GENERAL INFORMATION

Client Information:

Company: Sam Gary Jr. & Associates

Contact: Tom Fertal

Phone: Fax: e-mail:

Site Information:

Contact: Tom Larsen

Phone: Fax: e-mail:

Well Information:

Name: Nielson 25-13

Operator: Sam Gary Jr

Location-Downhole: 500' FSL 500' FWL

Location-Surface:

Test Information:

Company: Trilobite Testing Inc.

Representative:

Supervisor: Paul Simpson

Test Type: initial 4 pt & initial 1pt Job Number:

Test Unit:

Start Date: 2000/11/30 Start Time: 14:00:00

End Date: 2000/12/01 End Time: 02:20:00

Report Date: Prepared By:

Remarks: Qualified By:

110.50 11/30 Paul Mileage 130 @ .85
110.50 12/01 Lanny Mileage 130 @ .85
295.00 4pt
115.00 1pt
60.00 Gas Analysis
691.00 Total

KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM G-1
8-7-58

TYPE TEST:	☒ Initial	☐ Annual	☐ Special	TEST DATE:	11/30/2000
COMPANY		LEASE		WELL NO.	
Samuel Gary Jr. & Associates		Nielsen		25-13	
COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Comanche	500' FSL 500'FWL	25-32-19w			160
FIELD	RESERVOIR	PIPELINE CONNECTION			
Wildcat	Mississippian	Reliant Energy			
COMPLETION DATE	PLUG BACK DEPTH	5265		PACKER SET AT	
11-5-2000	TOTAL DEPTH	5956			
CASING SIZE	WT.	ID	SET AT	PERF.	TO
5.500	15.500	4.995	5332	5160	5250
TUBING SIZE	WT.	ID	SET AT	PERF.	TO
2.375	4.700	1.995	5248		
TYPE COMPLETION (Describe)		TYPE FLUID PRODUCTION			
acid		water			
PRODUCING THRU (Annulus/Tubing)		RESERVOIR TEMPERATURE F		BAR PRESS - Pa	
tubing		121		14.4 psia	
GAS GRAVITY - Gg	% CARBON DIOXIDE	% NITROGEN		API GRAVITY OF LIQUID	
.595		1.072			
VERTICAL DEPTH (H)		TYPE METER CONN.		METER RUN SIZE	
5205		flange		2.067	
REMARKS					

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. (h_w) (h_t)	FLOWING TEMP. t.	WELLHEAD TEMP. t.	CASING WELLHEAD PRESS. psig	CASING WELLHEAD PRESS. (P_w) (P_t) (P_c) psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. (P_w) (P_t) (P_c) psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN						1500	1514	1500	1514		
1.	.750	143.00	16.00	70		1451	1465	1450	1464	1.00	
2.	.750	138.00	33.00	78		1408	1422	1270	1284	1.00	
3.	.750	152.00	56.00	76		1357	1371	999	1013	1.00	
4.	.750	137.00	95.00	68		1288	1302	789	803	1.00	.5

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F_b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW Q Mcfd	GOR	G_m
1.	2.780	157.4	50.18	1.2964	.9905	1.0116	181		.595
2.	2.779	152.4	70.92	1.2964	.9831	1.0107	253		.595
3.	2.780	166.4	96.53	1.2964	.9850	1.0118	346		.595
4.	2.780	151.4	119.93	1.2964	.9924	1.0113	433	36148.0	.710

PRESSURE CALCULATION

RATE NO.	Pt psia	Pc psia	Pw psia	$(Pc)^2$ Thousands	$(Pw)^2$ Thousands	PLOTTING POINTS $(P_c)^2 - (P_w)^2$ Thousands	PLOTTING POINTS Q Mcfd	% SHUT-IN $100\left[\frac{Pw - Pa}{Pc - Pa}\right]$
1.	1464.4	1514.4	1465.4	2293.4	2147.4	146.0	181.2	96.7
2.	1284.4	1514.4	1422.4	2293.4	2023.2	270.2	253.9	93.9
3.	1013.4	1514.4	1371.4	2293.4	1880.7	412.7	346.7	90.5
4.	803.4	1514.4	1302.4	2293.4	1696.2	597.2	433.8	85.9

INDICATED WELLHEAD OPEN FLOW 1007 Mcfd @ 14.65 psia "n" =

The undersigned authority, on behaf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated herein and that said report is true and correct. Executed this the 12 day of Dec., A.D. 2000

Witness (if any)

For Company

For Commission

Checked by

KANSAS CORPORATION COMMISSION

FORM G-2 (Rev.8/98)

ONE POINT STABLIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST:

☒ Open Flow

☒ Deliverability

TEST DATE: 12-01-2000 API No. 15-033-21148

Company	Lease	Well Number
Samuel Gary Jr. & Associates	Nielsen	25-13

County	Location	Section	TWP	RNG(E/W)	Acres Attributed
Comanche	500' FSL 500'FW	25-32-19w			160

Field	Reservoir	Gas Gathering Connection
Wildcat	Mississippian	Reliant Energy

Completion Date	Plug Back Total Depth	Packer Set at
11-5-2000	5265	

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
5.500	15.500	4.995	5332	5160	5250

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To
2.375	4.700	1.995	5248		

Type Completion (Describe)	Type Fluid Production	Pump Unit or Traveling Plunger?
acid	water	no

Producing Thru(Annulus/Tubing)	% Carbon Dioxide	% Nitrogen	Gas Gravity- Gg
tubing		1.072	.595

Vertical Depth (H)	Pressure Taps	Meter Run Size
5205	Flange	2.067

Pressure Buildup: Shut in	11/11/00 @ 4:00pm	TAKEN	11/30/00 @ 2:00pm
Well on Line: Started	11/30/00 @ 2.00pm	TAKEN	12/1/00 @ 2:20pm

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H $_2$O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P_w) (P_t) (P_c) psig	Casing WellHead Press. psia	Tubing WellHead Press. (P_w) (P_t) (P_c) psig	Tubing WellHead Press. psia	Duration (Hours)	Liquid Prod. Barrels
Shut-in						1500	1514	1500	1514	454.0	
Flow	.750	141.0	28.00	62		1172	1186	650	664	24.1	8.3

FLOW STREAM ATTRIBUTES

COEFFICIENT (F_b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcfd	GOR	G_m
2.780	155.4	65.96	1.2964	.9981	1.0120	240	29052.2	.737

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)^2 = 2293.4 (P_w)^2 = 1407.5 9.0 % (P_c - 14.4) + 14.4 = (P_a)^2 = 0.207 (P_d)^2 18.77

(P_c)^2 - (P_a)^2 or (P_c)^2 - (P_d)^2	(P_c)^2 - (P_w)^2	$\frac{(P_c)^2-(P_a)^2 \text{ or } (P_c)^2-(P_d)^2}{(P_c)^2-(P_w)^2}$	LOG [ ]	Backpressure Curve Slope"n" ---- or ---- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability = R x Antilog Mcfd
2293.20	885.86	2.589	.4131	.679	.2805	1.908	458
2274.64	885.86	2.568	.4095	.679	.2781	1.897	455

OPEN FLOW 458 Mcfd @ 14.65 psia DELIVERABILITY 455 Mcfd @ 14.65 psia

The undersigned authority, on behaf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated herein and that said report is true and correct. Executed this the 12 day of Dec, 2000

Witness (if any)

For Company

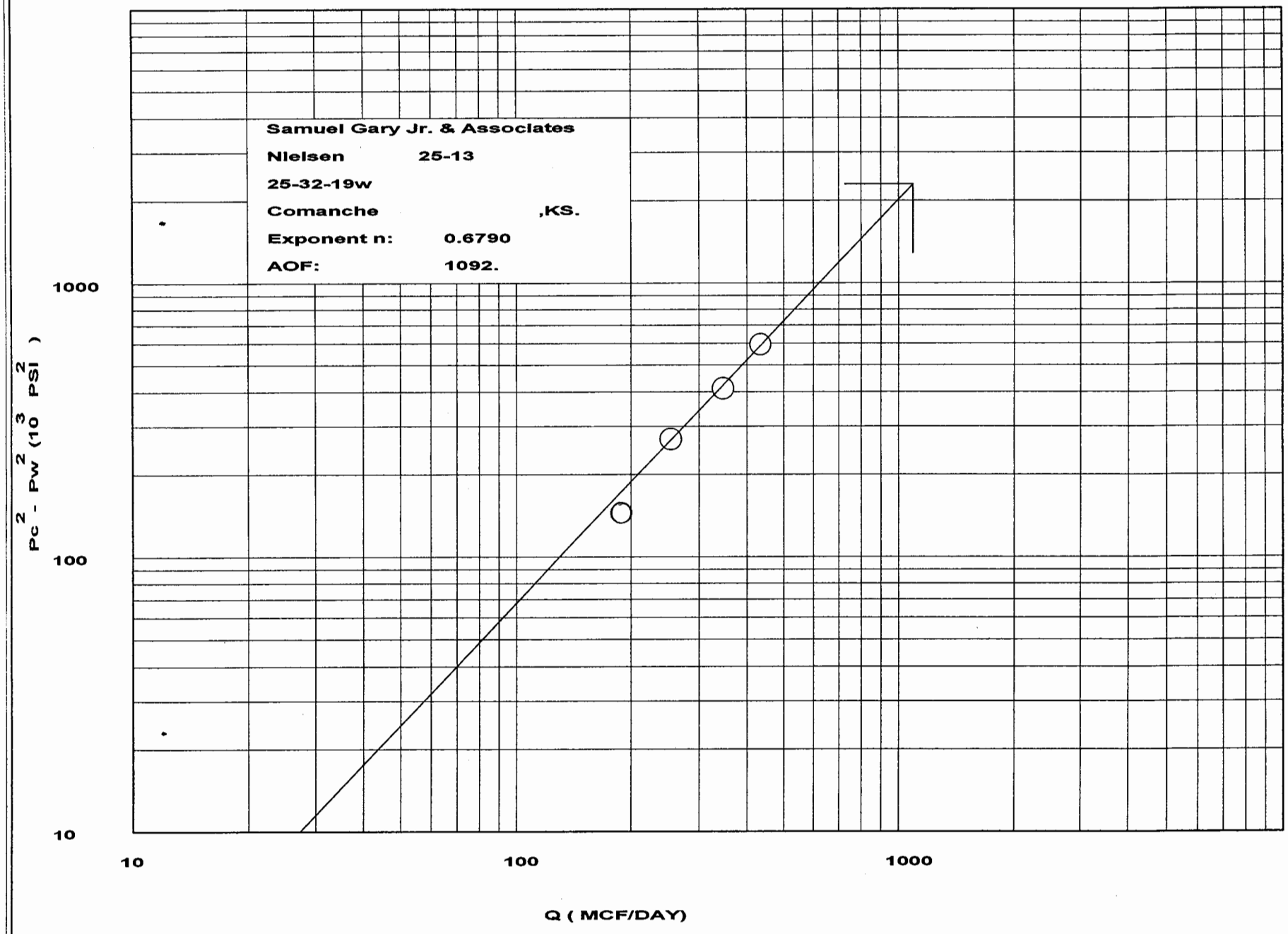
For Commission

Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER:

TEST DATE: 11/30/2000



NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number: 20006165 Analyzed: 12/08/00

Sample From: Nielsen 25-13 4pt
Producer: Samuel Gary, Jr.
Pressure:
Temperature:

Date: 12/01/00 Location: 25-12-19

Time:
Sampler: Lanny Saloga
Source:
County: Comanche
State: Kansas
Formation:

		Mole %	GPM
Helium	He:	0.081	0.000
Hydrogen	H2:	0.017	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	1.072	0.000
Carbon Dioxide	CO2:	0.149	0.000
Methane	C1:	94.264	0.000
Ethane	C2:	2.862	0.765
Propane	C3:	0.869	0.239
Iso Butane	iC4:	0.135	0.044
Normal Butane	nC4:	0.260	0.082
Iso Pentane	iC5:	0.080	0.029
Normal Pentane	nC5:	0.077	0.028
Hexanes Plus	C6+:	0.134	0.058
	TOTAL:	100.000	1.247

Z Fact: 0.9978
SP.GR.: 0.5955
BTU (SAT): 1037.0 @ 14.73 psia
BTU (DRY): 1055.4 @ 14.73 psia

OCTANE RATING: 126.8

COMMENTS: 0.000

Sam Gary Jr. & Associates
500' FSL 500' FWL
Start Test Date: 2000/11/30

FieldNotes
Field Measurements

Nielson 25-13

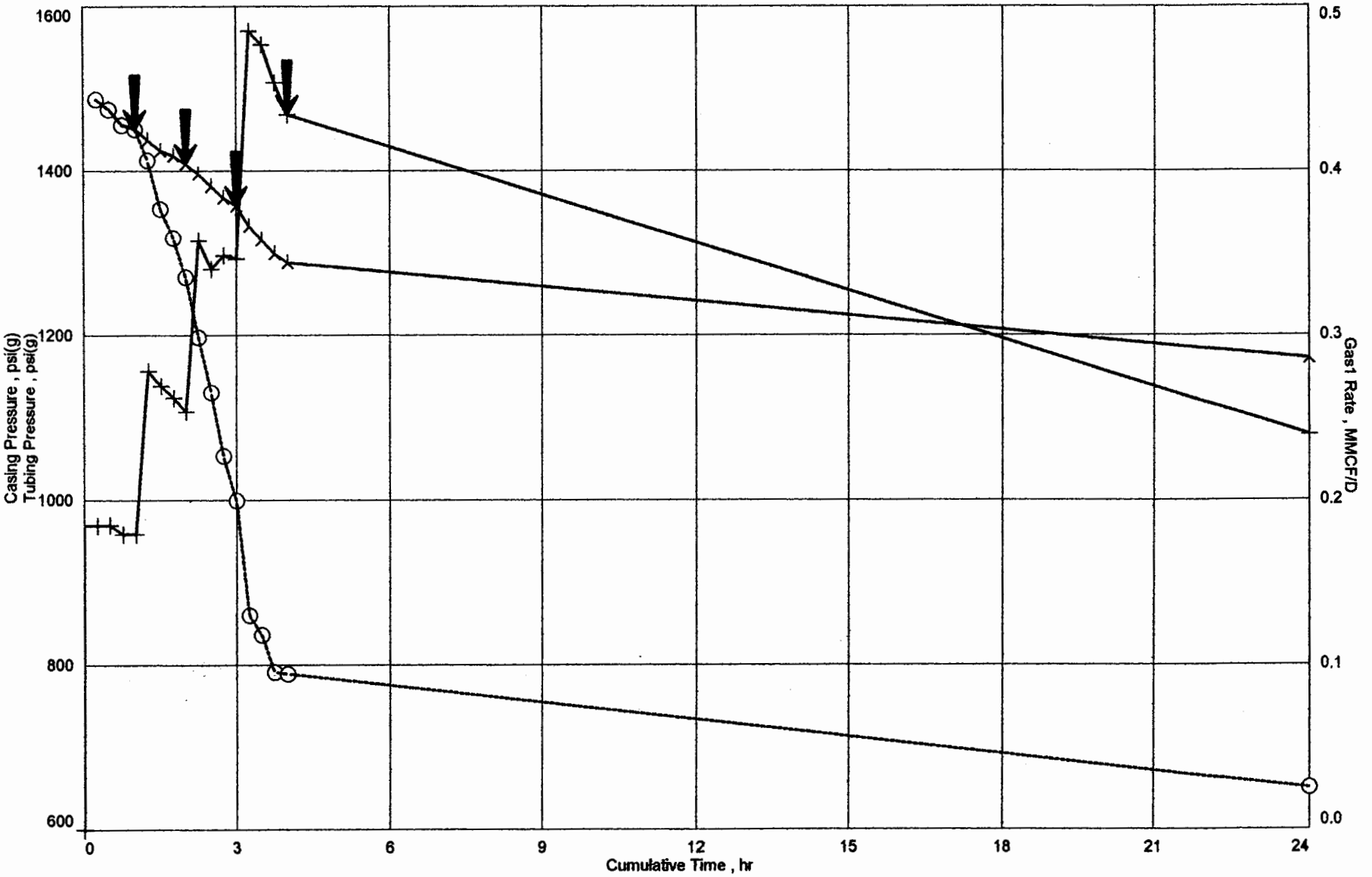
	Date	Clock Time	Comment	Casing Pres	Tubing Pres	Static1 Pres	Diff1 Pres	Meter1 Temp	Gas1 Rate
	yyyy/mm/d	hh:mm:ss		psi(g)	psi(g)	psi(g)	in of H2O	°F	MMCF/D
1	2000/11/30	14:00:00	shutin						
2				1500.00	1500.00	0.00	0.00	0.00	
3		14:15:00		1486.00	1486.00	141.00	17.00	73.40	0.185
4		14:30:00		1475.00	1474.00	143.00	17.00	78.00	0.185
5		14:45:00		1456.00	1455.00	143.00	16.00	78.00	0.179
6		15:00:00	1st pt						
7		15:00:00		1451.00	1450.00	143.00	16.00	78.00	0.179
8		15:15:00		1437.00	1412.00	149.00	37.00	78.00	0.278
9		15:30:00		1424.00	1353.00	139.00	37.00	78.00	0.269
10		15:45:00		1418.00	1318.00	139.00	35.00	78.00	0.262
11		16:00:00	2nd pt						
12		16:00:00		1408.00	1270.00	138.00	33.00	78.00	0.253
13		16:15:00		1396.00	1197.00	151.00	60.00	76.00	0.357
14		16:30:00		1381.00	1130.00	149.00	55.00	76.00	0.340
15		16:45:00		1367.00	1053.00	151.00	57.00	76.00	0.348
16		17:00:00	3rd pt						
17		17:00:00		1357.00	999.00	152.00	56.00	76.00	0.346
18		17:15:00		1332.00	860.00	174.00	96.00	74.00	0.485
19		17:30:00	fluid						
20		17:30:00		1316.00	836.00	167.00	96.00	72.00	0.477
21		17:45:00		1299.00	791.00	152.00	95.00	72.00	0.454
22		18:00:00	4th pt						
23		18:00:00		1288.00	789.00	137.00	95.00	68.00	0.434
24	12721/12/31	14:00:00	1 point						
25		14:00:00		1172.00	650.00	141.00	28.00	62.00	0.240

2000/11/30 14:00:00 To 12721/12/3114:00:00
Gas 0.051 Cum. 0.051 MMCF

Sam Gary Jr. & Associates
500' FSL 500' FWL
Start Test Date: 2000/11/30
Final Test Date: 2000/12/01

Nielson 25-13

Plot



1pt

From: Tom Fertal <tom@sga3d.com>
To: "Paul Simpson (E-mail)" <trilobite@eaglecom.net>
Subject: DATA FOR NIELSON 25-13 4-PT / 1-PT
Date: Mon, 27 Nov 2000 16:44:00 -0700
X-Mailer: Internet Mail Service (5.5.2650.21)

Nielson 25-13 SW SW Section 25 - 32S - 19W (500 FSL / 500 FWL) API # 15-033-21148-0000 ; TD = 5956' ; 5-1/2" 15.5# casing set at 5332' KB ; PBTD = 5265' ; 2-3/8" 4.7# tubing set at 5248' ; No packer in the hole ; Producing formation = Mississippian ; Perforations are from 5160' to 5250' ; GL = 1999' ; KB = 2011' ; Field = Wildcat ; Acres = 160 ; Gas purchaser = Reliant Energy ; Well was shut-in (waiting on pipeline hook-up) Nov. 11, 2000.

If you need any other info let me know.

Company:	Sam Gom Jr							
Address:								
Wellname:	Nielsen 25-13							
Legal:	25-32s 19W			Sec: 25	Twp: 32s		Rge: 19w	
Formation:	Miss	Field/Pool:	Wildcat		County: Comm		St:	
Casing size:	5.5	Feet of:		Wt:	Meter run size:		SI:	1500
Tubing Size:	2.375	Feet of:		Wt:	Orif (in):	.75	95%	1425
TD:		Pluged back depth:		Packer depth:			90%	1350
Type Test:	4pt	Tap Type:	flange	Gravity:			85%	1275
Type Completion:		Producing through:	tubing				80%	1200

Date	Clk Tim	Tbg Pres	Csg Pres	Diff	Temp	Static/Prover	Wat Vol1	Oil Vol	Comment
mm/dd	clock	psi	psi	in of H20	F	PSI	inch	inch	
11/30	1400	1500	1500						SI
	1415	1486	1496	17	60	141			
	1430	1474	1475	17	68	143			
	1445	1455	1456	16	69	142			
	1500	1450	1451	16	70	143			1st pt
	1515	1412	1437	37	72	149			
	1530	1353	1424	37	78	139			
	1545	1318	1418	35	78	139			
	1600	1270	1408	33	78	138			2nd pt
	1615	1197	1396	60	76	151			
	1630	1130	1381	55	76	149			
	1645	1053	1367	57	76	151			
	1700	999	1357	56	76	152			3rd pt
	1715	860	1352	96	74	174			
	1730	836	1316	96	72	167		6"	fluid
	1745	791	1299	95	70	152			
	1800	789	1288	95	68	137			

Date	Miles	Name	Date	Miles	Name	Date	Miles	Name