



**A Report to the State Board of Equalization
And the Colorado General Assembly**

**RESIDENTIAL ASSESSMENT RATE STUDY
Preliminary Findings**

2017 – 2018

Pursuant to § 39-1-104.2(6) C.R.S.

January 13, 2017

SUMMARY

Section 3(1)(b) of article X of the Colorado Constitution (Gallagher) and § 39-1-104.2(5)(a), C.R.S., require an adjustment in the residential assessment rate in order to maintain a consistent relationship between the total assessed value of residential compared to non-residential property. Section 39-1-104.2(3), C.R.S., is amended by the General Assembly during years of general reassessment by the adoption of a new residential target percentage and residential assessment rate. The figures enacted into law are historically the product of this study conducted in accordance with § 39-1-104.2(5)(c), C.R.S, by staff of the Division of Property Taxation (Division) under the direction of the Property Tax Administrator. This report documents the preliminary findings of the Residential Assessment Rate Study used for determining the 2017-2018 residential target percentage and the residential assessment rate. The preliminary findings of the study are as follows:

- The 2017-2018 residential target percentage is **43.79 percent**.
- The 2017-2018 projected residential assessment rate is **6.56 percent**.
- The residential assessment rate for 2015 and 2016 was **7.96 percent**. Section 20(4), art. X, Colorado Constitution (TABOR) requires voter approval for an increase to the assessment ratio of a property class.

The target percentage listed above is based on known values that were reported by assessors in 2015 and 2016 on their Abstracts of Assessment. As such, the 43.79 percent figure is not anticipated to change. The projected residential assessment rate however, is based largely on estimated 2017 values, **and the figure is likely to change prior to the final report, to be submitted no later than April 15, 2017.**

As stated earlier, Section 3(1)(b) of article X of the Colorado Constitution (Gallagher) and § 39-1-104.2(5)(a), C.R.S., require an adjustment in the residential assessment rate in order to maintain a consistent relationship between the total assessed value of residential compared to non-residential property. The General Assembly must adjust the residential assessment rate to ensure that the percentage of residential real property assessed value, when compared to the assessed value of all property, remains essentially the same as it was the preceding year (2016). The adjustment is intended to stabilize residential real property's share of the property tax base. The study includes three major calculations.

1. Using the total actual 2015 assessed value for nonresidential property, calculate what the total 2015 residential real property value should have been to exactly achieve the 2015 residential real property target percentage of 45.86 percent. Then, adjust the 45.86 percent target percentage to account for 2015 and 2016 net changes in new construction and the production volumes of producing metallic mines, producing coal mines, oil and gas wells, and earth and stone operations as reported on county Abstracts of Assessment. Upon completing the adjustments, the 2017-2018 residential real property target percentage is 43.79 percent.
2. Estimate 2017 values and determine residential real property's share of the tax base as if the residential assessment rate remained at 7.96 percent. The estimated 2017 tax base share for residential real property at an assessment rate of 7.96 percent is 48.59 percent.
3. Calculate the residential assessment rate that is estimated to achieve a statewide total taxable assessed value consisting of 43.79 percent residential property.

At one time, the State Board of Equalization (state board) had the authority to adjust the residential rate during its fall hearings if the valuations actually implemented by the counties, as reflected in the Abstracts of Assessment, showed that the estimated residential rate was incorrect. Because of a conflict with provisions in section 20 of article X of the Colorado Constitution (TABOR), the statute giving the state board that authority, § 39-1-104.2(7), C.R.S., was repealed in 1993. As a result, the Division reports an amended figure to the General Assembly in April. The amended report contains revised value estimates provided by county assessors after much of their revaluation work is completed.

The following table lists the estimated changes in assessed value by class of property between 2016 and 2017.

COMPARISON OF 2016 AND ESTIMATED 2017 ASSESSED VALUES BY CLASS

Class of Property	2016 Assessed	Estimated 2017	% Change	% of Total
Vacant	3,744,567,979	4,025,606,216	7.5%	3.5%
Residential	47,261,281,574	55,789,596,452	18.0%	48.59%
Commercial	28,985,481,554	32,358,942,142	11.6%	28.2%
Industrial	3,993,857,727	4,282,384,484	7.2%	3.7%
Agricultural	1,273,548,437	1,384,898,255	8.7%	1.2%
Natural Resources	336,033,059	319,009,172	-5.1%	0.3%
Producing Mines	575,474,668	506,575,019	-12.0%	0.4%
Oil and Gas	8,248,748,616	8,933,394,751	8.3%	7.8%
State Assessed	6,999,675,959	7,210,366,205	3.0%	6.3%
Total	101,418,669,573	114,810,772,696	13.2%	100.0%

Note: The comparison between 2016 and 2017 is based upon the 2015-2016 residential assessment rate of 7.96 percent. If the 2017 estimated residential rate of 6.56 percent is used, the “% of Total” associated with residential would equal the target percentage of 43.79 percent.

RECAP OF RESIDENTIAL ASSESSMENT RATES

<u>Years</u>	<u>Rate enacted into law</u>	<u>Rate calculated by Preliminary RAR Study</u>	<u>Rate calculated by Final RAR Study</u>
1983-1986	21.00%		
1987	18.00%	16.74%	
1988	16.00%	15.62%	
1989-90	15.00%	15.04%	
1991-92	14.34%	14.34%	
1993-94	12.86%	12.86%	12.16%
1995-96	10.36%	10.50%	10.02%
1997-98	9.74%	9.71%	10.08%
1999-2000	9.74%	9.81%	9.83%
2001-02	9.15%	9.35%	9.15%
2003-04	7.96%	8.18%	8.04% (rev. 4/23/2003 to 7.96%)
2005-06	7.96%	8.15%	8.17%
2007-08	7.96%	8.00%	8.19%
2009-10	7.96%	8.91%	8.85%
2011-12	7.96%	8.59%	8.77%
2013-14	7.96%	9.09%	9.13%
2015-16	7.96%	8.30%	8.24%

RESIDENTIAL ASSESSMENT RATE ESTIMATION METHODOLOGY

In September through November of the year prior to the effective year of the new rate, data reported in each county's Abstract of Assessment is reviewed, corrected where necessary, and entered into the Residential Assessment Rate Model. County assessors are asked to provide the Division with an electronic version of their qualified residential, commercial, industrial, and vacant land sales that occurred over the 24-months that preceded the new appraisal date. (The appraisal date for tax years 2017 and 2018 is June 30, 2016.) The data requested includes the sale price, sale date, actual value (from the prior base year), and property class code for each qualified sale. Division staff performs a time-trending analysis of sales data using a weighted monthly median sales ratio regression analysis to develop preliminary value change estimates for each county submitting data.

In December, Division staff meets with county assessors and appropriate staff to review the time trending results and mutually develop value change estimates for the vacant land, residential, commercial, and industrial property classes. Assessors are also asked to provide estimates for agricultural land, natural resources and producing mines. By this time, the county has often begun its own time trending studies, and has been analyzing other appraisal information, such as property income, vacancy rates, and capitalization rates. For the commercial and industrial classes, the percentage change estimates developed with assessors are for real property only. The Division calculates weighted averages between these projections and a statewide change estimate developed for commercial and industrial personal property. The Division has estimated a 4.7 percent increase for 2017 commercial and industrial personal property.

Division staff members also develop statewide change estimates for oil and gas and state assessed property, and for the three smallest classes, agricultural land, natural resources, and producing mines. Oil and gas is a volatile class of property that is best approached at a statewide level. Currently, division staff members estimate the change in this class based upon data obtained from the U.S. Energy Information Administration, after consulting with county assessors. Prior to this cycle, the Division obtained this information from the Colorado Oil and Gas Conservation Commission (COGCC). Unfortunately, COGCC no longer publishes pricing for oil and gas. For state assessed property, the same appraisers who value the property for tax purposes are asked to project future values based upon financial indicators for the various public utility sectors. The statewide estimates for agricultural land, natural resources, and producing mines are used when the county did not provide its own estimate or when the value of the class is small. The agricultural land estimate is based on changes to the 10-year averages of commodity prices, yields and expenses, while the estimates for natural resources and producing mines are based on estimates provided by some counties and on economic factors.

Pursuant to § 39-1-104(6), C.R.S., the preliminary study results are reported to the State Board of Equalization and the General Assembly by January 15 of the year of

reevaluation (2017). The Division will submit a final report to the General Assembly in April 2017 after receiving updated value projections from county assessors.

ADDENDA

The following addenda are provided with this report:

<u>Addendum A:</u>	2017 Target Percentage Calculation
<u>Addendum B:</u>	2017 Residential Assessment Rate Calculation
<u>Addendum C:</u>	Totals from 2016 County Abstracts of Assessment
<u>Addendum D:</u>	2017 Percent Change Estimates
<u>Addendum E:</u>	2017 Estimated Values (the product of Addenda C and D)
<u>Addendum F:</u>	Summary of 2017 Estimated Values
<u>Addendum G:</u>	2015 And 2016 New Construction (Used in target percentage calculation)
<u>Addendum H:</u>	Net increase in metallic mines production (Used in target percentage calculation)
<u>Addendum I:</u>	Net increase in coal mines production (Used in target percentage)
<u>Addendum J:</u>	Net increase in earth and stone production (Used in target percentage)
<u>Addenda K – O:</u>	Net increase in production of each subclass of oil and gas leaseholds and land. The sum of these changes is used in the target percentage calculation
<u>Addenda P:</u>	History of the Residential Assessment Rate

2017 RESIDENTIAL TARGET PERCENTAGE CALCULATION

ADDENDUM A

STEP #1: Calculate the 2015 residential assessed value that would have achieved the 2015 target percentage.

ESTIMATED 2015 RESIDENTIAL ASSESSED	X	0.4566712232
	-----	= -----
ACTUAL 2015 NON-RESIDENTIAL ASSESSED	58,899,312,842	0.5433287768
		1.0000000000
ESTIMATED 2015 RESIDENTIAL ASSESSED X =	49,505,239,536	

The target percentages shown in step #1 are the non-rounded versions of the target percentages enacted into law in 2015.
 The figure **\$58,899,312,842** is the total non-residential taxable value reported on county abstracts in 2015.
 The figure **\$49,894,575,597** is the hypothetical residential assessed value that would have exactly achieved the 2015 target percentage.

STEP #2: Add 2015 + 2016 net new construction and increased production to the 2015 res. and non-res. totals.

2015 Net Residential New Construction	719,553,040	Addendum G
<u>2016 Net Residential New Construction</u>	<u>812,701,458</u>	Addendum G
TOTAL RESIDENTIAL NEW CONSTRUCTION	1,532,254,498	
ESTIMATED 2015 RESIDENTIAL	49,505,239,536	
ADJUSTED TOTAL RESIDENTIAL	51,037,494,034	
2015 Net Other New Construction	732,237,027	Addendum G
2016 Net Other New Construction	860,836,763	Addendum G
2016 - 2014 Net Mines	-44,300,770	Addendum H
2016 - 2014 Net Coal	-14,451,422	Addendum I
2016 - 2014 Net Earth & Stone	3,311,562	Addendum J
<u>2016 - 2014 Net Oil & Gas</u>	<u>5,088,408,361</u>	Sum of Addenda K - O
TOTAL NON-RESIDENTIAL NEW CONST. & PROD.	6,626,041,521	
ACTUAL 2015 NON-RESIDENTIAL	58,899,312,842	
		109,936,806,876
ADJUSTED TOTAL NON-RESIDENTIAL	65,525,354,363	

STEP #3: Calculate the 2017 target percentages from 2015 values adjusted for new construction and production.

ADJ 2015 RES ASSESSED	51,037,494,034	43.78538680%		43.79%
	-----	= -----	OR	
ADJ 2015 OTHER ASSESSED	65,525,354,363	56.21461320%		56.21%

2017 RESIDENTIAL ASSESSMENT RATE CALCULATION

ADDENDUM B

$$\begin{array}{rcl} \text{Estimated } \mathbf{2017} & & \\ \text{Non-Residential Assessed} & & \text{Non-Res Target \%} & & \text{Total Assessed Target Value} \\ \$59,021,176,244 & \div & 56.21461320\% & = & \$104,992,586,238 \\ \text{Addendum F} & & \text{Addendum A} & & \end{array}$$

$$\begin{array}{rcl} \text{Total Assessed Target Value} & & \text{Residential Target \%} & & \text{Residential Assessed Target Value} \\ \$104,992,586,238 & \times & 43.78538680\% & = & \$45,971,409,994 \\ & & \text{Addendum A} & & \end{array}$$

$$\begin{array}{rcl} \text{Residential Assessed Target Value} & & \text{Estimated 2017} & & \text{Residential Assessment Rate} \\ \$45,971,409,994 & \div & \text{Residential Actual Value} & = & 6.559151648742\% \\ & & \text{Addendum F} & & \mathbf{6.56\%} \quad \text{rounded} \end{array}$$

2017 PERCENTAGE CHANGE ESTIMATES

ADDENDUM D

Red font = Percentage estimates provided by county or developed from consultation with county in December 2016.

Green font = Statewide estimates by DPT.

Commercial/Industrial percentages are weighted averages between the real property county estimate and a statewide commercial/industrial personal property estimate of: 4.7%

COUNTY	VAC	RES	COM	IND	AGR	NAT	MIN	O&G	STA
Adams	19.6%	25.6%	19.0%	8.7%	7.2%	0.0%	0.0%	8.3%	3.0%
Alamosa	-5.2%	5.0%	0.7%	1.9%	12.6%	0.0%	0.0%	8.3%	3.0%
Arapahoe	17.5%	22.5%	20.0%	7.6%	17.5%	0.0%	0.0%	8.3%	3.0%
Archuleta	3.0%	10.0%	1.3%	0.6%	3.0%	0.0%	0.0%	8.3%	3.0%
Baca	2.5%	2.5%	2.9%	0.3%	9.0%	0.0%	0.0%	8.3%	3.0%
Bent	0.0%	8.5%	0.2%	1.0%	9.0%	0.0%	0.0%	8.3%	3.0%
Boulder	7.1%	23.4%	16.6%	14.0%	9.0%	0.0%	0.0%	8.3%	3.0%
Broomfield	5.0%	20.8%	9.2%	4.9%	5.0%	0.0%	0.0%	8.3%	3.0%
Chaffee	5.0%	17.5%	8.2%	5.0%	9.0%	-14.0%	0.0%	8.3%	3.0%
Cheyenne	-0.2%	1.3%	0.6%	0.0%	1.7%	0.0%	0.0%	8.3%	3.0%
Clear Creek	5.0%	15.0%	0.8%	2.7%	9.0%	0.0%	-20.0%	8.3%	3.0%
Conejos	4.6%	1.0%	-0.3%	1.9%	-5.0%	0.0%	0.0%	8.3%	3.0%
Costilla	2.9%	5.0%	1.4%	4.0%	4.3%	-1.7%	0.0%	8.3%	3.0%
Crowley	0.0%	0.0%	0.2%	0.0%	9.0%	0.0%	0.0%	8.3%	3.0%
Custer	1.0%	3.0%	3.1%	3.1%	9.0%	0.0%	0.0%	8.3%	3.0%
Delta	3.0%	4.4%	1.4%	1.5%	12.9%	-66.2%	0.0%	8.3%	3.0%
Denver	0.0%	17.0%	11.7%	9.0%	9.0%	0.0%	0.0%	8.3%	3.0%
Dolores	0.0%	1.5%	0.3%	0.0%	3.9%	0.0%	0.0%	8.3%	3.0%
Douglas	15.0%	20.0%	10.6%	14.4%	10.0%	15.0%	0.0%	8.3%	3.0%
Eagle	4.5%	9.1%	9.8%	3.2%	2.4%	0.0%	0.0%	8.3%	3.0%
El Paso	4.8%	9.6%	6.9%	5.9%	9.0%	0.0%	0.0%	8.3%	3.0%
Elbert	4.8%	18.0%	3.7%	3.6%	5.0%	2.5%	2.5%	8.3%	3.0%
Fremont	0.0%	8.0%	1.4%	3.3%	9.0%	0.0%	0.0%	8.3%	3.0%
Garfield	7.5%	14.7%	3.4%	2.1%	7.9%	5.0%	0.0%	8.3%	3.0%
Gilpin	0.3%	13.9%	3.4%	0.0%	-0.5%	0.0%	0.0%	8.3%	3.0%
Grand	0.0%	6.0%	-0.3%	1.5%	9.0%	-1.0%	0.0%	8.3%	3.0%
Gunnison	3.5%	17.5%	0.4%	0.5%	3.0%	-17.9%	0.0%	8.3%	3.0%
Hinsdale	-0.8%	1.4%	0.1%	0.1%	9.0%	0.0%	-5.0%	8.3%	3.0%
Huerfano	0.0%	0.0%	0.5%	0.0%	8.5%	3.0%	0.0%	8.3%	3.0%
Jackson	0.0%	8.0%	0.4%	2.6%	3.0%	0.0%	0.0%	8.3%	3.0%
Jefferson	14.0%	28.4%	4.8%	4.2%	9.0%	0.0%	0.0%	8.3%	3.0%
Kiowa	-40.0%	4.0%	4.9%	0.0%	9.0%	0.0%	0.0%	8.3%	3.0%
Kit Carson	0.5%	4.0%	4.1%	2.7%	5.0%	0.0%	0.0%	8.3%	3.0%
La Plata	3.4%	8.1%	4.5%	1.8%	5.6%	-6.9%	0.0%	8.3%	3.0%
Lake	-4.7%	10.4%	2.4%	0.1%	9.0%	0.0%	-1.5%	8.3%	3.0%
Larimer	17.0%	15.0%	15.2%	9.6%	14.0%	13.0%	0.0%	8.3%	3.0%
Las Animas	0.0%	1.0%	1.4%	0.4%	3.0%	0.0%	0.0%	8.3%	3.0%
Lincoln	0.0%	5.0%	2.4%	2.9%	10.0%	-2.0%	0.0%	8.3%	3.0%
Logan	4.4%	7.0%	1.6%	3.8%	10.0%	8.4%	0.0%	8.3%	3.0%
Mesa	10.0%	12.0%	4.1%	2.3%	12.5%	1.0%	0.0%	8.3%	3.0%
Mineral	0.0%	5.0%	2.9%	1.6%	2.0%	0.0%	0.0%	8.3%	3.0%
Moffat	0.0%	0.0%	0.8%	1.3%	9.0%	0.0%	0.0%	8.3%	3.0%
Montezuma	0.0%	3.0%	0.5%	0.6%	8.0%	0.0%	0.0%	8.3%	3.0%
Montrose	7.0%	9.5%	3.2%	3.7%	15.0%	0.0%	0.0%	8.3%	3.0%
Morgan	5.0%	15.0%	5.0%	4.2%	12.0%	2.0%	0.0%	8.3%	3.0%
Otero	0.0%	1.0%	4.1%	2.9%	5.0%	0.0%	0.0%	8.3%	3.0%
Ouray	-0.1%	19.0%	28.7%	4.2%	3.0%	200.0%	0.0%	8.3%	3.0%
Park	3.5%	11.6%	9.9%	0.0%	9.0%	11.0%	-19.0%	8.3%	3.0%
Phillips	2.8%	24.3%	3.2%	3.2%	21.8%	1.8%	0.0%	8.3%	3.0%
Pitkin	0.3%	14.8%	12.0%	5.0%	9.0%	4.9%	0.0%	8.3%	3.0%
Prowers	0.0%	1.2%	1.9%	2.6%	3.5%	0.0%	0.0%	8.3%	3.0%
Pueblo	2.0%	7.0%	0.9%	2.6%	9.0%	0.0%	0.0%	8.3%	3.0%
Rio Blanco	-1.0%	3.0%	0.9%	4.6%	10.0%	-4.0%	0.0%	8.3%	3.0%
Rio Grande	-6.0%	9.0%	1.9%	2.2%	1.0%	0.0%	0.0%	8.3%	3.0%
Routt	5.9%	10.4%	7.2%	0.3%	6.9%	-9.3%	0.0%	8.3%	3.0%
Saguache	0.0%	0.0%	0.4%	0.4%	9.0%	0.0%	0.0%	8.3%	3.0%
San Juan	-1.3%	5.1%	1.5%	0.7%	9.0%	3.5%	0.0%	8.3%	3.0%
San Miguel	8.0%	7.0%	5.9%	-8.5%	3.0%	0.0%	0.0%	8.3%	3.0%
Sedgwick	0.0%	17.5%	1.1%	2.6%	9.0%	0.0%	0.0%	8.3%	3.0%
Summit	18.2%	18.0%	12.3%	2.9%	9.0%	0.0%	0.0%	8.3%	3.0%
Teller	0.5%	5.7%	0.7%	0.6%	9.0%	0.0%	0.0%	8.3%	3.0%
Washington	0.0%	22.5%	0.9%	4.3%	5.0%	0.0%	0.0%	8.3%	3.0%
Weld	25.0%	25.0%	9.0%	6.1%	10.0%	0.0%	0.0%	8.3%	3.0%
Yuma	5.0%	7.0%	4.9%	4.8%	10.0%	-2.0%	0.0%	8.3%	3.0%
Weighted Avg.	7.5%	18.0%	11.6%	7.2%	8.7%	-5.1%	-12.0%	8.3%	3.0%

2017 ESTIMATED VALUES

Addendum C x Addendum D

(With Residential at 7.96 percent)

ADDENDUM E

COUNTY	VAC	RES	COM	IND	AGR	NAT	MIN	O&G	STA	TOTAL
Adams	\$151,128,940	\$3,068,969,218	\$2,416,247,457	\$306,792,405	\$33,131,521	\$5,033,570	\$0	\$67,938,399	\$585,968,883	\$6,635,210,394
Alamosa	\$12,978,798	\$57,740,165	\$52,816,789	\$1,249,268	\$23,594,228	\$195,804	\$0	\$0	\$25,670,401	\$174,245,452
Arapahoe	\$209,631,642	\$5,971,268,076	\$4,221,665,672	\$39,784,809	\$19,198,191	\$597,355	\$0	\$82,521,289	\$438,855,048	\$10,983,522,083
Archuleta	\$59,538,934	\$171,217,145	\$48,695,567	\$1,264,050	\$7,408,759	\$174,060	\$0	\$18,569,096	\$9,695,816	\$316,563,427
Baca	\$488,568	\$7,784,184	\$6,714,215	\$70,570	\$26,289,662	\$1,271,672	\$0	\$2,600,898	\$49,726,841	\$94,946,611
Bent	\$491,837	\$8,452,937	\$18,988,935	\$255,920	\$21,089,625	\$748,354	\$0	\$478,159	\$38,632,355	\$89,138,122
Boulder	\$205,830,801	\$4,791,913,565	\$2,447,790,138	\$567,111,209	\$20,764,228	\$1,382,433	\$20,735	\$7,310,903	\$204,992,279	\$8,247,116,290
Broomfield	\$39,926,954	\$735,945,225	\$558,877,125	\$69,630,923	\$536,025	\$8,520	\$0	\$3,504,891	\$81,462,162	\$1,489,891,826
Chaffee	\$51,874,095	\$232,999,574	\$102,873,275	\$11,204,273	\$6,120,099	\$3,620,566	\$0	\$0	\$28,115,446	\$436,807,328
Cheyenne	\$292,716	\$5,072,900	\$8,815,419	\$445,432	\$28,178,585	\$5,266,737	\$0	\$50,862,897	\$26,547,737	\$125,482,424
Clear Creek	\$20,798,264	\$120,013,253	\$28,310,422	\$246,297	\$143,956	\$8,530,290	\$268,780,256	\$0	\$22,733,998	\$469,556,736
Conejos	\$9,350,760	\$31,830,400	\$5,803,944	\$1,157,083	\$16,032,879	\$134,970	\$0	\$0	\$4,861,866	\$69,171,902
Costilla	\$75,003,919	\$15,900,368	\$5,591,717	\$1,438,388	\$13,228,447	\$391,769	\$0	\$0	\$8,194,652	\$119,749,259
Crowley	\$318,430	\$6,215,842	\$23,100,288	\$10,671	\$5,532,866	\$410,122	\$0	\$0	\$10,673,278	\$46,261,497
Custer	\$24,562,816	\$59,767,202	\$8,017,843	\$265,550	\$6,403,728	\$645,520	\$0	\$0	\$6,024,643	\$105,687,303
Delta	\$18,752,940	\$151,892,424	\$61,218,386	\$7,734,155	\$22,396,477	\$6,579,675	\$0	\$2,527,487	\$40,928,757	\$312,030,302
Denver	\$186,773,880	\$7,137,193,628	\$8,078,866,004	\$285,735,409	\$150,725	\$0	\$0	\$0	\$948,243,207	\$16,636,962,853
Dolores	\$5,483,652	\$12,654,884	\$4,325,264	\$217,398	\$4,362,534	\$613,450	\$0	\$116,114,899	\$11,787,846	\$155,559,927
Douglas	\$255,607,671	\$4,124,002,980	\$1,823,050,654	\$150,078,836	\$20,277,191	\$424,994	\$0	\$0	\$253,759,675	\$6,627,202,002
Eagle	\$139,042,088	\$2,325,948,035	\$717,030,058	\$10,529,570	\$8,890,491	\$887,920	\$471,250	\$0	\$97,073,328	\$3,299,872,740
El Paso	\$286,032,893	\$4,361,421,786	\$2,249,600,190	\$252,312,778	\$15,457,922	\$6,020,800	\$0	\$0	\$350,530,257	\$7,521,376,626
Elbert	\$14,699,023	\$237,669,216	\$24,946,042	\$1,390,183	\$20,783,028	\$1,285,760	\$0	\$3,155,765	\$40,563,175	\$344,492,191
Fremont	\$43,432,500	\$209,038,298	\$80,959,197	\$49,809,711	\$8,693,491	\$6,795,160	\$0	\$1,529,099	\$54,247,126	\$454,504,582
Garfield	\$98,982,850	\$564,055,889	\$319,576,991	\$11,410,150	\$15,648,661	\$2,854,068	\$601,260	\$1,283,941,044	\$110,619,452	\$2,407,690,365
Gilpin	\$41,341,995	\$67,302,143	\$246,645,424	\$146,720	\$317,912	\$9,338,130	\$0	\$0	\$11,754,378	\$376,846,703
Grand	\$91,593,070	\$380,512,175	\$84,534,721	\$61,486,270	\$9,542,274	\$406,544	\$11,473,050	\$0	\$45,911,557	\$685,459,661
Gunnison	\$99,408,014	\$366,704,093	\$93,660,654	\$2,946,606	\$10,090,302	\$45,230,064	\$115,600	\$11,060,809	\$13,920,050	\$643,136,193
Hinsdale	\$20,181,139	\$32,284,918	\$10,252,941	\$76,163	\$694,308	\$480,720	\$56,487	\$0	\$892,582	\$64,919,258
Huerfano	\$15,345,347	\$41,022,593	\$15,567,081	\$491,677	\$8,606,908	\$495,658	\$0	\$6,969,469	\$38,798,510	\$127,297,243
Jackson	\$1,846,665	\$10,945,801	\$4,201,817	\$2,019,359	\$12,319,064	\$212,609	\$0	\$13,313,501	\$3,476,464	\$48,335,279
Jefferson	\$224,940,924	\$6,608,716,710	\$2,417,972,504	\$271,038,314	\$11,449,750	\$667,894	\$361,588	\$0	\$357,556,672	\$9,892,704,356
Kiowa	\$69,720	\$2,396,025	\$5,824,058	\$0	\$21,548,450	\$1,272,490	\$0	\$6,174,096	\$3,540,042	\$40,824,880
Kit Carson	\$732,070	\$25,503,237	\$41,795,685	\$1,203,613	\$45,669,085	\$1,073,223	\$0	\$598,833	\$50,058,225	\$166,633,970
La Plata	\$144,739,641	\$685,134,903	\$392,728,149	\$21,954,308	\$14,708,644	\$9,739,899	\$0	\$587,312,514	\$82,032,117	\$1,938,350,172
Lake	\$17,875,177	\$54,221,807	\$10,965,077	\$664,043	\$268,795	\$1,367,499	\$110,336,702	\$0	\$18,642,647	\$214,341,747
Larimer	\$212,264,547	\$3,208,769,925	\$1,729,216,452	\$459,745,278	\$27,963,138	\$6,131,333	\$0	\$6,973,364	\$134,020,748	\$5,785,084,785
Las Animas	\$12,364,210	\$58,243,599	\$32,163,806	\$2,739,909	\$20,607,838	\$8,561,050	\$0	\$107,173,117	\$101,234,870	\$343,088,399
Lincoln	\$1,339,423	\$12,145,312	\$14,874,186	\$221,624	\$26,280,092	\$1,630,713	\$0	\$42,275,202	\$74,998,903	\$173,765,455
Logan	\$2,492,279	\$70,139,966	\$44,422,610	\$25,484,575	\$67,449,173	\$436,787	\$0	\$7,351,837	\$120,862,457	\$338,639,684
Mesa	\$89,855,843	\$950,680,718	\$531,352,505	\$100,183,637	\$37,570,118	\$3,382,530	\$66,260	\$144,336,717	\$141,903,074	\$1,999,331,402
Mineral	\$9,203,376	\$20,796,407	\$9,421,814	\$109,693	\$1,421,828	\$323,178	\$0	\$0	\$1,659,903	\$42,936,199
Moffat	\$9,332,260	\$54,211,320	\$40,284,716	\$1,551,322	\$10,550,656	\$38,462,969	\$149,569	\$50,494,247	\$214,448,484	\$419,485,343
Montezuma	\$19,375,020	\$129,253,629	\$68,005,679	\$15,188,624	\$19,172,376	\$915,760	\$0	\$377,094,708	\$51,868,543	\$680,874,539
Montrose	\$31,564,829	\$246,233,241	\$148,610,212	\$27,868,890	\$31,669,206	\$4,097,295	\$174,400	\$0	\$61,895,001	\$552,113,074
Morgan	\$5,353,194	\$114,800,015	\$67,373,442	\$67,122,900	\$57,525,171	\$114,424	\$0	\$10,019,916	\$233,459,392	\$555,768,454
Otero	\$1,417,378	\$42,228,955	\$28,687,199	\$4,193,295	\$25,973,037	\$216,642	\$0	\$0	\$51,503,146	\$154,219,653
Ouray	\$34,052,845	\$96,951,478	\$32,416,459	\$488,261	\$4,580,812	\$14,564,880	\$0	\$0	\$7,218,838	\$190,273,572
Park	\$120,952,729	\$247,559,178	\$34,000,988	\$790,760	\$9,397,184	\$4,427,934	\$91,052	\$0	\$28,180,240	\$445,400,065
Phillips	\$431,369	\$21,310,788	\$19,487,019	\$233,847	\$48,648,893	\$362,875	\$0	\$5,199,061	\$6,853,564	\$102,527,416
Pitkin	\$202,089,957	\$2,349,666,853	\$734,517,401	\$752,210	\$7,891,382	\$3,798,146	\$0	\$0	\$30,784,332	\$3,329,500,281
Prowers	\$632,619	\$24,621,216	\$24,639,290	\$3,667,560	\$36,126,755	\$1,723,634	\$0	\$1,225,465	\$39,399,986	\$132,036,525
Pueblo	\$51,602,898	\$642,083,902	\$308,960,696	\$232,355,692	\$20,139,760	\$3,004,813	\$0	\$0	\$530,354,505	\$1,788,502,266
Rio Blanco	\$5,123,201	\$41,660,626	\$24,583,998	\$293,091,228	\$16,781,655	\$35,470,339	\$0	\$424,524,758	\$96,852,577	\$938,088,383
Rio Grande	\$21,706,189	\$72,848,405	\$45,206,018	\$2,295,608	\$25,568,860	\$274,457	\$0	\$0	\$19,928,418	\$187,827,955
Routt	\$104,467,374	\$628,936,987	\$243,601,896	\$5,838,656	\$27,021,658	\$29,967,425	\$0	\$3,066,060	\$118,619,517	\$1,161,519,574
Saguache	\$11,130,650	\$24,573,200	\$6,976,767	\$778,543	\$18,197,332	\$1,229,870	\$0	\$0	\$6,955,132	\$69,841,494
San Juan	\$11,288,480	\$11,332,259	\$8,506,330	\$545,312	\$11,410	\$8,963,496	\$0	\$0	\$3,087,107	\$43,734,395
San Miguel	\$182,110,907	\$505,974,699	\$111,753,501	\$2,721,629	\$8,542,995	\$3,316,120	\$0	\$11,085,675	\$24,103,207	\$849,608,732
Sedgwick	\$120,330	\$6,708,416	\$3,950,556	\$224,229	\$25,600,034	\$106,560	\$0	\$199,976	\$28,020,265	\$64,930,366
Summit	\$164,722,110	\$1,365,123,900	\$406,986,707	\$45,157,339	\$1,726,623	\$856,096	\$0	\$0	\$42,769,340	\$2,027,342,114
Teller	\$68,508,227	\$219,200,840	\$86,137,124	\$4,082,297	\$1,953,236	\$1,812,230	\$113,876,810	\$0	\$22,759,750	\$518,330,515
Washington	\$198,799	\$13,327,358	\$4,103,796	\$618,843	\$42,950,662	\$1,294,701	\$0	\$15,751,162	\$50,838,010	\$129,083,331
Weld	\$81,402,163	\$1,890,572,075	\$879,533,456	\$846,255,147	\$201,051,686	\$18,552,840	\$0	\$5,419,698,065	\$832,414,745	\$10,169,480,176
Yuma	\$1,404,281	\$35,929,584	\$31,137,814	\$5,905,467	\$82,995,869	\$851,777	\$0	\$40,441,375	\$56,880,680	\$255,546,846

TOTALS \$4,025,606,216 \$55,789,596,452 \$32,358,942,142 \$4,282,384,484 \$1,384,898,255 \$319,009,172 \$506,575,019 \$8,933,394,751 \$7,210,366,205 \$114,810,772,696

VAC RES COM IND AGR NAT MIN O&G STA TOTAL

SUMMARY OF 2017 ESTIMATED VALUES

ADDENDUM F

COUNTY	TOTAL	RESIDENTIAL	NON-RESIDENTIAL
Adams	\$6,635,210,394	\$3,068,969,218	\$3,566,241,175
Alamosa	\$174,245,452	\$57,740,165	\$116,505,287
Arapahoe	\$10,983,522,083	\$5,971,268,076	\$5,012,254,006
Archuleta	\$316,563,427	\$171,217,145	\$145,346,282
Baca	\$94,946,611	\$7,784,184	\$87,162,427
Bent	\$89,138,122	\$8,452,937	\$80,685,186
Boulder	\$8,247,116,290	\$4,791,913,565	\$3,455,202,725
Broomfield	\$1,489,891,826	\$735,945,225	\$753,946,600
Chaffee	\$436,807,328	\$232,999,574	\$203,807,754
Cheyenne	\$125,482,424	\$5,072,900	\$120,409,523
Clear Creek	\$469,556,736	\$120,013,253	\$349,543,483
Conejos	\$69,171,902	\$31,830,400	\$37,341,502
Costilla	\$119,749,259	\$15,900,368	\$103,848,891
Crowley	\$46,261,497	\$6,215,842	\$40,045,655
Custer	\$105,687,303	\$59,767,202	\$45,920,100
Delta	\$312,030,302	\$151,892,424	\$160,137,877
Denver	\$16,636,962,853	\$7,137,193,628	\$9,499,769,225
Dolores	\$155,559,927	\$12,654,884	\$142,905,043
Douglas	\$6,627,202,002	\$4,124,002,980	\$2,503,199,022
Eagle	\$3,299,872,740	\$2,325,948,035	\$973,924,705
El Paso	\$7,521,376,626	\$4,361,421,786	\$3,159,954,840
Elbert	\$344,492,191	\$237,669,216	\$106,822,975
Fremont	\$454,504,582	\$209,038,298	\$245,466,283
Garfield	\$2,407,690,365	\$564,055,889	\$1,843,634,476
Gilpin	\$376,846,703	\$67,302,143	\$309,544,560
Grand	\$685,459,661	\$380,512,175	\$304,947,486
Gunnison	\$643,136,193	\$366,704,093	\$276,432,100
Hinsdale	\$64,919,258	\$32,284,918	\$32,634,340
Huerfano	\$127,297,243	\$41,022,593	\$86,274,650
Jackson	\$48,335,279	\$10,945,801	\$37,389,478
Jefferson	\$9,892,704,356	\$6,608,716,710	\$3,283,987,646
Kiowa	\$40,824,880	\$2,396,025	\$38,428,855
Kit Carson	\$166,633,970	\$25,503,237	\$141,130,734
La Plata	\$1,938,350,172	\$685,134,903	\$1,253,215,269
Lake	\$214,341,747	\$54,221,807	\$160,119,940
Larimer	\$5,785,084,785	\$3,208,769,925	\$2,576,314,861
Las Animas	\$343,088,399	\$58,243,599	\$284,844,800
Lincoln	\$173,765,455	\$12,145,312	\$161,620,143
Logan	\$338,639,684	\$70,139,966	\$268,499,718
Mesa	\$1,999,331,402	\$950,680,718	\$1,048,650,683
Mineral	\$42,936,199	\$20,796,407	\$22,139,792
Moffat	\$419,485,343	\$54,211,320	\$365,274,023
Montezuma	\$680,874,539	\$129,253,629	\$551,620,910
Montrose	\$552,113,074	\$246,233,241	\$305,879,832
Morgan	\$555,768,454	\$114,800,015	\$440,968,439
Otero	\$154,219,653	\$42,228,955	\$111,990,697
Ouray	\$190,273,572	\$96,951,478	\$93,322,094
Park	\$445,400,065	\$247,559,178	\$197,840,887
Phillips	\$102,527,416	\$21,310,788	\$81,216,628
Pitkin	\$3,329,500,281	\$2,349,666,853	\$979,833,427
Prowers	\$132,036,525	\$24,621,216	\$107,415,309
Pueblo	\$1,788,502,266	\$642,083,902	\$1,146,418,364
Rio Blanco	\$938,088,383	\$41,660,626	\$896,427,756
Rio Grande	\$187,827,955	\$72,848,405	\$114,979,550
Routt	\$1,161,519,574	\$628,936,987	\$532,582,587
Saguache	\$69,841,494	\$24,573,200	\$45,268,294
San Juan	\$43,734,395	\$11,332,259	\$32,402,135
San Miguel	\$849,608,732	\$505,974,699	\$343,634,034
Sedgwick	\$64,930,366	\$6,708,416	\$58,221,951
Summit	\$2,027,342,114	\$1,365,123,900	\$662,218,214
Teller	\$518,330,515	\$219,200,840	\$299,129,675
Washington	\$129,083,331	\$13,327,358	\$115,755,973
Weld	\$10,169,480,176	\$1,890,572,075	\$8,278,908,101
Yuma	\$255,546,846	\$35,929,584	\$219,617,262
	\$114,810,772,696	\$55,789,596,452	\$59,021,176,244

\$700,874,327,292 = ACTUAL VALUE OF RESIDENTIAL
 (Residential Assessed ÷ 7.96%)

2015 AND 2016 NEW CONSTRUCTION

ADDENDUM G

<u>2016 NEW CONSTRUCTION</u>			<u>w CBOE</u>	<u>2015 NEW CONSTRUCTION</u>			
COUNTY	RES NC	OTHER NC	TOTAL NC	COUNTY	RES NC	OTHER NC	TOTAL NC
ADAMS	\$39,629,950	\$144,897,560	\$184,527,510	ADAMS	\$35,164,760	\$24,929,080	\$60,093,840
ALAMOSA	\$464,407	\$746,632	\$1,211,039	ALAMOSA	\$517,302	\$1,451,507	\$1,968,809
ARAPAHOE	\$49,242,011	\$56,976,292	\$106,218,303	ARAPAHOE	\$50,717,391	\$48,328,718	\$99,046,109
ARCHULETA	\$3,038,460	\$1,093,470	\$4,131,930	ARCHULETA	\$1,921,550	\$1,113,240	\$3,034,790
BACA	\$103,541	\$131,653	\$235,194	BACA	\$15,191	\$391,814	\$407,005
BENT	\$18,391	\$14,342	\$32,733	BENT	\$0	\$0	\$0
BOULDER	\$41,359,632	\$48,936,001	\$90,295,633	BOULDER	\$55,651,293	\$26,632,515	\$82,283,808
BROOMFIELD	\$17,379,560	\$6,875,560	\$24,255,120	BROOMFIELD	\$26,652,040	\$981,870	\$27,633,910
CHAFFEE	\$3,950,760	\$1,089,710	\$5,040,470	CHAFFEE	\$2,576,436	\$369,129	\$2,945,565
CHEYENNE	\$98,039	\$50,549	\$148,588	CHEYENNE	\$19,365	\$4,164,356	\$4,183,721
CLEAR CREEK	\$368,690	\$243,220	\$611,910	CLEAR CREEK	\$336,790	\$0	\$336,790
CONEJOS	\$523,520	\$283,544	\$807,064	CONEJOS	\$1,627,157	\$862,071	\$2,489,228
COSTILLA	\$398,044	\$419,499	\$817,543	COSTILLA	\$257,314	\$77,579	\$334,893
CROWLEY	\$22,808	\$16,884	\$39,692	CROWLEY	\$57,066	\$167,539	\$224,605
CUSTER	\$705,000	\$82,910	\$787,910	CUSTER	\$428,200	\$69,590	\$497,790
DELTA	\$1,152,525	\$616,837	\$1,769,362	DELTA	\$938,640	\$1,231,080	\$2,169,720
DENVER	\$213,811,920	\$141,959,140	\$355,771,060	DENVER	\$157,377,700	\$206,205,980	\$363,583,680
DOLORES	\$47,579	\$261,238	\$308,817	DOLORES	\$86,980	\$210,429	\$297,409
DOUGLAS	\$78,614,736	\$34,992,373	\$113,607,109	DOUGLAS	\$66,097,961	\$70,629,917	\$136,727,878
EAGLE	\$18,521,760	\$8,642,550	\$27,164,310	EAGLE	\$16,390,860	-\$1,140,070	\$15,250,790
EL PASO	\$61,198,440	\$38,039,820	\$99,238,260	EL PASO	\$66,080,690	\$26,587,720	\$92,668,410
ELBERT	\$3,416,890	\$1,011,180	\$4,428,070	ELBERT	\$3,006,260	\$484,220	\$3,490,480
FREMONT	\$1,304,710	\$587,160	\$1,891,870	FREMONT	\$2,389,379	\$1,035,820	\$3,425,199
GARFIELD	\$4,801,020	\$3,023,760	\$7,824,780	GARFIELD	\$1,950,800	\$1,002,850	\$2,953,650
GILPIN	\$1,601,170	\$17,211,300	\$18,812,470	GILPIN	\$6,089,590	\$309,860	\$6,399,450
GRAND	\$5,041,360	\$413,190	\$5,454,550	GRAND	\$3,512,370	\$349,860	\$3,862,230
GUNNISON	\$5,452,940	\$6,530	\$5,459,470	GUNNISON	\$3,496,240	\$872,130	\$4,368,370
HINSDALE	\$0	\$0	\$0	HINSDALE	\$5,620	\$0	\$5,620
HUERFANO	\$193,986	\$205,841	\$399,827	HUERFANO	\$47,073	\$5,822,928	\$5,870,001
JACKSON	\$128,587	\$2,184,281	\$2,312,868	JACKSON	\$27,744	\$7,586,989	\$7,614,733
JEFFERSON	\$48,707,948	\$29,074,942	\$77,782,890	JEFFERSON	\$38,562,069	\$19,472,254	\$58,034,323
KIOWA	\$4,860	\$6,770	\$11,630	KIOWA	\$26,630	\$393,220	\$419,850
KIT CARSON	\$148,784	\$4,858,785	\$5,007,569	KIT CARSON	\$246,320	\$1,683,028	\$1,929,348
LA PLATA	\$8,765,210	\$10,164,980	\$18,930,190	LA PLATA	\$8,542,750	\$15,297,310	\$23,840,060
LAKE	\$287,110	\$99,774	\$386,884	LAKE	\$350,606	\$207,516	\$558,122
LARIMER	\$61,221,922	\$52,665,255	\$113,887,177	LARIMER	\$57,510,959	\$57,355,848	\$114,866,807
LAS ANIMAS	\$348,800	\$119,480	\$468,280	LAS ANIMAS	\$264,520	\$648,910	\$913,430
LINCOLN	\$260,924	\$6,668,250	\$6,929,174	LINCOLN	\$96,061	\$3,343,207	\$3,439,268
LOGAN	\$266,500	\$897,370	\$1,163,870	LOGAN	\$121,560	\$1,276,040	\$1,397,600
MESA	\$8,799,870	\$12,021,280	\$20,821,150	MESA	\$8,075,380	\$15,929,380	\$24,004,760
MINERAL	\$470,224	\$25,614	\$495,838	MINERAL	\$72,403	\$75,108	\$147,511
MOFFAT	\$42,793	\$2,747,341	\$2,790,134	MOFFAT	\$65,381	\$5,943,735	\$6,009,116
MONTEZUMA	\$369,760	\$1,498,020	\$1,867,780	MONTEZUMA	\$164,267	\$2,173,183	\$2,337,450
MONTROSE	\$2,456,712	\$3,089,286	\$5,545,998	MONTROSE	\$1,675,310	\$3,563,849	\$5,239,159
MORGAN	\$983,590	\$2,894,810	\$3,878,400	MORGAN	\$838,540	\$22,643,380	\$23,481,920
OTERO	\$55,490	\$367,637	\$423,127	OTERO	\$94,734	\$517,657	\$612,391
OURAY	\$1,119,860	\$161,380	\$1,281,240	OURAY	\$683,990	\$113,490	\$797,480
PARK	\$2,449,480	\$979,835	\$3,429,315	PARK	\$1,945,900	\$2,369,690	\$4,315,590
PHILLIPS	\$155,750	\$165,710	\$321,460	PHILLIPS	\$125,600	\$2,106,420	\$2,232,020
PITKIN	\$29,706,130	\$21,189,660	\$50,895,790	PITKIN	\$27,098,390	\$5,718,650	\$32,817,040
PROWERS	\$95,580	\$484,760	\$580,340	PROWERS	\$71,950	\$168,194	\$240,144
PUEBLO	\$4,301,734	\$5,014,849	\$9,316,583	PUEBLO	\$3,499,157	\$2,872,578	\$6,371,735
RIO BLANCO	\$232,850	\$69,480	\$302,330	RIO BLANCO	\$213,090	\$515,660	\$728,750
RIO GRANDE	\$545,889	\$1,530,027	\$2,075,916	RIO GRANDE	\$764,397	\$330,728	\$1,095,125
ROUTT	\$6,909,860	\$10,943,920	\$17,853,780	ROUTT	\$4,870,350	\$1,854,310	\$6,724,660
SAGUACHE	\$125,260	\$259,860	\$385,120	SAGUACHE	\$384,281	\$40,000	\$424,281
SAN JUAN	\$50,621	\$57,044	\$107,665	SAN JUAN	\$69,061	\$113,390	\$182,451
SAN MIGUEL	\$6,366,310	\$462,570	\$6,828,880	SAN MIGUEL	\$2,841,570	\$135,960	\$2,977,530
SEDGWICK	\$33,210	\$124,200	\$157,410	SEDGWICK	\$55,700	\$121,030	\$176,730
SUMMIT	\$16,868,749	\$4,343,198	\$21,211,947	SUMMIT	\$22,825,018	\$33,469,650	\$56,294,668
TELLER	\$3,074,680	\$769,330	\$3,844,010	TELLER	\$1,608,008	\$5,950,190	\$7,558,198
WASHINGTON	\$102,155	\$160,879	\$263,034	WASHINGTON	\$44,895	\$329,682	\$374,577
WELD	\$54,429,827	\$174,697,721	\$229,127,548	WELD	\$31,722,401	\$92,589,769	\$124,312,170
YUMA	\$352,580	\$1,209,720	\$1,562,300	YUMA	\$582,030	\$2,185,290	\$2,767,320
TOTAL	\$812,701,458	\$860,836,763	\$1,673,538,221	TOTAL	\$719,553,040	\$732,237,027	\$1,451,790,067

METALLIC MINES ANALYSIS WORKSHEET - 2016

ADDENDUM H

Molybdenum (6110)	2014 \$/TON	2016 TONS	Calculated A.V. 2014	MOLY(6110) 2014	MOLY(6110) 2016	2016 \$/TON
CLEAR CREEK	\$44.91	8,248,564	\$370,427,411	\$367,571,390	\$294,647,450	\$35.72
GRAND - COMBINED WITH CLEAR CREEK				\$36,492,330	\$11,473,050	
LAKE	\$2.06	5,735,999	\$11,788,646	\$12,712,014	\$8,185,825	\$1.43
		13,984,563	382,216,057	416,775,734	\$314,306,325	
Precious Metals (6120)	2014 \$/TON	2016 TONS	Calculated A.V. 2014	PREC(6120) 2014	PREC(6120) 2016	2016 \$/TON
HINSDALE	\$298.57	397	\$118,532	\$205,490	\$42,630	\$107.38
MOFFAT	\$0.22	847	\$182	\$417	\$250	\$0.30
PARK	\$1.13	93,700	\$105,734	\$66,890	\$112,410	\$1.20
TELLER	\$5.73	20,794,850	\$119,106,846	\$128,799,590	\$30,672,310	\$1.47
		20,889,794	119,331,294	129,072,387	\$30,827,600	
Base Metals (6130)	2014 \$/TON	2016 TONS	Calculated A.V. 2014	BASE (6130) 2014	BASE (6130) 2016	2016 \$/TON
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
FREMONT	\$0.00	0	\$0	\$0	\$0	\$0.00
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
		0	\$0	\$0	\$0	
Strategic Metals (6140)	2014 \$/TON	2016 TONS	Calculated A.V. 2014	STRA(6140) 2014	STRA(6140) 2016	2016 \$/TON
JEFFERSON	\$0.00	0	\$0	\$0	\$0	\$0.00
MESA	\$0.00	0	\$0	\$0	\$0	\$0.00
MONTROSE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$0.00	0	\$0	\$0	\$0	\$0.00
		0	\$0	\$0	\$0	
Oil Shale/Retort (6150)	2014 \$/TON	2016 TONS	Calculated A.V. 2014	RETO(6150) 2014	RETO(6150) 2016	2016 \$/TON
GARFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
		0	\$0	\$0	\$0	
Totals		34,874,357	\$501,547,351	\$545,848,121	\$345,133,925	
INCREASE OR DECREASE			-\$44,300,770			

COAL MINES (ANALYSIS WORKSHEET - 2016)

ADDENDUM I

	2014 \$/TON	2016 TONS	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	2016 \$/TON
ADAMS	\$0.00	0	\$0	\$0	\$0	\$0.00
ALAMOSA	\$0.00	0	\$0	\$0	\$0	\$0.00
ARAPAHOE	\$0.00	0	\$0	\$0	\$0	\$0.00
ARCHULETA	\$0.00	0	\$0	\$0	\$0	\$0.00
BACA	\$0.00	0	\$0	\$0	\$0	\$0.00
BENT	\$0.00	0	\$0	\$0	\$0	\$0.00
BOULDER	\$0.00	0	\$0	\$0	\$0	\$0.00
BROOMFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
CHAFFEE	\$0.00	0	\$0	\$0	\$0	\$0.00
CHEYENNE	\$0.00	0	\$0	\$0	\$0	\$0.00
CLEAR CREEK	\$0.00	0	\$0	\$0	\$0	\$0.00
CONEJOS	\$0.00	0	\$0	\$0	\$0	\$0.00
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
CROWLEY	\$0.00	0	\$0	\$0	\$0	\$0.00
CUSTER	\$0.00	0	\$0	\$0	\$0	\$0.00
DELTA	\$1.55	1,936,081	\$2,993,630	\$6,387,640	\$4,470,844	\$2.31
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$0.00	0	\$0	\$0	\$0	\$0.00
DOUGLAS	\$0.00	0	\$0	\$0	\$0	\$0.00
EAGLE	\$0.00	0	\$0	\$0	\$0	\$0.00
EL PASO	\$0.00	0	\$0	\$0	\$0	\$0.00
ELBERT	\$0.00	0	\$0	\$0	\$0	\$0.00
FREMONT	\$0.00	0	\$0	\$0	\$0	\$0.00
GARFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.00	0	\$0	\$0	\$0	\$0.00
GUNNISON	\$3.21	5,172,878	\$16,594,311	\$21,106,440	\$18,040,160	\$3.49
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.00	0	\$0	\$0	\$0	\$0.00
JACKSON	\$0.00	0	\$0	\$0	\$0	\$0.00
JEFFERSON	\$0.00	0	\$0	\$0	\$0	\$0.00
KIOWA	\$0.00	0	\$0	\$0	\$0	\$0.00
KIT CARSON	\$0.00	0	\$0	\$0	\$0	\$0.00
LA PLATA	\$3.30	814,544	\$2,688,368	\$2,156,010	\$1,168,440	\$1.43
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
LARIMER	\$0.00	0	\$0	\$0	\$0	\$0.00
LAS ANIMAS	\$0.00	0	\$0	\$0	\$0	\$0.00
LINCOLN	\$0.00	0	\$0	\$0	\$0	\$0.00
LOGAN	\$0.00	0	\$0	\$0	\$0	\$0.00
MESA	\$0.00	0	\$0	\$0	\$0	\$0.00
MINERAL	\$0.00	0	\$0	\$0	\$0	\$0.00
MOFFAT	\$7.83	2,384,536	\$18,664,176	\$23,672,150	\$6,436,386	\$2.70
MONTEZUMA	\$0.00	0	\$0	\$0	\$0	\$0.00
MONTROSE	\$3.69	238,094	\$878,243	\$1,037,880	\$909,480	\$3.82
MORGAN	\$0.00	0	\$0	\$0	\$0	\$0.00
OTERO	\$0.00	0	\$0	\$0	\$0	\$0.00
OURAY	\$0.00	0	\$0	\$0	\$0	\$0.00
PARK	\$0.00	0	\$0	\$0	\$0	\$0.00
PHILLIPS	\$0.00	0	\$0	\$0	\$0	\$0.00
PITKIN	\$0.00	0	\$0	\$0	\$0	\$0.00
PROWERS	\$0.00	0	\$0	\$0	\$0	\$0.00
PUEBLO	\$0.00	0	\$0	\$0	\$0	\$0.00
RIO BLANCO	\$2.91	4,294,651	\$12,489,888	\$10,210,140	\$13,057,970	\$3.04
RIO GRANDE	\$0.00	0	\$0	\$0	\$0	\$0.00
ROUTT	\$2.15	5,287,826	\$11,374,272	\$15,564,050	\$11,003,350	\$2.08
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$0.00	0	\$0	\$0	\$0	\$0.00
SEDGWICK	\$0.00	0	\$0	\$0	\$0	\$0.00
SUMMIT	\$0.00	0	\$0	\$0	\$0	\$0.00
TELLER	\$0.00	0	\$0	\$0	\$0	\$0.00
WASHINGTON	\$0.00	0	\$0	\$0	\$0	\$0.00
WELD	\$0.00	0	\$0	\$0	\$0	\$0.00
YUMA	\$0.00	0	\$0	\$0	\$0	\$0.00
Totals		20,128,610	\$65,682,888	\$80,134,310	\$55,086,630	
INCREASE OR DECREASE			-\$14,451,422		\$55,127,029	

EARTH & STONE ANALYSIS WORKSHEET - 2016

ADDENDUM J

	2014 \$/TON	2016 TONS	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	2016 \$/TON
ADAMS	\$0.84	1,819,587	\$1,536,395	\$3,014,460	\$1,610,420	\$0.89
ALAMOSA	\$0.91	97,065	\$88,279	\$63,103	\$78,188	\$0.81
ARAPAHOE	\$0.30	87,665	\$26,657	\$12,555	\$40,463	\$0.46
ARCHULETA	\$0.90	66,750	\$60,089	\$63,610	\$69,100	\$1.04
BACA	\$0.37	36,554	\$13,486	\$17,314	\$12,376	\$0.34
BENT	\$0.55	42,650	\$23,505	\$24,270	\$22,796	\$0.53
BOULDER	\$0.36	394,534	\$142,502	\$320,247	\$412,902	\$1.05
BROOMFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
CHAFFEE	\$0.99	414,160	\$409,079	\$356,810	\$353,280	\$0.85
CHEYENNE	\$0.00	0	\$0	\$0	\$0	\$0.00
CLEAR CREEK	\$0.48	3,293,796	\$1,571,985	\$1,484,800	\$1,851,640	\$0.56
CONEJOS	\$1.84	86,238	\$158,508	\$189,801	\$117,582	\$1.36
COSTILLA	\$0.66	68,175	\$44,882	\$44,882	\$50,927	\$0.75
CROWLEY	\$0.55	102,717	\$56,506	\$20,748	\$39,992	\$0.39
CUSTER	\$0.41	12,380	\$5,043	\$12,470	\$17,130	\$1.38
DELTA	\$1.00	327,009	\$327,581	\$398,390	\$275,998	\$0.84
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$1.69	16,459	\$27,841	\$4,513	\$17,063	\$1.04
DOUGLAS	\$1.78	208,796	\$372,630	\$297,080	\$204,360	\$0.98
EAGLE	\$0.92	779,606	\$720,118	\$583,460	\$519,600	\$0.67
EL PASO	\$0.67	4,214,780	\$2,836,196	\$1,927,350	\$2,406,820	\$0.57
ELBERT	\$0.50	110,370	\$54,958	\$62,060	\$51,560	\$0.47
FREMONT	\$0.92	4,553,780	\$4,179,280	\$2,951,520	\$4,085,630	\$0.90
GARFIELD	\$0.85	1,280,433	\$1,089,888	\$988,230	\$1,195,330	\$0.93
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.85	357,848	\$304,016	\$214,780	\$348,860	\$0.97
GUNNISON	\$1.83	337,370	\$616,535	\$595,720	\$666,500	\$1.98
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.73	115,503	\$84,420	\$38,729	\$53,573	\$0.46
JACKSON	\$0.33	25,120	\$8,365	\$8,365	\$8,932	\$0.36
JEFFERSON	\$0.84	5,678,586	\$4,763,968	\$4,763,968	\$588,928	\$0.10
KIOWA	\$0.30	50,689	\$15,320	\$23,790	\$16,830	\$0.33
KIT CARSON	\$0.49	129,625	\$63,760	\$58,596	\$54,498	\$0.42
LA PLATA	\$0.91	978,255	\$892,777	\$735,010	\$976,450	\$1.00
LAKE	\$0.95	45,122	\$42,701	\$67,456	\$42,446	\$0.94
LARIMER	\$0.72	2,316,096	\$1,677,288	\$1,647,220	\$1,905,743	\$0.82
LAS ANIMAS	\$3.23	37,112	\$119,833	\$70,840	\$49,070	\$1.32
LINCOLN	\$1.48	4,950	\$7,318	\$3,640	\$4,467	\$0.90
LOGAN	\$0.35	161,316	\$56,440	\$56,440	\$72,710	\$0.45
MESA	\$1.34	1,679,090	\$2,247,383	\$1,956,240	\$2,256,060	\$1.34
MINERAL	\$0.99	4,180	\$4,144	\$8,039	\$4,484	\$1.07
MOFFAT	\$1.06	188,745	\$200,598	\$794,981	\$410,172	\$2.17
MONTEZUMA	\$1.37	519,083	\$711,573	\$481,810	\$334,940	\$0.65
MONTROSE	\$1.14	559,866	\$639,099	\$657,230	\$453,490	\$0.81
MORGAN	\$0.27	175,860	\$47,128	\$156,820	\$70,360	\$0.40
OTERO	\$0.56	92,108	\$51,240	\$73,337	\$49,879	\$0.54
OURAY	\$1.01	31,625	\$31,868	\$12,470	\$33,130	\$1.05
PARK	\$2.11	499,342	\$1,051,984	\$490,430	\$701,370	\$1.40
PHILLIPS	\$0.50	60,559	\$30,528	\$60,185	\$30,074	\$0.50
PITKIN	\$0.99	139,819	\$138,184	\$62,610	\$141,980	\$1.02
PROWERS	\$0.41	871,920	\$359,485	\$291,907	\$454,417	\$0.52
PUEBLO	\$0.94	2,307,391	\$2,170,905	\$2,015,735	\$2,191,706	\$0.95
RIO BLANCO	\$3.56	472,803	\$1,683,277	\$2,557,180	\$4,699,120	\$9.94
RIO GRANDE	\$0.00	0	\$0	\$42,579	\$48,570	\$0.00
ROUTT	\$0.88	434,280	\$383,864	\$375,830	\$404,140	\$0.93
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$1,919	\$0	\$0.00
SAN MIGUEL	\$1.85	35,522	\$65,647	\$21,870	\$940,940	\$26.49
SEDGWICK	\$0.30	12,221	\$3,695	\$10,080	\$2,400	\$0.20
SUMMIT	\$0.97	349,978	\$339,690	\$294,509	\$357,855	\$1.02
TELLER	\$0.78	59,501	\$46,413	\$53,950	\$64,040	\$1.08
WASHINGTON	\$0.24	81,659	\$19,306	\$15,151	\$23,366	\$0.29
WELD	\$0.69	12,689,093	\$8,723,225	\$6,486,430	\$7,775,410	\$0.61
YUMA	\$0.29	243,399	\$70,617	\$62,920	\$70,590	\$0.29
Totals		49,759,140	\$41,418,001	\$38,106,439	\$39,740,657	
INCREASE OR DECREASE			\$3,311,562			

PRIMARY OIL ANALYSIS WORKSHEET 2016

ADDENDUM K

	2014 \$/BBL	2016 BBLs	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	Calculated 2016 \$/BBL
ADAMS	\$62.50	646,057	\$40,375,695	\$23,090,360	\$23,632,390	\$36.58
ALAMOSA	\$0.00	0	\$0	\$0	\$0	\$0.00
ARAPAHOE	\$21.21	1,645,004	\$34,893,776	\$19,120,682	\$48,092,138	\$29.24
ARCHULETA	\$61.91	2,118	\$131,117	\$160,770	\$63,670	\$30.06
BACA	\$73.26	18,048	\$1,322,178	\$1,870,594	\$614,654	\$34.06
BENT	\$49.69	1,429	\$71,010	\$74,190	\$115,790	\$81.03
BOULDER	\$52.10	108,514	\$5,653,718	\$11,441,806	\$1,593,649	\$14.69
BROOMFIELD	\$62.64	45,858	\$2,872,654	\$5,494,990	\$730,740	\$15.93
CHAFFEE	\$0.00	0	\$0	\$0	\$0	\$0.00
CHEYENNE	\$10.77	405,592	\$4,366,383	\$26,698,808	\$10,341,027	\$25.50
CLEAR CREEK	\$0.00	0	\$0	\$0	\$0	\$0.00
CONEJOS	\$0.00	0	\$0	\$0	\$0	\$0.00
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
CROWLEY	\$0.00	0	\$0	\$0	\$0	\$0.00
CUSTER	\$0.00	0	\$0	\$0	\$0	\$0.00
DELTA	\$11.66	779	\$9,082	\$35,490	\$7,524	\$9.66
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$51.17	5,520	\$282,479	\$892,983	\$50,848	\$9.21
DOUGLAS	\$0.00	0	\$0	\$0	\$0	\$0.00
EAGLE	\$0.00	0	\$0	\$0	\$0	\$0.00
EL PASO	\$0.00	0	\$0	\$0	\$0	\$0.00
ELBERT	\$70.17	27,251	\$1,912,099	\$2,220,620	\$769,240	\$28.23
FREMONT	\$75.90	38,429	\$2,916,888	\$5,237,100	\$1,152,350	\$29.99
GARFIELD	\$46.74	1,876,860	\$87,717,586	\$112,180,700	\$25,268,310	\$13.46
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.00	0	\$0	\$0	\$0	\$0.00
GUNNISON	\$0.00	0	\$0	\$0	\$0	\$0.00
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.00	0	\$0	\$0	\$0	\$0.00
JACKSON	\$48.77	395,193	\$19,271,971	\$7,694,734	\$9,840,779	\$24.90
JEFFERSON	\$82.72	0	\$0	\$40,286	\$0	\$0.00
KIOWA	\$70.61	153,812	\$10,861,165	\$11,650,480	\$4,094,570	\$26.62
KIT CARSON	\$45.49	5,414	\$246,309	\$142,717	\$130,156	\$24.04
LA PLATA	\$41.87	24,099	\$1,009,130	\$1,298,900	\$347,300	\$14.41
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
LARIMER	\$69.35	137,196	\$9,514,246	\$9,257,659	\$2,809,961	\$20.48
LAS ANIMAS	\$0.00	0	\$0	\$0	\$0	\$0.00
LINCOLN	\$26.80	1,215,318	\$32,567,753	\$62,148,980	\$35,565,157	\$29.26
LOGAN	\$69.41	176,704	\$12,265,769	\$13,897,420	\$5,250,140	\$29.71
MESA	\$73.92	65,307	\$4,827,182	\$4,330,250	\$970,630	\$14.86
MINERAL	\$0.00	0	\$0	\$0	\$0	\$0.00
MOFFAT	\$60.68	376,512	\$22,844,921	\$30,171,506	\$9,164,116	\$24.34
MONTEZUMA	\$25.22	72,021	\$1,816,687	\$7,667,260	\$1,682,270	\$23.36
MONTROSE	\$0.00	0	\$0	\$0	\$0	\$0.00
MORGAN	\$73.58	94,257	\$6,935,254	\$9,091,240	\$2,753,850	\$29.22
OTERO	\$0.00	0	\$0	\$0	\$0	\$0.00
OURAY	\$0.00	0	\$0	\$0	\$0	\$0.00
PARK	\$0.00	0	\$0	\$0	\$0	\$0.00
PHILLIPS	\$0.00	0	\$0	\$0	\$0	\$0.00
PITKIN	\$0.00	0	\$0	\$0	\$0	\$0.00
PROWERS	\$76.65	5,565	\$426,554	\$547,507	\$138,917	\$24.96
PUEBLO	\$0.00	0	\$0	\$0	\$0	\$0.00
RIO BLANCO	\$65.70	500,337	\$32,871,864	\$32,902,020	\$13,743,390	\$27.47
RIO GRANDE	\$0.00	0	\$0	\$0	\$0	\$0.00
ROUTT	\$79.22	53,706	\$4,254,486	\$4,262,170	\$2,412,610	\$44.92
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$9.95	2,768	\$27,550	\$0	\$27,550	\$9.95
SEDGWICK	\$0.13	0	\$0	\$8,950	\$0	\$0.00
SUMMIT	\$0.00	0	\$0	\$0	\$0	\$0.00
TELLER	\$0.00	0	\$0	\$0	\$0	\$0.00
WASHINGTON	\$73.52	358,990	\$26,393,215	\$30,028,302	\$9,344,978	\$26.03
WELD	\$74.15	115,937,770	\$8,596,403,507	\$4,026,417,010	\$3,154,527,010	\$27.21
YUMA	\$1.35	9,532	\$12,899	\$18,780	\$580	\$0.06
Totals		124,405,960	\$8,965,075,127	\$4,460,095,264	\$3,365,236,294	
INCREASE OR DECREASE			\$4,504,979,863			

SECONDARY OIL ANALYSIS WORKSHEET 2016

ADDENDUM L

	2014 \$/BBL	2016 BARRELS	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	Calculated 2016 \$/BBL
ADAMS	\$55.57	14,097	\$783,427	\$647,660	\$395,120	\$28.03
ALAMOSA	\$0.00	0	\$0	\$0	\$0	\$0.00
ARAPAHOE	\$0.00	0	\$0	\$0	\$0	\$0.00
ARCHULETA	\$0.00	0	\$0	\$0	\$0	\$0.00
BACA	\$67.59	13,845	\$935,717	\$1,520,464	\$41,685	\$3.01
BENT	\$0.00	0	\$0	\$0	\$0	\$0.00
BOULDER	\$0.00	0	\$0	\$0	\$0	\$0.00
BROOMFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
CHAFFEE	\$0.00	0	\$0	\$0	\$0	\$0.00
CHEYENNE	\$51.97	811,540	\$42,173,522	\$62,273,164	\$21,660,185	\$26.69
CLEAR CREEK	\$0.00	0	\$0	\$0	\$0	\$0.00
CONEJOS	\$0.00	0	\$0	\$0	\$0	\$0.00
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
CROWLEY	\$0.00	0	\$0	\$0	\$0	\$0.00
CUSTER	\$0.00	0	\$0	\$0	\$0	\$0.00
DELTA	\$0.00	0	\$0	\$0	\$0	\$0.00
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$0.00	0	\$0	\$0	\$0	\$0.00
DOUGLAS	\$0.00	0	\$0	\$0	\$0	\$0.00
EAGLE	\$0.00	0	\$0	\$0	\$0	\$0.00
EL PASO	\$0.00	0	\$0	\$0	\$0	\$0.00
ELBERT	\$0.00	0	\$0	\$0	\$0	\$0.00
FREMONT	\$0.00	0	\$0	\$0	\$0	\$0.00
GARFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.00	0	\$0	\$0	\$0	\$0.00
GUNNISON	\$0.00	1,136	\$0	\$0	\$27,180	\$23.93
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.00	0	\$0	\$0	\$0	\$0.00
JACKSON	\$57.70	395,193	\$22,804,464	\$2,516,441	\$933,251	\$2.36
JEFFERSON	\$0.00	0	\$0	\$0	\$0	\$0.00
KIOWA	\$0.00	0	\$0	\$0	\$0	\$0.00
KIT CARSON	\$0.00	0	\$0	\$0	\$0	\$0.00
LA PLATA	\$0.00	0	\$0	\$0	\$0	\$0.00
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
LARIMER	\$60.77	61,052	\$3,710,060	\$5,165,595	\$816,969	\$13.38
LAS ANIMAS	\$0.00	0	\$0	\$0	\$0	\$0.00
LINCOLN	\$0.00	0	\$0	\$0	\$0	\$0.00
LOGAN	\$61.48	6,466	\$397,540	\$837,440	\$188,310	\$29.12
MESA	\$0.00	0	\$0	\$0	\$0	\$0.00
MINERAL	\$0.00	0	\$0	\$0	\$0	\$0.00
MOFFAT	\$0.07	0	\$0	\$1,305,935	\$0	\$0.00
MONTEZUMA	\$0.00	0	\$0	\$0	\$0	\$0.00
MONTRORSE	\$0.00	0	\$0	\$0	\$0	\$0.00
MORGAN	\$67.57	2,966	\$200,426	\$247,120	\$81,600	\$27.51
OTERO	\$0.00	0	\$0	\$0	\$0	\$0.00
OURAY	\$0.00	0	\$0	\$0	\$0	\$0.00
PARK	\$0.00	0	\$0	\$0	\$0	\$0.00
PHILLIPS	\$0.00	0	\$0	\$0	\$0	\$0.00
PITKIN	\$0.00	0	\$0	\$0	\$0	\$0.00
PROWERS	\$0.00	0	\$0	\$0	\$0	\$0.00
PUEBLO	\$0.00	0	\$0	\$0	\$0	\$0.00
RIO BLANCO	\$62.23	3,897,674	\$242,553,082	\$248,236,630	\$103,139,150	\$26.46
RIO GRANDE	\$0.00	0	\$0	\$0	\$0	\$0.00
ROUTT	\$33.47	396	\$13,253	\$0	\$13,220	\$33.38
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$0.00	0	\$0	\$0	\$0	\$0.00
SEDGWICK	\$0.00	0	\$0	\$0	\$0	\$0.00
SUMMIT	\$0.00	0	\$0	\$0	\$0	\$0.00
TELLER	\$0.00	0	\$0	\$0	\$0	\$0.00
WASHINGTON	\$58.32	65,197	\$3,802,170	\$3,748,984	\$1,797,189	\$27.57
WELD	\$59.97	56,262	\$3,374,152	\$2,947,270	\$1,586,480	\$28.20
YUMA	\$0.00	4	\$0	\$0	\$0	\$0.00
Totals		5,325,828	\$320,747,813	\$329,446,703	\$130,680,339	
INCREASE OR DECREASE			-\$8,698,890			

PRIMARY GAS ANALYSIS WORKSHEET 2016

ADDENDUM M

	2014 \$/MCF	2016 MCFS	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	2016 \$/MCF
ADAMS	\$3.76	4,490,066	\$16,887,318	\$16,752,440	\$7,315,810	\$1.63
ALAMOSA	\$0.00	0	\$0	\$0	\$0	\$0.00
ARAPAHOE	\$4.12	2,585,156	\$10,645,263	\$2,177,424	\$7,929,384	\$3.07
ARCHULETA	\$1.54	13,348,920	\$20,580,357	\$24,322,920	\$10,772,670	\$0.81
BACA	\$19.12	437,009	\$8,355,134	\$1,405,316	\$364,201	\$0.83
BENT	\$2.14	183,338	\$392,509	\$543,890	\$221,191	\$1.21
BOULDER	\$2.32	1,633,384	\$3,791,294	\$6,293,926	\$1,222,997	\$0.75
BROOMFIELD	\$2.37	1,004,282	\$2,378,704	\$3,871,010	\$837,360	\$0.83
CHAFFEE	\$0.00	0	\$0	\$0	\$0	\$0.00
CHEYENNE	\$1.74	664,175	\$1,155,665	\$1,710,329	\$523,504	\$0.79
CLEAR CREEK	\$0.00	0	\$0	\$0	\$0	\$0.00
CONEJOS	\$0.00	0	\$0	\$0	\$0	\$0.00
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
CROWLEY	\$0.00	0	\$0	\$0	\$0	\$0.00
CUSTER	\$0.00	0	\$0	\$0	\$0	\$0.00
DELTA	\$0.86	1,432,390	\$1,234,260	\$36,150	\$148,674	\$0.10
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$1.84	231,747	\$425,583	\$523,963	\$167,077	\$0.72
DOUGLAS	\$0.00	0	\$0	\$0	\$0	\$0.00
EAGLE	\$0.00	0	\$0	\$0	\$0	\$0.00
EL PASO	\$0.00	0	\$0	\$0	\$0	\$0.00
ELBERT	\$4.26	107,390	\$457,824	\$462,710	\$209,300	\$1.95
FREMONT	\$0.17	22,747	\$3,940	\$0	\$3,940	\$0.17
GARFIELD	\$1.95	533,971,203	\$1,042,810,604	\$1,218,389,480	\$489,954,340	\$0.92
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.00	0	\$0	\$0	\$0	\$0.00
GUNNISON	\$1.46	4,733,203	\$6,907,042	\$797,260	\$6,652,890	\$1.41
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.14	1,025,639	\$142,305	\$118,248	\$147,924	\$0.14
JACKSON	\$0.00	0	\$0	\$0	\$0	\$0.00
JEFFERSON	\$0.00	0	\$0	\$0	\$0	\$0.00
KIOWA	\$2.76	394,550	\$1,090,341	\$1,075,490	\$638,720	\$1.62
KIT CARSON	\$1.86	20,491	\$38,176	\$57,582	\$14,944	\$0.73
LA PLATA	\$1.57	323,767,697	\$507,680,458	\$561,585,440	\$295,394,980	\$0.91
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
LARIMER	\$3.56	581,295	\$2,067,342	\$1,559,902	\$1,507,995	\$2.59
LAS ANIMAS	\$1.08	60,774,826	\$65,507,441	\$101,642,020	\$28,655,660	\$0.47
LINCOLN	\$2.84	161,752	\$458,888	\$864,100	\$47,722	\$0.30
LOGAN	\$3.07	98,871	\$303,488	\$620,280	\$385,990	\$3.90
MESA	\$1.42	30,346,687	\$42,961,737	\$54,607,740	\$21,553,220	\$0.71
MINERAL	\$0.00	0	\$0	\$0	\$0	\$0.00
MOFFAT	\$2.80	12,081,097	\$33,860,308	\$43,062,553	\$18,526,104	\$1.53
MONTEZUMA	\$1.19	688,480	\$819,237	\$3,054,500	\$3,094,720	\$4.50
MONTROSE	\$0.00	0	\$0	\$0	\$0	\$0.00
MORGAN	\$2.31	273,874	\$631,371	\$685,210	\$342,790	\$1.25
OTERO	\$0.00	0	\$0	\$0	\$0	\$0.00
OURAY	\$0.00	0	\$0	\$0	\$0	\$0.00
PARK	\$0.00	0	\$0	\$0	\$0	\$0.00
PHILLIPS	\$2.28	1,755,874	\$4,003,476	\$4,117,700	\$2,040,470	\$1.16
PITKIN	\$0.00	0	\$0	\$0	\$0	\$0.00
PROWERS	\$2.10	518,248	\$1,090,334	\$1,270,176	\$569,197	\$1.10
PUEBLO	\$0.00	0	\$0	\$0	\$0	\$0.00
RIO BLANCO	\$1.44	53,220,665	\$76,684,612	\$86,895,790	\$44,915,460	\$0.84
RIO GRANDE	\$0.00	0	\$0	\$0	\$0	\$0.00
ROUTT	\$0.80	50,906	\$40,505	\$21,100	\$12,710	\$0.25
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$7.28	3,380,249	\$24,617,594	\$6,753,740	\$2,923,440	\$0.86
SEDGWICK	\$0.80	20,223	\$16,270	\$144,270	\$16,270	\$0.80
SUMMIT	\$0.00	0	\$0	\$0	\$0	\$0.00
TELLER	\$0.00	0	\$0	\$0	\$0	\$0.00
WASHINGTON	\$2.09	1,004,915	\$2,099,659	\$2,560,994	\$1,132,539	\$1.13
WELD	\$3.92	518,177,648	\$2,029,531,521	\$1,170,625,790	\$1,074,682,110	\$2.07
YUMA	\$1.87	26,069,965	\$48,722,795	\$57,591,210	\$17,808,470	\$0.68
Totals		1,599,258,962	\$3,958,393,357	\$3,376,200,653	\$2,040,734,773	
INCREASE OR DECREASE			\$582,192,704			

SECONDARY GAS ANALYSIS WORKSHEET 2016

ADDENDUM N

	2014 \$/MCF	2016 MCFs	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	Calculated 2016 \$/MCF
ADAMS	\$3.63	9,884	\$35,893	\$46,410	\$24,310	\$2.46
ALAMOSA	\$0.00	0	\$0	\$0	\$0	\$0.00
ARAPAHOE	\$0.00	0	\$0	\$0	\$0	\$0.00
ARCHULETA	\$0.00	0	\$0	\$0	\$0	\$0.00
BACA	\$0.00	0	\$0	\$0	\$0	\$0.00
BENT	\$0.00	0	\$0	\$0	\$0	\$0.00
BOULDER	\$0.00	0	\$0	\$0	\$0	\$0.00
BROOMFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
CHAFFEE	\$0.00	0	\$0	\$0	\$0	\$0.00
CHEYENNE	\$0.27	3,515,894	\$949,291	\$1,031,194	\$71,032	\$0.02
CLEAR CREEK	\$0.00	0	\$0	\$0	\$0	\$0.00
CONEJOS	\$0.00	0	\$0	\$0	\$0	\$0.00
COSTILLA	\$0.00	0	\$0	\$0	\$0	\$0.00
CROWLEY	\$0.00	0	\$0	\$0	\$0	\$0.00
CUSTER	\$0.00	0	\$0	\$0	\$0	\$0.00
DELTA	\$0.00	0	\$0	\$0	\$0	\$0.00
DENVER	\$0.00	0	\$0	\$0	\$0	\$0.00
DOLORES	\$0.00	0	\$0	\$0	\$0	\$0.00
DOUGLAS	\$0.00	0	\$0	\$0	\$0	\$0.00
EAGLE	\$0.00	0	\$0	\$0	\$0	\$0.00
EL PASO	\$0.00	0	\$0	\$0	\$0	\$0.00
ELBERT	\$0.00	0	\$0	\$0	\$0	\$0.00
FREMONT	\$0.00	0	\$0	\$0	\$0	\$0.00
GARFIELD	\$0.00	0	\$0	\$0	\$0	\$0.00
GILPIN	\$0.00	0	\$0	\$0	\$0	\$0.00
GRAND	\$0.00	0	\$0	\$0	\$0	\$0.00
GUNNISON	\$0.00	0	\$0	\$0	\$0	\$0.00
HINSDALE	\$0.00	0	\$0	\$0	\$0	\$0.00
HUERFANO	\$0.12	0	\$0	\$52,546	\$0	\$0.00
JACKSON	\$0.00	0	\$0	\$0	\$0	\$0.00
JEFFERSON	\$0.00	0	\$0	\$0	\$0	\$0.00
KIOWA	\$0.00	0	\$0	\$0	\$0	\$0.00
KIT CARSON	\$0.00	0	\$0	\$0	\$0	\$0.00
LA PLATA	\$0.00	0	\$0	\$0	\$0	\$0.00
LAKE	\$0.00	0	\$0	\$0	\$0	\$0.00
LARIMER	\$0.00	0	\$0	\$0	\$0	\$0.00
LAS ANIMAS	\$0.00	0	\$0	\$0	\$0	\$0.00
LINCOLN	\$0.00	0	\$0	\$0	\$0	\$0.00
LOGAN	\$1.79	977	\$1,751	\$2,170	\$420	\$0.43
MESA	\$0.00	0	\$0	\$0	\$0	\$0.00
MINERAL	\$0.00	0	\$0	\$0	\$0	\$0.00
MOFFAT	\$0.00	0	\$0	\$0	\$0	\$0.00
MONTEZUMA	\$0.00	0	\$0	\$0	\$0	\$0.00
MONTROSE	\$0.00	0	\$0	\$0	\$0	\$0.00
MORGAN	\$0.00	0	\$0	\$0	\$0	\$0.00
OTERO	\$0.00	0	\$0	\$0	\$0	\$0.00
OURAY	\$0.00	0	\$0	\$0	\$0	\$0.00
PARK	\$0.00	0	\$0	\$0	\$0	\$0.00
PHILLIPS	\$0.00	0	\$0	\$0	\$0	\$0.00
PITKIN	\$0.00	0	\$0	\$0	\$0	\$0.00
PROWERS	\$0.00	0	\$0	\$0	\$0	\$0.00
PUEBLO	\$0.00	0	\$0	\$0	\$0	\$0.00
RIO BLANCO	\$1.33	72,960	\$97,338	\$149,390	\$127,940	\$1.75
RIO GRANDE	\$0.00	0	\$0	\$0	\$0	\$0.00
ROUTT	\$0.00	0	\$0	\$0	\$0	\$0.00
SAGUACHE	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN JUAN	\$0.00	0	\$0	\$0	\$0	\$0.00
SAN MIGUEL	\$0.00	0	\$0	\$0	\$0	\$0.00
SEDGWICK	\$0.00	0	\$0	\$0	\$0	\$0.00
SUMMIT	\$0.00	0	\$0	\$0	\$0	\$0.00
TELLER	\$0.00	0	\$0	\$0	\$0	\$0.00
WASHINGTON	\$2.21	21,046	\$46,440	\$57,934	\$24,410	\$1.16
WELD	\$0.18	395,078	\$72,639	\$180	\$965,240	\$2.44
YUMA	\$0.00	0	\$0	\$0	\$0	\$0.00
Totals		4,015,839	\$1,203,352	\$1,339,824	\$1,213,352	
INCREASE OR DECREASE			-\$136,472			

OIL & GAS ANALYSIS WORKSHEET 2016 - OTHER

ADDENDUM O

	2014 \$/MCF	2016 MCFS	CALCULATED 2014 ASSESSED VALUE	TRUE 2014 ASSESSED VALUE	TRUE 2016 ASSESSED VALUE	Calculated 2016 \$/MCF
DOLORES (7145)	\$1.02	52,560,996	\$53,753,799	\$47,307,972	\$40,796,567	\$0.78
HUERFANO (7145)	\$0.75	11,644,534	\$8,780,767	\$3,719,896	\$2,970,652	\$0.26
JACKSON (7145)	\$0.59	0	\$0	\$76,682	\$0	\$0.00
MONTEZUMA (7145)	\$0.95	386,281,773	\$365,350,359	\$369,960,190	\$256,035,510	\$0.66
DOLORES (7147)	\$38.22	85,063	\$3,250,971	\$0	\$3,250,971	\$38.22
		450,487,303	\$431,135,896	\$421,064,740	\$303,053,700	
NET ASSESSED DIFFERENCE			\$10,071,156			

SUBCLASS	NET ASSESSED DIFFERENCES
Primary Oil	\$4,504,979,863
Secondary Oil	(\$8,698,890)
Primary Gas	\$582,192,704
Secondary Gas	(\$136,472)
Other Gas	\$10,071,156
TOTAL NET ASSESSED DIFF	\$5,088,408,361

HISTORY OF THE RESIDENTIAL ASSESSMENT RATE

ADDENDUM P

In 1982, the electorate passed Constitutional Amendment Number One. The amendment enacted sweeping changes to Colorado's property tax system, including a provision known as the "Gallagher Amendment," that required an adjustment to the residential assessment rate when there is a change to the level of value. The intent of Gallagher was to stabilize residential real property's share of the property tax base. Residential real property's share of total assessed value had increased from 29 percent in 1958 to 44 percent in 1982. By allowing the residential assessment rate to "float," residential real property would not continue to bear an ever-increasing share of the property tax burden. The floating rate would increase if residential real property's share of total taxable assessed value appreciably declined below 44.60 percent. Similarly, the rate would decrease if residential real property's share of total taxable assessed value appreciably exceeded 44.60 percent. The Gallagher Amendment is found in Section 3(1)(b) of article X of the Colorado Constitution.

The 44.60 percent figure, which is now referred to as the "residential target percentage," was calculated based upon residential real property's share of the total assessed value for 1986. The General Assembly provided for changes to the target percentage based upon new construction and destruction that occurred in each property class, and changes in the volumes of production in the natural resource classes.

The adjustment begins by first calculating what the total assessed value of residential property needed to be during the prior year of reappraisal in order for residential property's share of the total value to exactly match the residential target percentage. Then, the assessed value attributable to residential new construction reported during the prior two years is added to the calculated residential real property total.

Similarly, the assessed value of new construction in all other property classes reported during the same two years is added to the total assessed value of the non-residential property classes as of the last level of value. Then, the changes in the production volumes of producing metallic mines, producing coal mines, oil and gas wells, and earth and stone operations are expressed as assessed values and added to the all other property total. Finally, the adjusted residential real property total is divided by the total of the above-assessed values to arrive at a new residential target percentage.

PRIOR TO AND INCLUDING 1983 TO 1986

Prior to and including 1982 (the 1973 level of value), most property was assessed at 30 percent of actual value. The amendment initially set the residential assessment rate for 1983-1986 (the 1977 level of value) at 29 percent for most property and 21 percent for residential real property. During this period, real property was on a four year reassessment cycle. In 1986, the General Assembly hired an independent party to estimate the residential assessment rate based on the statutory and constitutional provisions. Their study resulted in a rate of 17.41 percent.

1987 AND 1988

In 1986, the state board of equalization (state board) requested that the Division of Property Taxation (Division) estimate the residential assessment rate for 1987 (the 1984 level of value). In 1988, the General Assembly enacted § 39-1-104.2(6), C.R.S., which required that the Division prepare a documented residential assessment rate study for changes in the level of value occurring in 1989 (1988 level of value), 1991 (1990 level of value), and 1993 (1992 level of value). This subsection was later amended to include 1995 (1994 level of value), 1997 (1996 level of value), and for each subsequent year of reappraisal.

In 1986, using a residential target percentage of 44.39 percent, the Division estimated the rate for 1987-1992 to be 16.74 percent (17 percent rounded). The General Assembly chose to enact a residential assessment rate of 18 percent for 1987. In 1988, the General Assembly reconsidered this decision and enacted a residential assessment rate of 16 percent for 1988 after a rate was calculated to be 15.62 percent. A review of historical records, including actual rather than estimated assessed values and adjustments of county boards of equalization indicated the correct rate to be 15.30 percent (15 percent rounded) for 1987 and 1988.

1989 AND 1990

In 1988, using a residential target percentage of 44.51 percent, the Division estimated the rate for 1989-1990 to be 15.04 percent (15 percent rounded). The 44.51 percent residential target percentage and the 15 percent residential assessment rate were enacted into law in 1989, § 39-1-104.2(3)(b), C.R.S. Verification of the estimate using final 1989 assessed values submitted by the county assessors via the Abstracts of Assessment initially indicated a residential assessment rate of 14.42 percent (14 percent rounded). Pursuant to the requirements of § 39-1-104.2(7), C.R.S., the state board changed the rate to 14 percent. However, after the counties' resubmission of assessed values to the Division using the 14 percent residential assessment rate, the Division discovered that Denver County had made a \$150 million keypunch error on its original submission. Correcting for the error resulted in a verified rate of 14.53 percent (15 percent rounded), and also resulted in the assessors having to submit values a third time.

1991 AND 1992

In 1990, using a residential target percentage of 44.57 percent, the Division estimated a residential assessment rate for 1991–1992 of 14.34 percent (14 percent rounded). During the 1991 legislative session, the rounding convention was changed from the nearest whole percentage to the nearest one-hundredth of one percent. The target percentage of 44.57 percent and the estimated residential assessment rate of 14.34 percent were enacted into law, § 39-1-104.2(3)(c), C.R.S. Verification of this estimate using final 1991 assessed values submitted by the assessors indicated a residential assessment rate of 13.78 percent. This rate was outside the one-half percent tolerance permitted by § 39-1-104.2(7)(b), C.R.S., by six one-hundredths of one percent.

Comparison of the estimated 1991 assessed values with the final 1991 assessed values submitted by the county assessors indicated the error in the rate was largely attributable to three counties: Pitkin, Denver, and Arapahoe.

Pitkin County over-estimated the increase in assessed values in the commercial property class.

Denver County over-estimated commercial values because all hotel property surrounding Stapleton Airport was adjusted to conform to a Board of Assessment Appeals' (BAA) decision. The BAA ordered that the capitalization rate be increased and that the future net income estimates be decreased for a petitioner's hotel property near Stapleton Airport. These adjustments were required, in the opinion of the BAA, to account for the greater risk and probable reduction in income associated with the closure of Stapleton after Denver International Airport opened. Rather than lose similar cases one at a time, Denver County decided to lower the valuations of all similar properties.

Concerning Arapahoe County, the Division discovered an unexplained 38 percent decline in vacant land values between 1990 and 1991. Upon further research, procedural irregularities in the application of present worth valuation to vacant land parcels were discovered. The Assessment Auditor's contract required that vacant land values be statistically analyzed only to the adjusted selling price of vacant land property rather than to the final vacant land present worth values. However, upon review of the present worth procedures applied by Arapahoe County, the Assessment Auditor recommended a reappraisal of Arapahoe County's vacant land class. Had Arapahoe County not changed the vacant land valuation procedures after estimating the increase in vacant land values for the assessment rate study, the residential assessment rate estimated for 1991-1992 would have been within its statutory tolerance.

State Board of Equalization Statutory Authority

The state board had no statutory authority to consider information other than the final 1991 assessed values submitted by the county assessors, and the state board was faced with a September 20, 1991, deadline for adjusting the residential assessment rate estimated for 1991-1992.

Fortunately, the General Assembly had reconvened for a 1991 Special Session to revise school finance statutes. A reduction in the residential assessment rate from 14.34 percent to 13.78 percent could have increased the "backfill requirements" for State of Colorado financial aid to school districts. The legislature enacted amendments to § 39-1-104.2(7), C.R.S., that allowed the state board to consider, "any other reliable and relevant information which is based upon generally accepted appraisal methods and which is consistent with section 3 of article X of the Colorado Constitution, including, but not limited to, any valuation for assessment study for such year which is conducted

pursuant to § 39-1-104(16), C.R.S. Using this new authority, the state board allowed the 14.34 percent residential assessment rate estimated for 1991-1992 to stand.

In 1992, a review of the 1991 state board ordered reappraisals indicated that the net effect of the reappraisal of vacant land, commercial, and residential properties in all counties under reappraisal orders was a reduction in the verified residential assessment rate to 13.76 percent.

1993 AND 1994

In 1992, the State Auditor reviewed the Division's procedures for estimating the residential assessment rate. No material audit exceptions were noted. Also in 1992, using new assessed value estimation procedures and a residential target percentage of 44.74 percent, the Division estimated a residential assessment rate for 1993-1994 of 12.86 percent (rounded).

In November 1992, the electorate passed Constitutional Amendment Number One creating section 20 of article X of the Colorado Constitution. The amendment constrained the financial authority of state and local governments. Among its provisions were the requirements for elections to authorize increases in property tax mill levies, the assessment rate for a class of property, and the overall entity revenue generation and spending.

Mill levy increases were allowed only if approved by the voters. Mill levies are calculated by dividing the taxing entity's proposed (budgeted) property tax revenue by the total assessed value within the taxing jurisdiction. Taxing entities must know the final assessed values in order to prepare for an election. This effectively prohibited the state board from adjusting the residential assessment rate by September 20, less than three weeks before elections were to be held. Therefore, in 1993 the General Assembly repealed § 39-1-104.2(7), C.R.S., which contained the state board's authority to adjust the residential assessment rate if it was found to be in error by one-half of one percent or more.

Also in 1993, the target percentage of 44.74 percent and the estimated residential assessment rate of 12.86 percent (rounded) were enacted into law, § 39-1-104.2(3)(d), C.R.S. Verification of the estimate using final 1993 assessed values submitted by the assessors indicated a residential assessment rate of 12.16 percent. The rate was outside the one-half of one-percent tolerance, which had been permitted by § 39-1-104.2(7)(b), C.R.S. The miss was attributable to an under-estimate of residential values statewide.

The under-estimate was due to lack of recognition on the part of the assessors and the Division of the surge in residential values just prior to the June 30, 1992, appraisal date. Generally, the assessors did not complete the trending of sales data to the new level of value in time to be included in the residential assessment rate study conducted in 1992. Previous repeal of the state board's authority to adjust the rate required that the 12.86 percent residential assessment rate stand for 1993-1994.

1995 AND 1996

In December 1994, the Division estimated a residential assessment rate for 1995-1996 of 10.50 percent using new assessed value estimation procedures and a residential target percentage of 45.29 percent. In April 1995, the Division contacted the 16 largest counties, in terms of overall total assessed value, and asked these counties for updated reappraisal value estimates. These values were compared with the counties' initial projections. Due to changes in many of their original estimates, the rate was recalculated and this recalculation produced a residential rate of 10.36 percent. HB 95-1136 was amended to reflect the 10.36 percent prior to its passage. After the Abstracts of Assessment were delivered to the Division in August, the residential rate was again recalculated. The assessor and county board changes reflected in the abstracts revealed that the rate should have been 10.02 percent.

1997 AND 1998

The residential assessment rate was estimated to be 9.71 percent in December 1996. The residential target percentage was established at 46.17 percent. In April 1997, the Division contacted all counties and verified their initial projections or made appropriate changes, as necessary. Due to changes in some of the original estimates, the rate was recalculated. The recalculation produced a residential rate of 9.74 percent. SB 97-026 was amended to reflect the 9.74 percent assessment rate.

After the 1997 Abstracts of Assessment were delivered to the Division in August, the residential rate was again recalculated. The assessor and county board changes reflected in the abstracts revealed that the rate should have been 10.08 percent. In 1998, errors in excess of \$280 million (net) were discovered in Eagle County's 1997 abstract, which changed the true rate from 10.08 to 9.96 percent.

Because the 1997-1998 residential assessment rate was under-estimated, it is essential to understand what has occurred with the residential rate in the past so that its future can be more accurately predicted. All previous rates had two common elements; more residential properties were being built than nonresidential properties, and existing residential properties were increasing in value at a faster rate than non-residential properties. However, as of 1996, nonresidential properties not only closed this gap but also had significantly outpaced residential assessments. With few exceptions, county projections for nonresidential properties were under-estimated; and, in many instances, significantly under estimated as late as April 15, 1997. However, since most counties are now capable of doing multiple regression analysis and accurate time trending, it is expected that future estimates will be more precise.

1999 AND 2000

The procedures used in 1997 were used again to estimate the residential assessment rate for 1999-2000, with two exceptions: 1) oil and gas estimates were based upon actual sales data reported to the Colorado Oil and Gas Conservation Commission, and 2) the Division asked county assessors to provide sales data and conducted its own

time trending analysis of those sales. Time trending is a linear regression technique that analyzes the rate of change to the ratio between a property's sales price and its actual value.

In January 1999, the residential target percentage was established at 46.49 percent, and the residential assessment rate was estimated to be 9.90 percent. In April, after contacting all county assessors and revising the value estimates, the residential assessment rate was determined to be 9.83 percent. After county Abstracts of Assessment were submitted in August 1999, it was determined that the residential assessment rate should have been calculated at 9.81 percent. This meant that final rate estimate of 9.83 percent was the most accurate estimate that the rate study had produced to this point. However, because of TABOR, the General Assembly chose not to take the issue to voters and reenacted the 9.74 percent residential assessment rate for 1999-2000.

2001 AND 2002

Because of the accuracy of the previous study, the procedures followed in determining the 1999-2000 residential assessment rate were used again in 2001-2002 rate, and they have remained relatively unchanged since that time.

In January, the 2001-2002 residential rate was estimated to be 9.35 percent, and the residential target percentage was established at 46.61 percent. After contacting all county assessors in April and revising the value estimates, the estimated residential assessment rate was adjusted to 9.15 percent. The General Assembly enacted the 9.15 percent residential assessment rate and the 46.61 percent target percentage into law for 2001-2002. The 2001 Abstracts of Assessment submitted in August revealed that the residential assessment rate should have been 9.09 percent.

2003 AND 2004

In January 2003, the rate was estimated to be 8.18 percent, and the residential target percentage was established at 47.08 percent. After contacting county assessors in April, the rate estimate was adjusted to 7.96 percent. The 7.96 percent rate and the 47.08 percent target percentage were enacted into law by the General Assembly for 2003-2004. The 2003 Abstracts of Assessment submitted in August later revealed that the residential rate should have been 7.91 percent.

2005 AND 2006

In January 2005, the rate was estimated at 8.13 percent, and the residential target percentage was established at 47.22 percent. After contacting all county assessors in April, the rate was adjusted to 8.17 percent. Because an increase to the residential assessment rate can only be made with voter approval, the General Assembly chose not to take the issue to voters, and it reenacted the 7.96 percent rate and the new target percentage of 47.22 percent in HB05-1289. The 2005 Abstracts of Assessment submitted in August later revealed that the residential assessment rate had been correctly calculated at 8.17 percent.

2007 AND 2008

In January 2007, the rate was estimated to be 8.00 percent and the residential target percentage was established at 47.43 percent. After contacting all county assessors in April and updating the estimates for each class of property, the rate was adjusted to 8.19 percent. Once again, because an increase to the residential assessment rate can only be made with voter approval, the General Assembly chose to reenact the 7.96 percent residential rate as well as the 47.43 percent target percentage in HB07-1177.

The 2007 Abstracts of Assessment submitted in August later revealed that the calculated residential assessment rate should have been 8.44 percent. The difference between the final estimate of 8.19 percent and 8.44 percent was almost entirely attributable to the estimate for the oil and gas property class.

In April 2007, the Division estimated that the oil and gas class would drop by 15.9 percent, but later that year, county Abstracts of Assessment revealed that the property class dropped by only 1.4 percent. Part of the error may have been caused by a slowdown of the rate at which production volumes were reported on the COGCC's web site, causing an under-estimate in the amount of production that occurred. However, the greater portion of the error is attributable to the fact that unlike prior years, the percentage change to the assessed value of oil and gas land for 2007 did not correlate strongly to the change in the value of production that occurred in the prior year. In 2006, the value of statewide oil gas production (quantity sold per month times Colorado average monthly price) dropped by 14.1 percent, but the corresponding assessed value of oil and gas land in 2007 dropped by only 5.2 percent. In addition, although the Division estimated a 20 percent increase in the value of oil and gas personal property, the statewide assessed value of personal property actually increased by 44 percent. Because this property class had grown to comprise 8.5 percent of the state's total taxable value in 2007, compared to 3.6 percent of the total in 2003, the error in the oil and gas estimate had a much greater effect on the residential assessment rate study than it would have had in prior years.

2009 AND 2010

In January 2009, the rate was estimated to be 8.91 percent and the residential target percentage was established at 46.82 percent. After contacting all county assessors in April and updating the estimates for each class of property, the rate was adjusted to 8.85 percent. Once again, because an increase to the residential assessment rate can only be made with voter approval, the General Assembly chose to reenact the 7.96 percent residential rate as well as the 46.82 percent target percentage in HB09-1360.

The 2009 Abstracts of Assessment submitted in August later revealed that the calculated residential assessment rate should have been 9.20 percent. Again, the difference between the final estimate of 8.85 percent and the correct figure of 9.20 percent was almost entirely attributable to the estimate for the oil and gas property class.

Because of the 2007 experience with the oil and gas estimate, Division staff had decided to place greater emphasis on the opinions of assessors and others knowledgeable with oil and gas. The estimate that had been calculated by the Division using its traditional approach (using production figures and commodity prices obtained from the COGCC and the Division of Local Government) called for an increase of 38 percent, but the assessors and/or key staff in each of the largest oil and gas counties believed that the increase would be much less than 38 percent. The Division adjusted its estimate downward to an increase of 30 percent, which was also Legislative Council's estimate at the time. Later that year, county Abstracts of Assessment showed that the oil and gas class increased by 54.5 percent. Because the property class had also grown to comprise 12.1 percent of the state's total taxable value, the error to the oil and gas estimate had a much greater effect on the residential assessment rate study than it would have had in prior years.

2011 AND 2012

In January 2011, the rate was estimated to be 8.59 percent and the residential target percentage was established at 46.53 percent. After contacting all county assessors in April and updating the estimates for each class of property, the rate was adjusted to 8.77 percent. Once again, because of TABOR language necessitating voter approval of any assessment rate increase, the General Assembly chose to reenact the 7.96 percent residential rate in HB11-1305.

2013 AND 2014

In January 2013, the rate was estimated to be 9.09 percent and the residential target percentage was established at 45.86 percent. After contacting all county assessors in April and updating the estimates for each class of property, the rate was adjusted to 9.13 percent. Once again, because of TABOR language necessitating voter approval of any assessment rate increase, the General Assembly chose to reenact the 7.96 percent residential rate in HB13-1319.

2015 AND 2016

In January 2015, the rate was estimated to be 8.30 percent and the residential target percentage was established at 45.67 percent. After contacting all county assessors in April and updating the estimates for each class of property, the rate was adjusted to 8.24 percent. Once again, because of TABOR language necessitating voter approval of any assessment rate increase, the General Assembly chose to reenact the 7.96 percent residential rate in HB15-1357.