

Bureau of Land Management

Amarillo Field Office

Helium Operations



Statistical Report for May - 2015



Distribution:

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Engineering and Technical Support

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Amarillo, Texas

Compiled by: David V. Reeves

Issued: February 24, 2016

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

Approved for Distribution: Samuel R. M. Burton

Date: February 24, 2016

Table 1 - Summary of Helium Operations

May - 2015

Helium Enrichment Unit Operations

Gas Processed	Month			Gross FYTD	Net FYTD
	Gross Volume	Net Helium	Average Percent		
Measured Plant Feed (Mcf*)	488,179	92,964	19.04%	3,561,015	628,057
Helium Product (Mcf*)	123,025	91,563	74.43%	797,298	593,141
Residue Natural Gas (Mcf*)	243,551	0	00.00%	1,721,785	139

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas & Liquids Produced

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf****)	240,644	1,735,294
NGL Sales (gallons)	65,071	590,802

*** 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Total Withdrawn (Mcf*)	495,095	94,256	19.04%	3,586,916	629,054
Crude Injection (Mcf*)	0	0	00.00%	52,193	38,733
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*)		0	0	0	20,051,729
Conservation Crude Sale Volume Transferred (Mcf*)	0	0	1,061,902	0	20,051,729
Conservation Helium in Storage (EOM) (Mcf*)		6,636,403			

* Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium

	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	0	111,915	47,562	3,211,036
Sale Volumes Outstanding (Mcf*)	24,788			

* 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*)	49,632	33,336	67.17%	239,154
Crude Disposed (Mcf*)	167,277	120,773	72.20%	792,752
Net Balance (Mcf*)	(117,645)	(87,437)		(553,598)
Balance of Stored Helium End Of Month (Mcf*)		2,446,479		

* Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

Helium Storage Contracts (Charges Billed (\$))	Month	FYTD
Storage Fees Billed (\$)	\$354,229	\$2,447,520
Reservoir Management Fees Billed (\$)	\$233,330	\$1,460,063

Field Compressor Charges (Charges Billed (\$))

	Month	FYTD
Funded by the Refiners (provides for booster compression services)	(\$56,477)	(\$451,817)
Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.)	\$13,232	\$105,854
Net-Total (Funded by the Refiners for compression costs.)	(\$43,245)	(\$345,962)

Enrichment Unit Charges (Charges Billed (\$))

	Month	FYTD
Reservoir Management Fees (RMF)	\$233,330	\$1,460,063
Total operating costs	(\$769,070)	(\$6,294,274)
Sub Total - Items provided by BLM	\$274,164	\$2,335,028
Total - Cliffside Refiners, LP, GDA030001	(\$494,906)	(\$3,959,246)

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

	Month	FYTD
Conservation Crude Helium Sales	\$0	\$0
In Kind Sales	\$0	\$5,097,527
Natural Gas & Liquid Sales	\$694,369	\$5,626,286

Helium Resources Evaluation

	Month	FYTD
Revenue Collected from Federal Lease Holds	\$1,429,072	\$11,507,896
Helium Sample Collection Report for month	Submitted - 0	Received - 0
	Analyzed - 18	

*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

May - 2015

		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
TOTAL		495,095	219,916,278	94,256	41,211,494	124,091	54,174,230	245,811	111,441,608	26,422	11,249,726	4,516	1,839,221
BIVINS A-3	May-15	0	10,961,112	0	3,548,629	0	2,772,147	0	4,159,383	0	407,301	0	73,653
BIVINS A-6	May-15	47,426	11,195,328	24,203	6,658,006	12,027	2,751,445	9,800	1,577,882	1,045	156,172	351	51,824
BIVINS A-13	May-15	31,899	8,191,967	10,993	4,358,803	8,037	2,107,989	11,309	1,511,136	1,320	167,244	241	46,795
BIVINS A-14	May-15	41,489	9,133,601	13,695	5,363,852	10,411	2,317,103	15,303	1,263,781	1,717	136,276	364	52,589
BIVINS A-4	May-15	32,623	13,130,128	4,026	2,349,139	7,875	3,181,871	18,443	6,800,349	1,940	682,490	339	116,280
BUSH A-2	May-15	41,257	12,729,036	4,521	1,909,958	10,364	3,118,779	23,471	6,889,143	2,617	704,193	285	106,963
Injection	May-15	0	66,357,596	0	47,933,055	0	17,094,498	0	778,121	0	32	0	551,891
inj Bivins A-3	May-15	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537)
inj Bivins A-6	May-15	0	(24,295,547)	0	(17,583,286)	0	(6,459,457)	0	(140,640)	0	(70)	0	(112,095)
inj Bivins A-13	May-15	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980)
inj Bivins A-14	May-15	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497)
inj Bivins A-4	May-15	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617)
inj Bush A-2	May-15	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,015)
Production	May-15	0	1,217,868	0	897,578	0	261,663	0	47,122	0	3,172	0	8,333
BIVINS A-1	May-15	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,597
BIVINS A-2	May-15	18,910	13,831,488	671	1,874,857	4,418	3,389,550	12,334	7,686,231	1,300	765,750	187	115,102
BIVINS A-5	May-15	22,655	15,826,539	4,139	2,004,832	5,781	3,877,969	11,327	8,910,319	1,232	896,229	175	137,189
BIVINS A-7	May-15	22,411	11,675,778	6,912	2,743,771	5,842	2,938,954	8,548	5,361,266	959	546,423	150	85,365
BIVINS A-9	May-15	24,665	10,179,633	539	193,310	6,368	2,501,873	15,872	6,713,521	1,684	677,846	202	93,084
BIVINS A-11	May-15	18,814	6,308,870	555	134,990	4,837	1,568,650	12,003	4,122,585	1,242	423,233	177	59,411
BIVINS A-15	May-15	30,910	9,498,374	541	424,988	7,288	2,263,702	20,601	6,101,403	2,109	610,528	371	97,752
BIVINS B-1	May-15	30,467	7,721,377	698	293,031	7,470	1,870,220	19,874	4,969,661	2,070	509,645	354	78,820
BIVINS B-2	May-15	25,036	6,416,264	476	120,857	6,393	1,606,696	16,047	4,170,480	1,684	428,929	436	89,302
BUSH A-1	May-15	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	May-15	26,756	11,856,592	9,049	2,774,002	6,816	2,929,985	9,606	5,493,395	1,063	555,488	222	103,722
BUSH A-4	May-15	17,953	8,481,307	1,954	1,563,910	4,596	2,120,425	10,197	4,297,616	1,102	438,133	104	61,223
BUSH A-5	May-15	39,046	16,229,245	10,847	3,717,502	9,990	4,072,007	16,189	7,558,611	1,791	768,038	229	113,087
BUSH A-8	May-15	12,763	4,107,043	237	75,229	3,182	993,856	8,280	2,713,882	859	273,232	205	50,843
BUSH A-9	May-15	0	3,860,915	0	105,037	0	930,915	0	2,537,187	0	253,463	0	34,312
BUSH A-11	May-15	6,525	4,477,754	136	131,226	1,567	1,070,921	4,289	2,927,205	443	297,177	90	51,225
BUSH B-1	May-15	3,489	3,282,707	63	61,635	830	778,918	2,316	2,193,869	246	216,154	33	32,132
FUQUA A-1	May-15	0	2,954,098	0	53,854	0	702,798	0	1,975,175	0	193,573	0	28,699
FUQUA A-2	May-15	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,297
FUQUA A-3	May-15	0	9,303,907	0	577,005	0	2,277,687	0	5,790,357	0	583,701	0	75,158
TT Fuel	May-15	0	0	0	0	0	0	0	0	0	0	0	0
field-wide pcts				19.04%	18.74%	25.06%	24.63%	49.65%	50.67%	5.34%	5.12%	0.91%	0.84%

Latest estimates of reserves and feed to HEU

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

As of EOM May-15

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 - 14	85.349	22.474
Injection 2003 - 14	(1.300)	(1.067)
Produced to Date 2015	2.186	0.390
Injected to Date 2015	(0.006)	(0.004)
Amount of Raw Gas Available to CHEU	94.335	=====> 11.462 total helium in reservoir
Estimated Bottom Hole Pressure	347.394	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

May - 2015

Crude Helium Enrichment Unit Operations

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane		Ethane plus		Other (CO ₂ , Ar, H ₂)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
Measured Feed	May-15	488,179	85,055,433	92,964	21,229,113	122,331	21,337,234	242,378	37,736,831	26,054	4,024,655	4,452	727,600
Calculated Feed	May-15	495,095	84,711,908	94,256	21,188,889	124,091	21,245,350	245,811	37,521,082	26,422	4,028,924	4,516	727,664
Feed to Box	May-15	491,442	84,190,222	94,256	21,189,068	124,091	21,245,432	245,811	37,521,127	26,422	4,028,927	863	205,668
Cheu Product	May-15	123,025	26,709,943	91,563	20,908,036	28,044	5,093,032	2,591	522,497	1	552	826	185,826
Residue	May-15	243,551	37,716,458	0	1,778	5,581	932,049	216,413	33,468,099	21,556	3,313,286	0	1,246
Cold Box Vent	May-15	84,637	14,355,929	54	87,990	73,568	12,730,149	11,001	1,476,735	0	117	13	60,937
Flare/Boot Strap	May-15	84,637	4,872,178	54	48,769	73,568	3,985,151	11,001	738,904	0	93,582	13	5,771
Fuel From Cheu	May-15	6,911	1,147,291	3	328	179	34,047	5,574	930,919	1,155	181,997	0	0
Shrinkage/Loss	May-15	3,708	402,496	0	0	0	0	0	0	3,708	402,496	0	0
Unaccounted*	May-15	29,611	2,525,913	2,637	112,779	16,718	1,980,384	10,232	428,510	(0)	1,102	23	3,137

*Before October 2004, the values are estimated

Storage Operations

Inventory (contained helium)

	Government	Private
Beginning inventory	6,637,592	2,533,916
net acceptances + redeliveries	0	0
	0	(87,437)
In Kind Transfers	0	0
Conservation Crude Sales	0	0
Gain/loss	(1,189)	
Ending Inventory	6,636,403	2,446,479
Total Helium in Reservoir	11,462,125	
Total Helium in Storage	9,082,882	
Helium in native gas	2,379,243	

Crude Helium Pipeline

	Gross	Net Helium	Percent
Beginning inventory	32,385	22,972	70.93%
Measured to Pipeline (Private Plants)	49,632	33,408	67.31%
Measured from Pipeline (Private Plant:	167,277	120,773	72.20%
HEU Production	123,025	91,563	74.43%
Injection	0	0	00.00%
Production	0	0	
Ending Inventory	35,938	25,980	72.29%
Gain/Loss	(1,827)	(1,189)	

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

May - 2015

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**	
In Kind Helium										
AirGas South West, Contract no. INC98-0101									(billed quarterly)	
Month										
FYTD										
AirGas North Central, Contract no. INC98-0102										
Month										
FYTD										
AirGas Intermountain, Contract no. INC98-0103										
Month										
FYTD										
Air Liquide Helium America, Inc., Contract no. INC98-0104										
Month										
FYTD										
Air Products, L.P., Contract no. INC98-0105										
Month										
FYTD										
Linde Gas North America, LLC, Contract no. INC98-0106										
Month										
FYTD										
Corp Brothers, Inc., Contract no. INC98-0107										
Month										
FYTD										
FIBA Technologies, Inc., Contract no. INC98-0108										
Month										
FYTD										
General Air Service & Supply Co., Contract no. INC98-0109										
Month										
FYTD										
Praxair, Inc., Contract no. INC98-0112										
Month										
FYTD										
United States Welding, Inc., Contract no. INC98-0113										
Month										
FYTD										
Matheson Tri-Gas, Inc., Contract no. INC98-0114										
Month										
FYTD										
GT & S, Contract no. INC00-0115										
Month										
FYTD										
Global Gases America, Contract no. INC13-0116										
Month										
FYTD										
Total month	0	0	0	0	0	0	0	0	\$0	
Total FYTD	33,244	1	0	0	0	37,745	70,990	69,894	\$5,097,527	
Total CYTD	18,998	0	0	0	0	20,881	39,880	39,263	\$2,983,988	
Cumulative	1,799,686	108,674	450	271,584	421,753	684,511	3,286,657	3,235,749	\$183,426,736	
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	111,915	47,562	3,211,036
Volume outstanding							24,788			

* 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

May - 2015

Helium & Natural Gas Sales

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$) ** (billed quarterly)	
Conservation Helium					
<u>Air Liquide Helium America, Inc.</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	285,217		285,217	\$20,224,815	
<u>Air Products, L.P.</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	7,710,561		7,710,561	\$532,797,027	
<u>Linde Gas North America, LLC</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	5,890,632		5,890,632	\$390,129,669	
<u>Keyes Helium Co., LLC</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	956,113		956,113	\$63,831,798	
<u>Matheson Tri-Gas, Inc.</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	24,000		24,000	\$1,917,500	
<u>Praxair, Inc.</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	4,946,572		4,946,572	\$356,081,964	
<u>Linde Gas, LLC discontinued 10 2008</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	200,000		200,000	\$11,035,000	
<u>Global Gases America</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	22,967		22,967	\$2,112,565	
<u>Airgas Merchant Gases</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	15,667		15,667	\$1,488,365	
Total month	0	0	0	\$0	
Total FYTD	0	0	0	\$0	
Total CYTD	0	0	0	\$0	
Cumulative	20,051,729		20,051,729	\$1,379,618,703	
Conservation Crude Transfers					
		Month	FYTD	CYTD	Cumulative
Transferred		0	1,061,902	0	20,051,729
Volume outstanding		0			

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas/Liquid Sales

	Natural Gas (Mcf)***	NGLs (gal)	Decatherms	Avg Btu Value	Charges Billed (\$) ** (billed monthly)
<u>El Paso Natural Gas</u>					
		Provides Measured Firm/Interruptible Transportation Services			
Month	240,644	---	265,094	1,102	(\$27,997)
FYTD	1,735,294	---	1,873,351	1,080	(\$223,976)
Cumulative	37,130,475	---	40,731,640	1,097	(\$4,136,065)
<u>Minerals Management Service</u>					
		No Longer Provides Natural Gas Marketing Services			
Cumulative	---	---	---	---	(\$179,913)
<u>Tenaska</u>					
		Purchaser - Natural Gas		\$/Unit	
Month	---	---	264,600	\$2.575480	\$681,472
FYTD	---	---	1,865,700	\$2.916253	\$5,440,853
Cumulative	---	---	40,408,063	\$4.763710	\$191,665,755
<u>Sandstone</u>					
		Purchaser - Natural Gas Liquids			
Month	---	65,071	7,034	\$5.813803	\$40,894
FYTD	---	590,802	59,273	\$6.907172	\$409,409
Cumulative	---	11,191,030	1,189,945	\$12.191137	\$14,506,783
	Natural Gas (Mcf)***	NGLs (gal)	Purchased (Dth's)	\$/Per Unit (\$/Dth)	Total (\$)
Total month	240,644	65,071	271,634	\$2.556268	\$694,369
Total FYTD	1,735,294	590,802	1,924,973	\$2.922787	\$5,626,286
Total CYTD	976,539	337,036	1,099,841	\$2.457571	\$2,702,937
Cumulative	37,130,475	11,191,030	41,598,008	\$4.872423	\$201,856,559

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

**Rounded to nearest dollar

Table 6 - Helium Resources Evaluation

May - 2015

All Volumes in Mcf at 14.7 psia & 70°F

Revenue Collected From Federal Leaseholds	Month*	FYTD*
Fee Sales & Royalties	\$1,431,235	\$11,487,560
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$20,336	\$197,734
Revenue Collected from Federal Lease Holds	\$1,429,072	\$11,507,896

*Totals do not sum

Helium Analysis and Evaluation	Month	FYTD
Number of Sample Request Letters Sent	0	0
Number of Samples Received	0	0
Number of Samples Analyzed	0	8
Total Number of Samples Analyzed For Resources Division	0	6
Total Number of Other Samples Analyzed (2)	18	84

U. S. Helium Production

<i>Domestic</i>	FY Volume	CY Volume
2010 Helium Sold	4,558,202	4,691,987
2011 Helium Sold	4,531,140	4,645,930
2012 Helium Sold	4,725,187	4,623,130
2013 Helium Sold	4,279,765	4,166,708
2014 Helium Sold	3,815,746	3,466,014
Estimated Helium Resources as of 12/31/2006(Mcf)		732,000,000

	FY-2014	FY-2014
U.S. Helium Exports (3)	2,553,129	2,432,311

(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

May - 2015

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas						Transferred Gas		Stored Helium EOM	Charges Billed (\$)**	
	Gross Gas	Helium %	Helium	Helium			Helium			Month	FYTD
				FYTD	CYTD	Cumulative	Month	Cumulative			
	Month										
Total All Contracts*											
Crude Acquired	49,632	67.2%	33,336	239,154	149,328	31,328,928	28,325	54,255,507			
Crude Disposed	167,277	72.2%	120,773	792,752	507,298	50,024,083	28,325	31,635,155		\$354,229	Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718				<u>\$233,330</u>	RMF Fees
Net/Balance	(117,645)		(87,437)	(553,598)	(357,970)	(20,173,873)	0	22,620,352	2,446,479	\$587,560	\$3,907,583
Total Prior Contracts (TERMINATED)											
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		
Linde Gas North America, LLC, Contract no. 1995-3249											
Crude Acquired											
Crude Disposed											
Net/Balance											
Praxair, Inc., Contract no. 1995-3251											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Products, L.P., Contract no. 1995-3256											
Crude Acquired											
Crude Disposed											
Net/Balance											
, Contract no.											
Crude Acquired											
Crude Disposed											
Net/Balance											
ExxonMobil Gas Marketing Co., Contract no. 1995-3280											
Crude Acquired											
Crude Disposed											
Net/Balance											
Pioneer Natural Resources USA, Inc, Contract no. 1995-3286											
Crude Acquired											
Crude Disposed											
Net/Balance											
Keyes Helium Co., LLC, Contract no. 1995-3287											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Liquide Helium America, Inc., Contract no. 2003-3284											
Crude Acquired											
Crude Disposed											
Net/Balance											
Matheson Tri-Gas, Inc., Contract no. 2007-3288											
Crude Acquired											
Crude Disposed											
Net/Balance											
Airgas Merchant Gases, Contract no. 2009-3290											
Crude Acquired											
Crude Disposed											
Net/Balance											
Global Gases America, Contract no. 2013-3293											
Crude Acquired											
Crude Disposed											
Net/Balance											
Linn Operating, Inc., Contract no. 2015-3296											
Crude Acquired											
Crude Disposed											
Net/Balance											

Government Helium	
Remaining Crude Acquired beginning of the month	6,637,592
Crude Disposed: In Kind Sales transferred for the month	0
Conservation Crude Sales/Reserve Sell Down transferred (mont	0
Gains and Loses for the month	(1,189)
Net/Balance of Purchased Helium Remaining for Sale	6,636,403

*Includes In Kind and Conservation Crude transfers from Government storage

**Rounded to nearest dollar

Table 8 - Compression & CHEU (Charges & Operations)

May - 2015

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price *	\$ per/MMBTU	\$2.58	\$3.14	\$5.05
Fuel used * (now includes field compression well head)	total MMBTU	10,064	70,411	1,598,468
Field Compression Fuel Cost *	\$dollars	\$0	\$0	\$654,398
CHEU Compression Fuel Cost *	\$dollars	\$12,688	\$122,689	\$4,155,140
CHEU Process Fuel Cost *	\$dollars	\$7,923	\$71,940	\$2,777,437
Rental compressor(s) fuel consumed (well head)	\$dollars	\$5,354	\$9,575	\$207,234
Rental Compressor(s) helium in fuel (Mcf x \$\$)	\$dollars	\$13,886	\$17,172	\$277,733
Rental compressor(s) helium in fuel (Mcf)	Mcf	131	162	3285
#1 Compressor run time *	hours	283	3,323	92,787
#2 Compressor run time *	hours	489	3,654	58,309
#3 Compressor run time *	hours	690	3,754	56,766

* Field/CHEU Compressor Operations based on May 15 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)	(\$56,477)	(\$451,817)	(\$10,979,447)
Cliffside Refiners, LP, GDA010003 (BLM provided fuel *, labor, supplies, etc.)	\$13,232	\$105,854	\$2,739,051
Net Total - Cliffside Refiners, LP	(\$43,245)	(\$345,962)	(\$8,240,396)

* BLM provided fuel cost is based on Apr 15 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	734	98.7%	5,743	98.5%	101,452
Producing residue gas	734	98.7%	5,561	95.4%	99,970
Producing helium product	734	98.7%	5,377	92.2%	96,831
Producing natural gas liquids	734	98.7%	5,544	95.1%	95,614

CHEU Charges	Charges Billed (\$)*		
	Month	FYTD	Cumulative
Reservoir Management Fees (RMF)	\$233,330	\$1,460,063	\$28,778,411
Total operating costs	(\$769,070)	(\$6,294,274)	(\$124,096,106)
Labor	\$76,760	\$614,078	\$12,468,164
Compressor fuel cost Apr 15	\$8,783	\$132,338	\$4,187,605
HEU fuel cost Apr 15	\$6,728	\$75,495	\$2,810,041
Electrical power cost Apr 15	\$132,065	\$1,103,519	\$18,843,703
Other	\$49,828	\$409,598	\$11,960,543
Sub Total - Items provided by BLM	\$274,164	\$2,335,028	\$53,479,411
Total - Cliffside Refiners, LP, GDA030001	(\$494,906)	(\$3,959,246)	(\$70,616,695)

***Rounded to nearest dollar**

CHEU Utility Usage	Month	FYTD	Cumulative
Cheu Fuel Gas (Mcf) usage May 15	2,657	22,255	500,482
Cheu Pure Water Usage (gallons) May 15	293	6,499	283,477
Electricity Metered (Kwh) consumed Apr 15	2,633,760	20,393,079	86,419,244