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# Analytical Report

2/22/2023

<b>Customer:</b>	Occidental Permian Ltd.	<b>Order:</b>	780-4229
<b>Location:</b>	North Hobbs RCF	<b>Received:</b>	2/16/2023
<b>Description:</b>	Monthly Collection	<b>Primary Contact:</b>	Richard Sanders

**REPORT DISTRIBUTION:**

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**Pantechs Laboratories, Inc.****Order: 780-4229 Order Date: 2/16/2023****Order Description: North Hobbs RCF, Monthly Collection**

Sample List						
Fluid	Operator	Location	Site	Sample Point	Date	Time
CO2	Occidental Permian Ltd.	North Hobbs RCF	2098	CO2 Discharge	2/16/2023	8:44 AM
CO2	Occidental Permian Ltd.	North Hobbs RCF	2099	CO2 Discharge	2/16/2023	8:38 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	1013	#1 Slug Catcher Inlet	2/16/2023	10:02 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	10002	NGL Plant Inlet	2/16/2023	9:15 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	21013	#2 Slug Catcher Inlet		
Gas	Occidental Permian Ltd.	North Hobbs RCF	21023	#3 Slug Catcher Inlet	2/16/2023	9:54 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	DEX PRO	Inlet	2/16/2023	9:24 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	DEX PRO	Outlet		
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 1	Header	2/16/2023	10:43 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 2	Header	2/16/2023	10:38 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 3	Header	2/16/2023	10:33 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 4	Header	2/16/2023	10:25 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 5	Header	2/16/2023	10:21 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 6	Header	2/16/2023	10:12 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Inlet 7	Header	2/16/2023	10:16 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	New 20" Line	Sample Valve	2/16/2023	10:07 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Reflux Stabilizer	Sample Valve	2/16/2023	9:08 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	ROZ Inlet	Header	2/16/2023	10:46 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	Surge Tank	Propane Vapor	2/16/2023	9:36 AM
Gas	Occidental Permian Ltd.	North Hobbs RCF	WIB Inlet	Header		
Liquid	Occidental Permian Ltd.	North Hobbs RCF	DEX PRO	Gasoline		
Liquid	Occidental Permian Ltd.	North Hobbs RCF	NGL Storage	NGL	2/16/2023	8:57 AM

Liquid	Occidental Permian Ltd.	North Hobbs RCF	Stabilizer	Bottoms	2/16/2023	9:11 AM
Liquid	Occidental Permian Ltd.	North Hobbs RCF	Surge Tank	Propane Liquid	2/16/2023	9:40 AM

No Sample List				
Operator	Location	Site	Sample Point	Comment
Occidental Permian Ltd.	North Hobbs RCF	21013	#2 Slug Catcher Inlet	No Flow at Sample Point
Occidental Permian Ltd.	North Hobbs RCF	DEX PRO	Gasoline	Sample Point All Water
Occidental Permian Ltd.	North Hobbs RCF	DEX PRO	Outlet	Unable to collect sample with Site Setup/Equipment
Occidental Permian Ltd.	North Hobbs RCF	WIB Inlet	Header	Sample Point All Liquid

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	1405 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	2098	Atm Temp	20 F
Site Type	Meter	Collection Date	02/16/2023
Sample Point	CO2 Discharge	Collection Time	8:44 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID	2098	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	CO2	Container(s)	YZ8187

## GPA 2177 CO2 Fractional Analysis

COMPOUND	FORMULA	MOL%	VOL%	WT%
NITROGEN	N2	1.926	1.218	1.287
CARBON DIOXIDE	CO2	86.999	85.547	91.366
HYDROGEN SULFIDE	H2S	1.015	0.789	0.825
METHANE	C1	6.484	6.340	2.482
ETHANE	C2	1.055	1.628	0.757
PROPANE	C3	1.375	2.186	1.447
I-BUTANE	iC4	0.220	0.415	0.305
N-BUTANE	nC4	0.463	0.842	0.642
I-PENTANE	iC5	0.158	0.334	0.272
N-PENTANE	nC5	0.125	0.261	0.215
HEXANES PLUS	C6+	0.180	0.440	0.402
TOTALS:		100.000	100.000	100.000

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

## Liquid Phase Properties

SCF/Gal (Ideal)	SCF/Gal (Real)	Mol Weight	Relative Density (60/60)	Vapor Pressure 100F, psia
58.007	57.680	41.907	0.766	339.7

## Vapor Phase Properties

ITEM	BTU/CF	Specific Gr.	Z Factor
DRY	168.45	1.455	0.994
WATER SATURATED	166.46	1.441	0.994

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	1.00 vol%	1.0147	644.32	10,244.7

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	1413 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	2099	Atm Temp	20 F
Site Type	Meter	Collection Date	02/16/2023
Sample Point	CO2 Discharge	Collection Time	8:38 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID	2099	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	CO2	Container(s)	PLP17207

## GPA 2177 CO2 Fractional Analysis

COMPOUND	FORMULA	MOL%	VOL%	WT%
NITROGEN	N2	1.939	1.237	1.318
CARBON DIOXIDE	CO2	85.681	84.959	91.491
HYDROGEN SULFIDE	H2S	1.421	1.114	1.175
METHANE	C1	7.990	7.879	3.110
ETHANE	C2	1.223	1.903	0.892
PROPANE	C3	1.457	2.336	1.559
I-BUTANE	iC4	0.088	0.167	0.124
N-BUTANE	nC4	0.116	0.213	0.164
I-PENTANE	iC5	0.028	0.060	0.049
N-PENTANE	nC5	0.023	0.048	0.040
HEXANES PLUS	C6+	0.034	0.084	0.078
TOTALS:		100.000	100.000	100.000

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

## Liquid Phase Properties

SCF/Gal (Ideal)	SCF/Gal (Real)	Mol Weight	Relative Density (60/60)	Vapor Pressure 100F, psia
58.495	58.179	41.215	0.760	417.8

## Vapor Phase Properties

ITEM	BTU/CF	Specific Gr.	Z Factor
DRY	158.86	1.430	0.995
WATER SATURATED	157.03	1.417	0.994

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	1.40 vol%	1.4206	902.05	14,342.6

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	285 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	1013	Atm Temp	31 F
Site Type	Meter	Collection Date	02/16/2023
Sample Point	#1 Slug Catcher Inlet	Collection Time	10:02 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID	1013	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL1651

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	2.111	1.425	0.231
CARBON DIOXIDE	CO2	85.193	90.368	14.523
HYDROGEN SULFIDE	H2S	0.727	0.597	0.098
METHANE	C1	7.987	3.088	1.354
ETHANE	C2	1.243	0.901	0.332
PROPANE	C3	1.537	1.634	0.424
I-BUTANE	iC4	0.212	0.297	0.069
N-BUTANE	nC4	0.453	0.635	0.143
I-PENTANE	iC5	0.169	0.294	0.062
N-PENTANE	nC5	0.139	0.242	0.050
HEXANES PLUS	C6+	0.229	0.519	0.097
TOTALS:		100.000	100.000	17.383

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.177	0.845	0.421	0.209	0.318	0.184

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	192.23	1.440	0.994	41.490	160.19
WATER SATURATED	189.83	1.426	0.994	40.765	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.70 vol%	0.7266	461.36	7,335.6

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	282 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	10002	Atm Temp	24 F
Site Type	Meter	Collection Date	02/16/2023
Sample Point	NGL Plant Inlet	Collection Time	9:15 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID	10002	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2073

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.813	1.222	0.199
CARBON DIOXIDE	CO2	85.319	90.353	14.545
HYDROGEN SULFIDE	H2S	0.921	0.755	0.124
METHANE	C1	7.927	3.060	1.344
ETHANE	C2	1.236	0.894	0.331
PROPANE	C3	1.533	1.627	0.423
I-BUTANE	iC4	0.213	0.298	0.070
N-BUTANE	nC4	0.455	0.636	0.143
I-PENTANE	iC5	0.173	0.300	0.063
N-PENTANE	nC5	0.143	0.248	0.052
HEXANES PLUS	C6+	0.267	0.607	0.114
TOTALS:		100.000	100.000	17.408

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.196	0.865	0.442	0.229	0.351	0.213

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	195.08	1.443	0.994	41.559	162.42
WATER SATURATED	192.64	1.429	0.994	40.832	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.90 vol%	0.9208	584.72	9,297.0

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	N/A
Location	North Hobbs RCF	Sample Temp	N/A
Site	21013	Atm Temp	N/A
Site Type	Meter	Collection Date	
Sample Point	#2 Slug Catcher Inlet	Collection Time	
Spot/Comp	Spot	Collection By	
Meter ID	21013	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	

No Sample

Employee	Comment
Cody Carson	No Flow at Sample Point



Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	289 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	21023	Atm Temp	25 F
Site Type	Meter	Collection Date	02/16/2023
Sample Point	#3 Slug Catcher Inlet	Collection Time	9:54 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID	21023	Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2159

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.869	1.238	0.205
CARBON DIOXIDE	CO2	88.530	92.132	15.093
HYDROGEN SULFIDE	H2S	0.543	0.438	0.073
METHANE	C1	5.558	2.108	0.942
ETHANE	C2	0.946	0.673	0.253
PROPANE	C3	1.289	1.344	0.355
I-BUTANE	iC4	0.209	0.287	0.068
N-BUTANE	nC4	0.471	0.647	0.149
I-PENTANE	iC5	0.174	0.297	0.064
N-PENTANE	nC5	0.148	0.252	0.054
HEXANES PLUS	C6+	0.263	0.584	0.112
TOTALS:		100.000	100.000	17.368

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.055	0.802	0.447	0.230	0.352	0.210

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	157.75	1.468	0.994	42.290	130.19
WATER SATURATED	155.94	1.454	0.994	41.551	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.53 vol%	0.5434	345.05	5,486.3

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	286 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	DEX PRO	Atm Temp	24 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Inlet	Collection Time	9:24 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL1031

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	2.089	1.390	0.229
CARBON DIOXIDE	CO2	88.021	91.979	15.005
HYDROGEN SULFIDE	H2S	0.614	0.497	0.083
METHANE	C1	5.839	2.224	0.990
ETHANE	C2	0.978	0.698	0.262
PROPANE	C3	1.311	1.373	0.361
I-BUTANE	iC4	0.210	0.290	0.069
N-BUTANE	nC4	0.460	0.635	0.145
I-PENTANE	iC5	0.160	0.274	0.059
N-PENTANE	nC5	0.130	0.223	0.047
HEXANES PLUS	C6+	0.188	0.417	0.079
TOTALS:		100.000	100.000	17.329

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.022	0.760	0.399	0.185	0.279	0.152

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	156.63	1.462	0.994	42.116	129.54
WATER SATURATED	154.84	1.448	0.994	41.380	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.60 vol%	0.6139	389.82	6,198.1

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	N/A
Location	North Hobbs RCF	Sample Temp	N/A
Site	DEX PRO	Atm Temp	N/A
Site Type	Station	Collection Date	
Sample Point	Outlet	Collection Time	
Spot/Comp	Spot	Collection By	
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	

No Sample

Employee	Comment
Cody Carson	Unable to collect sample with Site Setup/Equipment

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	293 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 1	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:43 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2478

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.964	1.334	0.215
CARBON DIOXIDE	CO2	84.529	90.199	14.409
HYDROGEN SULFIDE	H2S	0.623	0.515	0.084
METHANE	C1	8.770	3.411	1.487
ETHANE	C2	1.373	1.001	0.367
PROPANE	C3	1.707	1.825	0.470
I-BUTANE	iC4	0.197	0.278	0.064
N-BUTANE	nC4	0.392	0.552	0.124
I-PENTANE	iC5	0.134	0.234	0.049
N-PENTANE	nC5	0.113	0.198	0.041
HEXANES PLUS	C6+	0.198	0.453	0.084
TOTALS:		100.000	100.000	17.394

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.199	0.832	0.362	0.174	0.267	0.158

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	199.58	1.431	0.994	41.244	166.81
WATER SATURATED	197.06	1.418	0.994	40.523	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.60 vol%	0.6228	395.45	6,287.7

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	235 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 2	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:38 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2190

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.901	1.271	0.208
CARBON DIOXIDE	CO2	86.899	91.270	14.814
HYDROGEN SULFIDE	H2S	0.467	0.380	0.063
METHANE	C1	6.826	2.613	1.157
ETHANE	C2	1.125	0.807	0.301
PROPANE	C3	1.488	1.566	0.410
I-BUTANE	iC4	0.238	0.330	0.078
N-BUTANE	nC4	0.517	0.717	0.163
I-PENTANE	iC5	0.176	0.303	0.064
N-PENTANE	nC5	0.139	0.239	0.050
HEXANES PLUS	C6+	0.224	0.504	0.095
TOTALS:		100.000	100.000	17.403

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.161	0.860	0.450	0.209	0.317	0.180

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	178.48	1.455	0.994	41.903	147.99
WATER SATURATED	176.32	1.441	0.994	41.171	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.45 vol%	0.4671	296.59	4,715.8

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	289 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 3	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:33 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2072

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.733	1.132	0.190
CARBON DIOXIDE	CO2	88.493	90.841	15.092
HYDROGEN SULFIDE	H2S	0.623	0.495	0.084
METHANE	C1	4.726	1.768	0.802
ETHANE	C2	0.843	0.591	0.226
PROPANE	C3	1.330	1.368	0.367
I-BUTANE	iC4	0.283	0.384	0.093
N-BUTANE	nC4	0.709	0.961	0.224
I-PENTANE	iC5	0.320	0.539	0.117
N-PENTANE	nC5	0.288	0.485	0.104
HEXANES PLUS	C6+	0.652	1.436	0.278
TOTALS:		100.000	100.000	17.577

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.409	1.183	0.816	0.499	0.754	0.501

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	190.98	1.489	0.994	42.873	156.52
WATER SATURATED	188.61	1.474	0.994	42.124	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.60 vol%	0.6228	395.45	6,287.7

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	289 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 4	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:25 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2462

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.927	1.307	0.211
CARBON DIOXIDE	CO2	84.426	89.955	14.392
HYDROGEN SULFIDE	H2S	0.737	0.608	0.099
METHANE	C1	8.773	3.408	1.487
ETHANE	C2	1.343	0.978	0.359
PROPANE	C3	1.595	1.703	0.440
I-BUTANE	iC4	0.204	0.287	0.067
N-BUTANE	nC4	0.423	0.595	0.133
I-PENTANE	iC5	0.154	0.269	0.056
N-PENTANE	nC5	0.131	0.229	0.047
HEXANES PLUS	C6+	0.287	0.661	0.123
TOTALS:		100.000	100.000	17.414

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.225	0.866	0.426	0.226	0.351	0.226

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	204.45	1.434	0.994	41.304	170.75
WATER SATURATED	201.85	1.420	0.994	40.583	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.71 vol%	0.7369	467.95	7,440.4

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	288 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 5	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:21 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL1554

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.963	1.330	0.215
CARBON DIOXIDE	CO2	84.761	90.201	14.449
HYDROGEN SULFIDE	H2S	0.747	0.616	0.101
METHANE	C1	8.504	3.299	1.442
ETHANE	C2	1.311	0.953	0.351
PROPANE	C3	1.566	1.670	0.432
I-BUTANE	iC4	0.206	0.290	0.067
N-BUTANE	nC4	0.423	0.595	0.133
I-PENTANE	iC5	0.148	0.258	0.054
N-PENTANE	nC5	0.121	0.211	0.044
HEXANES PLUS	C6+	0.250	0.577	0.107
TOTALS:		100.000	100.000	17.395

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.188	0.837	0.405	0.205	0.317	0.199

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	198.03	1.435	0.994	41.355	165.29
WATER SATURATED	195.54	1.422	0.994	40.632	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.72 vol%	0.7473	474.54	7,545.2

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.



Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	287 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 6	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:12 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL1795

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.992	1.349	0.218
CARBON DIOXIDE	CO2	84.907	90.326	14.474
HYDROGEN SULFIDE	H2S	0.675	0.556	0.091
METHANE	C1	8.434	3.271	1.430
ETHANE	C2	1.305	0.949	0.349
PROPANE	C3	1.565	1.668	0.431
I-BUTANE	iC4	0.203	0.285	0.066
N-BUTANE	nC4	0.413	0.580	0.130
I-PENTANE	iC5	0.144	0.251	0.053
N-PENTANE	nC5	0.121	0.211	0.044
HEXANES PLUS	C6+	0.241	0.554	0.103
TOTALS:		100.000	100.000	17.389

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.176	0.827	0.396	0.200	0.308	0.192

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	195.64	1.436	0.994	41.370	163.27
WATER SATURATED	193.19	1.422	0.994	40.647	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.65 vol%	0.6747	428.41	6,811.7

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	288 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Inlet 7	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:16 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2139

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.749	1.127	0.192
CARBON DIOXIDE	CO2	94.063	95.193	16.038
HYDROGEN SULFIDE	H2S	0.197	0.154	0.027
METHANE	C1	1.537	0.567	0.261
ETHANE	C2	0.442	0.306	0.118
PROPANE	C3	0.880	0.892	0.243
I-BUTANE	iC4	0.199	0.266	0.065
N-BUTANE	nC4	0.466	0.623	0.147
I-PENTANE	iC5	0.153	0.254	0.056
N-PENTANE	nC5	0.124	0.206	0.045
HEXANES PLUS	C6+	0.190	0.412	0.081
TOTALS:		100.000	100.000	17.273

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	0.755	0.637	0.394	0.182	0.275	0.155

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	89.54	1.510	0.994	43.487	72.87
WATER SATURATED	88.90	1.495	0.994	42.727	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.19 vol%	0.1972	125.23	1,991.2

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	287 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	New 20" Line	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Sample Valve	Collection Time	10:07 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL1562

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.750	1.127	0.192
CARBON DIOXIDE	CO2	93.841	94.909	16.001
HYDROGEN SULFIDE	H2S	0.208	0.163	0.028
METHANE	C1	1.583	0.584	0.268
ETHANE	C2	0.459	0.317	0.123
PROPANE	C3	0.892	0.904	0.246
I-BUTANE	iC4	0.218	0.291	0.071
N-BUTANE	nC4	0.506	0.676	0.160
I-PENTANE	iC5	0.166	0.275	0.061
N-PENTANE	nC5	0.135	0.224	0.049
HEXANES PLUS	C6+	0.242	0.530	0.103
TOTALS:		100.000	100.000	17.302

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	0.813	0.690	0.444	0.213	0.327	0.196

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	96.41	1.511	0.994	43.515	78.43
WATER SATURATED	95.65	1.496	0.994	42.754	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.20 vol%	0.2076	131.82	2,095.9

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	220 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Reflux Stabilizer	Atm Temp	24 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Sample Valve	Collection Time	9:08 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL3072

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.945	1.321	0.213
CARBON DIOXIDE	CO2	87.099	92.903	14.843
HYDROGEN SULFIDE	H2S	0.031	0.026	0.004
METHANE	C1	8.148	3.168	1.381
ETHANE	C2	1.262	0.920	0.337
PROPANE	C3	1.409	1.506	0.388
I-BUTANE	iC4	0.058	0.082	0.019
N-BUTANE	nC4	0.039	0.055	0.012
I-PENTANE	iC5	0.001	0.002	0.000
N-PENTANE	nC5	0.002	0.003	0.001
HEXANES PLUS	C6+	0.006	0.014	0.003
TOTALS:		100.000	100.000	17.201

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	0.760	0.423	0.035	0.004	0.006	0.004

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	144.19	1.432	0.995	41.260	120.50
WATER SATURATED	142.61	1.418	0.994	40.539	

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	293 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	ROZ Inlet	Atm Temp	31 F
Site Type	Station	Collection Date	02/16/2023
Sample Point	Header	Collection Time	10:46 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL0470

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	1.851	1.243	0.203
CARBON DIOXIDE	CO2	85.814	90.568	14.630
HYDROGEN SULFIDE	H2S	0.623	0.509	0.084
METHANE	C1	7.652	2.944	1.297
ETHANE	C2	1.194	0.861	0.319
PROPANE	C3	1.508	1.595	0.416
I-BUTANE	iC4	0.219	0.305	0.072
N-BUTANE	nC4	0.476	0.663	0.150
I-PENTANE	iC5	0.192	0.332	0.070
N-PENTANE	nC5	0.162	0.280	0.059
HEXANES PLUS	C6+	0.309	0.700	0.131
TOTALS:		100.000	100.000	17.431

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	1.217	0.898	0.482	0.260	0.400	0.245

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	193.60	1.448	0.994	41.700	160.92
WATER SATURATED	191.18	1.434	0.994	40.972	

## Onsite Testing by Stain Tube

METHOD	TYPE	MEAS VALUE	MOL%	GRAINS/100	PPMV
GPA2377	H2S	0.60 vol%	0.6228	395.45	6,287.7

Mol%, Grains/100, PPMV are pressure and temperature corrected to base conditions.

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	85 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Surge Tank	Atm Temp	24 F
Site Type	Tank	Collection Date	02/16/2023
Sample Point	Propane Vapor	Collection Time	9:36 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	PL2362

## GPA 2261 Gas Fractional Analysis

COMPOUND	FORMULA	MOL%	WT%	GPM
NITROGEN	N2	0.317	0.217	0.035
CARBON DIOXIDE	CO2	0.185	0.199	0.032
HYDROGEN SULFIDE	H2S	0.000	0.000	0.000
METHANE	C1	0.682	0.268	0.117
ETHANE	C2	21.631	15.930	5.841
PROPANE	C3	77.141	83.313	21.460
I-BUTANE	iC4	0.022	0.031	0.007
N-BUTANE	nC4	0.009	0.013	0.003
I-PENTANE	iC5	0.002	0.004	0.001
N-PENTANE	nC5	0.002	0.004	0.001
HEXANES PLUS	C6+	0.009	0.021	0.004
TOTALS:		100.000	100.000	27.501

Value of "0.000" in fractional interpreted as below detectable limit.

If Onsite H2S testing is performed, its resulting value is used in fractional table

LIQUID YIELD	C2+	C3+	C4+	C5+	26# Liquid	10# Liquid
GAL/MSCF (GPM)	27.317	21.476	0.016	0.006	0.009	0.006

## GPA 2172/ASTM D3588 CALCULATED PROPERTIES

WATER CONTENT	BTU/CF	Specific Gr.	Z Factor	Mol Weight	Wobbe IDX
DRY	2,360.06	1.431	0.985	40.831	1,973.20
WATER SATURATED	2,320.84	1.417	0.985	40.117	

Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	N/A
Location	North Hobbs RCF	Sample Temp	N/A
Site	WIB Inlet	Atm Temp	N/A
Site Type	Station	Collection Date	
Sample Point	Header	Collection Time	
Spot/Comp	Spot	Collection By	
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Gas	Container(s)	

No Sample

Employee	Comment
Cody Carson	Sample Point All Liquid

Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	N/A
Location	North Hobbs RCF	Sample Temp	N/A
Site	DEX PRO	Atm Temp	N/A
Site Type	Station	Collection Date	
Sample Point	Gasoline	Collection Time	
Spot/Comp	Spot	Collection By	
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Liquid	Container(s)	

No Sample

Employee	Comment
Cody Carson	Sample Point All Water



Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	1000 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	NGL Storage	Atm Temp	24 F
Site Type	Vessel	Collection Date	02/16/2023
Sample Point	NGL	Collection Time	8:57 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Liquid	Container(s)	PL0693

## GPA 2177 Liquid Fractional Analysis

COMPOUND	FORMULA	MOL%	VOL%	WT%
NITROGEN	N2	0.021	0.007	0.009
CARBON DIOXIDE	CO2	0.010	0.005	0.007
HYDROGEN SULFIDE	H2S	0.000	0.000	0.000
METHANE	C1	0.000	0.000	0.000
ETHANE	C2	0.000	0.000	0.000
PROPANE	C3	18.537	15.145	12.740
I-BUTANE	iC4	11.987	11.627	10.859
N-BUTANE	nC4	31.181	29.148	28.247
I-PENTANE	iC5	12.490	13.557	14.045
N-PENTANE	nC5	10.165	10.916	11.431
HEXANES PLUS	C6+	15.609	19.595	22.662
TOTALS:		100.000	100.000	100.000

Value of "0.000" in fractional interpreted as below detectable limit.

## Calculated Properties

SCF/Gal (Ideal)	SCF/Gal (Real)	Mol Weight	Relative Density (60/60)	Vapor Pressure 100F, psia	Reid VP Equivalent, psi
29.815	28.544	64.161	0.603	64.6	61.4

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	280 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Stabilizer	Atm Temp	24 F
Site Type	Vessel	Collection Date	02/16/2023
Sample Point	Bottoms	Collection Time	9:11 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Liquid	Container(s)	PL2472

## GPA 2177 Liquid Fractional Analysis

COMPOUND	FORMULA	MOL%	VOL%	WT%
NITROGEN	N2	0.100	0.035	0.049
CARBON DIOXIDE	CO2	0.019	0.010	0.015
HYDROGEN SULFIDE	H2S	0.000	0.000	0.000
METHANE	C1	0.000	0.000	0.000
ETHANE	C2	0.000	0.000	0.000
PROPANE	C3	33.801	29.523	26.163
I-BUTANE	iC4	15.815	16.399	16.135
N-BUTANE	nC4	32.091	32.069	32.739
I-PENTANE	iC5	7.403	8.590	9.375
N-PENTANE	nC5	5.389	6.187	6.825
HEXANES PLUS	C6+	5.382	7.187	8.699
TOTALS:		100.000	100.000	100.000

Value of "0.000" in fractional interpreted as below detectable limit.

## Calculated Properties

SCF/Gal (Ideal)	SCF/Gal (Real)	Mol Weight	Relative Density (60/60)	Vapor Pressure 100F, psia	Reid VP Equivalent, psi
31.871	30.862	56.972	0.572	94.4	89.9

Pantechs Laboratories, Inc. - Order: 780-4229 - Order Date: 2/16/2023

## Order Description: North Hobbs RCF, Monthly Collection

SAMPLE ID		COLLECTION DATA	
Operator	Occidental Permian Ltd.	Pressure	85 psig
Location	North Hobbs RCF	Sample Temp	N/A
Site	Surge Tank	Atm Temp	24 F
Site Type	Tank	Collection Date	02/16/2023
Sample Point	Propane Liquid	Collection Time	9:40 AM
Spot/Comp	Spot	Collection By	Cody Carson
Meter ID		Pressure Base	14.650 psi
Purchaser		Temperature Base	60 F
Fluid	Liquid	Container(s)	PL2210

## GPA 2177 Liquid Fractional Analysis

COMPOUND	FORMULA	MOL%	VOL%	WT%
NITROGEN	N2	0.009	0.004	0.006
CARBON DIOXIDE	CO2	0.006	0.004	0.006
HYDROGEN SULFIDE	H2S	0.000	0.000	0.000
METHANE	C1	0.011	0.007	0.004
ETHANE	C2	1.799	1.747	1.233
PROPANE	C3	98.071	98.107	98.596
I-BUTANE	iC4	0.073	0.087	0.097
N-BUTANE	nC4	0.011	0.013	0.015
I-PENTANE	iC5	0.003	0.004	0.005
N-PENTANE	nC5	0.002	0.003	0.003
HEXANES PLUS	C6+	0.015	0.024	0.035
TOTALS:		100.000	100.000	100.000

Value of "0.000" in fractional interpreted as below detectable limit.

## Calculated Properties

SCF/Gal (Ideal)	SCF/Gal (Real)	Mol Weight	Relative Density (60/60)	Vapor Pressure 100F, psia	Reid VP Equivalent, psi
36.504	35.877	43.862	0.504	200.0	191.1

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CO2%	88.02%		
HC%	13.69%		
Flare Volume	1444 mscfd		
HC Volume	197.66916 mscfd	NHU CTB	80.489
CO2 Volume	1246.33084 mscfd	SHU CTB	80.302
		NHU WIB	93.595
		NHU NIB	94.461
		SHU RCF	86.311
		NHU RCF	88.021
		South Indian Basin CMPR STA	

0.446

**UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM****Facility** North Hobbs Recompression Facility & Gas Plant**Flare Date:** 05/20/2024**Duration of event :** 46 minutes**MCF Flared:** 1444**Start Time:** 10:02PM**End Time:** 11:15 PM**Cause:** Compression Equipment Malfunction > Increase in Inlet gas > Over pressured facility**Method of Flared Gas Measurement:** vented**Comments:** This upset event was not caused by any wells associated with the facility

- 
1. **Reason why this event was beyond Operator's control:** This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, the last of the plant equipment was starting up after a earlier shutdown and the field over ran the compressor with too much gas coming into the plant and over pressured the compressor. Operations was able to react immediately and restart the compressor This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.
  2. **Steps Taken to limit duration and magnitude of venting or flaring:** It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, operations called the automation team back on site to troubleshoot and reset the automation system. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.
  3. **Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:** Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of an automation and/or electrical issues. The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices.

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**District II**  
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Phone:(505) 334-6178 Fax:(505) 334-6170  
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Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

DEFINITIONS  
  
Action 350336

DEFINITIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 350336
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application: <ul style="list-style-type: none"><li>• this application's operator, hereinafter "this operator";</li><li>• venting and/or flaring, hereinafter "vent or flare";</li><li>• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>• the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>• and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul>
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QUESTIONS  
  
Action 350336

QUESTIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 350336
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

<b>Prerequisites</b> Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.	
Incident Well	Unavailable.
Incident Facility	[fKJ1517634129] NORTH HOBBS RECOMPRESSION FACILITY & GAS PLANT

<b>Determination of Reporting Requirements</b> Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.	
Was this vent or flare caused by an emergency or malfunction	Yes
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a vent or flare event	Yes, major venting and/or flaring of natural gas.
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.	
Was there at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

<b>Equipment Involved</b>	
Primary Equipment Involved	Gas Compressor Station
Additional details for Equipment Involved. Please specify	Not answered.

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	6
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	7,840
Carbon Dioxide (C02) percentage, if greater than one percent	87
Oxygen (O2) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2  
  
Action 350336

**QUESTIONS (continued)**

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 350336
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/20/2024
Time vent or flare was discovered or commenced	10:02 PM
Time vent or flare was terminated	11:15 PM
Cumulative hours during this event	1

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Flared   Released: 172 Mcf   Recovered: 0 Mcf   Lost: 172 Mcf.
Other Released Details	Cause: Other   Other (Specify)   Carbon Dioxide   Released: 1,271 Mcf   Recovered: 0 Mcf   Lost: 1,271 Mcf.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	Not answered.
Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, in this case the last of the plant equipment was starting up after a earlier shutdown and the field over ran the compressor with too much gas coming into the plant and over pressured the compressor. Operations was able to react immediately and restart the compressor This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.
Steps taken to limit the duration and magnitude of vent or flare	It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, operations called the automation team back on site to troubleshoot and reset the automation system. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.
	Oxy is limited in the corrective actions available to them to eliminate the cause and potential

Corrective actions taken to eliminate the cause and reoccurrence of vent or flare

reoccurrence of an automation and/or electrical issues. The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices.

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ACKNOWLEDGMENTS  
  
Action 350336

ACKNOWLEDGMENTS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 350336
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a <b>complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
<input checked="" type="checkbox"/>	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
<input checked="" type="checkbox"/>	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
<input checked="" type="checkbox"/>	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS  
  
Action 350336

CONDITIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 350336
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
srojas	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	6/3/2024