

Bureau of Land Management

Amarillo Field Office Helium Operations



Statistical Report for January - 2015



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: January 14, 2016

**** Revised ****

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

Approved for Distribution: *David V. Reeves*
NMSO Accountant

Date: *January 14, 2016*

Table 1 - Summary of Helium Operations

January - 2015

Helium Enrichment Unit Operations

| Gas Processed | Month | | | Gross FYTD | Net FYTD |
|----------------------------|--------------|------------|-----------------|------------|----------|
| | Gross Volume | Net Helium | Average Percent | | |
| Measured Plant Feed (Mcf*) | 438,254 | 86,398 | 19.71% | 1,852,927 | 330,495 |
| Helium Product (Mcf*) | 110,136 | 83,206 | 75.55% | 421,793 | 315,395 |
| Residue Natural Gas (Mcf*) | 205,979 | 0 | 0.00% | 941,123 | 0 |

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas & Liquids Produced

| Gas Processed | Month | FYTD |
|----------------------------|---------|---------|
| Natural Gas Sales (Mcf***) | 203,348 | 931,467 |
| NGL Sales (gallons) | 73,896 | 334,594 |

*** 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| Total Withdrawn (Mcf*) | 440,770 | 86,394 | 19.60% | 1,852,744 | 326,976 |
| Crude Injection (Mcf*) | 3,542 | 2,661 | 75.11% | 49,767 | 36,907 |
| 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*) | | 6,657,398 | | | |

* Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium

| | Month | FYTD | CYTD | Cumulative |
|---------------------------------|--------|--------|--------|------------|
| Sale Volumes Transferred (Mcf*) | 29,826 | 94,179 | 29,826 | 3,193,300 |
| Sale Volumes Outstanding (Mcf*) | 3,261 | | | |

* 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*) | 38,557 | 25,254 | 65.50% | 115,080 |
| Crude Disposed (Mcf*) | 142,345 | 103,873 | 72.97% | 389,327 |
| Net Balance (Mcf*) | (103,788) | (78,619) | | (274,247) |
| Balance of Stored Helium End Of Month (Mcf*) | | 2,708,094 | | |

* Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

| Helium Storage Contracts (Charges Billed (\$)) | Month | FYTD |
|--|-----------|-------------|
| Storage Fees Billed (\$) | \$353,187 | \$1,032,867 |
| Reservoir Management Fees Billed (\$) | \$205,806 | \$679,407 |

Field Compressor Charges (Charges Billed (\$))

| | Month | FYTD |
|--|------------|-------------|
| Funded by the Refiners (provides for booster compression services) | (\$56,477) | (\$225,908) |
| Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.) | \$13,232 | \$52,927 |
| Net-Total (Funded by the Refiners for compression costs.) | (\$43,245) | (\$172,981) |

Enrichment Unit Charges (Charges Billed (\$))

| | Month | FYTD |
|---|-------------|---------------|
| Reservoir Management Fees (RMF) | \$205,806 | \$679,407 |
| Total operating costs | (\$795,739) | (\$3,182,816) |
| Sub Total - Items provided by BLM | \$300,833 | \$1,203,193 |
| Total - Cliffside Refiners, LP, GDA030001 | (\$494,906) | (\$1,979,623) |

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

| | Month | FYTD |
|---------------------------------|-----------|-------------|
| Conservation Crude Helium Sales | \$0 | \$0 |
| In Kind Sales | \$0 | \$2,113,539 |
| Natural Gas & Liquid Sales | \$585,435 | \$3,508,784 |

Helium Resources Evaluation

| | | Month | FYTD |
|--|---------------|--------------|--------------|
| Revenue Collected from Federal Lease Holds | | \$2,905,147 | \$5,603,163 |
| Helium Sample Collection Report for month | Submitted - 0 | Received - 0 | Analyzed - 5 |

*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

January - 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 | | 440,770 | 218,170,811 | 86,394 | 40,907,960 | 108,082 | 53,739,043 | 213,648 | 110,550,945 | 26,629 | 11,150,991 | 6,017 | 1,821,873 |
| BIVINS A-3 | Jan-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 | Jan-15 | 32,717 | 11,091,066 | 21,085 | 6,602,510 | 7,794 | 2,725,542 | 3,300 | 1,558,445 | 309 | 153,790 | 228 | 50,779 |
| BIVINS A-13 | Jan-15 | 28,965 | 8,085,092 | 10,153 | 4,321,408 | 7,296 | 2,081,137 | 10,115 | 1,473,937 | 1,182 | 162,667 | 220 | 45,944 |
| BIVINS A-14 | Jan-15 | 43,377 | 9,005,577 | 14,702 | 5,321,049 | 10,895 | 2,285,112 | 15,643 | 1,217,424 | 1,759 | 130,691 | 379 | 51,300 |
| BIVINS A-4 | Jan-15 | 29,581 | 13,007,775 | 3,720 | 2,334,055 | 7,139 | 3,152,486 | 16,810 | 6,731,543 | 1,633 | 674,682 | 280 | 115,009 |
| BUSH A-2 | Jan-15 | 38,944 | 12,569,463 | 4,389 | 1,892,248 | 9,735 | 3,078,709 | 22,084 | 6,798,557 | 2,469 | 694,087 | 267 | 105,862 |
| Injection | Jan-15 | 3,542 | 66,355,171 | 2,661 | 47,931,229 | 782 | 17,093,966 | 76 | 778,069 | 0 | 32 | 23 | 551,875 |
| inj Bivins A-3 | Jan-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 | Jan-15 | (3,542) | (24,293,121) | (2,661) | (17,581,595) | (782) | (6,458,800) | (76) | (140,577) | (0) | (70) | (23) | (112,079) |
| inj Bivins A-13 | Jan-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 | Jan-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 | Jan-15 | 0 | (2,527,801) | 0 | (1,848,815) | 0 | (601,353) | 0 | (42,016) | 0 | 0 | 0 | (35,617) |
| inj Bush A-2 | Jan-15 | 0 | (867,658) | 0 | (625,258) | 0 | (215,406) | 0 | (13,980) | 0 | 0 | 0 | (13,015) |
| Production | Jan-15 | 0 | 1,217,868 | 0 | 897,578 | 0 | 261,663 | 0 | 47,122 | 0 | 3,172 | 0 | 8,333 |
| BIVINS A-1 | Jan-15 | 0 | 2,686,608 | 0 | 48,896 | 0 | 636,995 | 0 | 1,798,415 | 0 | 175,704 | 0 | 26,597 |
| BIVINS A-2 | Jan-15 | 17,334 | 13,757,809 | 576 | 1,872,239 | 3,784 | 3,372,350 | 10,647 | 7,638,200 | 1,765 | 760,663 | 562 | 114,357 |
| BIVINS A-5 | Jan-15 | 20,306 | 15,744,189 | 3,438 | 1,989,793 | 4,847 | 3,856,970 | 9,628 | 8,869,154 | 2,119 | 891,721 | 275 | 136,550 |
| BIVINS A-7 | Jan-15 | 18,590 | 11,595,423 | 5,431 | 2,719,044 | 4,529 | 2,918,036 | 6,647 | 5,330,552 | 1,420 | 542,985 | 562 | 84,806 |
| BIVINS A-9 | Jan-15 | 24,425 | 10,091,952 | 529 | 191,397 | 6,312 | 2,479,220 | 15,720 | 6,657,089 | 1,664 | 671,879 | 200 | 92,367 |
| BIVINS A-11 | Jan-15 | 2 | 6,252,870 | 0 | 133,338 | 0 | 1,554,254 | 1 | 4,086,857 | 0 | 419,536 | 0 | 58,885 |
| BIVINS A-15 | Jan-15 | 29,893 | 9,377,948 | 523 | 422,880 | 7,053 | 2,235,299 | 19,923 | 6,021,131 | 2,035 | 602,330 | 359 | 96,308 |
| BIVINS B-1 | Jan-15 | 28,513 | 7,603,938 | 610 | 290,368 | 6,333 | 1,841,986 | 16,985 | 4,894,539 | 3,207 | 500,207 | 1,377 | 76,839 |
| BIVINS B-2 | Jan-15 | 25,080 | 6,317,667 | 478 | 118,981 | 6,408 | 1,581,514 | 16,078 | 4,107,277 | 1,682 | 422,302 | 434 | 87,592 |
| BUSH A-1 | Jan-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 | Jan-15 | 24,407 | 11,761,555 | 8,223 | 2,741,944 | 6,190 | 2,905,782 | 8,823 | 5,459,192 | 969 | 551,706 | 201 | 102,931 |
| BUSH A-4 | Jan-15 | 16,330 | 8,414,917 | 1,841 | 1,556,583 | 4,159 | 2,103,463 | 9,238 | 4,259,987 | 999 | 434,048 | 93 | 60,836 |
| BUSH A-5 | Jan-15 | 36,135 | 16,082,303 | 10,189 | 3,676,491 | 9,201 | 4,034,427 | 14,896 | 7,497,843 | 1,641 | 761,318 | 208 | 112,224 |
| BUSH A-8 | Jan-15 | 14,690 | 4,050,558 | 273 | 74,180 | 3,663 | 979,775 | 9,533 | 2,677,234 | 986 | 269,433 | 235 | 49,936 |
| BUSH A-9 | Jan-15 | 0 | 3,860,915 | 0 | 105,037 | 0 | 930,915 | 0 | 2,537,187 | 0 | 253,463 | 0 | 34,312 |
| BUSH A-11 | Jan-15 | 7,198 | 4,449,371 | 156 | 130,625 | 1,721 | 1,064,101 | 4,736 | 2,908,529 | 488 | 295,276 | 97 | 50,840 |
| BUSH B-1 | Jan-15 | 4,277 | 3,268,102 | 78 | 61,368 | 1,021 | 775,439 | 2,836 | 2,184,177 | 301 | 215,122 | 40 | 31,995 |
| FUQUA A-1 | Jan-15 | 0 | 2,954,098 | 0 | 53,854 | 0 | 702,798 | 0 | 1,975,175 | 0 | 193,573 | 0 | 28,699 |
| FUQUA A-2 | Jan-15 | 0 | 132,119 | 0 | 2,404 | 0 | 31,322 | 0 | 88,458 | 0 | 8,637 | 0 | 1,297 |
| FUQUA A-3 | Jan-15 | 9 | 9,303,899 | 0 | 577,005 | 2 | 2,277,684 | 5 | 5,790,351 | 1 | 583,700 | 0 | 75,158 |
| TT Fuel | Jan-15 | 241 | 0 | 5 | 0 | 58 | 0 | 160 | 0 | 17 | 0 | 2 | 0 |
| field-wide pcts | | | | 19.60% | 18.75% | 24.52% | 24.63% | 48.47% | 50.67% | 6.04% | 5.11% | 1.37% | 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 Jan-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 | 0.441 | 0.086 |
| Injected to Date 2015 | (0.004) | (0.003) |
| Amount of Raw Gas Available to CHEU | 96.078 | =====> 11.764 total helium in reservoir |
| Estimated Bottom Hole Pressure | 353.807 | 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

January - 2015

Crude Helium Enrichment Unit Operations

| | | 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 |
| Measured Feed | Jan-15 | 438,254 | 83,347,345 | 86,398 | 20,931,551 | 108,209 | 20,911,096 | 214,871 | 36,864,045 | 24,116 | 3,929,463 | 4,660 | 711,191 |
| Calculated Feed | Jan-15 | 440,529 | 82,969,245 | 86,390 | 20,885,542 | 108,025 | 20,810,706 | 213,488 | 36,632,269 | 26,612 | 3,930,386 | 6,014 | 710,342 |
| Feed to Box | Jan-15 | 435,299 | 82,462,138 | 86,390 | 20,885,721 | 108,025 | 20,810,789 | 213,488 | 36,632,315 | 26,612 | 3,930,391 | 784 | 202,924 |
| Cheu Product | Jan-15 | 110,136 | 26,334,439 | 83,206 | 20,630,291 | 23,874 | 5,007,238 | 2,315 | 513,017 | 0 | 520 | 741 | 183,373 |
| Residue | Jan-15 | 205,979 | 36,935,796 | 0 | 1,639 | 4,179 | 914,022 | 183,829 | 32,775,543 | 17,970 | 3,243,349 | 0 | 1,243 |
| Cold Box Vent | Jan-15 | 70,812 | 14,094,359 | 50 | 87,759 | 61,461 | 12,504,337 | 9,288 | 1,441,251 | 0 | 117 | 13 | 60,893 |
| Flare/Boot Strap | Jan-15 | 70,812 | 4,610,607 | 50 | 48,539 | 61,461 | 3,759,339 | 9,288 | 703,420 | 0 | 93,582 | 13 | 5,727 |
| Fuel From Cheu | Jan-15 | 6,885 | 1,122,780 | 3 | 316 | 178 | 33,412 | 5,553 | 911,151 | 1,150 | 177,901 | 0 | 0 |
| Shrinkage/Loss | Jan-15 | 6,340 | 388,913 | 0 | 0 | 0 | 0 | 0 | 0 | 6,340 | 388,913 | 0 | 0 |
| Unaccounted* | Jan-15 | 16,528 | 2,426,900 | 1,477 | 100,846 | 11,830 | 1,927,331 | 3,205 | 394,620 | (0) | 1,102 | 15 | 3,000 |

*Before October 2004, the values are estimated

Storage Operations

Inventory (contained helium)

| | Government | Private |
|-----------------------------------|------------|-----------|
| Beginning inventory | 6,687,588 | 2,756,887 |
| net acceptances + redeliveries | 0 | 0 |
| | 0 | (78,619) |
| In Kind Transfers | (29,826) | 29,826 |
| Conservation Crude Sales | 0 | 0 |
| Gain/loss | (364) | |
| Ending Inventory | 6,657,398 | 2,708,094 |
| Total Helium in Reservoir | 11,763,833 | |
| Total Helium in Storage | 9,365,492 | |
| Helium in native gas | 2,398,341 | |

Crude Helium Pipeline

| | Gross | Net Helium | Percent |
|--|---------|------------|---------|
| Beginning inventory | 43,064 | 30,956 | 71.88% |
| Measured to Pipeline (Private Plants) | 38,557 | 25,415 | 65.92% |
| Measured from Pipeline (Private Plant) | 142,345 | 103,873 | 72.97% |
| HEU Production | 110,136 | 83,206 | 75.55% |
| Injection | 3,542 | 2,661 | 75.11% |
| Production | 0 | 0 | |
| Ending Inventory | 44,759 | 32,679 | 73.01% |
| Gain/Loss | (1,110) | (364) | |

Tuck Trigg Reservoir Operations

| Native Gas (Gross) | Month | Fiscal Year | Since Field |
|--------------------------------------|-----------|-------------|-------------|
| | | | 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

January - 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 | 14,246 | 1 | 0 | 0 | 0 | 16,863 | 31,110 | 30,631 | \$2,113,539 | |
| Total CYTD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | |
| Cumulative | 1,780,687 | 108,674 | 450 | 271,584 | 421,753 | 663,630 | 3,246,778 | 3,196,486 | \$180,442,748 | |
| In Kind Transfers | | | | | | | Month | FYTD | CYTD | Cumulative |
| Transferred | | | | | | | 29,826 | 94,179 | 29,826 | 3,193,300 |
| Volume outstanding | | | | | | | 3,261 | | | |

* 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
Helium & Natural Gas Sales

January - 2015

| | 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 | |
| Cumulative | | | | | |
| | 20,051,729 | | 20,051,729 | \$1,379,618,703 | |
| Conservation Crude Transfers | | | | | |
| Transferred | | Month | FYTD | CYTD | Cumulative |
| Volume outstanding | | 0 | 1,061,902 | 0 | 20,051,729 |

* 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>EI Paso Natural Gas</u> | | | | | |
| | | Provides Measured Firm/Interruptible Transportation Services | | | (billed monthly) |
| Month | 203,348 | --- | 224,107 | 1,102 | (\$27,997) |
| FYTD | 931,467 | --- | 1,021,280 | 1,096 | (\$111,988) |
| Cumulative | 36,326,648 | --- | 39,879,569 | 1,098 | (\$4,024,077) |
| <u>Minerals Management Service</u> | | | | | |
| | | No Longer Provides Natural Gas Marketing Services | | | |
| Cumulative | --- | --- | --- | --- | (\$179,913) |
| <u>Tenaska</u> | | | | | |
| | | Purchaser - Natural Gas | | \$/Unit | |
| Month | --- | --- | 216,200 | \$2.680236 | \$579,467 |
| FYTD | --- | --- | 1,018,200 | \$3.307462 | \$3,367,658 |
| Cumulative | --- | --- | 39,560,563 | \$4.813357 | \$189,592,560 |
| <u>Sandstone</u> | | | | | |
| | | Purchaser - Natural Gas Liquids | | | |
| Month | --- | 73,896 | 7,890 | \$4.304864 | \$33,965 |
| FYTD | --- | 334,594 | 34,063 | \$7.430769 | \$253,114 |
| Cumulative | --- | 10,934,822 | 1,164,735 | \$12.320818 | \$14,350,488 |
| | Natural Gas (Mcf)*** | NGLs (gal) | Purchased (Dth's) | \$/Per Unit (\$\$/Dth) | Total (\$) |
| Total month | 203,348 | 73,896 | 224,090 | \$2.612501 | \$585,435 |
| Total FYTD | 931,467 | 334,594 | 1,052,263 | \$3.334513 | \$3,508,784 |
| Total CYTD | 203,348 | 73,896 | 224,090 | \$2.612501 | \$585,435 |
| Cumulative | 36,326,648 | 10,934,822 | 40,725,298 | \$4.924841 | \$199,739,057 |

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

**Rounded to nearest dollar

Table 6 - Helium Resources Evaluation

January - 2015

All Volumes in Mcf at 14.7 psia & 70°F

| Revenue Collected From Federal Leaseholds | Month* | FYTD* |
|---|--------------------|--------------------|
| Fee Sales & Royalties | \$2,901,974 | \$5,574,523 |
| Natural Gas Royalties (1) | \$0 | \$0 |
| Natural Gas Rentals | \$0 | \$0 |
| Other | \$28,640 | \$100,850 |
| Revenue Collected from Federal Lease Holds | \$2,905,147 | \$5,603,163 |

*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 | 2 | 6 |
| Total Number of Other Samples Analyzed (2) | 5 | 33 |

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

January - 2015

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 | | | | | | |
| Total All Contracts* | | | | | | | | | | | |
| Crude Acquired | 38,557 | 65.5% | 25,254 | 115,080 | 25,254 | 31,204,854 | 72,461 | 54,112,370 | | | |
| Crude Disposed | 142,345 | 73.0% | 103,873 | 389,327 | 103,873 | 49,620,658 | 42,635 | 31,509,754 | | \$353,187 | Storage Fees |
| Grade-A Rdlvrd | 0 | | 0 | 0 | 0 | 1,478,718 | | | | <u>\$205,806</u> | RMF Fees |
| Net/Balance | (103,788) | | (78,619) | (274,247) | (78,619) | (19,894,522) | 29,826 | 22,602,616 | 2,708,094 | \$558,993 | \$1,712,273 |
| 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 | | | | | | | | | | | |
| Keys Helium Co., LLC, Contract no. 1995-3287 | | | | | | | | | | | |
| Crude Acquired | | | | | | | | | | | |
| Crude Disposed | | | | | | | | | | | |
| Net/Balance | | | | | | | | | | | |
| ALIG, LLC, Contract no. 1998-3283 | | | | | | | | | | | |
| Crude Acquired | | | | | | | | | | | |
| Crude Disposed | | | | | | | | | | | |
| Net/Balance | | | | | | | | | | | |
| Linde Gas, LLC discontinued 10 2008, Contract no. 2001-3282 | | | | | | | | | | | |
| Crude Acquired | | | | | | | | | | | |
| Crude Disposed | | | | | | | | | | | |
| Net/Balance | | | | | | | | | | | |
| Mitsui & Co. (U.S.A.), Inc., Contract no. 2002-3289 | | | | | | | | | | | |
| 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 | 6,687,588 |
| Crude Disposed: In Kind Sales transferred for the month | (29,826) |
| Conservation Crude Sales/Reserve Sell Down transferred (mont | 0 |
| Gains and Losses for the month | (364) |
| Net/Balance of Purchased Helium Remaining for Sale | 6,657,398 |

*Includes In Kind and Conservation Crude transfers from Government storage

**Rounded to nearest dollar

Table 8 - Compression & CHEU (Charges & Operations)

January - 2015

| Field/CHEU Compressor Operations | | Month | FYTD | Cumulative |
|--|--------------|----------|----------|-------------|
| Spot gas fuel price * | \$ per/MMBTU | \$2.68 | \$3.38 | \$5.10 |
| Fuel used * (now includes field compression well head) | total MMBTU | 8,160 | 37,661 | 1,565,718 |
| Field Compression Fuel Cost * | \$dollars | \$0 | \$0 | \$654,398 |
| CHEU Compression Fuel Cost * | \$dollars | \$13,290 | \$77,117 | \$4,109,568 |
| CHEU Process Fuel Cost * | \$dollars | \$8,581 | \$42,664 | \$2,748,161 |
| Rental compressor(s) fuel consumed (well head) | \$dollars | \$0 | \$4,221 | \$201,880 |
| Rental Compressor(s) helium in fuel (Mcf x \$\$) | \$dollars | \$0 | \$3,286 | \$263,847 |
| Rental compressor(s) helium in fuel (Mcf) | Mcf | 0 | 31 | 3154 |
| #1 Compressor run time * | hours | 568 | 2,750 | 92,214 |
| #2 Compressor run time * | hours | 451 | 1,307 | 55,962 |
| #3 Compressor run time * | hours | 287 | 1,635 | 54,647 |

* Field/CHEU Compressor Operations based on Jan 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) | (\$225,908) | (\$10,753,539) |
| Cliffside Refiners, LP, GDA010003 (BLM provided fuel *, labor, supplies, etc.) | \$13,232 | \$52,927 | \$2,686,124 |
| Net Total - Cliffside Refiners, LP | (\$43,245) | (\$172,981) | (\$8,067,415) |

* BLM provided fuel cost is based on Dec 14 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 | 687 | 92.4% | 2,880 | 97.6% | 98,589 |
| Producing residue gas | 663 | 89.1% | 2,856 | 96.7% | 97,264 |
| Producing helium product | 658 | 88.4% | 2,850 | 96.6% | 94,304 |
| Producing natural gas liquids | 654 | 88.0% | 2,847 | 96.4% | 92,916 |

| CHEU Charges | Charges Billed (\$)* | | |
|---|----------------------|---------------|-----------------|
| | Month | FYTD | Cummulative |
| Reservoir Management Fees (RMF) | \$205,806 | \$679,407 | \$27,997,754 |
| Total operating costs | (\$795,739) | (\$3,182,816) | (\$120,984,648) |
| Labor | \$76,760 | \$307,039 | \$12,161,125 |
| Compressor fuel cost Dec 14 | \$19,939 | \$86,164 | \$4,141,431 |
| HEU fuel cost Dec 14 | \$10,597 | \$45,561 | \$2,780,107 |
| Electrical power cost Dec 14 | \$143,710 | \$554,143 | \$18,294,327 |
| Other | \$49,828 | \$210,286 | \$11,761,231 |
| Sub Total - Items provided by BLM | \$300,833 | \$1,203,193 | \$52,347,576 |
| Total - Cliffside Refiners, LP, GDA030001 | (\$494,906) | (\$1,979,623) | (\$68,637,072) |

*Rounded to nearest dollar

| CHEU Utility Usage | Month | FYTD | Cumulative |
|---|-----------|-----------|------------|
| Cheu Fuel Gas (Mcf) usage Jan 15 | 2,834 | 11,327 | 489,554 |
| Cheu Pure Water Usage (gallons) Jan 15 | 1,728 | 2,840 | 279,818 |
| Electricity Metered (Kwh) consumed Dec 14 | 2,929,358 | 9,949,372 | 75,975,537 |