GAS ANALYSIS SERVICE

2030 AFTON PLACE
FARMINGTON, N.M. 87401
(505) 325-6622

ANALYSIS NO. CP110812
CUST. NO. 18300 - 21940

WELL/LEASE INFORMATION

CUSTOMER NAME	CONOCO PHILLIPS COMPANY	SOURCE	CASING
WELL NAME	HOWELL C #1 CSG	PRESSURE	42 PSI G
COUNTY/ STATE	SAN JUAN	SAMPLE TEMP	N/A DEG F
LOCATION		WELL FLOWING	Y
FIELD		DATE SAMPLED	08/22/2011
FORMATION	MESA VERDE	SAMPLED BY	DANIEL WELLS
CUST.STN.NO.	70035 A721586SM	FOREMAN/ENGR.	CHRIS PIERSON

REMARKS API# 30-045-08811

ANALYSIS

COMPONENT	MOLE %	GPM**	B T.U.*	SP.GR *
NITROGEN	0 340	0.0380	0.00	0.0033
CO2	1.139	0 1950	0.00	0 0173
METHANE	77.302	13 1550	780.75	0.4282
ETHANE	11.040	2.9640	195 37	0.1146
PROPANE	5.258	1.4540	132.30	0.0801
I-BUTANE	1 001	0.3290	32.55	0.0201
N-BUTANE	1.612	0.5100	52.59	0 0323
I-PENTANE	0.615	0.2260	24 61	0.0153
N-PENTANE	0.468	0 1700	18.76	0 0117
HEXANE PLUS	1.225	0.5480	64.57	0.0405
TOTAL	100.000	19.5890	1,301.50	0.7634

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 PSIA & 60 DEG F.

COMPRESSIBLITY FACTOR	(1/Z)	1 0041
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,309.9
BTU/CU.FT (WET) CORRECTED FOR	(1/Z)	1,287.1
REAL SPECIFIC GRAVITY		0.7662

GPM, BTU, and SPG calculations as shown above are based on current GPA factors

ANALYSIS RUN AT 14 730 PSIA & 60 DEGREES F

DRY BTU @ 14.650	1,302.8
DRY BTU @ 14.696	1,306 9
DRY BTU @ 14.730	1,309.9
DRY BTU @ 15 025	1,336.1

CYLINDER #	4130
CYLINDER PRESSURE	36 PSIG
DATE RUN	08/24/2011
ANALYSIS RUN BY	SARAH MANGUM

CONOCO PHILLIPS COMPANY
WELL ANALYSIS COMPARISON

LEASE :	HOWELL C #1 CSG	CASING	8/25/2011
STN.NO. :	70035	MESA VERDE	18300 - 21940
MTR.NO. :	A721586SM		

SMPL DATE	08/22/2011
TEST DATE	08/24/2011
RUN NR	CP110812
NITROGEN	0 340
CO2	1.139
METHANE	77.302
ETHANE	11 040
PROPANE	5.258
I-BUTANE	1 001
N-BUTANE	1 612
I-PENTANE	0 615
N-PENTANE	0.468
HEXANE +	1 225
BTU	1,309 9
GPM	19.5890
SP GRAV	0.7662

2030 AFTON PLACE
FARMINGTON, N.M. 87401
(505) 325-6622

ANALYSIS NO. CP110813
CUST. NO. 18300 - 21945

WELL/LEASE INFORMATION

CUSTOMER NAME	CONOCO PHILLIPS COMPANY	SOURCE	INTERMEDIATE
WELL NAME	HOWELL C #1 INTERM.	PRESSURE	43 PSI G
COUNTY/ STATE	SAN JUAN	SAMPLE TEMP	N/A DEG.F
LOCATION		WELL FLOWING	Y
FIELD		DATE SAMPLED	08/22/2011
FORMATION	MESA VERDE	SAMPLED BY	DANIEL WELLS
CUST.STN.NO.	70035	FOREMAN/ENGR.	CHRIS PIERSON
	A721586SM		

REMARKS API# 30-045-08811

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U *	SP GR *
NITROGEN	0.243	0.0270	0.00	0 0024
CO2	1.135	0.1940	0.00	0.0172
METHANE	77.474	13.1830	782.49	0 4291
ETHANE	11.032	2.9610	195.23	0.1145
PROPANE	5 265	1.4560	132 47	0.0802
I-BUTANE	1 002	0.3290	32.58	0.0201
N-BUTANE	1.607	0 5090	52.43	0.0322
I-PENTANE	0 616	0.2260	24.65	0 0153
N-PENTANE	0 467	0 1700	18.72	0 0116
HEXANE PLUS	1 159	0 5190	61.09	0 0384
TOTAL	100.000	19.5740	1,299.66	0.7611

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 PSIA & 60 DEG F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0040
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,307.9
BTU/CU FT (WET) CORRECTED FOR	(1/Z)	1,285.1
REAL SPECIFIC GRAVITY		0.7639

GPM, BTU, and SPG calculations as shown above are based on current GPA factors.

ANALYSIS RUN AT 14 730 PSIA & 60 DEGREES F

DRY BTU @ 14.650	1,300 8
DRY BTU @ 14.696	1,304.9
DRY BTU @ 14.730	1,307.9
DRY BTU @ 15.025	1,334.1

CYLINDER #	4118
CYLINDER PRESSURE	39 PSIG
DATE RUN	08/24/2011
ANALYSIS RUN BY	LOGAN RICHTER

CONOCO PHILLIPS COMPANY
WELL ANALYSIS COMPARISON

LEASE :	HOWELL C #1 INTERM.	INTERMEDIATE	8/25/2011
STN.NO. :	70035	MESA VERDE	18300 - 21945
MTR.NO. :	A721586SM		

SMPL DATE	08/22/2011
TEST DATE	08/24/2011
RUN NR	CP110813
NITROGEN	0.243
CO2	1 135
METHANE	77.474
ETHANE	11.032
PROPANE	5.265
I-BUTANE	1.002
N-BUTANE	1.607
I-PENTANE	0 616
N-PENTANE	0 467
HEXANE +	1.159
BTU	1,307.9
GPM	19.5740
SP GRAV	0 7639