

**Retrograde Gas PVT Fluid Study
for
Chisos, Ltd.
Wishbone "6" Federal Com. No. 1
Wildcat (Strawn) Field
Eddy County, New Mexico**

The analysis, opinions and interpretations contained in this report are based upon observations, assumptions, empirical factors, inferences and data supplied by the customer, which are not infallible. The results expressed in this report represent the best judgment of FESCO. Accordingly, FESCO assumes no responsibility and makes no warranty as to the accuracy or correctness of any analysis, opinion or interpretation. FESCO shall not be liable or responsible for any loss, cost, damage, claim or expense whatsoever incurred or sustained by the customer resulting from any analysis, opinion or interpretation made by any of our employees.

**BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 13395 Exhibit No. 2
Submitted by:
Chisos, Ltd.
Hearing Date: February 17, 2005**



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February 14, 2005

Mr. Lewis Moseley
Chisos, Ltd.
670 SW Dona Ana Road
Deming, New Mexico 88030

Re: Well: Wishbone "6" Federal Com. No. 1
Field: Wildcat (Strawn)
Location: Eddy County, New Mexico
Formation: Strawn
Perforations: 10514 – 10600 feet
Test Type: Retrograde Gas PVT Fluid Study

Dear Mr. Moseley:

The attached report contains results from a laboratory study performed on the recombined separator fluids from the subject well. The study determined the type and character of the reservoir fluid. The fluid study was performed using first-stage separator gas and oil samples obtained from the well on January 26, 2005 by FESCO, Ltd. FESCO then delivered the separator samples to its PVT laboratory in Alice, Texas. Extended compositional analyses were performed on the separator gas (C₁₁₊) and on the separator oil (C₃₁₊) samples. The Appendix contains the ASTM D-86 distillation. Tables 1-A through 1-C list the compositional analyses of the separator gas, separator oil and mathematically recombined wellstream fluid through C₇₊, C₁₁₊ and C₃₁₊, respectively. Table 2 reports the fluid properties measured as the separator oil was flashed from separator conditions to laboratory conditions.

The separator gas and oil were physically recombined in a visual PVT cell at the reservoir temperature of 149 °F and at the reported gas-oil ratio of 3450 Scf/Sep Bbl (4077 Scf/STB). The recombined fluid was evaluated during a Constant Composition Expansion (CCE) process at pressures ranging from 7500 to 1016 psig. The resulting CCE data is reported in Table 3. ***A retrograde dew point was observed at 4736 psig.*** The static reservoir pressure is higher than the observed retrograde dew point pressure. Therefore, the reservoir fluid exists as undersaturated (single-phase) gas at static reservoir conditions of 5471 psig and 149 °F. Figures 1 through 7

Chisos, Ltd.
Wishbone "6" Federal Com. No. 1
February 14, 2005

illustrate the data reported in Table 3.

Thank you for this opportunity to serve Chisos, Ltd. Please call me if you have any questions or concerns regarding this report.

Sincerely,

FESCO, Ltd.

Conan Pierce
District Engineer
Alice, Texas
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Vice - President
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FESCO, Ltd.

Petroleum Engineers



WELL SUMMARY

WELL INFORMATION

Company:	Chisos, Ltd.
Well Name:	Wishbone "6" Federal Com. No. 1
Field:	Wildcat (Strawn)
Location:	Eddy County, New Mexico

RESERVOIR INFORMATION

Formation:	Strawn
Perforations:	10514 - 10600 feet
Reservoir Datum:	10557 feet
Reservoir Temperature:	149 °F
Static Reservoir Pressure:	5471 psig
Flowing Reservoir Pressure:	Unavailable

SAMPLE INFORMATION

Sampling Date:	01/26/05
Sampled By:	FESCO, Ltd. - Ozona, TX
Sample Type:	1st-Stage Separator Gas and Oil
Flowing Tubing Pressure:	300 psig
1st Stage Separator Pressure:	250 psig
1st Stage Separator Temperature:	79 °F
2nd Stage Separator Pressure:	Not Present
2nd Stage Separator Temperature:	Not Present

PRODUCTION INFORMATION

Test Date:	01/26/05
1st Stage Separator Gas Rate:	21023 Mcf/d
Stock Tank Oil Rate:	5156.00 STB/d
Water Rate:	0.00 STB/d
Stock Tank Gas-Oil Ratio:	4077 Scf 1st Stage Gas / STB
Separator Gas-Oil Ratio:	3450 Scf 1st Stage Gas / Sep Bbl
Separator Oil Volume Factor:	1.18176 Sep Oil Vol / STO Vol

FESCO, Ltd.

Petroleum Engineers



RESULTS SUMMARY

Company:	Chisos, Ltd.
Well:	Wishbone "6" Federal Com. No. 1
Type of Test:	Retrograde Gas PVT Fluid Study
Reservoir Fluid Type:	Undersaturated Gas
Saturation Conditions:	
Pressure (Retrograde Dew Point):	4736 psig
Temperature:	149 °F
Gas Deviation Factor (Z):	1.00705
Gas Expansion Factor:	1.48607 Mscf/Bbl
Reservoir Conditions:	
Pressure:	5471 psig
Temperature:	149 °F
Gas Deviation Factor (Z):	1.12761
Gas Expansion Factor:	1.53316 Mscf/Bbl
Report Date:	2/14/2005



SAMPLE SUMMARY

Company: Chisos, Ltd.
Well: Wishbone "6" Federal Com. No. 1
Sample Date: 01/26/05

Separator Conditions

Pressure: 250 psig
Temperature: 79 °F

Laboratory Quality Test

Separator Gas:	<u>Pressure</u>	<u>Temperature</u>
Cylinder ID No. G-1030*	230 psig	64 °F
Cylinder ID No. G-1024	230 psig	64 °F

Separator Liquid:	<u>BP Pressure</u>	<u>Temperature</u>
Cylinder ID No. T-563*	239 psig	64 °F
Cylinder ID No. T-571	233 psig	64 °F

Report Date: 2/14/2005

* Samples used in fluid study

TABLE 1-A

**COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, OIL
AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH C₇₊**

SEPARATOR GOR.....: 3450 Scf/Sep Bbl
SEPARATOR PRESSURE.....: 250 psig
SEPARATOR TEMPERATURE.....: 79 °F

Component	SEPARATOR GAS		SEPARATOR OIL		WELLSTREAM	
	Mole%	* GPM	Mole %	Liquid Volume %	Mole %	* GPM
Hydrogen Sulfide	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen	1.675	0.000	0.094	0.021	1.372	0.000
Carbon Dioxide	0.211	0.000	0.031	0.011	0.177	0.000
Methane	74.159	0.000	7.042	2.411	61.293	0.000
Ethane	15.033	4.101	7.372	3.984	13.565	3.700
Propane	5.991	1.682	10.000	5.560	6.759	1.897
Iso-butane	0.619	0.206	2.377	1.570	0.956	0.319
N-butane	1.378	0.443	7.707	4.907	2.591	0.833
2-2 Dimethylpropane	0.000	0.000	0.000	0.000	0.000	0.000
Iso-pentane	0.262	0.098	3.096	2.289	0.805	0.301
N-pentane	0.365	0.135	4.422	3.237	1.143	0.422
2-2 Dimethylbutane	0.004	0.002	0.101	0.085	0.023	0.010
Cyclopentane	0.010	0.003	0.000	0.000	0.008	0.002
2-3 Dimethylbutane	0.005	0.002	0.305	0.253	0.063	0.026
2 Methylpentane	0.047	0.020	1.470	1.232	0.320	0.135
3 Methylpentane	0.024	0.010	0.891	0.735	0.190	0.079
Other Hexanes	0.000	0.000	0.000	0.000	0.000	0.000
n-Hexane	0.063	0.026	2.856	2.373	0.598	0.251
Heptanes Plus	0.154	0.065	52.236	71.331	10.137	6.954
TOTAL	100.000	6.792	100.000	100.000	100.000	14.930

HEPTANES PLUS (C ₇₊) FRACTION CHARACTERISTICS					
COMPONENT	Specific Gravity		Molecular Weight lb/lb-mole	Vapor Volume Scf/Gal	Gross Heating Value ***
	°API	**			
Gas	N/A	3.3465	96.922	23.823	5,140
Oil	41.772	0.8166	174.198	14.507	130,721
Wellstream	N/A	0.8161	173.249	14.577	N/A

TOTAL SAMPLE CHARACTERISTICS						
COMPONENT	Specific Gravity		Molecular Weight lb/lb-mole	Vapor Volume Scf/Gal	Gross Heating Value	
	°API	**			Dry ***	Saturated ***
Gas	N/A	0.7457	21.514	147.223	1,305	1,284
Oil	60.837	0.7357	114.921	19.810	N/A	120,408
Wellstream	N/A	1.3610	39.419	38.895	N/A	N/A

* GPM (gallons per Mscf) determined at 15.025 psia and 60 °F

** Gas specific gravity and wellstream specific gravity determined relative to air (SG=1.000).
Oil specific gravity determined relative to water (SG=1.000).

*** Gross Heating Value units for gas (real basis) and oil are BTU/Scf and BTU/Gal, respectively.

TABLE 1-B

**COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, OIL
AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH C₁₁₊**

SEPARATOR GOR.....: 3450 Scf/Sep Bbl
SEPARATOR PRESSURE.....: 250 psig
SEPARATOR TEMPERATURE.....: 79 °F

Component	SEPARATOR GAS		SEPARATOR OIL		WELLSTREAM	
	Mole%	* GPM	Mole %	Liquid Volume %	Mole %	* GPM
Hydrogen Sulfide	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen	1.675	0.000	0.094	0.021	1.372	0.000
Carbon Dioxide	0.211	0.000	0.031	0.011	0.177	0.000
Methane	74.159	0.000	7.042	2.411	61.293	0.000
Ethane	15.033	4.101	7.372	3.984	13.565	3.700
Propane	5.991	1.682	10.000	5.560	6.759	1.897
Iso-butane	0.619	0.206	2.377	1.570	0.956	0.319
N-butane	1.378	0.443	7.707	4.907	2.591	0.833
2-2 Dimethylpropane	0.000	0.000	0.000	0.000	0.000	0.000
Iso-pentane	0.262	0.098	3.096	2.289	0.805	0.301
N-pentane	0.365	0.135	4.422	3.237	1.143	0.422
2-2 Dimethylbutane	0.004	0.002	0.101	0.085	0.023	0.010
Cyclopentane	0.010	0.003	0.000	0.000	0.008	0.002
2-3 Dimethylbutane	0.005	0.002	0.305	0.253	0.063	0.026
2 Methylpentane	0.047	0.020	1.470	1.232	0.320	0.135
3 Methylpentane	0.024	0.010	0.891	0.735	0.190	0.079
Other Hexanes	0.000	0.000	0.000	0.000	0.000	0.000
n-Hexane	0.063	0.026	2.856	2.373	0.598	0.251
Methylcyclopentane	0.022	0.008	1.109	0.793	0.230	0.083
Benzene	0.003	0.001	0.119	0.067	0.025	0.007
Cyclohexane	0.026	0.009	1.871	1.287	0.380	0.132
2-Methylhexane	0.009	0.004	0.813	0.764	0.163	0.077
3-Methylhexane	0.008	0.004	0.783	0.726	0.157	0.073
2,2,4 Trimethylpentane	0.000	0.000	0.000	0.000	0.000	0.000
Other Heptanes	0.014	0.006	1.116	0.981	0.225	0.100
n-Heptane	0.016	0.008	2.122	1.978	0.420	0.197
Methylcyclohexane	0.023	0.009	3.262	2.649	0.644	0.264
Toluene	0.004	0.001	0.602	0.408	0.119	0.041
Other C-8's	0.015	0.007	4.469	4.232	0.869	0.415
n-Octane	0.004	0.002	1.553	1.607	0.301	0.157
Ethylbenzene	0.000	0.000	0.263	0.205	0.050	0.020
M&P-Xylene	0.002	0.001	0.976	0.765	0.189	0.075
O-Xylene	0.001	0.000	0.318	0.244	0.062	0.024
Other C-9's	0.005	0.003	2.877	3.043	0.555	0.297
n-Nonane	0.001	0.001	1.366	1.553	0.263	0.151
Other C10's	0.001	0.001	3.170	3.685	0.608	0.357
n-Decane	0.000	0.000	0.952	1.181	0.183	0.114
Undecanes Plus	0.000	0.000	24.495	45.161	4.695	4.370
TOTAL	100.000	6.792	100.000	100.000	100.000	14.930

TABLE 1-B

COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, OIL AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH C₁₁₊

SEPARATOR GOR.....: 3450 Scf/Sep Bbl
SEPARATOR PRESSURE.....: 250 psig
SEPARATOR TEMPERATURE.....: 79 °F

UNDECANES PLUS (C ₁₁₊) FRACTION CHARACTERISTICS					
COMPONENT	Specific Gravity		Molecular Weight lb/lb-mole	Vapor Volume Scf/Gal	Gross Heating Value ***
	°API	**			
Gas	N/A	0.8250	156.000	16.365	8,400
Oil	34.230	0.8538	245.900	10.745	132,886
Wellstream	N/A	0.8538	245.900	10.745	N/A

TOTAL SAMPLE CHARACTERISTICS						
COMPONENT	Specific Gravity		Molecular Weight lb/lb-mole	Vapor Volume Scf/Gal	Gross Heating Value	
	°API	**			Dry ***	Saturated ***
Gas	N/A	0.7457	21.514	147.223	1,305	1,284
Oil	60.837	0.7357	114.921	19.810	N/A	120,408
Wellstream	N/A	1.3610	39.419	38.895	N/A	N/A

* GPM (gallons per Mscf) determined at 15.025 psia and 60 °F

** Gas specific gravity and wellstream specific gravity determined relative to air (SG=1.000).
Oil specific gravity determined relative to water (SG=1.000).

*** Gross Heating Value units for gas (real basis) and oil are BTU/Scf and BTU/Gal, respectively.

TABLE 1-C

**COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, OIL
AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH G₁₁**

SEPARATOR GOR.....: 3450 Scf/Sep Bbl

SEPARATOR PRESSURE.....: 250 psig

SEPARATOR TEMPERATURE.....: 79 °F

Component	SEPARATOR GAS		SEPARATOR OIL		WELLSTREAM	
	Mole %	CFPM	Mole %	Volume %	Mole %	CFPM
Hydrogen Sulfide	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen	1.675	0.000	0.094	0.021	1.372	0.000
Carbon Dioxide	0.211	0.000	0.031	0.011	0.177	0.000
Methane	74.139	0.000	7.042	2.411	61.293	0.000
Ethane	15.033	4.101	7.372	3.984	13.565	3.700
Propane	5.991	1.682	10.000	5.560	6.759	1.897
Iso-butane	0.619	0.206	2.377	1.570	0.956	0.319
N-butane	1.378	0.443	7.707	4.907	2.591	0.833
2-2 Dimethylpropane	0.000	0.000	0.000	0.000	0.000	0.000
Iso-pentane	0.262	0.098	3.096	2.289	0.805	0.301
N-pentane	0.365	0.135	4.422	3.237	1.143	0.422
2-2 Dimethylbutane	0.004	0.002	0.101	0.085	0.023	0.010
Cyclopentane	0.010	0.003	0.000	0.000	0.008	0.002
2-3 Dimethylbutane	0.005	0.002	0.305	0.253	0.063	0.026
2 Methylpentane	0.047	0.020	1.470	1.232	0.320	0.135
3 Methylpentane	0.024	0.010	0.891	0.735	0.190	0.079
Other Hexanes	0.000	0.000	0.000	0.000	0.000	0.000
n-Hexane	0.063	0.026	2.856	2.373	0.598	0.251
Methylcyclopentane	0.022	0.008	1.109	0.793	0.230	0.083
Benzene	0.003	0.001	0.119	0.067	0.025	0.007
Cyclohexane	0.026	0.009	1.871	1.287	0.380	0.132
2-Methylhexane	0.009	0.004	0.813	0.764	0.163	0.077
3-Methylhexane	0.008	0.004	0.783	0.726	0.157	0.073
2,2,4 Trimethylpentane	0.000	0.000	0.000	0.000	0.000	0.000
Other Heptanes	0.014	0.006	1.116	0.981	0.225	0.100
n-Heptane	0.016	0.008	2.122	1.978	0.420	0.197
Methylcyclohexane	0.023	0.009	3.262	2.649	0.644	0.264
Toluene	0.004	0.001	0.602	0.408	0.119	0.041
Other C-8's	0.015	0.007	4.469	4.232	0.869	0.415
n-Octane	0.004	0.002	1.553	1.607	0.301	0.157
Ethylbenzene	0.000	0.000	0.263	0.205	0.050	0.020
M&P-Xylene	0.002	0.001	0.976	0.765	0.189	0.075
O-Xylene	0.001	0.000	0.318	0.244	0.062	0.024
Other C-9's	0.005	0.003	2.877	3.043	0.555	0.297
n-Nonane	0.001	0.001	1.366	1.553	0.263	0.151
Other C10's	0.001	0.001	3.170	3.685	0.608	0.357
n-Decane	0.000	0.000	0.952	1.181	0.183	0.114
Undecanes	0.000	0.000	3.265	3.894	0.626	0.377
Dodecanes	0.000	0.000	2.737	3.526	0.525	0.341
Tridecanes	0.000	0.000	2.518	3.478	0.483	0.337
Tetradecanes	0.000	0.000	1.888	2.794	0.362	0.270
Pentadecanes	0.000	0.000	1.851	2.934	0.355	0.284
Hexadecanes	0.000	0.000	1.472	2.493	0.282	0.241
Heptadecanes	0.000	0.000	1.213	2.173	0.233	0.210
Octadecanes	0.000	0.000	1.156	2.179	0.222	0.211
Nonadecanes	0.000	0.000	1.003	1.971	0.192	0.191
Eicosanes	0.000	0.000	0.834	1.704	0.160	0.165
Heneicosanes	0.000	0.000	0.746	1.603	0.143	0.155
Docosanes	0.000	0.000	0.670	1.501	0.128	0.145
Tricosanes	0.000	0.000	0.563	1.293	0.108	0.125
Tetracosanes	0.000	0.000	0.515	1.238	0.099	0.120
Pentacosanes	0.000	0.000	0.440	1.097	0.084	0.106
Hexacosanes	0.000	0.000	0.391	1.010	0.075	0.098

TABLE 1-C

**COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, OIL
AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH G₁**

SEPARATOR GOR.....: 3450 Scf/Sep Bbl
SEPARATOR PRESSURE.....: 250 psig
SEPARATOR TEMPERATURE.....: 79 °F

Component	SEPARATOR GAS		SEPARATOR OIL		WELLSTREAM	
	Mole%	* GPM	Mole %	Liquid Volume %	Mole %	* GPM
Heptacosanes	0.000	0.000	0.345	0.925	0.066	0.090
Octacosanes	0.000	0.000	0.304	0.842	0.058	0.082
Nonacosanes	0.000	0.000	0.266	0.762	0.051	0.074
Triacosanes	0.000	0.000	0.244	0.720	0.047	0.070
Hentriacontanes Plus	0.000	0.000	2.074	7.022	0.398	0.680
TOTALS	100.000	6.792	100.000	100.000	100.000	14.930

TOTAL SAMPLE CHARACTERISTICS						
COMPONENT	Specific Gravity		Molecular Weight lb/lb-mole	Vapor Volume Scf/Gal	Gross Heating Value	
	°API	**			Dry ***	Saturated ***
Gas	N/A	0.7457	21.514	147.223	1,305	1,284
Oil	60.837	0.7357	114.921	19.810	N/A	120,408
Wellstream	N/A	1.3610	39.419	38.895	N/A	N/A

* GPM (gallons per Mscf) determined at 15.025 psia and 60 °F

** Gas specific gravity and wellstream specific gravity determined relative to air (SG=1.000).
Oil specific gravity determined relative to water (SG=1.000).

*** Gross Heating Value units for gas (real basis) and oil are BTU/Scf and BTU/Gal, respectively.



HOFFMAN PLOT

EQUILIBRIUM CHECK of SEPARATOR LIQUID and GAS COMPOSITIONAL ANALYSES

Separator Pressure = 250 psig
Separator Temperature = 79 °F

Components	Gas (X)	Oil (Y)	Equil. Ratio	K*Psep	Normal BP (NBP)	$T_{NBP}^{-1} - T_{SEP}^{-1}$	Critical Pressure	Critical Temperature	B-Factor	Graph Results	
	Mole %	Mole %	(K=Y/X)	(psiA)	°R		(Pc) psiA	(Tc) °R		B(1/Tb-1/Tsp)	Log(K*Psep)
N2	1.675	0.094	17.752	4704.72	139	0.005322	493	227	547	2.909	3.673
CO2	0.211	0.031	6.734	1784.59	350	0.000997	1071	548	1801	1.796	3.252
C1	74.159	7.042	10.532	2791.15	201	0.003119	668	343	800	2.495	3.446
C2	15.033	7.372	2.039	540.42	332	0.001154	708	550	1404	1.620	2.733
C3	5.991	10.000	0.599	158.78	416	0.000547	616	666	1787	0.978	2.201
IC4	0.619	2.377	0.260	69.03	471	0.000269	529	735	2023	0.543	1.839
NC4	1.378	7.707	0.179	47.39	491	0.000181	551	765	2143	0.387	1.676
IC5	0.262	3.096	0.085	22.42	542	-0.000010	490	829	2366	-0.025	1.351
NC5	0.365	4.422	0.083	21.88	557	-0.000059	489	845	2465	-0.147	1.340
C6	0.153	5.624	0.027	7.21	615	-0.000231	437	913	2763	-0.640	0.858
C7+	0.154	52.236	0.003	0.78	763	-0.000546	332	1070	3578	-1.954	-0.107
Total	100.000	100.000									

(Note: C7+ Critical Properties as C9. The C6 composition includes iso-hexanes.)

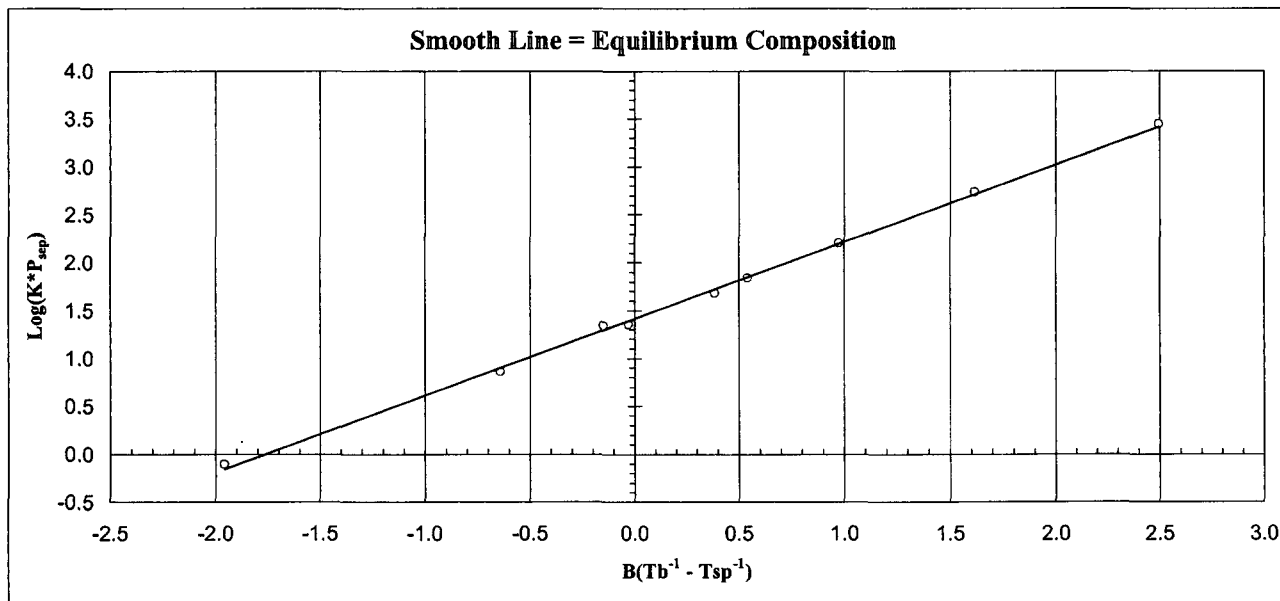




TABLE 2
FLASH LIBERATION OF 1st-STAGE SEPARATOR LIQUID

SEPARATOR CONDITIONS and FLUID PROPERTIES						
Conditions	Pressure psia	Temperature °F	GOR (1)	Separator Oil Volume Factor (2)	Oil Specific Gravity (3)	Gas Specific Gravity (4)
1st Stage Separator	265	79	N/A	1.1818	0.7357	0.7457
2nd Stage Separator	N/A	N/A	N/A	N/A	N/A	N/A
Stock Tank	15.025	64	271	1.0000	0.7966	1.4578
TOTALS	-----	-----	271		-----	-----

- (1) Gas-Oil Ratio (GOR) is the cubic feet of gas at standard conditions per barrel of stock tank oil.
 (2) Barrels of oil at indicated separator conditions per barrel of stock tank oil.
 (3) Water = 1.000
 (4) Air = 1.000



TABLE 3
PRESSURE-VOLUME RELATION
OF
A 3450 Scf/Sep Bbl RESERVOIR FLUID AT 149 °F
(Constant Composition Expansion)

Pressure, (psig)	Relative Volume	Density, (g/cc)	Y-Function (1)	Retrograde Liquid Volume		Gas Deviation Factor, Z	Gas Expansion Factor, (4)
				% of HC Pore Volume (2)	Bbls / MMscf (3)		
7500	0.91678	0.49831	N/A	N/A	N/A	1.46035	1.62286
7000	0.92706	0.49279	N/A	N/A	N/A	1.37848	1.60463
6500	0.93859	0.48673	N/A	N/A	N/A	1.29615	1.58466
6000	0.95292	0.47942	N/A	N/A	N/A	1.21494	1.56054
5471	Pres	0.47112	N/A	N/A	N/A	1.12761	1.53316
5016		0.46278	N/A	N/A	N/A	1.05273	1.50563
4736	Psat	0.45684	N/A	0.00%	0.000	1.00705	1.48607
4624		N/A	4.69564	15.31%	102.059	N/A	N/A
4413		N/A	3.95658	26.66%	177.679	N/A	N/A
4224		N/A	3.64610	30.92%	206.076	N/A	N/A
3910		N/A	3.32764	34.85%	232.270	N/A	N/A
3424		N/A	2.96122	38.39%	255.918	N/A	N/A
2954		N/A	2.60567	39.46%	263.017	N/A	N/A
2466		N/A	2.25600	39.57%	263.776	N/A	N/A
1917		N/A	1.90815	38.24%	254.914	N/A	N/A
1592		N/A	1.73386	36.62%	244.070	N/A	N/A
1370		N/A	1.62658	35.29%	235.257	N/A	N/A
1206		N/A	1.55342	33.91%	226.003	N/A	N/A
1016		N/A	1.47288	32.04%	213.543	N/A	N/A

(1) Y - Function = Dimensionless Compressibility = $(P_{\text{sat}} - P_i) * [P_i * (RV_i - 1)]^{-1}$

(2) Retrograde liquid volume at the indicated pressure and reservoir temperature as a percent of the hydrocarbon pore volume at the dew pressure and reservoir temperature.

(3) Retrograde liquid volume at the indicated pressure and reservoir temperature (Bbls) per volume of gas (MMscf) at the dew point pressure and reservoir temperature.

(4) Gas Expansion Factor = the volume of surface gas at standard conditions (Mscf) produced from one barrel of undersaturated gas at the indicated pressure and reservoir temperature.

Relative Volume = volume at indicated pressure per volume at the saturation pressure.

Psat = Saturation (Retrograde Dew Point) pressure at reservoir temperature.

Pres = Current static reservoir pressure.

FIGURE 1
Relative Volume vs Pressure

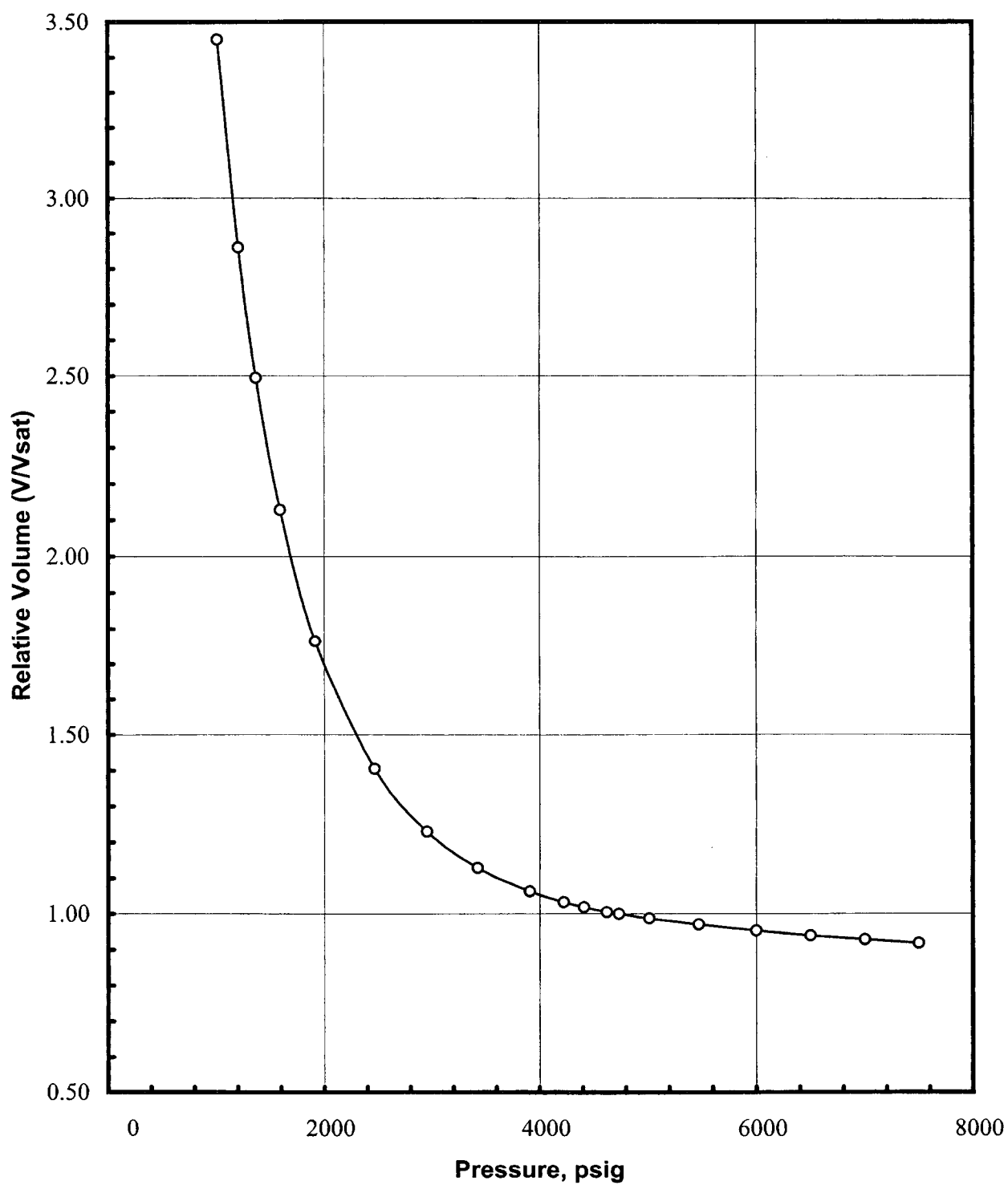


FIGURE 2
Density vs Pressure

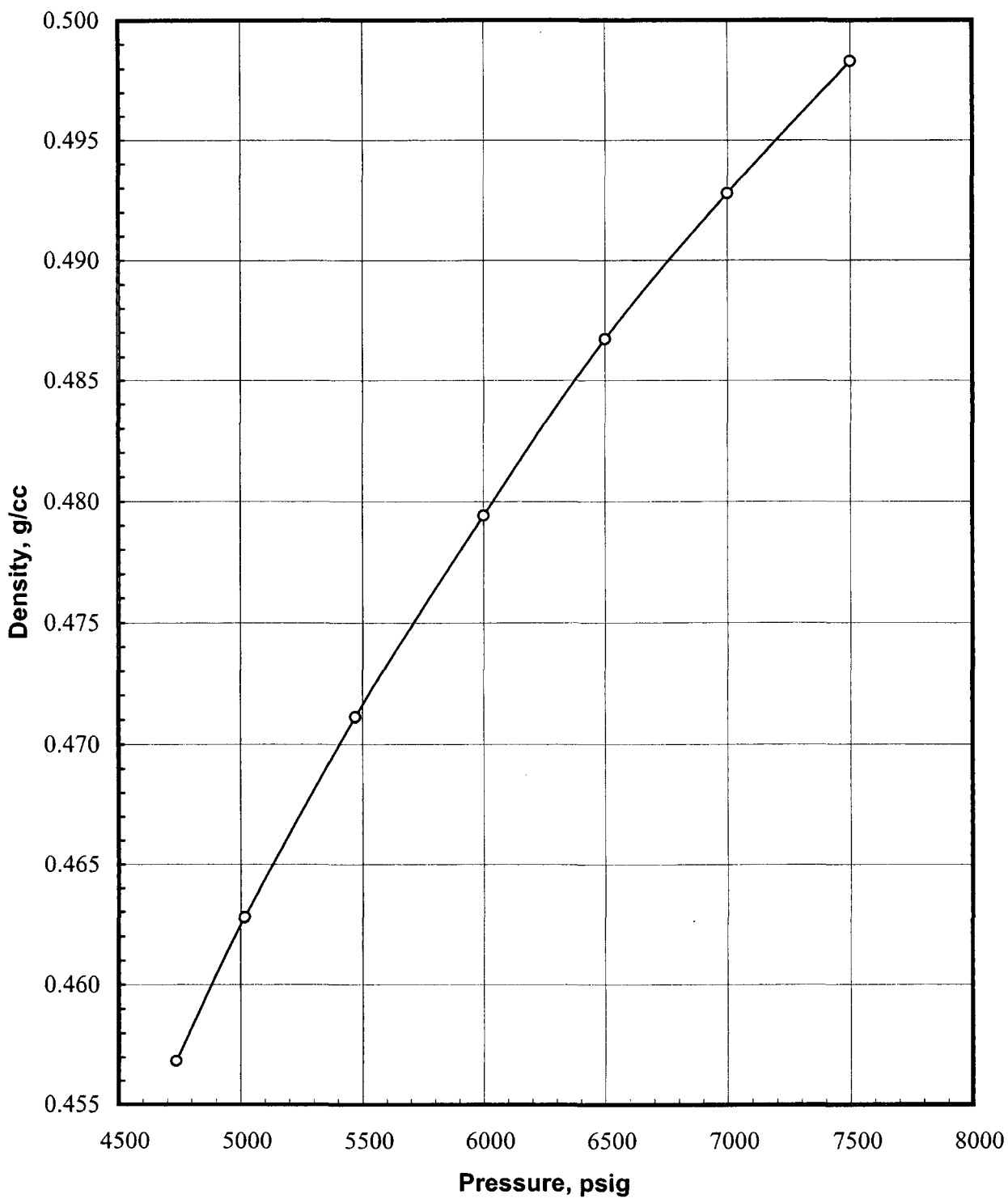


FIGURE 3
Y-Function vs Pressure

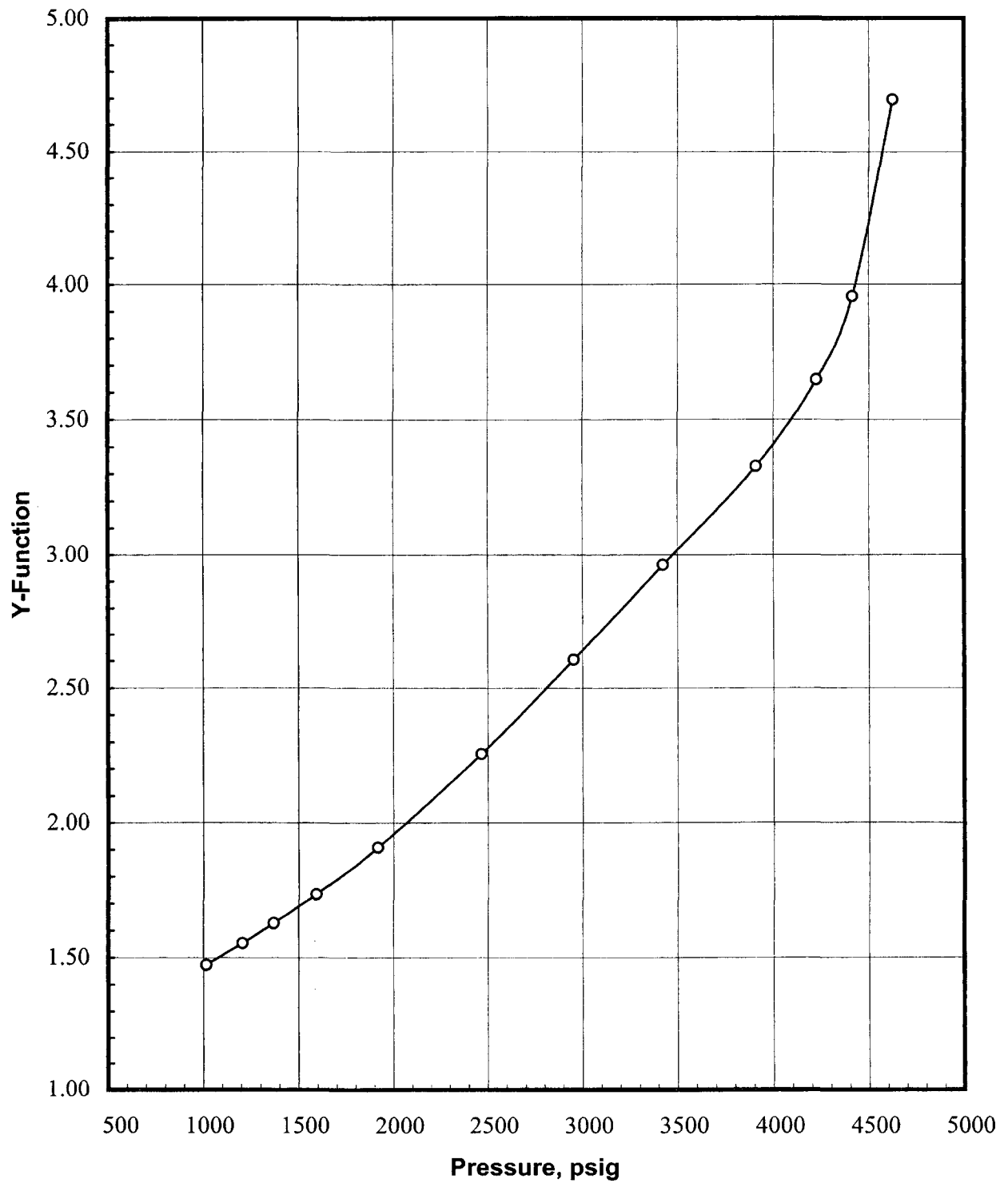


FIGURE 4
Retrograde Liquid Volume vs Pressure

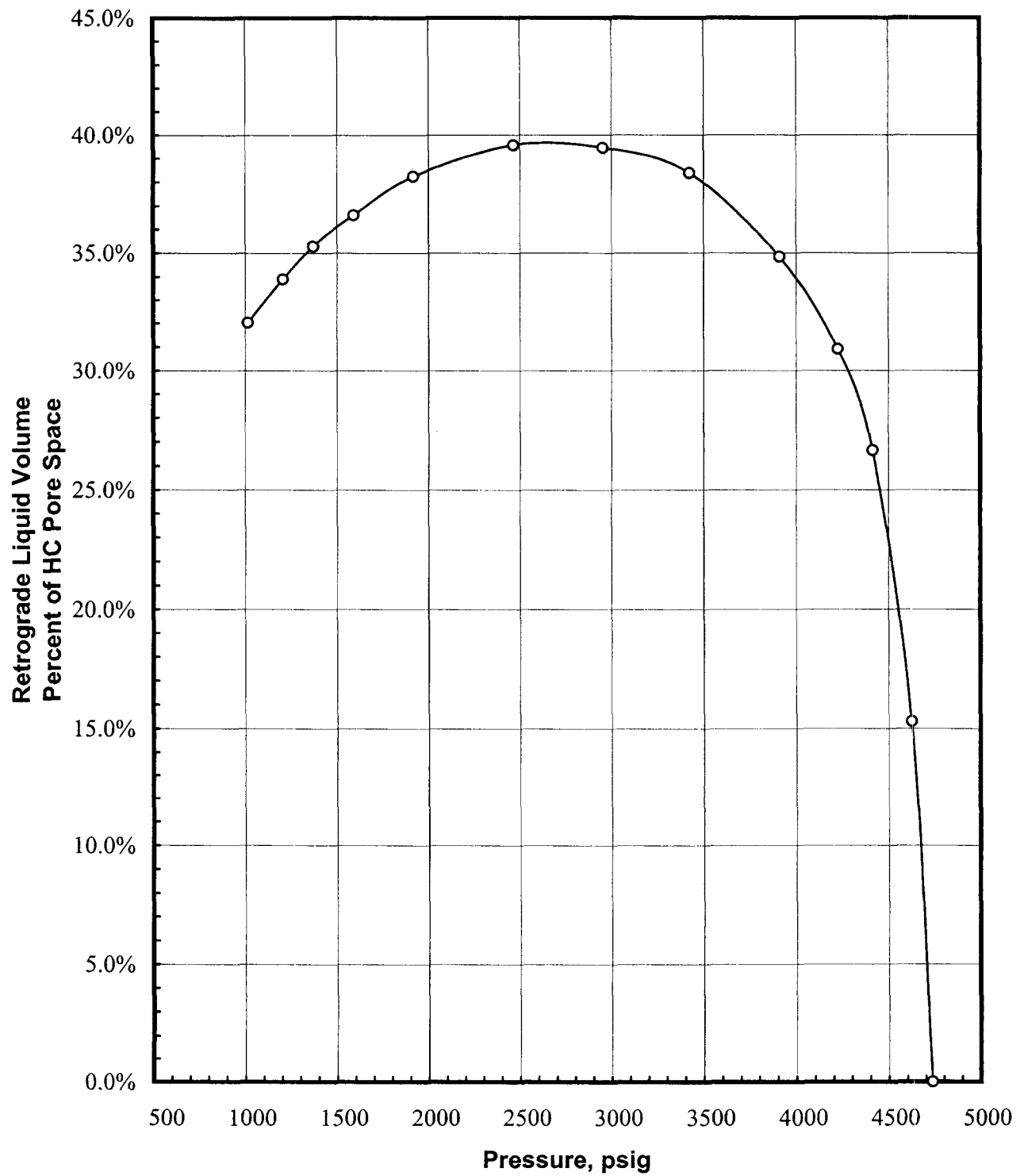
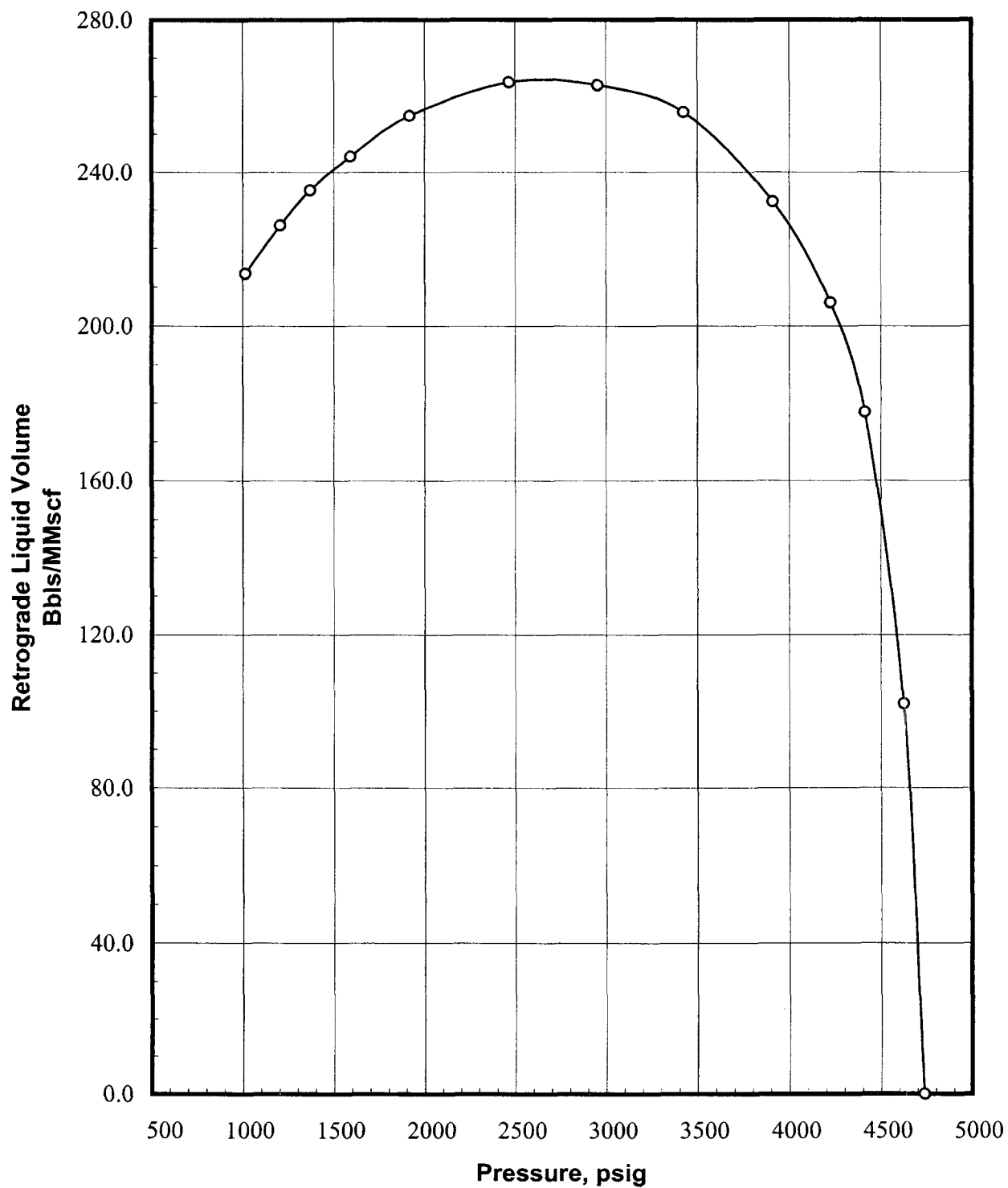


FIGURE 5
Retrograde Liquid Volume vs Pressure



APPENDIX

FIGURE 6
Gas Deviation Factor (Z) vs Pressure

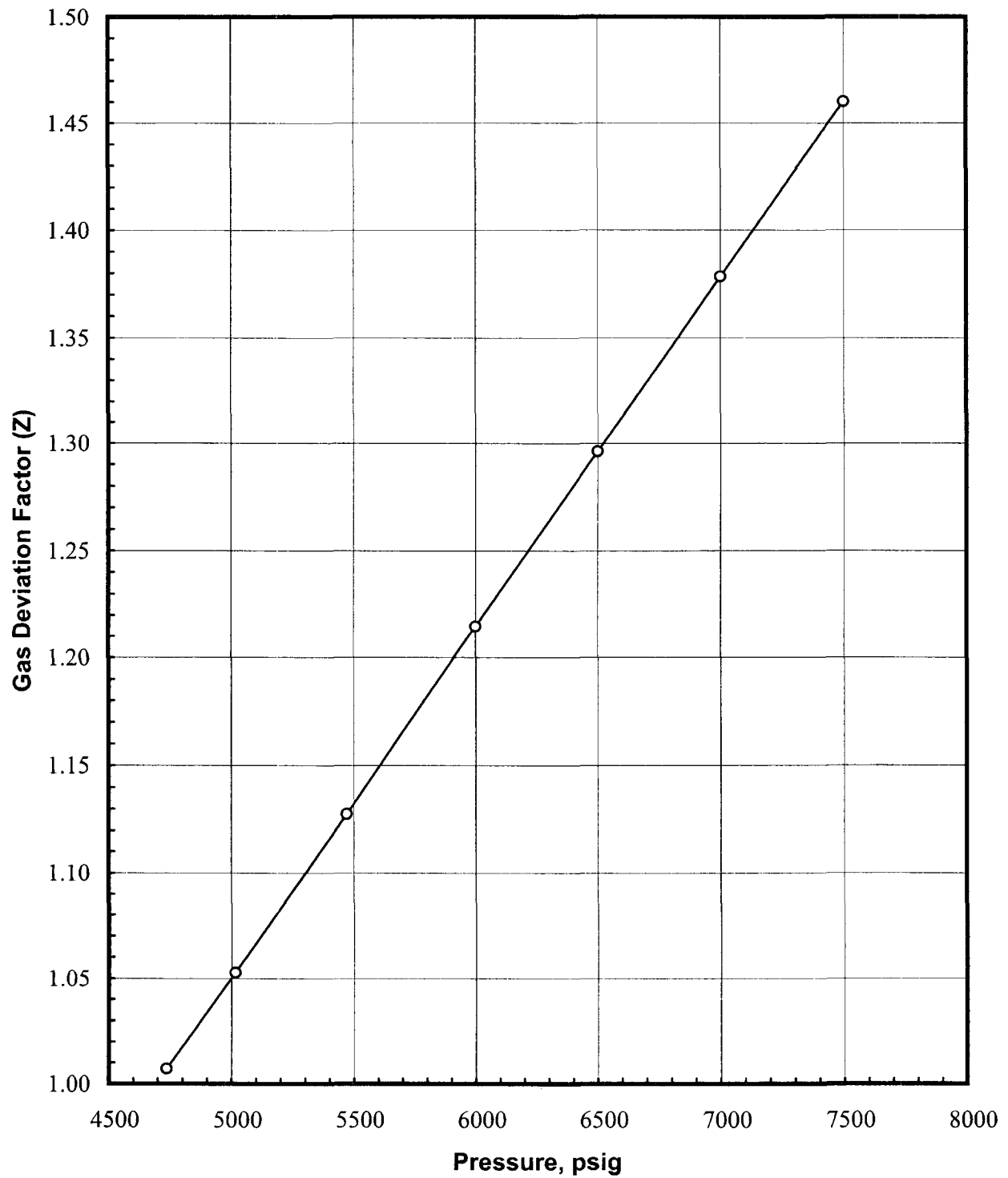
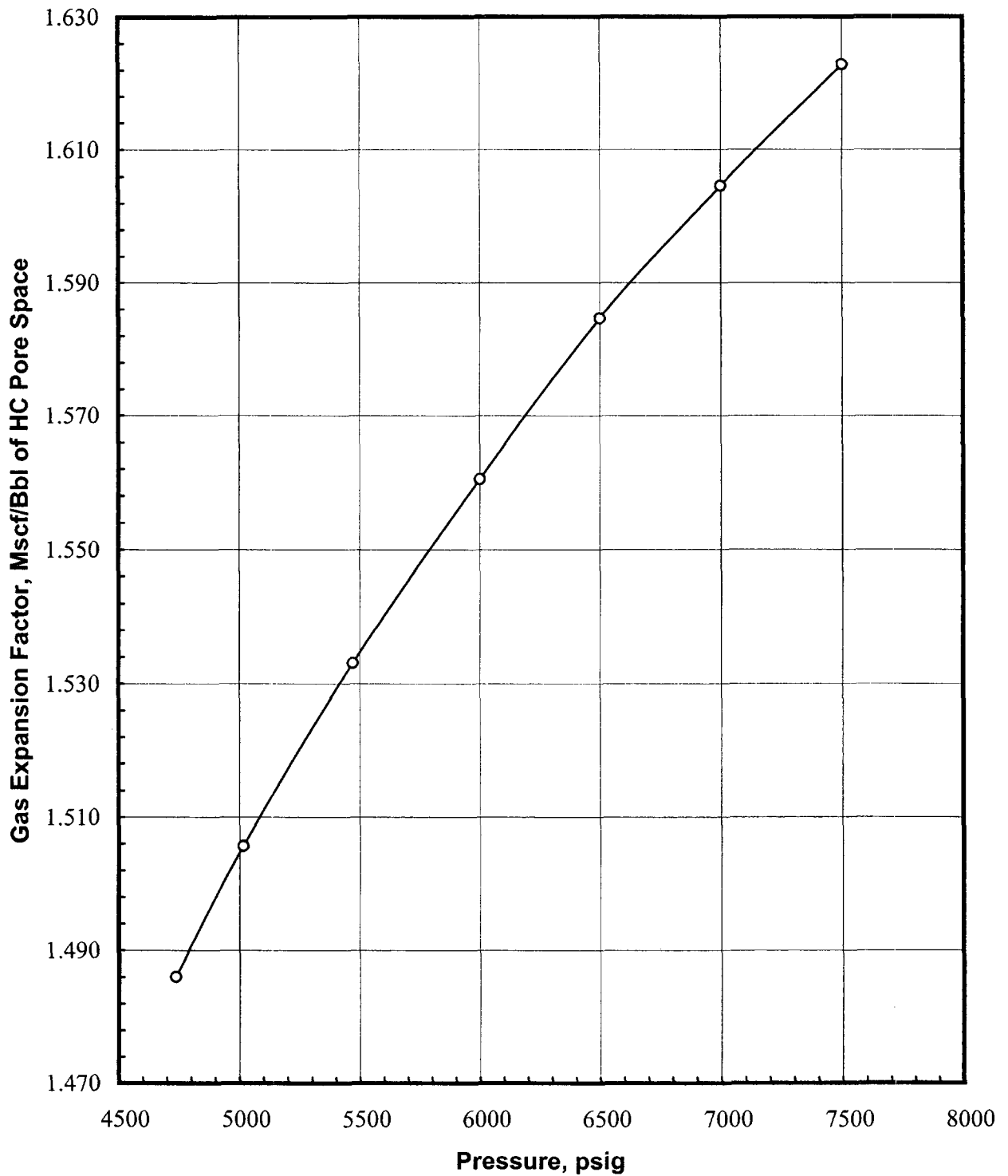


FIGURE 7
Gas Expansion Factor vs Pressure



February 3, 2005



FESCO, Ltd.
1100 FESCO Ave. - Alice, Texas 78332

For: Chisos, Ltd.
670 SW Dona Ana Road
Deming, New Mexico 88030

REPORT OF ASTM D-86 DISTILLATION

Oil/Condensate Sample: Wishbone "6" Federal Com. No. 1

Field: Wildcat (Strawn)

Date Sampled: 1/26/2005

API Gravity @ 60 °F: 51.3°

Color: Straw

Observed Initial Boiling Point: 84 °F

Percent	Temperature Based on Percent	
	Recovered	Evaporated*
10	174	147
20	227	206
30	275	254
40	335	308
50	414	378
60	497	462
70	583	544
80	671	639
90	697	693
95	---	696
End Point	697	697
Recovery:	93.6 %	97.8 %
Residue:	2.2 %	2.2 %
Loss:	4.2 %	---
Totals:	100.0 %	100.0 %

*The Arithmetical Procedure, As Described In ASTM D-86, Was Used To Correct the Temperature Readings For The 4.2 % Loss.

Certified: FESCO, Ltd. - Alice, Texas

A handwritten signature in cursive script, reading "David Dannhaus".

David Dannhaus (361) 661-7015

Lab Job No.: 51528.003