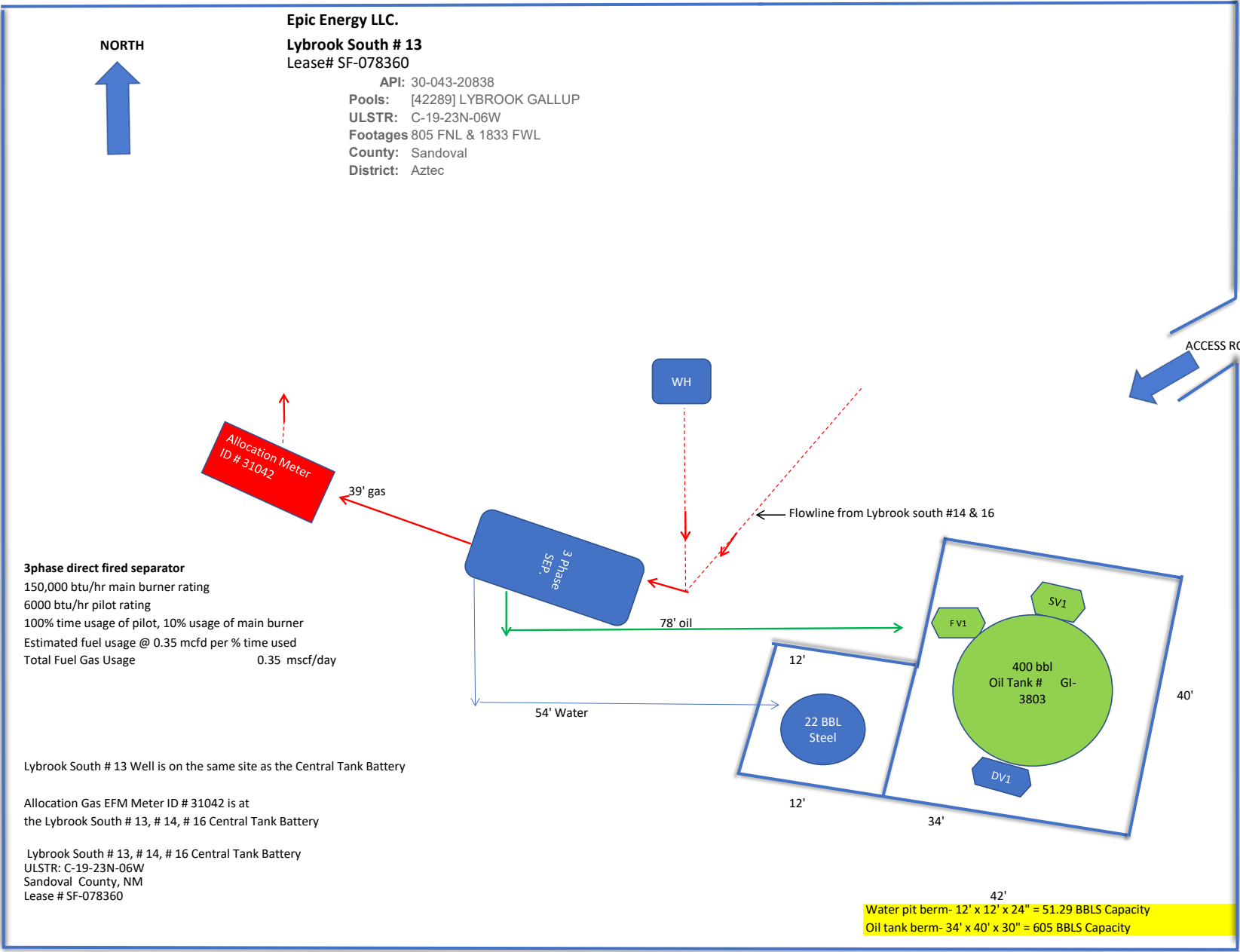


Epic Energy LLC. Lybrook South # 13 SITE Security DIAGRAM



Lybrook South # 13 Site Security Diagram

Attachment to the Site Security Diagram - Lybrook South # 13

Epic Energy LLC.

API 30-043-20838

Pools: [42289] LYBROOK GALLUP

ULSTR: C-19-23N-06W

Footages 805 FNL & 1833 FWL

County: Sandoval

District: Aztec

Sales phase:

The tank from which the sales are being made will be isolated by sealing closed the drain valve and fill valve (F1) during the sale.

Drain phase:

The tank from which the drain is being made will be isolated by sealing closed the sales valve and fill valve during the water drain.

Fuelgas Usage Calculations

Lease Name: Lybrook South # 13

Lease# SF-078360

API: 30-043-20838

ULSTR: C-19-23N-06W

805 FNL & 1833 FWL

Sandoval County, New Mexico

Pump Unit Engine Table

Engine Type	A	B	
C46 ARROW	8.8	2	(from Arrow)
C-66 ARROW	12.3	2.5	(from Arrow)
C-96 ARROW	18.8	3.0	(from Arrow)
Electric	NA	0	
KUBOTA 1600	16	2	
KUBOTA 3200	32	3.81	
KUBOTA (DG-972-E2)	25	2.5	
KOHLER 27 hp	25	3	
KOHLER 18 hp	16	2	
AJAX DP60 (9 1/2 x 12)	60	7.1	
AJAX E42 (8 1/2 x 10)	42	5	
AJAX EA30 (7 1/2 x 8)	30	3.6	
AJAX EA15	15	2	
AJAX EA22 (6 1/2 x 8)	22	2.6	
None	NA	0	

Horsepower Engine Table

Engine Type	D	E	
GS-10 - 80hp	80	64	8319 (Estimated)
Twin Stars BOSS GM3.0L	32	26	8500 (Estimated)
Gemini G26	26	21	8000
Twin Stars 5.9 Cummins	49	39	8725
Twin Stars 5.9 Cummins	84	67	8056
Twin Stars 5.9E Cummins	84	67	8422
GS12 (8.3 nat asp cummins)	118	94	8553
GS17 (8.3 Turbo Cummins)	175	140	7560 (Estimated)
GS24 (855 Turbo)	281	225	8617 (Estimated)
496 and 454 Chevy - 110	110	88	8500 (Estimated)
460 Ford	85	68	8000
300 6 cyl Ford	65	52	8650
8.3 Cummins (natural aspirated)	118	94	8553
8.3E Cummins (natural aspirated)	118	94	8933
8.3 Cummins (turbo charged)	175	140	7560
855 Cummins (turbo)	281	225	8617
KTA19GC	420	336	7961
KTA19GC-SLB	420	336	8172
FLUID COMP GM-350	80	64	8319
3304 CATERPILLAR	95	76	7778
VRG-330 ARROW/WAKESHAU	68	54	8038 (Estimated)
KAWASAKI(Poquito) - 750	15	12	8350 (Estimated)
KUBOTA (DG-972-E2)	23.6	19	8000
VRG-220 ARROW/WAKESHAU	52	42	8250
KOHLER - 18hp	18	14	8500 (Estimated)
KOHLER - 27hp	27	22	8500 (Estimated)
Electric			0
None			0

Fuel gas Calculations:

	BTU / scf	% Used
HV from Gas Analysis	1435	Burner 10
Elevation	6958	Pilot 100

Vessels

	Burner BTU Rating	mscf/day	Pilot BTU Rating	mscf/day	Total
Separator	150,000	0.3	6,000	0.10	0.35
Tank #1		0.0		0.00	0.00
Tank #2		0.0		0.00	0.00
Tank #3		0.0		0.00	0.00
Tank #4		0.0		0.00	0.00
Tank #5		0.0		0.00	0.00
Total MSCF/DAY		0.25		0.10	0.35

Engines

Compressor Engine	None
Pump Unit Engine	None
HP Rating @ 80% Load (D)	
Fuel Consumption (E)	0
Pump Jack mcf/day (B)	0.0
De-Rating % for Elevation	0.0366
De-Rated HP @ 80% Load	0.0
Total MSCF/DAY	0.00

Other Use

	mscf/day	
House Tap	0	
Chemical Injection Pumps	0	
Auxiliary Equipment	0	combuster

Total Fuel Gas to Report	0.35	mscf/day
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Fuel gas calculations methodology:

Fuel gas is calculated by using the BTU rating of the gas (wet rating) that has been determined via gas analysis, the elevation of the well (due to derating of HP), separator burner rating, natural gas engines located on location with the manufacturer HP rating at 80% load which is the maximum recommended continuous run rating HP from the manufacturers.

Main Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24/1000)*(Time % factor/100) = Gas used by main burner

Pilot Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24/1000)*(Time % factor/100) = Gas used by main burner

Pump unit engine - fuel usage per manufacturer specs if available, if not, calculated per HP calculations comparable to compressor calcs

Compressor fuel usage -

calculated by derating engine for the elevation - (HP Rating @ 80% Load)*(1-((Elevation-2000)/1000))*(Elevation derating factor for naturally aspirated or turbo charged engines)

then using the following formula - ((Engine fuel usage from manufacturer/BTU from gas analysis)*Elevation derated HP)*24/1000

Fuel usage for all equipment is then summed for the site.

REFERENCES:		
De-Rating for Elevation Change	2.44%	Turbo Charged Engines
(every 1000' above 2000' elevation)	3.66%	Naturally Aspirated
6000 BTU is avg value to use for Pilot Calculations for Vessels		
How to Use: All Blue Text Cells require some kind of manual data entry, either by typing the value in, or selecting from a drop down menu (Engines Calculaiton Table).		
The Red Text Cells are calculated values. The total fuel gas to be reported for the lease		

Fuel gas calculations methodology:

Fuel gas is calculated by using the BTU rating of the gas (wet rating) that has been determined via gas analysis, the elevation of the well (due to derating of HP), separator burner rating, natural gas engines located on location with the manufacturer HP rating at 80% load which is the maximum recommended continuous run rating HP from the manufacturers.

Main Burner gas usage calculation - $\left(\frac{\text{burner BTU-hr/Actual BTU} \times 24}{1000}\right) \times \left(\frac{\text{Time \% factor}}{100}\right) = \text{Gas used by main burner}$

Pilot Burner gas usage calculation - $\left(\frac{\text{burner BTU-hr/Actual BTU} \times 24}{1000}\right) \times \left(\frac{\text{Time \% factor}}{100}\right) = \text{Gas used by main burner}$

Pump unit engine - fuel usage per manufacturer specs if available, if not, calculated per HP calculations

Compressor fuel usage -

calculated by derating engine for the elevation - $(\text{HP Rating @ 80\% Load}) \times \left(1 - \frac{(\text{Elevation} - 2000)}{1000}\right) \times (\text{Elevation factor})$

then using the following formula - $\left(\frac{\text{Engine fuel usage from manufacturer}}{\text{BTU from gas analysis}}\right) \times \text{Elevation factor}$

Fuel usage for all equipment is then summed for the site.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 77370

QUESTIONS

Operator: EPIC ENERGY, L.L.C. 332 Road 3100 Aztec, NM 87410	OGRID: 372834
	Action Number: 77370
	Action Type: [UF-FAC] TB Registration (TB-REG)

QUESTIONS

Facility Details <i>Please answer all of the questions in this group.</i>	
Name of the facility	Lybrook South #13, 14, 16 CTB
Date the facility was opened	Not answered.
Depth to ground water, if known	Not answered.

Verification	
Does the operator have other facilities with a matching name	No
Are there other facilites located within approximately 50 feet	No

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☒	I certify that I am authorized to register a facility on behalf of the responsible operator.
☒	I certify that I will notify OCD of any changes of ownership for this facility.
☒	I certify that I will notify OCD when this facility is closed.