-0.096 (-1.65%)	5.826	5.779	5.866	5.609	47,658	16:37:38 CT 05 Nov 2021
FEB 2022 NGG2	OPT		5.606	-0.086 (-1.51%)	5.692	5.663	5.729	5.478	29,498	16:38:27 CT 05 Nov 2021
MAR 2022 NGH2	OPT		5.280	-0.069 (-1.29%)	5.349	5.306	5.370	5.143	30,431	16:37:28 CT 05 Nov 2021
APR 2022 NGJ2	OPT		4.140	+0.003 (+0.07%)	4.137	4.126	4.158	4.078	30,501	16:37:38 CT 05 Nov 2021
MAY 2022 NGK2	OPT		4.022	+0.008 (+0.20%)	4.014	3.999	4.037	3.967	16,647	16:38:26 CT 05 Nov 2021

Figure 4: Henry Hub Natural Gas Futures - Quotes

CRUDE OIL FUTURES - QUOTES

VENUE: **GLOBEX**

AUTO-REFRESH IS OFF Last Updated 05 Nov 2021 08:58:05 PM CT. Market data is delayed by at least 10 minutes.

MONTH	OPTIONS	CHART	LAST	CHANGE	PRIOR SETTLE	OPEN	HIGH	LOW	VOLUME	UPDATED
DEC 2021 CLZ1	OPT		81.17	+2.36 (+2.99%)	78.81	79.37	81.80	78.96	495,564	16:38:17 CT 05 Nov 2021
JAN 2022 CLF2	OPT		79.98	+2.28 (+2.93%)	77.70	78.32	80.51	77.78	167,008	16:37:36 CT 05 Nov 2021
FEB 2022 CLG2	OPT		78.84	+2.27 (+2.96%)	76.57	77.08	79.30	76.57	76,697	16:38:02 CT 05 Nov 2021
MAR 2022 CLH2	OPT		77.63	+2.16 (+2.86%)	75.47	75.91	78.11	75.37	58,884	16:38:42 CT 05 Nov 2021
APR 2022 CLJ2	OPT		76.55	+2.06 (+2.77%)	74.49	74.83	77.10	74.37	44,408	16:38:57 CT 05 Nov 2021
MAY 2022 CLK2	OPT		76.02	+2.33 (+3.16%)	73.69	74.08	76.20	73.54	35,372	16:37:56 CT 05 Nov 2021

Figure 5: Crude Oil Futures - Quotes

On top of the costs, many assumptions were put into the model for the economic summary such as a constant \$10/bbl , \$0.35/Mcf operation cost, and a \$1.25/bbl salt water disposal cost. In terms of taxes, we followed the Texas state tax and local taxes automatically inputted into PHDWin which was a state tax of 7.50% for gas, 4.60% for oil and a 2.50% combined local tax.

Performance of a New Well

In addition to the prior tasks, you have also asked us the performance of a new well within the area of our current leases. To do this, we ran an End of Production (EOP) Area Type Curve where we were able to get a normalized plot of both oil and gas production (refer to appendix). From this curve, we attained an initial production of 8500 bbl/month, decline rate of 50.171 %/year, and a hyperbolic factor of 0.45. The initial investment was assumed to be \$6 million while everything else such as the price of oil and gas, expenses, and inflation were kept the same. We also assumed the new well would be drilled in November 2022 (next year). The new well alone performed with a payout time of 4.37 years which is not the best for a horizontal well. Our discounted return on investment (15%) and undiscounted return on investment were \$1.05/\$1.00 and \$1.389/\$1.00 respectively. Also, we have determined the break even oil and gas price for this investment where the costs and expenses including taxes are just paid back to be \$60.09/BOE (barrel of oil equivalent). Our Internal rate of return was 15.35%. On the other hand, when combined with our other 4 leases, our new oil well performed better with a payout time of 2.03 years. The combined report also yielded a \$1.55/\$1.00 return on investment discounted at 15%, \$1.94/\$1.00 return on investment undiscounted, and a rate of return of more than 1000%. Refer to appendix A at the bottom of the report for performance results of the hypothesized oil well and grand total summary.

The data used in the preparation of our report was obtained from the public records within Drilling Info and from the sources referenced below. These data were accepted as presented. Please call on us if you have any questions concerning this report. Thank you for the opportunity to be of service.

Sincerely yours,

Adrian Joshua B. Raygon

Hyungjoo Lee

John Pritchard

Yaser Abuarab

Team Time to Find a Job
The University of Texas at Austin

References:

CME Group, "CRUDE OIL FUTURES - QUOTES", 05 Nov 2021,
<https://www.cmegroup.com/markets/energy/crude-oil/light-sweet-crude.quotes.html>

CME Group, Henry Hub Natural Gas, 05 Nov 2021,
<https://www.cmegroup.com/markets/energy/natural-gas/natural-gas.quotes.html>

Drillinginfo, Drillinginfo, 2021, <http://www.drillinginfo.com/frameInfo.jsp>.

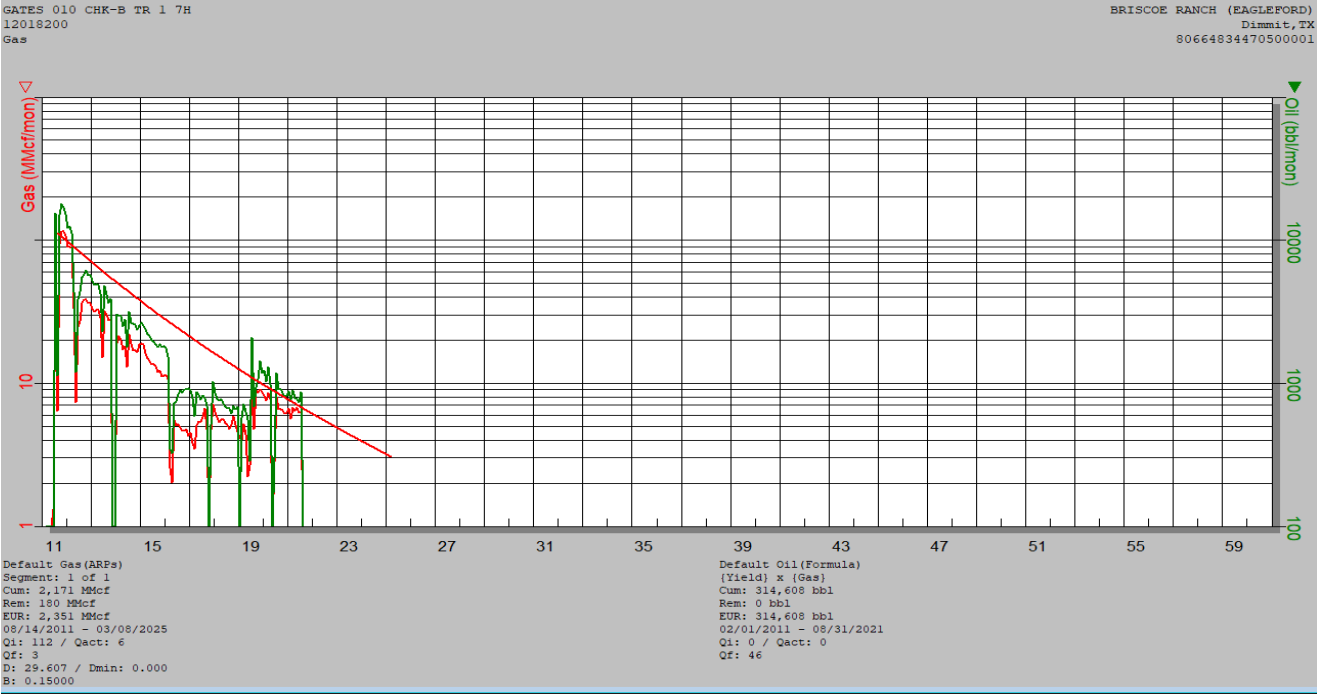
In 2013 Dollars, "Historical pricing for Fuel oil since 1935," March 2021.
<https://www.in2013dollars.com/Fuel-oil/price-inflation>

"Inflation Rate for Gas between 1970-2021." Gas Price History from 1970 through 2021, Official Data Foundation, 2021,
[https://www.officialdata.org/Gasoline-\(all-types\)/price-inflation/1970](https://www.officialdata.org/Gasoline-(all-types)/price-inflation/1970).

Appendix A:
Gate7H Lease Economic Summary and Decline Curve Fitting:

Date: 11/05/2021 6:58:31PM	ECONOMIC PROJECTION										Case : GATES 010 CHK-B TR 1 7H			
Partner : All Cases	wtf										Type : LEASE CASE			
Retrieval Code : 3081640	GATES 010 CHK-B TR 1 7H										Field : BRISCOE RANCH (EAGLEFORD)			
Reserve Cat. : Proved Producing	Discount Rate : 15.00										Operator : CHESAPEAKE OPERATING, L.L.C.			
Location : 93 GWT&PRR CO 71	As of : 11/01/2021										Reservoir : EAGLEFORD			
Archive Set : default											Co., State : Dimmit, TX			
API No. : 4212733814														
Est. Cum Oil (Mbbbl) : 314.61														
Est. Cum Gas (MMcf) : 2,171.32														
Est. Cum Water (Mbbbl) : 0.00														
Year	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invest. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)	
2021	0.00	12.45	0.00	9.34	0.00	5.62	52.51	0.00	4.37	5.26	0.00	42.88	42.38	
2022	0.00	65.48	0.00	49.11	0.00	5.39	264.67	0.00	23.57	26.50	0.00	214.60	239.10	
2023	0.00	52.57	0.00	39.43	0.00	3.95	155.62	0.00	19.76	15.59	0.00	120.26	334.93	
2024	0.00	42.61	0.00	31.96	0.00	3.12	99.62	0.00	16.73	9.98	0.00	72.90	385.36	
2025	0.00	6.88	0.00	5.16	0.00	2.87	14.80	0.00	2.78	1.48	0.00	10.54	392.05	
Rem.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	3.4	0.00	179.99	0.00	135.00	0.00	435	587.21	0.00	67.21	58.82	0.00	461.18	392.05
Ult.	314.61	2,351.32												
Eco. Indicators														
Major Phase : Gas		Return on Investment (disc) :		0.000		Present Worth Profile (M\$)								
Initial Rate : 6,327.57 Mcf/month		Return on Investment (undisc) :		0.000		PW 5.00% :		435.01		PW 20.00% :		374.23		
Abandonment : 3,069.20 Mcf/month		Years to Payout :		0.00		PW 8.00% :		420.94		PW 30.00% :		344.09		
Initial Decline : 20.408 %/year b = 0.15		Internal Rate of Return (%) :		0.00		PW 10.00% :		412.16		PW 40.00% :		319.60		
Initial Ratio : 0.000 bbl/Mcf		Initial		1st Rev.		PW 12.00% :		403.81		PW 50.00% :		299.31		
Abandon Ratio : 0.000 bbl/Mcf		2nd Rev.		PW 15.00% :		392.05		PW 60.00% :		282.25				
Abandon Day : 03/08/2025		Working Interest : 1.00000000		0.00000000		0.00000000								
		Revenue Interest : 0.75000000		0.00000000		0.00000000								
		Rev. Date :												

TRC Standard Eco.rpt 1



Blakeway Lease Economic Summary and Decline Curve Fitting:

Date: 11/05/2021 7:10:56PM
 Partner : All Cases
 Retrieval Code : 3228470
 Reserve Cat. : Proved Producing
 Location : 1238 T&NORR CO/VANDERVOORT
 Archive Set : default

ECONOMIC PROJECTION

wtf
 BLAKEWAY UNIT B DIM 1H
 Discount Rate : 15.00
 As of : 11/01/2021

Case : BLAKEWAY UNIT B DIM 1H
 Type : LEASE CASE
 Field : BRISCOE RANCH (EAGLEFORD)
 Operator : CHESAPEAKE OPERATING, L.L.C.
 Reservoir : EAGLEFORD
 Co., State : Dimmit, TX
 API No. : 4212734143

Est. Cum Oil (Mbbbl) : 300.61
 Est. Cum Gas (MMcf) : 676.89
 Est. Cum Water (Mbbbl) : 0.00

Year	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invent. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)
2021	0.64	1.41	0.48	1.06	81.17	5.62	44.99	0.00	6.93	3.37	0.00	34.69	34.28
2022	3.50	7.22	2.62	5.41	80.20	5.39	239.50	0.00	38.61	17.88	0.00	183.01	201.67
2023	3.01	5.53	2.25	4.14	74.03	3.95	183.23	0.00	34.47	13.51	0.00	135.26	309.23
2024	2.62	4.30	1.97	3.22	68.65	3.12	144.99	0.00	31.24	10.60	0.00	103.14	380.48
2025	0.35	0.77	0.26	0.58	66.96	2.87	19.31	0.00	4.38	1.42	0.00	13.50	389.06

Rem.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.4	10.11	19.23	7.59	14.42	74.98	4.39	632.01	0.00	115.63	46.78	469.60	389.06
Ult.	310.72	696.11											

Eco. Indicators

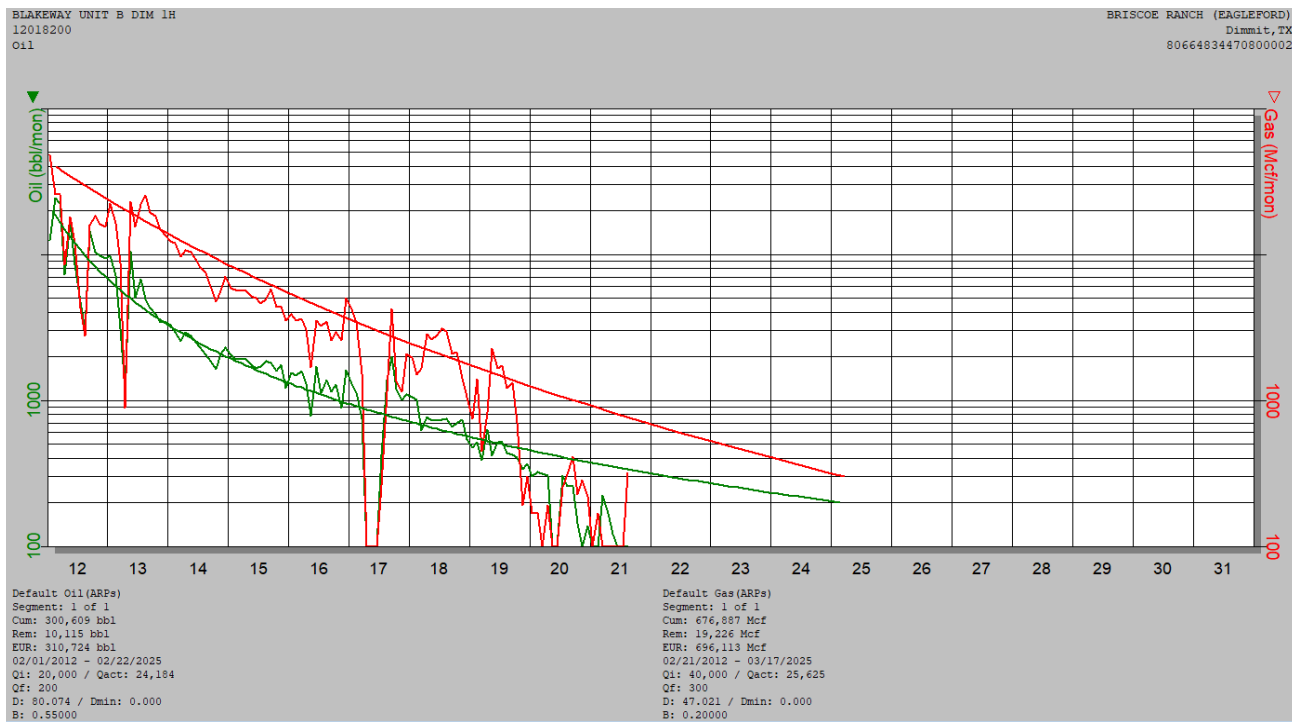
Major Phase :	Oil												
Initial Rate :	324.17	bbl/month						Return on Investment (disc) :	0.000				
Abandonment :	0.00	bbl/month						Return on Investment (undisc) :	0.000				
Initial Decline :	15.394	%/year	b = 0.55					Years to Payout :	0.00				
Initial Ratio :	2.227	Mcf/bbl						Internal Rate of Return (%) :	0.00				
Abandon Ratio :	0.000	Mcf/bbl											
Abandon Day :	03/17/2025												
								Working Interest :	1.00000000	0.00000000	0.00000000		
								Revenue Interest :	0.75000000	0.00000000	0.00000000		
								Rev. Date :					

Present Worth Profile (M\$)

PW 5.00% :	438.91	PW 20.00% :	368.61
PW 8.00% :	422.50	PW 30.00% :	334.35
PW 10.00% :	412.30	PW 40.00% :	306.85
PW 12.00% :	402.64	PW 50.00% :	284.34
PW 15.00% :	389.06	PW 60.00% :	265.60

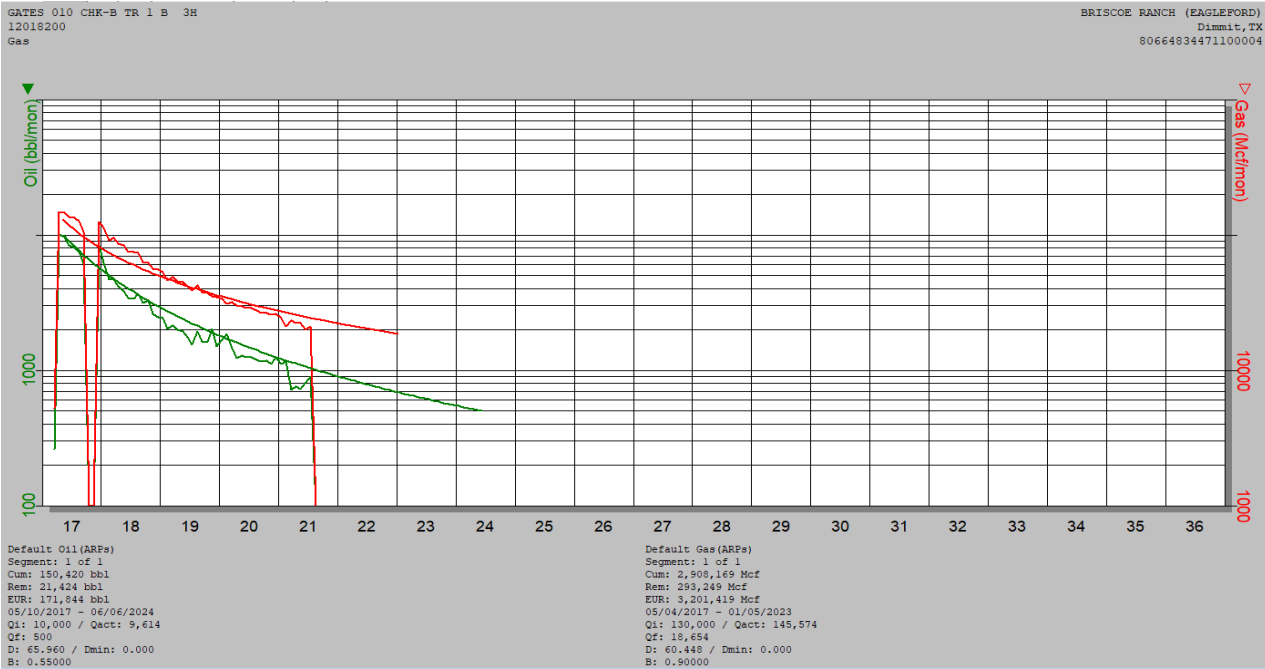
TRC Standard Eco.rpt

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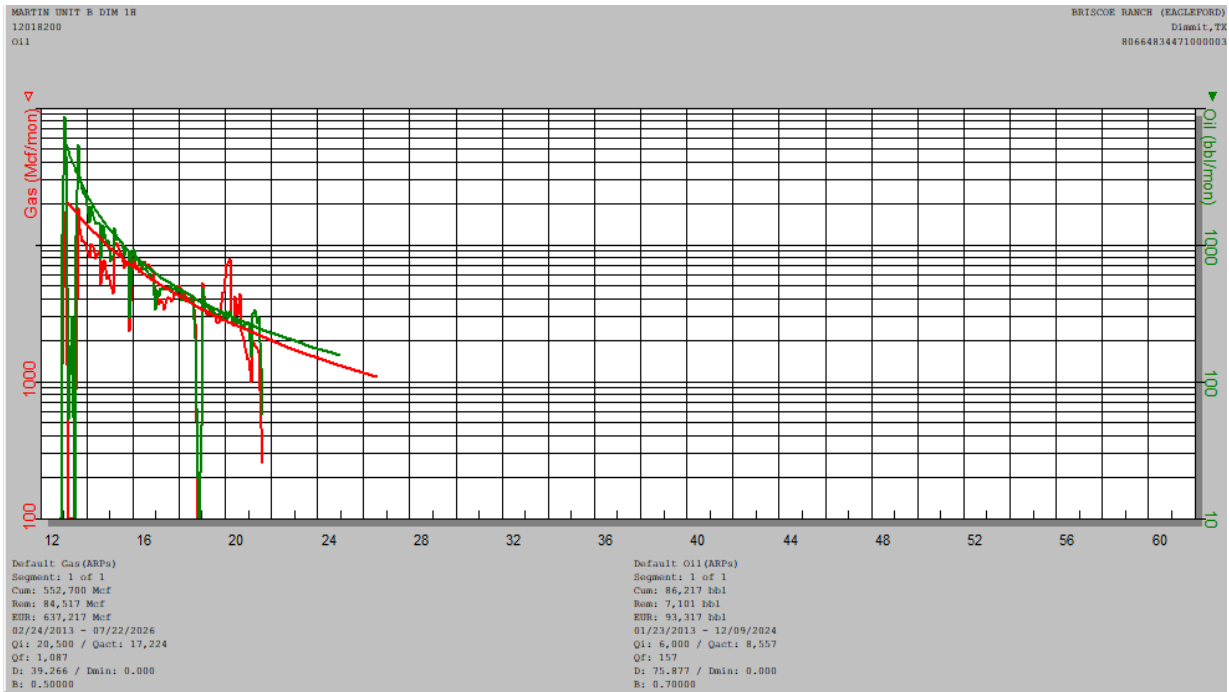
Martin Lease Economic Summary and Decline Curve Fitting:

Date: 11/05/2021 7:02:27PM		ECONOMIC PROJECTION										Case : MARTIN UNIT B DIM 1H		
Partner : All Cases		wtf										Type : LEASE CASE		
Retrieval Code : 3408730		MARTIN UNIT B DIM 1H										Field : BRISCOE RANCH (EAGLEFORD)		
Reserve Cat. : Proved Producing		Discount Rate : 15.00										Operator : CHESAPEAKE OPERATING, L.L.C.		
Location : 132 H&GN RR CO 39		As of : 11/01/2021										Reservoir : EAGLEFORD		
Archive Set : default												Co., State : Dimmit, TX		
												API No. : 4212734868		
Est. Cum Oil (Mbbbl) :		86.22												
Est. Cum Gas (MMcf) :		552.70												
Est. Cum Water (Mbbbl) :		0.00												
Year	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invest. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)	
2021	0.46	4.05	0.35	3.04	81.17	5.62	45.10	0.00	6.04	3.70	0.00	35.35	34.94	
2022	2.54	22.18	1.91	16.63	80.19	5.38	242.35	0.00	34.16	19.83	0.00	188.36	207.24	
2023	2.23	19.20	1.67	14.40	74.02	3.94	180.52	0.00	31.25	14.49	0.00	134.78	314.43	
2024	1.87	16.82	1.40	12.62	68.75	3.12	135.73	0.00	27.67	10.80	0.00	97.26	381.80	
2025	0.00	14.78	0.00	11.09	0.00	2.87	31.83	0.00	6.06	3.19	0.00	22.58	395.35	
2026	0.00	7.49	0.00	5.62	0.00	2.89	16.23	0.00	3.18	1.63	0.00	11.43	401.49	
Rem.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	4.7	7.10	84.82	5.33	63.39	75.30	3.96	651.75	0.00	108.36	53.63	489.75	401.49	
Ult.	93.32	637.22												
Eco. Indicators														
Major Phase : Oil		Return on Investment (disc) :		0.000		Present Worth Profile (M\$)								
Initial Rate : 232.42 bbl/month		Return on Investment (undisc) :		0.000		PW 5.00% :		455.80		PW 20.00% :		379.50		
Abandonment : 0.00 bbl/month		Years to Payout : 0.00		0.00		PW 8.00% :		437.81		PW 30.00% :		343.03		
Initial Decline : 13.595 %/year b = 0.70		Internal Rate of Return (%) :		0.00		PW 10.00% :		426.68		PW 40.00% :		314.08		
Initial Ratio : 8.800 Mcf/bbl						PW 12.00% :		416.18		PW 50.00% :		290.59		
Abandon Ratio : 0.000 Mcf/bbl						PW 15.00% :		401.49		PW 60.00% :		271.17		
Abandon Day : 07/22/2026														
		Working Interest :		1.00000000		0.00000000		0.00000000						
		Revenue Interest :		0.75000000		0.00000000		0.00000000						
		Rev. Date :												
TRC Standard Eco.rpt														

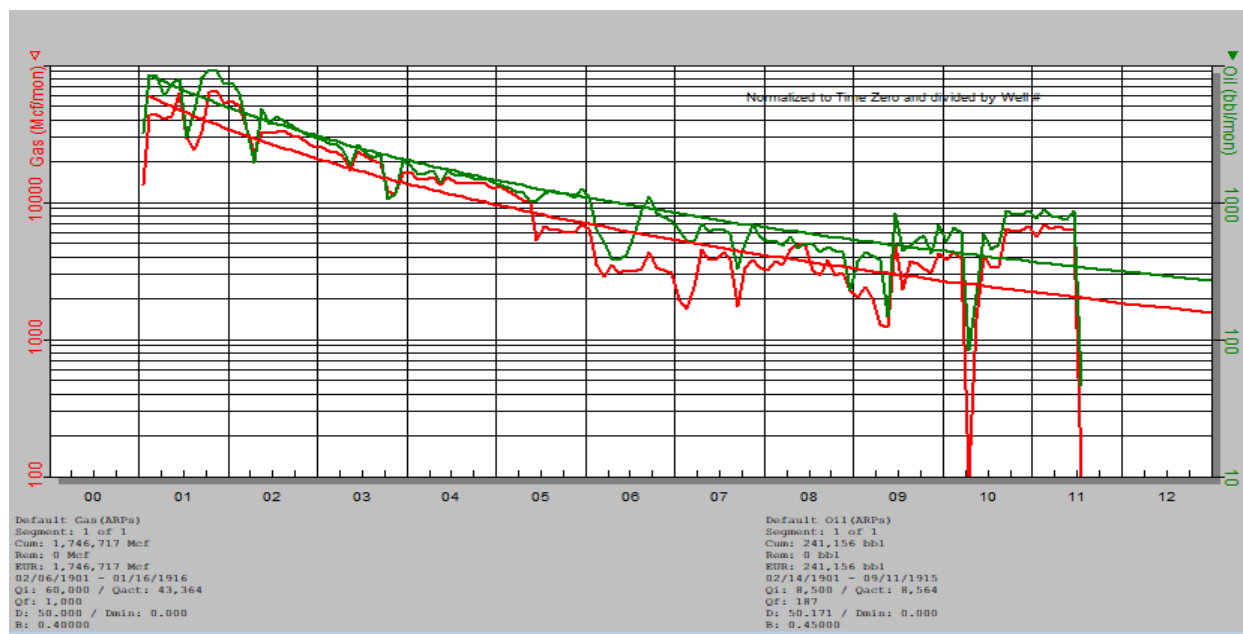


Gates3H Lease Economic Summary and Decline Curve Fitting:

Date: 11/05/2021 7:04:58PM		ECONOMIC PROJECTION								Case : GATES 010 CHK-B TR 1 B 3H					
Partner : All Cases		wtf								Type : LEASE CASE					
Retrieval Code : 4438285		GATES 010 CHK-B TR 1 B 3H								Field : BRISCOE RANCH (EAGLEFORD)					
Reserve Cat. : Proved Producing		Discount Rate : 15.00								Operator : CHESAPEAKE OPERATING, L.L.C.					
Location : 93 GWT&PRR CO 71		As of : 11/01/2021								Reservoir : EAGLEFORD					
Archive Set : default										Co., State : Dimmit, TX					
										API No. : 4212737329					
Est. Cum Oil (MbbL) :		150.42													
Est. Cum Gas (MMcf) :		2,908.17													
Est. Cum Water (MbbL) :		0.00													
Year	Oil Gross (MbbL)	Gas Gross (MMcf)	Oil Net (MbbL)	Gas Net (MMcf)	Oil Price (\$/bbL)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invent. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)		
2021	1.85	45.36	1.39	34.02	81.17	5.62	304.14	0.00	34.54	27.18	0.00	242.42	239.60		
2022	9.47	244.49	7.10	183.37	80.24	5.38	1,557.37	0.00	185.55	139.39	0.00	1,232.43	1,368.40		
2023	7.38	3.39	5.54	2.55	74.06	4.09	420.43	0.00	80.79	30.20	0.00	309.45	1,615.06		
2024	2.72	0.00	2.04	0.00	68.97	0.00	140.57	0.00	30.26	10.00	0.00	100.31	1,687.00		
Rem.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total	2.6	21.42	293.25	16.07	219.94	76.76	5.41	2,422.52	0.00	331.14	206.77	0.00	1,884.61	1,687.00	
Uk.	171.84	3,201.42													
Eco. Indicators															
Major Phase :	Gas					Return on Investment (disc) :				Present Worth Profile (M\$)					
Initial Rate :	22,989.68	Mcf/month					Return on Investment (undisc) :				PW 5.00% :	1,811.60	PW 20.00% :	1,633.38	
Abandonment :	0.00	Mcf/month					Years to Payout :				PW 8.00% :	1,771.47	PW 30.00% :	1,539.75	
Initial Decline :	17.749	%/year	b = 0.90					Internal Rate of Return (%) :				PW 10.00% :	1,746.10	PW 40.00% :	1,460.64
Initial Ratio :	0.041	bbL/Mcf									PW 12.00% :	1,721.75	PW 50.00% :	1,392.82	
Abandon Ratio :	0.000	bbL/Mcf									PW 15.00% :	1,687.00	PW 60.00% :	1,333.98	
Abandon Day :	06/06/2024														
Working Interest : 1.00000000 0.00000000 0.00000000															
Revenue Interest : 0.75000000 0.00000000 0.00000000															
Rev. Date :															



EOP Type Curve (Oil & Gas):



New Oil Well Economic Summary and Decline Curve Fitting:

Date: 11/05/2021 7:26:15PM
Partner: All Cases
Retrieval Code:
Reserve Cat.: Proved Producing
Location:
Archive Set: default

ECONOMIC PROJECTION

wtf
New Hypoth Curve
Discount Rate: 15.00
As of: 11/01/2021

Case: New Hypoth Curve
Type: LEASE CASE
Field: Eagleford
Operator:
Reservoir:
Co., State: Dimmit, TX
API No.:

Est. Cum Oil (Mbbbl): 0.00
Est. Cum Gas (MMcf): 0.00
Est. Cum Water (Mbbbl): 0.00

Year	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invest. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)
2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2022	16.10	0.00	12.07	0.00	74.97	0.00	905.08	0.00	169.04	64.36	6,000.00	-5,328.31	-4,640.48
2023	68.22	0.00	51.17	0.00	74.19	0.00	3,795.93	0.00	734.10	269.93	0.00	2,791.90	-2,410.01
2024	40.67	0.00	30.50	0.00	68.69	0.00	2,095.29	0.00	458.09	149.01	0.00	1,488.19	-1,378.17
2025	26.64	0.00	19.98	0.00	66.24	0.00	1,323.57	0.00	314.07	94.14	0.00	915.36	-826.52
2026	18.73	0.00	14.05	0.00	61.69	0.00	866.46	0.00	231.06	61.63	0.00	573.77	-526.16
2027	13.82	0.00	10.37	0.00	60.03	0.00	622.26	0.00	178.44	44.26	0.00	399.55	-344.35
2028	10.61	0.00	7.96	0.00	58.72	0.00	467.15	0.00	143.30	33.23	0.00	290.61	-229.44
2029	8.33	0.00	6.25	0.00	58.56	0.00	365.99	0.00	117.80	26.04	0.00	222.15	-153.09
2030	6.72	0.00	5.04	0.00	58.63	0.00	295.50	0.00	99.41	21.02	0.00	175.07	-100.78
2031	5.52	0.00	4.14	0.00	58.63	0.00	242.89	0.00	85.49	17.28	0.00	140.11	-64.37
2032	4.62	0.00	3.47	0.00	58.63	0.00	203.36	0.00	74.90	14.47	0.00	113.99	-38.62
2033	3.90	0.00	2.93	0.00	58.63	0.00	171.64	0.00	66.15	12.21	0.00	93.28	-20.31
2034	3.34	0.00	2.51	0.00	58.63	0.00	147.01	0.00	59.28	10.46	0.00	77.27	-7.11
2035	2.89	0.00	2.17	0.00	58.63	0.00	127.19	0.00	53.66	9.05	0.00	64.48	2.46

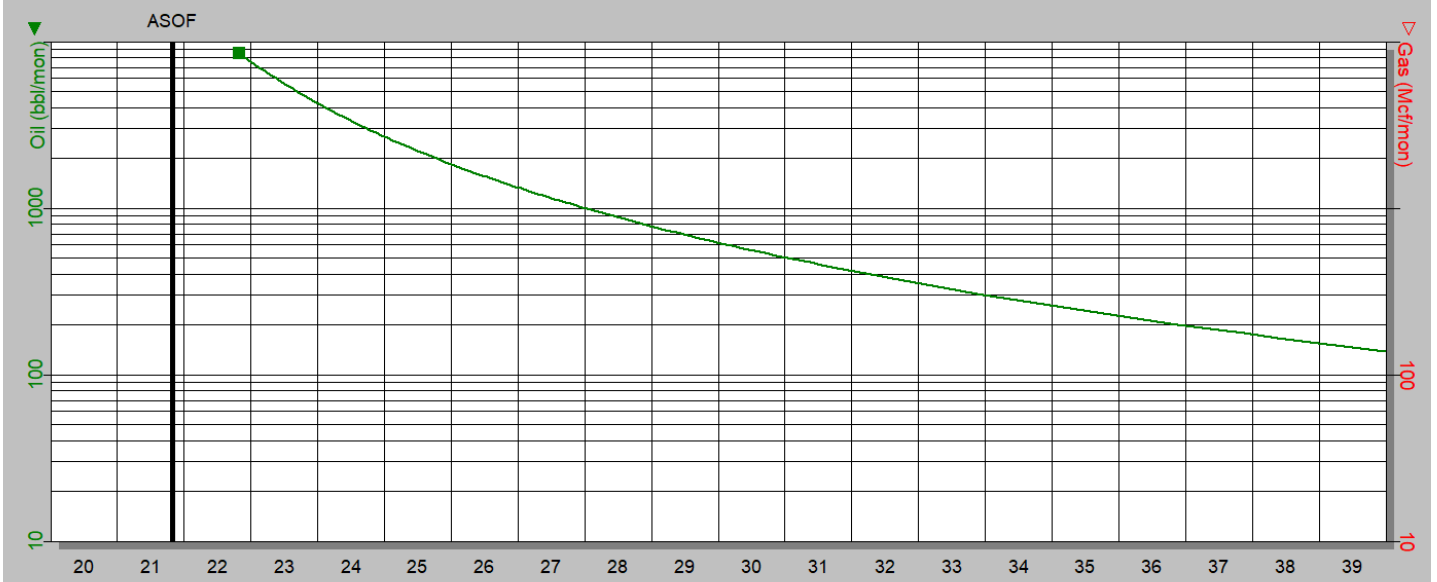
Rem.	31.1	20.96	0.00	15.72	0.00	58.63	0.00	921.50	0.00	541.13	65.55	0.00	314.81	25.91
Total		251.08	0.00	188.31	0.00	66.65	0.00	12,550.83	0.00	3,325.94	892.64	6,000.00	2,332.25	28.37
Ult.		251.08	0.00											

Major Phase: Oil				Return on Investment (disc): 1.005				Present Worth Profile (M\$)			
Initial Rate:	8,500.00	bbl/month		Return on Investment (undisc):	1.389			PW 5.00%:	1,230.54	PW 20.00%:	-324.13
Abandonment:	46.38	bbl/month		Years to Payout:	4.37			PW 8.00%:	770.19	PW 30.00%:	-781.64
Initial Decline:	50.171	%/year	b = 0.45	Internal Rate of Return (%):	15.35			PW 10.00%:	518.75	PW 40.00%:	-1,048.09
Initial Ratio:	0.000	Mcf/bbl						PW 12.00%:	301.89	PW 50.00%:	-1,207.70
Abandon Ratio:	0.000	Mcf/bbl						PW 15.00%:	28.37	PW 60.00%:	-1,303.03
Abandon Day:	12/03/2052										
				Working Interest:	1.00000000	0.00000000	0.00000000				
				Revenue Interest:	0.75000000	0.00000000	0.00000000				
				Rev. Date:							

New Hypoth Curve

Eagleford
Dimmit, TX
80665640080200003

Oil



Default Oil (ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 257,694 bbl
EUR: 257,694 bbl
11/01/2022 - 10/31/2072
Q1: 8,500 / Qact: N/A
Qf: 16
D: 50.171 / Dmin: 0.000
B: 0.45000

Default Gas (ARPs)
Segment: N/A
Cum: 0 Mcf
Rem: 0 Mcf
EUR: 0 Mcf
/ / - / /
Q1: N/A / Qact: N/A
Qf: N/A
D: N/A / Dmin: N/A
B: N/A

New Oil Well and 4 Leases Grand Total Economic Summary:

Date : 11/05/2021 7:28:34PM
Partner : All Cases

ECONOMIC SUMMARY PROJECTION

Total

wtf
Custom Selection
Discount Rate : 15.00
As of : 11/01/2021

Est. Cum Oil (MbbL) : 851.85
Est. Cum Gas (MMcf) : 6,309.08
Est. Cum Water (MbbL) : 0.00

	Oil Gross (Mbbbl)	Gas Gross (MMcf)	Oil Net (Mbbbl)	Gas Net (MMcf)	Oil Price (\$/bbbl)	Gas Price (\$/Mcf)	Oil & Gas Rev. Net (M\$)	Misc. Rev. Net (M\$)	Costs Net (M\$)	Taxes Net (M\$)	Invest. Net (M\$)	NonDisc. CF Annual (M\$)	Cum Disc. CF (M\$)	
Year														
2021	2.95	63.27	2.22	47.46	81.17	5.62	446.73	0.00	51.88	39.51	0.00	355.34	351.20	
2022	31.61	339.37	23.70	254.53	77.55	5.39	3,208.97	0.00	450.94	267.96	6,000.00	-3,509.93	-2,624.08	
2023	80.84	80.69	60.63	60.52	74.16	3.95	4,735.73	0.00	900.37	343.71	0.00	3,491.65	163.63	
2024	47.88	63.73	35.91	47.80	68.71	3.12	2,616.20	0.00	563.99	190.40	0.00	1,861.81	1,456.47	
2025	26.99	22.44	20.24	16.83	66.25	2.87	1,389.51	0.00	327.29	100.23	0.00	961.99	2,036.93	
2026	18.73	7.49	14.05	5.62	61.69	2.89	882.69	0.00	234.24	63.26	0.00	585.19	2,343.44	
2027	13.82	0.00	10.37	0.00	60.03	0.00	622.26	0.00	178.44	44.26	0.00	399.55	2,525.25	
2028	10.61	0.00	7.96	0.00	58.72	0.00	467.15	0.00	143.30	33.23	0.00	290.61	2,640.16	
2029	8.33	0.00	6.25	0.00	58.56	0.00	365.99	0.00	117.80	26.04	0.00	222.15	2,716.51	
2030	6.72	0.00	5.04	0.00	58.63	0.00	295.50	0.00	99.41	21.02	0.00	175.07	2,768.82	
2031	5.52	0.00	4.14	0.00	58.63	0.00	242.89	0.00	85.49	17.28	0.00	140.11	2,805.23	
2032	4.62	0.00	3.47	0.00	58.63	0.00	203.36	0.00	74.90	14.47	0.00	113.99	2,830.98	
2033	3.90	0.00	2.93	0.00	58.63	0.00	171.64	0.00	66.15	12.21	0.00	93.28	2,849.29	
2034	3.34	0.00	2.51	0.00	58.63	0.00	147.01	0.00	59.28	10.46	0.00	77.27	2,862.49	
2035	2.89	0.00	2.17	0.00	58.63	0.00	127.19	0.00	53.66	9.05	0.00	64.48	2,872.06	
Rem.		20.96	0.00	15.72	0.00	58.63	0.00	921.50	0.00	541.13	65.55	0.00	314.81	25.91
Total	31.1	289.72	576.99	217.29	432.74	67.90	4.83	16,844.32	0.00	3,948.29	1,258.63	6,000.00	5,637.39	2,897.97
Ult.		1,141.58	6,886.06											

Eco. Indicators

Return on Investment (disc) : 1.555
Return on Investment (undisc) : 1.940
Years to Payout : 2.03
Internal Rate of Return (%) : >1000

Present Worth Profile (M\$)

PW 5.00% :	4,371.85	PW 20.00% :	2,431.60
PW 8.00% :	3,822.92	PW 30.00% :	1,779.58
PW 10.00% :	3,516.00	PW 40.00% :	1,353.07
PW 12.00% :	3,246.27	PW 50.00% :	1,059.37
PW 15.00% :	2,897.97	PW 60.00% :	849.97

Appendix B:

Adrian Raygon -Blakeway, Report Organization
Hyungjoo Lee - Martin, Report Organization/Excel Boy
John Pritchard - Gates3H, Report Organization
Yasir Abuarab - Gates7H, Report Organization