1	
2	
3	
4	
5	
6	
7	
8	
9	BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION
10	DOCKET NO. UG-021584
11	DOCKET No. 00 02100
12	REBUTTAL TESTIMONY OF MICHAEL D'ARIENZO (MED-2T)
13	REPRESENTING AVISTA CORPORATION
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

Q. Please state your name, employer and business address.

A. My name is Michael D'Arienzo. I am employed as Vice President of Natural Gas Marketing and Trading by Avista Energy, Inc. at 201 W. North River Drive, Suite 610, Spokane, Washington

Q. Have you previously submitted testimony in this Docket?

A. Yes. I have provided prepared direct testimony marked for identification as (MED-1T).

Q. What is the scope of your testimony in this proceeding?



A. In response to Staff and Public Counsel's testimony I will clarify how the Benchmark Mechanism is managed as part of Avista Energy's business. I will also respond to assertions made by Staff and Public Counsel with respect to the benefits to customers and auditability of the mechanism, risks and rewards for Avista Energy, as well as clarify where Staff and Public Counsel's analysis do not reflect the actual value and daily operation of the Mechanism.

Q. Do you agree with the WUTC Staff that customers would receive more benefits if the Benchmark Mechanism was moved back into the Utility?

A. No. I believe that the Staff and Public Counsel have significantly understated the value Avista Energy brings to the Utility's customers and have not recognized or understood the risks borne by Avista Energy through the Benchmark Mechanism. In reviewing the testimony submitted by Mr. Parvinen and Ms. Elder we were able to identify several areas where in their analysis they were either using inconsistent data or incorrect assumptions with respect to the natural gas market.

Q. Can you provide examples where the Staff or Public Counsel have errors in their analysis?

A. Yes. With respect to recovery on unutilized pipeline capacity Mr. Parvinen and Ms. Elder propose that Avista Energy has little if any risk with respect to recovery of transportation costs. I disagree with their conclusion. Today's natural gas market is significantly different than two years ago and the rules and regulation's associated with capacity release have been modified which makes it more difficult to recover costs. What they both do not seem to appreciate is that the market sets the value of the capacity based on what is traded at the receipt and delivery points of the transportation corridors. As long as there is a positive differential between the two points, then the transport has value. That value is determined by taking the difference between the two points, minus the variable cost to move the natural gas. The market is extremely efficient and will not pay above that level, which is contrary to what Mr. Parvinen and Ms. Elder propose.

In fact when reviewing Ms. Elder's testimony pages 12-14 she makes several errors in her analysis with respect to capacity release. First, in her calculation of the revenues on recovery of capacity she proposes that Avista Energy should be able to achieve \$10 million annually on capacity releases. In order to recover a \$10 million level, Avista Energy would need to have the ability to release the excess capacity at \$0.69 per MMBtu. Unfortunately, this is impossible due to FERC guidelines, which state that transportation cannot be released above full rate, which is \$0.27 per MMBtu. When you take into consideration that Avista Utilities has excess transportation at times when all the other Pacific Northwest utilities are also in excess, it is very unlikely that Avista Energy could recover the full rate. Moreover, due to the Pacific Northwest utilities' poor annual load (MED-2T))

factors (approximately 35%), which is due to their heating loads dropping off in the summer, Ms. Elder proposes that a 30% discount should be made to adjust for poor market conditions. This adjustment for poor market conditions reduces her estimate on capacity release recovery from \$13.9 million down to \$10 million. Utilizing Ms. Elder's own methodology and the FERC approved maximum rates of \$0.27/MMBtu, Ms. Elder's \$10 million estimate would be reduced to approximately \$4.0 million, which is significantly closer to the \$3 million proposed in the Benchmark Mechanism, and much less than the \$7.5 million of Mr. Parvinen. Please refer to Exhibit __(MED-3), for a derivation of these numbers.

Q. Are there other areas of the capacity release that you believe the Staff or Public Counsel have errors in their analysis, with respect to how revenues should be recovered?

A. Yes. With respect to the auditability of capacity release, both parties have indicated that there is not enough detail to complete their analysis of transportation revenues. I respectfully disagree and would point to the quarterly reports, which provides a full accounting of the recovery of costs for each of the transportation agreements, including what volumes flowed on the respective pipeline contracts from the receipt point to the delivery point. The report is concise and is generated directly from the pipeline invoices, which are billed directly to Avista Utilities. An excerpt of the pages from the June 30, 2003 quarterly report is attached as Exhibit____(MED-4). I believe where the confusion comes in is that the Staff and Public Counsel appear to want a detail description of what happens to the natural gas once it is dropped off at the delivery point, and the terms and conditions of Avista Energy's downstream sales. In their testimonies, they suggest that Avista (MED-2T)

Docket No. UG-021584 08/18/03 Page 3 of 14

Utilities' customers should be entitled to value above and beyond the value of Avista Utilities transportation. It is irrelevant, however, what the details are of Avista Energy's deals because Avista Utilities' transportation is being compensated at the full market price. In addition, there is no valid reason for Avista Energy to credit to Avista Utilities' customers a rate for transportation that is above market. The industry is extremely competitive and will not provide value for transportation that is above what the market will dictate. It is this efficiency that helps keep natural gas prices competitive with other energy sources, which customers ultimately benefit from in their rates.

Q. With respect to Avista Energy's size do you believe that the WUTC Staff and Public Counsel value the benefit correctly?

A. No. With respect to the WUTC Staff, I believe that it discounts the value of Avista Energy and in fact has an over-inflated view of the value of the Avista Utility's assets to Avista Energy. Mr. Parvinen states on page 52 of his direct testimony that: "Access to these valuable assets provides economies of scale and market presence to Avista Energy." It is actually Avista Utilities that benefits from the size of Avista Energy, since Avista Utilities is approximately 3% of Avista Energy's business. I would agree and have stated in my testimony that Avista Energy receives intrinsic value by incrementally increasing the size of the business. However, I believe that there are benefits to both companies, which have been described in Mr. Norwood's testimony and in the pre-filed direct testimony.

Q. Do you agree with Public Counsel that the Benchmark Mechanism does not provide a true benchmark against which gas costs are measured and that the

8

9

10

11

12 13

14

15

16 17

18

19

20

21

22

23

additional decisions for which Avista Energy can receive an award are biased in its favor?

No. The Benchmark Mechanism includes a distinct benchmark against which Α. gas costs are measured. As Mr. Norwood explained in his testimony, it is Avista Utilities' intention that the Tier 1 fixed price purchases that are made in advance to provide a level of price stability for Avista Utilities' customers, remain fixed. Therefore, no sharing or incentive has been designed around that element. Tier 2 purchases at FOM index prices, however, are used as a measure to determine Avista Energy's performance for the Tier 3 intra-month daily transactions. The incentive is set up such that if the costs of these daily transactions differ from the Tier 2 FOM index costs, this difference, up or down, is shared 80% to customers and 20% to Avista Energy. Therefore, Avista Energy clearly has an incentive to meet or beat the benchmark, otherwise it absorbs 20% of the difference in costs.

The Benchmark Mechanism is designed with symmetrical sharing (80%/20%) in all components (Commodity, Transportation and Storage.) Avista Energy provides significant value for Avista Utilities customers and an ability to transact in the market place in a manner which would not occur within the Utility.

Are there other areas of concern with respect to Public Counsel or Staff Q. testimony?

Yes. With respect to the "basin optimization," both WUTC Staff and Public A. Counsel do not adequately take into consideration the physical limitations of the system. Staff and Public Counsel suggest that there should be more flexibility in setting the supply basin percentage weightings, which in theory seems like a good idea, however, in practice (MED-2T))

> Docket No. UG-021584 08/18/03 Page 5 of 14

switching supply contracts could create supply reliability issues. Avista Energy is extremely sensitive to making any modifications to the Benchmark Mechanism that could jeopardize reliability of service. While the Benchmark Mechanism has been in place, Avista Energy has never failed to perform and Avista Utilities has not had to curtail customers due to lack of supply. In Staff and Public Counsel's proposed modifications to the mechanism they assume that there is 100% liquidity and the flexibility to economically perform such changes. They fail to consider at least two major factors in their recommendation.

First, the selection of the supply basin weighting percentages, is the starting point or foundation for the upcoming operating year upon which many other transactions are layered on top in order to optimize all the assets of the Utility. Some of these transactions include the following:

- 1. Once the basin weighting percentages are established for the upcoming operating year, it sets the initial estimated volumes that will be delivered from each supply basin to serve Avista Utilities' load, and it provides a guide for the amount of excess pipeline transportation that is available from each supply basin.
- 2. Based on that foundation, additional transactions are layered on top to further optimize the price differentials between the supply basins, which has been referred to as "basin optimization" in the Benchmark Mechanism proposal.
- 3. More transactions are layered on top related to pipeline capacity release and off-system sales.

7

8

10

11

12 13

14

15

16

17

18

19 20

21

22

4. In addition, pipeline transportation flexibility must be reserved for the use of JP Storage transactions, to serve Avista Utilities' load under a range of load conditions.

Some of these transactions will be longer-term transactions, e.g. for the full upcoming operating year, because in many cases the longer-term transactions will yield a higher value. All of these elements are extremely interrelated and a proposal to change the basin weightings mid-way through the operating year would undermine the opportunity to fully optimize the value of all of the assets.

Second, the layers of transactions I have outlined immediately above shows that the value that Staff and Public Counsel want to capture by changing basin weighting percentages is already being captured through other elements of the Benchmark Mechanism. For example, if prices change in the course of the year where one supply basin is significantly less expensive then the other two basins, the value of the transportation will increase from that region which will be recovered in the off-system sales transactions. Both the "basin optimization" value as well as the value from pipeline capacity release and off system sales are shared 80% customers and 20% Avista Energy. Therefore, customers will receive 80% of the value from a change in the supply basin price differentials, irrespective of whether it comes through the "basin optimization" or through the pipeline transportation optimization. Since the market is so intertwined it is imperative that the Mechanism incentives be symmetrical, hence the 80%/20% sharing in all areas of the Mechanism. This symmetry properly motivates Avista Energy to optimize all of the assets on behalf of Avista Utilities' customers.

Q.	Are	there	other	issues	to	consider	with	respect	to	moving	the	basin
weightings?												

A. Yes. In the management of the capacity release section of the Mechanism, Avista Utilities/Avista Energy will and have released capacity for terms that extend beyond one year. Those longer-term, non-recallable releases have historically recovered greater value than short-term recallable releases. If Avista were to implement the changes proposed by Staff and Public Counsel, some of those long-term releases would need to be modified to provide for the flexibility to change the basin weightings. It is difficult to determine the full impact that modifying those capacity releases would have when compared to the possible value you would gain in the event that prices are lower at the different basins. One thing that we do know for certain is that the market will pay less for an interruptible (recallable) product, which makes it more difficult to recover value on the excess capacity.

Q. Do you agree with Mr. Parvinen's conclusion that there is no additional cost associated with managing the load volatility of the Utility that occurs in Tier 3?

A. No. I disagree with his conclusions based on the actual experience Avista Energy has had in the Management of the existing Benchmark Mechanism.

Q. Can you please briefly describe the nature of daily load volatility in Tier 3 and what drives the cost to serve this load?

A. Yes. As Mr. Gruber explained in his rebuttal testimony (RHG-3T), prior to entering a month, the Company has already purchased a sufficient amount of natural gas to equal the expected average load for the month. Daily purchases or sales, together with the use of storage, are used to balance total supply with total load on a daily basis. The costs (MED-2T))

Docket No. UG-021584 08/18/03 Page 8 of 14

associated with this daily load balancing is not zero, however, as suggested by Mr. Parvinen. To complete an analysis of the costs of daily load volatility, there are functionally two moving variables, price and load. With these two variables (price and load) there are four possible scenarios that can occur any day during the month. The four possible scenarios are detailed below.

- 1) Load and price decrease: Excess gas must be sold at the market, which is less than the benchmark FOM index price.
- 2) Load decreases and price increases: Excess gas must be sold at the market, which is more than the benchmark FOM index price.
- 3) Load increases and price decreases: Additional gas must be purchased at the market, which is less than the benchmark FOM index price.
- 4) Load and price increase: Additional gas must be purchased at the market, which is more than the benchmark FOM index price.

Given this information, the valuation of Tier 3 daily load volatility is really a straightforward calculation. Evaluating the operation of the Benchmark Mechanism from September 1999 to February 2003, Avista has reviewed the number of occurrences of each of these scenarios and the cost of the occurrences. The results of this analysis are presented in the table below and are also shown on Mr. Gruber's Exhibit _____(RHG-5C).

Scenario	Occurrences	(Benefit)/Cost
1	444	\$(1,088,105)
2	233	\$882,126
3	294	\$1,351,515
4	299	\$(9,061,470)
Total	1270	\$(7,915,934)
1 & 4	743	\$(10,149,575)
2 & 3	527	\$2,233,641

This detailed analysis demonstrates that the costs of scenarios 1 and 4 (protection from daily price volatility) drastically out weigh the benefits to of scenarios 2 and 3. It also shows that the positive occurrences do not offset the negative occurrences and Mr.

(MED-2T)) Docket No. UG-021584 08/18/03 Page 9 of14

Docket No. UG-021584 08/18/03 Page 10 of14

Q. With respect to Mr. Parvinen's testimony does he give an accurate depiction of mark to market accounting?

A. No. Mr. Parvinen's understanding of Avista Energy's utilization of "mark to market" accounting is confusing at best. In his testimony he seems to imply that since Avista Energy uses pools of supply to serve loads, that Avista Energy does not have any idea of what its costs are to serve customers. Where the confusion may lie is that Avista Energy does not assign or link specific purchases to sales for its portfolio. However, Avista Energy does value every sale against the daily value of that gas to the sale. For example, if Avista Energy had an obligation (sale) to provide 10,000 MMBtu of gas to the Utility, a position would go in Avista Energy's book that shows an obligation of 10,000 MMBtu priced at the current market on the day. If the price moves \$0.10/MMBtu up the next day, Avista Energy would re-value the obligation at the new price. If Avista Energy had not purchased the gas for the sale it would show a loss; if they had purchased the gas it would show a gain. So Avista energy does value daily positions, but not with respect to coloring the actual molecules, but from an overall view at each hub and for each term.

With respect to the Benchmark Mechanism Avista Energy's utilization of mark to market accounting is immaterial, since the Utility's purchase of supplies are not based on mark to market, but rather are tied back to fixed purchases (Tier 1), First of Month Index (Tier 2) and Avista Energy's average sales on the day for Tier 3.

Q. Should the Commission be concerned about utilizing Avista Energy's average sales on the day?

A. No. Avista Energy is able to provide the WUTC Staff with all of its daily transactions to audit the deals. Also, by utilizing Avista Energy's sales it is a good (MED-2T))

Docket No. UG-021584 08/18/03 Page 11 of 14

representation of the market. Further, Avista Energy did an analysis of its performance (purchases & sales) with respect to Gas Daily, daily prices for the year of 2002 and there were no significant variances between Gas Daily published indices and Avista Energy's purchases and sales. Please refer to Exhibit__(MED-5), which provides an analysis of Avista Energy's Daily gas purchases and sales at the three basins from which Avista Utilities purchases its natural gas. The analysis showed that Avista Energy transacted essentially at market.

- Q. Have you reviewed Staff's recommended Alternatives to the proposed Benchmark Mechanism?
 - A. Yes.
- Q. What is Avista Energy's response to Alternative 2, which consists of increasing the guaranteed level of capacity release/off-system sales to \$7 million and dropping the \$900,000 management fee that is paid to Avista Energy? This alternative also includes changing the basin weightings every 6 months, on October 1 and April 1 of each year.
- A. With respect to Alternative 2, Mr. Parvinen proposes that Avista Energy take on more risk with respect to capacity release/off-system sales, while at the same time eliminating the \$900,000 management fee. By eliminating the \$900,000 fee, Mr. Parvinen is discounting the costs associated with credit, currency, scheduling, etc. and replacing it with "so called" benefits Avista Energy receives by managing the assets. These costs of doing business, however are not outweighed by theoretical benefits related to managing the assets of Avista Utilities, which as I explained earlier in my testimony are currently less than 3% of Avista Energy's total gas business.

Also, Mr. Parvinen's calculation provides no analysis which supports how transportation assets are valued in today's natural gas market. He relies on historic data that may or may not be valid in the future. The value of transportation will be ultimately dictated by market factors (weather, supply availability, power prices, legislation, etc.) that are beyond Avista Energy's control. In fact, historically Avista Energy has stated that the value they bring to the Mechanism is the liquidity to transact when opportunities arise versus some ability to predict prices that ultimately set the value of transportation. Based on our analysis and expertise, Alternative 2 is unacceptable.

Q. Do you have any concerns with respect to changing the basin weightings every six months as proposed in this Alternative?

A. Yes. As I explained earlier in my testimony I am concerned that a change mid-stream on the basin weightings will devalue the long term capacity releases, increase reliability concerns and may create uncertainty, in order to capture value that is already covered in other areas of the Mechanism. As I explained earlier the change in prices between the supply basins will be captured either through "basin optimization" transactions or the capacity release/off-system sales transactions based on the available transportation. These transactions will capture the majority of the value that Staff is focusing on, while preserving the value from long-term capacity releases discussed earlier, as well as preserving reliability of supply. As Mr. Norwood stated in his testimony, the design of the benchmark mechanism is well structured and thoughtfully developed. It has been refined over time, based on experience and input from multiple state jurisdictions. It has aligned Avista Energy's interests with those of Avista Utilities' customers such that Avista Energy only benefits if Avista Utilities' customers benefit.

14

15

10

11

Does that conclude your prepared rebuttal testimony? Q.

Energy would have to hold transportation available to meet the fluctuations in Avista

Utility's daily load, which can be substantial. This Alternative is simply unworkable given

Yes it does. A.

today's market conditions.

- 1	
1	
2	
3	
4	
5	
6	
7	
8	BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION
10	DOCKET NO. UG-021584
11	
12	EXHIBIT (MED-4)
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	

Capacity Releases - Month of June 2003

		A 43 40 A	D.A.			Volumes Moved Value
Washington/Idaho Releases Page 1 of 2	Contract	MMBtu	Rate	Basis	Volumetric	Moved
100010 release to IGI	110203	10,000	0.2776	100.00%	NO	(\$83,280.00
100010	190203	2,841			NO	(\$23,659.85
190203 contract for retained segment	100010	2,841	•		NO	\$23,659.85
190203 release to IPES	115151	2,841				(\$23,659.85 (\$23,450.85
190203	195151	2,841			NO	(\$23,659.85
195151 contract for retained segment	190203	2,841			NO	\$23,659.85
195151 release to Avista Energy	129240	2,841			NO	(\$23,659.85 \$23,659.85
115161 contract for returned segment	115151	2,841			NO NO	\$25,637.60 (\$59,620.15
100010	190204	7,159			NO	\$59,620.15
190204 contract for retained segment	100010	7,159			NO	(\$59,620.15
190204 release to IPES	115152	7,159			NO	(\$59,620.15
190204	195152	7,159			NO	\$59,620.15
195152 contract for retained segment	190204	7,159 5 6,709 5			NO	(\$55,872.55
195152 release to Avista Energy	129239	7.159			NO	\$59,620.15
115163 contract for returned segment	115152 122642	7,159 3			NO	(\$29,148.00
115163 release to Duke	110215	1,750			NO	(\$14,574.00
100010 release to GP Bell	190215	1,750	•		NO NO	(\$14,574.00
100010	100010	1,750			NO	\$14,574.00
190215 contract for retained segment	124463	260			NO	(\$2,165.28
100010 release to WA State - Eastern/Lakeland	124464	190			NO	(\$1,582.32
100010 release to WA State - Eastern/Lakeland 100010 release to Washington Natural Gas	193649	8,056				(\$67,090.37
193649 contract for retained segment	100010	8,056			NO	\$67,090.37
114115 Tonasket swap	113922	8,056			NO	\$53,672.30
114115 release to Avista Energy	129259	8.056			NO	(\$67,090.37
100010	113649	8,056	•		NO	(\$67,090.37
100010 release to Duke/PanEnergy	113650	9,094			NO	(\$75,734.83
113665 contract for retained segment	113650	9,094			NO	\$75,734.83
113665 release to Avista Energy	129237	9,094			NO	(\$75,734.83
100010	193650	9,094			NO	(\$75,734.83
193650 contract for retained segment	100010	9,094		100.00%	NO	\$75,734.83
100010	193651	4,594		100.00%	NO	(\$38,258.83
193651 contract for retained segment	100010	4,594	\$ 0.2776	100.00%	NO	\$38,258.83
100010	193652	4,500		100.00%	NO	(\$37,476.00
193652 contract for retained segment	100010	4,500	0.2776	100.00%	NO	\$37,476.00
100010 release to Duke/PanEnergy	113651	15,850	\$ 0.2776	0 100.00%	NO	(\$131,998.80
113664 contract for returned segment	113651	15,850		0 100.00%	NO	\$131,998.80
113664 release to Avista Energy	129236	11,300			NO	(\$94,106.40
100010	193653	15,850		0 100.00%	NO	(\$131,998.80
193653 contract for retained segment	100010	15,850			NO	\$131,998.80
100010	193654	200	•		NO	(\$1,665.60
193654 contract for retained segment	100010	200	•		NO	\$1,665.60
100010	193655	61 5			NO	(\$508.01)
193655 contract for retained segment	100010	61			NO	\$508.01
100010	193656	1,226			NO	(\$10,210.13
193656 contract for retained segment	100010	1,226	•		NO	\$10.210.13
100010	193657	7,400			NO	(\$61,627.20
193657 contract for retained segment	100010	7,400			NO	\$61,627.20
193657 release to IPES	115154	4,000				(\$33,312.00 \$33,312.00
115165 contract for returned segment	115154	4,000				\$33,312.00 (\$33,312.00
193657	195154	4,000			NO	\$33,312.00
195154 contract for retained segment	193657	4,000			NO	(\$2,540.04
100010	193658	305			NO	\$2,540.04
193658 contract for retained segment	100010	305				\$2,340.04 (\$566.30
100010	193659	68 9			NO	\$566.30
193659 contract for retained segment	100010		\$ 0.2776			(\$49,968.00
100010	193660	6,000			NO	\$49,968.00 \$49,968.00
193660 contract for retained segment	100010	6,000			NO	\$49,968.00
115166 contract for returned segment	115156	6,000			NO NO	\$49,708.00 (\$13,741.20
115166 release to Duke	130122	-3,000 S			_	(\$49,968.00
193660 release to IPES	115156 195156	1,500				(\$12,492.00
193660	1 199190	1,500	₽ U.∠//O	0 100.00%	140	(412,472.00

Exhibit_(MED-4)
Docket No. UG-021584
08/18/03 Page 1 of 9

Capacity Releases - Month of June 2003

Page 2 of 2		-	72.7			Volumes	
Washington/Idaho Releases	Contract	MMBfu	Rate	Basis	Volumetric	Moved	Value
195156 contract for retained segment	193660	1,500 \$	0.27760	100.00%	NO		\$12,492.00
193660	195157	500 \$	0.27760	100.00%	NO		(\$4,164.00
195157 contract for retained segment	193660	500 \$	0.27760	100.00%	NO		\$4,164.00
193660	195158	4,000 \$	0.27760	100.00%	NO		(\$33,312.00
195158 contract for retained segment	193660	4,000 \$	0.27760	100.00%	NO		\$33,312.00
100010	193661	590 \$	0.27760	100.00%	NO	2000	(\$4,913.52
193661 contract for retained segment	100010	590 \$	0.27760	100.00%	NO		\$4,913.52
100010 release to IGI	129036	300 \$	0.27760	100.00%	NO	545	(\$2,498.40
100010 release to Avista Energy	129035	4,536 \$	0.27760	100.00%	NO		(\$37,775.81
129042 contract for retained segment	129035	4,536 \$	0.27760	100.00%	NO		\$37,775.81
100010 release to Potlatch	124372	4,000 \$	0.27760	100.00%	NO		(\$33,312.00
100010 release to Potlatch	124373	1,040 \$	0.27760	100.00%	NO		(\$8,661.12
100010 release to Potlatch	124374	2,900 \$	0.27760	100.00%	NO		(\$24,151.20
100010 release to Potlatch	124375	4,060 \$	0.27760	100.00%	NO	\$100 pt	(\$33,811.68
100164 release to Avista Energy	129043	2,764 \$	0.27760	100.00%	NO		(\$23,018.59
129079 contract for retained segment	129043	2,764 \$	0.27760	100.00%	NO	38%	\$23,018.59
129042	130287	84 \$	0.27760	100.00%	NO		(\$699.55
129079	130286	116 \$	0.27760	100.00%	NO		(\$966.05
Total WA/ID NWP releases							(\$578,472.86
Washington/Idaho PGT Releases:							
F-00177 release to IGI	C-08504	1.000		100.00%	Yes	19,010	(\$1,480.67
F-02591 release to Duke	C-08503	1,650		100.00%	Yes	14,340	(\$1,012.76
Washington/Idaho Nova Releases: None							
Washington/Idaho ANG Releases: None							
Total Washington/Idaho releases				-			(\$580,966.29

Washington's Share	73.62%	(\$427,707.38)
Idaho's Share	26.38%	(\$153,258.91)

Month of June 2003 Use of Washington/daho Transportation on Nova, ANG, PGT

Calculation of Off-System Sales Margins

bjeljungt,	A DE	į	5 190	5.190	5.410	5.380	5.490	5.255	5.220	5.220	5.220	5.230	5.220	5.155	5.035	4.445	4.445	4.445	4.545	4.835	4.800	4.710	4.830	4.830	4.830	5.015	5.015	5.000	4.970	4.545	4.545	4.545	5.080	\$ 4.956
		Katana	١.	•	8,935	22							•	•	10,000		•	•	4,366	1,388	8,225	845					2,000	6,000	8,700	19,629	19,993	19,993		80,083 110,683
Stanfield	STAN	- 22.75 7.75			8,935	7									10,000				4,366	1,388	8,225	842					2,000	9,000	8,700	9,629	9,993	9,993		
Stanffeld	STAH	85																												10,000	10,000	10,000		30,000
		Daily See	Ι.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	'			•	•		133,312.60	148,747.50	•	106,254.63	•	\$ 307,314.63
VE39	planted		\$ 5.1350	5.1350	5.3875	5.3325	5.4450	5.2200	5.1875	5.1875	5.1875	5.1850	5.1775	5.1200	5.0050	4.4250	4.4250	4.4250	4.4800	4.7825	4.7925	4.6775	4.7775	4.7775	4.7775	4.9875	4.9925	4.9400	4.9375	4.5075	4.5075	4.5075	5.0150	\$ 4.917
Stanffeld	T Daily	Average .	5 190	5.190 \$	5.410 \$	5.380	5.490 \$	5.255	5.220	5.220	5.220	5.230	5.220	5.155	5.035	4.445	4.445 \$	4.445 \$	4.545	4.835 \$	4.800	4.710 \$	4.830 \$	4.830	4.830 \$	5.015	5.015	5.000	4.970	4.545	4.545	4.545	5.080	\$ 4.956
	20.00	Average	5.080	5.080	5.325	5.305	5.400	5.185	5.155	5.155	5.156	5.140	5.135	5.085	4.975	4.405	4.405	4.405	4.415	4.730	4.785	4.645	4.725	4.725	4.725	4.960	4.970	4.880	4.905	4.470	4.470	4.470	4.950	\$ 4.878
Total	ΧХ,	*****		•				•	1	•			F	•			•		•	•	•	•		•					27,000	33,000		23,351		192'88
	SHAME	2882 2882 100164 193653																																
		2882 2882 5474 100010																																
		288.2 1288.0																																-88
		177 28691 113663 6474																											23,350	3,350		23,351		70,051
Use of Waahingtochildeho Transportation on PCIT Dalvery Points & Volumes	SMMP SMMP	177 177 178 2661 100010 193650 193653 153662 5474																														**		Total (3,300 · · · · 70
Delivery Pol	2	# ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±	-	۰ ۵	ı o	4	ιo	9	7	60	Ø	우	=	5	5	7	15	16	17	8	19	ୡ	21	ន	ន	24	52		27 3,650		83	8	31	Total 13,300

والمراكب المراكب المراكب المراكب المراكب المراكب المراكب المراكب المراكب		
83,251 110,063		
salar ar a	00.00	
6 10 10 10 10 10 10 10 10 10 10 10 10 10		TAX IS
ARREST ARREST ARRESTS	. 200	
Salar Araba Araba Araba (1886) (1886) 🖚 🕻		
alle plante de la companie de la co		-
	46	- i
7 Y Y S S S S S S S S S S S S S S S S S		
X X X X X X X X X 💳 (X X X X 🖎	1.66 I	
	. X.	
A A A A A A A A A FO (1) (1) (1) (1)	- K.V.	
\$ 267,314.63 63,251 \$ 622,972.12 110,063	\$ 910,286.75 193,434 Dth	النحد
	_	~~
40 CM		
2222222222		
	97	
2 NO DE DE DE DE	40.00	
A A A A A A A A A A A A A A A A		
taylaydaydaydaydaydaydaydaydaydaydayda	1.0	
Santa at Santa at a da ata at a da ata at a da		
		~
A Company of the Comp	20.00	00
	V1V13	00
2 000000000000000000000000000000000000	99	88
3		8
2		×
§		8
<u>8</u>		

enge Agree		******
and Value		
es and Value Veries		
nes and Value Eventes ories		
mes and Value liliveries eries		
umes and Value eliveries vertes		
lumes and Velice Selfverice Iiverice		
ulumes and Value Deliveries divertes		
olumes and Value Deliveries effvertes	-	
Yolumes and Value n Deliveries	•	
Volumes and Value in Deliveries Deliveries	ital	
Yolumes and Velue an Deliveries Deliveries	otal	
d Volumes and Value tan Deliveries d Deliveries	Cotal	
ad Volumes and Value Stan Deliveries Id Deliveries	Total	
ed Yolumes and Value Stan Deliveries sid Deliveries	Total	
rad Yolumes and Value -Stan Deliveries eld Deliveries	Total	
ared Volumes and Value D-Stan Deliveries Reid Deliveries	Total	
rerad Volumes and Value O-Stan Deliveries rifetd Deliveries	Total	
vered Volumes and Value 20-Stan Deliveries nfield Deliveries	Total	
Iverad Volumes and Value CO-Stan Deliveries Infield Deliveries	Total	
ilivered Volumes and Value ECO-Stan Deliveries antield Deliveries	Total	
eliverad Volumes and Value LECO-Stan Deliveries tanfield Deliveries	Total	
belivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
Delivered Volumes and Value AECO-Stan Deliveries Stanifield Deliveries	Total	
Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
f Delivered Volumes and Value AECO-Stan Deliveries Stanified Deliveries	Total	
of Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
3T Delivered Volumes and Value AECO-Stan Deliveries Stanifield Deliveries	Total	
GT Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	33333333333333333333333333333333333333
RGT Delivered Volumes and Value AECO-Stan Deliveries Stanified Deliveries	Total	33333333333333333333333333333333333333
PGT Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	33333333333333333333333333333333333333
I PGT Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
at PGT Deliversat Volumes and Value AECO-Stan Deliveries Stantietd Deliveries	Total	33333333333333333333333333333333333333
ief PGT Delivered Volumes and Value AECO-Stan Deliveries Stanified Deliveries	Total	33333333333333333333333333333333333333
Kei PGT Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
otel PGT Delivered Volumes and Value AECO-Stan Deliveries Stanfield Deliveries	Total	
rotal PGT Deliverad Volumes and Value AECO-Stan Deliveries Stanifield Deliveries	Total	
Total PGT Delivered Yolumes and Values: AECO-Stan Deliveries Stanfield Deliveries	Total	

		器	5	.58	.
	4	怒	Cost	\$ 110.58	2
	ុក	器	•	* ** *	^
83,351	8 2	器			
8	110,083 183,434 Dth	쬾			
		畿	2		
\$ 387,314.63	\$ 622,972.12 \$ 910,286.75		Washington/Idaho Volume	38,369	
7	6 8	×	nington/i Volume	86	
8	2 2		Ē.≥		
46			8		
		88			
		88	: <u>§</u>		
•			at in it	Ę	×
ŧ	3		2 = 1	<u> 8</u> .	Index
Ź	2		tatk gered	=	<u>}</u> ``
-		器			
AECO-Stan Deliveries	Stanfield Deliveries Total	88	2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	¥ .	2
Ŋ Ŏ		×	트를	8	8
•	0		da v	Ę.	
			ANG Variable Transportation Charge: Based on Volume delivered at Kingsgate ANG Intermedials Transportation	Volumes priced at Daily Index	Volumes priced at Monthly Index
				; ₹ :	₹
	والوالوالوالوالوالوا	J. C.			-

ANG Variable Coe/UDth \$ 0.00283192 0.739480884*((0.00002408778*170.7)+0.000)/1.055056

WAND Nove, ANG PGT Volumes - PAGE 1 pf 2 June os

1.3523 0.739480884

Exhibit (MED-4)
Docket No. UG-021584
08/18/03 Page 3 of 9

.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	_	_				_		_				_			_							-	-	_		_	_			
AECO Car Outy	5.080	200	325	305	8 8	5 185 185	5 55	5 55	5.155	5.140	5.135	5.085	4.975	4.405	4.405	4.400	4.730	4.785	4.645	4.725	4.725	4.725	4.960	4.970	4.880	4.905	4.470	4.470	4.470	4.950	\$ 4.878
Volume Angegne			9 007	5	٠.					•							1,399							2,016	6,048	28,024	40,654	20,154	43,578		148,893
e de la companya de l			22	į	٠,												=							9	4	124	174	161	234		<u>14</u>
Nongagna Redespt																										17,200	30,851		23,351		71,402
			8 0.35	3 5	4												1.388							2,000	6,000 6	8,700	8,629	19,993	19,993		76.650
Mark Mark Mark		•	•			•		•	•	•	•	•	•	•	•	• 1	•	34,904.33	•	•	•	•	•	•	•	•	•	•	•	•	7.283 \$ 4.917 \$ 34.904.33
į.	35.	3 5	98.5	2000	5.44E	200	5 188	5.188	5.188	5.185	178	5.120	900	425	4.425		783	4.793	878	\$ 8 //	4.778	4.778	4.988	883	4.940	888	4.508	4.508	\$	\$ 510.	1917
		, ie	, id	, i	j u	9 4	, i	i uni	ı.	ري	٠.	ıci	ro,	4	4.	4 4	f v	7,283 4.			4	4	, 4	4	4	4	4	4	4	ući ,	283 8.
TO A A	3																														58
Star Road Port	The state of the s				•	•	• •		•	•	•	•	•	•	•	•	•	7,225 58	•	•	•	•	•	•	•	•	•	•	•	•	7.225 5
Stern Red Parket	AECO OFFICE COMPA																														•
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		, ,	. ,	•	•				•			•	51,633.06	•	,			4,771.36	3,996.28		•	•		•	•	\$ 46,779.90	\$ 56,287.72	•			\$ 182 907 29
MOYA ABDO-C Gas Daily	63.5		0.10	910.0	0000	900	5.435	5.435	5.436	5.344	5.245	5.257	5.092	4.584	284	4.584	4 804	4.705	4.679	4.816	4.816	4.816	4.979	4.950	4.844	4.730	4.505	4.505	4.505	5.015	\$ 4972
Yokune Yokune	2	•	•	•	•							•	10,141		•	. 7		1,014	854			•	•			9,890	12,273		•		24.699
10*		•	•	•	•							•	8			, 8	3,	ဖ	ĸ	•	•	•		•	•	28	73	•	•	•	230
		•	•		ı								8				3.	œ	7	•	•	•	•	•		અ	26				212
AECD AECD Redepte													10,000			900	g F	1.000	842								2,499				18.707
1	Angotal Daily																									9,800	9,650				19.450
				6,338.30	75.4					•	•		50,350.00	•		- 0,000	6 710 98	39,480,00	3,965.82	•	•	•		10,030.00	30,000.00	43,239.00	89,213.81	90,868.19	90,868.19	•	Total 8 822 972 19
Stanfad Delivered Value																															

10,019.96 29,515.52 127,647.70 181,724.89 90,087.57

\$ 586,433.77

6,618.06

AECO Pecalpt Value

Month of June 2003 Use of Washington/Idaho Transportation on Nova, ANG, PGT

Calculation of Off-System Sales Margins

	district.	الرائرة	7.7		1,71	47	10.00	10
ಂ	XX	$\circ \circ$	း	्		×	9	ю
		566	1	99			- 3	ш
V. V.		(80%)	××.	XX	ಂ	ंध	IX	
×>0	ಂದಿ			××	့		N	10
889		25.55	***	48 GOS DIE		93	_	133
200	200	0.00		: 1	2	10	-	
OO:			ಂ	्		20		ш
्र	$\times \times$			99		337		40
	9		œ	. 0	21.	10		20
Y.Y.	2		9		21	•	ಂ	
XX	7,283		38,599	ъ.	ч	4,775	ಂ	54
XX:			:40		śΙ	♥.		-84
××:	ಂ		m		н	6	$\circ\circ$	20
	993	23.	××.		11	•		
			000	OC.	-1	× 5	14.14	
	Sec.	OO.	ಂ	ಿ	-10	:::	× ×	r.
$\circ \circ$	1	O.		ः	1	-	$\times \times$.0
्ः	7		73		1	X.		.01
999			.		М.			ж.
	3	WW.	12	. 1	श	92		٠,
XX:	2	(808)	2		21:	3		- 12
	Ψ.				ч			- 20
			21		21.	9	12	7
	34,904,33	200	162,907,29		1000,000	906,245.39	ion Cost	
ಂತ						•		
.	200			989		833	•	æ
2	200			X.			2	-51
=		-	-		PI.			-33
2	୍ବ		Ç.		ा	ାଣ	Ŧ	-30
	983	2525	××	88	××	99	. 3	10
=	100		:X:	Oď.	ХX	×>	٠.	
: ≛:		SOO.	း	ા	×(×	>>	. 9	ш
-	XX		œ	୍ୟ	X,X	20	- 5	ю
		****	22	95	27	e.	- 2	32
1	KiKi:		ХΧ	×>	œ	$\circ \circ$	- 2	83
	$\circ \circ$		×.	×	Ç.		्ट	-0
Peceived Volumes and Values:			202	20	99	*	a Transportat	10
-	14.X			Ø.		Total		
9	(XX)	:00	ಿ	୍ଦ	××	ō	ź	. 6
~			00	ং	××	-	- 7	ю
T		777		88	828	70	- 2	12
•	200	n W	ECO Receipt	60	O.		Š	ы
. 5	200	OO.	: 5	ಿ	ಂ	X X		100
7	tarr Road	OO	: 2				2	100
8	: T	300	- 8		٠.		ા⊟	DC
8	- 6	2	ď			838	. 0	
Œ	æ				Э.	83	Õ	10
\equiv		Infletd	О		DIE CONTRACTOR		5	100
7	2	E	7		а.	33	: 6	100
· 🕶	- 6	::₹	7		2	23	∵ ₹	16
•	£	₩.	- 31		3	20	୍ଦ	10
· •••	49	· or	- 1			20		100

States of Washington and Idaho - Calculation of Off-System Sales Margine:
NWP Delivered Volumes
Month of June 2003

	ż			è		1	٥	¢	١		d	ò	٤,	7
	ŝ			į					ì					ţ
ľ		Š	ì							*		•		Ş
	Ì	X		Ì					ì	1		j		ð
	ŝ	Ż		è						1	į	١		ć
1	Ś	×	Ì	ĺ				Ì	ĺ	1			Ì	
į		ž		ĺ				ì				۰	Ì	ğ
ć	Š			ļ			Š	Ì		1		•	ŕ	ģ
į		Š		Ì			Í	Ì	ļ			Ì		
į		Ś							þ		į			έ
ć	Š			Ì			Š		Š					9
ć	Š	ŝ		Ì	ĺ		ŝ					}	ĺ	9
		3		Ì					}		į	۹	١	Š
	Š	ij	9	Ì			Š	ŝ	ì			ŝ		Ť
		X	į	è			į		ì					ξ
	Š	X		Ĉ			į	١	ŀ				١	ş
		Š		į			į					Ś	Ì	9
	Ó	X		ĺ			1					þ	ŀ	ğ
	8			ĺ			i					Ś	Ì	Ť
			Ì	ĺ			Š		í			٠	Ì	Š
		X		ĺ			Š	ì	ĺ	×		•		8
		X	Ì	Č			Š					ŧ	Ì	8
۱			Š	Č			Š	ì	ŀ			٠	ì	
	Ś	X					Š					i		1
				į	ì		ŝ	ŝ	į	ì			i	3
		Ì	ì	۱			į					۰	۱	
i			ì			į	Š	ċ	į	Š			è	í
i	ŝ		į	ì		1	Š	į		į			í	
	Ì		1		í			ĺ	ş	į		á	ŀ	Š
	ŝ		ć	Š	í	1								Í
	ŝ		į		ĺ	1				į	H	ş		į
		Ş	d	Ì	ĺ	1			į	5	4	į		ŧ
	Š	Š	d		í	1			è	5	i	•		ç
	ŝ	Š	d	ì	į			į	ċ	þ		Ĭ	ĺ	Ś
	į	į	d d	ì		2	ċ			Š	í	Charle Charle Charle Charle sh	•	3
	Ś	Š	ì		Ì	í		ì		2		į		ž
	Š		ì		Ì		X	ì		1		å	ļ	å
	į		ì		Ì	ľ		į		ŝ				S
	Š	Ž			Ì	ĺ				þ		ļ	l	į
ľ	É		Ì		Ì	8		Ì	ŧ.	ì				ř
	į	Ì			Ì			Ì	ŝ	Ì		į	ŀ	į
	Ś			Š	ì			j	ć			ō		Ì
	Ž,		ŝ		ì			į	ŝ		Š	Ė	Ė	ğ
	Š		ê	١	ì				١			å		Ų
	ŝ	Š			ì		×			ì				ç
	Ì							į		í		Ĺ	ı	Š
	٩.		1			ľ	٥	Ś	è	į		V.		
	S													
				j	į	2		è		ì	į	h	ľ	Š
														50000
						000000000		医电影电影电影		20022222				THE SOUGH
						200000000000		"在我还在我们的时代!				4		100010-01001
						いいりつひつりひひりかいかり		医电线性经检检检检检检检检			いりのアメンシスのアン	- The state of the		10001 010001
						**************		经现代的 经现代的 经现代的 医皮肤				Thomas AVR2		Att 100010 100010
						******************		1966年1966年1966年1966年1				Community AVR2 HEP		+ADOLD LOCAL FORMS
			2. 经经济的 经经济的 经现代的 经现代的 经经济的			いのうりゅうこうしょうしゅうこうになるしゃ		1966年1966年1966年1966年1966年1				Elements AVR. HP	The second secon	TODAL TODAL TODAL
			医格特特氏性结核结核结核结核结核结核结核结核结核			いいりゅうこうこうしゅうしゅうしょうしゅうしゃ		1966年1966年1966年1966年1966年1966年1				* Elements AVR2 IEP	The second secon	TO * AMORT LINGS AMORT
			化过程过程过程过程程程程程程程程程程程程程程程程程程					化多线性多线性多线性多线性 医多线性 医多线性 医多线性				EPA Elementors AVR2 IEP	L. Sink Sikk Sikk	Check Archar London and Check
			化过程程程程程程程程程程程程程程程程程程程程程程程程					100 化对对对对对对对对对对对对对对对对对对对对对对对对对				Elements AVR2 LEP		CIPORT - FRONT - LOOPE - CIPORT
			化建筑建筑建筑建筑的建筑建筑设置设施建筑设计设建设设设设					医克特特氏性皮肤性性皮肤性皮肤性皮肤皮肤皮肤皮肤皮肤皮肤				C CON Element AVR2 IED	The second secon	to inner tenant tonne tenant
			1. 经存储的 经存储的 经经济的 经经济的 经经济的 经经济的 经经济的 医克勒特氏病					医多种性性性性性性性性性性性性性性性性性性性性性性性性性				VS2 Element AVR2 IEP	The second secon	Andro Joobio tabaio tambio tandio
			1. 经经营的 经经济的 经经济的 经经济的 经经济的 经经济的 经经济的 化二甲基苯酚			计分列 医克克氏氏征 电对比时间 经收益 经有限的 经有限的 医克勒氏征 医克勒氏征 经分割 经存储的 经存储的 经存储的 经经济的 计可引动器 计可引动器 计多数分类 计多数分类 计多数分类 计多数分类 计多数分类 计多数分类 计多数分类 化二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基二氯甲基		(在我的时间的时候的时候的时候的时候的时候的时候的时候的时候的时候)				AVEZ EPA ELECTRON AVEZ HEP	Le de la constante de la const	ASSATO AROSIO ASSATO ASSATO
		٥	2. 经经营的 经经济的 经经济的 经经济的 经经济的 经经济的 经经济的 医克勒特氏征 医克勒特氏征 计可引用 化二甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲基苯甲			ひとのしか ないかい ないかいけんけんけん ないかん ないがんけん かんしゅうけんけん ないか ないがん ないない ないない ないない ないしゅうしゅ		医多种性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性性				THE AVEC THE ELECTRON AVEC THE	Le distribute the same	oto tenoto inden tendera incente tendera
		٥				けんげん かなかい かいしゅうかんけん かんかん かんけい かんかん かんかん かんしゅう かんしゅう かいしゅう ないしゅう かんかん かんしゅう しゅんしん しゅう		"是我有是有的的有情,也可以有的的有情,也是我们的有情,我们就是我们的有情,也是我们				Complex AVES 1874 Electron AVES 1879	Live State Control Control Control	tonoth tonoto thomas teneral tonote tonoto
		٥										Court Avec 1794 Electron Avec 187	The state of the s	1000th tends those tends 1000th tends
						かんが かかかく かんかん かんげん かんかん かんかん かんかん かんしゅう かんしゅう かんしゅう ないか かんかん かんかん かんしゅう しゅんしん しゅんしん						on cont Ave the Floridan Ave the	The second of th	a though topoto topono teoria topoto
		٥	化电影电影电影电影电影电影电影电影电影电影电影电影电影电影电影电影电影电影电影			かいがく かかかい かいかい かいかい かいかい かいかい かいかい かいかい						THE COMPANY AVEC THE ELEMENTS AVEC THE	The state of the s	Mond though tenote thems though themse tenote
		٥				かいが かかかく かいかい かんかい かんかい かんしゅ しんしん かんしん かんしゅ かんしゅ かんしゅ かんかい かんかい かんしゅう かんしゅう しんしゅう しゅうしゅう						į		significant states there seems some some some
												į		100010 100010 100010 100010 100010 100010
								有我的人的人的现在分词				į		s todata tasata tasata tasata tasata tasata tasata
	•											PA Elementor Cont. AVEC 18PA Elementor AVEC 18P		and the tenton and tanded the tenton tenton and tenton tenton
								有我的人的人的现在分词			10.000 10.0			tropis topos transport toposts toposts toposts
								有我的人的人的现在分词			10.000 10.0			100010 100010 100010 100010 100010 100010 100010
								有我的人的人的现在分词			10.000 10.0			topoto topoto topoto topoto topoto topoto topoto
		٥						有我的人的人的现在分词			10.000 10.0	į		in income income income income income income income
								有我的人的人的现在分词			10.000 10.0			WHIN TOOMS TOOMS TOOMS TOOMS TOOMS TOOMS TOOMS
								有我的人的人的现在分词			10.000 10.0			sower traces traces traces to the toler traces
								有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0			CANCHO TRACTO TRACTO TRACTO TRACTO TRACTO TRACTO TRACTO
	ranon on necessaries							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0			separa tagata tagata tagata tagata tagata tagata tagata separa
	agortabon of necessity printe							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0			THE LEASE LEADING LEADING LEADING LEADING LEADING LEADING LEADING LEADING
	Terregoriation of Nectives (Trems)							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0			LANCH CONCHIT LINGS - LOGGE CONCHIT LINGS - CONCHIT LINGS - LONGS - LO
	Instructuous on Nactives Cripture							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000			s sands sands sands sands sands sands sands sands
	dense Trenseportation on Nectivates Criptums							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		WAS LANCED SOME TOOMS INDICE TRACE CONTROL CONTROL CONTROL
	ARACINE ITERATION OF NECTWORK IN PRINCE							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		LOOMY LANGE SOUTH TOOMS TOOMS TOOMS SOUTH TOOMS SOUTH
	Jeton Felicane Common on Nachwest Charles							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000			No soboly storing someth sports storing source source source
	entertockdene irensportation on Nectivesk inperior							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		coord stands than the sound sound sound the same sound the sound sounds sounds the sound sounds sounds.
	Washington Adelba Iranago rabbon on nathwas first state							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		s seeks conditioned about 100010 south 100010 south 100010 south 100010
	of Washington Agins I repete the Day of A strongs of A st							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		JOHN JOHNS JOHN JOHN JOHN TOOMS TOOMS THOUSE THOUSE TOOMS TOOMS TOOMS TOOMS
	the of Washington Adens I resemblished on Nectives Cripture							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		species
	the of Washington Adense Irense fortabon of Notawes Chipmen							有是有有有有有有有有有有有有有有有有有有有的的现在分词 经经验证据			10.000 10.0000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.0000	OA Kinnehare AVSO IEDA E Innehar		as some some some some some there are some

Total JP Debrery	33,347	24,947	10,048	26,994	17,462	47,717	42,488	42,488	42,498	20,439	1,802		4,151	•	4,115	•	1,554	11,670	964	•	14,048	22,510	23,372	7,907	15,037	14,538	13,939	14,038	14,238	14,038	
JP 100164	768	708	7,236	7,236	7,236	7,236	7,236	7,236	7,236			-		\vdash	-	۲	H	Н		1				3,701					-	-	
1001	6.852	6,852							l			l											_			r	Ī			l	T
118684 1	4,540	ــ	815	4,540	4,550	4,550	3,205	3,205	3,205		-	-				_											r		l	-	l
40000 100010	r	-				9,789	_		-	H				Н	L			6,707			6,814	3,839	6,814		9,786	9,789	9,789	8,789	9,789	9,789	
JP 100010	17,188	8,183	1,818	15,218	5,676	16,061	15,218	15,218	15,218						225			4,963				10,386	10,386	4,206				l	8		
10000	-			H	H			L	9,788	9,789	1,802	L			-	Н			75		1,463					_		\vdash	-		
	\mid		109			1,667	82		য়						1,757							1.257	627						Ī		T
100010 100010	4,378	4,378	70			1,366			l	3,622	r	-					1,554						2,082		5,248	4,749	3,966	4,249	4,249	4,248	
10001	ſ					7,028	7,028	7,028	7,028	7,028			4,151		2,133	Ī					5,771	7,028	3,513				184				
Vetus	18,372.06	18,372.06	-	-	19,157.06	18,697.95	15,581.62	15,581.62	15,581.62	15,382.42	87,437.58	15,428.39	14,365.76	12,782,78	12,782,78	12,782.78	13,380.39	20,708.36	20,752.29	28,722.77	27,450.62	27,450.62	27,450.62	28,556.97	28,525.90	29,468.56	29,830,19	26,683.65	26,683.06	26,683.65	
e Jě	5,102 \$		5.288 \$	5.250 \$	5.322 \$	5.194	5.194 8	5.194 \$	5.194 \$	5.127 \$	5.225	5.143 \$	4.785	4.264 \$	4.264 \$	4.264 \$	4.463 \$		П	_	4.816		4.818	5.010	5.005	4.995	5.056	4.883	4.883	4.683	4.908
	3,601 5.	┺	L	2	3,600 5.	3,600 5.	3,000 5	3,000	3,000	9,000	16,736 5.	3,000	3,000	3,000	3,000	Ц	Ш			_		Ц		5,700 5.	5,300 5.	5,900 4.	5,900 5.	5,700 4.	L	5,700 4.	L
460 Det	8	6			ē	ě	3,	é	ê	6	16	6	8	3	3,	9,	3,	4,	4	ŝ	5,	5,	5,	5,	5,	5,	.5	5,	S	9	L
9964 189	\vdash			-	L	L	-	L		-		_	L		L	L		Н		1					_	H	-			L	
Cleark BORBES 19	F				H	-			┝	-					_	_				1						H				l	_
Clear 193068	r	T			l	ľ	l	l																							
# 45 # 40 # 40																										L		L			L
HEP HEPA CHART CHART CHART CHART CHART CHART NINWPANT 000010 (000010 2E+02 183058 183053 188050 189058 Dalfway	_	L	L	L	1,800	1,800	1,069	┖	1,069	1,800	1,800	1,800		L												L	_			L	L
	\mid	ŀ	L		008	008	200 741	L	200 741	200	200	200	L	L		H				_						-	L	L	\vdash	L	-
Election AVR2 100010 100010	-	F			1,000	1,000	1,000	L	1,000	L	L	1,000	L	-		H				_		_		L			H	L	F	H	
1600		L			-	-	_	_	-	-	_	-			L			Ш								L	L	L	L	L	L
100010													1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	
AV82 100010					Γ								500	500	200	200	200	1,000	1,000	2,400	2,400	2,400	2,400	2,400	2,400	3,000	9,000	3,000	3,000	3,000	
Clerk 100010		Ī		Ī	T	Γ					3,086																			Γ	
Elementurg 100010													1,000	1,000	1,000	1,000	1,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,100	1,100	1,100	006	906	8	
	288	862	L		L	L	L		_			L	L	L	L	L	L	L		_		Н	_	L	_			L	L	L	H
100010	l _{sz}																														
AV82 100010	008	908																													
₹ 8																							L		L						
0000	1,000	1,000							ſ																						
Ciert IEPA Elloneburg todorg todorg todolo	1,502	1.502		l	\dagger	T	\vdash	İ	l	\dagger		-	T				\vdash		H	-					r				T	l	
0000	l					T	T	Ī	T	T	3622					Ī						Γ					Γ		Ī		
Clark Date 100010	r	T	T	T	T	T		T	T	T	7888		T	Γ	T	Γ	Γ		Γ	Г	Γ		Г	Γ	Γ		Γ		Γ	Ī	

	27,234.02
	40
132, 281 136, 188 186, 789	. 🕏
3, 3, 8,	13
	ı, ı
	900
	686
#50,716.30 #36,548.87 2,418,275,79	୍ବାଞ
23 6	` \$
6 6 6	13
88 5	18
*	"
3	999
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
Delivered Volume and WF A1 Cates EDOStanfed Average	i de de
A Commence of the control of the con	
3 . 31	
Delivered WP At One ECO/Starf Lanes/Starf	
§	3
4 10	
Delivered Vo	3
NWF All Other NWF All Other Busines AEDOStanfield Avera Summaffundad Avera	999
	999

NWP Transportation

Exhibit (MED-4)
Docket No. UG-021584
08/18/03 Page 5 of 9

			\$ 4.910	\$ 5.090 \$	8.065 8	5.125 \$	9		*		*	-			l	20,450.00	28,450.00	21,425.00	23,150.00	23,200.00	22,520.50	23,150.00	22,146,37	24 100 00	24,075.00	×	25.784.50	22,660.00	22,500.00	22,500.00	23,600.00	
					5.065	120	18					*	*	*	•		\$	*	_		_	-	-	• •	-	*	+-	=	*	\$ 1	_	*
	211		Г		*	9	8 5.000	\$ 5.000	\$ 5.000	\$ 5.000	\$ 4.935	\$ 5.080	\$ 4.950	\$ 4.600	\$ 4.090	\$ 4.090	\$ 4.090	\$ 4.285	\$ 4.630	\$ 4.640		- 1		4 820		1			\$ 4.500	\$ 4.500	\$ 4.720	•
				•	•		4,500	5,600	5,600	5,600	5,600	5,600	6,600	6,100	6,100	5,000	5,000	5,000	5,000	5,000	4,999	2,000	4,999	900	\$,000	6,300	5,300	8,300	5,000	5,000	5,000	•
		200					4,500	4,500	4,500	4,500	4,500	009'1	4,500	2,000																		
																					8		1,4683									
Profit.		2000				Γ									6,000	6,000	5,000	5,000	5,000	4,188	3,224	2,788	1,358	27.08	2,789	3,188	2,588	2,588	2,789	2,786	2,789	
4 on Northwest Physik		2						1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100					812	911	2,211	2,211	2211	2.211	2112	2712	2,712	2,211	2,211	2,211	
100		1	\$ 5.050	\$ 5.050	\$ 5.250	5.208	\$ 5.308	6.129	\$ 5.110	\$ 5.110	\$ 5.110	\$ 5.083	\$ 5.125	\$ 5.053	\$ 4.81B	\$ 4.288	4.268	8 4.268	\$ 4.415	\$ 4.739	ı		- 1	77.00					\$ 4.529	\$ 4.529	\$ 4.529	\$ 4.900
ij		_	\$ 5.190	\$ 5.190	8 5.410	8 5.980	\$ 5.490	\$ 5.255	\$ 5.220	\$ 5.220	\$ 5.220	_	\$ 5.220	\$ 5.156	5.006	_	\$ 4.445	\$ 4.445	\$ 4.545	\$ 4.836			930	2 4 8 8 8	5.015	5.015	5.000	4.970	_	\$ 4.546	\$ 4.545	\$ 5.080
gtoskisko Trans Ints & Volumes		NA	\$ 4.910	£ 4.910	\$ 6.090	\$ 6.056	\$ 6.128	-	_	\$ 5.000	8 5.000		\$ 5.030		\$ 4.800	-	8 4.090	\$ 4.090	\$ 4.285	_	\$ 4.840	4.505	-	000	+	\$ 4.815	\$ 4.806	-	\$ 4.500	\$ 4.500	\$ 4.500	\$ 4.720

2 04 22

Exhibit (MED-4)
Docket No. UG-021584
08/18/03 Page 7 of 9

JP Receipt Value		•	-	•	•			•					•		•	•		. \$	•			•		•			•	•		•	•
Starfled Ones Average	5.050	5.050	5.250	5.208	5.308	5.128	5.110	5.110	5.110	5.083	5.125	5.053	4.818	4.268	4.268	4.268	4.415	4.733	4.720	4.608	4.730	4.730	4.730	4.918	4.915	4.903	4.918	4.523	4.523	4.523	4.900
Total for JP Recept		٠				•		•						•		-	-	-			-	-	-	,	•	•					
JP JP JP JP																															
# # 8										L	L		L														L	L	L	L	L
9 20				L										L													L		L	L	
al. 1001E4																															
. 9L																															
J.P 100010		-			<u> </u>																										
طر طر طر 1000 مانون معط																															
97 01000	r	T	T	T	T	T		T	ľ	T	T		T	Ī										Γ							

States of Washington and Idaho - Calculation of Off-System Sales Margins: NWP Received Volumes Month of June 2003

	_
	200
	$\times \times \times$
	wiwis.
	100.00
	20.00
Principal de la companya de la comp	2000
	(FF)
	100
	ans.
	770,678 Dth
	15
	116
	21.2
	1
	16.34
Distriction and the control of the c	
	4
708,008.24 1,007,008.03	3,633,681.23
- A - G	IN.
	1122
	122
	19
	100
	.114
	.122.
	164
	3.0
	300
E 14 14 15 15 16 16 1	عده اد
	100
以表示へへのののの思うを発う表示を	::23
	ŀF
AP Received Volum JP Receipt Startfald Sycombog Pool F 6 Opel Receipt Start Road Receipt	Total
() 本 / 本 / 本 / 本 / 本 / 本 / 本 / 本 / 本 / 本	
1. 基本基本 (基本) 美国主义等(2基本)	
四阵 (平) 后,夏(催) 独() 面() 他	20000
10 至 2 (空) 2 等 2 (等 2) 等 (2 等) 2	
1 S S X X X X X	2000
12 7 9 7 4 9 9 4	0.00
	xx
	200
	420
	4000
	0.00
	30.00
Total NWP Received Volumes and Volume JP Receipt 6 Stanfield 8 Wyoming Pool R 7 788,888.2 Opel Receipt 6 Start Road Rece 7 South of Green 1 1 1,000 BB 6 Court of Green 1 1 1,000 BB	
	1.00

Receipt Points & Volumes - Page 1

۰	
3	
2	
í.	
,	
į	
5	
ξ	
Š	
8	
ì	
5	
C	
5	
3	

1 of 3

States of Washington and Idaho - Calculation of Off-System Sales Margins: NWP Received Volumes Month of June 2003

			1	=1		_1	T				_	_		1		_	7	ភា			آم.	o l	o l	ام	_	_		_	<u></u>	_	\neg	او
Sumas Recept Value	145,306.54	100,164.00	51,317.38	139,396.68	91,419.75	142,390.00	.		131,060.00	•	•	•	•		940.70	'		٦	4,570.40					38,935.96	•	•	٠	•	918.00	•	•	249,886 \$ 4.721 \$ 1,237,183.96
Sumes Ges Deally	4.910 \$	4.910 \$	5.090	5.065	5.125				2000	4.935	2.030	4.950	4.60 8	4.090	4.090	4.090	_	_	4.640	4.505	630		4.630			4.805				4.500 \$	4.720 \$	1 4.72H
	29,594 \$	20,400 \$	10,082 \$	27,576 \$					26,212 \$	•	•• •	د ه	<u>چ</u>	<i>چ</i> ه	\$ 002	•	€₽	5,070 \$	982		1,495 \$	10,610		8,078	•	⇔		٠.	204		•	9,886
	4,638 29		Ц		_	_	_	_	3,274 26	-						_	_					Ŧ	Ť	_								33,865 24
Sumas 113964	392 4,6	7											_							-				81								
Sumes 100164	L	Ш	7,392	7,392	7,392	7,382	7,392	7,392	7,392															3,781				L		L		56,309
Sumas 100164	7,000	L											į					1						L		L				_		2 14,000
Summas 1000010	17,564	8,370	1,857	15,546	5,798	16,438	15,546	15,546	15,546						230			5,070				10,610	10,610	4,297					204			2,480 143,232
Sumas 100010																			986		1,495											2,480
Total Wycmling Pool Receipt Value	10,698.56	10,698.56	577.76		43,030.00	101,137.92	36,191.64	36,191.64	36,191.64	37,965.21	37,773.66	40,252.03	•		7,468.23		٠	31,279.38			31,881.38	23,843.48	34,817.16	٠	47,500.00	46.250.00	46,450.00	42,900.00	42,900.00	42,900.00	•	4.685 \$ 788,888.24
			l	**	*	•	*	\$ 0	\$ C	\$6	4.930 \$	\$ 2	\$ 5	\$ 2	\$	\$ 2	4.260 \$	**	*	\$	4.580 \$	4.580 \$	4.580 \$	\$	\$	\$	\$	4.290	\$	*	ω	₩
Wyoming Pool Gas Delly Average	4.990			5.225	5.200 \$		4.710	4.710	4.710	4.955		4.925	4.595	\$ 4.155	\$ 4.155	\$ 4.155		\$ 4.565	\$ 4.755	\$ 4.735	\$ 4.58	\$ 4.58	\$ 4.58	\$ 4.835	\$ 4.750	\$ 4.625	l	ľ		\$ 4.290	l	\$. 4.6
Total V Wyoming Pool C Pool C	2.144 \$	2.144 \$	111 \$		8,275 \$	19,968	7,684 \$	7,684 \$	7,684 \$	7,662 \$	7,662 \$	8,173	•	-	1,785	,	,	6,852			6,961	5,206	7,602			_		10,000 \$	10,000	10,000		167,607
					1,839	1,839	1,082	1,082	1,082	1,839	1,839	1,839			-		l															12,441
raming W 00010	-		T	l			757	757	757									r														2,271
ranting Wyoming Wyoming 00010 100010 100010	-				817	817	ğ	ğ	202	8	204	202				-			-	-							T		l		-	2,858
	-	İ		┝	1022	1,022	20.	1,022	1,022	1022	1.022	1.022		-			-			t			r				-					8,176
Wyoming Pyoming Wyoming Wy (2001) 100010 100010	-	+	-		_	10,000	L		L	L		ŀ	-			ŀ	t	6.852			1969	3 9 2 2	6.961	_	10 000	1000	1000	10000	10,000	1000	-	94,696
ming Ayr 0010 10	ŀ	\dagger	+		4.597	١.	+	4,597	4.597	4 597	4 597	5 108	<u> </u>					-	\mid	-					Ī	-	-		-			37,287 9
	305	38		+	ŀ	L				ŀ		-	-	ŀ	1	-	ł	+	\mid	ł	-			-			-	+	+	-	-	610
	847	L		+	+	-	-	-	-	 	1	<u> </u>	+	-	1	+	+	+	1				-	-	-	+	+	-	-	+	-	<u>*</u>
Careen River 0 100010		L		-	1	L	-			-	1	-	-	1	\downarrow	1	+	_	+	-	-	-	\downarrow	-	+	1	\perp	+	\downarrow	\downarrow	+	
Onser RNST 1.00010	4 000	18	1									L	-				\downarrow	-	-						1	1	1	-	\downarrow	\downarrow	1	2,04
Green River 100010			=			- 683	3		1 2	1					1795							1 284	1	ļ								5,590
Date	,	- (4 6	> <	ru	ď	۸ (. 00	σ	5	? =	. 0	1 6	2 7	, ic	9	2 0	- 4	2 0	2 6	3 5	1 8	1 8	3 8	į	3 8	3 8	ì	8 8	8 8	3 8	5

Receipt Points & Volumes - Page 2 of 2

Exhibit (MED-4)
Docket No. UG-021584
08/18/03 Page 9 of 9

S of G Receipt Vatue	29,699.67	29,699.67	366.36			48,926.41	84,834.41	84,834.41	84,834.41	-	٦		61,999.46					i					74,516.04	51,867.60				64,447.84	64,447.84	64,447.84	
	33	₹5 44	8	8	8	ξ£ **	₩	ж	\$	\$	₩	8	\$ 08	9 01	10	10	80	\$	%	\$ ⇔		8	\$ 06	45	\$ €	\$	\$	\$ 02	\$ 02	\$ 02	98 98
S of G Delity	\$ 4.945	\$ 4.9	71 \$ 5.160 \$	\$ 5.120	\$ 5.180	\$ 5.045	\$ 4.635	\$ 4.635	989 7 \$	\$ 4.8	\$ 4.9	\$ 4.9	\$ 4.5	\$ 4.110 \$	\$ 4.1	\$ 4.110 \$	\$ 4.280 \$	\$ 4.6	\$ 4.6	\$ 4.6	\$ 4.4	\$ 4.4	\$ 4.490	\$ 4.745	\$ 4.675	\$ 4.6	\$ 4.6	\$ 4.2	\$ 4.220	\$ 4.220	\$ 4.665
Total Sof G Receipt	900'9	8 6,008 \$ 4.945	۲		١.	8,688	18,303	18,303	18,303	22,003 \$ 4.635 \$	16,997 \$ 4.985 \$	1,124 \$ 4.900 \$	13,537 \$ 4,580 \$	8,173	10,352 \$ 4.110	8,173	9,761	8 200 \$ 4.600	9,500 \$ 4.620 \$	10,931 \$ 4.645 \$	16,826 \$ 4,490	18,110 \$ 4.490		10,931	16,191	16,283 \$ 4.630 \$	15,681 \$ 4.630	15,272 \$ 4.220	15,272	15,272	•
Glen Bench 100010						1,124	1,124	1,124	1,124	1.124	1,124	1,124	1,124					828	828	2,259	2,259	2,259	2,259	2,259	2,158	2,770	2,770	2,259	2,259	2,259	
Springs 100010													1,839	1,839	1,839	1,839	1,839	1,839	1,839			1,839	1,839	1,839	1,839	1,839	1,839	1,839	1,839	1,839	
Sand Sand Sand Springe Springe Springe 100010 100010 100010													204	202	204	204	504	1,022	1,022	2,452	2,452	2,452	2,452	2,452	2,452	3,085	3065	3,085	3,085	3,065	
Sand Springs 100010											3,153																_				
Springe 100010													1,022	1,022	1,022	1,022	1,022	1,532	1,532	1.532	1,532	1,532	1,532	1,532	1,124	1,124	1,124	918	919	918	
Send Springs 100010							10.000	10,00	10,000	10,000	1,841								386		1,485										
Springs 100010													5,108	5,108	5,108	5,108	5,108	4,278	3,294	2,849	1,364	2,849	2,849	2,849	3,257	2,844	2,644	2,849	2.849	2,849	
Bench 100010	1534	1 534																													
Glen Bench 100010											3,700	L																			
Glen Bench 100010											7,179													L							
Glen Sendh 100010	4 4 7 2	4 4 779	-			1 395	3			3,700							1.588						2076	L	5.361	4 851	L		4 341	4 341	
Glen Bench 100010						21.70	2 2	2 2	2,17	7.17			4 240		2.179						5.895	7179	3589				188	3			
å		_	. ~		* 4	n «) h	٠ «	σ	, 9	: =	2	1 6	4	5	9	1	<u>«</u>	0			8	. 62	2	18	3 %	3 5	8	8	8	6

States of Washington and Idaho - Calculation of Off-System Sales Margins: NWP Received Volumes Month of June 2003

BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION
DOCKET NO. UG-021584
EXHIBIT (MED-5)

EXHIBIT ____ (MED-5) 2002 Avista Energy Weighted Average Transaction Price vs. Gas Daily

Summary Description:

An analysis of all Avista Energy's 2002 purchases and sales transactions (and combined total) is shown below by basin. These transactions equated to 9,944 total day trades during 2002.

- (1) The Average lines listed below for each total (Purchases, Sales, and Total Transactions) designates the difference between Avista Energy's average transaction price compared to the public Gas Daily Index price for all transactions in each section by basin. For example, the difference during 2002 between Avista Energy's total transaction price and the Gas Daily index price at the SUMAS basin was (\$0.001).
- (2) The Standard Deviation is a measure of how widely values are dispersed from the average value. For example, the Standard Deviation for all transactions at Sumas is \$0.032. Indicating that most transactions fall within plus or minus \$0.032 of the average.

Total Transactions

	RO	CKIES	KII	NGS	MA	LIN	ST	AN	SL	JMAS	
Average	\$	0.004	\$	(0.013)	\$	0.006	\$	0.004	<u>\$</u>	(0.001)	(1)
Stdev	\$	0.075	\$	0.093	\$	0.019	\$	0.026	<u>\$</u>	0.032	(2)

Purchase Transactions

	RO	CKIES	KIN	IGS	MA	LIN	ST	AN	SU	IMAS_
Average	\$	0.008	\$	0.002	\$	(0.002)	\$	0.009	\$	0.001
Stdev	\$	0.087	\$	0.009	\$	0.013	\$	0.049	\$	0.038

Sales Transactions

	KERN		KINGS		MALIN		NWSTA		SUMAS	
Average	\$	0.001	\$	(0.017)	\$	0.009	\$	0.003	\$	(0.002)
Stdev	\$	0.081	\$	0.081	\$	0.081	\$	0.081	\$	0.081