

BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH

Application of QUESTAR GAS COMPANY for Recovery of Gas Management Costs in its 191 Gas Cost Balancing Account	Docket Nos. 04-057-04, 04-057-09, 04-057-11, 04-057-13 and 05-057-01
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DIRECT TESTIMONY OF
ALAN J. WALKER
FOR
QUESTAR GAS COMPANY

APRIL 15, 2005

QGC Exhibit 4

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Alan J. Walker. My business address is 180 East 100 South, Salt Lake City, Utah.

Q. By whom are you employed and what is your position?

A. I am employed by Questar Gas Company (Questar Gas or the Company) as Manager, Gas Supply. My responsibilities are to oversee the long-term and mid-range planning of natural gas resources to meet requirements of sales customers and to manage the day-to-day operations related to company production, gas acquisition, storage, gathering, transportation, and nominations. I have held this position since February 1999.

Q. Please describe your educational background.

A. I hold a bachelor's degree in applied science and engineering from the United States Military Academy at West Point and an MBA from Rensselaer Polytechnic Institute.

Q. What additional experience do you have in the gas industry?

A. During the past 24 years, I have held numerous gas industry positions in engineering, gas supply, regulatory affairs, and marketing. From 1981 through 1985, I was employed as a Petroleum Engineer for Amoco Production Company (Amoco) with responsibilities for production of several of Amoco's natural gas fields in the

24 Overthrust region. I also attended numerous petroleum production and reservoir
25 engineering courses at Amoco's Technical Training Center in Tulsa, Oklahoma.
26 Since 1985, I have worked as a Senior Gas Supply Engineer for Mountain Fuel
27 Supply Company (Mountain Fuel); Senior Gas Purchase Representative for Questar
28 Pipeline Company (Questar Pipeline); Director of Gas Acquisition and Marketing for
29 Mountain Fuel; and Director of Market Development for Questar Energy Trading
30 Company.

31

32

II. PURPOSE

33

34 **Q. What is the purpose of your testimony?**

35 A. The purpose of my testimony is to describe and quantify the benefits to Questar Gas'
36 Utah customers that resulted from the discovery, development, and production of the
37 coal bed methane (CBM) gas in the Ferron area. I estimate that Questar Gas has
38 realized direct benefits and savings from avoiding the purchase of replacement gas at
39 higher index prices of approximately \$30 million from October 1998 through 2004
40 and \$12 million in 2003 and 2004 alone. I describe and quantify other benefits of
41 having CBM available; including the fact that Mainline 104 would not have been
42 constructed or would have been substantially delayed if the CBM had not been
43 developed. Questar Gas has been able to avoid expensive system reinforcements as a
44 result of Mainline 104 and backhaul arrangements on Kern River Gas Transmission
45 Company (Kern River). In addition, Questar Gas has been able to arrange its
46 purchases of CBM in a manner that allows it to release capacity on Mainline 104,

47 resulting in a savings of about \$2 million during 2003 and 2004. Finally, Questar Gas
48 has been able to take advantage of segmentation options on Kern River to increase
49 savings to customers as a result of having the CBM and Mainline 104 available. I
50 estimate these savings at \$3.8 million during 2003 and 2004. I also describe
51 additional benefits fostered by this production, including benefits to the State of Utah
52 directly attributable to this resource.

53

54 I will explain that had Questar Gas attempted to keep CBM off of its system through
55 some type of action at the Federal Energy Regulatory Commission (FERC), it is
56 likely that Questar Gas would now be incurring additional costs of \$8 to \$18 million
57 per year to process Company-owned gas.

58

59 In addition, I explain that the lack of no-notice service on Kern River makes the
60 option of precision blending with gas supplies from Kern River as the backup an
61 untenable option. When I requested no-notice service from Kern River, I was told
62 that such service was not available.

63

64 In summary, my testimony demonstrates that the actions of Questar Pipeline and
65 Questar Gas with respect to CBM have been prudent and have allowed Questar Gas
66 to realize significant savings, avoid significant costs and receive the benefit of a
67 plentiful and valuable supply of natural gas located close to its market area at
68 competitive prices.

69

70 **III. GENERAL BACKGROUND ON THE IMPORTANCE AND**
71 **VALUE OF CBM PRODUCTION**

72
73 **Q. Please provide some comparisons of production in the Questar Pipeline market**
74 **area to illustrate the significance of the CBM resource.**

75 A. The CBM produced in the Ferron area is an exceptionally valuable resource to
76 Questar Gas and the state of Utah. This production has exceeded 90 billion cubic feet
77 (Bcf) per year for the last four years, or about 250,000 Decatherms per day (Dth/d).
78 In the last ten years, this area has increased gas production by more than 700 percent.
79 CBM produced near Price has a daily production approximately double all the
80 Company-owned production available under the Wexpro Agreement. The annual
81 production is nearly equivalent to the working gas inventory of two Clay Basin
82 storage reservoirs. To make a further comparison, the Ferron area produces enough
83 gas each year to meet Utah’s annual requirements. The Energy Information Agency
84 of the United States Department of Energy estimates the Uinta-Piceance area (a
85 broader area than Ferron, but including Ferron) CBM reserves at 1.815 trillion cubic
86 feet (Tcf) (*See* QGC Exhibit 4.1, page 1). At a Questar Gas consumption rate of 105
87 Bcf per year, this represents a 17-year supply for Utah from these areas alone. CBM
88 is an extremely valuable resource by all measures.

89
90 **Q. Is CBM production valuable in other parts of North America?**

91 A. Yes. The impact of CBM production throughout North America is very significant.
92 According to the Energy Information Administration, CBM production in the United

93 States has grown from less than one-half of a billion cubic feet per day (Bcf/d) in
94 1990 to over 5 Bcf/d in 2003 (*See* QGC Exhibit 4.1, page 2). Without the
95 contribution of CBM to the domestic supply base, the United States would be in a
96 position of having to import significantly greater quantities of energy. According to
97 Wood Mackenzie, a consulting firm widely recognized as a reliable source of
98 information in the natural gas industry, CBM will increase from 8% of the United
99 States lower-48 states production in 2003 to 13% in 2010 (*See* QGC Exhibit 4.1, page
100 3). They also forecast that in the Rocky Mountain region CBM will increase by
101 116% from 2004 to 2010, while conventional production declines by 8% during that
102 same time frame (*See* QGC Exhibit 4.1, page 4). The National Petroleum Council
103 shows a similar trend as CBM is forecast to be the most important single source
104 sustaining Canadian production through 2025 (*See* QGC Exhibit 4.1, page 5).

105

106 **IV. BACKGROUND ON PRICING PRINCIPLES AND GAS**

107 **PURCHASES BY QUESTAR GAS**

108

109 **Q. Please describe the fundamental pricing principles that apply to Questar Gas'**
110 **purchases of base-load supply.**

111 A. The price of the majority of the base-load natural gas that the Company purchases is
112 related or tied to the Questar Pipeline first-of-month index published by *Inside FERC*.
113 This index is commonly referred to as the Questar Monthly Index. Base-load gas is a
114 gas supply normally purchased using 90-day to multiple-year agreements. This gas is
115 for firm delivery and is guaranteed to flow. When Questar Gas submits its request for

116 proposal for base-load gas to its suppliers each spring, the suppliers generally respond
117 with proposals that have prices related to the Questar Monthly Index. For instance, a
118 supply located near Granger, Wyoming, might be offered at the Questar Monthly
119 Index plus five cents per Dth, while a supply located near Rifle, Colorado, might be
120 offered at Questar Monthly Index minus five cents per Dth. These prices are both
121 “index-related,” but the premium or discount associated with these particular supplies
122 is different because of the transportation and marketing opportunities available to the
123 producers at different locations.

124

125 **Q. What producing areas does Questar Gas buy its supplies from?**

126 A. Questar Gas purchases gas in the Overthrust Area, Greater Green River Basin, East
127 fields, the Uinta Basin, the Piceance Basin and the Ferron area. Each of these areas
128 have different marketing characteristics and, therefore, will have different premiums
129 or discounts related to their location.

130

131 **Q. How much gas does Questar Gas purchase from the Ferron area?**

132 A. The amount of gas Questar Gas purchased from CBM producers in the Ferron area
133 since January 1998 is provided on QGC Exhibit 4.2. It shows that the Company has
134 purchased 64 Bcf during this period. In 2004, the Company purchased 13 Bcf,
135 representing about 21 percent of the Company’s total purchased gas and 10 percent of
136 its peak-day demand. This critical source of supply has more than doubled since
137 2000 and has compensated for production declines in the other areas from which we
138 purchase or produce gas.

139

140 **Q. Is CBM from the Ferron area an important source of supply for Questar Gas?**

141 A. Yes. This production is strategically less than 70 miles from the Payson gate. It is
142 the nearest significant production to a city gate and has more than made up for
143 production losses in the Uinta and Piceance areas.

144

145 **Q. Are the CBM supplies that the Company buys in the Ferron area index-related?**

146 A. Yes, currently the Company has three five-year contracts with producers in the Ferron
147 area that are tied to the Questar Monthly Index. These are heating season contracts
148 that require Questar Gas to purchase supplies for three to five months during the
149 November through March period. Because the Company benefits by being required
150 to purchase gas only during heating season months, Questar Gas pays a small
151 premium over the index for this service. This is a competitively priced supply source
152 considering its strategic location and the flexibility Questar Gas has in purchasing the
153 gas only during the heating season.

154

155 **Q. Does the Company ever buy other than base load gas from the Ferron area?**

156 A. Yes, the Company frequently buys incremental or spot gas from suppliers in the
157 Ferron area. Usually, that incremental or spot gas supply consists of planned, month-
158 long spot purchases priced at the Questar Monthly Index, but occasionally the
159 Company buys fixed-priced gas in the Ferron area.

160

161 **Q. Does the Company buy daily spot gas?**

162 A. Yes, depending upon demand. During the winter of 2003-04, the Company
163 purchased daily spot gas most of the winter. During the winter of 2004-05, the
164 Company did not buy much daily spot gas because demand was lower due to mild
165 weather. When the Company is buying daily spot gas, the Ferron area producers are
166 among the first parties we contact, as they are frequently the only parties that will sell
167 gas at the Questar Pipeline Daily Index price (Questar Daily Index).

168

169 **Q. What is the Daily Index price?**

170 A. Gas can be purchased on a daily basis in the same manner that gas is bought on a
171 base-load or month-long purchase, except the commitment by the parties is one or
172 more days at a time. In this region the most commonly accepted publication to
173 reference for Daily Index prices is *Gas Daily* as opposed to *Inside FERC*, which is
174 commonly accepted for month-long purchases.

175

176 **V. ESTIMATE OF BENEFITS TO UTAH CUSTOMERS**

177 **RESULTING FROM AVAILABILITY OF CBM**

178

179 **Q. Are there quantifiable benefits to Questar Gas' Utah customers attributable to**
180 **having access to the CBM in the Price area?**

181 A. Yes. The benefits that I have been able to estimate on a quantitative basis fall into
182 three categories:

- 183 1. Gas cost savings attributable to the impact of CBM production on
184 differences in the Questar Monthly Index and the Northwest Pipeline
185 Monthly Index.
- 186 2. Recovery of Mainline 104 demand charges through capacity releases
187 during non-heating season months.
- 188 3. Savings in transportation costs resulting from segmentation of capacity
189 on Kern River.

190

191

a. GAS COST SAVINGS

192

193 **Q. Please describe your estimate of the benefit in gas cost savings.**

194 A. I estimated the gas cost savings attributable to the availability of CBM production to
195 be approximately \$30 million from October 1998 to December 2004 and \$12 million
196 from January 2003 to December 2004. This is based upon my conclusion that if
197 CBM production from the Ferron area were not available, resulting in a reduction in
198 available gas supplies on Questar Pipeline's system of 20% to 25% there would be an
199 increase in the Questar Monthly Index to a level \$0.02 less than the Northwest
200 Pipeline Monthly Index. This is a fundamental conclusion based upon the supply and
201 demand balance on Questar Pipeline. If any source or combination of sources that
202 represent approximately a quarter of the gas connected to a pipeline were never
203 developed, the price would return to the price relationship that existed prior to the
204 development of that source or those sources. In other words, if CBM were not
205 produced in the Ferron area, Questar Monthly Index and the Questar Daily Index

206 would be just barely below Northwest Pipeline index prices. QGC Exhibit 4.3
207 provides the Monthly Index prices for Northwest Pipeline and Questar Pipeline from
208 1996 through 2004. It shows the \$0.02 differential in 1996 through 1998, and
209 increasing differentials thereafter coincident with the major increase in production of
210 CBM in the Ferron area.

211

212 **Q. Please continue to explain how you made your estimate of gas cost savings.**

213 A. I computed the annual average Monthly Indexes for both Northwest Pipeline and
214 Questar Pipeline, and subtracted the Questar Pipeline Index from the Northwest
215 Pipeline Index to determine the actual annual average basis. Pipeline basis, which is
216 explained more completely in Dr. Reid's direct testimony, is the difference between
217 the market price of gas in two different markets. Then I subtracted \$0.02 from the
218 basis, consistent with the historical difference and with Dr. Reid's suggestion.

219

220 Next, I determined the annual purchases for Questar Gas that would be effected by
221 the adjusted basis, by subtracting from total purchases those purchases that were
222 made using other than a Questar Monthly Index-related price. I then multiplied the
223 adjusted basis by the appropriate purchase volumes to determine annual savings in
224 gas supply costs.

225

226 For instance, in 2004 the average basis between the Questar Monthly Index and
227 Northwest Pipeline Index was 18.6 cents, so the adjusted basis was 16.6 cents.
228 Questar Gas purchased 63,357,713 Dth of which 12,422,768 Dth were purchased

229 using the Northwest, Kern River, or another index that was not Questar Pipeline
230 related. This left 50,934,945 Dth of Questar indexed gas to be multiplied by the 16.6
231 cent adjusted basis, for a savings of \$8,455,367 in 2004. All of my calculations are
232 shown in the first table on QGC Exhibit 4.4.

233

234 **Q. How does your estimate differ from the estimate you originally provided in**
235 **response to DPU Data Request 6.1?**

236 A. My earlier estimate included the entire basis rather than the basis less \$0.02. I also
237 updated for actual CBM purchase volumes in November and December 2004, deleted
238 all savings prior to October of 1998 and corrected some typographical errors. I
239 deleted savings prior to October of 1998 for two reasons. First, the CBM production
240 did not become significant until that time. Second, Dr. Reid's analysis started at
241 about the same time period.

242

243 **Q. Why did you adjust the basis by \$0.02**

244 A. As I have already mentioned, QGC Exhibit 4.3 demonstrates that the historical basis
245 between the Northwest Pipeline Monthly Index and the Questar Monthly Index prior
246 to the significant development of CBM was \$0.02. In addition, Questar Gas retained
247 the services of Dr. Reid to analyze the impact of CBM on the price of Questar Gas'
248 supplies after I made my original estimate. Dr. Reid is a Ph.D. economist who has
249 worked in the gas industry for nearly 30 years. He has developed a sophisticated
250 statistical model to predict the impact of gas supply and transportation capacity on

251 regional gas prices. The results of his model for the period from 1994 through 1998
252 supported this adjustment.

253

254 **Q. Did the results of Dr. Reid's model support your savings estimate?**

255 A. Yes. Dr. Reid's model predicted that almost all of the basis between the Questar
256 Monthly Index and the Northwest Pipeline Monthly Index after September 1998 is
257 attributable to the presence of CBM in the Questar Pipeline market area. For the
258 period from September 1998 through October 2001, Dr. Reid's model indicated that
259 Questar Gas benefited on average in the range of \$0.098 and \$0.107 attributable to
260 the presence of CBM on Questar Pipeline's system. For the period from November
261 2001 through February 2005, Dr. Reid's model indicated that Questar Gas benefited
262 on average in the range of \$0.124 and \$0.126 attributable to the presence of CBM.
263 As shown in the second table in QGC Exhibit 4.4, using the average of Dr. Reid's
264 basis rather than the annual average basis less \$0.02 used in my estimate, the benefit
265 is almost identical. My result was \$29.6 million and the result using Dr. Reid's
266 results was \$29.4 million.

267

268 **Q. You have stated that your estimate is conservative. Please explain.**

269 A. I believe my estimate is conservative because a 20% to 25% decrease in supply on
270 Questar Pipeline would also produce significant upward pressure on all the regional
271 pipeline index prices and both Kern River and Northwest Pipeline indexes would
272 increase substantially.

273

274 **Q. Will these savings continue in the future?**

275 A. Yes.

276

277 **Q. Would a prudent utility encourage the development and production of a gas**
278 **source that would increase the available supply by 20 to 25 percent or more?**

279 A. Yes, I do not know of any utility that has discouraged or impeded such a significant
280 and beneficial gas supply source. The economic impact could not have been
281 anticipated in the mid-1990's, but a source this big, this close to the market is
282 certainly an asset and has put downward pressure on the region's gas prices. Now we
283 know the added impact was a savings of approximately \$30 million in commodity
284 cost from October 1998 through December 2004.

285

286 **b. CAPACITY RELEASE CREDITS ON MAINLINE 104**

287

288

289 **Q. Have you estimated the benefit of having CBM available related to capacity**
290 **release credits on Mainline 104?**

291 A. Yes. Another tangible benefit of the CBM production is that it prompted the
292 construction of Questar Pipeline's Mainline 104. Questar Gas has contracts for
293 capacity on Mainline 104 of 50,000 Dth/d all year and an additional 50,000 Dth/d
294 during winter months only. This infrastructure expansion allows Questar Gas to
295 optimize its 53,000 Dth/d of transportation capacity on Kern River by using
296 segmentation. Because of the strategic location of the CBM in relation to our market
297 and the receipt/delivery points on Kern River, Questar Gas was able to avoid major

298 system reinforcements that were being considered along the western side of Questar
299 Gas' service territory.

300

301 **Q. Please explain the benefits of the construction of Mainline 104 to Questar Gas**
302 **and its customers.**

303 A. The construction of Mainline 104 permitted Questar Gas to negotiate with the CBM
304 producers to purchase 100,000 Dth/d of winter-time gas for 90 to 150 day terms, with
305 other valuable options, for a five-year period at favorable prices. As stated above, the
306 CBM has grown to about 21% of Questar Gas' annual purchased gas volume and
307 10% of its peak-day supply. The CBM suppliers have been extremely reliable and
308 the working relationships are as good as or better than other suppliers.

309

310 A portion of this gas is transported with Questar Pipeline to the Payson City Gate, but
311 more than half of this gas has been and will likely continue to be transported to the
312 Kern River pipeline and then delivered by a backhaul on Kern River to Questar Gas
313 at the Riverton and Hunter Park taps. Receiving these gas supplies by using a
314 backhaul on Kern is a lower cost option than building pipeline infrastructure from the
315 Provo area to West Valley City to deal with rapid market growth along the Wasatch
316 Front. Although this is clearly a significant benefit to Questar Gas, the Company has
317 not yet attempted to quantify it.

318

319 **Q. Have there been other economic benefits to Questar Gas' customers due to**
320 **owning capacity on Mainline 104?**

321 A. Questar Gas has limited need for its Mainline 104 capacity during the non-heating
322 season (April through October). The purchase agreements Questar Gas negotiated
323 with the three Ferron area CBM producers allow Questar Gas to release this capacity
324 to the producers during the April-to-October period. This arrangement has allowed
325 Questar Gas to recover one-third of its April-to-October Mainline 104 demand
326 charges that would otherwise have been borne by Questar Gas and its customers.

327

328 **Q. Can you quantify the benefits you have just described?**

329 A. Yes. My estimate of this benefit is shown in QGC Exhibit 4.5. In total, this benefit
330 has amounted to \$3,041,067 from January 2002 through December 2004. The benefit
331 from January 2003 through December 2004 was about \$2 million.

332

333 **Q. Will this benefit continue in the future?**

334 A. Yes.

335

336 **Q. Would a prudent utility want to purchase this gas, knowing of this possible**
337 **benefit and arrange for a capacity release agreement that guaranteed these**
338 **revenue credits?**

339 A. Yes, the released capacity agreements were negotiated simultaneously with the gas
340 purchase agreements with the Ferron area producers. Both the purchases and released

341 capacity agreements were conditioned upon the construction of Mainline 104. Now
342 we know that these credits amount to approximately \$1 million per year.

343

344

c. SEGMENTATION

345

346 **Q. You previously mentioned segmentation as a benefit. Please explain the benefits**
347 **of segmentation on Kern River.**

348 A. Questar Gas subscribed for 53,000 Dth/d of transportation on Kern River effective
349 May 2003. The receipt point for this transportation is Opal, Wyoming. The delivery
350 point for 38,000 Dth/d is Blue Diamond, south of Las Vegas, Nevada, and the
351 delivery point for the remaining 15,000 Dth/d is Wheeler Ridge, near Bakersfield,
352 California. Questar Gas has segmented this transportation into three usable segments
353 by applying the segmentation provisions of Kern River's tariff. These segments are:

- 354 1. Flowing south from Opal to Salt Lake City.
- 355 2. Flowing north from the Goshen interconnect between Questar
356 Pipeline's Mainline 104 and Kern River to Salt Lake City.
- 357 3. Flowing south from Goshen to the Central interconnect between Kern
358 River and Questar Gas near St. George.

359

360 **Q. What are the economic benefits of segmentation?**

361 A. Through segmentation on Kern River and using Mainline 104 capacity, Questar Gas
362 has effectively converted 58-cent enhanced-fixed-variable transportation on Kern
363 River to 23-cent transportation, when all segments are being used. Segmentation has

364 allowed Questar Gas to use its Kern River transportation at an effective load factor
365 rate of 150% or higher. This benefit would not be available without Mainline 104
366 capacity. As I previously stated, Mainline 104 would not have been constructed or
367 would have been substantially delayed without the CBM production in the Ferron
368 area.

369

370 **Q. Please describe how you computed this reduction in transportation rates.**

371 A. Kern River has enhanced-fixed-variable transportation rates rather than straight-fixed-
372 variable like Questar Pipeline and most other pipelines. Currently Kern River's rates
373 are subject to a Federal Energy Regulatory Commission (FERC) rate case, but are
374 approximately 52-cents per Dth for the demand component and 6-cents per Dth for a
375 commodity charge. The demand charge is a fixed cost, regardless of how you use the
376 capacity, but the commodity charge is only charged when it is used. Due to the
377 unique geographic relationships between the CBM gas and the Questar Gas markets,
378 Questar Gas is able to transport gas on three segments of Kern River simultaneously.
379 Therefore, the 52-cent demand could be allocated three ways, or 17-cents to each
380 segment plus the 6-cent commodity charge. This results in a potential 23-cent
381 transportation rate, if all three segments are used at a 100% load factor. The
382 maximum effective cost savings would be the difference between the charges for
383 transporting 53,000 Dth three times for 150 days at 58-cents, or \$13.8 million and
384 53,000 Dth on each segment for 150 days at 23-cents, or \$5.6 million per year. This
385 savings of \$5.6 million is unlikely to be achieved, but an additional annual savings of
386 \$1.9 million per year, given current usage patterns, is realistic. My calculation of this

387 benefit is shown in QGC Exhibit 4.6. This savings could not have happened without
388 CBM and Mainline 104.

389

390 **Q. Will this benefit continue in the future?**

391 A. Yes, and it is likely to increase.

392

393 **Q. Would a prudent utility want to purchase this gas, knowing the possible benefit**
394 **that would be derived from segmentation?**

395 A. Yes. The savings from segmentation are about \$1.9 million per year and as the load
396 increases in southern Utah, these savings will increase proportionately.

397

398 **d. TOTAL QUANTIFIABLE BENEFITS**

399

400 **Q. What do you estimate is the total of quantifiable benefits resulting from**
401 **availability of CBM to Questar Gas and its customers?**

402 A. The total quantifiable benefits I have estimated from October 1998 through December
403 2004 are over \$36 million. My estimate of quantifiable benefits during 2003 and
404 2004 is approximately \$18 million. The summation of benefits is shown in QGC
405 Exhibit 4.7.

406

407 **Q. What is the significance of the fact that Questar Gas has realized substantial**
408 **quantifiable benefits associated with the availability of CBM in the area it**
409 **purchases supplies?**

410 A. During prior proceedings related to recovery of the costs of removing CO₂ from
411 CBM produced in the Ferron area, significant evidence was not presented regarding
412 the benefits that come from having this plentiful supply of gas available to Questar
413 Gas. Certainly, no evidence was presented quantifying the benefit. Instead, the focus
414 was on whether the introduction of CBM into Questar Gas' system and the resulting
415 cost incurred to ensure that it burned safely in customers' appliances was a problem
416 caused by Questar Pipeline acting in its own interests and contrary to the interests of
417 Questar Gas customers.

418
419 Questar Gas believed and continues to believe that the introduction of CBM into its
420 system was a natural consequence of the discovery and production of this gas in the
421 area from which it obtains gas supplies and that even if it were not affiliated with
422 Questar Pipeline the same result would have occurred. Questar Gas has also
423 presented nonquantitative evidence that the presence of CBM was beneficial. My
424 analysis now demonstrates that customers have received a substantial benefit in a
425 lower cost of service because of the impact of the presence of CBM on the cost of
426 Questar Gas' overall gas supply and benefits related to Mainline 104. In the
427 aggregate, since 1999 customers' rates would have been lower even with the
428 inclusion of all gas management costs in rates than they would have been had CBM
429 not been developed. This demonstrates that Questar Gas acted prudently in the

430 interests of its customers in allowing this gas to be delivered to its system. Therefore,
431 the Commission should allow Questar Gas to recover its gas management costs
432 associated with CBM from the earliest date possible.

433

434 If, as some of the other parties argued in past proceedings, the CBM should have been
435 kept off Questar Gas' system and if doing so had been possible and had been
436 implemented, Questar Gas and its customers would have been denied substantial
437 economic benefits. A prudent utility would not pursue such an outcome.

438

439 **VI. NON-QUANTIFIABLE BENEFITS OF HAVING CBM AVAILABLE**

440

441 **Q. Would there be possible adverse impacts of not having the CBM gas available to**
442 **the Company?**

443 **A.** Yes. I previously mentioned certain benefits that I have not quantified, including the
444 benefits of having Mainline 104 capacity that would not have been available had
445 CBM production not occurred as it has in the Ferron area. As a result of having
446 Mainline 104 available, Questar Gas has avoided significant system reinforcements
447 along the western side of Questar Gas' service territory.

448

449 Another possibility is that the Questar Monthly Index would not be published due to
450 lack of liquidity. In other words, it is possible that there would not be enough
451 transactions done on Questar Pipeline to justify an index. Even with the gas sources

452 that are available, there are times when the Questar Monthly Index is based on very
453 few transactions and there are days when there are no transactions.

454

455 **Q. Why does it matter whether the index is published?**

456 A. Trading or buying natural gas using an index for the immediate pipelines
457 interconnecting the supply area and market offers significant advantages in liquidity
458 and trading partners. Some parties are unwilling to purchase or sell gas using fixed
459 prices because they fear they may not get a fair deal during the transaction, their
460 management is unwilling to risk missing the market or other reasons. Questar Gas
461 buys most of its gas using index-related prices because its purchases extend far into
462 the future. Trying to predict future fair market values is nearly impossible, so Questar
463 Gas contracts for most gas on an index-related basis. When the Company feels it is
464 advantageous to swap the price on index-related gas, the Company will convert the
465 contract with the supplier or use financial instruments. If the market is not liquid or is
466 illiquid, counterparties will imbed a greater risk premium in the swap price
467 conversion. Absent a unique Questar Pipeline index, prices in Questar Pipeline's
468 market area would likely be based on the indexes published for Kern River or
469 Northwest Pipeline, which are almost always higher.

470

471 **VII. POTENTIAL DETRIMENT OF KEEPING CBM OFF OF QUESTAR**

472 **GAS' SYSTEM**

473

474 **Q. In earlier proceedings, some parties argued that if Questar Gas had been acting**
475 **in the interests of its customers rather than the interests of Questar Pipeline, it**
476 **should have taken some action at the FERC to keep CBM off of Questar Gas'**
477 **system. Would this have been a prudent course of action for Questar Gas?**

478 A. No. In the first place, Questar Gas has never believed and does not now believe that
479 an action at FERC as proposed by other parties in earlier proceedings would have
480 been successful. However, rather than rearguing those points now, it has become
481 apparent through the technical conferences in this case that any effort to keep CBM
482 off of Questar Pipeline would have been ill-advised because it would have resulted in
483 proceedings at FERC where other shippers would have attempted to keep Company-
484 owned gas off of Questar Pipeline unless it was processed to remove hydrocarbon
485 liquids.

486

487 **Q. Why would such a proceeding at FERC risk imposition of the requirement that**
488 **Company-owned gas be processed?**

489 A. Company-owned gas has an unusually high hydrocarbon liquid content. As a result it
490 requires special handling or blending operations on the pipeline and affects other
491 shippers on Questar Pipeline. Questar Gas would be arguing that the CBM that meets
492 the Questar Pipeline Tariff Specification should be kept off of the Questar Pipeline
493 system. Other Questar Pipeline shippers would have a very strong argument that

494 much of the company owned production that exceeds the hydrocarbon dew point of
495 the Questar Pipeline Tariff should be kept off the Questar Pipeline system unless it is
496 processed.

497

498 **Q. What would a requirement to process Company-owned gas to remove**
499 **hydrocarbon liquids cost Questar Gas?**

500 A. If Questar Gas were required to process its Company-owned gas to remove
501 hydrocarbon liquids, I estimate the annual cost would be between \$8 and \$18 million.
502 My estimate is shown in QGC Exhibit 4.8. The reason for this wide range is that
503 under certain market conditions, the liquids removed from the gas might be sold at
504 high enough prices to offset a portion of the processing costs. However, even if the
505 price of liquids were favorable, there would still be a net cost of approximately \$8
506 million per year. It would be imprudent for Questar Gas to subject itself to the risk of
507 incurring hydrocarbon liquids processing costs that exceed the costs of CO₂ removal,
508 particularly when the likelihood of success in challenging Questar Pipeline Tariff
509 specifications is small.

510

511 **Q. Is it appropriate to consider this increased cost as well as the benefits you have**
512 **quantified above?**

513 A. Yes. This illustrates that Questar Gas acted prudently in purchasing this gas and not
514 attempting to force Questar Pipeline to keep this gas off of its system.

515

516 **VIII. BENEFITS OF CBM TO THE STATE OF UTAH AND OTHERS**

517

518 **Q. Are there benefits of CBM to parties in addition to Questar Gas and its**
519 **customers?**

520 A. Yes. The benefits on index prices that I have described above apply to all purchasers
521 of gas in the Rocky Mountain region. In addition, there are benefits to the State of
522 Utah.

523

524 The existence of this resource at a time when Utah's gas production from other areas
525 was falling at about 12 percent per year has been critical in stabilizing Utah's gas
526 production from 1996 to today. Page 1 of QGC Exhibit 4.9 shows Utah's total gas
527 production from 1976 through 2004. Page 2 of the same exhibit shows Utah's CBM
528 production from 1985 through 2004. It is easily seen by comparing these charts that
529 the growth in CBM is sustaining Utah's gas production.

530

531 **Q. Can you quantify other benefits to the State of Utah of the CBM?**

532 A. CBM accounted for over \$40 million of severance taxes and \$121 of royalties since
533 1999 (*See* QGC Exhibit 4.10). Included in these payments, the State of Utah School
534 & Institutional Trust Lands Administration (SITLA) has increasingly enjoyed the
535 financial benefits of the CBM production. These benefits flow directly to Utah's
536 school system. SITLA predicted that the Ferron gas field could bring more than \$200
537 million to our schools during its projected economic life (*See* QGC Exhibit 4.11, page
538 2). This estimate was published in June 2000, when gas prices were \$3.50 per Dth.

539 Today, gas prices are over \$6.00 per Dth. SITLA has repeatedly emphasized that oil
540 and gas revenues contribute to its total revenue, and CBM accounts for the greater
541 portion of the gas share. Utah schools benefit substantially from the development and
542 sale of the CBM production in Carbon and Emery counties.

543

544 **IX. LACK OF AVAILABILITY OF NO-NOTICE SERVICE FROM KERN**
545 **RIVER**

546

547 **Q. The testimony of Mr. Larry Conti describes an alternative for gas management**
548 **that that would require Questar Gas to receive no-notice service from Kern**
549 **River. What is no-notice service?**

550 A. No-notice service is the ability to reserve capacity in the pipeline and to call upon that
551 capacity and associated supply at any given time. This is an extremely valuable
552 service that allows Questar Gas to change gas supplies from sources such as storage
553 on Questar Pipeline to satisfy changes in demand on an immediate basis.

554

555 **Q. Did you request no-notice service from Kern River in connection with the**
556 **Company's consideration of this option?**

557 A. Yes. I made a verbal request in July 2004 and a request in writing in March 2005. A
558 copy of my written request is attached as QGC Exhibit 4.12.

559

560 **Q. What was the response to your requests?**

561 A. In response to my verbal request, Kern River told me that no-notice service was not
562 available. When Kern River did not respond to my written request, I called and was
563 told that they do not offer no-notice service.

564

565 **X. CONCLUSION**

566

567 **Q. Please summarize your testimony.**

568 A. CBM is a resource that is extremely important to our state and nation. It is
569 anticipated that CBM will continue to increase in importance, growing at a rate that
570 exceeds all other categories of natural gas. It will play a vital role in contributing to
571 our nation's energy independence and in helping our state provide energy needed to
572 achieve business development and prosperity into the future.

573

574 The existence of the CBM supply has put significant downward pressure on the
575 Questar Monthly Index in relation to Northwest and Kern River Indexes resulting in
576 savings of approximately \$30 million from October 1998 through December 2004
577 and \$12 million from January 2003 through December 2004. There are also cost
578 savings because the Company was able to negotiate long-term released-capacity
579 agreements to offset transportation sunk costs during periods when transportation
580 would not be utilized of approximately \$1 million per year since 2002 or \$2 million
581 from January 2003 through December 2004. The CBM also prompted the
582 construction of Mainline 104, which allowed significant economic transportation

583 options on Questar Pipeline and Kern River by utilizing segmentation. In total, I
584 estimate that Questar Gas and its customers have realized a benefit of \$36 million
585 from October 1998 through December 2004. From January 2003 through December
586 2004 alone, I estimate the benefit was approximately \$18 million. These benefits will
587 continue in the future.

588

589 In addition to these quantifiable benefits, Questar Gas has realized significant non-
590 quantifiable benefits from the production of CBM in the Ferron area. The ability of
591 Questar Gas to use capacity on Kern River to backhaul supplies made available
592 through Mainline 104 has reduced its need for expensive system expansions. The
593 availability of CBM has assured sufficient transactions to allow publication of a
594 Questar Monthly Index.

595

596 Questar Gas has also avoided costs of \$8 to \$18 million per year that would result if
597 an attempt to keep CBM off of its system had resulted in a requirement to process
598 Company-owned gas. It is appropriate to consider avoidance of these costs when
599 considering whether it is prudent for Questar Gas to accept CBM.

600

601 The state of Utah and its citizens have also realized substantial benefits from the
602 production of CBM.

603

604 Overall, the view that some parties attempted to portray in prior dockets that CBM
605 was undesirable and was improperly forced on Questar Gas because of the profit

606 motive of its affiliate Questar Pipeline is incorrect for a number of reasons. The
607 availability of this gas has saved Questar Gas and its customers a substantial amount
608 in reduced prices for other supplies and has provided other benefits that have more
609 than offset the cost of managing the heat content of the gas. Furthermore, the
610 presence of this gas simply reflects a change in the sources of gas available in this
611 area and in the nation. We are all fortunate that this plentiful source of natural gas
612 has become available to replace dwindling supplies of conventional gas. This not
613 only has resulted in lower gas supply and transportation costs than would have
614 otherwise been incurred, it has provided additional supply to continue to meet our
615 energy needs.

616

617 A prudent local distribution company would want CBM gas supplies for its
618 customers. It is appropriate that Questar Gas be allowed to recover the reasonable
619 processing expenses it has incurred associated with this supply.

620

621 **Q. Does this conclude your testimony?**

622 A. Yes.

State of Utah)
) ss.
County of Salt Lake)

I, Alan J. Walker, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

Alan J. Walker

SUBSCRIBED AND SWORN TO this 15th day of April 2005.

Notary Public