

ATTACHMENT A

**ANALYSIS OF REQUIRED PARTIES
TO WASHINGTON, DC TRANSITION**

ENGINEERING STATEMENT OF ROBERT GEHMAN, JR., P.E.

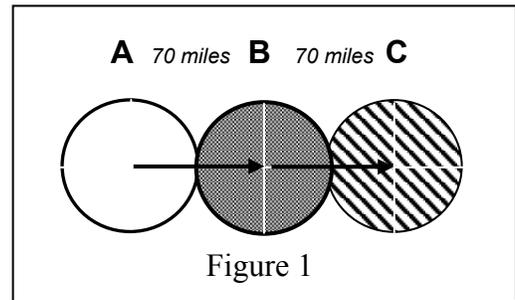
The purpose of this engineering statement is to comment on the methodology used in the example transition included in the Spectrum Market (“Spectrum”) Appendix 1¹ and offer an accurate analysis of the same market transition used in the Spectrum example.

The following is an excerpt from “Identifying the Parties to the Process” included in Appendix B of the White Paper.

“A licensee contemplating a modification or addition... must first institute a transition process in which the following nearby licensees (even those that are not cochannel or first adjacent channel) are required participants

- a) *Every licensee that has not previously been transitioned and that has a TIA that overlaps the GSA in which the contemplated base station will be located; and*
- b) *every non-transitioned licensee with a TIA to which any of the contemplated facility’s transmission antennas will have an unobstructed transmission path calculated assuming receive antenna heights of 9.1 meters above ground level and employing a smooth earth with 4/3 earth curvature propagation model; and*
- c) *every non-transitioned licensee with a GSA that overlaps the GSA of a license being transitioned pursuant to a) or b).”*

A Proponent Market PSA is shown in Figure 1 as a circle with a 35-mile radius labeled “**A**”, representing a licensee contemplating a modification or addition as described above. Assuming that at least one channel in the Proponent Market has no PSA overlap with a nearby cochannel station, the “**A**” circle becomes the GSA for that channel². As described in a) above, if the “**A**” circle GSA overlaps the TIA of a nearby station on a different channel, that station, shown in Figure 1 as a circle with a full 35-mile radius labeled “**B**”, as well as all stations in that market, must be transitioned to the new bandplan. Then, following the instructions in c) above, if the “**B**” circle GSA overlaps the GSA of another nearby non-transitioned station, that station, shown in Figure 1 as a circle with a 35-mile radius labeled “**C**”, as well as all stations in that market, must be transitioned to the new bandplan. This ends the process required to identify all necessary parties to the transition under the Coalition Proposal because all stations have been identified that fall under either a) or c). Based on these worst-case assumptions, only stations within 140 miles of the Proponent site are required participants in the transition plan.



¹ Comments of Spectrum Market, LLC, September 8, 2003, Appendix 1, “Engineering Statement of Carl T. Jones, P.E.”

² For simplicity, this methodology also assumes that none of the contemplated facilities would have line-of-sight into any TIA.

Spectrum made the incorrect assumption that every station with GSA overlapping any station that is a party to the transition must be a party in the transition, which erroneously creates the daisy chain of stations shown in the Spectrum exhibits that extends hundreds of miles along the east coast. I agree with Spectrum that modeling based on the east coast, and specifically Washington, DC, as a provides a worst case analysis, since this is an area where the ITFS and MMDS spectrum is heavily encumbered. However, when the Coalition Proposal is properly applied, a transition of the Washington, DC market proves to be far less complex than Spectrum predicts.

I conducted an analysis of the necessary parties to aa transition for the Washington, DC market following Appendix B of the White Paper described above. A map showing the stations required to participate in the Washington transition is attached as Figure 2. Even using the heavily encumbered Washington market as an example, the actual number of stations that would be participants in the Washington transition plan are but a small fraction of the number suggested by Spectrum's Exhibits 5, 8 and 9. Moreover, while those identified stations are necessary parties to the transition planning process, they will not necessarily be transitioned by the Proponent. Particularly the third tier stations labeled "C" may cause little interference to the "A" or "B" stations or suffer so little interference from those stations upon transition that the licensees of the "C" stations forgo mandatory transition.

This engineering statement was prepared by or under the direct supervision of Robert Gehman, Jr., who states under penalty of perjury that he is a professional engineer registered in the states of Florida, Maryland and Mississippi, he is president of Kessler and Gehman Associates, Inc., and the information contained in this statement is true and correct to the best of his knowledge and belief.

KESSLER AND GEHMAN ASSOCIATES, INC.



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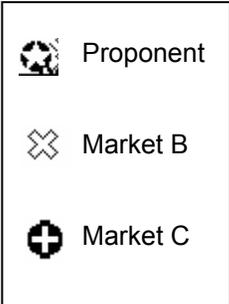
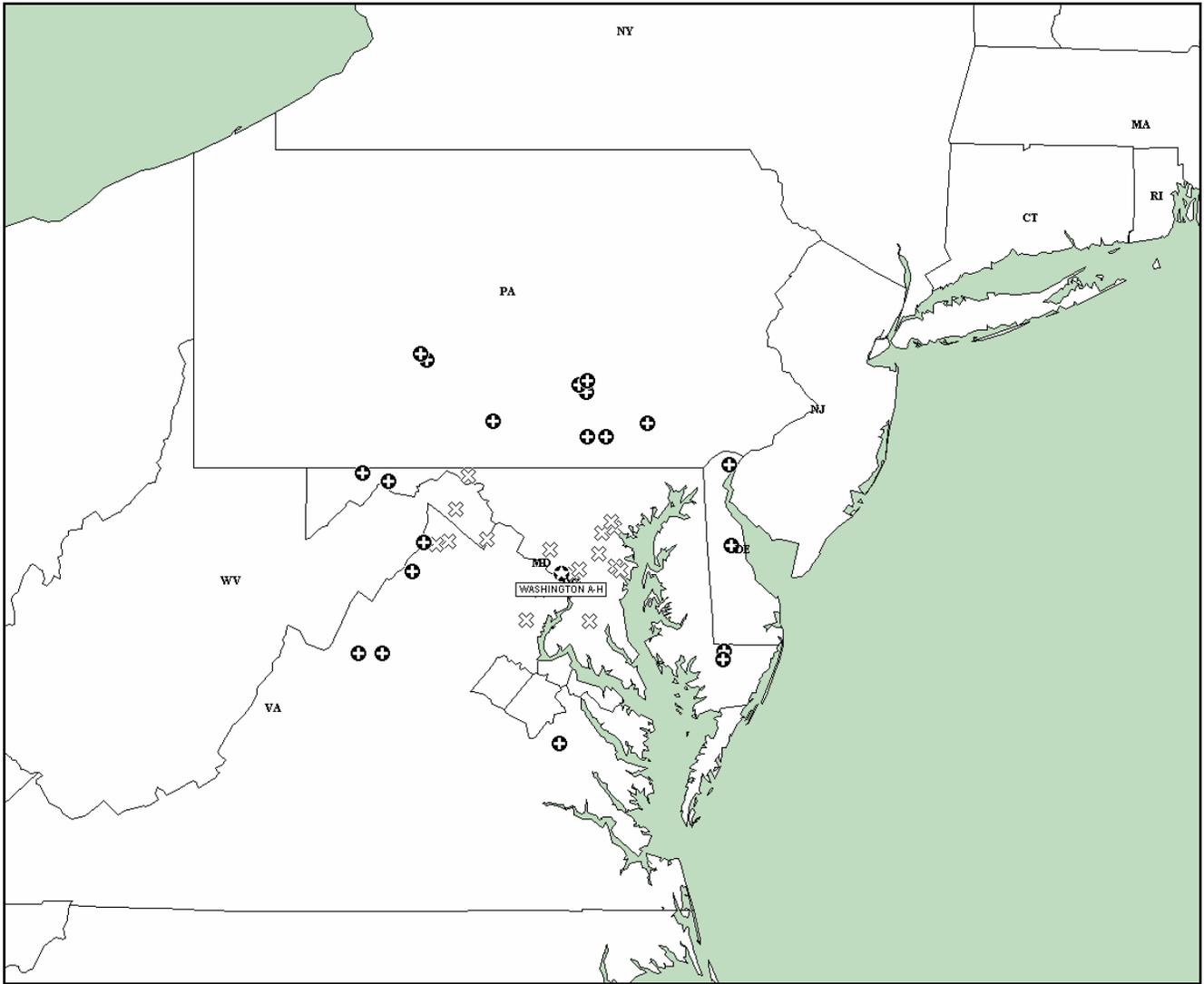


Figure 2 – Washington Transition Plan

**MARKET B STATIONS
IN THE
WASHINGTON TRANSITION PLAN**

WASHINGTON SITE: N 38-57-49 / W 77-06-18

MARKET B STATIONS	DISTANCE FROM WASHINGTON (Miles)
WASHINGTON F1-4	5.4
COLLEGE PARK E1-4	9.0
GAITHERSBURG E1-4	13.3
FAIRFAX E1-4	13.7
FT. MEADE E1-4	20.6
CROWNSVILLE E1-2	26.8
WALDORF C1-4	27.6
CATONSVILLE H1	28.2
INDEPENDENT HILL D1-2	29.3
ANNAPOLIS B1-4	29.4
BALTIMORE E1-4	34.6
BALTIMORE A-H	35.4
SHANNONDALE C, F, H1	40.6
WINCHESTER H1	58.6
MARTINSBURG E, F, G3-4, H	61.4
STRASBURG A1-4	64.2
CLEAR SPRING C1-4	66.5

**MARKET C STATIONS
IN THE
WASHINGTON TRANSITION PLAN**

WASHINGTON SITE: N 38-57-49 / W 77-06-18

MARKET C STATIONS	DISTANCE FROM WASHINGTON (Miles)
YORK G1-4	68.7
WINCHESTER H2-3	70.5
YORK G1-4	70.8
LANCASTER C, D	70.9
STRASBURG E, F	74.8
UPPER STRASBURG D1-4	82.5
KING WILLIAM G1-2	84.5
DOVER F1-3	85.3
LANCASTER C1-4	85.5
SALISBURY A, B, C, D, H3	89.8
HARRISBURG E1-4	90.4
SALISBURY D1-4	91.4
HARRISBURG F1-4	93.8
HARRISBURG A, B	96.3
CUMBERLAND E1-4	97.1
CUMBERLAND F1-4	97.2
HARRISONBURG A-H	98.0
BRIDGEWATER E1-4	98.1
WILMINGTON B1-4	99.0
BRIDGEWATER E, F	109.3
FROSTBURG E, F	110.6
ALTOONA E1-4	124.5
ALTOONA G1-4	129.1

ATTACHMENT B

**ANALYSIS OF REQUIRED PARTIES
TO RICHMOND, VA TRANSITION**

Engineering Statement and Analysis of Transition Plan as Proposed the WCA, NIA, and CTN White Paper

Introduction

Hardin and Associates, Inc was commissioned by the Wireless Communications Association (“WCA”), National ITFS Association (“NIA”), and Catholic Television Network (“CTN”) to perform a “real world” analysis showing the transition plan defined in the WCA, NIA, CTN White Paper titled “A Proposal for Revising the MDS and ITFS Regulatory Regime.” Richmond, Virginia was selected as the proponent market according to the white paper terminology.

In comments filed by Spectrum Market LLC (“Spectrum”), Spectrum states that the transition plan process for the Washington, D.C. market is so complex that it would extend over a large region on the eastern seaboard extending from New York to North Carolina. However, the Spectrum analysis is inaccurate due to a misunderstanding of the transition process contained in the Coalition white paper. The Washington transition would not even extend below Richmond, Virginia and conversely the Richmond transition would not extend to Washington. The analysis contained in this statement will prove the transition of Richmond is far less extensive than described by Spectrum. The analysis was performed in such a way as to identify the maximum number of markets as being “A Party to the Transition Process.”

Methodology

As shown in Figure 1, a Geographical Service Area (“GSA”) for Richmond was created according to Appendix A of the White Paper from the collocated Richmond (B-G, H1, and H3) PSA location, Charlottesville (A1-H3) PSA location, and the Gaston (A-D and G) PSA location. This area defines the proponent’s GSA. Transition Impact Areas (“TIA”) are then defined according to Appendix B of the White Paper for all surrounding markets based on a very extreme worst case assumption that ITFS receive locations may extend out 35 miles from their associated transmit locations. Stations licensed to BTA winners receive their associated BTA boundary as their TIA. The cellular design in Richmond assumes that no line of sight occurs outside the Richmond GSA.

Transition Analysis

With the TIA and GSA boundaries defined, intersections between the Richmond GSA and the surrounding market TIA’s are calculated according to Part III paragraphs (a) and (b) of Appendix B of the White Paper. These markets are designated as Market B licenses. These markets are listed below as Table 1 and depicted in Figure 1.

Market B Stations	Distance from Richmond (MI)
Richmond D1 D2	12.8
Richmond A1-A4	15.0
King William G1 G2	35.4
SPOTSYLVANIA H3	48.5
West Point A1 A2	50.7
Charlottesville A1-H3	53.9
Williamsburg A3 A4	55.5
Gaston A-D G	69.2

Table 1- Market B Stations

Next, intersections between Market B Station GSA's and adjacent market GSA's are calculated. This satisfies the requirement stated in Part III Paragraph c) of the White Paper. The resultant markets are designated as Market C stations and are shown in Figure 1. The following Table 2 details the Market C stations along with the Market B stations that trigger the transition.

Market C Station	Distance from Richmond (MI)	Market B Station Triggering Transition
Franklin G1 G2	72.0	Richmond A1-A4
		West Point A1 A2
		Williamsburg A3 A4
		Gaston A-D G
Roanoke Rapids E F	72.5	Gaston A-D G
Newport News A1 A2	72.7	Richmond D1 D2
		Richmond A1-A4
		King William G1 G2
		West Point A1 A2
		Williamsburg A3 A4
Mathews A1	75.4	Richmond D1 D2
		Richmond A1-A4
		King William G1 G2
		West Point A1 A2
		Williamsburg A3 A4
Hampton A1-A4	77.4	Richmond A1-A4
		King William G1 G2
		West Point A1 A2
Lynchburg H3	78.1	Williamsburg A3 A4
Independent Hill D1 D2	79.0	Charlottesville A1-H3
		King William G1 G2
Lynchburg B C D G H1 H2	81.7	SPOTSYLVANIA H3
Lynchburg A	81.8	Charlottesville A1-H3
Driver B1-H3	83.1	Charlottesville A1-H3
		West Point A1 A2
Harrisonburg G1-G4	84.5	Williamsburg A3 A4
Bridgewater A-F H1-H3	84.5	Charlottesville A1-H3
Waldorf C1-C4	90.0	King William G1 G2
		SPOTSYLVANIA H3
Virginia Beach A3 A4	95.4	West Point A1 A2
		Williamsburg A3 A4
Tangier D1	96.1	King William G1 G2
		West Point A1 A2
		Williamsburg A3 A4
James Crossroads G1-G4	97.2	West Point A1 A2
		Williamsburg A3 A4
Oancock B1-B4	108.8	West Point A1 A2
		Williamsburg A3 A4
Midway G1-G4	111.0	Gaston A-D G
RALEIGH D1-D4	125.8	Gaston A-D G
GREENVILLE H3	130.4	Gaston A-D G
GREENVILLE F1-F4	131.7	Gaston A-D G
GREENVILLE A1-D4 G1-G4	134.7	Gaston A-D G

Table 2- Market C Stations

From the above listed Market C Stations it can be seen that the transition process from a worst case scenario affects only markets up to 134 miles from the center of the Richmond PSA.

Options for Minimizing the Number of Affected Parties

Even though a licensee may be considered as being “A Party to the Transition Process”, that licensee may not have to be transitioned. Assuming that the

proponent of the Richmond market determines that interference does not occur from some of the transition participants to the Richmond cellular system, he may not opt to transition several stations and may employ several safe harbors. The proponent also has the option to negotiate with any designated participants in order to minimize system changes. From Table 2 and an RF engineering knowledge of the area in question the following observations are made.

Hampton A1-A4, Tangier D1

These stations are point to point stations and may opt to stay in the LBS or move to the UBS under Safe Harbor #9 of Appendix B.

Charlottesville VA, Harrisonburg/Bridgewater VA, Lynchburg, VA

Since Charlottesville is located close to Richmond, Charlottesville will be required to transition. However, the southern range of the Blue Ridge Mountains is between Charlottesville and Harrisonburg and thus limiting the coverage areas and isolating the two markets. Also the same conclusion can be reached between Charlottesville and Lynchburg.

Conclusion

As can be seen from the analyses, the number of parties that must be included in the transition planning process is very limited as compared to what has been suggested by other commentors in this proceeding. From this example, the worst case impact will occur only 134.7 miles away from the Richmond PSA center. Also Washington, DC which is 105.9 miles from PSA center to PSA center will not be transitioned. The impact will not reach up and down the eastern seaboard as extensively as Spectrum presented in their engineering analysis. In addition, just because the stations are included in the transition planning process does not mean the stations themselves must be transitioned. As has been shown in this study, there are many engineering techniques that can be utilized to further limit facilities from actually transitioning until they are ready to do so.

STATEMENT OF ENGINEER

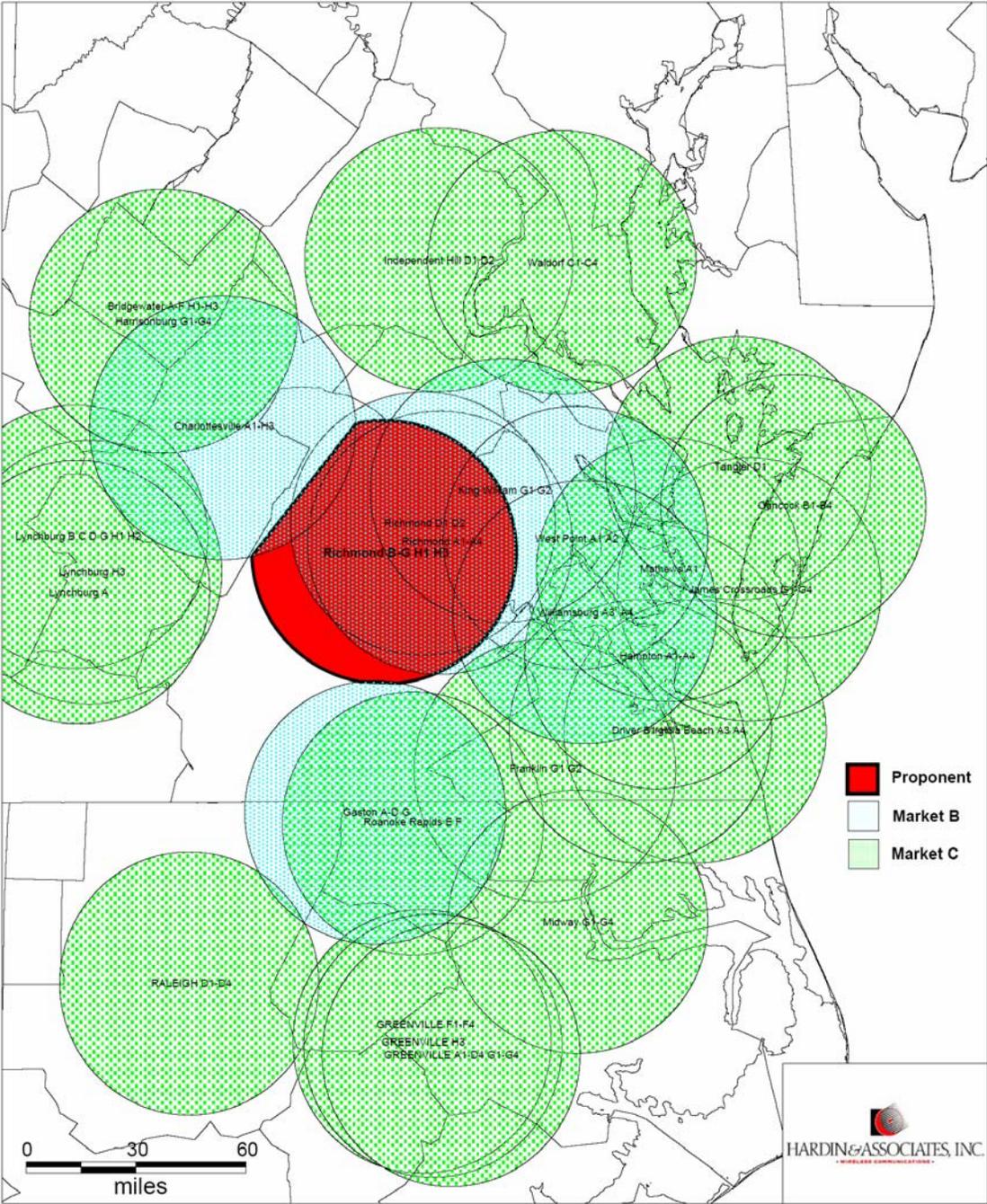
I, James C. Cornelius, P.E., am a Professional Engineer licensed in the Commonwealth of Virginia and my credentials are a matter of record with the Federal Communications Commission. The foregoing analysis was prepared by me or under my direct supervision. The information contained herein is true and correct to the best of my knowledge, information and belief.

/s/ James C. Cornelius

James C. Cornelius, P.E.
Director of Strategic Consulting
Hardin and Associates, Inc.

Figure 1
Transition Map

Transition Plan- Richmond, VA



ATTACHMENT C

**DEMONSTRATION OF INTERFERENCE
CAUSED BY TETON MVPD SYSTEM
TO AREAS OUTSIDE TETON'S LICENSED SERVICE AREA**

A Study of the Impact of the Twin Falls, ID MMDS/ ITFS Video Operation on Sprint Cell Sites in The Boise-Nampa, ID BTA #50

Introduction

In comments submitted to the Federal Communications Commission in response to the White Paper submitted on October 7, 2002 by the Wireless Communications Association International, Inc. (“WCA”), the National ITFS Association (“NIA”) and Catholic Television Network (“CTN”), operators of analog video systems that have achieved less than 5% penetration have urged the Commission to permit them to “opt-out” from transitioning to the proposed new bandplan. Kessler & Gehman Associates, Inc. has been retained on behalf of WCA, NIA and CTN to analyze the potential adverse impact that grant of this request could have on the provision of two-way cellularized services in neighboring markets.

For purposes of this analysis, we have chosen to study the impact that continued operation of the high-power, high-site video operation in Twin Falls, ID would have on the ability of Sprint Corp., the holder of the Basic Trading Area (“BTA”) authorizations for Boise-Nampa, ID #50 and the licensee or lessee of numerous MDS and ITFS stations in those BTAs, to provide two-way cellular service. In conducting this analysis we have utilized the actual transmitting parameters of the Twin Falls and have assumed (based on advise from Sprint that such an assumption is reasonable) that the Sprint broadband system will collocate its MDS/ITFS facilities with the existing Sprint PCS base station network in the region.

Our analysis has concluded that continued operation of the Twin Falls system in its current configuration will have a substantial detrimental impact on Sprint’s ability to deploy two-way services in Sprint’s markets. This is best illustrated by Exhibit 1, which shows the cell sites (small yellow squares) and substantial area (red shaded area) to which continued operation of the Twin Falls system will preclude reasonable Sprint facilities due to co-channel interference.

Summary

Interference summary to Sprint’s Boise-Nampa, ID BTA #50 cell sites:

47 total cell sites- **Interference to 17 of 47 (36.2%)**

Methodology

The accompanying map exhibit (Exhibit 1) and chart (Exhibit 2) provide received power level (“RPL”) results at Sprint’s existing cell sites in its Boise-Nampa, ID BTA #50. The maximum RPL used to be considered interference-free is -107.0 dBmW and was calculated using the authorized interfering Twin Falls, ID facilities (a standard Andrew HMD12VO transmitting antenna with -0.5° electrical beam tilt at 4,393.3’ R.C. (“radiation

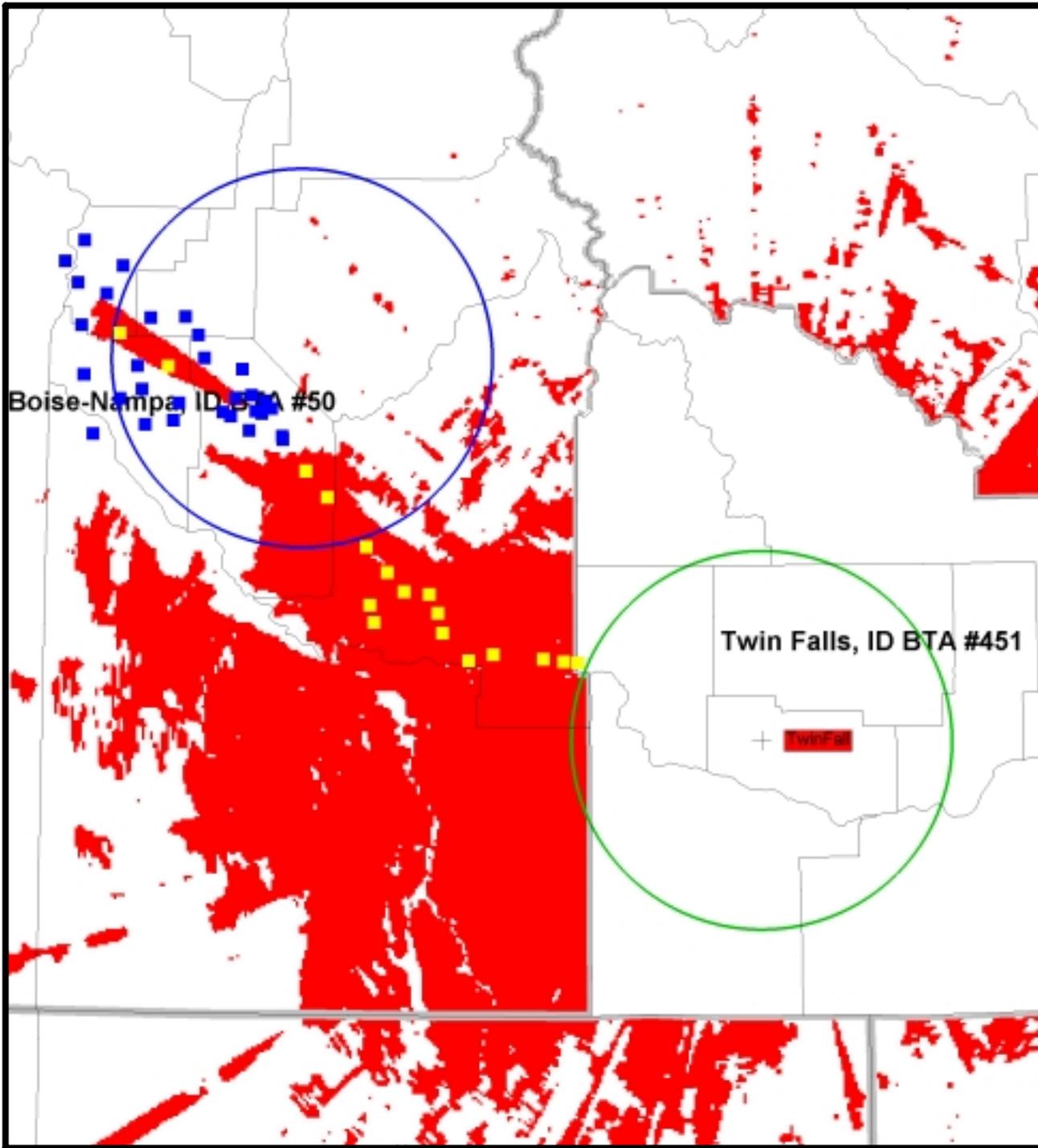
center”) AMSL (“above mean sea level”), 24.8 dBw EIRP (“effective isotropic radiated power”) at 42° 43’ 54”/ 114° 25’ 07”) as the transmitted signal source to each of the 47 cell sites using a 17.0 dBi gain receiving antenna at the specific heights (AGL) shown on Exhibit 2. The actual elevation pattern data for the Twin Falls Andrew HMD12VO transmitting antenna was used in the calculations. The “Free Space + RMD” propagation model was used. A center frequency of 2,600.00 MHz was used. The -107.0 dBmW maximum RPL for interference-free consideration is based on 6 dB below the noise floor (-101) which includes a 5 dB receiver noise figure.

Exhibits

Exhibit 1 is a map exhibit showing 1) the RPL results to Sprint’s 47 Boise-Nampa, ID BTA #50 cell sites, 2) the area-wide RPL results around the Twin Falls facilities using an antenna height of 149.0 feet AGL (the average of all 47 of Sprint’s Boise, ID region cell sites) and an antenna gain of 20 dBi (17.85 dBd), 3) the Boise, ID 35-mile PSA, 4) the Twin Falls, ID 35-mile PSA, 5) the Boise-Nampa, ID BTA #50, and 6) the Twin Falls, ID BTA #451.

Exhibit 2 is a chart listing the RPL results to Sprint’s 47 Boise-Nampa, ID BTA #50 as well as including the technical parameters for each of those cell sites.

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EDX SignalPro™: Twin Falls, ID to Boise

Prop. model: Free Space + RMD
 Time: 10.0% Loc.: 50.0%
 Prediction Confidence Margin: 0.0dB
 Climate: Continental Temperate
 Land use (clutter): none
 Atmospheric Abs.: none
 K Factor: 1.333
 RX Antenna - Type: OMNI
 RX Gain: 17.85 dBd

received signal level at CPE

Yellow square: > -107.0 dBmW
 Blue square: < -107.0 dBmW

County boundaries

Sites

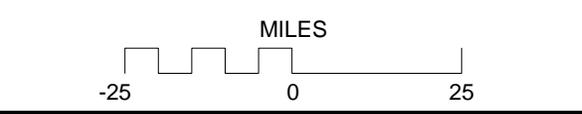
Site: KNSC627_Twin Falls, ID_H1 (4,393.3' RCAMSL)
 N42°43'54.00" W114°25'07.00" 4258.5 ft
 TwinFall* Tx.Ht.AGL: 134.8 ft Total ERP: 24.80 dBW
 Model: 1 directional-vertical/0.0° 2600.0000 MHz
 Model: 1 directional-vertical/0.0° 2600.0000 MHz

Green line: Twin Falls, ID KNSC627 H1 PSA
 Blue line: Boise, ID WNC735 D1-2 PSA
 Grey line: BTA boundaries

Received Power at remote

Red square: > -107.0 dBmW
 White square: < -107.0 dBmW

Display threshold level: -250.0 dBmW



Sprint
 Twin Falls, ID to Boise cell sites
 20031008 Exhibit 1

Sprint - Twin Falls, ID to Boise, ID

EXHIBIT 2

Sprint Boise-Nampa, ID BTA #50 cell sites	Dist. (mi.) from Twin Falls, ID/ KN5C627	Received signal level (dBmW) from Twin Falls, ID/ KN5C627	Longitude	Latitude	Site elev. (meters)	Ant. hght., AGL (meters)
SL03UB506	140.0	-100.9	-116.770300	43.815556	792	82
SL03UB507	136.8	-132.8	-116.657500	43.857500	733	61
SL03UB508	131.8	-185.9	-116.530000	43.861667	727	31
SL03UB509	127.9	-139.0	-116.481100	43.814167	914	59
SL03UB511	134.1	-122.1	-116.704700	43.728611	742	64
SL03UB512	129.2	-99.8	-116.590600	43.729167	762	58
SL03UB513	124.5	-121.5	-116.456900	43.752222	853	55
SL03UB515	133.8	-131.8	-116.765300	43.640278	765	61
SL03UB516	131.2	-139.8	-116.685800	43.666389	728	32
SL03UB517	127.5	-117.4	-116.671700	43.571944	792	46
SL03UB518	123.3	-120.8	-116.568100	43.584167	762	34
SL03UB519	111.2	-119.6	-116.267200	43.611667	823	26
SL03UB520	124.0	-132.3	-116.549400	43.630556	755	56
SL03UB521	116.1	-130.6	-116.386400	43.607500	797	24
SL03UB522	115.6	-108.9	-116.341400	43.646389	802	61
SL03UB523	113.4	-141.6	-116.281700	43.653889	803	34
SL03UB524	110.8	-149.0	-116.231400	43.639167	822	15
SL03UB525	110.0	-118.8	-116.244400	43.605000	837	21
SL03UB526	109.0	-151.4	-116.208100	43.619444	828	46
SL03UB527	110.3	-130.7	-116.290000	43.559722	850	29
SL03UB528	104.2	-124.7	-116.165800	43.536944	914	12
SL03UB529	97.5	-102.5	-116.080800	43.452778	1062	61
SL03UB592	114.6	-130.7	-116.359200	43.597500	795	24
SL03UB593	104.6	-128.3	-116.168100	43.545833	896	9
SL03UB653	117.6	-133.4	-116.316900	43.723611	785	52
SL03UB655	91.6	-99.7	-116.000600	43.382500	1036	24
SL03UB500	155.1	-160.1	-116.907500	44.062778	732	43
SL03UB501	155.7	-138.6	-116.977200	44.005833	646	37
SL03UB502	146.6	-160.6	-116.763600	43.996111	669	58
SL03UB503	151.5	-145.2	-116.928300	43.948889	731	31
SL03UB504	146.0	-109.4	-116.821700	43.920000	736	76
SL03UB505	146.8	-139.5	-116.912800	43.835833	792	15
SL03UB510	141.8	-124.0	-116.900300	43.702778	731	61
SL03UB531	81.1	-87.1	-115.856900	43.251389	996	64
SL03UB532	75.5	-89.1	-115.779400	43.182500	975	61
SL03UB533	71.2	-77.9	-115.717200	43.131389	960	37
SL03UB534	66.8	-66.6	-115.625600	43.125556	1158	31
SL03UB535	74.5	-80.8	-115.826400	43.048611	938	21
SL03UB536	55.9	-94.5	-115.481400	42.947500	792	61
SL03UB537	51.8	-66.1	-115.391700	42.963889	913	61
SL03UB538	42.9	-63.6	-115.210300	42.951944	843	76
SL03UB539	36.8	-62.5	-115.085800	42.941944	924	34
SL03UB651	135.4	-159.8	-116.863100	43.544722	711	61
SL03UB657	64.0	-66.2	-115.594400	43.073889	968	61
SL03UB658	62.0	-66.0	-115.577800	43.021111	952	61
SL03UB659	76.2	-73.3	-115.841400	43.095278	950	46
SL03UB660	39.2	-65.3	-115.135800	42.944722	850	61

ATTACHMENT D

**DEMONSTRATION OF INTERFERENCE
CAUSED BY CLAYTON, OK MVPD SYSTEM
TO AREAS OUTSIDE ITS LICENSED SERVICE AREA**

A Study of the Impact of the Clayton, OK MMDS Video Operation on Potential Two-way Cell Sites in Surrounding Co-channel Markets

Introduction

In comments submitted to the Federal Communications Commission in response to the White Paper submitted on October 7, 2002 by the Wireless Communications Association International, Inc. (“WCA”), the National ITFS Association (“NIA”) and Catholic Television Network (“CTN”), operators of analog video systems that have achieved less than 5% penetration have urged the Commission to permit them to “opt-out” from transitioning to the proposed new bandplan. Hardin and Associates, Inc. has been retained on behalf of WCA, NIA and CTN to analyze the potential adverse impact that grant of this request could have on the provision of two-way cellularized services in neighboring markets.

For purposes of this analysis, we have chosen to study the impact that continued operation of the high-power, high-site video operation in Clayton, OK would have on the ability of surrounding incumbent station and BTA licensees, to provide two-way cellular services. In conducting this analysis we have utilized the actual transmitting parameters of the Clayton station (WLK382). In addition, it is assumed the two-way cellular systems will utilize towers of similar location and height as the existing cellular and PCS towers within the area. A database of existing Sprint PCS towers within this area has been used to analyze the potential interference to actual sites located in markets surrounding Clayton.

The results of the analysis are attached as Exhibit 1. The analysis calculates the interference potential to existing cell sites (small yellow squares) and over a wide area (red shaded area) using an average cell height for the area. As the results of this analysis show, continued operation of the Clayton system in its current configuration will have a substantial detrimental impact on surrounding incumbent and BTA licensee’s ability to deploy two-way services within their markets.

Summary of Results

BTA Name	Total # of Tower Sites within BTA	# of Tower Sites Receiving Interference	% of Tower Sites Receiving Interference
Ada, OK	8	8	100%
Paris, TX	21	21	100%
Texarkana, TX-AR	29	3	10%
Muskogee, OK	17	9	53%
McAlester, OK	6	6	100%
Total Sites:	81	47	58%

Market Name (35 Mile PSA)	Total # of Tower Sites within PSA	# of Tower Sites Receiving Interference	% of Tower Sites Receiving Interference
Ada, OK	10	4	40%
Broken Bow, OK	5	5	100%
Sumner, TX	19	19	100%
Total Sites:	34	28	82%

Methodology

The accompanying map exhibit (Exhibit 1) and chart (Exhibit 2) provide received power level (“RPL”) results at existing cell sites in the Clayton region. The maximum RPL used to be considered interference-free is -107.0 dBmW and was calculated using the authorized interfering Clayton facilities (a Andrew 62111-E transmitting antenna at 593.6 m R.C. (“radiation center”) AMSL (“above mean sea level”), 22 dBw EIRP (“effective isotropic radiated power”) at $34^{\circ} 36' 08''/95^{\circ} 24' 28''$ as the transmitted signal source to each of the cell sites using a 17.0 dBi gain receiving antenna at the specific heights (AGL) shown on Exhibit 2. The actual elevation pattern data for the transmitting antenna was used in the calculations. The “Free Space + RMD” propagation model was used. A center frequency of 2,600.00 MHz was used. The -107.0 dBmW maximum RPL for interference-free consideration is based on 6 dB below the noise floor (-101) which includes a 5 dB receiver noise figure.

Exhibits

Exhibit 1 is a map exhibit showing 1) the RPL results to the surrounding market cell sites, 2) the area-wide RPL results around the Clayton facilities using an antenna height of 100.0 feet AGL (the average height of all cell sites in the region) and an antenna gain of 17 dBi (14.85 dBd), 3) the surrounding co-channel 35-mile PSA’s, and 4) the surrounding BTA’s falling within the area received signal level study.

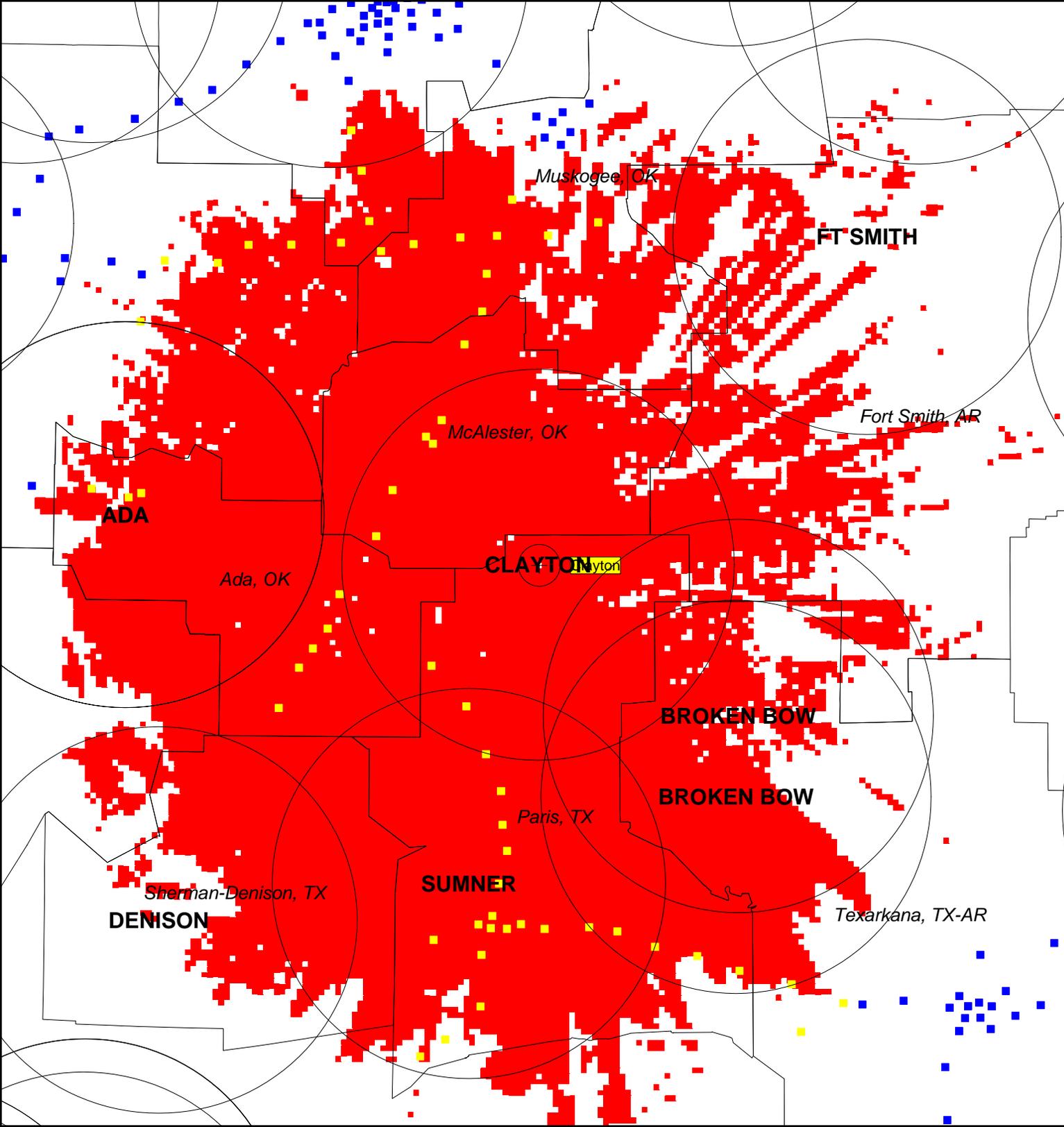
Exhibit 2 is a chart listing the RPL results to the actual cell towers in the region as well as including the technical parameters for each of those cell sites.

Statement of Engineer

I, George W. Harter, Vice President of Engineering with the firm of Hardin and Associates and operating in the Commonwealth of Virginia, prepared the forgoing analysis and engineering statement. My credentials are a matter of record with the Federal Communications Commission. The information contained herein is true and correct to the best of my knowledge, information and belief.

/s/ George W. Harter

George W. Harter
Vice President of Engineering
Hardin and Associates, Inc.



EDX SignalPro™: clayton.map

Prop. model: Free Space + RMD
 Time: 50.0% Loc.: 50.0%
 Prediction Confidence Margin: 0.0dB
 Climate: Continental Temperate
 Land use (clutter): none
 Atmospheric Abs.: none
 K Factor: 1.333
 RX Antenna - Type: OMNI
 Height: 30.5 m AGL Gain: 14.85 dBd

————— E_H Adjacent Markets
 ———— BTAs

Sites
 Site: Clayton
 N34°36'08.00" W95°24'28.00" 562.2 m
 WLK382AA Tx.Ht.AGL: 31.4 m Total ERP: 22.00dBW
 Grp: 1 omni-horizontal/0.0° 2600.0000 MHz

received signal level at CT

■ > -107.0 dBmW
 ■ < -107.0 dBmW

Received power at remote

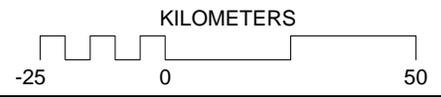
■ > -107.0 dBmW
 ■ < -107.0 dBmW

Display threshold level: -250.0 dBmW

————— Study Grid Boundary
 ———— Reference Grid (spacing: 7.5')

Notes

BTA Names Shown in Italics



Clayton, OK
 Potential Hub Interference
 Exhibit 1 Oct. 15, 2003

Exhibit 2 – Received Signal Levels at Tower Locations

<u>Site Name</u>	<u>Longitude</u>	<u>Latitude</u>	<u>Site Elevation (mAMSL)</u>	<u>Antenna Height (mAGL)</u>	<u>Received Signal Level (dBmW)</u>	<u>Distance from Clayton Tx Site (km)</u>
OK099282	-96.6654	35.3494	287	61	-116.6	141.503
OK099283	-96.6675	35.2276	274	61	-103.1	134.24
OK040240	-96.7619	35.3819	289	61	-122.8	150.736
OK040241	-96.5936	35.3864	286	61	-103.8	138.789
OK040242	-96.425	35.3819	272	61	-105	126.867
OK040243	-96.3286	35.4292	271	61	-93.2	124.422
OK040244	-96.193	35.4306	297	61	-75.1	116.584
OK412016	-95.2265	36.1817	682	61	-98.9	176.358
OK412006	-95.5095	36.1675	207	76.2	-132.7	174.257
OK412005	-95.1297	36.1978	277	76.2	-134.5	179.162
OK412003	-94.6929	36.1786	314	76.2	-136.5	186.838
OK412004	-94.9039	36.2145	319	76.2	-140.3	184.96
OK412007	-96.2936	36.2162	271	76.2	-137.5	196.558
OK412008	-96.4737	36.2191	302	76.2	-145.3	204.048
OK412009	-96.7483	36.2255	336	76.2	-151.4	217.519
OK040245	-96.0353	35.4369	274	76.2	-74.6	108.969
OK040246	-95.909	35.4154	182	76.2	-94.7	101.268
OK040247	-95.8056	35.4339	242	76.2	-74	99.299
OK040248	-95.6578	35.4517	182	61	-83.4	97.141
OK040249	-95.5414	35.4561	200	61	-78.7	95.702
OK040250	-95.38	35.4569	183	61	-89.3	95.049
OK040251	-95.2206	35.4909	180	61	-95.2	100.253
OK069333	-95.5739	35.3575	182	61	-72.8	85.317
OK069334	-95.5881	35.26	213	76.2	-71.9	74.95
OK069335	-95.6436	35.1745	182	76.2	-71	67.157
OK069336	-95.715	34.9781	212	76.2	-68.6	50.327
OK069337	-95.7422	34.917	213	61	-67.9	46.449
OK069338	-95.7642	34.9352	213	42.7	-68.4	49.292
OK069339	-95.8689	34.7964	213	76.2	-68.1	47.353
OK069340	-95.9197	34.6767	213	61	-85.2	47.549
OK069341	-96.0333	34.5258	198	76.2	-87.8	57.892
OK069342	-96.0698	34.4367	169	61	-82.3	63.37
OK069343	-96.1586	34.3347	195	61	-71.7	74.967
OK069344	-96.2211	34.23	183	76.2	-72.7	85.299
OK069345	-96.1157	34.3847	182	39.6	-91.6	69.225
OK069323	-95.2553	36.4251	217	61	-161.1	203.12
OK069324	-95.3262	36.3006	192	61	-165.1	188.954
OK069325	-95.3329	36.1916	195	61	-146.1	176.822
OK069318	-95.3389	35.6919	182	61	-109.6	121.302
OK069329	-95.3332	35.7762	182	39.6	-118.7	130.688
OK069317	-95.3903	35.7105	182	61	-117.6	123.218
OK069328	-95.417	35.7651	191	24.4	-113.5	129.281
OK069316	-95.248	35.7986	165	27.4	-122.8	133.792
OK069331	-95.3086	35.7246	156	61	-109.1	125.101
OK069330	-95.3655	35.7506	182	27.4	-117.6	127.724
OK069332	-95.4942	35.55	182	61	-98.8	105.658
OK075319	-96.0149	35.8564	226	61	-118.8	149.931

OK075320	-96.0055	35.7281	273	61	-94.3	136.443
OK075321	-95.9717	35.6236	208	35	-98	124.59
OK075322	-95.9464	35.493	213	76.2	-88.8	110.497
OK044313	-95.435	36.3789	223	61	-153.6	197.53
OK044314	-95.2765	36.5087	211	61	-161.9	212.277
OK044315	-95.1392	36.6336	213	61	-170.2	227.13
OK060269	-97.0342	36.6783	324	61	-179.2	273.594
OK035211	-97.3569	35.9669	309	70.1	-176.2	233.019
OK019228	-97.1593	34.7993	289	51.8	-139.6	161.575
OK019229	-97.0028	34.798	341	64	-107.9	147.396
OK019230	-96.8146	34.7928	334	64	-91.4	130.318
OK019231	-96.6586	34.7832	304	45.7	-86.3	116.089
OK019232	-96.6979	34.7717	306	64	-81	119.428
OK035219	-97.3431	34.8995	309	61	-143.9	179.836
OK035220	-97.2644	34.7386	275	61	-128.5	170.426
OK035221	-97.2155	34.6819	291	48.8	-125.4	165.573
OK035222	-97.1886	34.5622	282	61	-135	163.054
OK035414	-97.2203	34.7392	266	45.7	-131.9	166.416
OK040270	-98.2606	35.5361	452	76.2	-174.1	279.552
OK040271	-98.4636	35.5256	486	61	-173.5	296.389
OK040272	-98.6528	35.5345	487	42.7	-171.8	312.905
OK040273	-98.72	35.5239	487	61	-187.1	318.317
OK040274	-98.8711	35.5222	518	61	-180.5	331.307
OK040275	-98.9639	35.5144	477	48.8	-183.5	339.102
OK040276	-99.0992	35.4792	495	70.1	-195.9	349.827
OK040277	-99.2731	35.4261	560	67.1	-222.7	363.632
OK040278	-99.4131	35.4014	594	61	-182.5	375.373
OK040279	-99.5947	35.3425	590	61	-197.3	390.157
OK040280	-99.6831	35.2656	560	70.1	-205.3	396.532
OK040281	-99.8775	35.2244	624	61	-201.4	413.26
OK044284	-97.6869	35.2158	396	76.2	-164.2	218.684
OK044285	-97.8305	35.1394	365	73.2	-174.1	228.895
OK044286	-97.9489	35.0245	335	76.2	-183.6	236.631
OK062287	-97.9495	35.0534	330	61	-183	237.303
OK044290	-98.0657	34.9102	396	76.2	-168.6	245.159
OK044288	-98.1375	35.0731	365	61	-185.3	254.508
OK044289	-98.2419	35.0645	359	54.9	-178	263.662
OK044312	-95.5396	36.3261	696	61	-105.5	192.016
DA04AL022	-102.005	33.5112	1008	45.7	-227	619.487
DA04AL023	-101.942	33.5266	1003.4	39	-227.7	613.412
DA04AL024	-101.886	33.4973	984.2	42.7	-223.9	609.106
DA04AL025	-101.846	33.5147	977.2	45.7	-209.1	605.051
DA04AL026	-101.821	33.5526	967.1	36.6	-227.2	601.837
DA04AL027	-101.89	33.5485	990.9	36.6	-224.4	608.17
DA04AL028	-101.943	33.5532	997	45.7	-219.4	612.841
DA04AL029	-102.007	33.598	1011	39.6	-235.9	617.548
DA04AL030	-101.938	33.5936	995.2	39.6	-235.5	611.41
DA04AL031	-101.897	33.5753	983.6	37.2	-208.6	608.143
DA04AL032	-101.847	33.5801	969	36.6	-213.7	603.508
DA04AL033	-101.797	33.5981	977.2	36.6	-223	598.553
DA04AL034	-101.877	33.6103	982.4	36.6	-234.4	605.495
DA04AL035	-101.84	33.6442	983	36.6	-237.4	601.354

DA04AL036	-101.838	33.776	1015.6	76.2	-221.6	598.299
DA04AL037	-101.854	33.9293	1035.4	67.1	-229.6	596.848
DA04AL038	-101.84	34.0732	1044.2	45.7	-224.3	593.275
DA04AL039	-101.753	34.1869	1028.4	45.7	-232.6	583.805
DA04AL040	-101.709	34.2059	1029.6	45.7	-220.4	579.554
DA04AL041	-101.669	33.4524	947.6	61	-230.8	590.76
DA04AL042	-101.711	33.5378	953.7	50.6	-207.9	592.284
DA04AL043	-101.701	33.6658	974.4	61	-236.5	588.273
DA04AL044	-101.848	33.4172	970.5	61	-231.5	607.818
DA04AL045	-102.125	33.5914	1025.4	61	-238.3	628.383
DA04AL046	-102.01	33.6927	1002.2	61	-231.1	615.672
DA04AL047	-102.133	31.9881	861.1	45.7	-245.7	688.981
DA04AL048	-102.103	31.9951	858.6	36.6	-245.1	686.105
DA04AL049	-102.072	32.0012	844.6	36.6	-244.6	683.191
DA04AL050	-102.079	31.9943	848.3	45.7	-246	684.126
DA04AL051	-102.076	32.0347	844.9	51.8	-238.5	681.855
DA04AL052	-102.145	32.0373	860.8	36.6	-245.4	687.549
DA04AL052	-102.145	32.0373	860.8	36.6	-245.4	687.549
DA04AL053	-102.157	31.9556	871.4	36.6	-245.5	692.633
DA04AL054	-102.258	31.9955	881.8	36.6	-243.7	699.157
DA04AL055	-101.979	32.0416	847	36.6	-244.4	673.342
DA04AL056	-102.383	31.8367	881.5	36.6	-247.3	717.643
DA04AL057	-102.4	31.8696	908.6	36.6	-247.6	717.407
DA04AL058	-102.358	31.8556	890	36.6	-245.7	714.583
DA04AL059	-102.343	31.8964	889.1	36.6	-247.6	711.261
DA04AL060	-102.368	31.9183	911	36.6	-234.4	712.271
DA04AL061	-102.262	31.9035	873.9	54.9	-246.4	704.09
DA04AL085	-101.918	33.5323	996.1	61	-227.8	611.102
DA04AL108	-102.412	31.9657	905	61	-244.1	713.647
DA05AL079	-100.432	31.4123	566.9	30.5	-231.9	587.355
DA05AL080	-100.495	31.3976	580.6	30.5	-232.8	593.055
DA05AL081	-100.396	31.4488	548	30.5	-229.5	582.158
DA05AL082	-100.449	31.437	585.2	30.5	-246.2	586.917
DA05AL083	-100.49	31.4551	597.4	30.5	-244	588.742
DA05AL084	-100.438	31.4613	563.6	30.5	-243.8	584.429
DA05AL086	-100.365	31.5139	566	30.5	-243.9	575.375
DA05AL087	-100.45	31.5253	598.9	30.5	-226.3	580.975
DA05AL088	-100.463	31.454	568.5	24.4	-243.7	586.797
DA05AL112	-101.88	33.593	982	30.5	-232.6	606.179
DA05AL114	-102.113	32.004	853	17.7	-233.4	686.502
DA07AL001	-101.87	33.5632	982	24.4	-218.6	606
DA07AL002	-101.873	33.5291	984	24.4	-215.7	607.121
DA07AL003	-101.897	33.5201	990	20.7	-213.5	609.514
DA07AL004	-101.923	33.5649	990	24.4	-214.8	610.747
DA07AL005	-101.87	33.5774	978	24.4	-210.4	605.652
DA08AL010	-100.484	31.416	584	36.6	-246.3	590.97
DA08AL011	-100.458	31.4943	580.9	36.6	-243	583.676
DA08AL011	-100.458	31.4943	580.9	36.6	-243	583.676
DA08AL133	-102.3	33.9202	1077	91.4	-221.9	637.653
DA08AL134	-102.381	33.5866	1079	67.1	-222.7	651.68
DA08AL135	-102.277	33.1779	1009	76.2	-232.3	653.242
DA08AL136	-101.79	33.1513	1079	91.4	-228.8	610.625

DA08AL137	-101.428	33.1915	884	106.7	-220.3	577.129
DA08AL138	-102.571	32.9582	1024	91.4	-221.3	686.489
DA08AL139	-102.634	32.7251	1001	91.4	-229.5	700.239
DA08AL140	-101.941	32.7237	904	91.4	-220	639.412
DA08AL311	-102.126	32.0202	857.1	30.5	-234	686.791
DA08AL312	-102.107	32.0232	851.9	30.5	-238.6	685.04
DA08AL313	-102.47	31.8453	897.9	61	-246.1	724.524
DA08AL315	-102.385	31.889	867.4	41.1	-233	715.169
DA08AL315	-102.385	31.889	867.4	41.1	-233	715.169
DA08AL316	-102.326	31.8677	882.4	41.1	-246.2	711.281
DA08AL317	-101.779	32.131	883	61	-244.8	652.047
DA08AL318	-102.166	32.2954	1197.8	91.4	-236.3	677.117
DA08AL319	-102.56	32.335	966.2	91.4	-221.5	709.337
DA11AL320	-101.476	32.2529	2438	51.8	-241.8	620.49
DA11AL321	-101.457	32.2371	2500	51.8	-234	619.681
DA11AL322	-101.497	32.2245	2703	33.5	-233	623.67
DA11AL323	-101.446	32.205	2799	24.4	-236.6	620.373
DA11AL324	-101.345	32.2873	732.1	54.9	-235.2	607.767
DA11AL365	-102.536	34.064	1156	76.2	-240.3	656.973
DA11AL366	-102.728	34.21	1153	76.2	-233.2	672.689
DA03MR430	-95.5532	33.6936	168.6	54.9	-74.1	101.894
DA03MR431	-95.558	33.662	182	57.9	-74.3	105.435
DA03MR432	-95.5964	33.6714	160	67.1	-74.3	104.925
DA03MR433	-95.508	33.6603	167	54.9	-74.3	105.119
DA03MR434	-95.5868	33.5927	139	76.2	-74.8	113.433
DA03MR435	-95.3912	33.6599	167.9	76.2	-74.3	104.77
DA03MR436	-95.2529	33.6642	146.9	76.2	-74.3	105.25
DA03MR437	-95.4644	33.6722	163.7	57.9	-74.2	103.522
DA03MR438	-95.0491	33.613	136.9	49.7	-80.7	114.821
DA03MR439	-94.9179	33.5887	120.7	91.4	-83.9	121.364
DA03MR440	-94.7875	33.5498	143.9	76.2	-84.2	130.195
DA03MR441	-95.5329	33.7775	152.4	57.9	-73.4	92.404
DA03MR442	-95.508	33.8621	133.5	76.2	-72.6	82.794
DA03MR443	-95.1655	33.6533	143.9	91.4	-74.5	107.823
DA03MR444	-95.6983	33.3732	143	59.4	-99.7	139.231
DA03MR445	-95.7758	33.329	146.3	76.2	-100.9	145.555
DA03MR446	-95.527	34.0171	159.1	76.2	-70.8	65.963
DA03MR447	-95.5739	34.1126	152.1	103.6	-69.6	56.526
DA03MR448	-95.6351	34.2366	152.1	76.2	-67.8	45.681
DA03MR449	-95.7444	34.3416	170.7	121.9	-67.2	42.323
DA03MR450	-95.5893	33.459	150.9	91.4	-89.8	128.188
DA03MR451	-95.522	33.9297	136.6	57.9	-71.9	75.498
DA03MR452	-95.7352	33.6314	187.5	76.2	-74.8	112.055
DA03MR326	-94.1099	33.3882	96.6	57.9	-142.6	180.344
DA03MR326	-94.1099	33.3882	96.6	57.9	-142.6	180.344
DA03MR327	-93.9351	33.4262	125.9	57.9	-149.4	188.433
DA03MR328	-94.3608	32.8906	118.3	97.5	-154.2	213.477
DA03MR329	-94.4076	33.4601	115.8	57.9	-115.4	156.882
DA03MR330	-94.5981	33.3905	103.3	91.4	-106.3	153.996
DA03MR331	-94.0435	33.4224	90.8	48.8	-134.4	181.679
DA03MR332	-94.0468	33.4616	111.6	48.8	-127.5	178.324
DA03MR333	-94.1384	33.4493	101.8	67.1	-136.5	173.509

DA03MR334	-94.0908	33.422	96	54.9	-123.9	178.724
DA03MR335	-94.0808	33.4528	104.9	35.7	-126.3	176.846
DA03MR336	-93.9637	33.4907	92.4	76.2	-141.3	181.554
DA03MR337	-93.6779	33.6466	92.7	91.4	-144.8	191.387
DA03MR338	-93.8114	33.613	76.2	95.4	-153.4	183.533
DA03MR339	-93.5782	33.6752	98.8	85.3	-144.4	197.381
DA03MR340	-94.4667	33.4643	116.1	93	-102.8	153.36
DA03MR341	-93.5169	33.7443	92.4	112.8	-140.2	198.346
DA03MR342	-94.1538	33.2953	79.9	76.2	-140.1	185.691
DA03MR343	-94.041	33.5851	94.8	76.2	-135.6	169.167
DA03MR344	-94.1494	33.1583	106.4	76.2	-149.4	198.127
DA03MR345	-94.1613	33.119	85.6	57.9	-160.3	201.067
DA03MR346	-94.2724	33.0641	116.7	54.9	-137.7	200.575
DA03MR347	-94.2806	33.4687	114.3	76.2	-119.3	163.285
DA03MR348	-94.008	33.4515	96.6	47.2	-136.9	181.65
DA03MR349	-94.1077	33.4791	106.4	68.6	-119.4	173.008
DA03MR350	-94.0119	33.3927	96.3	57.9	-128.9	186.093
DA03MR351	-94.3636	33.0069	112.8	76.2	-149.4	201.883
DA03MR353	-93.8562	33.4527	74.1	76.2	-165.8	191.742
DA03MR354	-94.6265	33.5142	121	92	-98.2	140.74
DA03MR356	-93.7134	33.3522	70.4	76.2	-173.2	209.065
DA03MR357	-93.4993	33.3688	83.5	85.3	-172.1	223.042
OK03XC009	-97.4959	35.4041	0	0	-175.5	210.002
OK03XC010	-97.4749	35.6132	0	0	-173.4	219.022
OK03XC028	-97.5708	35.4407	0	0	-174.8	217.865
OK03XC031	-97.5183	35.5793	0	0	-189.4	220.573
OK03XC033	-97.5024	35.4615	0	0	-190.5	213.258
OK03XC048	-97.5155	35.4848	0	0	-168.8	215.467
OK03XC051	-96.9664	35.7034	0	0	-156.5	187.23
OK03XC070	-97.6277	35.6078	0	0	-186.6	230.773
OK03XC079	-97.6214	35.5519	0	0	-198.4	227.381
OK03XC089	-97.421	35.6573	0	0	-175.6	217.392
OK03XC090	-96.87	35.7227	0	0	-159.3	182.141
OK03XC094	-97.533	35.3094	0	0	-167.6	208.984
OK03XC100	-96.6938	35.7526	0	0	-142.8	173.234
OK03XC101	-97.403	35.4518	0	0	-174.2	204.718
OK03XC102	-97.3572	35.4365	0	0	-178.4	200.25
OK03XC105	-97.6083	35.4789	0	0	-183.7	222.738
OK03XC109	-97.4278	35.5954	0	0	-182.6	214.348
OK03XC121	-97.4882	35.3332	0	0	-164.6	206.21
OK03XC123	-97.5725	35.5099	0	0	-189.6	221.329
OK03XC127	-97.5413	35.3764	0	0	-174.5	212.516
OK03XC141	-97.5643	35.4636	0	0	-183.6	218.41
OK03XC201	-97.5178	35.4697	0	0	-185.4	214.911
OK03XC204	-97.5349	35.4724	0	0	-185.4	216.434
OK03XC300	-97.4744	35.2115	0	0	-171.9	200.212
OK03XC301	-97.5205	35.4387	0	0	-184.1	213.641
OK03XC304	-97.4797	35.422	0	0	-186.4	209.506
OK03XC305	-97.4738	35.4657	0	0	-189.6	211.141
OK03XC311	-97.466	35.5015	0	0	-183.8	212.317
OK03XC312	-97.4753	35.5572	0	0	-175.8	215.982
OK03XC314	-97.5657	35.5976	0	0	-186.4	225.308

OK03XC315	-97.558	35.5586	0	0	-178.4	222.637
OK03XC318	-97.6083	35.4437	0	0	-175.1	221.093
OK03XC319	-97.6015	35.4016	0	0	-165.5	218.636
OK03XC325	-97.4682	35.3719	0	0	-177.7	206.244
OK03XC326	-97.4123	35.3911	0	0	-172.2	202.518
OK03XC343	-97.4605	35.2838	0	0	-164.1	201.82
OK03XC367	-97.4333	35.2037	0	0	-167.4	196.402
OK03XC368	-97.5431	35.4055	0	0	-172	213.964
OK03XC384	-97.5292	35.5491	0	0	-184.8	219.841
OK03XC402	-96.9094	35.3891	0	0	-143.3	162.335
OK03XC410	-97.3952	35.8682	0	0	-166.7	228.846
OK03XC419	-97.749	35.5937	0	0	-202.1	239.774
OK03XC420	-97.72	35.4487	0	0	-169.8	230.567
OK03XC421	-97.5041	35.6666	0	0	-192.5	224.325
OK03XC424	-97.2858	35.4025	0	0	-165.5	192.77
OK03XC499	-97.3519	35.6176	0	0	-170.1	209.759
OK03XC502	-97.1943	35.3832	0	0	-159.2	184.416
OK03XC503	-97.1062	35.3853	0	0	-159.6	177.491
OK03XC505	-97.4524	35.1172	0	0	-170.3	195.098
OK03XC507	-97.3793	35.0332	0	0	-167.9	186.203
OK03XC508	-97.8574	35.4968	0	0	-172.1	244.107
OK03XC510	-97.4233	35.7646	0	0	-170.9	224.125
OK03XC520	-97.1487	35.6565	0	0	-170.3	196.95
OK03XC521	-97.3301	35.3904	0	0	-156.9	195.764
OK03XC541	-97.9537	35.5229	0	0	-182.3	253.26
OK03XC542	-98.1072	35.5384	0	0	-197.9	266.741
OK03XC599	-97.2383	35.6291	0	0	-177.6	201.839
OK03XC600	-96.9224	35.3289	0	0	-140.1	159.894
OK13XC067	-97.6142	35.5106	0	0	-181.7	224.747
OK13XC068	-97.6414	35.4953	0	0	-176	226.226
OK13XC069	-97.4956	35.7329	0	0	-177.5	227.589
OK13XC085	-97.5351	35.511	0	0	-187.4	218.361
OK13XC087	-97.6556	35.5811	0	0	-188.4	231.616
OK13XC089	-97.4233	35.7009	0	0	-179	220.178
OK13XC097	-97.5661	35.5317	0	0	-175.8	221.905
OK13XC601	-97.4222	35.4819	0	0	-189.6	207.794
OK13XC602	-97.5061	35.5198	0	0	-194.8	216.475
OK13XC603	-97.5495	35.4946	0	0	-181.3	218.708
OK13XC604	-97.5819	35.5307	0	0	-176.4	223.128
OK13XC605	-97.4665	35.6582	0	0	-186.9	220.939
OK13XC606	-97.5485	35.6413	0	0	-171.9	226.342
OK13XC607	-97.5273	35.3511	0	0	-169.3	210.249
OK13XC610	-97.4467	35.4364	0	0	-182.8	207.501
OK23XC111	-97.5481	35.5226	0	0	-187.8	219.994
OK23XC112	-97.5973	35.5374	0	0	-182.5	224.707
OK23XC113	-97.6279	35.533	0	0	-179.2	226.961
OK23XC114	-97.6575	35.4589	0	0	-173	225.849
OK23XC115	-97.4863	35.6394	0	0	-176.4	221.389
OK23XC116	-97.62	35.5806	0	0	-181.1	228.737
OK23XC117	-97.4527	35.2341	0	0	-162.6	199.2
OK23XC118	-97.5837	35.4866	0	0	-170.6	221.098
OK23XC119	-97.4975	35.4815	0	0	-180	213.845

OK23XC120	-97.5406	35.6055	0	0	-187.2	223.751
OK23XC121	-97.5483	35.5824	0	0	-171.2	223.117
OK23XC122	-97.5029	35.2332	0	0	-161.1	203.454
OK33XC092	-97.5856	35.5847	0	0	-189.8	226.204
OK54XC300	-97.7242	35.5023	0	0	-185.2	233.345
OK54XC301	-97.7577	35.5036	0	0	-183.9	236.162
OK54XC400	-97.3347	35.4938	0	0	-162.8	201.439
OK54XC401	-97.2047	35.4886	0	0	-167.3	190.933
OK54XC402	-97.0641	35.5065	0	0	-169.4	181.177
OK54XC403	-96.9928	35.5936	0	0	-158.9	181.465
OK54XC405	-97.7055	35.376	0	0	-170.3	226.253
OK54XC409	-97.178	35.5905	0	0	-170.7	194.923
TU03XC101	-96.0002	36.1468	0	0	-144.5	179.912
TU03XC201	-95.9855	36.1582	0	0	-146.2	180.73
TU03XC301	-95.9397	36.1283	0	0	-149.4	176.374
TU03XC302	-96.1002	35.9736	0	0	-164.1	164.896
TU03XC303	-95.9501	36.1912	0	0	-181.6	183.356
TU03XC304	-95.8486	36.1341	0	0	-154.2	174.925
TU03XC305	-95.9874	36.2535	0	0	-148.3	190.934
TU03XC306	-96.0172	36.1623	0	0	-153.1	182.017
TU03XC307	-95.7718	36.162	0	0	-149.4	176.512
TU03XC308	-95.8619	36.0915	0	0	-160.1	170.607
TU03XC309	-96.0491	36.1358	0	0	-182.4	180.128
TU03XC310	-96.0072	36.1103	0	0	-155.4	176.242
TU03XC311	-96.0085	36.0581	0	0	-127.8	170.774
TU03XC312	-95.9034	36.1687	0	0	-165.5	179.846
TU03XC314	-95.9769	36.0734	0	0	-137.6	171.501
TU03XC315	-96.091	36.1094	0	0	-158.5	178.637
TU03XC318	-95.9212	36.0311	0	0	-138.6	165.535
TU03XC319	-95.9037	36.1139	0	0	-159.7	173.964
TU03XC320	-95.7831	36.0671	0	0	-136.6	166.37
TU03XC321	-95.8128	35.997	0	0	-151.4	159.353
TU03XC322	-95.8668	36.0454	0	0	-129.6	165.753
TU03XC323	-95.9233	36.0625	0	0	-143.9	168.938
TU03XC324	-95.85	36.2525	0	0	-160.2	187.784
TU03XC325	-95.7861	36.1237	0	0	-138.4	172.586
TU03XC326	-95.7347	36.0336	0	0	-131.1	161.867
TU03XC327	-95.6675	35.9922	0	0	-129.6	156.311
TU03XC329	-95.5956	36.3266	0	0	-178.2	192.453
TU03XC330	-95.6326	36.2961	0	0	-160.4	189.407
TU03XC332	-95.8468	36.1671	0	0	-162.1	178.46
TU03XC334	-96.0557	36.0761	0	0	-141.7	174.067
TU03XC335	-96.341	35.8966	0	0	-120.1	166.984
TU03XC336	-96.1462	36.0047	0	0	-146.6	169.697
TU03XC338	-96.0106	35.9817	0	0	-141.6	162.82
TU03XC339	-95.888	35.9707	0	0	-137.5	158.252
TU03XC413	-96.2034	36.1356	0	0	-164.6	185.095
TU03XC508	-95.8283	36.3539	0	0	-179.8	198.421
TU03XC510	-95.6898	36.2229	0	0	-165.2	181.974
TU03XC513	-96.2327	35.9577	0	0	-142.7	168.259
TU03XC515	-96.5548	35.7979	0	0	-123.2	168.894
TU03XC543	-95.5442	35.9017	0	0	-131.3	144.994

TU03XC546	-96.4488	35.8296	0	0	-157	166.003
TU03XC550	-95.9151	36.3519	0	0	-156.9	199.861
TU13XC445	-95.9675	36.132	0	0	-151.1	177.474
TU13XC447	-95.956	36.0902	0	0	-142.1	172.727
TU13XC448	-95.8952	36.0605	0	0	-157.9	168.036
TU13XC449	-95.8696	36.1166	0	0	-160.9	173.482
TU13XC450	-95.9409	36.0453	0	0	-130.8	167.556
TU13XC451	-95.9231	36.0049	0	0	-132.1	162.794
TU13XC452	-95.967	36.025	0	0	-150.9	166.106
TU13XC453	-95.9668	35.9953	0	0	-136.8	162.963
TU13XC454	-95.9778	35.959	0	0	-149.4	159.457
TU13XC455	-95.9059	36.0891	0	0	-168	171.357
TU13XC456	-95.9762	36.113	0	0	-135.8	175.682
TU13XC457	-95.8166	36.0334	0	0	-153.7	163.369
TU13XC458	-95.8889	36.0106	0	0	-135.1	162.54
TU13XC459	-95.9345	36.1483	0	0	-171.1	178.386
TU13XC461	-95.8293	36.0722	0	0	-153.2	167.829
TU23XC466	-95.8314	36.1199	0	0	-158.3	173.037
TU23XC467	-95.8889	36.0959	0	0	-152.1	171.687
TU23XC468	-95.9778	36.2055	0	0	-164.8	185.57
TU33XC444	-95.8728	36.0637	0	0	-141.2	167.857
TU54XC300	-96.108	36.0067	0	0	-137.6	168.564
TU54XC301	-96.0684	36.0418	0	0	-141.8	170.888
TU54XC305	-95.8883	36.1839	0	0	-154.8	181.148
TU54XC306	-95.9169	36.1039	0	0	-159.2	173.206
TU54XC400	-95.5585	36.3105	0	0	-168.9	190.4
TU54XC405	-95.7603	36.2348	0	0	-149.4	184.283
TU54XC406	-95.7397	36.3116	0	0	-159.1	192.395
TU54XC407	-96.2965	36.1289	0	0	-166.3	187.872
TU54XC408	-96.1359	36.1054	0	0	-152.5	179.676
TU54XC411	-96.0575	35.9202	0	0	-125.7	157.944
TU54XC412	-95.8915	35.9307	0	0	-136.9	154.075
TU54XC413	-95.7279	35.9696	0	0	-136.8	154.763
TU54XC414	-95.6636	36.0583	0	0	-145	163.527
TU54XC415	-95.6356	36.1658	0	0	-146	175.046

CERTIFICATE OF SERVICE

I, Karla E. Huffstickler, hereby certify that copies of the foregoing Reply Comments have been served by hand this 23rd day of October, 2003, on the following:

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