

Bureau of Land Management

Amarillo Field Office

Helium Operations



Statistical Report for October - 2011



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: Nelson R. Bullard

Issued: April 10, 2012

*** Revised ***

"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: **May 16, 2012**

Table 1 - Summary of Helium Operations

October - 2011

Helium Enrichment Unit Operations

| Gas Processed | Month | | | Gross FYTD | Net FYTD |
|----------------------------|--------------|------------|-----------------|------------|----------|
| | Gross Volume | Net Helium | Average Percent | | |
| Measured Plant Feed (Mcf*) | 698,367 | 202,000 | 28.92% | 698,367 | 202,000 |
| Helium Product (Mcf*) | 251,230 | 200,014 | 79.61% | 251,230 | 200,014 |
| Residue Natural Gas (Mcf*) | 293,552 | 0 | 00.00% | 293,552 | 0 |

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas & Liquids Produced

| Gas Processed | Month | FYTD |
|-----------------------------|---------|---------|
| Natural Gas Sales (Mcf****) | 291,330 | 291,330 |
| NGL Sales (gallons) | 101,186 | 101,186 |

**** 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| Total Withdrawn (Mcf*) | 691,216 | 200,456 | 29.00% | 691,216 | 200,456 |
| 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*) | | 0 | 0 | 1,850,000 | 14,063,600 |
| Conservation Crude Sale Volume Transferred (Mcf*) | 0 | 525,000 | 525,000 | 2,025,000 | 14,063,600 |
| Conservation Helium in Storage (EOM) (Mcf*) | | 13,203,406 | | | |

* Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium

| | Month | FYTD | CYTD | Cumulative |
|---------------------------------|--------|------|---------|------------|
| Sale Volumes Transferred (Mcf*) | 0 | 0 | 122,022 | 2,716,730 |
| Sale Volumes Outstanding (Mcf*) | 42,646 | | | |

* 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*) | 44,541 | 29,591 | 66.44% | 29,591 |
| Crude Disposed (Mcf*) | 290,934 | 225,833 | 77.62% | 225,833 |
| Net Balance (Mcf*) | (246,393) | (196,242) | | (196,242) |
| Balance of Stored Helium End Of Month (Mcf*) | | 1,483,283 | | |

* Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

| Helium Storage Contracts (Charges Billed (\$)) | Month | FYTD |
|--|-----------|-----------|
| Storage Fees Billed (\$) | \$7,186 | \$7,186 |
| Reservoir Management Fees Billed (\$) | \$336,361 | \$336,361 |

Field Compressor Charges (Charges Billed (\$))

| | Month | FYTD |
|--|------------|------------|
| Funded by the Refiners (provides for booster compression services) | (\$59,706) | (\$59,706) |
| Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.) | \$16,462 | \$16,462 |
| Net-Total (Funded by the Refiners for compression costs.) | (\$43,244) | (\$43,244) |

Enrichment Unit Charges (Charges Billed (\$))

| | Month | FYTD |
|---|-------------|-------------|
| Reservoir Management Fees (RMF) | \$336,361 | \$336,361 |
| Total operating costs | (\$878,727) | (\$878,727) |
| Sub Total - Items provided by BLM | \$376,169 | \$376,169 |
| Total - Cliffside Refiners, LP, GDA030001 | (\$502,558) | (\$502,558) |

Conservation Helium - Natural Gas - Liquid Sales

| (Charges Billed (\$)) | Month | FYTD |
|---------------------------------|-------------|-------------|
| Conservation Crude Helium Sales | \$0 | \$0 |
| In Kind Sales | \$0 | \$0 |
| Natural Gas & Liquid Sales | \$1,181,266 | \$1,181,266 |

Helium Resources Evaluation

| | Month | FYTD |
|--|---------------|--------------|
| Revenue Collected from Federal Lease Holds | \$970,752 | \$970,752 |
| Helium Sample Collection Report for month | Submitted - 0 | Received - 0 |
| | Analyzed - 21 | |

*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

October - 2011

| | | 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 | | 691,216 | 195,081,322 | 200,456 | 35,455,432 | 173,468 | 47,964,184 | 281,512 | 100,032,548 | 30,213 | 10,012,175 | 5,568 | 1,616,984 |
| BIVINS A-3 | Oct-11 | 30,587 | 10,437,374 | 17,001 | 3,274,519 | 7,653 | 2,640,933 | 5,198 | 4,055,577 | 537 | 396,151 | 198 | 70,194 |
| BIVINS A-6 | Oct-11 | 76,177 | 9,151,943 | 50,897 | 5,409,170 | 18,611 | 2,246,324 | 5,615 | 1,332,876 | 517 | 127,099 | 538 | 36,474 |
| BIVINS A-13 | Oct-11 | 55,577 | 6,273,754 | 23,709 | 3,634,340 | 13,828 | 1,626,657 | 15,844 | 885,326 | 1,787 | 95,033 | 409 | 32,398 |
| BIVINS A-14 | Oct-11 | 61,760 | 6,878,434 | 30,502 | 4,436,526 | 15,384 | 1,751,279 | 13,893 | 595,137 | 1,499 | 61,859 | 482 | 33,633 |
| BIVINS A-4 | Oct-11 | 23,801 | 11,652,788 | 5,332 | 2,107,098 | 5,827 | 2,824,159 | 11,224 | 6,020,336 | 1,195 | 599,521 | 224 | 101,675 |
| BUSH A-2 | Oct-11 | 39,872 | 10,820,375 | 6,636 | 1,663,728 | 10,071 | 2,641,025 | 20,626 | 5,835,025 | 2,260 | 587,175 | 278 | 93,423 |
| Injection | Oct-11 | 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-11 | 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-11 | 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-11 | 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-11 | 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-11 | 0 | (2,527,801) | 0 | (1,848,815) | 0 | (601,353) | 0 | (42,016) | 0 | 0 | 0 | (35,617) |
| inj Bush A-2 | Oct-11 | 0 | (867,658) | 0 | (625,258) | 0 | (215,406) | 0 | (13,980) | 0 | 0 | 0 | (13,015) |
| Production | Oct-11 | 0 | 1,217,868 | 0 | 897,578 | 0 | 261,663 | 0 | 47,122 | 0 | 3,172 | 0 | 8,333 |
| BIVINS A-1 | Oct-11 | 0 | 2,686,608 | 0 | 48,896 | 0 | 636,995 | 0 | 1,798,415 | 0 | 175,704 | 0 | 26,597 |
| BIVINS A-2 | Oct-11 | 23,789 | 12,900,127 | 1,305 | 1,834,788 | 5,654 | 3,170,707 | 15,038 | 7,086,769 | 1,570 | 702,184 | 221 | 105,678 |
| BIVINS A-5 | Oct-11 | 44,892 | 14,486,408 | 10,347 | 1,741,581 | 11,458 | 3,537,211 | 20,509 | 8,256,844 | 2,236 | 824,017 | 341 | 126,755 |
| BIVINS A-7 | Oct-11 | 36,219 | 10,606,843 | 11,945 | 2,402,561 | 9,444 | 2,661,380 | 13,120 | 4,964,014 | 1,471 | 501,100 | 239 | 77,787 |
| BIVINS A-9 | Oct-11 | 21,853 | 9,334,705 | 456 | 175,410 | 5,667 | 2,283,201 | 14,065 | 6,169,520 | 1,490 | 620,285 | 175 | 86,290 |
| BIVINS A-11 | Oct-11 | 21,050 | 5,335,170 | 567 | 107,266 | 5,368 | 1,319,132 | 13,446 | 3,501,068 | 1,469 | 357,337 | 199 | 50,366 |
| BIVINS A-15 | Oct-11 | 19,040 | 8,251,994 | 344 | 403,009 | 4,486 | 1,969,324 | 12,687 | 5,271,084 | 1,299 | 525,588 | 224 | 82,989 |
| BIVINS B-1 | Oct-11 | 24,101 | 6,490,382 | 779 | 261,384 | 5,908 | 1,570,413 | 15,552 | 4,171,469 | 1,609 | 423,541 | 253 | 63,576 |
| BIVINS B-2 | Oct-11 | 16,018 | 5,188,761 | 302 | 97,493 | 4,158 | 1,292,777 | 10,206 | 3,383,501 | 1,073 | 346,339 | 278 | 68,650 |
| BUSH A-1 | Oct-11 | 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-11 | 35,699 | 10,415,696 | 15,708 | 2,230,477 | 9,159 | 2,562,536 | 9,471 | 5,027,667 | 1,067 | 503,252 | 293 | 91,764 |
| BUSH A-4 | Oct-11 | 34,354 | 7,541,185 | 6,688 | 1,420,942 | 8,814 | 1,880,211 | 16,821 | 3,800,079 | 1,825 | 384,281 | 206 | 55,672 |
| BUSH A-5 | Oct-11 | 51,179 | 14,266,069 | 15,426 | 3,133,237 | 13,093 | 3,571,278 | 20,148 | 6,778,898 | 2,217 | 681,160 | 294 | 101,496 |
| BUSH A-8 | Oct-11 | 15,496 | 3,421,291 | 286 | 62,650 | 3,836 | 823,013 | 10,091 | 2,267,825 | 1,049 | 227,502 | 235 | 40,301 |
| BUSH A-9 | Oct-11 | 16,194 | 3,678,826 | 823 | 95,407 | 4,164 | 884,526 | 10,029 | 2,424,508 | 1,090 | 241,038 | 88 | 33,348 |
| BUSH A-11 | Oct-11 | 23,930 | 4,003,498 | 778 | 118,681 | 5,771 | 957,145 | 15,484 | 2,617,402 | 1,600 | 265,218 | 297 | 45,052 |
| BUSH B-1 | Oct-11 | 0 | 3,187,346 | 0 | 59,866 | 0 | 756,041 | 0 | 2,130,735 | 0 | 209,449 | 0 | 31,254 |
| FUQUA A-1 | Oct-11 | 0 | 2,954,073 | 0 | 53,853 | 0 | 702,792 | 0 | 1,975,158 | 0 | 193,571 | 0 | 28,699 |
| FUQUA A-2 | Oct-11 | 0 | 132,119 | 0 | 2,404 | 0 | 31,322 | 0 | 88,458 | 0 | 8,637 | 0 | 1,297 |
| FUQUA A-3 | Oct-11 | 19,628 | 9,263,592 | 622 | 576,005 | 5,113 | 2,267,128 | 12,444 | 5,764,575 | 1,353 | 580,919 | 96 | 74,966 |
| TT Fuel | Oct-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| field-wide pct's | | | | 29.00% | 18.17% | 25.10% | 24.59% | 40.73% | 51.28% | 4.37% | 5.13% | 0.81% | 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-11 | 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 - 10 | | 56.328 | 15.284 |
| Injection 2003 - 10 | | (1.189) | (0.985) |
| Produced to Date 2011 | | 6.375 | 1.824 |
| Injected to Date 2011 | | 0.000 | 0.000 |
| Amount of Raw Gas Available to CHEU | | 119.051 | =====> 17.131 total helium in reservoir |
| Estimated Bottom Hole Pressure | | 438.322 | 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 - 2011

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 | Oct-11 | 698,367 | 60,237,921 | 202,000 | 15,452,977 | 175,152 | 15,124,294 | 285,208 | 26,345,414 | 30,417 | 2,807,324 | 5,589 | 507,912 |
| Calculated Feed | Oct-11 | 691,216 | 59,903,266 | 200,456 | 15,445,734 | 173,468 | 15,041,757 | 281,512 | 26,118,180 | 30,213 | 2,792,018 | 5,568 | 505,578 |
| Feed to Box | Oct-11 | 687,490 | 59,550,637 | 200,456 | 15,445,912 | 173,468 | 15,041,840 | 281,512 | 26,118,225 | 30,213 | 2,792,025 | 1,842 | 152,636 |
| Cheu Product | Oct-11 | 251,230 | 19,391,853 | 200,014 | 15,241,862 | 44,619 | 3,638,576 | 4,804 | 376,284 | 1 | 394 | 1,793 | 134,738 |
| Residue | Oct-11 | 293,552 | 26,311,414 | 0 | 1,476 | 7,393 | 660,510 | 260,824 | 23,323,562 | 25,335 | 2,324,635 | 0 | 1,231 |
| Cold Box Vent | Oct-11 | 112,756 | 10,326,347 | 14 | 84,357 | 104,369 | 9,071,339 | 8,373 | 1,110,263 | (0) | 136 | 0 | 60,253 |
| Flare/Boot Strap | Oct-11 | 112,756 | 1,387,771 | 14 | 45,436 | 104,369 | 830,953 | 8,373 | 412,650 | (0) | 93,495 | 0 | 5,237 |
| Fuel From Cheu | Oct-11 | 8,244 | 829,579 | 0 | 245 | 280 | 24,850 | 6,671 | 672,686 | 1,293 | 131,798 | 0 | 0 |
| Shrinkage/Loss | Oct-11 | 3,585 | 232,473 | 0 | 0 | 0 | 0 | 0 | 0 | 3,585 | 232,473 | 0 | 0 |
| Unaccounted* | Oct-11 | 18,125 | 1,568,661 | 429 | 66,643 | 16,807 | 1,302,095 | 840 | 196,695 | 0 | 1,084 | 49 | 2,145 |

*Before October 2004, the values are estimated

Storage Operations

Inventory (contained helium)

| | Government | Private |
|-----------------------------------|------------|-----------|
| Beginning inventory | 13,731,297 | 1,154,525 |
| net acceptances + redeliveries | 0 | 0 |
| | 0 | (196,242) |
| In Kind Transfers | 0 | 0 |
| Conservation Crude Sales | (525,000) | 525,000 |
| Gain/loss | (2,891) | |
| Ending Inventory | 13,203,406 | 1,483,283 |
| Total Helium in Reservoir | 17,131,256 | |
| Total Helium in Storage | 14,686,689 | |
| Helium in native gas | 2,444,567 | |

Crude Helium Pipeline

| | Gross | Net Helium | Percent |
|--|---------|------------|---------|
| Beginning inventory | 39,827 | 30,969 | 77.76% |
| Measured to Pipeline (Private Plants) | 44,541 | 29,750 | 66.79% |
| Measured from Pipeline (Private Plant) | 290,934 | 225,833 | 77.62% |
| HEU Production | 251,230 | 200,014 | 79.61% |
| Injection | 0 | 0 | 00.00% |
| Production | 0 | 0 | |
| Ending Inventory | 41,219 | 32,008 | 77.65% |
| Gain/Loss | (3,446) | (2,891) | |

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

October - 2011

| | 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 | | | | | | | | | | |
| Jack B. Kelley Co., Contract no. INC98-0110 | | | | | | | | | | |
| Month | | | | | | | | | | |
| FYTD | | | | | | | | | | |
| Portland Welding Supply, Contract no. INC98-0111 | | | | | | | | | | |
| 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 | | | | | | | | | | |
| Total month | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | |
| Total FYTD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | |
| Total CYTD | 63,885 | 7,841 | 34 | 162 | 15,819 | 38,076 | 125,816 | 123,871 | \$8,020,647 | |
| Cumulative | 1,627,070 | 85,906 | 264 | 270,545 | 372,487 | 446,472 | 2,802,745 | 2,759,301 | \$151,139,507 | |
| In Kind Transfers | | | | | | | Month | FYTD | CYTD | Cumulative |
| Transferred | | | | | | | 0 | 0 | 122,022 | 2,716,730 |
| Volume outstanding | | | | | | | 42,646 | | | |

* 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 - 2011

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 | 264,250 | | 264,250 | \$18,302,250 | |
| <u>Air Products, L.P.</u> | | | | | |
| Month | 100,000 | 0 | 0 | \$0 | |
| FYTD | 100,000 | 100,000 | 0 | \$0 | |
| Cumulative | 5,749,400 | | 5,649,400 | \$348,906,750 | |
| <u>Linde Gas North America, LLC</u> | | | | | |
| Month | 200,000 | 0 | 0 | \$0 | |
| FYTD | 200,000 | 200,000 | 0 | \$0 | |
| Cumulative | 4,521,750 | | 4,321,750 | \$255,535,000 | |
| <u>Keyes Helium Co., LLC</u> | | | | | |
| Month | 0 | 0 | 0 | \$0 | |
| FYTD | 0 | 0 | 0 | \$0 | |
| Cumulative | 703,200 | | 703,200 | \$42,052,400 | |
| <u>Matheson Tri-Gas, Inc.</u> | | | | | |
| Month | 0 | 0 | 0 | \$0 | |
| FYTD | 0 | 0 | 0 | \$0 | |
| Cumulative | 10,000 | | 10,000 | \$587,500 | |
| <u>Praxair, Inc.</u> | | | | | |
| Month | 225,000 | 0 | 0 | \$0 | |
| FYTD | 225,000 | 225,000 | 0 | \$0 | |
| Cumulative | 3,140,000 | | 2,915,000 | \$179,758,750 | |
| <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 | |
| Total month | 525,000 | 0 | 0 | \$0 | |
| Total FYTD | 525,000 | 525,000 | 0 | \$0 | |
| Total CYTD | 2,375,000 | | 1,850,000 | \$138,750,000 | |
| Cumulative | 14,588,600 | | 14,063,600 | \$856,177,650 | |
| Conservation Crude Transfers | | | | | |
| | | Month | FYTD | CYTD | Cumulative |
| Transferred | | 525,000 | 525,000 | 2,025,000 | 14,063,600 |
| 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 | | | (billed monthly) |
| Month | 291,330 | --- | 318,814 | 1,094 | (\$29,155) |
| FYTD | 291,330 | --- | 318,814 | 1,094 | (\$29,155) |
| Cumulative | 25,760,048 | --- | 28,319,195 | 1,099 | (\$2,908,261) |
| <u>Minerals Management Service</u> | | | | | |
| | | No Longer Provides Natural Gas Marketing Services | | | |
| Cumulative | --- | --- | --- | --- | (\$179,913) |
| <u>Tenaska</u> | | | | | |
| | | Purchaser - Natural Gas | | \$/Unit | |
| Month | --- | --- | 321,867 | \$3.301587 | \$1,062,672 |
| FYTD | --- | --- | 321,867 | \$3.301587 | \$1,062,672 |
| Cumulative | --- | --- | 28,152,416 | \$5.400770 | \$151,218,175 |
| <u>Sandstone</u> | | | | | |
| | | Purchaser - Natural Gas Liquids | | | |
| Month | --- | 101,186 | 10,734 | \$13.764588 | \$147,749 |
| FYTD | --- | 101,186 | 10,734 | \$13.764588 | \$147,749 |
| Cumulative | --- | 7,120,983 | 760,238 | \$12.143579 | \$9,232,010 |
| | Natural Gas (Mcf)*** | NGLs (gal) | Purchased (Dth's) | \$/Per Unit (\$\$/Dth) | Total (\$) |
| Total month | 291,330 | 101,186 | 332,601 | \$3.551602 | \$1,181,266 |
| Total FYTD | 291,330 | 101,186 | 332,601 | \$3.551602 | \$1,181,266 |
| Total CYTD | 2,644,494 | 905,455 | 2,984,458 | \$4.202959 | \$12,543,553 |
| Cumulative | 25,760,048 | 7,120,983 | 28,912,654 | \$5.471257 | \$157,362,010 |

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

**Rounded to nearest dollar

Table 6 - Helium Resources Evaluation

October - 2011

All Volumes in Mcf at 14.7 psia & 70°F

| Revenue Collected From Federal Leaseholds | Month* | FYTD* |
|--|-----------|-----------|
| Fee Sales & Royalties | \$902,622 | \$902,622 |
| Natural Gas Royalties (1) | \$1,185 | \$1,185 |
| Natural Gas Rentals | \$0 | \$0 |
| Other | \$66,945 | \$66,945 |
| Revenue Collected from Federal Lease Holds | \$970,752 | \$970,752 |

*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 | 1 | 1 |
| Total Number of Samples Analyzed For Resources Division | 9 | 9 |
| Total Number of Other Samples Analyzed (2) | 21 | 21 |

U. S. Helium Production

| <i>Domestic</i> | FY Volume | CY Volume |
|--|-----------|-------------|
| 2005 Helium Sold | 4,675,800 | 4,692,699 |
| 2006 Helium Sold | 4,995,800 | 4,944,544 |
| 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 |
|--------------------------------|-----------|-----------|
| U.S. Helium Exports (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 - 2011

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 | 44,541 | 66.4% | 29,591 | 29,591 | 321,753 | 29,945,644 | 596,474 | 46,253,900 | | | |
| Crude Disposed | 290,934 | 77.6% | 225,833 | 225,833 | 2,113,785 | 43,121,560 | 71,474 | 30,115,983 | \$7,186 | Storage Fees | |
| Grade-A Rdlvrd | 0 | | 0 | 0 | 0 | 1,478,718 | | | <u>\$336,361</u> | RMF Fees | |
| Net/Balance | (246,393) | | (196,242) | (196,242) | (1,792,032) | (14,654,634) | 525,000 | 16,137,917 | 1,483,283 | \$343,547 | \$343,547 |
| 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 | | | | | | | | | | | |
| 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 | | | | | | | | | | | |

Government Helium

| | |
|--|------------|
| Remaining Crude Acquired beginning of the month | 13,731,297 |
| Crude Disposed: In Kind Sales transferred for the month | 0 |
| Conservation Crude Sales/Reserve Sell Down transferred (month) | (525,000) |
| Gains and Losses for the month | (2,891) |
| Net/Balance of Purchased Helium Remaining for Sale | 13,203,406 |

*Includes In Kind and Conservation Crude transfers from Government storage

**Rounded to nearest dollar

Table 8 - Compression & CHEU (Charges & Operations)

October - 2011

| Field/CHEU Compressor Operations | | Month | FYTD | Cumulative |
|--|--------------|----------|----------|-------------|
| Spot gas fuel price * | \$ per/MMBTU | \$3.30 | \$3.56 | \$5.48 |
| Fuel used * (now includes field compression well head) | total MMBTU | 10,070 | 10,070 | 1,168,018 |
| Field Compression Fuel Cost * | \$dollars | \$0 | \$0 | \$654,398 |
| CHEU Compression Fuel Cost * | \$dollars | \$20,496 | \$20,496 | \$3,424,981 |
| CHEU Process Fuel Cost * | \$dollars | \$10,953 | \$10,953 | \$2,308,546 |
| Rental compressor(s) fuel consumed (well head) | \$dollars | \$1,782 | \$1,782 | \$3,868 |
| Rental Compressor(s) helium in fuel (Mcf x \$\$) | \$dollars | \$2,576 | \$2,576 | \$4,727 |
| Rental compressor(s) helium in fuel (Mcf) | Mcf | 34 | 34 | 63 |
| #1 Compressor run time * | hours | 744 | 744 | 68,118 |
| #2 Compressor run time * | hours | 2 | 2 | 47,050 |
| #3 Compressor run time * | hours | 743 | 743 | 33,150 |

* Field/CHEU Compressor Operations based on Oct 11 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) | (\$59,706) | (\$59,706) | (\$8,470,195) |
| Cliffside Refiners, LP, GDA010003 (BLM provided fuel *, labor, supplies, etc.) | \$16,462 | \$16,462 | \$2,105,254 |
| Net Total - Cliffside Refiners, LP | (\$43,244) | (\$43,244) | (\$6,364,941) |

* BLM provided fuel cost is based on Sep 11 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% | 70,757 |
| Producing residue gas | 744 | 100.0% | 744 | 100.0% | 69,993 |
| Producing helium product | 744 | 100.0% | 744 | 100.0% | 67,093 |
| Producing natural gas liquids | 744 | 100.0% | 744 | 100.0% | 65,628 |

| CHEU Charges | Charges Billed (\$)* | | |
|---|----------------------|-------------|----------------|
| | Month | FYTD | Cumulative |
| Reservoir Management Fees (RMF) | \$336,361 | \$336,361 | \$20,363,361 |
| Total operating costs | (\$878,727) | (\$878,727) | (\$87,875,760) |
| Labor | \$116,095 | \$116,095 | \$7,879,212 |
| Compressor fuel cost Sep 11 | \$20,869 | \$20,869 | \$3,455,300 |
| HEU fuel cost Sep 11 | \$11,775 | \$11,775 | \$2,342,420 |
| Electrical power cost Aug 11 | \$146,402 | \$146,402 | \$13,148,613 |
| Other | \$81,027 | \$81,027 | \$8,658,080 |
| Sub Total - Items provided by BLM | \$376,169 | \$376,169 | \$38,692,979 |
| Total - Cliffside Refiners, LP, GDA030001 | (\$502,558) | (\$502,558) | (\$49,182,781) |

***Rounded to nearest dollar**

| CHEU Utility Usage | Month | FYTD | Cumulative |
|---|-----------|-----------|-------------|
| Cheu Fuel Gas (Mcf) usage Oct 11 | 2,871 | 2,871 | 374,206 |
| Cheu Pure Water Usage (gallons) Oct 11 | 372 | 372 | 243,857 |
| Electricity Metered (Kwh) consumed Aug 11 | 3,161,872 | 3,161,872 | 235,504,194 |