

### **Part 73.215 Contour Protection Study**

The Applicant respectfully requests Section 73.215 Contour Processing for KUPI 256C1 to protect the co-channel station KNYN (FM) Franklin, ID, on channel 256A.

#### **Antenna Site Minimum Separation Requirements**

KUPI is eligible to request 73.215 Contour Protection as it complies with the minimum separation requirements towards KNYN on its co-channel at its proposed antenna site. The attached Antenna Site Channel Study shows that the proposed KUPI 256C1 Antenna Location is spaced 185.74 kilometers from the contingently proposed facilities of KNYN. In order to be eligible for 73.215 Contour Protection, the minimum “C1 to A” spacing for co-channel stations must be at least 178 kilometers. The proposed KUPI 256C1 Antenna Location satisfies this requirement by 7.74 kilometers.

#### **Contour Studies**

Using a non directional antenna and an ERP of 100 kW and an HAAT of 176 meters, KUPI 256C1 complies with the Contour Protection requirements of Part 73.215 towards KNYN (\*See Special Note on KNYN 73.215 Status as part of this instant Contingent Application). The attached Contour Map and Overlap Tabulation Studies demonstrate that this application complies with the Contour Protection Requirements of Section 73.215.

In reviewing the attached Contour Study, it should be noted that since KNYN utilizes Class A facilities with an HAAT of 72 meters at 1.8 kW ERP, and has accepted Section 73.215 Contour Protection status in order to be protected to its actual facilities instead of maximum Class A facilities equivalent to 6 kW at 100 meters HAAT.

Using the KUPI 256C1 technical parameters proposed in this application, the actual F(50,50) 60 dBu Contour for KUPI does not overlap the actual F(50,10) 40 dBu Interfering Contour of KNYN. Likewise, actual the F(50,50) 60 dBu Contour for KNYN does not overlap the actual F(50,10) 40 dBu Interfering Contour of the instant KUPI application on 256C1.

Therefore, it appears as though the instant application meets the requirements of Section 73.215.

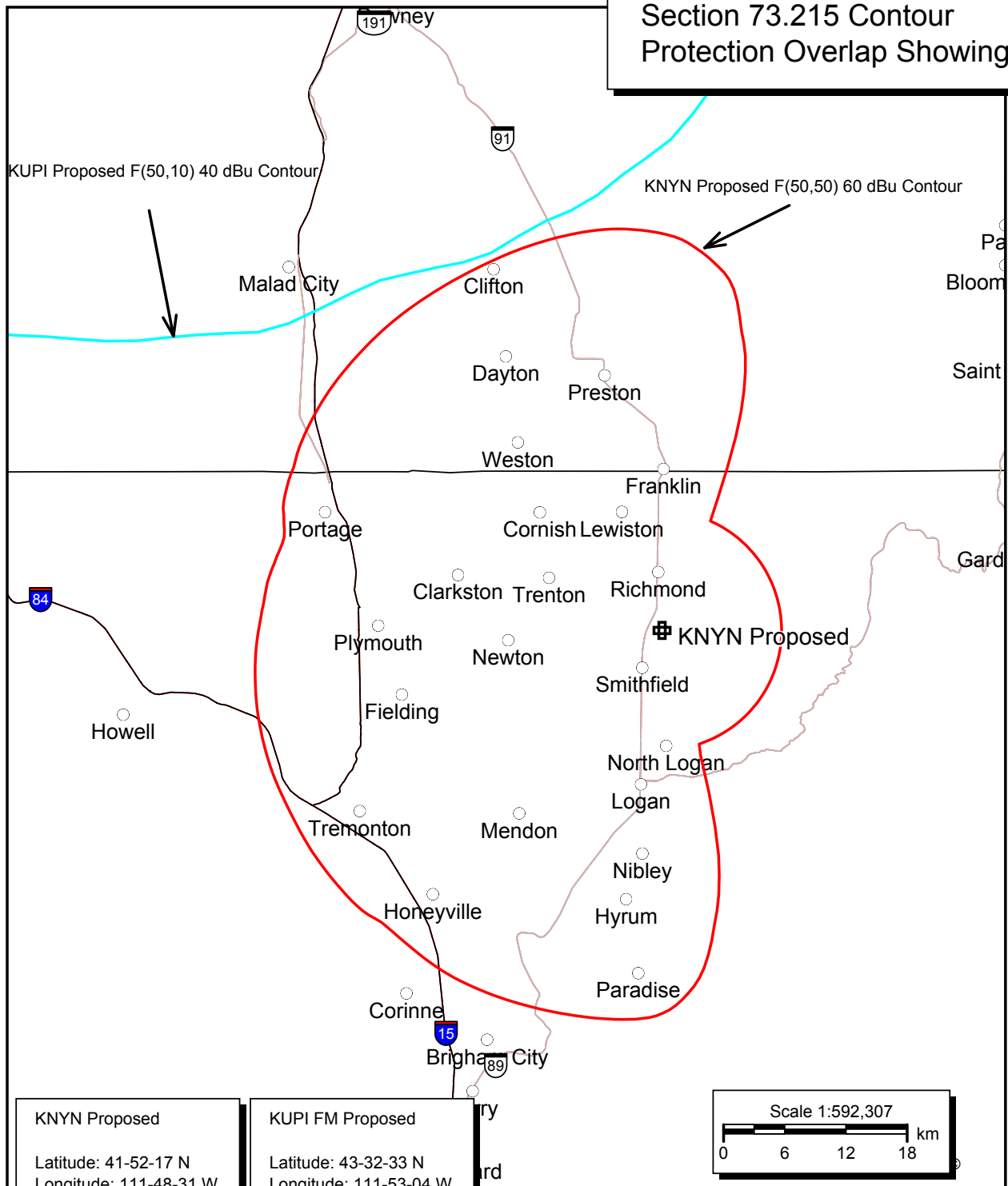
# KUPI Antenna Site Chan Study

## KUPI FM Idaho Falls, ID Antenna Site Channel Study

REFERENCE	CLASS = C1	DISPLAY DATES
43 32 33 N	Current	DATA 06-16-04
111 53 04 W	Spacings	SEARCH 06-17-04
----- Channel 256 - 99.1 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin
KUPIFM	ADD 256C1	Idaho Falls	ID 0.00	0.0	245.0	-245.00
Of no concern. This is the currently licensed facilities of KUPI.						
KNYN	App 256A	Fort Bridger	WY 185.74	178.1	200.0	-14.26
The Applicant respectfully requests Section 73.215 Contour Protection Processing towards KNYN Fort Bridger as part of this contingently proposed set of applications filed jointly with KNYN. Note, as part of the contingent application, KNYN has agreed to be designated with Section 73.215 Status thereby allowing KUPI to protect the actual facilities proposed in the contingent KNYN application instead of Maximum Class A facilities.						
KLLP	LIC 253C2	Chubbuck	ID 78.56	208.5	79.0	-0.44
RADD	ADD 255C3	Franklin	ID 152.80	177.7	144.0	8.80
RDEL	DEL 258C2	Aberdeen	ID 88.87	228.2	79.0	9.87
VA258	VAC 258C2	Aberdeen	ID 88.87	228.2	79.0	9.87
KNYN	LIC 256C1	Fort Bridger	WY 256.17	161.4	245.0	11.17
RADD	ADD 256C	Arapahoe	WY 284.06	101.8	270.0	14.06
KTPZ	LIC 256C	Mountain Home	ID 289.69	264.7	270.0	19.69
AP203	APP-D 203C1	Blackfoot	ID 56.79	271.8	34.0	22.79
KRSVFM	LIC 254A	Afton	WY 106.39	136.1	75.0	31.39
KCMM	LIC 256C3	Belgrade	MT 253.10	11.7	211.0	42.10
RDEL	DEL 256C	Lost Cabin	WY 314.75	90.8	270.0	44.75
KWYW.C	CP 256C	Lost Cabin	WY 314.75	90.8	270.0	44.75
KWYW.C	CP 256C	Lost Cabin	WY 314.94	90.8	270.0	44.94
KWYW	LIC 256C	Lost Cabin	WY 314.94	90.8	270.0	44.94
981231	APP 202C3	Jackson	WY 91.99	95.3	24.0	67.99

## Section 73.215 Contour Protection Overlap Showing



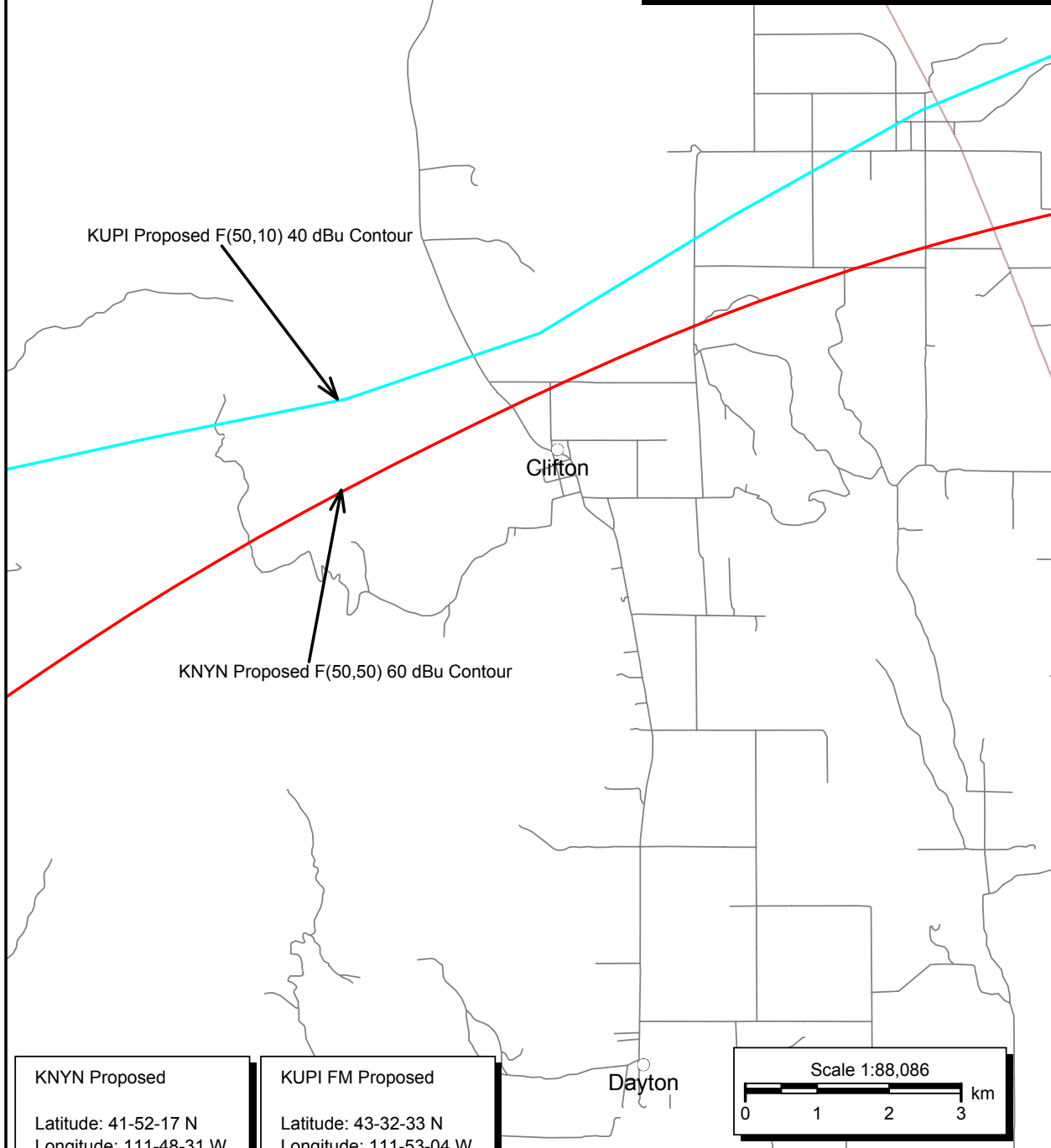
### KNYN Proposed

Latitude: 41-52-17 N  
Longitude: 111-48-31 W  
ERP: 1.80 kW  
HAAT: 72.42 m  
Channel: 256 A  
Frequency: 99.1 MHz  
AMSL Height: 1752.9 m  
Elevation: 1715.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

### KUPI FM Proposed

Latitude: 43-32-33 N  
Longitude: 111-53-04 W  
ERP: 100.00 kW  
HAAT: 176.0 m  
Channel: 256 C1  
Frequency: 99.1 MHz  
AMSL Height: 1727.0 m  
Elevation: 1695.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

## Section 73.215 Contour Protection Overlap Showing



### KNYN Proposed

Latitude: 41-52-17 N  
Longitude: 111-48-31 W  
ERP: 1.80 kW  
HAAT: 72.42 m  
Channel: 256 A  
Frequency: 99.1 MHz  
AMSL Height: 1752.9 m  
Elevation: 1715.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

### KUPI FM Proposed

Latitude: 43-32-33 N  
Longitude: 111-53-04 W  
ERP: 100.00 kW  
HAAT: 176.0 m  
Channel: 256 C1  
Frequency: 99.1 MHz  
AMSL Height: 1727.0 m  
Elevation: 1695.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

06-17-2004 30 Sec. Terrain Data

KNYN BLH19851101KB  
Channel = 256A  
Max ERP = 1.8 kW  
RCAMSL = 1754.16 M  
N. Lat = 415217  
W. Lng = 1114831

KUPIFM BLH19851101KB  
Channel = 256C1  
Max ERP = 100 kW  
RCAMSL = 1727 M  
N. Lat = 43 32 33  
W. Lng = 111 53 04

Protected  
60 dBu

Interfering  
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
320.0	001.8000	0393.9	040.5	187.3	100.0000	0135.6	155.9	39.4
321.0	001.8000	0393.3	040.4	187.2	100.0000	0135.6	155.4	39.5
322.0	001.8000	0392.6	040.4	187.0	100.0000	0135.6	154.9	39.6
323.0	001.8000	0392.0	040.4	186.8	100.0000	0135.6	154.5	39.7
324.0	001.8000	0391.4	040.4	186.6	100.0000	0135.6	154.0	39.7
325.0	001.8000	0390.9	040.3	186.4	100.0000	0130.5	153.5	39.7
326.0	001.8000	0390.5	040.3	186.2	100.0000	0130.5	153.1	39.8
327.0	001.8000	0390.1	040.3	186.0	100.0000	0130.5	152.7	39.8
328.0	001.8000	0389.8	040.3	185.8	100.0000	0130.5	152.2	39.9
329.0	001.8000	0389.3	040.3	185.5	100.0000	0130.5	151.8	40.0
330.0	001.8000	0388.6	040.2	185.3	100.0000	0124.4	151.4	39.9
331.0	001.8000	0387.9	040.2	185.1	100.0000	0124.4	151.1	39.9
332.0	001.8000	0387.4	040.2	184.9	100.0000	0124.4	150.7	40.0
333.0	001.8000	0387.0	040.2	184.6	100.0000	0124.4	150.3	40.0
334.0	001.8000	0386.6	040.1	184.4	100.0000	0114.9	150.0	39.8
335.0	001.8000	0386.2	040.1	184.2	100.0000	0114.9	149.7	39.9
336.0	001.8000	0385.7	040.1	183.9	100.0000	0114.9	149.3	39.9
337.0	001.8000	0385.3	040.1	183.7	100.0000	0114.9	149.0	40.0
338.0	001.8000	0385.0	040.1	183.4	100.0000	0104.7	148.7	39.7
339.0	001.8000	0384.8	040.1	183.2	100.0000	0104.7	148.5	39.8
340.0	001.8000	0384.7	040.1	182.9	100.0000	0104.7	148.2	39.8
341.0	001.8000	0384.6	040.1	182.7	100.0000	0104.7	147.9	39.9
342.0	001.8000	0384.5	040.1	182.4	100.0000	0096.2	147.7	39.7
343.0	001.8000	0384.4	040.0	182.2	100.0000	0096.2	147.4	39.7
344.0	001.8000	0384.3	040.0	181.9	100.0000	0096.2	147.2	39.7
345.0	001.8000	0384.2	040.0	181.6	100.0000	0096.2	147.0	39.8
346.0	001.8000	0383.9	040.0	181.4	100.0000	0088.2	146.8	39.6
347.0	001.8000	0383.3	040.0	181.1	100.0000	0088.2	146.7	39.6
348.0	001.8000	0382.7	040.0	180.8	100.0000	0088.2	146.6	39.6
349.0	001.8000	0382.1	039.9	180.6	100.0000	0088.2	146.4	39.6
350.0	001.8000	0381.3	039.9	180.3	100.0000	0080.3	146.3	39.4
351.0	001.8000	0380.2	039.9	180.0	100.0000	0080.3	146.3	39.4
352.0	001.8000	0378.8	039.8	179.7	100.0000	0080.3	146.2	39.4
353.0	001.8000	0377.1	039.7	179.5	100.0000	0072.7	146.2	39.2
354.0	001.8000	0375.3	039.7	179.2	100.0000	0072.7	146.2	39.2
355.0	001.8000	0373.2	039.6	178.9	100.0000	0072.7	146.3	39.1
356.0	001.8000	0371.1	039.5	178.6	100.0000	0072.7	146.3	39.1
357.0	001.8000	0368.8	039.4	178.4	100.0000	0065.1	146.4	38.9
358.0	001.8000	0366.1	039.2	178.1	100.0000	0065.1	146.5	38.8
359.0	001.8000	0363.3	039.1	177.8	100.0000	0065.1	146.7	38.8
000.0	001.8000	0360.5	039.0	177.6	100.0000	0065.1	146.8	38.8
001.0	001.8000	0356.6	038.8	177.3	100.0000	0057.4	147.0	38.5
002.0	001.8000	0352.3	038.6	177.0	100.0000	0057.4	147.3	38.4
003.0	001.8000	0347.9	038.3	176.8	100.0000	0057.4	147.6	38.4
004.0	001.8000	0342.5	038.1	176.5	100.0000	0057.4	147.9	38.3
005.0	001.8000	0335.6	037.7	176.3	100.0000	0048.6	148.4	37.8
006.0	001.8000	0328.4	037.3	176.1	100.0000	0048.6	148.9	37.7
007.0	001.8000	0320.8	036.9	175.9	100.0000	0048.6	149.4	37.6
008.0	001.8000	0312.6	036.5	175.7	100.0000	0048.6	150.0	37.5
009.0	001.8000	0304.4	036.0	175.5	100.0000	0038.6	150.5	36.9

06-17-2004 03 Sec. Terrain Data

KNYN BLH19851101KB  
Channel = 256A  
Max ERP = 1.8 kW  
RCAMSL = 1754.16 M  
N. Lat = 415217  
W. Lng = 1114831

KUPIFM BLH19851101KB  
Channel = 256C1  
Max ERP = 100 kW  
RCAMSL = 1727 M  
N. Lat = 43 32 33  
W. Lng = 111 53 04

Protected  
60 dBu

Interfering  
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
320.0	001.8000	0387.1	040.2	187.3	100.0000	0131.8	156.1	39.3
321.0	001.8000	0386.6	040.1	187.1	100.0000	0131.8	155.6	39.4
322.0	001.8000	0386.1	040.1	186.9	100.0000	0131.8	155.1	39.5
323.0	001.8000	0385.5	040.1	186.7	100.0000	0131.8	154.7	39.5
324.0	001.8000	0384.8	040.1	186.5	100.0000	0131.8	154.2	39.6
325.0	001.8000	0384.3	040.0	186.3	100.0000	0126.5	153.8	39.5
326.0	001.8000	0383.8	040.0	186.1	100.0000	0126.5	153.3	39.6
327.0	001.8000	0383.3	040.0	185.9	100.0000	0126.5	152.9	39.7
328.0	001.8000	0382.8	040.0	185.7	100.0000	0126.5	152.5	39.7
329.0	001.8000	0382.4	040.0	185.5	100.0000	0121.8	152.1	39.7
330.0	001.8000	0381.9	039.9	185.2	100.0000	0121.8	151.7	39.7
331.0	001.8000	0381.5	039.9	185.0	100.0000	0121.8	151.3	39.8
332.0	001.8000	0381.2	039.9	184.8	100.0000	0121.8	150.9	39.9
333.0	001.8000	0381.0	039.9	184.6	100.0000	0121.8	150.6	39.9
334.0	001.8000	0380.8	039.9	184.3	100.0000	0115.2	150.2	39.8
335.0	001.8000	0380.8	039.9	184.1	100.0000	0115.2	149.9	39.9
336.0	001.8000	0380.9	039.9	183.9	100.0000	0115.2	149.5	39.9
337.0	001.8000	0381.0	039.9	183.6	100.0000	0115.2	149.2	40.0
338.0	001.8000	0381.1	039.9	183.4	100.0000	0104.7	148.9	39.7
339.0	001.8000	0381.2	039.9	183.1	100.0000	0104.7	148.6	39.8
340.0	001.8000	0381.2	039.9	182.9	100.0000	0104.7	148.3	39.8
341.0	001.8000	0381.1	039.9	182.6	100.0000	0104.7	148.1	39.9
342.0	001.8000	0381.1	039.9	182.4	100.0000	0095.5	147.8	39.6
343.0	001.8000	0381.0	039.9	182.1	100.0000	0095.5	147.6	39.7
344.0	001.8000	0380.8	039.9	181.9	100.0000	0095.5	147.4	39.7
345.0	001.8000	0380.6	039.9	181.6	100.0000	0095.5	147.2	39.7
346.0	001.8000	0380.4	039.9	181.4	100.0000	0088.9	147.0	39.6
347.0	001.8000	0380.2	039.9	181.1	100.0000	0088.9	146.8	39.6
348.0	001.8000	0379.8	039.9	180.8	100.0000	0088.9	146.7	39.6
349.0	001.8000	0379.3	039.8	180.6	100.0000	0088.9	146.6	39.6
350.0	001.8000	0378.7	039.8	180.3	100.0000	0080.4	146.4	39.4
351.0	001.8000	0378.1	039.8	180.0	100.0000	0080.4	146.4	39.4
352.0	001.8000	0377.2	039.7	179.7	100.0000	0080.4	146.3	39.4
353.0	001.8000	0375.9	039.7	179.5	100.0000	0069.5	146.3	39.0
354.0	001.8000	0374.3	039.6	179.2	100.0000	0069.5	146.3	39.0
355.0	001.8000	0372.5	039.5	178.9	100.0000	0069.5	146.3	39.0
356.0	001.8000	0370.4	039.4	178.6	100.0000	0069.5	146.3	39.0
357.0	001.8000	0368.3	039.3	178.4	100.0000	0060.7	146.4	38.7
358.0	001.8000	0366.0	039.2	178.1	100.0000	0060.7	146.5	38.7
359.0	001.8000	0363.3	039.1	177.8	100.0000	0060.7	146.7	38.7
000.0	001.8000	0360.5	039.0	177.6	100.0000	0060.7	146.8	38.6
001.0	001.8000	0357.5	038.8	177.3	100.0000	0053.2	147.0	38.3
002.0	001.8000	0353.8	038.6	177.0	100.0000	0053.2	147.2	38.2
003.0	001.8000	0349.5	038.4	176.8	100.0000	0053.2	147.5	38.2
004.0	001.8000	0343.5	038.1	176.5	100.0000	0053.2	147.9	38.1
005.0	001.8000	0336.7	037.7	176.3	100.0000	0044.3	148.3	37.6
006.0	001.8000	0329.8	037.4	176.1	100.0000	0044.3	148.8	37.5
007.0	001.8000	0322.5	037.0	175.9	100.0000	0044.3	149.3	37.4
008.0	001.8000	0314.3	036.5	175.7	100.0000	0044.3	149.9	37.3
009.0	001.8000	0306.0	036.1	175.5	100.0000	0035.6	150.5	36.7