

PROJECT NO. : **201409075** ANALYSIS NO. : **01**
 COMPANY NAME : **GREAT WESTERN OIL & GAS** ANALYSIS DATE: SEPTEMBER 12, 2014
 ACCOUNT NO. : SAMPLE DATE : SEPTEMBER 12, 2014
 PRODUCER : TO:
 LEASE NO. : CYLINDER NO. : 1024
 NAME/DESCRIP : SALES GAS 9:10
 WILLOW BEND 18-22HN

FIELD DATA

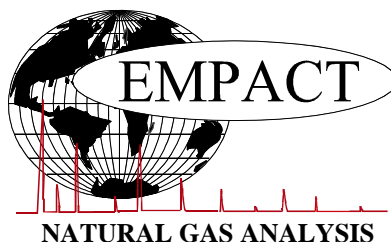
SAMPLED BY : JOHN MOSER - EMPACT SAMPLE TEMP. : 108
 SAMPLE PRES. : 203 AMBIENT TEMP.:
 COMMENTS : SPOT; NO PROBE
 LENGTH OF H2S STAIN @ 0.5 PPM (1-7PPM) 9:15

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.01	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.01	-	-
NITROGEN	0.64	-	-
CO2	1.67	-	-
METHANE	73.52	-	-
ETHANE	13.22	3.515	3.535
PROPANE	6.90	1.890	1.900
ISOBUTANE	0.80	0.260	0.262
N-BUTANE	2.06	0.646	0.649
ISOPENTANE	0.37	0.135	0.135
N-PENTANE	0.45	0.162	0.163
HEXANES+	0.35	0.151	0.152
TOTAL	100.00	6.759	6.796

BTU @ 60 DEG F	14.65	14.73
GROSS DRY REAL =	1295.3	1302.4
GROSS SATURATED REAL =	1272.6	1279.8

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) : 0.7732
 COMPRESSIBILITY FACTOR : 0.99598

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS



PROJECT NO. : **201409075** ANALYSIS NO. : **02**
 COMPANY NAME : **GREAT WESTERN OIL & GAS** ANALYSIS DATE: SEPTEMBER 12, 2014
 ACCOUNT NO. : SAMPLE DATE : SEPTEMBER 12, 2014
 PRODUCER : TO:
 LEASE NO. : CYLINDER NO. : 1801
 NAME/DESCRIP : SALES GAS 9:25
 WILLOW BEND 18-22HC

FIELD DATA

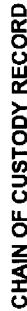
SAMPLED BY : JOHN MOSER - EMPACT SAMPLE TEMP. : 80
 SAMPLE PRES. : 210 AMBIENT TEMP.:
 COMMENTS : SPOT; NO PROBE
 LENGTH OF H2S STAIN @ 0.5 PPM (1-7PPM) 9:30

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.01	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.01	-	-
NITROGEN	0.61	-	-
CO2	1.56	-	-
METHANE	73.68	-	-
ETHANE	14.00	3.723	3.743
PROPANE	6.64	1.819	1.829
ISOBUTANE	0.73	0.238	0.239
N-BUTANE	1.76	0.552	0.555
ISOPENTANE	0.33	0.120	0.121
N-PENTANE	0.34	0.123	0.123
HEXANES+	0.33	0.142	0.143
TOTAL	100.00	6.717	6.753

BTU @ 60 DEG F	14.65	14.73
GROSS DRY REAL =	1284.9	1292.0
GROSS SATURATED REAL =	1262.4	1269.5

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) : 0.7641
 COMPRESSIBILITY FACTOR : 0.99607

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS



(303) 637-0150

CO. NAME:	Great Western Oil and Gas	CONTACT NAME:	Tim Musgrave	TELE. NO.:	970-788-6097	LAB PROJECT NO.:	201409075
Sampler (PRINT NAME):	John Moser	Signature:	<i>John Moser</i>	FAX NO.:			
PROJECT INFO. / NO.			Work Order # 12356				

[illegible]

COMMENTS: Analysis due RUSH Priority (for state information needed)

Relinquished by:(Signature)	<i>[Signature]</i>	Time Date:	09	9/2/14	
Relinquished by:(Signature)		Received by:(Signature)	<i>[Signature]</i>	Time Date:	
Laboratory:	EMPACT Analytical	Received by:(Signature)	<i>[Signature]</i>	Time Date:	
Method of Shipment:	EASI courier	Received for Laboratory by:	<i>[Signature]</i>	Time Date:	10/33 9/12/17
		Dispatched by:(Signature)	<i>[Signature]</i>	Time Date:	