

CONE & KERLEY, INC.

PHONE EM 8-5442

PETROLEUM ENGINEERING SERVICES

ODESSA, TEXAS - 79760

P. O. BOX 2982

For: Morris R. Antweil
P. O. Box 2010
Hobbs, New Mexico 88240

Date of Test: August 13, 1974
Field: South Carlsbad, (Strawn)

Well No.: Saik No. 1 Separator Gas Flow Rate 2332 MCF/Day

A. YIELD AND CHARACTERISTICS OF SEPARATOR EFFLUENTS AT 775 PSIG AND 90 °F

- Separator condensate GPM, Gal/MCF separator gas .257 GPM
- Yields per MCF of full wellstream: (Dry Sep. Gas + Vap. Cond.)
 - Stock tank condensate (45.2 ° API) (4.82 Bbls/MM) .202 GPM
 - Separator Gas 99.45 %
 - Water (Cl = - - - ppm) ----- Bbls/MM
- Separator Condensate Shrinkage Factor:

Percent recovered by 2-Stage Flash Vaporization from separator pressure

and weathered to 70 °F 78.64 %
- Separator Condensate Vapor Equivalent: 21.69 Cu. Ft./Gal.

B. COMPOSITION OF SEPARATOR EFFLUENTS

	GAS		CONDENSATE	
	Mol %	GPM	Mol %	Liq. Vol. %
Hydrogen Sulfide	Nil		Nil	Nil
Oxygen	Nil		Nil	Nil
Nitrogen	.568		.129	.031
Carbon Dioxide	1.290		.293	.109
Methane	94.421		21.445	77.858
Ethane	2.955		2.535	1.396
Propane	.516	.142	1.025	.610
Iso-Butane	.056	.018	.483	.341
N-Butane	.039	.028	.973	.662
Iso-Pentane				
N-Pentane				
Iso-Hexanes				
N-Hexane				
Pentanes Plus	.105	.042	73.117	88.993
Hexanes Plus				
Heptanes Plus				
TOTALS	100.000	.230	100.000	100.000

C. FULL WELL STREAM COMPOSITION:

	Mol %	GPM
Hydrogen Sulfide	Nil	
Oxygen	Nil	
Nitrogen	.566	
Carbon Dioxide	1.284	
Methane	94.016	
Ethane	2.953	
Propane	.519	.142
Iso-Butane	.058	.019
N-Butane	.094	.030
Iso-Pentane		
N-Pentane		
Iso-Hexanes		
N-Hexane		
Pentanes Plus	.510	.271
Hexanes Plus		
Heptanes Plus		
TOTALS	100.000	.462

D. MISCELLANEOUS DATA:

SEPARATOR GAS

Sp. Gr.	.590	(Measured) (Air = 1)	Gasoline Content:	
Sp. Gr.	.592	(Calculated) (Air = 1)	Gasoline	GPM
BTU/Cu. Ft.	1025	(Dry Basis)	% Propane	GPM
BTU/Cu. Ft.	1007	(Wet Basis)	Butanes	GPM
			TOTAL	GPM

SEPARATOR CONDENSATE

Characteristics of Pentanes plus in liquid residue:	
Specific Gravity	.7554 (Water = 1)
Molecular Weight	134.56
Cu. Ft. Vapor per gallon	17.82

FULL WELL STREAM

Characteristics of Pentanes plus in full well stream:	
Specific Gravity	.7342 (Water = 1)
Molecular Weight	123.95
Cu. Ft. Vapor per gallon	18.80
Full Well Stream Sp. Gr. = .609 (Air = 1)	

RECEIVE

AUG 28 1974

O. C. C.
ARTESIA, OFFICE

Volumes = 14.65 psi & 60° F.

REMARKS:

Certified:

CONE & KERLEY, INC.

By

Bill Kerley
Bill Kerley

Form FDS-1 (Rev. 2-71)

P. O. BOX 2982



AUG 28 1974

366-6442

FIELD DATA SHEET

O. C. C.
ARTESIA, OFFICE

Company: Marine R. Hutchins Field: South Atlantic Shale
Lease: S&K Well No. _____ Sta. No. _____

Static Pressure - Test Sep. Meter: (Barton DWG) (1500X200" Test Gauge) (_____ Meter)
Static Pressure - Well Str. Meter: (_____ DWG) (_____ Meter)

REMARKS:	Intermitter flows	Hrs.	Mins. — S. I.	Hrs.	Mins.—Flows	Hrs.	Min.	Day
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[illegible]

Gas Bomb No. _____ Condensate Bomb No. _____

CONDENSATE SHRINKAGE TEST:

Recovery	<u> </u>	$cc \div \text{Bomb Volume}$	<u> </u>	$cc =$	<u> </u>	% Shrinkage
Recovery	<u> </u>	$cc \div \text{Bomb Volume}$	<u> </u>	$cc =$	<u> </u>	% Shrinkage

CONDENSATE GRAVITY DETERMINATION:

Observed °API - Temp °F - Corrected °API @ 60°/60°

SEPARATOR GAS FLOW RATE:

Run Size	4,024	Tf	Sp. Gr.	Fpv	Ps	hw		(1) MCF/Day
Plate Size	1,500				PSIA	Inches	$\sqrt{hw \text{ Ps}}$	
FACTORS								

SEP. GAS + VAP. COND. = _____ ← MCF/Day ÷ _____ ← % SEP. GAS = _____ MCF/Day

WELLSTREAM FLOW RATE

Run Size		Tf	Sp. Gr.	Fpv	Ps	hw		(3) MCF/Day
Plate Size					PSIA	Inches	$\sqrt{hw \cdot Ps}$	
FACTORS								

METER FACTOR = _____ (2) ÷ _____ (3) = _____

METER CHAMBER		METER CHAMBER		SEPARATOR LIQUID CHAMBER				CONDENSATE PRODUCTION	
Register		GAUGE GLASS		GAUGE GLASS					
Gallons		Gallons		Condensate		Water			
Final	1585.672	Final		Final	20.00	Final	15.00	(4)	
Initial	1585.672	Initial		Initial	20.00	Initial	15.00	(5)	
Total (4)		Total (5)		Total (6)		Total (7)		(6)	
CONDENSATE PRODUCTION RATE								(7)	
								(8)	Dry to Zero
								(9)	Total

CONDENSATE PRODUCTION RATE

[illegible]

WATER PRODUCTION RATE:

CLORIDES	PPM
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Gallons	Time Factor	MCF/Day					
(<u> </u> + <u> </u>)	(<u> </u> / <u> </u>)	÷ (<u> </u>)	=	<u> </u>	GPM ÷ .042 =	<u> </u>	Bbls/MM
(<u> </u> + <u> </u>)	(<u> </u> / <u> </u>)	÷ (<u> </u>)	=	<u> </u>	GPM ÷ .042 =	<u> </u>	Bbls/MM

Tested By: Edward J. Smith

Witnessed By: _____

REMARKS:

P. O. BOX 2982



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366-6442

O. C. C.
ARTESIA, OFFICE

Company: Morris R. Antinori Field: South Central S. Texas
Lease: Sak Well No. 1 Sta. No.

Static Pressure - Test Sep. Meter: (B22707 DWG) (1541 A200 Test Gauge) (_____ Meter)
Static Pressure - Well Str. Meter: (_____ DWG) (_____ Meter)

REMARKS:	Intermitter flows	Hrs.	Mins. — S. I.	Hrs.	Mins.—Flows	Hrs.	Min.	Day
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[illegible]

Gas Bomb No. Condensate Bomb No.

CONDENSATE SHRINKAGE TEST:

Recovery	<u> </u>	$\text{cc} \div \text{Bomb Volume}$	<u> </u>	$\text{cc} =$	<u> </u>	% Shrinkage
Recovery	<u> </u>	$\text{cc} \div \text{Bomb Volume}$	<u> </u>	$\text{cc} =$	<u> </u>	% Shrinkage

CONDENSATE GRAVITY DETERMINATION:

Observed °API - Temp °F - Corrected °API @ 60°/60°

SEPARATOR GAS FLOW RATE:

Run Size	4.026	Tf	Sp. Gr.	Fpv	Ps	hw		(1) MCF/Day
Plate Size	1.500				PSIA	Inches	$\sqrt{hw \cdot Ps}$	
FACTORS								

SEP. GAS + VAP. COND. = _____ $\leftarrow$ ⁽¹⁾ MCF/Day $\div$ _____ $\leftarrow$ % SEP. GAS = _____ ⁽²⁾ MCF/Day

WELLSTREAM FLOW RATE

Run Size		Tf	Sp. Gr.	Fpv	Ps	hw		(3) MCF/Day
Plate Size					PSIA	Inches	$\sqrt{hw \text{ Ps}}$	
FACTORS								

METER FACTOR = _____ (2) ÷ _____ (3) = _____

METER CHAMBER		METER CHAMBER		SEPARATOR LIQUID CHAMBER				CONDENSATE PRODUCTION	
Register		GAUGE GLASS		GAUGE GLASS					
Gallons		Gallons		Condensate		Water			
Final	535.672	Final		Final	20.00	Final	15.00	(4)	
Initial	1535.672	Initial		Initial	20.00	Initial	15.00	(5)	
Total (4)		Total (5)		Total (6)		Total (7)		(6)	
CONDENSATE PRODUCTION RATE								(7)	
								(8)	
								(9)	
									Dry to Zero
									Total

CONDENSATE PRODUCTION RATE

[illegible]

WATER PRODUCTION RATE:

Gallons		Time Factor		MCF/Day		GPM		Bbls/MM	
(	+	)	(	/	) ÷	(	=	GPM ÷ .042 =	Bbls/MM
(	+	)	(	/	) ÷	(	=	GPM ÷ .042 =	Bbls/MM

Tested By: J. J. Smith

Witnessed By: _____

REMARKS:

R.P. 1121194. Faintly visible.