

Bureau of Land Management

Amarillo Field Office

Helium Operations

Statistical Report

for

June - 2017



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: Joan Grochowina

Issued: October 20, 2017

"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: October 19, 2017

Table 1 - Summary of Helium Operations

June - 2017

Helium Enrichment Unit Operations

Gas Processed	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Measured Plant Feed (Mcf*)	552,877	91,970	16.63%	4,450,494	738,491
Helium Product (Mcf*)	119,607	89,912	75.17%	985,602	731,309
Residue Natural Gas (Mcf*)	296,076	62	0.02%	2,338,244	93

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas & Liquids Produced

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf***)	294,649	2,500,359
NGL Sales (gallons)	114,338	858,525

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

Bush Dome Reservoir Operations

Conservation gases from all sources	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Total Withdrawn (Mcf*)	558,003	92,815	16.63%	4,690,142	774,017
Crude Injection (Mcf*)	0	0	00.00%	9,764	7,204
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	825,000	0	21,952,729
Conservation Crude Sale Volume Transferred (Mcf*)	0	0	840,000	15,000	21,952,729
Conservation Helium in Storage (EOM) (Mcf*)		4,397,989			

* Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium

	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	0	102,972	63,397	3,488,450
Sale Volumes Outstanding (Mcf*)	40,330			

* Volumes in Mcf at 14.65 psia & 60°F

Private Company Helium Storage Contracts

Contact Activity	Month Gross Volume	Month Net Helium	Average Percent	Annual Helium FYTD
Crude Acquired (Mcf*)	11,879	7,218	60.76%	177,547
Crude Disposed (Mcf*)	145,257	106,043	73.00%	889,281
Net Balance (Mcf*)	(133,378)	(98,825)		(711,734)
Balance of Stored Helium End Of Month (Mcf*)		2,976,835		

* Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

Helium Storage Contracts (Charges Billed (\$))	Month	FYTD
Storage Fees Billed (\$)	\$683,279	\$6,195,527
Reservoir Management Fees Billed (\$)	\$172,999	\$1,383,994

Field Compressor Charges (Charges Billed (\$))

	Month	FYTD
Funded by the Refiners (provides for booster compression services)	\$0	\$0
Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.)	\$0	\$0
Net-Total (Funded by the Refiners for compression costs.)	\$0	\$0

Enrichment Unit Charges (Charges Billed (\$))

	Month	FYTD
Reservoir Management Fees (RMF)	\$172,999	\$1,383,994
Total operating costs	(\$921,525)	(\$8,109,717)
Sub Total - Items provided by BLM	\$411,566	\$3,520,080
Total - Cliffside Refiners, LP, GDA030001	(\$509,960)	(\$4,589,638)

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

	Month	FYTD
Conservation Crude Helium Sales	\$0	\$0
In Kind Sales	\$3,159,395	\$8,472,527
Natural Gas & Liquid Sales	\$877,277	\$7,175,270

Helium Resources Evaluation

	Month	FYTD
Revenue Collected from Federal Lease Holds	\$1,673,099	\$13,638,011
Helium Sample Collection Report for month	Submitted - 0	Received - 0
		Analyzed - 20

*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

June - 2017

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane	Methane	Ethane plus		Other (CO2, Ar, H2)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
TOTAL		558,003	230,763,568	92,815	43,059,430	139,001	56,877,373	289,805	117,035,251	31,102	11,850,160	5,280	1,941,355
BIVINS A-3	Jun-17	0	10,961,112	0	3,548,629	0	2,772,147	0	4,159,384	0	407,301	0	73,653
BIVINS A-6	Jun-17	52,645	11,961,305	23,862	7,053,071	13,116	2,941,132	13,814	1,736,918	1,463	172,789	390	57,394
BIVINS A-13	Jun-17	36,544	8,880,029	12,131	4,593,614	9,072	2,280,220	13,550	1,758,728	1,520	195,493	271	51,974
BIVINS A-14	Jun-17	42,857	10,019,954	12,555	5,639,909	10,513	2,537,183	17,514	1,608,267	1,893	174,142	381	60,453
BIVINS A-4	Jun-17	40,919	13,941,972	4,744	2,442,763	9,913	3,377,768	23,361	7,265,483	2,461	731,131	440	124,826
BUSH A-2	Jun-17	44,900	13,672,855	3,654	1,996,639	11,309	3,355,966	26,648	7,441,412	2,981	765,415	308	113,423
Injection	Jun-17	0	66,474,735	0	48,019,788	0	17,121,580	0	780,676	0	37	0	552,655
inj Bivins A-3	Jun-17	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537)
inj Bivins A-6	Jun-17	0	(24,412,686)	0	(17,669,978)	0	(6,486,588)	0	(143,192)	0	(72)	0	(112,856)
inj Bivins A-13	Jun-17	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980)
inj Bivins A-14	Jun-17	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497)
inj Bivins A-4	Jun-17	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617)
inj Bush A-2	Jun-17	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,015)
Production	Jun-17	0	1,254,876	0	924,742	0	270,231	0	48,129	0	3,199	0	8,575
BIVINS A-1	Jun-17	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,597
BIVINS A-2	Jun-17	21,258	14,232,714	755	1,888,559	4,993	3,483,259	13,829	7,948,525	1,468	793,280	213	119,091
BIVINS A-5	Jun-17	28,787	16,348,264	5,397	2,102,513	7,359	4,011,148	14,241	9,168,972	1,562	924,390	228	141,242
BIVINS A-7	Jun-17	6,021	11,977,344	1,843	2,836,498	1,567	3,017,589	2,312	5,476,677	259	559,227	40	87,354
BIVINS A-9	Jun-17	34,428	10,790,274	848	207,435	8,813	2,658,746	22,083	7,105,849	2,393	720,071	291	98,173
BIVINS A-11	Jun-17	24,844	6,622,752	735	144,306	6,315	1,648,663	15,842	4,322,653	1,711	444,711	241	62,418
BIVINS A-15	Jun-17	34,839	10,231,244	608	437,796	8,153	2,435,768	23,250	6,590,156	2,402	660,871	426	106,651
BIVINS B-1	Jun-17	35,664	8,444,726	842	309,459	8,855	2,048,071	23,210	5,440,482	2,346	559,134	412	87,580
BIVINS B-2	Jun-17	29,033	7,002,801	552	132,005	7,375	1,756,008	18,613	4,546,373	1,978	468,735	515	99,680
BUSH A-1	Jun-17	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	Jun-17	30,396	12,466,308	10,227	2,980,387	7,698	3,085,019	10,997	5,712,546	1,219	579,595	255	108,761
BUSH A-4	Jun-17	16,836	8,879,790	1,524	1,601,672	4,334	2,222,530	9,821	4,529,082	1,061	463,018	96	63,487
BUSH A-5	Jun-17	45,250	17,114,898	11,914	3,954,307	11,568	4,298,550	19,360	7,934,323	2,141	809,438	268	118,281
BUSH A-8	Jun-17	21,670	4,489,204	402	82,323	5,382	1,088,836	14,048	2,961,576	1,475	299,327	364	57,141
BUSH A-9	Jun-17	0	3,860,915	0	105,037	0	930,915	0	2,537,187	0	253,463	0	34,312
BUSH A-11	Jun-17	7,619	4,668,375	162	135,215	1,845	1,116,767	4,986	3,052,456	518	310,071	107	53,867
BUSH B-1	Jun-17	3,494	3,375,511	62	63,322	823	800,881	2,324	2,255,497	251	222,772	34	33,040
FUQUA A-1	Jun-17	0	2,954,098	0	53,854	0	702,798	0	1,975,175	0	193,573	0	28,699
FUQUA A-2	Jun-17	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,297
FUQUA A-3	Jun-17	0	9,303,912	0	577,005	0	2,277,687	0	5,790,357	0	583,701	0	75,162
TT Fuel	Jun-17	53	0	0	0	2	0	43	0	7	0	0	0
field-wide pct's				16.63%	18.66%	24.91%	24.65%	51.94%	50.72%	5.57%	5.14%	0.95%	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 Jun-17 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 - 16	95.429	24.219
Injection 2003 - 16	(1.423)	(1.159)
Produced to Date 2017	2.998	0.493
Injected to Date 2017	0.000	0.000
Amount of Raw Gas Available to CHEU	83.559	=====> 9.701 total helium in reservoir
Estimated Bottom Hole Pressure	307.752	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

June - 2017

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	Jun-17	552,877	95,713,045	91,970	23,030,467	137,735	23,988,214	287,128	43,235,645	30,812	4,631,031	5,232	827,688
Calculated Feed	Jun-17	557,950	95,546,321	92,814	23,019,336	138,999	23,940,677	289,762	43,111,135	31,095	4,645,645	5,280	829,527
Feed to Box	Jun-17	553,506	94,939,298	92,814	23,019,515	138,999	23,940,759	289,762	43,111,181	31,095	4,645,644	836	222,199
Cheu Product	Jun-17	119,607	29,069,006	89,912	22,664,347	26,494	5,629,903	2,418	572,651	5	815	779	201,289
Residue	Jun-17	296,076	43,028,996	62	2,131	7,582	1,059,149	262,208	38,180,976	26,219	3,785,479	6	1,262
Cold Box Vent	Jun-17	80,739	15,834,142	56	89,201	73,609	14,037,024	7,057	1,646,581	0	118	16	61,219
Flare/Boot Strap	Jun-17	80,739	6,350,390	56	49,980	73,609	5,292,026	7,057	908,750	0	93,583	16	6,052
Fuel From Cheu	Jun-17	6,870	1,305,660	3	408	178	38,148	5,541	1,058,644	1,148	208,461	0	0
Shrinkage/Loss	Jun-17	3,723	471,326	0	0	0	0	0	0	3,723	471,326	0	0
Unaccounted*	Jun-17	46,491	3,240,219	2,782	170,498	31,136	2,396,845	12,539	668,105	(0)	1,102	35	3,669

*Before October 2004, the values are estimated

Storage Operations

Inventory (contained helium)

	Government	Private
Beginning inventory	4,398,733	3,075,660
net acceptances +	0	0
redeliveries	0	(98,825)
In Kind Transfers	0	0
Conservation Crude Sales	0	0
Gain/loss	(744)	
Ending Inventory	4,397,989	2,976,835
Total Helium in Reservoir	9,700,923	
Total Helium in Storage	7,374,824	
Helium in native gas	2,326,099	

Crude Helium Pipeline

	Gross	Net Helium	Percent
Beginning inventory	40,455	28,802	71.20%
Measured to Pipeline (Private Plants)	11,879	7,355	61.92%
Measured from Pipeline (Private Plant)	145,257	106,043	73.00%
HEU Production	119,607	89,912	75.17%
Injection	0	0	00.00%
Production	0	0	
Ending Inventory	26,246	19,282	73.47%
Gain/Loss	(439)	(744)	

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

June - 2017

	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	19,417	0	0	0	0	19,245	38,663	38,065	\$3,159,395	
Total FYTD	47,745	6	0	8	292	55,001	103,052	101,461	\$8,472,527	
Total CYTD	29,257	6	0	8	292	36,298	65,861	64,844	\$5,382,052	
Cumulative	1,933,766	108,683	450	271,593	422,045	847,667	3,584,203	3,528,705	\$207,343,938	
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	102,972	63,397	3,488,450
Volume outstanding							40,330			

* 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

June - 2017

Helium & Natural Gas Sales

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$)*** (billed quarterly)	
Conservation Helium					
Air Liquide Helium America, Inc.					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	335,217		335,217	\$25,454,815	
Air Products, L.P.					
Month	0	0	0	\$0	
FYTD	0	0	419,309	\$44,881,063	
Cumulative	8,448,745		8,448,745	\$610,716,090	
Linde Gas North America, LLC					
Month	0	0	0	\$0	
FYTD	0	0	140,334	\$15,015,738	
Cumulative	6,170,987		6,170,987	\$419,707,591	
Keyes Helium Co., LLC					
Month	0	0	0	\$0	
FYTD	0	0	21,844	\$2,337,308	
Cumulative	998,957		998,957	\$68,353,106	
Matheson Tri-Gas, Inc.					
Month	0	0	0	\$0	
FYTD	0	0	46,700	\$4,996,900	
Cumulative	328,700		328,700	\$34,316,400	
Praxair, Inc.					
Month	0	0	0	\$0	
FYTD	0	0	183,513	\$19,635,891	
Cumulative	5,403,189		5,403,189	\$404,125,671	
Linde Gas, LLC discontinued 10 2008					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	200,000		200,000	\$11,035,000	
Global Gases America					
Month	0	0	0	\$0	
FYTD	0	0	13,300	\$1,423,100	
Cumulative	36,267		36,267	\$3,535,665	
Airgas Merchant Gases					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	15,667		15,667	\$1,488,365	
IACX Energy					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	15,000		15,000	\$1,575,000	
Total month	0	0	0	0	0
Total FYTD	0	0	825,000		\$0
Total CYTD	0		0		\$0
Cumulative	21,952,729		21,952,729		\$1,580,307,703
Conservation Crude Transfers					
		Month	FYTD	CYTD	Cumulative
Transferred		0	840,000	15,000	21,952,729
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)	
El Paso Natural Gas						
		Provides Measured Firm/Interruptible Transportation Services				
Month	294,649	---	322,386	1,094	(\$27,997)	
FYTD	2,500,359	---	2,389,254	956	(\$251,973)	
Cumulative	42,582,907	---	46,343,794	1,088	(\$4,836,352)	
Minerals Management Service						
		No Longer Provides Natural Gas Marketing Services				
Cumulative	---	---	---	---	(\$179,913)	
ETC Marketing Ltd						
		Purchaser - Natural Gas			\$/Unit	
Month	---	---	323,200	\$2.625353	\$848,514	
FYTD	---	---	2,544,714	\$2.721827	\$6,926,270	
Cumulative	---	---	46,169,819	\$4.476669	\$205,860,446	
Sandstone						
		Purchaser - Natural Gas Liquids				
Month	---	114,338	12,042	\$4.713467	\$56,760	
FYTD	---	858,525	89,748	\$5.581993	\$500,973	
Cumulative	---	12,938,919	1,375,737	\$11.223124	\$15,440,067	
	Natural Gas (Mcf)***	NGLs (gal)	Purchased (Dth's)	\$\$ Per Unit (\$\$/Dth)	Total (\$\$)	
Total month	294,649	114,338	335,242	\$2.616846	\$877,277	
Total FYTD	2,500,359	858,525	2,634,462	\$2.723619	\$7,175,270	
Total CYTD	1,657,965	582,051	1,763,293	\$2.728271	\$4,810,742	
Cumulative	42,582,907	12,938,919	47,545,556	\$4.566374	\$216,284,248	

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

**Rounded to nearest dollar

Table 6 - Helium Resources Evaluation

June - 2017

All Volumes in Mcf at 14.7 psia & 70°F

Revenue Collected From Federal Leaseholds	Month*	FYTD*
Fee Sales & Royalties	\$1,674,558	\$13,593,918
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$44,093	\$344,922
Revenue Collected from Federal Lease Holds	\$1,673,099	\$13,638,011

*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	0
Total Number of Samples Analyzed For Resources Division	0	1
Total Number of Other Samples Analyzed (2)	20	150

U. S. Helium Production

<i>Domestic</i>	FY Volume	CY Volume
2012 Helium Sold	4,531,140	4,645,930
2013 Helium Sold	4,725,187	4,623,130
2014 Helium Sold	3,815,746	3,463,698
2015 Helium Sold	3,282,185	3,104,695
2016 Helium Sold	4,559,100	4,644,278
Estimated Helium Resources as of 12/31/2006(Mcf)		732,000,000

	FY-2015	CY-2015
U.S. Helium Exports (3)	2,423,915	2,334,648
US Helium Imports	491,006	565,023

(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

June - 2017

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas					Transferred Gas		Stored Helium EOM	Charges Month	Billed (\$)**			
	Gross Gas	Helium %	Helium	Helium		Helium				Month	Month	FYTD	FYTD
				FYTD	CYTD	Cumulative	Month						
Total All Contracts*													
Crude Acquired	11,879	60.8%	7,218	177,547	85,779	32,078,318	13,188	56,816,882					
Crude Disposed	145,257	73.0%	106,043	889,281	578,489	52,421,531	13,188	30,908,091		\$683,279	Storage Fees		
Grade-A Rdlvrd	0		0	0	0	1,478,718				\$172,999	RMF Fees		
Net/Balance	(133,378)		(98,825)	(711,734)	(492,710)	(21,821,931)	0	25,908,791	2,976,835	\$856,278.34	\$7,579,521		
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. 3249													
Crude Acquired													
Crude Disposed													
Net/Balance													
Praxair, Inc., Contract no. 3251													
Crude Acquired													
Crude Disposed													
Net/Balance													
Air Products, L.P., Contract no. 3256													
Crude Acquired													
Crude Disposed													
Net/Balance													
IACX Energy, Contract no. 3297													
Crude Acquired													
Crude Disposed													
Net/Balance													
Pioneer Natural Resources USA, Inc, Contract no. 3286													
Crude Acquired													
Crude Disposed													
Net/Balance													
Keyes Helium Co., LLC, Contract no. 3287													
Crude Acquired													
Crude Disposed													
Net/Balance													
Air Liquide Helium America, Inc., Contract no. 3284													
Crude Acquired													
Crude Disposed													
Net/Balance													
Matheson Tri-Gas, Inc., Contract no. 3288													
Crude Acquired													
Crude Disposed													
Net/Balance													
Airgas Merchant Gases, Contract no. 3290													
Crude Acquired													
Crude Disposed													
Net/Balance													
Global Gases America, Contract no. 3293													
Crude Acquired													
Crude Disposed													
Net/Balance													
Linn Operating, Inc., Contract no. 3296													
Crude Acquired													
Crude Disposed													
Net/Balance													

Government Helium	
Remaining Crude Acquired beginning of the month	4,398,733
Crude Disposed: In Kind Sales transferred for the month	0
Conservation Crude Sales/Reserve Sell Down transferred (month)	0
Gains and Losses for the month	(744)
Net/Balance of Purchased Helium Remaining for Sale	4,397,989

*Includes In Kind and Conservation Crude transfers from Government storage

**Rounded to nearest dollar

Table 8 - Compression & CHEU (Charges & Operations)

June - 2017

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price *	\$ per/MMBTU	\$2.63	\$2.80	\$4.79
Fuel used * (now includes field compression well head)	total MMBTU	7,986	76,254	1,787,177
Field Compression Fuel Cost *	\$dollars	\$0	\$0	\$658,447
CHEU Compression Fuel Cost *	\$dollars	\$16,380	\$132,197	\$4,428,201
CHEU Process Fuel Cost *	\$dollars	\$8,574	\$81,437	\$2,955,111
Rental compressor(s) fuel consumed (well head)	\$dollars	\$0	\$0	\$207,234
Rental Compressor(s) helium in fuel (Mcf x \$\$)	\$dollars	\$0	\$0	\$315,893
Rental compressor(s) helium in fuel (Mcf)	Mcf	0	0	3645
#1 Compressor run time *	hours	324	5,137	107,403
#2 Compressor run time *	hours	721	4,525	69,988
#3 Compressor run time *	hours	425	2,684	62,008

* Field/CHEU Compressor Operations based on Jun 17 activity

Crude Helium Enrichment Unit (CHEU) CHEU Runtime	Month		FYTD		Cumulative
	Runtime Hrs	Percent	Runtime Hrs	Percent	Runtime Hrs
Processing feed gas	720	100.0%	6,381	97.4%	118,949
Producing residue gas	716	99.5%	6,319	96.4%	116,125
Producing helium product	658	91.4%	6,156	94.0%	112,501
Producing natural gas liquids	716	99.4%	6,272	95.7%	111,582

CHEU Charges	Charges Billed (\$)*		
	Month	FYTD	Cumulative
Reservior Management Fees (RMF)	\$172,999	\$1,383,994	\$33,215,117
Total operating costs	(\$921,525)	(\$8,109,717)	(\$144,939,875)
Labor	\$161,237	\$1,451,129	\$15,789,745
Compressor fuel cost May 17	\$16,380	\$124,551	\$4,431,746
HEU fuel cost May 17	\$8,836	\$81,739	\$2,961,206
Electrical power cost May 17	\$141,531	\$1,110,426	\$21,561,407
Other	\$83,582	\$752,234	\$13,811,494
Sub Total - Items provided by BLM	\$411,566	\$3,520,080	\$61,764,953
Total - Cliffside Refiners, LP, GDA030001	(\$509,960)	(\$4,589,638)	(\$83,174,923)

*Rounded to nearest dollar

CHEU Utility Usage	Month	FYTD	Cumulative
Cheu Fuel Gas (Mcf) usage Jun 17	2,828	25,933	565,572
Cheu Pure Water Usage (gallons) Jun 17	471	10,413	304,861
Electricity Metered (Kwh) consumed May 17	2,647,253	18,941,685	139,058,903