

Fourth Quarter
Variance Report
Redacted

March 2016
through
May 2016
Docket No. 15-057-07

Questar Gas Company
Fourth Quarter Variance Report
March 2016 – May 2016

Questar Gas Company respectfully submits this Fourth Quarter Variance Report for the period March 2016 – May 2016. This report identifies the variance between the actual results and the projections set forth in the 2015 Integrated Resource Plan (IRP).

Weather

Exhibits 1.1 – 1.3

Exhibit 1.1 shows that the weather for the period March through May was warmer than the normal temperature estimate used in the 2015-2016 IRP. Exhibit 1.2 shows that every month of the 2015-2016 IRP year was warmer than normal with the exception of November.

Gas Storage

Exhibits 2.1 – 2.4

Clay Basin inventory was below IRP estimates for the entire quarter, as shown in Exhibit 2.1. Cost-of-service production was expected to continue to be higher than the IRP forecast due to the addition of properties as part of the Canyon Creek Stipulation and other forecast adjustments. As a result, inventory in Clay Basin was kept low to accommodate the additional expected production.

Aquifer inventory was below projections for March through May. Lower inventory levels are required in order to provide operational flexibility during the spring Clay Basin test. Operational requirements also call for Chalk Creek to be empty and for Leroy and Coalville to be 50% full for the summer months. These operational constraints are included in the 2016-2017 IRP model. The variance illustrates the higher modeled outcome verses the lower actual operational outcome. See Exhibit 2.2.

Firm Sales

Exhibits 3.1 – 3.4

The actual sales for the quarter were below the normal-weather forecast scenario by 17% or 4.5 million Dth. The variance was driven by high temperatures through the quarter. Heating degree days for the quarter totaled 975, 25% below the 30-year average total of 1,295.

Gas Purchased from Third Parties Volume Variance

Exhibits 4.1 – 4.3

Exhibit 4.1 shows significantly reduced third-party purchases March through May compared to projections. Reduced purchases were due in part to warmer temperatures and additional cost-of-service gas. Wexpro II production from Canyon Creek was not included in the original IRP forecast. March withdrawal from Clay Basin also reduced third party purchases.

Gas Purchased from Third Parties Cost Variance

Exhibits 5.1 – 5.3

Total monthly costs for third party gas purchases were lower than projections for March through May because less gas was purchased than had been forecasted.

Gas Purchased from Third Parties Unit Cost Variance

Exhibits 6.1, 6.2

Actual unit costs for the quarter were below projections.

Cost-of-Service Gas

Exhibits 7.1 – 7.3

For the quarter, cost-of-service production was about 11% higher than the forecast. Overall, the increase in legacy production occurred in Canyon Creek with the acquisition and inclusion of the Canyon Creek Stipulation wells. These wells were not included in the IRP forecast because the approval was not finalized before modeling the 2015-2016 IRP. The Canyon Creek acquisition accounts for most of the variance in the quarter. See Exhibit 9.1 for data on well production.

Table 1 summarizes estimated average daily shut-in verses actual average daily shut-in during the quarter. There was no shut-in for the quarter.

TABLE 1

	March	April	May
Estimated Shut-in (dth/day)	0	0	0
Actual Shut-in (dth/day)	0	0	0

Cost-of-Service Gas New Drill Component

Exhibits 8.1 – 8.3

For the quarter, new drill was lower than projections due to natural decline in Pinedale wells that came on in the spring ahead of schedule.

Table 2 summarizes purchase and cost-of-service volume variances using IRP projections and actual results as a percent of total. The Q4 number is a percent of total and not an average.

TABLE 2

		Actual Purchase as Percent of Total	IRP Forecast (Normal) Purchase as Percent of Total	Actual Cost-of- Service Into-Pipe as Percent of Total	IRP Forecast (Normal) Cost-of- Service Into-Pipe as Percent of Total
1	Mar-16	26.91%	59.34%	73.09%	40.66%
2	Apr-16	8.59%	57.58%	91.41%	42.42%
3	May-16	11.80%	33.82%	88.20%	66.18%
4	Q4	16.57%	52.55%	83.43%	47.45%

Supplemental Graphs

Exhibits 9.1 – 9.3

Confidential Exhibits 9.1 and 9.2 show the total production and new drill by nominations group. Confidential Exhibit 9.3 shows detailed information related to gas purchases.

Average Market Price and Cost-of-Service Price

Exhibits 10.1, 10.2

Exhibit 10.1 shows the price difference between cost-of-service gas and average market price. Exhibit 10.2 compares the actual market price with the trailing twelve months (TTM) price of cost-of-service gas on an into-pipe basis. Beginning in 2016, the Northwest Pipeline first-of-month price is used for the market price in Exhibits 10.1 and 10.2, per the Canyon Creek Settlement Stipulation Docket No. 15-057-10.

DNG Action Plan Variance Report

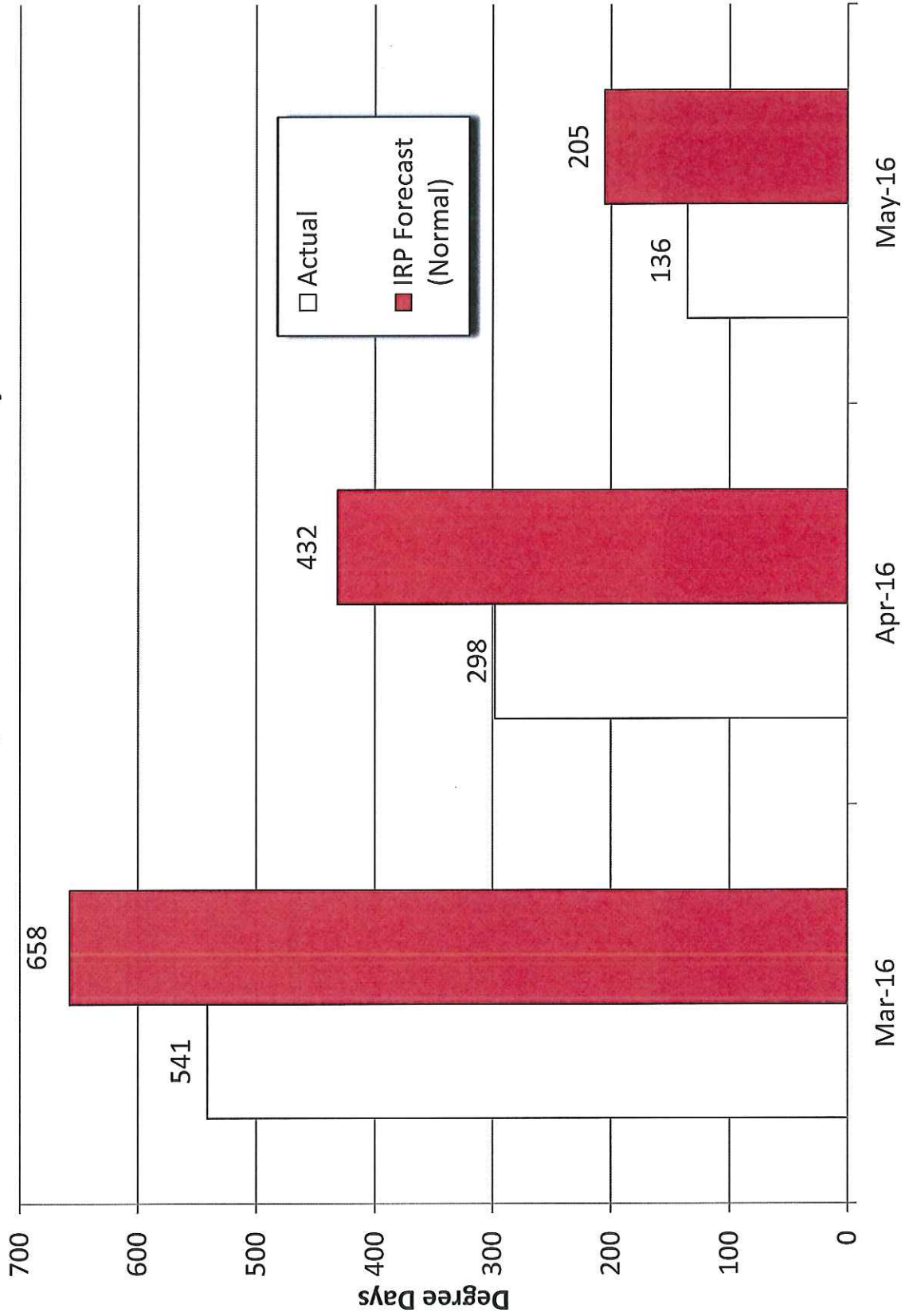
The first quarter variance report provided details on the following projects: NO0001 District Regulator Station, North Ogden; TG0003 Kern River Tap, Saratoga; and Lark Compressor Station. The third quarter variance report provided details on FL 36 in West Jordan. All other projects were on schedule and on budget during the fourth quarter.

Heating Degree Day Graphs

Exhibit 1.1 – 1.3

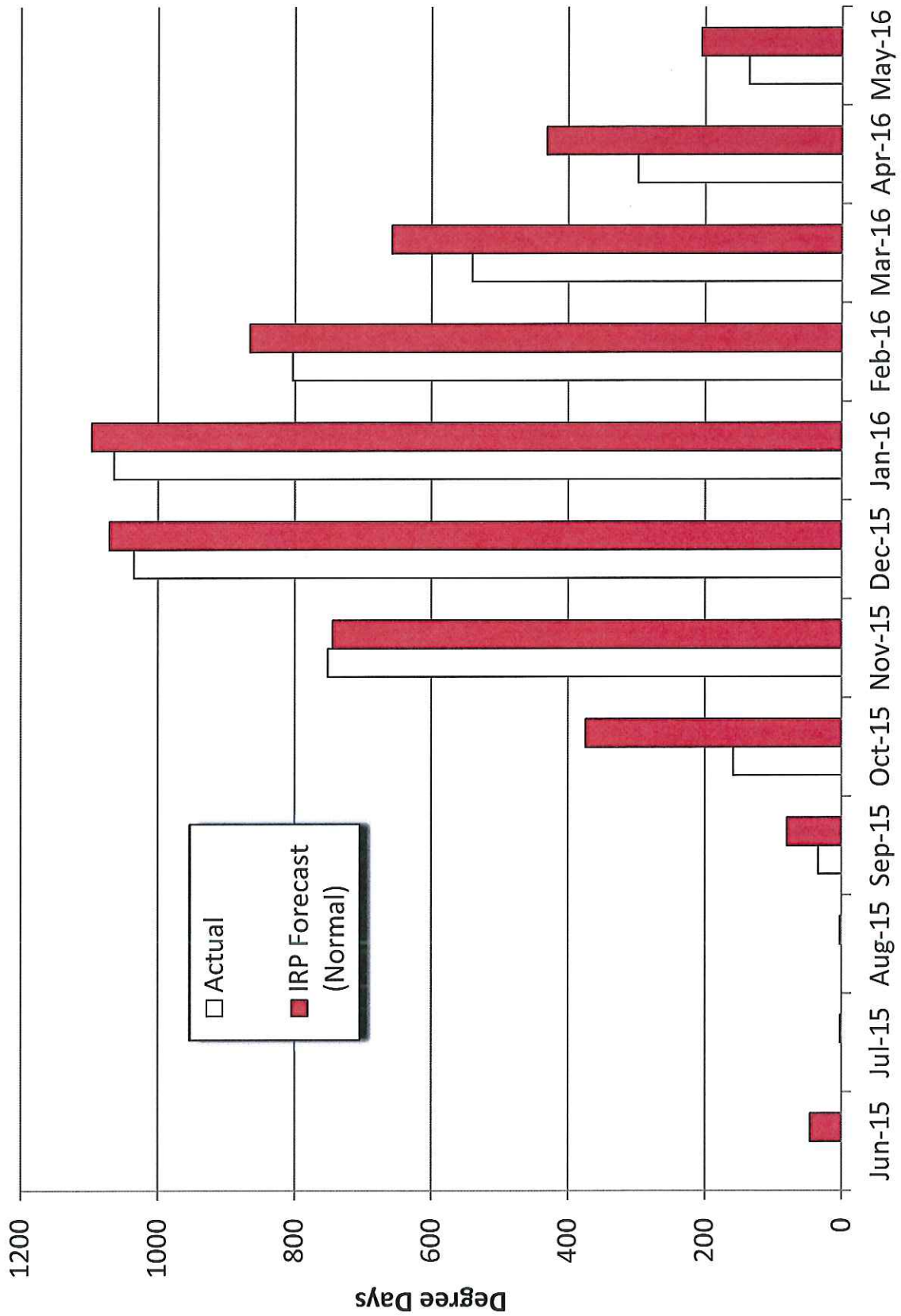
Docket No. 15-057-07

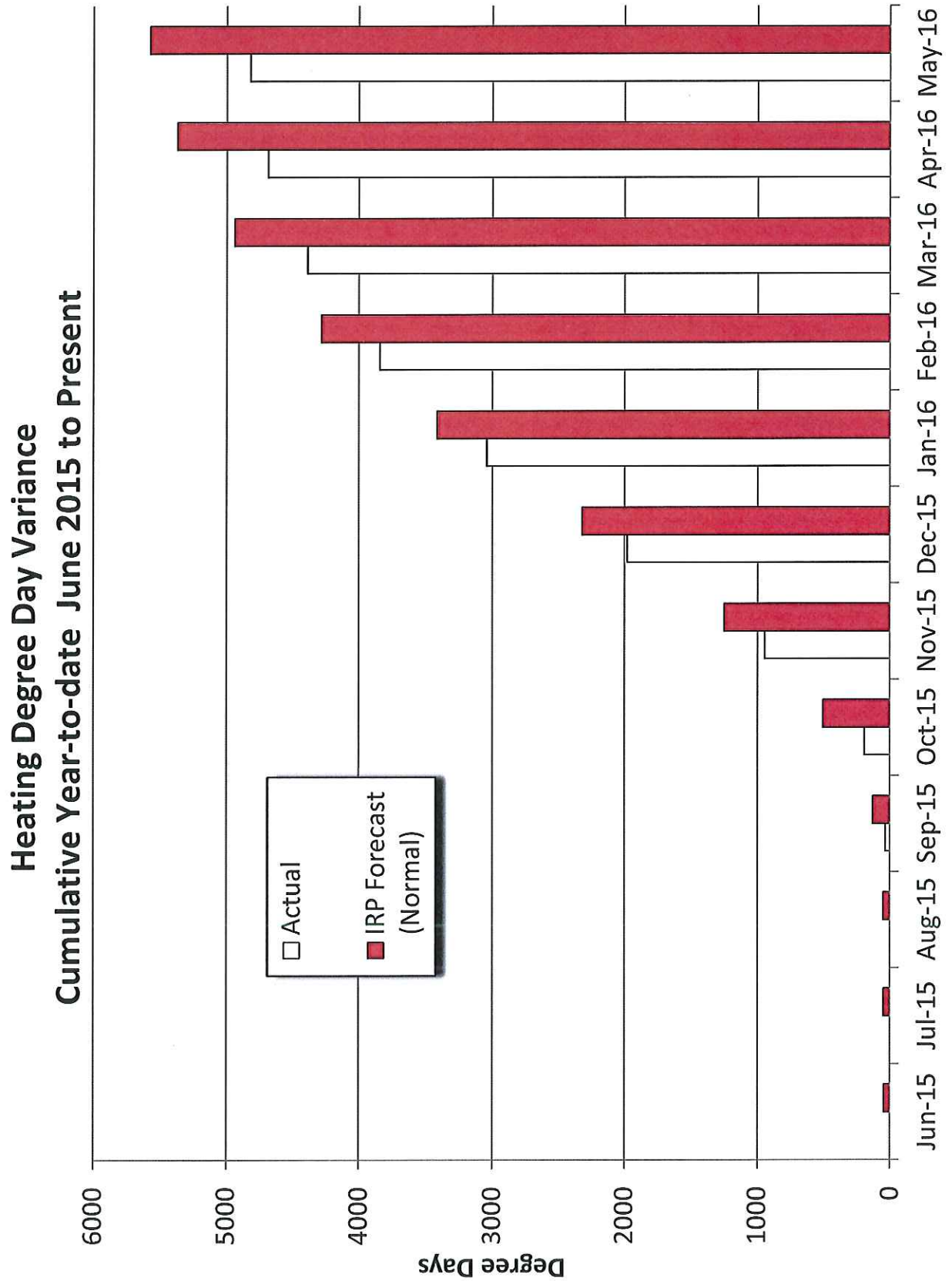
Heating Degree Day Variance IRP Fourth Quarter: March to May



Heating Degree Day Variance

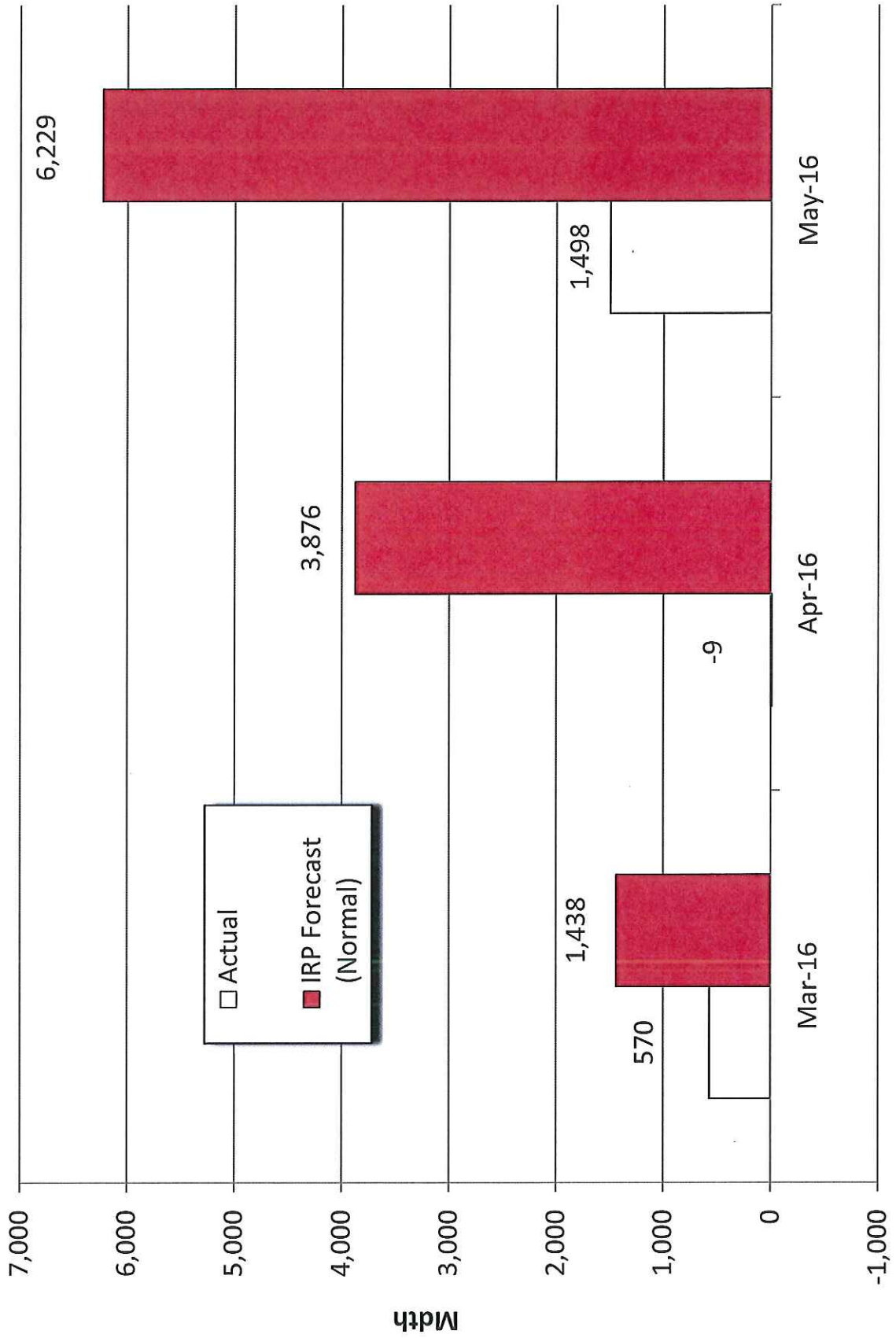
IRP Year: June 2015 to Present



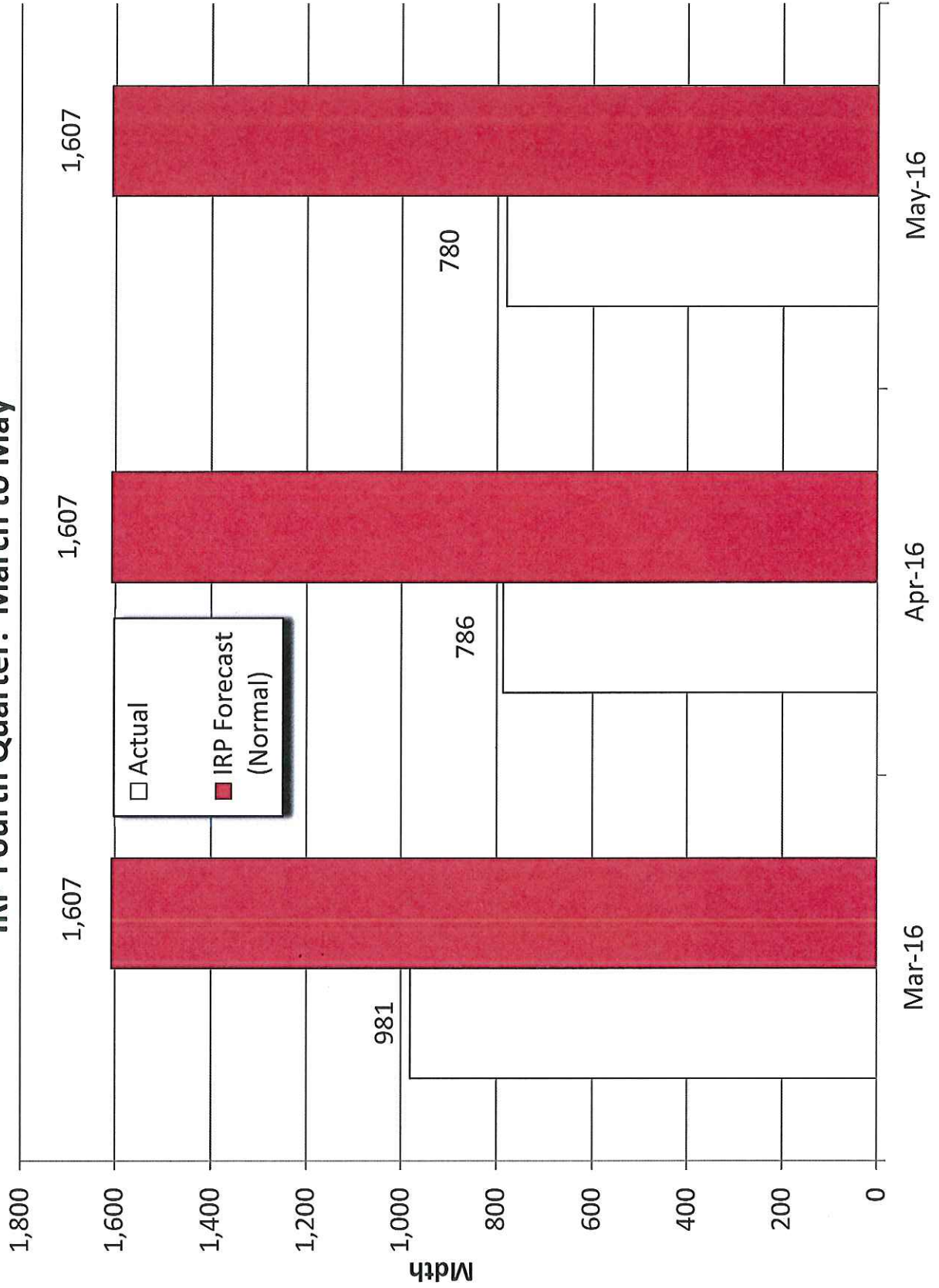


Gas Storage Graphs
Exhibits 2.1 – 2.4
Docket No. 15-057-07

Clay Basin Month End Inventory IRP Fourth Quarter: March to May

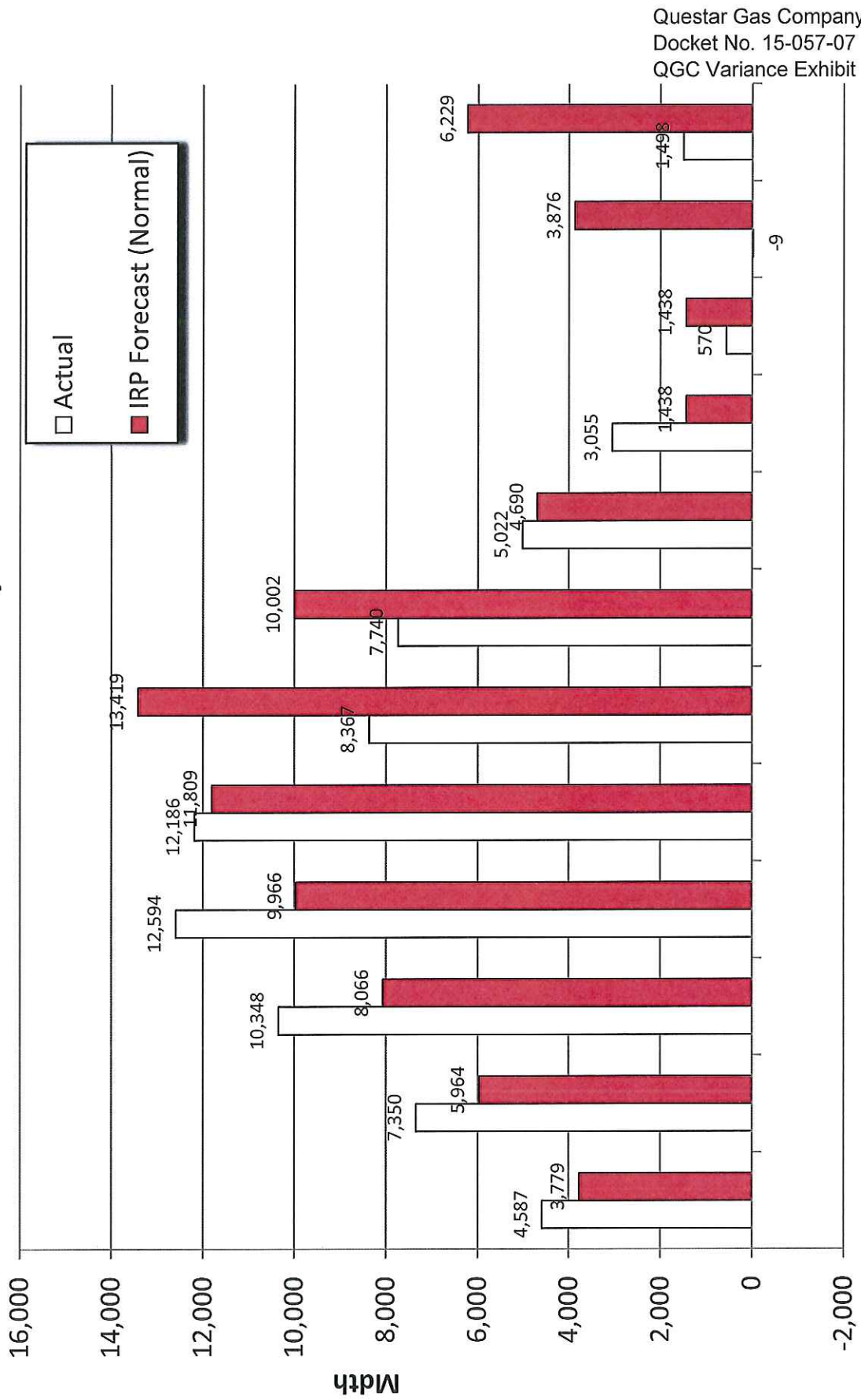


Aquifer Month End Inventory IRP Fourth Quarter: March to May



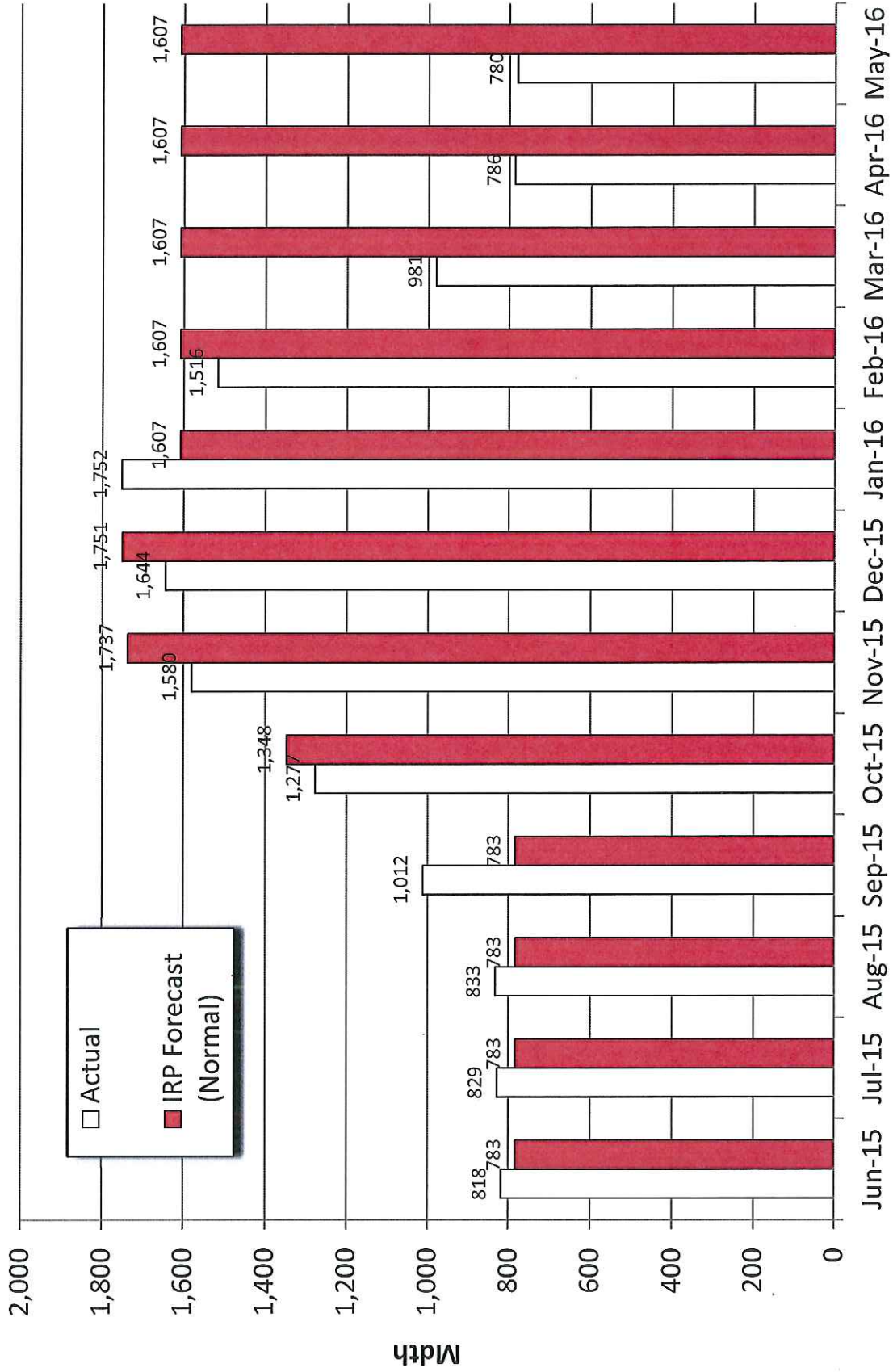
Clay Basin Month End Inventory

IRP Year: June 2015 to May 2016



Aquifer Month End Inventory

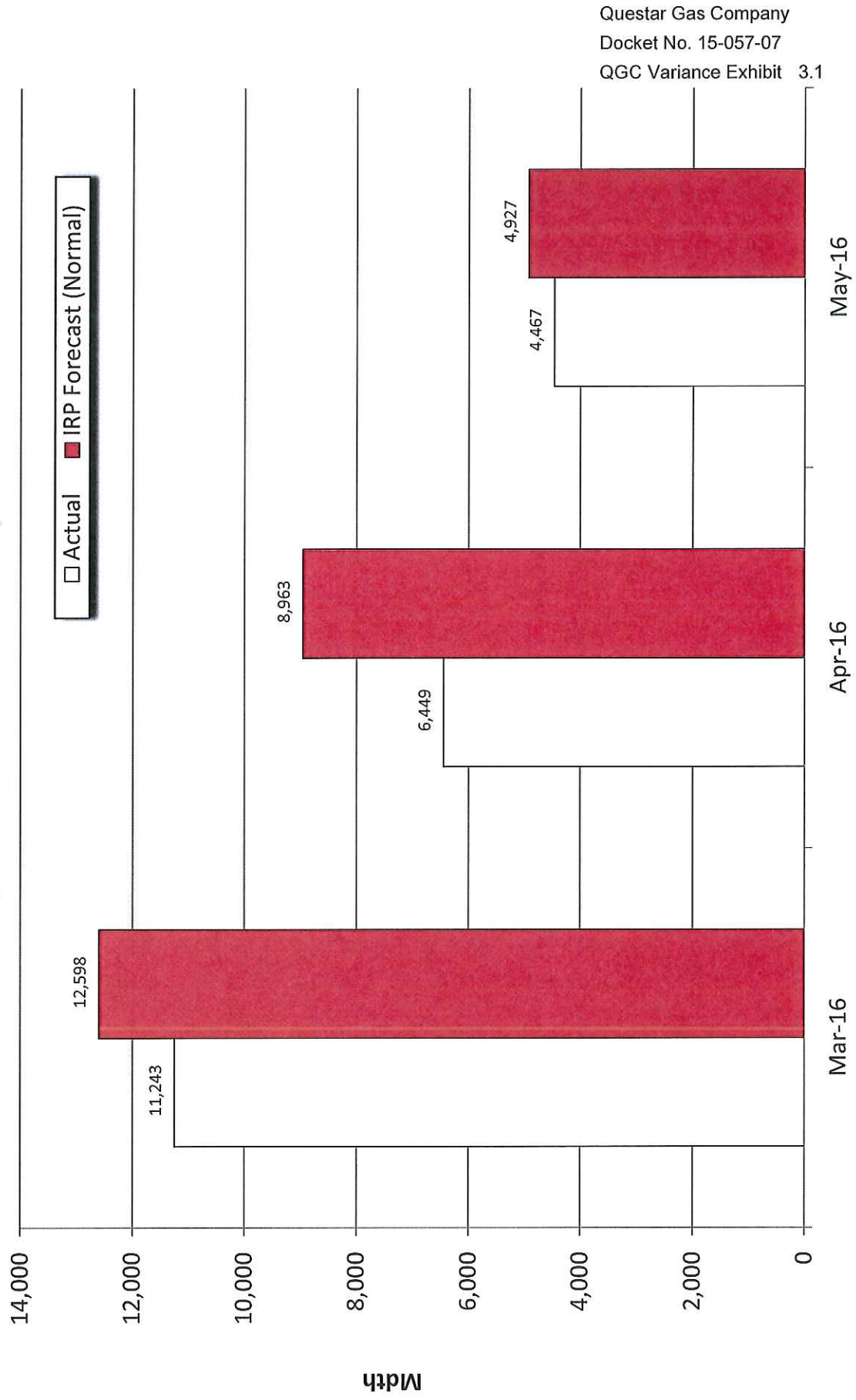
IRP Year: June 2015 to May 2016



Firm Sales Graphs
Exhibits 3.1 – 3.4
Docket No. 15-057-07

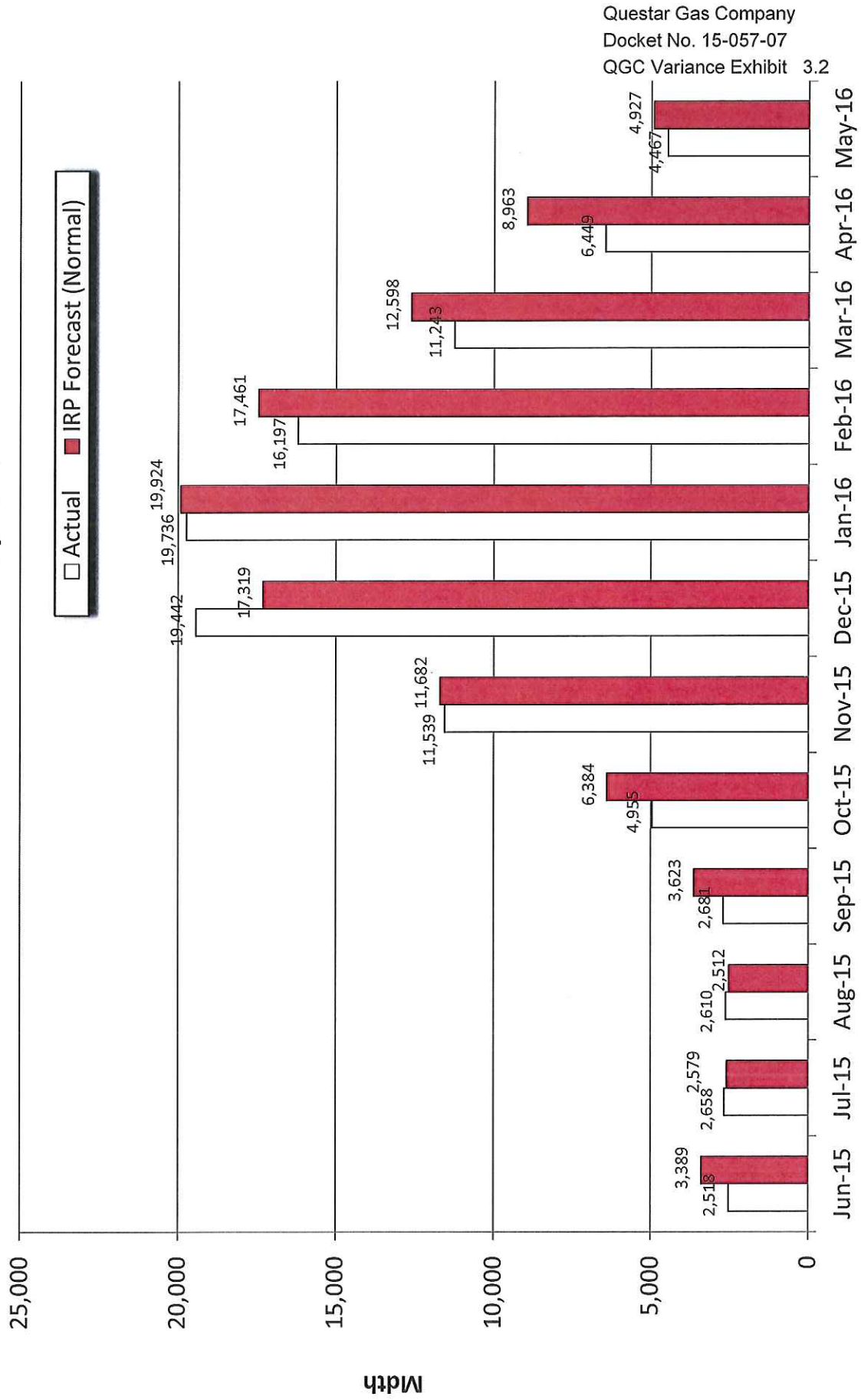
Firm Sales Variance

IRP Fourth Quarter: March 2016 to May 2016

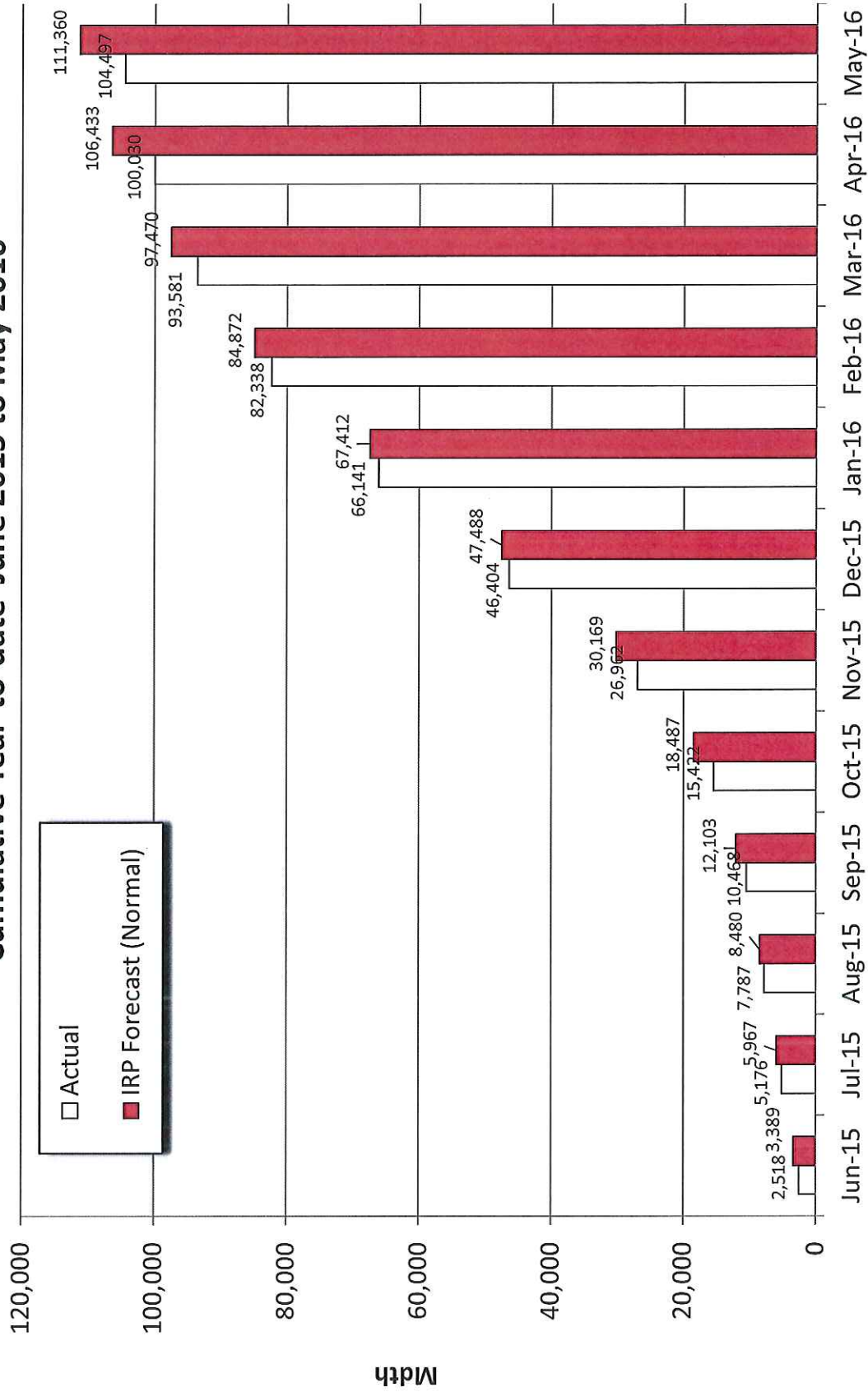


Firm Sales Variance

IRP Year: June 2015 to May 2016



Firm Sales Variance Cumulative Year-to-date June 2015 to May 2016



IRP Variance

Actual Results

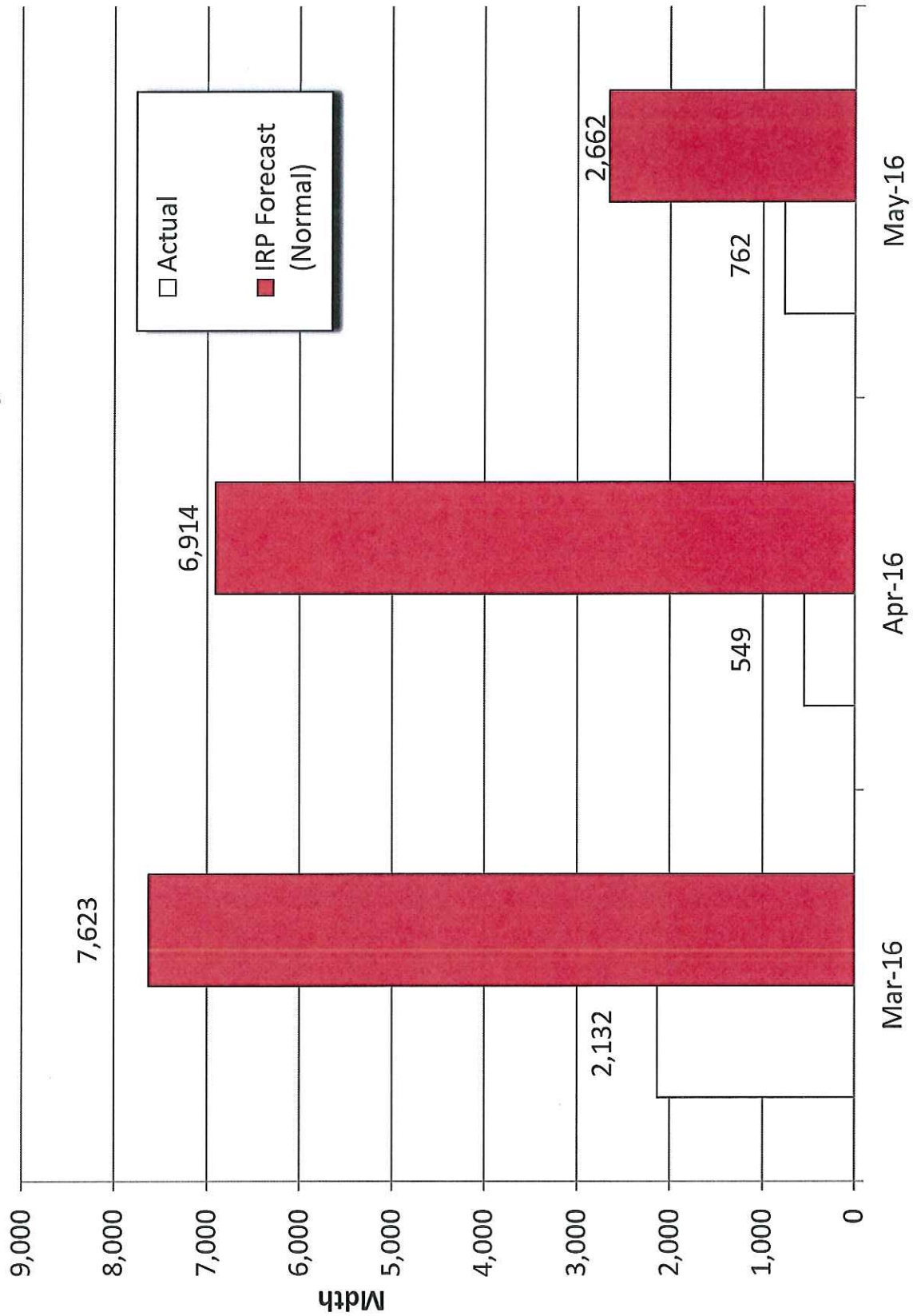
	Mar-16		Apr-16		May-16	
	Actual	IRP	Actual	IRP	Actual	IRP
SUPPLY						
1 Cost of Service Prod (Mbtu)	6,083	5,423	5,952	5,288	5,928	5,407
2 Purchases (Mbtu)	2,132	7,623	549	6,914	762	2,662
3 Clay Basin With (Mbtu)	2,546	-	863	-	31	-
4 Aquifers With (Mbtu)	528	-	258	-	4	-
5 Ryckman With (Mbtu)	-	-	-	-	-	-
6 Off-System	53	84	52	81	57	83
7 Total Supply	11,343	13,130	7,674	12,283	6,782	8,152
DEMAND						
8 Firm Sales (Mbtu)	11,243	12,598	6,449	8,963	4,467	4,927
9 Interruptible Sales (Mbtu)	89	80	97	96	103	126
10 Clay Basin Inj (Mbtu)	61	-	285	2,439	1,538	2,353
11 Aquifers Inj (Mbtu)	0	-	51	-	0	-
12 Ryckman Inj (Mbtu)	-	11	-	350	-	361
13 Off-System	53	81	52	78	57	80
14 Fuel	156	294	102	311	131	279
15 Company Use / L&U	(260)	66	639	47	486	26
16 Total Demand	11,343	13,130	7,674	12,283	6,782	8,152
17 Clay Basin Fuel Usage Adjustment	(0.475)	-	(0)	-	(0)	-
18 Clay Basin Transfers	-	-	-	-	-	-
19 Aquifers Fuel Usage Adjustment	(8)	-	13	-	(3)	-
20 Aquifers Transfers	-	-	-	-	-	-
21 Clay Basin Current Balance	570	1,438	(9)	3,877	1,498	6,229
22 Aquifers Current Balance	981	1,607	786	1,607	780	1,607
23 Purchases(\$/Dth)	\$ 1.66	\$ 2.62	\$ 1.72	\$ 2.51	\$ 1.73	\$ 2.60
24 Purchases \$ (000)	\$ 3,539	\$ 19,972	\$ 944	\$ 17,354	\$ 1,318	\$ 6,921
Variances						
25 Cost of service volumes	660	-	664	-	521	-
26 Purchase volumes	-	-	-	-	-	-
27 Purchase \$ Act over (under) IRP	\$ -	\$ (16,433)	\$ -	\$ (16,410)	\$ -	\$ (5,603)
28 Vol Variance	\$ -	\$ (14,386)	\$ -	\$ (15,976)	\$ -	\$ (4,940)
29 \$ Variance	\$ -	\$ (2,047)	\$ -	\$ (434)	\$ -	\$ (663)
30 Check	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31 Quarter Variance					\$ (38,446)	
32 Vol Variance					\$ (35,303)	
33 \$ Variance					\$ (3,143)	
34 Check					\$ -	

Gas Purchased
From Third Parties

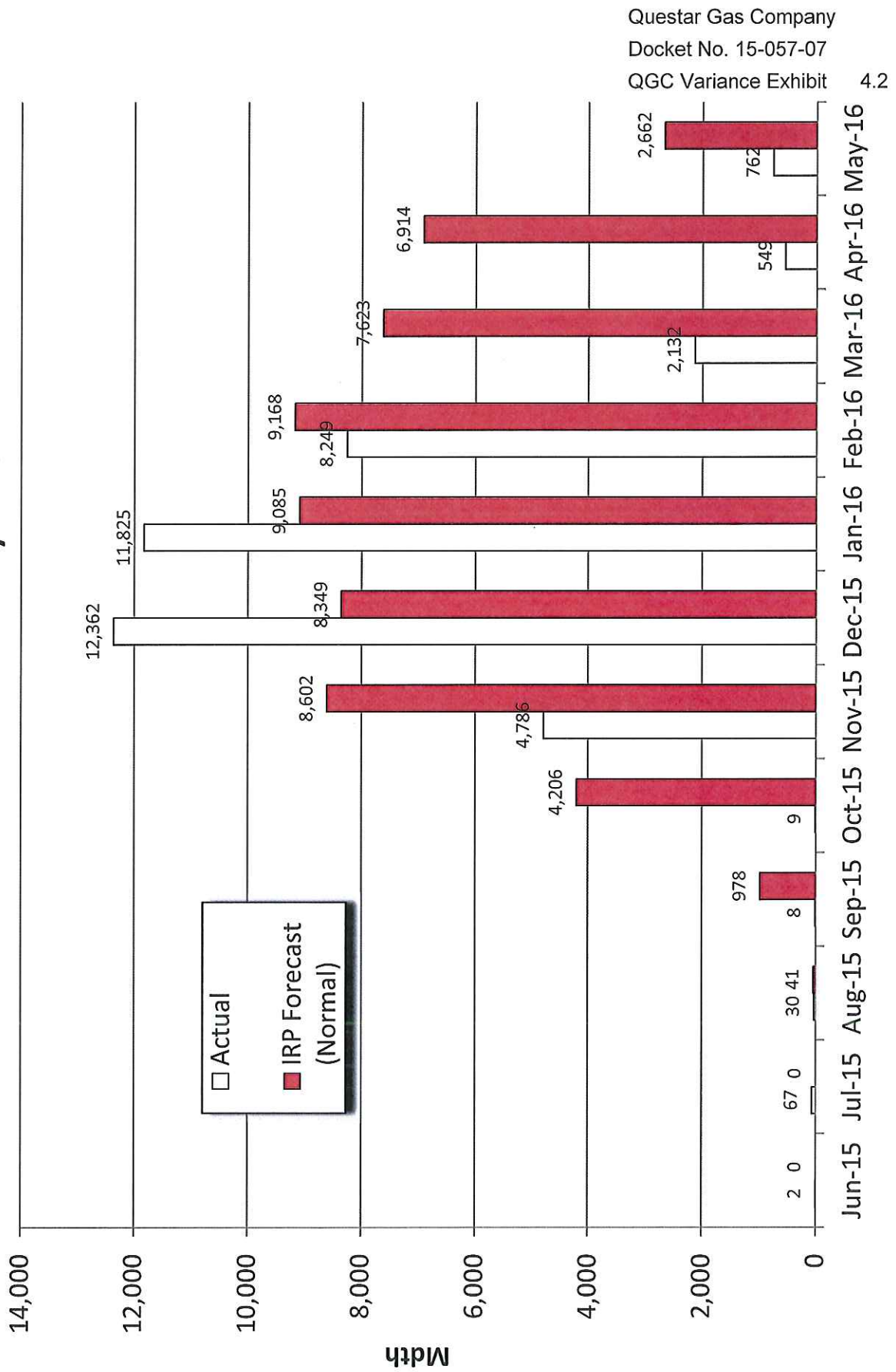
Volume Variance
Exhibits 4.1 – 4.3
Docket No. 15-057-07

Purchased Gas Variance

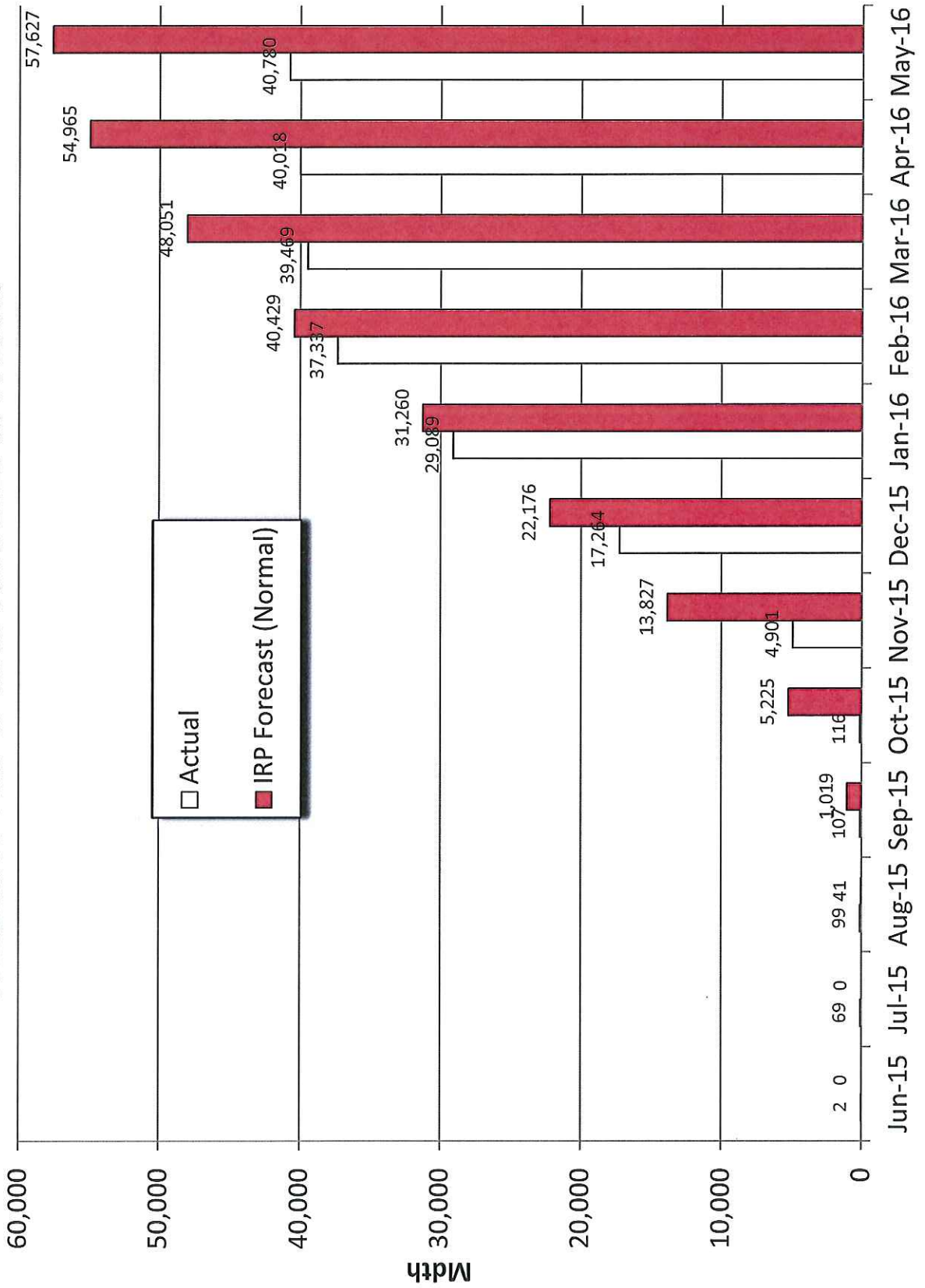
IRP Fourth Quarter: March to May



Purchased Gas Variance Year to date - June 2015 to May 2016



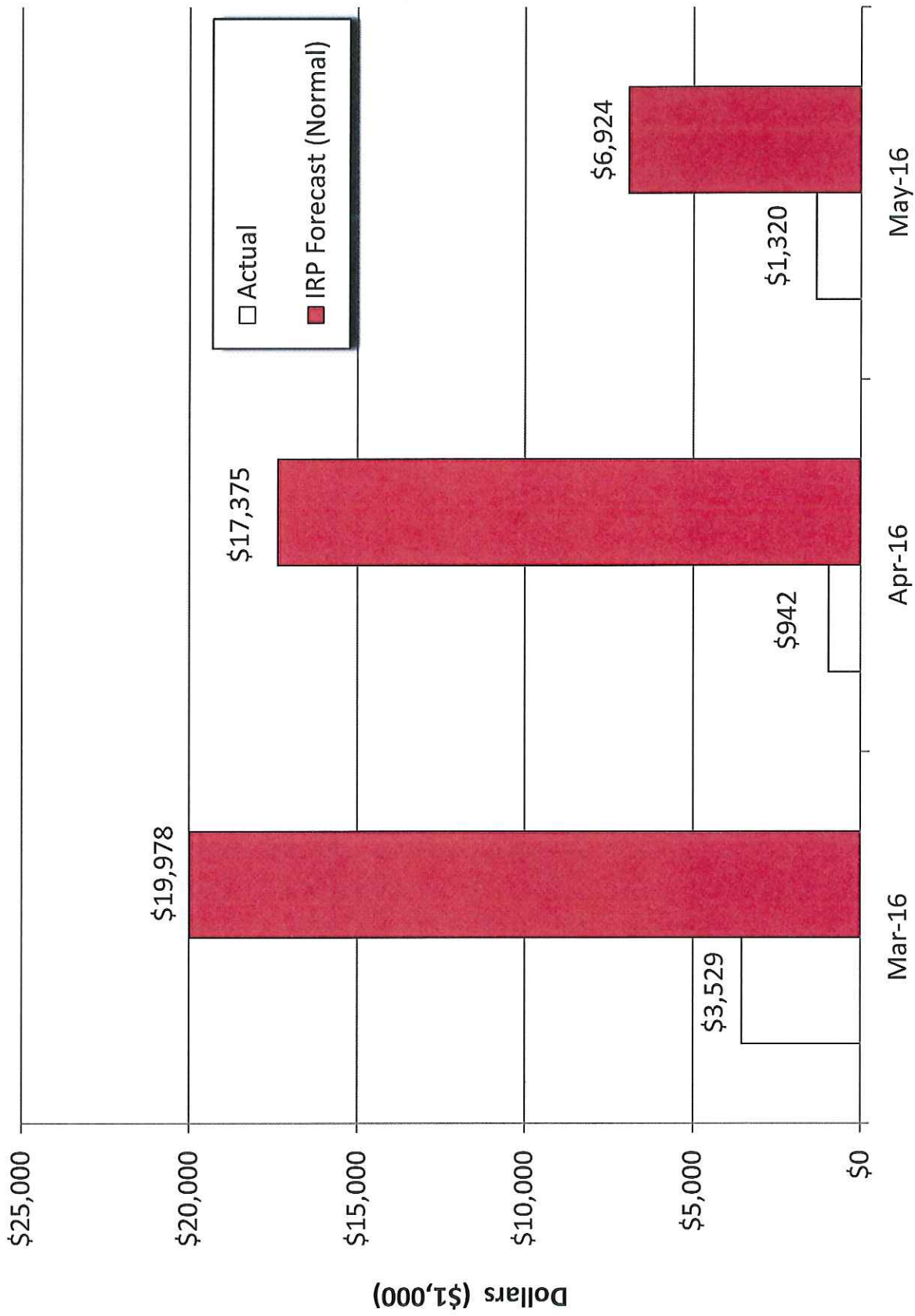
Purchased Gas Variance Cumulative Year-to-date June 2015 to Present



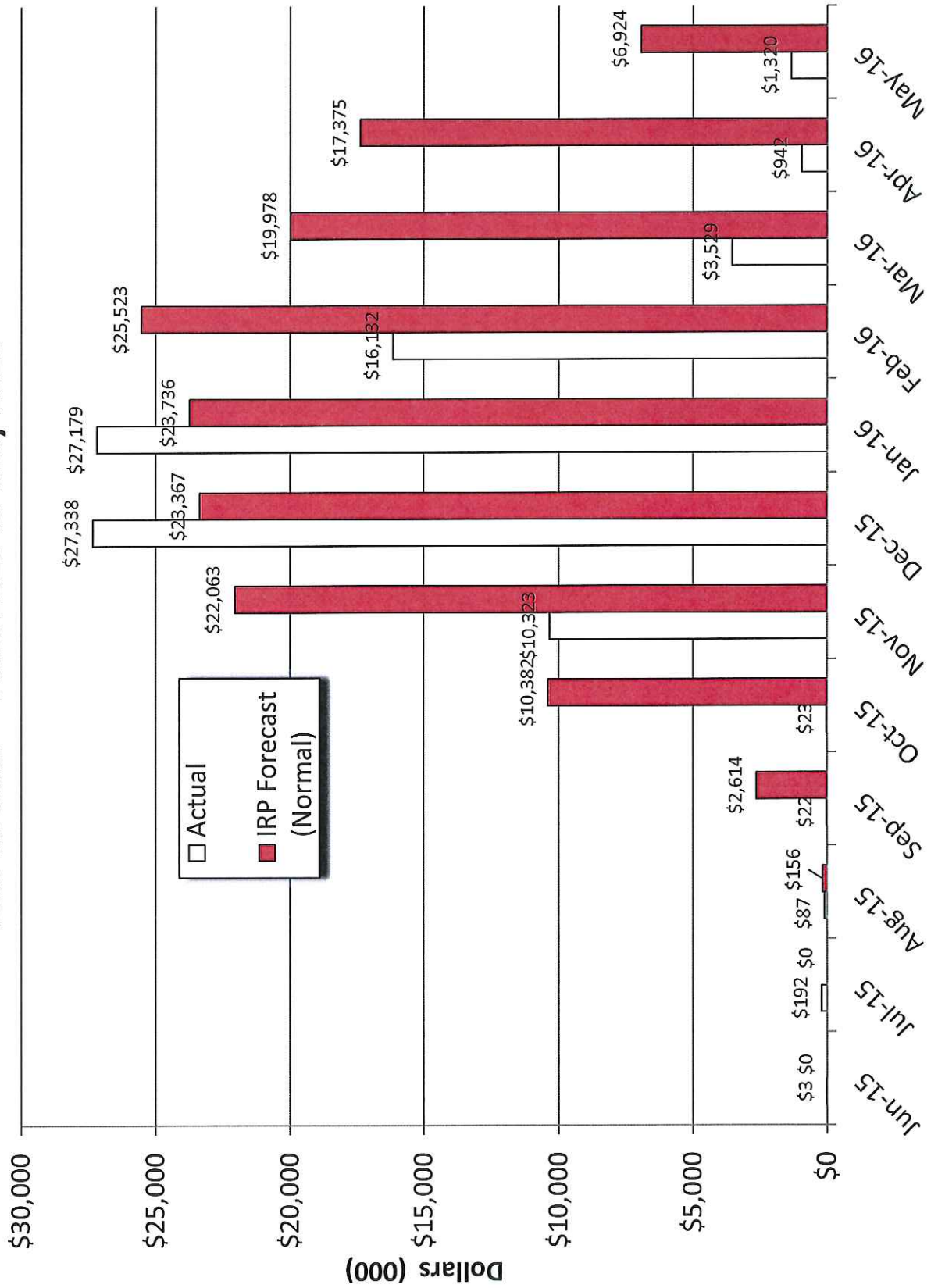
Gas Purchased
From Third Parties

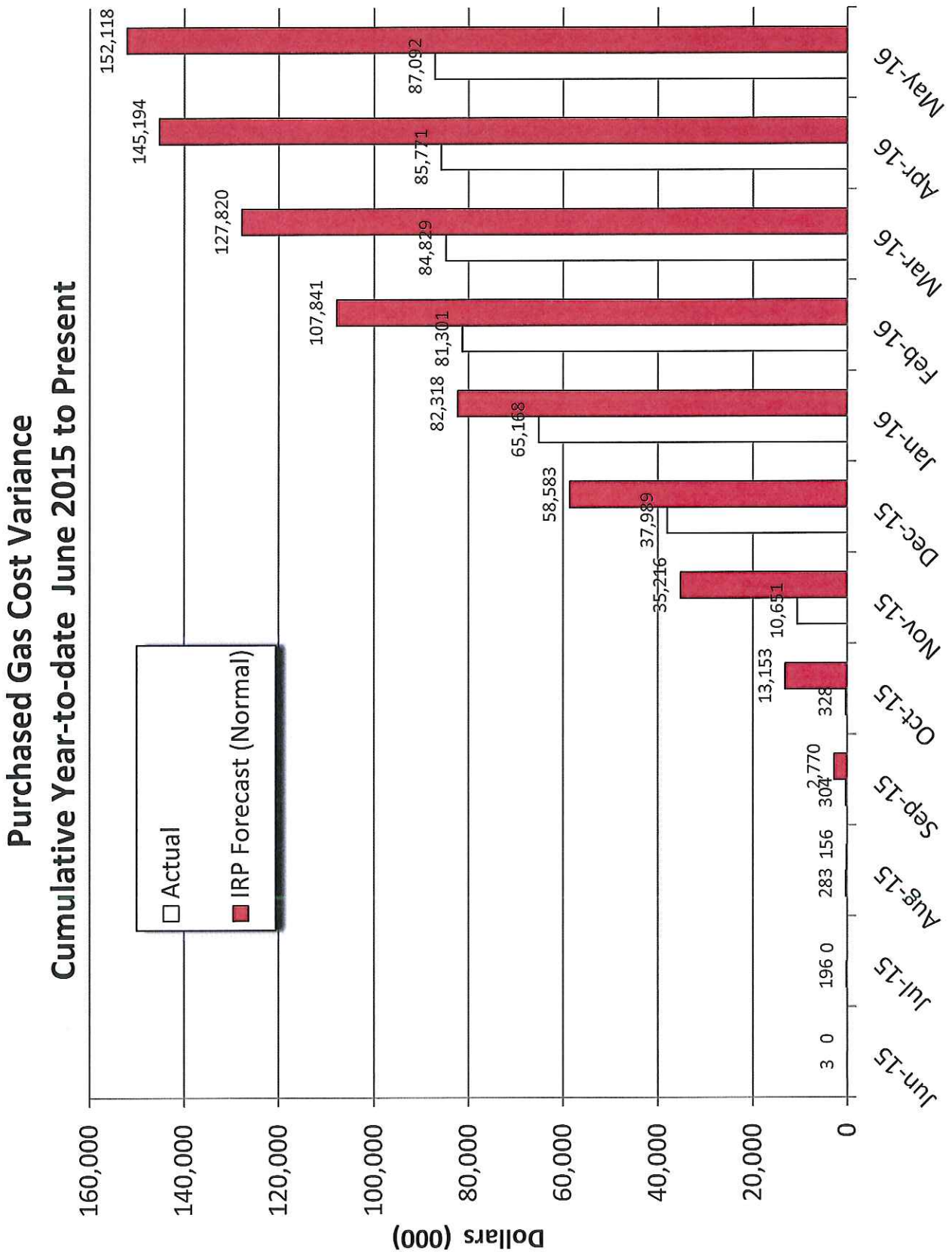
Cost Variance
Exhibits 5.1 – 5.3
Docket No. 15-057-07

Purchased Gas Cost Variance
IRP Fourth Quarter: March to May



Purchased Gas Cost Variance Year to date - June 2015 to May 2016

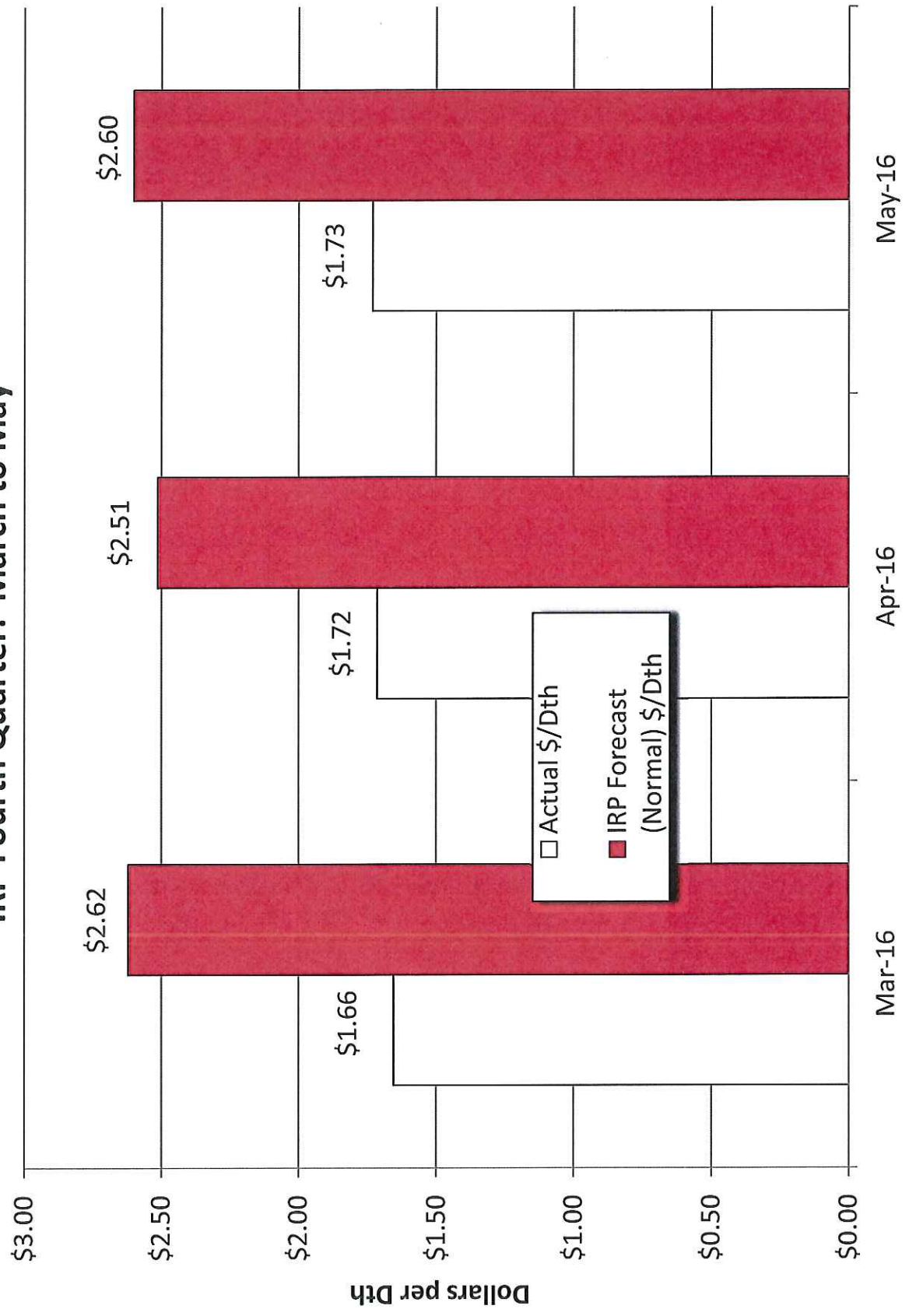




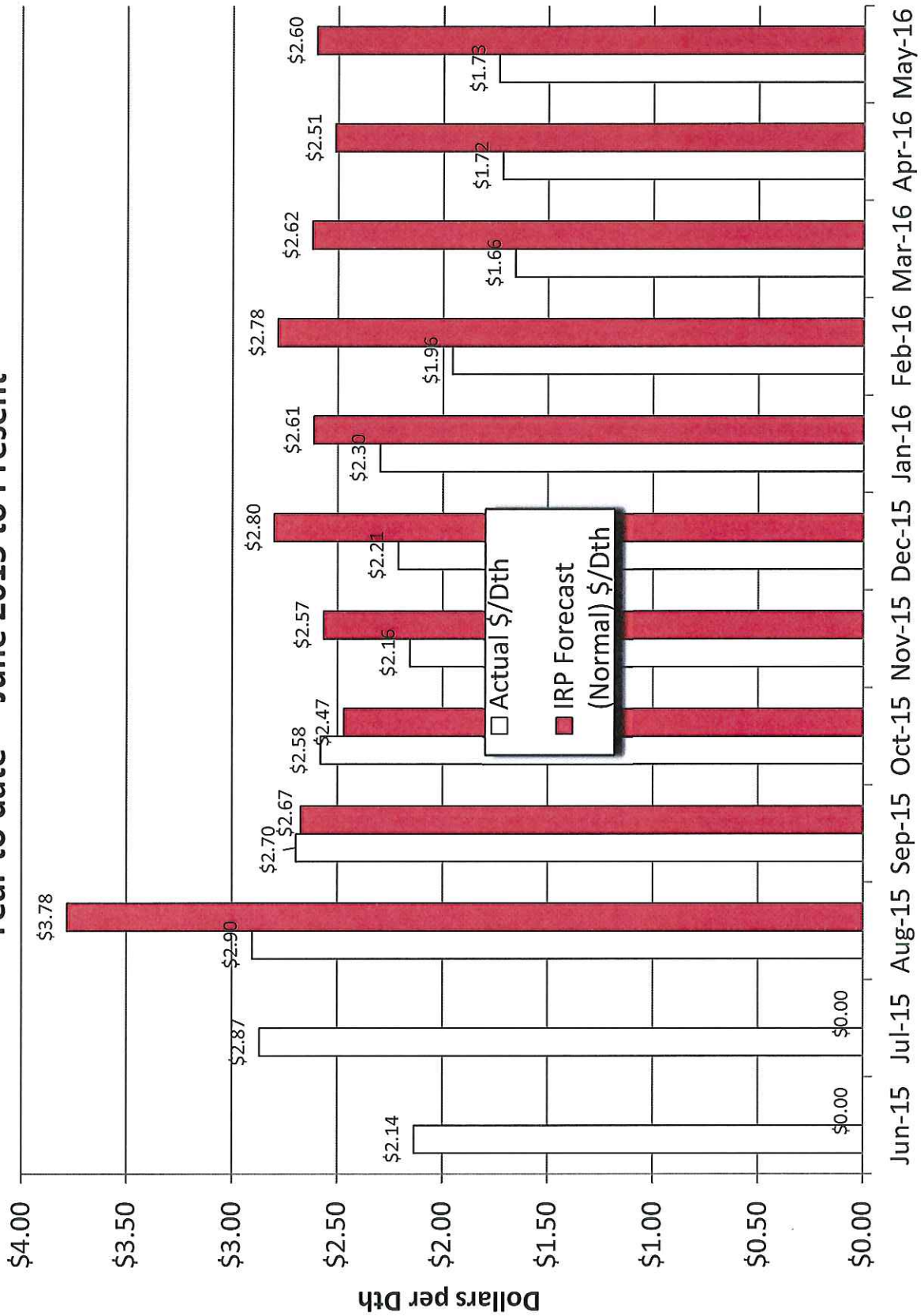
Gas Purchased
From Third Parties

Unit Cost Variance
Exhibits 6.1 – 6.2
Docket No. 15-057-07

Purchased Gas Unit Cost Variance
IRP Fourth Quarter: March to May

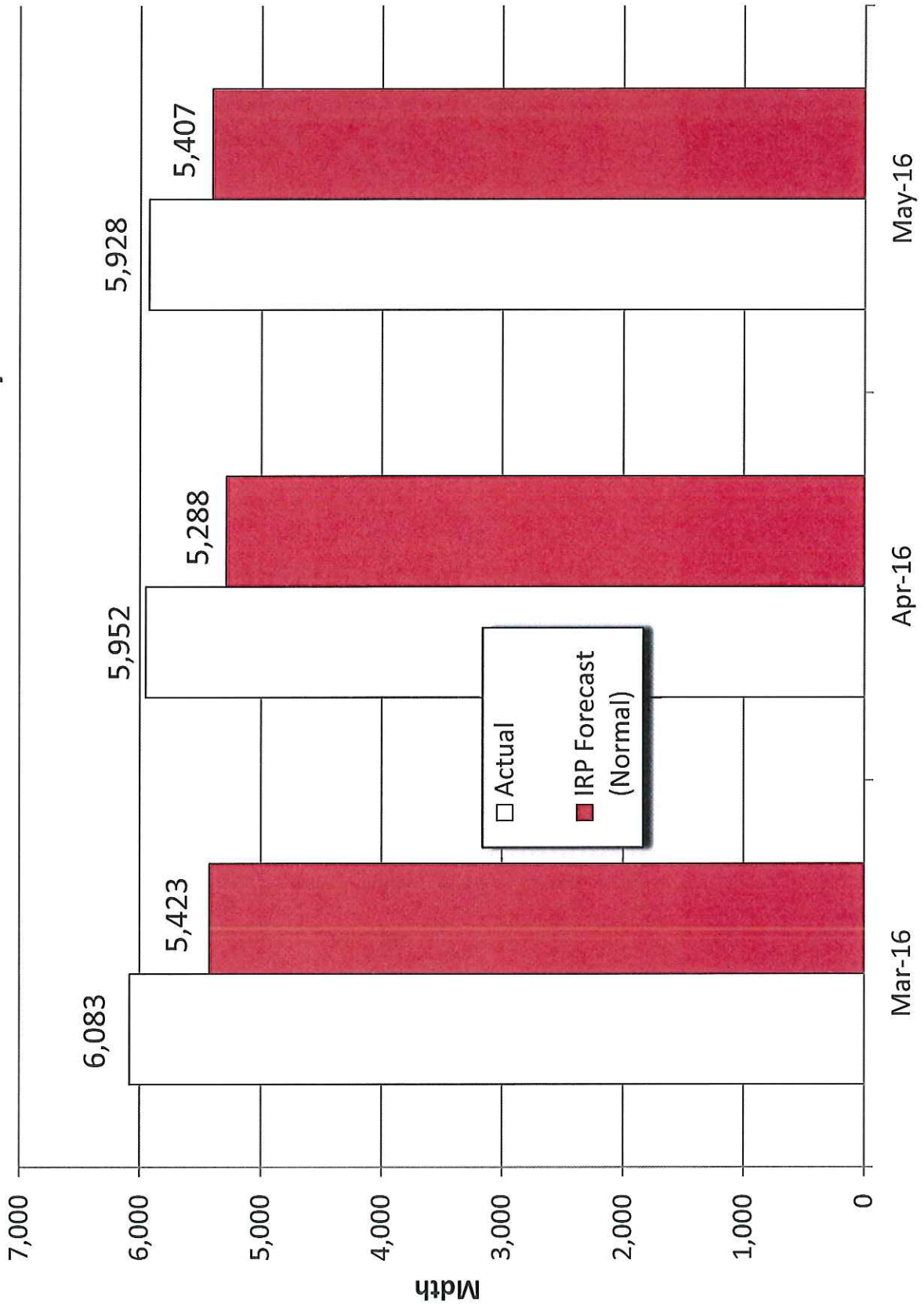


Purchased Gas Unit Cost Variance Year to date - June 2015 to Present

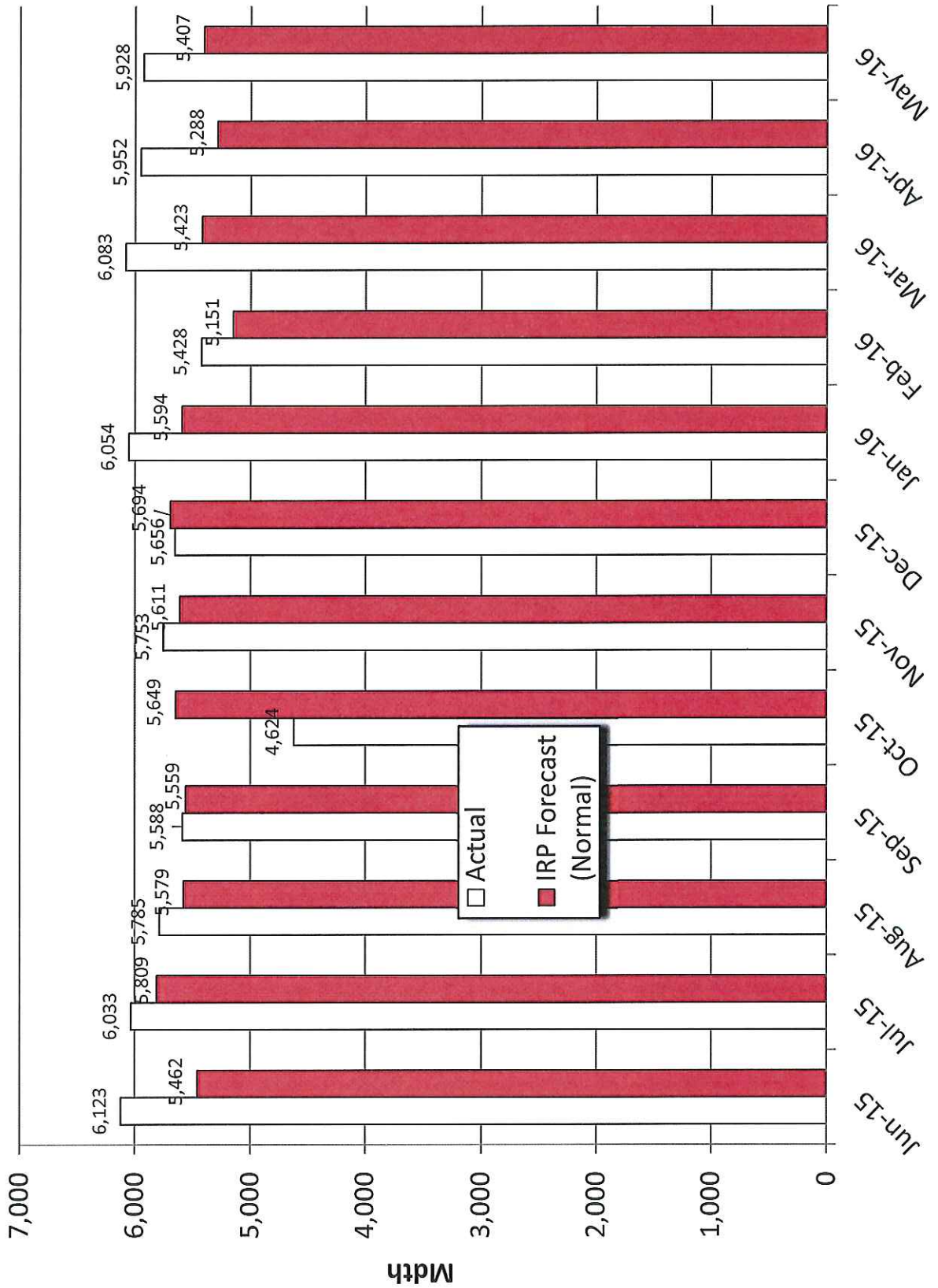


Cost-of-Service Gas
Exhibits 7.1 – 7.3
Docket No. 15-057-07

Cost-of-Service Gas Variance IRP Fourth Quarter: March to May

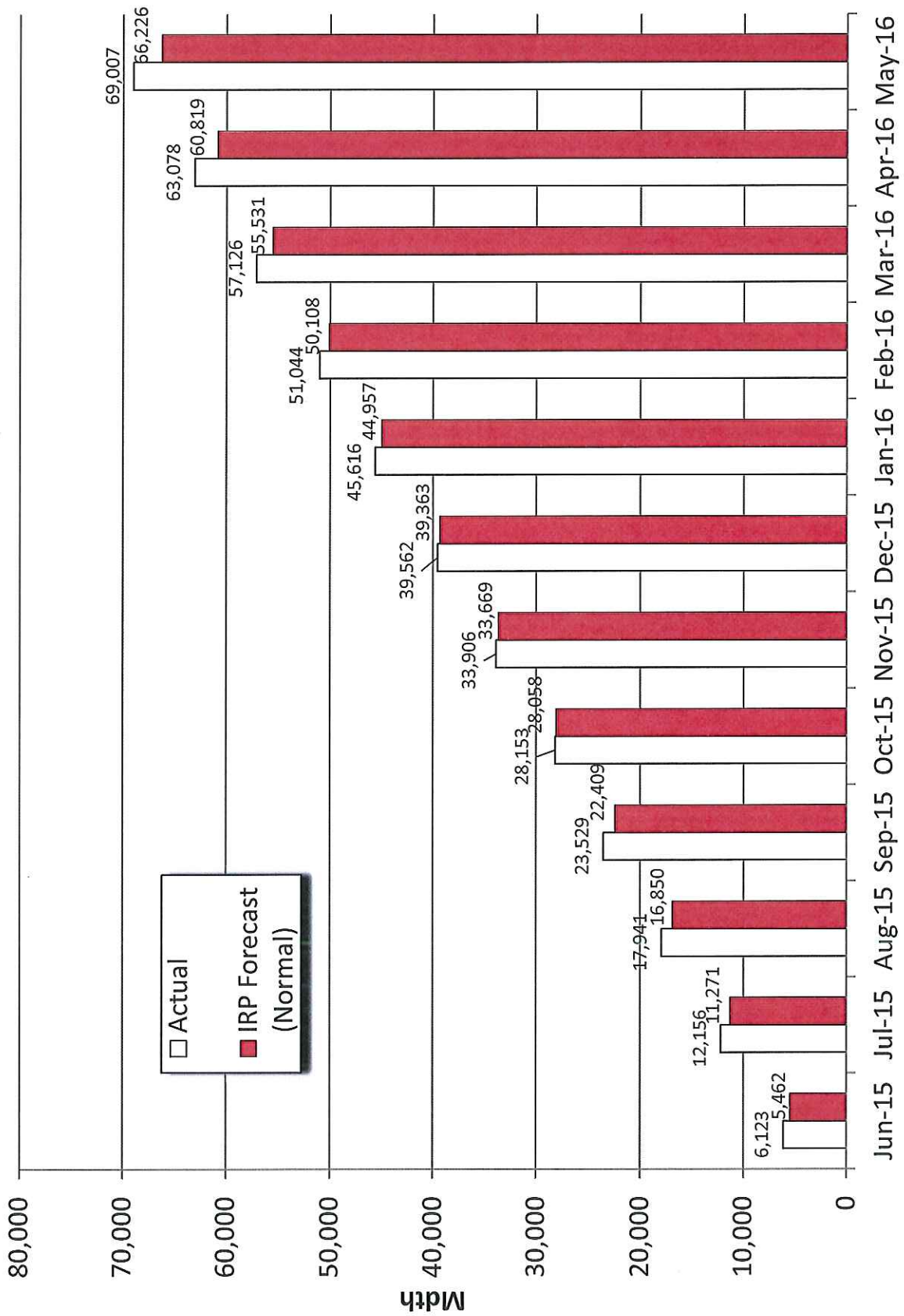


Cost-of-Service Gas Variance Year to date - June 2015 to Present



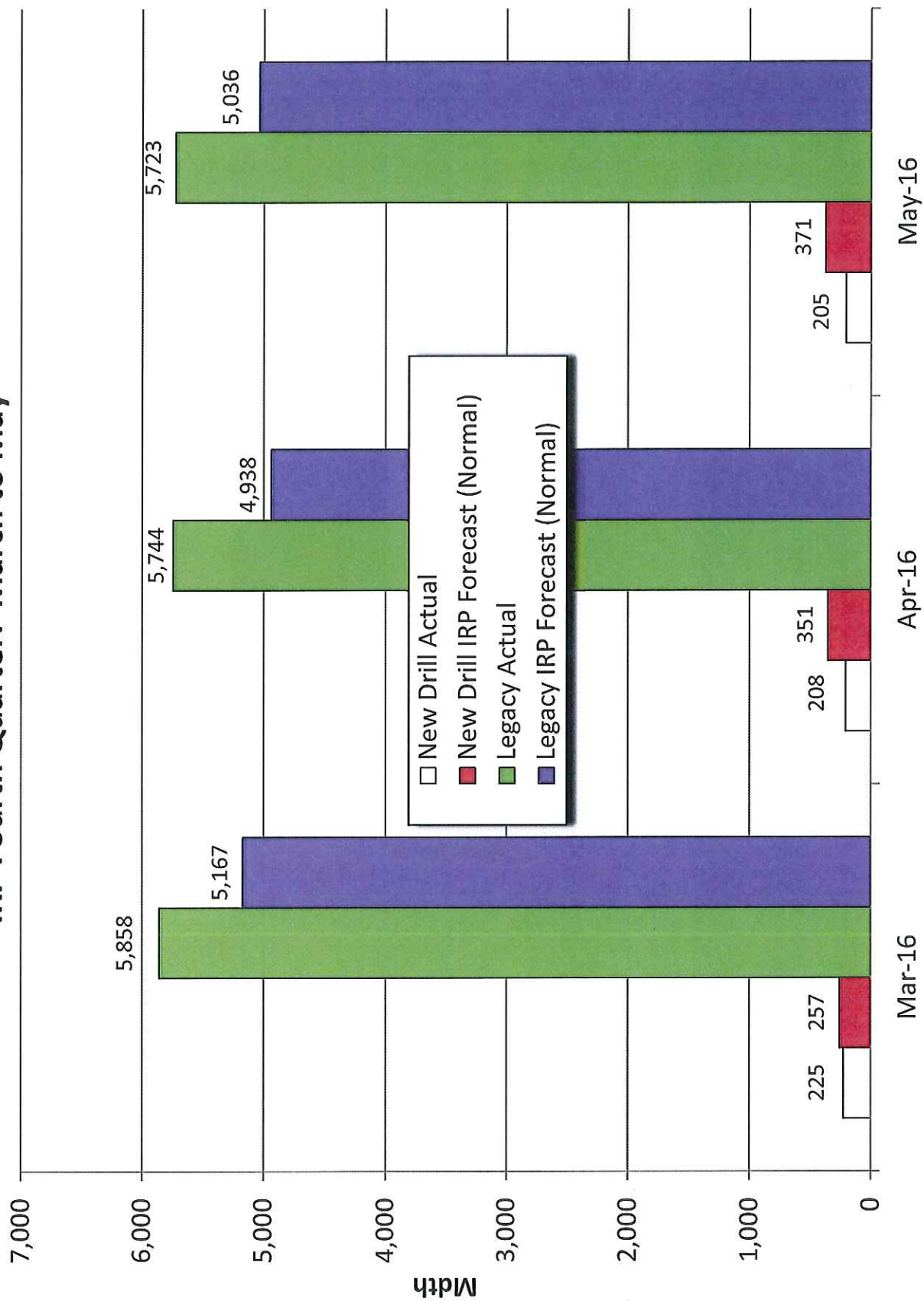
Cost-of-Service Gas Variance

Cumulative Year-to-date June 2015 to Present



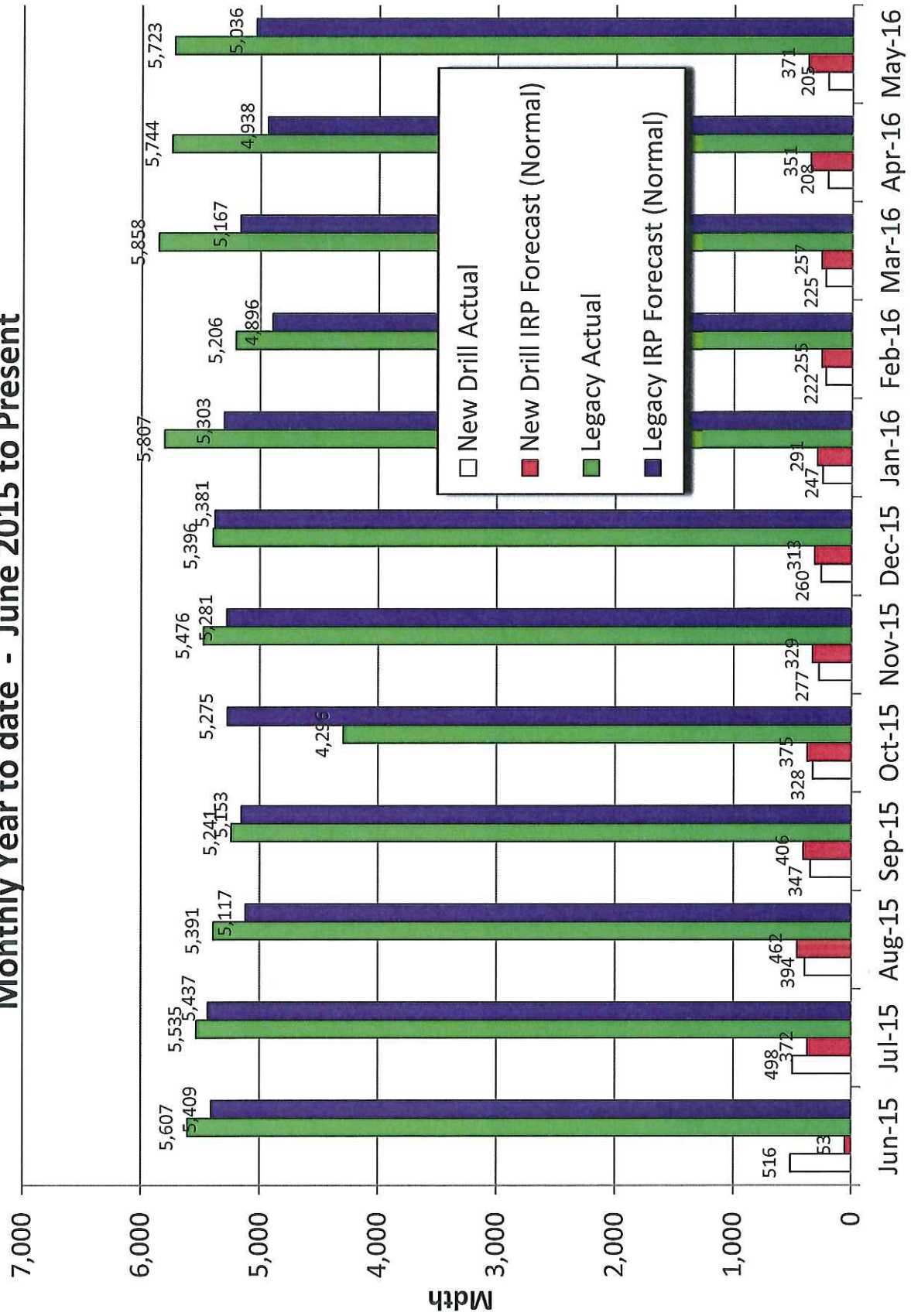
Cost-of-Service Gas
New Drill Component
Exhibits 8.1 – 8.3
Docket No. 15-057-07

Cost-of-Service New Drill Component IRP Fourth Quarter: March to May

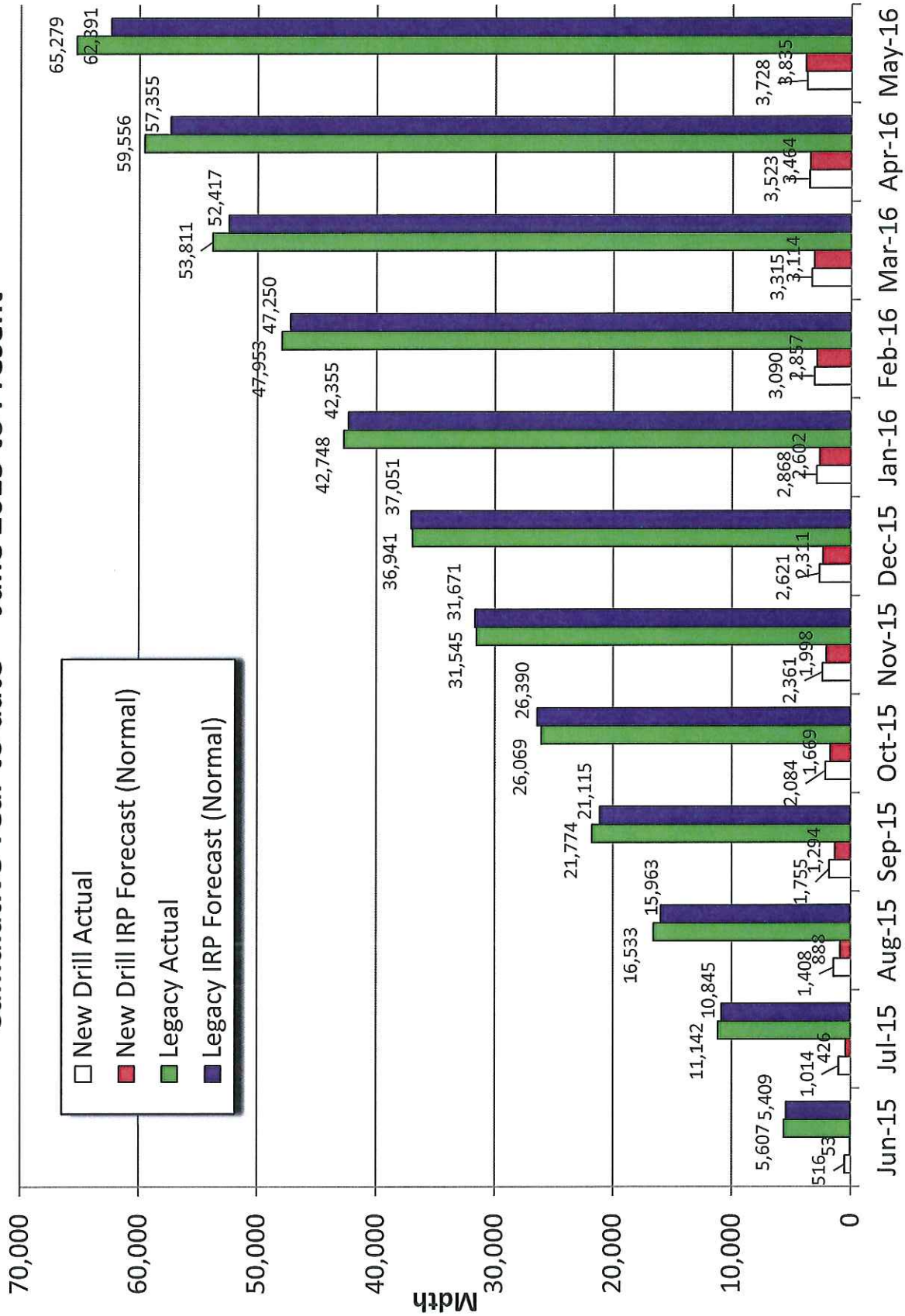


Cost-of-Service New Drill Component

Monthly Year to date - June 2015 to Present



Cost-of-Service New Drill Component Cumulative Year to date - June 2015 to Present



Data
Exhibits 9.1 – 9.3
Docket No. 15-057-07

Total Production and New Drill by Nomination Group

[REDACTED]

Total Production and New Drill by Nomination Group

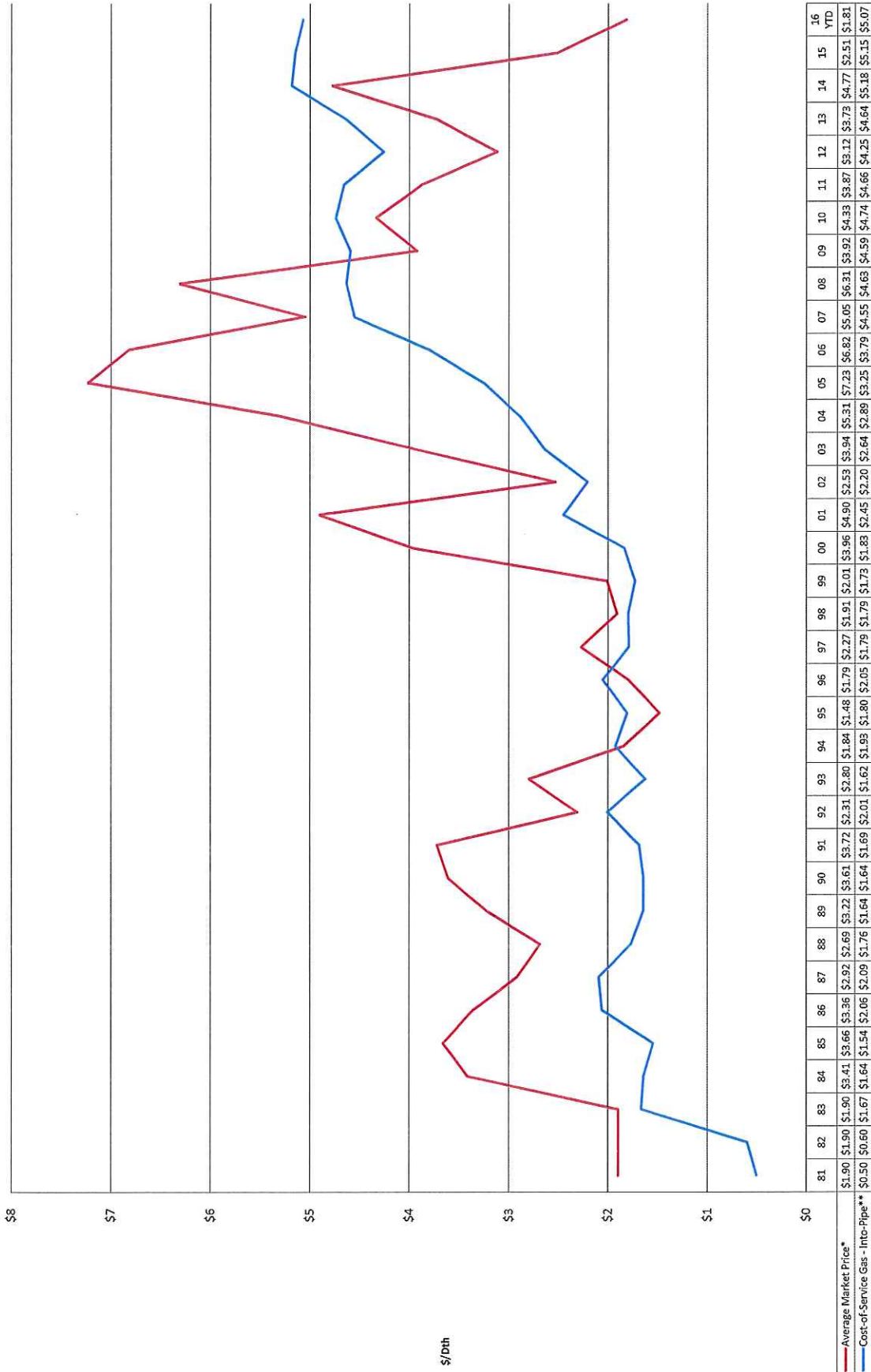
[REDACTED]

Gas Purchases

[REDACTED]

Purchase Gas and Cost-of-
Service Gas Price
Comparison
Exhibits 10.1 – 10.2
Docket No. 15-057-07

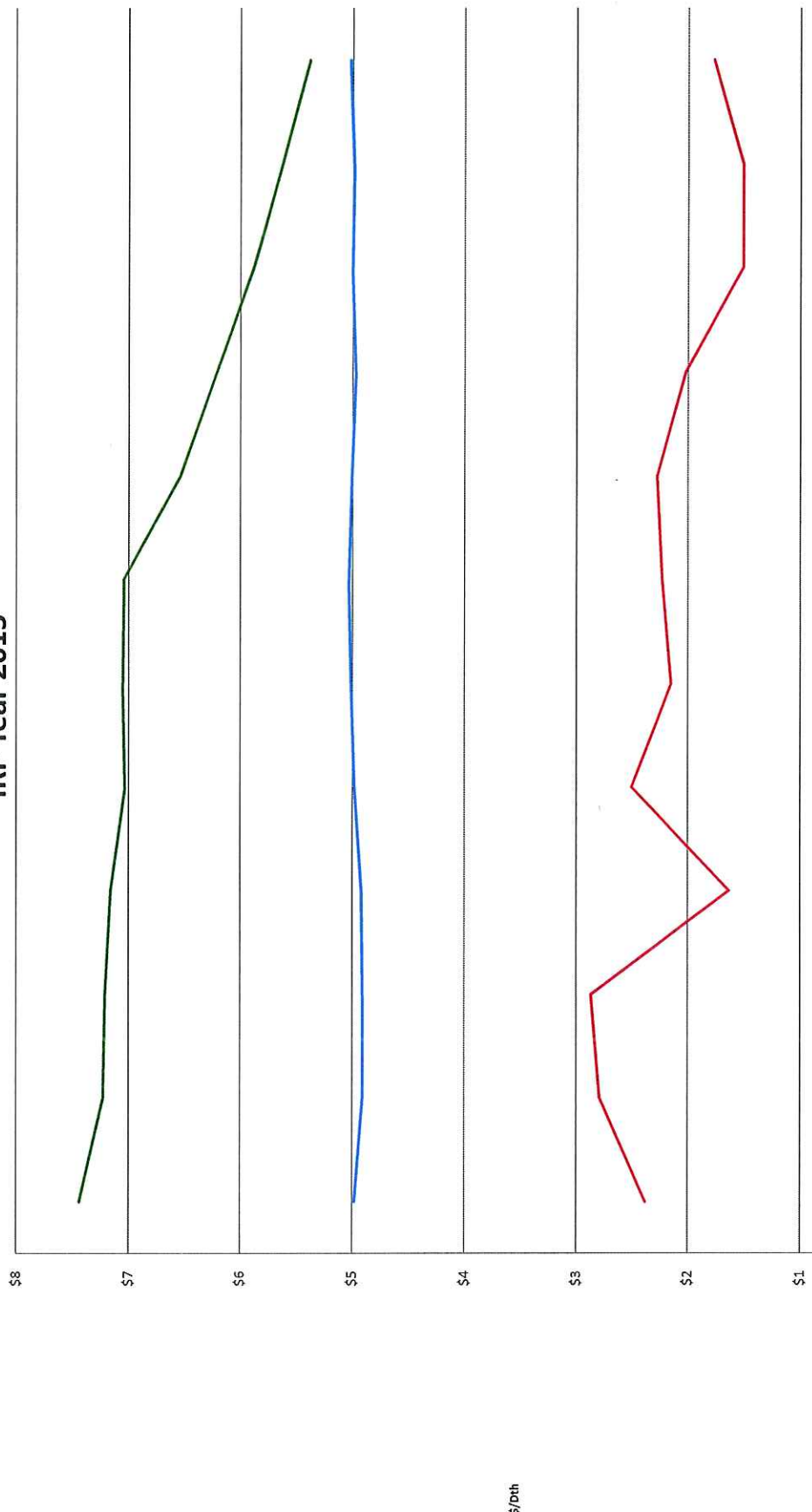
Average Market Price vs Cost-of-Service Gas Historical



*1981-2015; purchased gas average price; 2016 YTD: Northwest Pipeline first-of-month average price

**The into-pipe volumes used to calculate the cost-of-service gas price prior to 2011 is an estimated 3.8% less than the wellhead volume. The 3.8% was discussed in the May 18th 2015 IRP workshop. The volume used for 2011 - current comes from the Questar Pipeline Company invoice.

Actual Market Price vs. TTM Cost-of-Service Gas IRP Year 2015



* June through December: purchase gas price; January and May: Northwest Pipeline first-of-month price.
** Volumes from Questar Pipeline Company monthly invoice.