

# Bureau of Land Management

## Amarillo Field Office

### Helium Operations



## Statistical Report for October - 2013



#### *Distribution:*

Fluid Minerals Group Manager, Washington Office  
NMSO, New Mexico State Director  
NMSO, Associate State Director  
NMSO, Petroleum Engineer  
Field Manager, Amarillo Field Office  
Assistant Field Managers (3)  
Team Leaders  
-Federal Leased Lands  
-Resources Evaluation & Gas Analysis  
-Division Of Helium Operations, -  
Engineering and Technical Support

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Amarillo, Texas

*Compiled by: David V. Reeves*

Issued: March 7, 2014

**"Please Note: Data in this report is accurate as of print date; however all data is subject to change."**

*Samuel R. M. Burton*

Date: *March 4, 2014*

Table 1 - Summary of Helium Operations

October - 2013

**Helium Enrichment Unit Operations**

Gas Processed	Month			Gross FYTD	Net FYTD
	Gross Volume	Net Helium	Average Percent		
Measured Plant Feed (Mcf*)	617,602	144,869	23.46%	617,602	144,869
Helium Product (Mcf*)	183,625	141,583	77.10%	183,625	141,583
Residue Natural Gas (Mcf*)	290,199	0	00.00%	290,199	0

\* Volumes in Mcf at 14.65 psia & 60°F

**Natural Gas & Liquids Produced**

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf***)	287,417	287,417
NGL Sales (gallons)	106,452	106,452

\*\*\* Volumes in Mcf at 14.73 psia & 60°F

**Bush Dome Reservoir Operations**

Conservation gases from all sources	Month			Gross FYTD	Net FYTD
	Gross Volume	Net Helium	Average Percent		
Total Withdrawn (Mcf*)	616,511	142,531	23.12%	616,511	142,531
Crude Injection (Mcf*)	0	0	00.00%	0	0
Crude Production (Mcf*)	0	0	00.00%	0	0

\* Volumes in Mcf at 14.65 psia & 60°F

**Storage Operations**

Conservation Helium	Volume Outstanding	Month	FYTD	CYTD	Cumulative
Conservation Crude Sale Volume Sold/Paid (Mcf*)		26,040	26,040	1,575,000	18,263,600
Conservation Crude Sale Volume Transferred (Mcf*)	26,040	318,570	318,570	2,073,960	18,237,560
Conservation Helium in Storage (EOM) (Mcf*)		8,674,192			

\* Volumes in Mcf at 14.65 psia & 60°F

**In Kind Helium**

	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	3,369	3,369	102,729	3,019,812
Sale Volumes Outstanding (Mcf*)	27,388			

\* Volumes in Mcf at 14.65 psia & 60°F

**Private Company Helium Storage Contracts**

Contact Activity	Month			Annual Helium FYTD
	Gross Volume	Net Helium	Average Percent	
Crude Acquired (Mcf*)	56,450	37,561	66.54%	37,561
Crude Disposed (Mcf*)	237,319	177,392	74.75%	177,392
Net Balance (Mcf*)	(180,869)	(139,831)		(139,831)
Balance of Stored Helium End Of Month (Mcf*)		2,025,651		

\* Volumes in Mcf at 14.65 psia & 60°F

**Revenue / Charges**

Helium Storage Contracts (Charges Billed (\$))	Month	FYTD
Storage Fees Billed (\$)	(\$17,830)	(\$17,830)
Reservoir Management Fees Billed (\$)	\$240,779	\$240,779

**Field Compressor Charges (Charges Billed (\$))**

	Month	FYTD
Funded by the Refiners (provides for booster compression services)	(\$60,945)	(\$60,945)
Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.)	\$16,364	\$16,364
Net-Total (Funded by the Refiners for compression costs.)	(\$44,580)	(\$44,580)

**Enrichment Unit Charges (Charges Billed (\$))**

	Month	FYTD
Reservoir Management Fees (RMF)	\$240,779	\$240,779
Total operating costs	(\$892,894)	(\$892,894)
Sub Total - Items provided by BLM	\$391,035	\$391,035
Total - Cliffside Refiners, LP, GDA030001	(\$501,859)	(\$501,859)

**Conservation Helium - Natural Gas - Liquid Sales (Charges Billed (\$))**

	Month	FYTD
Conservation Crude Helium Sales	\$2,187,360	\$2,187,360
In Kind Sales	\$0	\$0
Natural Gas & Liquid Sales	\$1,203,558	\$1,203,558

**Helium Resources Evaluation**

	Month	FYTD
Revenue Collected from Federal Lease Holds	\$2,110,106	\$2,110,106
Helium Sample Collection Report for month	Submitted - 0	Received - 0
	Analyzed - 20	

\*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

October - 2013

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane		Ethane plus		Other (CO2, Ar, H2)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
<b>TOTAL</b>		<b>616,511</b>	<b>210,609,099</b>	<b>142,531</b>	<b>39,452,734</b>	<b>154,727</b>	<b>51,852,817</b>	<b>283,098</b>	<b>106,808,789</b>	<b>30,700</b>	<b>10,744,532</b>	<b>5,455</b>	<b>1,750,227</b>
BIVINS A-3	Oct-13	6,527	10,958,118	2,872	3,547,338	1,647	2,771,392	1,765	4,158,549	200	407,206	44	73,632
BIVINS A-6	Oct-13	54,559	10,651,308	31,272	6,343,298	13,883	2,615,860	8,158	1,496,985	845	147,555	400	47,610
BIVINS A-13	Oct-13	59,338	7,456,675	21,545	4,096,264	14,984	1,922,597	20,018	1,258,969	2,344	137,649	447	41,196
BIVINS A-14	Oct-13	69,705	8,281,034	27,269	5,055,960	17,597	2,102,543	21,791	974,149	2,459	103,347	590	45,034
BIVINS A-4	Oct-13	35,916	12,576,265	5,287	2,277,055	8,652	3,048,779	19,538	6,490,363	2,079	649,434	360	110,635
BUSH A-2	Oct-13	50,277	11,947,866	6,484	1,818,862	12,578	2,923,288	27,751	6,449,168	3,111	654,998	352	101,549
Injection	Oct-13	0	66,240,889	0	47,846,276	0	17,067,782	0	775,688	0	23	0	551,121
inj Bivins A-3	Oct-13	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537)
inj Bivins A-6	Oct-13	0	(24,201,365)	0	(17,514,139)	0	(6,437,517)	0	(138,222)	0	(12)	0	(111,475)
inj Bivins A-13	Oct-13	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980)
inj Bivins A-14	Oct-13	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497)
inj Bivins A-4	Oct-13	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617)
inj Bush A-2	Oct-13	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,015)
Production	Oct-13	0	1,217,868	0	897,578	0	261,663	0	47,122	0	3,172	0	8,333
BIVINS A-1	Oct-13	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,597
BIVINS A-2	Oct-13	18,336	13,465,626	402	1,861,928	4,373	3,304,497	12,129	7,448,105	1,260	740,006	172	111,090
BIVINS A-5	Oct-13	32,722	15,372,412	6,050	1,923,675	8,306	3,762,921	16,329	8,681,988	1,785	870,262	252	133,568
BIVINS A-7	Oct-13	24,749	11,304,557	7,821	2,628,372	6,416	2,842,914	9,295	5,220,911	1,051	529,930	166	82,430
BIVINS A-9	Oct-13	12,886	9,749,077	270	184,087	3,338	2,390,516	8,298	6,436,367	876	648,516	103	89,590
BIVINS A-11	Oct-13	26,386	5,953,563	761	124,582	6,760	1,477,622	16,834	3,896,022	1,786	399,251	245	56,086
BIVINS A-15	Oct-13	26,232	8,901,641	458	414,555	6,195	2,122,857	17,482	5,703,717	1,784	569,887	312	90,625
BIVINS B-1	Oct-13	26,343	7,111,467	641	278,632	6,427	1,722,503	17,188	4,574,705	1,795	465,410	292	70,216
BIVINS B-2	Oct-13	33,019	5,895,257	628	110,944	8,447	1,473,544	21,171	3,836,478	2,219	393,899	555	80,392
BUSH A-1	Oct-13	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	Oct-13	35,277	11,346,874	12,553	2,601,622	8,963	2,800,575	12,111	5,310,085	1,356	535,106	294	99,486
BUSH A-4	Oct-13	21,693	8,166,460	2,945	1,526,544	5,528	2,040,177	11,806	4,121,327	1,285	419,005	127	59,406
BUSH A-5	Oct-13	49,031	15,509,040	14,543	3,510,929	12,475	3,888,508	19,541	7,265,182	2,188	735,541	284	108,879
BUSH A-8	Oct-13	13,679	3,789,238	253	69,335	3,406	914,681	8,887	2,507,573	920	251,844	213	45,805
BUSH A-9	Oct-13	880	3,860,751	45	105,028	216	930,875	551	2,537,085	60	253,452	7	34,311
BUSH A-11	Oct-13	15,763	4,294,293	374	126,976	3,770	1,027,038	10,337	2,806,775	1,072	284,736	209	48,768
BUSH B-1	Oct-13	3,193	3,218,931	59	60,448	767	763,662	2,115	2,151,628	224	211,670	28	31,523
FUQUA A-1	Oct-13	0	2,954,098	0	53,854	0	702,798	0	1,975,174	0	193,573	0	28,699
FUQUA A-2	Oct-13	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,297
FUQUA A-3	Oct-13	0	9,303,863	0	577,004	0	2,277,675	0	5,790,329	0	583,698	0	75,155
TT Fuel	Oct-13	0	0	0	0	0	0	0	0	0	0	0	0
field-wide pct's				23.12%	18.73%	25.10%	24.62%	45.92%	50.71%	4.98%	5.10%	0.88%	0.83%

Latest estimates of reserves and feed to HEU

Based on NITEC's 2003 reserves study from NITEC's interim report

As of EOM	Oct-13	Volumes in BCF	
Initial Gas In Place		330.040	
Produced 1924 to 1961		48.830	
Injected 1924 to 1961		0.450	
Remaining Gas In Place 1961		281.660	
Left Behind Pipe, 1961		82.060	=====> 1.500 BCF of contained helium
Remaining in Place, 1961		199.600	
Gas In Place 1961		199.600	
Produced 1961 to July 2002		82.450	
Injected 1961 to July 2002		64.510	Net Helium
Remaining Gas In Place July 2002		181.660	33.997
Produced July 2002 through Dec 2002		1.096	0.743
Production 2003 - 12		72.131	19.611
Injection 2003 - 12		(1.189)	(0.985)
Produced to Date 2013		6.099	1.494
Injected to Date 2013		0.000	0.000
Amount of Raw Gas Available to CHEU		103.523	=====> 13.134 total helium in reservoir
Estimated Bottom Hole Pressure		381.197	est z-factor 0.980

\* All volumes on Table 2 are reported in Mcf at 14.65 psia & 60°F

## Table 3 - Gas Volumes & Inventory

October - 2013

### Crude Helium Enrichment Unit Operations

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane		Ethane plus		Other (CO <sub>2</sub> , Ar, H <sub>2</sub> )	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
Measured Feed	Oct-13	617,602	75,808,560	144,869	19,479,663	154,451	19,022,109	282,532	33,135,973	30,261	3,529,954	5,488	640,860
Calculated Feed	Oct-13	616,230	75,423,956	142,516	19,445,393	154,658	18,928,452	282,921	32,887,677	30,681	3,523,627	5,453	638,808
Feed to Box	Oct-13	612,102	74,975,159	142,516	19,445,571	154,658	18,928,534	282,921	32,887,723	30,681	3,523,634	1,325	189,697
Cheu Product	Oct-13	183,625	24,457,957	141,583	19,214,919	37,197	4,597,482	3,554	474,484	3	410	1,288	170,661
Residue	Oct-13	290,199	33,236,706	0	1,545	6,625	830,620	258,513	29,481,882	25,062	2,921,420	0	1,238
Cold Box Vent	Oct-13	101,993	12,834,103	71	86,855	93,155	11,381,134	8,760	1,305,226	(0)	135	7	60,753
Flare/Boot Strap	Oct-13	101,993	3,350,352	71	47,634	93,155	2,636,136	8,760	567,395	(0)	93,600	7	5,587
Fuel From Cheu	Oct-13	7,323	1,012,326	3	263	195	30,512	5,908	822,057	1,216	159,494	0	0
Shrinkage/Loss	Oct-13	4,400	334,074	0	0	0	0	0	0	4,400	334,074	0	0
Unaccounted*	Oct-13	24,561	2,119,766	859	85,891	17,486	1,714,229	6,186	315,860	0	1,085	30	2,701

\*Before October 2004, the values are estimated

### Storage Operations

#### Inventory (contained helium)

	Government	Private
Beginning inventory	8,997,326	1,843,543
net acceptances + redeliveries	0	0
	0	(139,831)
In Kind Transfers	(3,369)	3,369
Conservation Crude Sales	(318,570)	318,570
Gain/loss	(1,195)	
Ending Inventory	8,674,192	2,025,651
Total Helium in Reservoir	13,133,954	
Total Helium in Storage	10,699,843	
Helium in native gas	2,434,111	

#### Crude Helium Pipeline

	Gross	Net Helium	Percent
Beginning inventory	27,438	20,551	74.90%
Measured to Pipeline (Private Plants)	56,450	37,566	66.55%
Measured from Pipeline (Private Plant:	237,319	177,392	74.75%
HEU Production	183,625	141,583	77.10%
Injection	0	0	00.00%
Production	0	0	
Ending Inventory	28,270	21,113	74.68%
Gain/Loss	(1,924)	(1,195)	

### Tuck Trigg Reservoir Operations

Native Gas (Gross)	Since Field		
	Month	Fiscal Year	Discovery
Total in place, beg. of period	5,198,688	5,198,688	5,890,000
Recoverable in place, beg. of period	4,528,688	4,528,688	5,220,000
Production during period to date	0	0	691,312
Total in place, end of month	5,198,688	5,198,688	5,198,688
Recoverable in place, end of month	4,528,688	4,528,688	4,528,688

\* All volumes on Table 3 are reported in Mcf at 14.65 psia & 60°F

Table 4 - In Kind Helium Sales

October - 2013

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**	
<b>In Kind Helium</b>										
<b>AirGas South West, Contract no. INC98-0101</b>									(billed quarterly)	
Month										
FYTD										
<b>AirGas North Central, Contract no. INC98-0102</b>										
Month										
FYTD										
<b>AirGas Intermountain, Contract no. INC98-0103</b>										
Month										
FYTD										
<b>Air Liquide Helium America, Inc., Contract no. INC98-0104</b>										
Month										
FYTD										
<b>Air Products, L.P., Contract no. INC98-0105</b>										
Month										
FYTD										
<b>Linde Gas North America, LLC, Contract no. INC98-0106</b>										
Month										
FYTD										
<b>Corp Brothers, Inc., Contract no. INC98-0107</b>										
Month										
FYTD										
<b>FIBA Technologies, Inc., Contract no. INC98-0108</b>										
Month										
FYTD										
<b>General Air Service &amp; Supply Co., Contract no. INC98-0109</b>										
Month										
FYTD										
<b>Praxair, Inc., Contract no. INC98-0112</b>										
Month										
FYTD										
<b>United States Welding, Inc., Contract no. INC98-0113</b>										
Month										
FYTD										
<b>Matheson Tri-Gas, Inc., Contract no. INC98-0114</b>										
Month										
FYTD										
<b>GT &amp; S, Contract no. INC00-0115</b>										
Month										
FYTD										
<b>Global Gases America, Contract no. INC13-0116</b>										
Month										
FYTD										
<b>Total month</b>	0	0	0	0	0	0	0	0	\$0	
<b>Total FYTD</b>	0	0	0	0	0	0	0	0	\$0	
<b>Total CYTD</b>	28,811	9,230	63	27	14,760	44,702	97,593	96,088	\$6,507,822	
<b>Cumulative</b>	1,725,546	106,682	407	271,538	416,942	573,966	3,095,081	3,047,125	\$170,177,300	
<b>In Kind Transfers</b>							Month	FYTD	CYTD	Cumulative
Transferred							3,369	3,369	102,729	3,019,812
Volume outstanding							27,388			

\* Volumes in Mcf at 14.7 psia & 70°F  
 + Volumes in Mcf at 14.65 psia & 60°F

\*\*Rounded to nearest dollar

Table 5 - Conservation Crude Sales/Reserve Sell-down

October - 2013

Helium & Natural Gas Sales

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$)** (billed quarterly)	
<b>Conservation Helium</b>					
<b><u>Air Liquide Helium America, Inc.</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	270,550		270,550	\$18,831,450	
<b><u>Air Products, L.P.</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	7,049,395		7,049,395	\$461,053,039	
<b><u>Linde Gas North America, LLC</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	5,465,710		5,465,710	\$346,658,088	
<b><u>Keyes Helium Co., LLC</u></b>					
Month	0	(26,040)	26,040	\$2,187,360	
FYTD	0	0	26,040	\$2,187,360	
Cumulative	890,740		890,740	\$57,143,863	
<b><u>Matheson Tri-Gas, Inc.</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	10,000		10,000	\$587,500	
<b><u>Praxair, Inc.</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	4,370,905		4,370,905	\$295,814,511	
<b><u>Linde Gas, LLC discontinued 10 2008</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	200,000		200,000	\$11,035,000	
<b><u>Global Gases America</u></b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	6,300		6,300	\$529,200	
<b>Total month</b>					
	0	(26,040)	26,040	<b>\$2,187,360</b>	
<b>Total FYTD</b>					
	0	0	26,040	<b>\$2,187,360</b>	
<b>Total CYTD</b>					
	1,575,000		1,575,000	<b>\$132,300,000</b>	
<b>Cumulative</b>					
	18,263,600		18,263,600	<b>\$1,191,652,650</b>	
<b>Conservation Crude Transfers</b>					
Transferred		Month	FYTD	CYTD	Cumulative
		318,570	318,570	2,073,960	18,237,560
Volume outstanding		26,040			

\* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas/Liquid Sales

	Natural Gas (Mcf)***	NGLs (gal)	Decatherms	Avg Btu Value	Charges Billed (\$)**
<b><u>EI Paso Natural Gas</u></b>					
Provides Measured Firm/Interruptible Transportation Services					(billed monthly)
Month	287,417	---	315,823	1,099	(\$27,997)
FYTD	287,417	---	315,823	1,099	(\$27,997)
Cumulative	32,595,106	---	35,807,950	1,099	(\$3,602,595)
<b><u>Minerals Management Service</u></b>					
No Longer Provides Natural Gas Marketing Services					
Cumulative	---	---	---	---	(\$179,913)
<b><u>Tenaska</u></b>					
Purchaser - Natural Gas					\$/Unit
Month	---	---	316,900	\$3.430172	\$1,087,022
FYTD	---	---	316,900	\$3.430172	\$1,087,022
Cumulative	---	---	35,548,796	\$4.889447	\$172,987,408
<b><u>Sandstone</u></b>					
Purchaser - Natural Gas Liquids					
Month	---	106,452	11,378	\$12.702916	\$144,534
FYTD	---	106,452	11,378	\$12.702916	\$144,534
Cumulative	---	9,656,030	1,030,049	\$12.397781	\$12,770,322
	Natural Gas (Mcf)***	NGLs (gal)	Purchased (Dth's)	\$\$ Per Unit (\$/Dth)	Total (\$)
<b>Total month</b>	287,417	106,452	328,278	\$3.666278	<b>\$1,203,558</b>
<b>Total FYTD</b>	287,417	106,452	328,278	\$3.666278	<b>\$1,203,558</b>
<b>Total CYTD</b>	2,728,403	1,038,152	3,082,967	\$3.687082	<b>\$11,367,151</b>
<b>Cumulative</b>	32,595,106	9,656,030	36,578,845	\$4.997472	<b>\$181,975,221</b>

\*\*\* Volumes in Mcf at 14.73 psia & 60°F

\*\*Rounded to nearest dollar

## Table 6 - Helium Resources Evaluation

October - 2013

All Volumes in Mcf at 14.7 psia & 70°F

<b>Revenue Collected From Federal Leaseholds</b>	Month*	FYTD*
Fee Sales & Royalties	\$2,078,443	\$2,078,443
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$31,663	\$31,663
<b>Revenue Collected from Federal Lease Holds</b>	<b>\$2,110,106</b>	<b>\$2,110,106</b>

\*Totals do not sum

<b>Helium Analysis and Evaluation</b>	Month	FYTD
Number of Sample Request Letters Sent	0	0
Number of Samples Received	0	0
Number of Samples Analyzed	0	0
Total Number of Samples Analyzed For Resources Division	15	15
Total Number of Other Samples Analyzed (2)	20	20

### U. S. Helium Production

<i>Domestic</i>	FY Volume	CY Volume
2007 Helium Sold	4,995,600	4,965,176
2008 Helium Sold	4,771,200	4,668,286
2009 Helium Sold	4,325,600	4,238,415
2010 Helium Sold	4,559,100	4,644,278
2011 Helium Sold	4,691,100	4,768,537
Estimated Helium Resources as of 12/31/2006 (Mcf)		732,000,000

	FY-2011	CY-2011
<b>U.S. Helium Exports</b> (3)	2,966,225	3,027,731

(1) Includes drip gas sales & other miscellaneous gas sales.

(2) Includes pipeline, field survey, and other requested analyses.

(3) Data from Department of Commerce - Bureau of the Census.

# Table 7 - Helium Storage Contract Activity

October - 2013

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas					Transferred Gas Helium		Stored Helium EOM	Charges Billed (\$)**	
	Gross Gas	Helium %	Helium	Helium		Month	Cumulative		Month	FYTD
	Month		FYTD	CYTD	Cumulative					
<b>Total All Contracts*</b>										
Crude Acquired	56,450	66.5%	37,561	37,561	353,199	30,740,229	346,602	51,615,759		
Crude Disposed	237,319	74.7%	177,392	177,392	1,832,910	47,850,819	24,663	31,000,800		
Grade-A Rdlvrd	0		0	0	0	1,478,718				
Net/Balance	(180,869)		(139,831)	(139,831)	(1,479,711)	(18,589,308)	321,939	20,614,959	2,025,651	\$222,948
<b>Total Prior Contracts (TERMINATED)</b>										
Crude Acquired			0	0	17,406,129		0	18,196,898		
Crude Disposed			0	0	11,830,863		0	19,148,768		
Grade-A Rdlvrd			0	0	1,478,718					
Number of trailers			0	0	9,834			0		
<b>Linde Gas North America, LLC, Contract no. 1995-3249</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Praxair, Inc., Contract no. 1995-3251</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Air Products, L.P., Contract no. 1995-3256</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>ExxonMobil Gas Marketing Co., Contract no. 1995-3280</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Pioneer Natural Resources USA, Inc, Contract no. 1995-3286</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Keyes Helium Co., LLC, Contract no. 1995-3287</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Air Liquide Helium America, Inc., Contract no. 2003-3284</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Matheson Tri-Gas, Inc., Contract no. 2007-3288</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Airgas Merchant Gases, Contract no. 2009-3290</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Global Gases America, Contract no. 2013-3293</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										

<b>Government Helium</b>	
Remaining Crude Acquired beginning of the month	8,997,326
Crude Disposed: In Kind Sales transferred for the month	(3,369)
Conservation Crude Sales/Reserve Sell Down transferred (montl	(318,570)
Gains and Losses for the month	(1,195)
Net/Balance of Purchased Helium Remaining for Sale	8,674,192

\*Includes In Kind and Conservation Crude transfers from Government storage

\*\*Rounded to nearest dollar

## Table 8 - Compression & CHEU (Charges & Operations)

October - 2013

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price *	\$ per/MMBTU	\$3.43	\$4.40	\$5.15
Fuel used * (now includes field compression well head)	total MMBTU	10,012	10,012	1,421,966
Field Compression Fuel Cost *	\$dollars	\$0	\$0	\$654,398
CHEU Compression Fuel Cost *	\$dollars	\$17,037	\$17,037	\$3,792,574
CHEU Process Fuel Cost *	\$dollars	\$11,998	\$11,998	\$2,544,138
Rental compressor(s) fuel consumed (well head)	\$dollars	\$5,303	\$5,303	\$131,653
Rental Compressor(s) helium in fuel (Mcf x \$\$)	\$dollars	\$9,744	\$9,744	\$205,534
Rental compressor(s) helium in fuel (Mcf)	Mcf	116	116	2522
#1 Compressor run time *	hours	733	733	82,992
#2 Compressor run time *	hours	482	482	52,509
#3 Compressor run time *	hours	293	293	46,967

\* Field/CHEU Compressor Operations based on Oct 13 activity

Field Compressor Charges	Charges Billed (\$)*		
Linde Gas North America, LLC, Contract no. 1995-3249			
Praxair, Inc., Contract no. 1995-3251			
Air Products, L.P., Contract no. 1995-3256			
Keyes Helium Co., LLC, Contract no. 1995-3287			
SubTotal - Cliffside Refiners, LP (provides booster compression services)	(\$60,945)	(\$60,945)	(\$9,857,239)
Cliffside Refiners, LP, GDA010003 (BLM provided fuel *, labor, supplies, etc.)	\$16,364	\$16,364	\$2,453,188
<b>Net Total - Cliffside Refiners, LP</b>	<b>(\$44,580)</b>	<b>(\$44,580)</b>	<b>(\$7,404,051)</b>

\* BLM provided fuel cost is based on Sep 13 fuel consumed

**\*Rounded to nearest dollar**

Crude Helium Enrichment Unit (CHEU) CHEU Runtime	Month		FYTD		Cumulative
	Runtime Hrs	Percent	Runtime Hrs	Percent	Runtime Hrs
Processing feed gas	744	100.0%	744	100.0%	88,030
Producing residue gas	744	100.0%	744	100.0%	87,067
Producing helium product	744	100.0%	744	100.0%	84,123
Producing natural gas liquids	744	100.0%	744	100.0%	82,647

CHEU Charges	Charges Billed (\$)*		
	Month	FYTD	Cumulative
Reservoir Management Fees (RMF)	\$240,779	\$240,779	\$25,556,183
Total operating costs	(\$892,894)	(\$892,894)	(\$107,910,591)
Labor	\$133,564	\$133,564	\$10,384,886
Compressor fuel cost Sep 13	\$16,947	\$16,947	\$3,826,353
HEU fuel cost Sep 13	\$10,822	\$10,822	\$2,576,967
Electrical power cost Sep 13	\$141,879	\$141,879	\$16,156,310
Other	\$87,823	\$87,823	\$10,619,719
Sub Total - Items provided by BLM	\$391,035	\$391,035	\$46,773,590
Total - Cliffside Refiners, LP, GDA030001	(\$501,859)	(\$501,859)	(\$61,137,001)

**\*Rounded to nearest dollar**

CHEU Utility Usage	Month	FYTD	Cumulative
Cheu Fuel Gas (Mcf) usage Oct 13	3,026	3,026	446,335
Cheu Pure Water Usage (gallons) Oct 13	156	156	267,519
Electricity Metered (Kwh) consumed Sep 13	2,498,128	2,498,128	36,052,821