

P.S.C.U. Docket No. 04-057-04  
Data Request No. 2.10  
Requested by Division of Public Utilities  
Date of QGC Response October 4, 2004

- 2.10 (a) What was the cost of the propane injection facilities that are part of the Castle Valley plant. (b) Please provide a breakdown of the major components. (c) What is the current depreciated book value. (d) What is the annual cost of service excluding the propane cost. Provide a breakdown of the major components. (e) What is the purpose of these facilities? (f) What is the capacity of these facilities? (g) Can they blend with sufficient quantities of coal bed methane gas to meet the needs of the Payson and Indianola Gates summer needs? (h) Can they meet the winter needs? (i) What is the storage capacity in terms of volumes and days or hours of demand for summer needs? (j) Winter needs?

Answer: a. Total installed cost of the propane injection facility was \$829,000 in 1999-2000 dollars. The following is a breakdown of capital costs:

Construction & Engineering	\$353,754
Gas Measuring	146,181
Capitalized Labor & OH	171,750
Propane	42,091
Construction Interest	37,358
Warehouse Parts & OH	24,691
Detectors	13,934
Misc. Parts and Charges	<u>39,319</u>
Total	\$829,078

- b. Major components at the facility are three 30,000 gallon tanks, propane pumps, foundations and injection manifold system.
- c. Depreciated book value of facility is \$663,900.
- d. The annual cost of service of such a facility is typically 5% of total initial capital cost or \$40,000.
- e. The purpose of this facility is to improve gas quality in the event of an emergency shut-down of the Castle Valley CO<sub>2</sub> plant. By injecting propane into the gas stream and thereby increasing the Btu in the gas stream, the facility enables Questar Gas to meet gas quality requirements at its gate stations. The facility also allows more flexibility during routine plant maintenance.
- f. The existing facility has the capacity of approximately 45 Mmcf/day (3% CO<sub>2</sub> and 990 Btu) of coal seam gas blended with propane. The limiting factor for this flow is the equipment injection rate of 56 gallons/minute of propane and the storage capacity of the propane tanks. At this 56 gallons/minute rate, there is slightly more than one day's worth of propane

capacity. This would mean that for more than a day at this flow, propane tanker trucks would need to be unloading continually to keep up with propane demand.

- g. The existing propane injection equipment cannot keep up with any one day of system demand to the Payson/Indianola gates. The 45 Mmcf/day of total gas that the equipment is limited to is less than the required volumes as shown on Figure 4 as attached to the response of Data Request No. 2.6.
- h. Obviously, as existing equipment cannot meet the summer needs, it is inadequate for any winter loads that may occur.
- i. As was discussed above in letter (f), storage at this facility would be slightly over one day if propane was injected into a 120 Mmcf/day stream.
- j. The storage capacity of this facility for the winter demand season would be severely inadequate, almost one-third of what would be needed.
- k. As was discussed in the August 16 meeting with the Division, Questar has estimated the approximate costs to install a propane injection facility at the Indianola site. Total costs of the facility would be \$5.53 million, including an inlet and outlet line (2.5 miles) coming from ML 40 along with a new QGC gate station at Indianola. As was discussed at the August 16 meeting, this option would require QGC to purchase QPC's ML 41 from Indianola to Payson. Please refer to Questar's response to Data Request No. 3.4, Docket No. 04-057-04. The facility would consist of twenty 30,000 gallon propane tanks, propane injection equipment, controls system and may require some unique security and fire suppression systems.

Prepared by: Todd Dustman, Director System Engineering/Measurement,  
Questar Regulated Services