

INFORMATION HANDOUT

For Contract No. 03-0G4704

At 03-Col-45-24.6/28.8

Identified by

Project ID 0315000157

MATERIALS INFORMATION

Existing Pavement Information

Water Source Information

REPLACED PER ADDENDUM NO. 1 DATED FEBRUARY 26, 2016

MATERIALS HANDOUT INFORMATION

**Contract Number
03-0G4700**

**03-COL-45
PM 24.5/28.8**

**Cold In-Place Recycling
Hot Mix Asphalt**

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Summary of Investigations

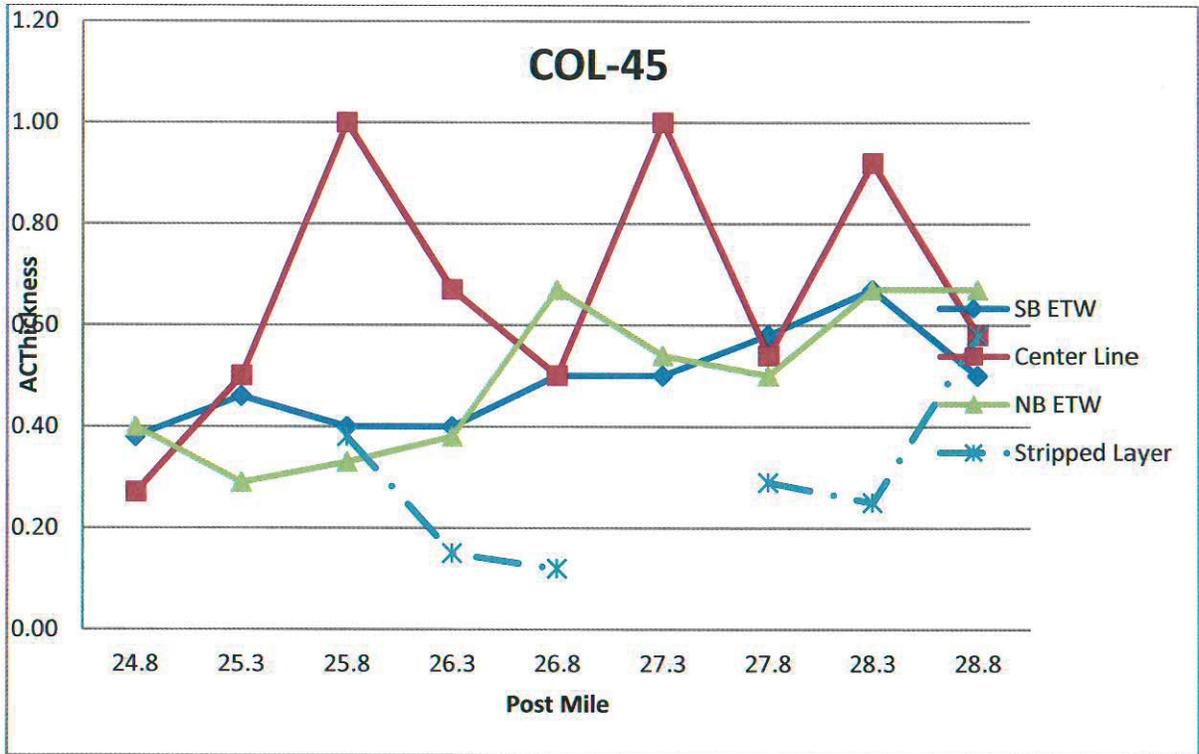
Investigations carried out on the existing road, COL-45 PM 24.5/28.8 indicate that these materials are suitable for cold in-place recycling. Coring tests conducted on subject roadbed indicate that the engineering properties of these materials may be improved to provide sufficient strength required to extend the life of this pavement for one to five years by recycling the upper 0.25' with asphalt emulsion and capping with 0.15' of hot mix asphalt.

The general structural section, from the bottom up, is native material and hot mix asphalt. Cores indicated a depth of hot mix asphalt that ranged from 0.25' to 1.00'.

The existing AC appears to be oxidized with occasional transverse and longitudinal cracking. There is alligator and block cracking in some locations of the project.

Any reliance placed by the contractor on this information shall be at their own risk and they shall undertake their own separate testing program to determine the materials present and conditions prevailing at the time of construction.

Post Mile	SB ETW	Center Line	NB ETW	Notes	Stripping Layer
24.8	0.38	0.27	0.40		
25.3	0.46	0.50	0.29		
25.8	0.40	1.00	0.33		0.38
26.3	0.40	0.67	0.38		0.15
26.8	0.50	0.50	0.67		0.12
27.3	0.50	1.00	0.54		
27.8	0.58	0.54	0.50		0.29
28.3	0.67	0.92	0.67		0.25
28.8	0.50	0.58	0.67		0.58



Analysis: Smoothness Assurance

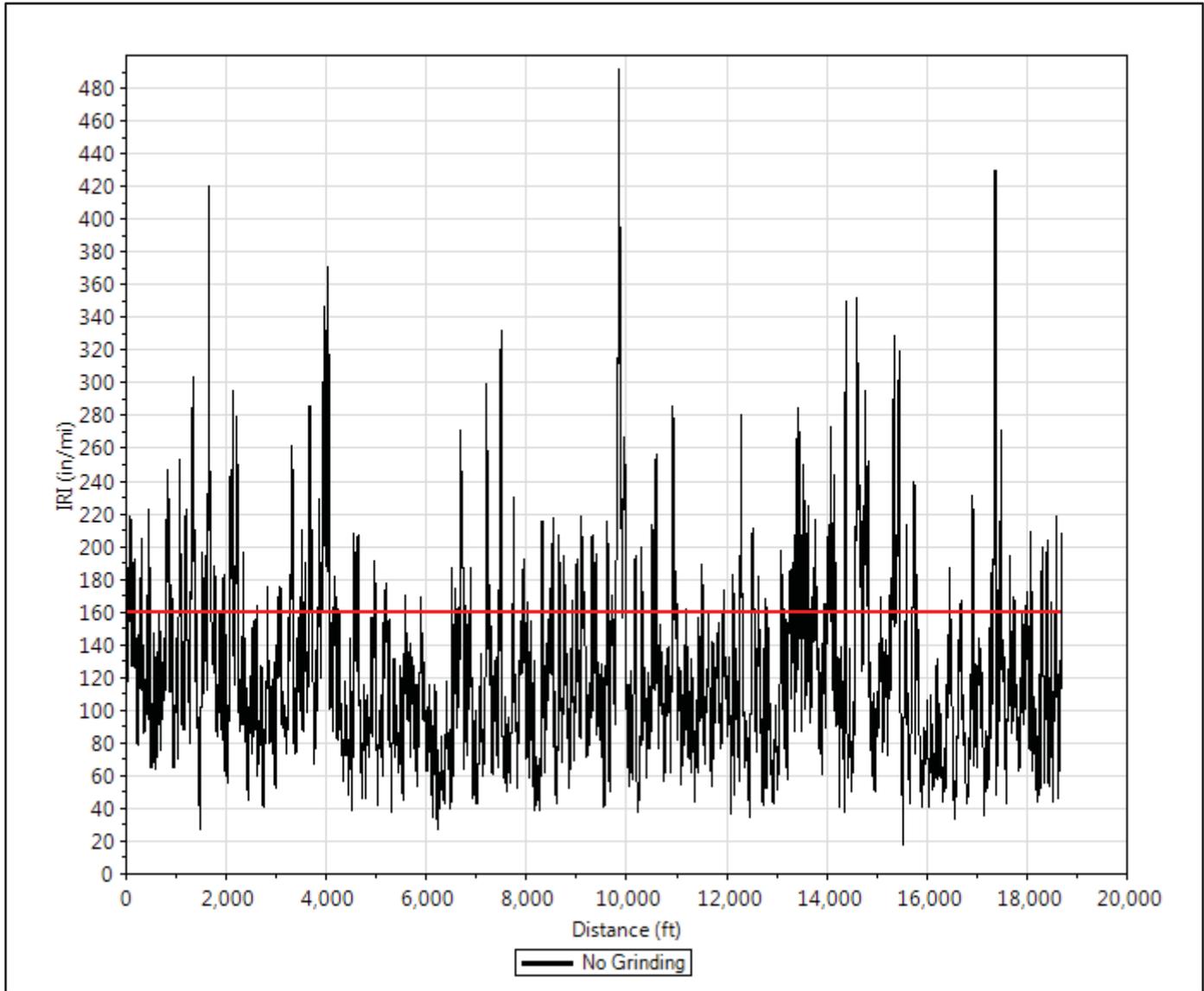
Selections

File	Profile	Section	Apply 250mm Filter
201628_03PLACER89_NB_1_B_9 0_12 5_EXIST_HMAT1 to T2 - 1	Track 1	Full	Yes

Short Continuous

Segment Length (ft): 25.00

Threshold (in/mi): 160.00



No Grinding

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
21.50	26.25	186.49
53.67	58.25	168.27
61.58	63.67	161.50
66.00	97.75	218.63
115.75	125.58	179.13
144.42	167.58	191.87
268.50	286.83	180.50
297.08	320.83	204.93
405.67	415.50	169.82
439.67	475.92	223.18
796.75	865.33	246.60
893.25	898.92	168.64

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
903.67	915.83	176.54
1,050.17	1,084.50	252.70
1,085.42	1,106.83	195.48
1,176.75	1,211.00	222.36
1,288.33	1,367.25	303.99
1,382.17	1,392.58	171.86
1,395.17	1,396.00	161.05
1,515.33	1,517.50	162.62
1,519.33	1,538.00	196.00
1,581.58	1,602.42	194.77
1,623.08	1,696.83	419.87
1,699.17	1,703.17	168.31
1,762.58	1,765.08	166.74
1,766.67	1,778.75	187.81
1,871.58	1,872.50	160.40
1,931.58	1,933.25	162.55
1,938.92	1,949.08	182.41
1,950.75	1,954.42	167.45
2,058.00	2,139.67	295.04
2,140.08	2,141.67	165.09
2,152.58	2,165.33	173.62
2,183.58	2,230.50	279.34
2,335.92	2,336.58	160.59
2,340.58	2,355.00	195.98
2,601.83	2,604.25	163.59
2,818.25	2,831.67	175.70
3,017.58	3,019.08	162.01
3,020.42	3,025.75	164.12
3,026.25	3,030.00	169.41
3,050.33	3,053.08	167.80
3,056.25	3,062.50	175.88
3,079.92	3,082.58	162.42
3,083.83	3,101.92	173.99
3,271.58	3,278.67	168.90
3,285.83	3,341.25	261.10
3,492.75	3,517.33	209.62
3,555.08	3,559.83	165.50
3,565.42	3,577.33	190.47
3,580.00	3,580.92	160.81
3,582.58	3,590.83	173.30
3,644.33	3,713.58	285.67
3,812.08	3,814.42	162.09
3,838.00	3,862.92	228.91
3,870.00	3,881.33	190.59
3,891.50	3,897.92	178.29
3,907.08	4,064.33	370.95
4,143.50	4,145.50	162.60
4,159.42	4,163.08	176.31
4,168.83	4,185.08	181.41

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
4,247.58	4,248.67	161.34
4,550.42	4,577.83	207.61
4,588.92	4,591.25	165.99
4,617.50	4,645.42	207.19
4,957.17	4,981.75	191.26
5,148.83	5,152.83	172.18
5,167.50	5,172.08	172.92
5,183.75	5,187.75	169.57
5,199.67	5,209.83	177.85
5,587.83	5,592.50	169.81
5,883.92	5,889.42	168.69
6,510.08	6,519.67	187.29
6,565.92	6,570.50	174.22
6,618.00	6,619.83	161.20
6,623.50	6,624.42	160.30
6,625.50	6,628.00	162.22
6,655.42	6,657.08	162.32
6,672.17	6,740.92	271.43
6,788.92	6,790.17	161.48
6,791.75	6,795.33	163.70
6,882.92	6,894.17	186.61
7,181.08	7,237.92	299.66
7,261.58	7,271.58	176.08
7,447.67	7,452.67	173.71
7,465.17	7,511.33	332.11
7,716.00	7,718.83	164.56
7,721.08	7,754.92	229.77
7,931.92	7,951.00	192.64
7,954.08	7,956.25	163.88
8,030.08	8,033.08	165.55
8,299.42	8,333.83	215.20
8,454.75	8,463.75	174.06
8,514.67	8,537.25	217.57
8,641.50	8,672.92	206.61
8,746.67	8,765.00	193.90
8,766.00	8,769.33	163.65
8,906.25	8,914.83	166.80
8,916.08	8,916.92	160.32
8,987.00	8,989.17	165.85
8,995.33	9,010.50	192.24
9,092.92	9,132.25	219.00
9,141.83	9,147.83	168.91
9,156.08	9,167.67	172.43
9,304.17	9,319.17	207.13
9,323.50	9,325.58	161.98
9,361.83	9,372.17	189.67
9,373.17	9,387.00	194.98
9,600.67	9,625.33	214.84
9,699.50	9,705.33	170.63

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
9,710.08	9,711.42	160.77
9,786.00	9,913.75	491.43
9,917.67	9,997.17	266.38
10,150.42	10,159.25	178.06
10,160.08	10,185.83	194.02
10,298.17	10,315.08	199.51
10,509.50	10,534.42	213.20
10,570.08	10,606.92	256.64
10,905.42	10,952.92	285.56
10,955.33	10,962.25	181.62
10,977.75	10,999.25	184.48
11,172.42	11,174.33	161.85
11,497.17	11,521.67	188.95
11,523.08	11,526.50	165.90
11,628.67	11,629.75	161.06
11,927.75	11,935.17	173.12
11,942.08	11,945.08	165.64
12,119.75	12,135.83	182.86
12,270.17	12,310.17	280.03
12,494.08	12,548.25	211.08
12,627.08	12,638.17	181.63
12,640.08	12,640.92	160.39
12,646.25	12,648.42	164.72
12,759.92	12,763.25	168.18
12,812.08	12,815.33	162.43
13,071.00	13,076.50	173.59
13,081.92	13,093.33	197.27
13,118.83	13,127.50	183.28
13,132.75	13,133.58	160.31
13,135.33	13,136.92	161.59
13,244.67	13,245.50	160.75
13,249.00	13,265.50	185.35
13,266.42	13,269.33	164.04
13,287.92	13,311.17	190.53
13,322.25	13,324.42	161.77
13,337.00	13,358.25	206.44
13,392.00	13,393.42	160.57
13,399.58	13,431.50	284.28
13,441.33	13,469.33	269.74
13,492.92	13,513.42	206.68
13,514.75	13,516.92	162.14
13,523.17	13,550.92	249.73
13,596.92	13,638.42	224.70
13,656.08	13,658.00	161.79
13,683.33	13,686.25	163.20
13,686.75	13,697.42	169.14
13,718.33	13,732.67	181.15
13,746.58	13,773.08	216.72
13,783.08	13,789.67	175.14

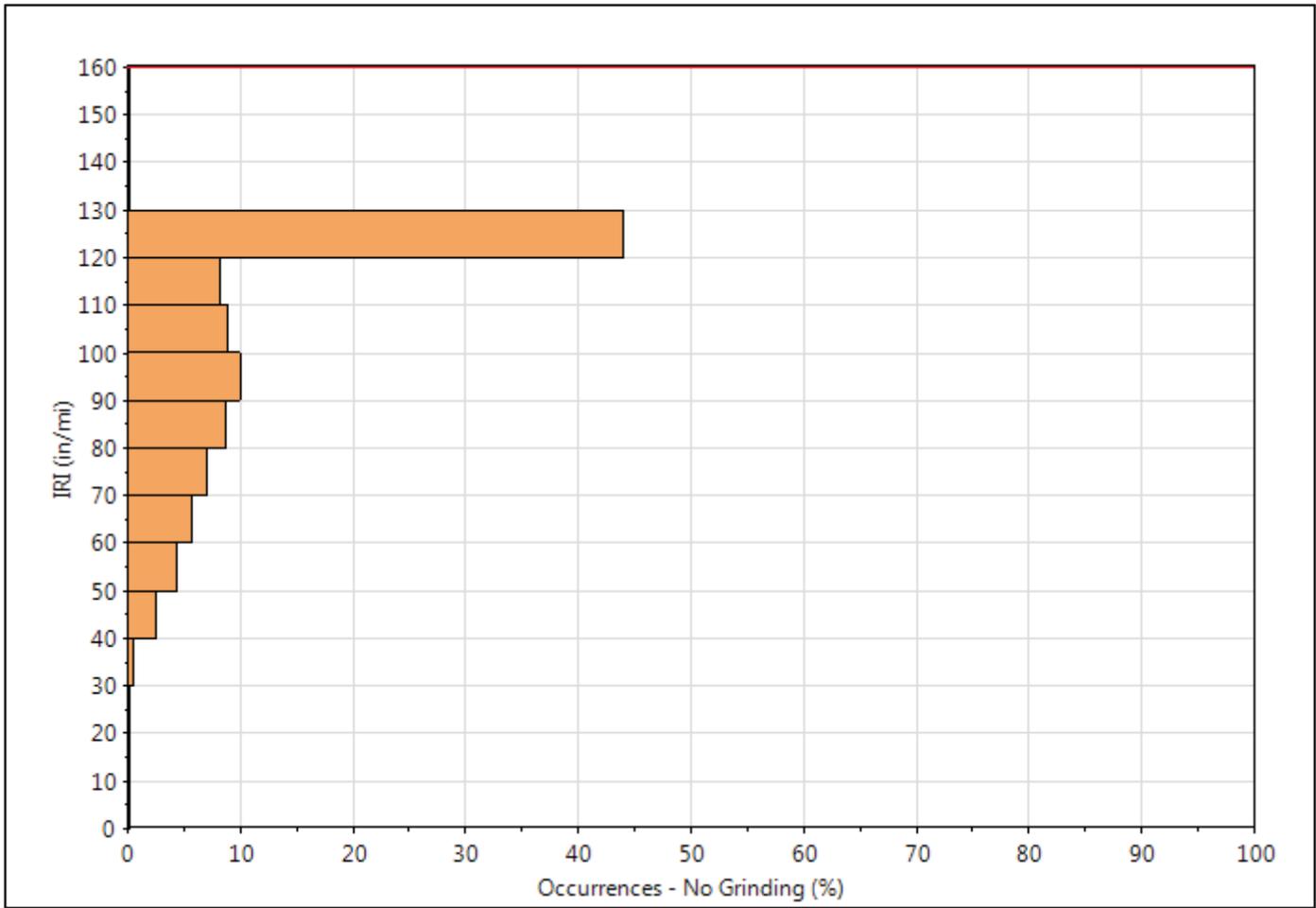
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
13,799.00	13,805.75	167.03
13,930.00	13,933.83	164.95
13,989.25	13,992.17	164.79
13,993.00	14,004.50	169.77
14,015.42	14,063.08	213.36
14,070.17	14,070.67	160.08
14,072.08	14,108.75	272.99
14,143.92	14,175.75	243.59
14,362.17	14,398.83	349.81
14,566.58	14,683.33	352.33
14,707.75	14,733.50	224.59
14,746.08	14,833.58	294.87
15,084.67	15,088.50	169.31
15,252.75	15,255.08	168.62
15,265.58	15,271.92	180.72
15,274.42	15,278.08	164.28
15,296.83	15,301.33	166.05
15,303.25	15,318.83	197.82
15,321.83	15,362.00	328.28
15,364.33	15,391.00	208.58
15,396.83	15,463.83	319.05
15,580.50	15,603.75	213.19
15,713.83	15,758.75	239.47
15,796.67	15,803.33	182.33
15,805.08	15,814.67	171.14
16,452.17	16,468.42	186.48
16,664.50	16,667.08	165.02
16,678.58	16,683.33	166.68
16,898.00	16,924.00	231.53
17,265.25	17,271.42	183.75
17,326.00	17,382.08	430.08
17,420.67	17,426.17	173.79
17,465.58	17,494.33	270.48
17,654.50	17,674.67	194.84
17,738.00	17,738.17	160.03
17,739.83	17,746.67	168.82
17,976.58	17,980.67	163.54
18,007.92	18,013.42	172.10
18,069.00	18,090.67	209.35
18,288.42	18,321.08	199.61
18,384.25	18,406.42	203.32
18,481.42	18,487.25	166.11
18,571.42	18,592.00	218.36
18,683.17	18,686.00	207.74

Short Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 19.88

Total Distance Out of Spec (ft): 3,710

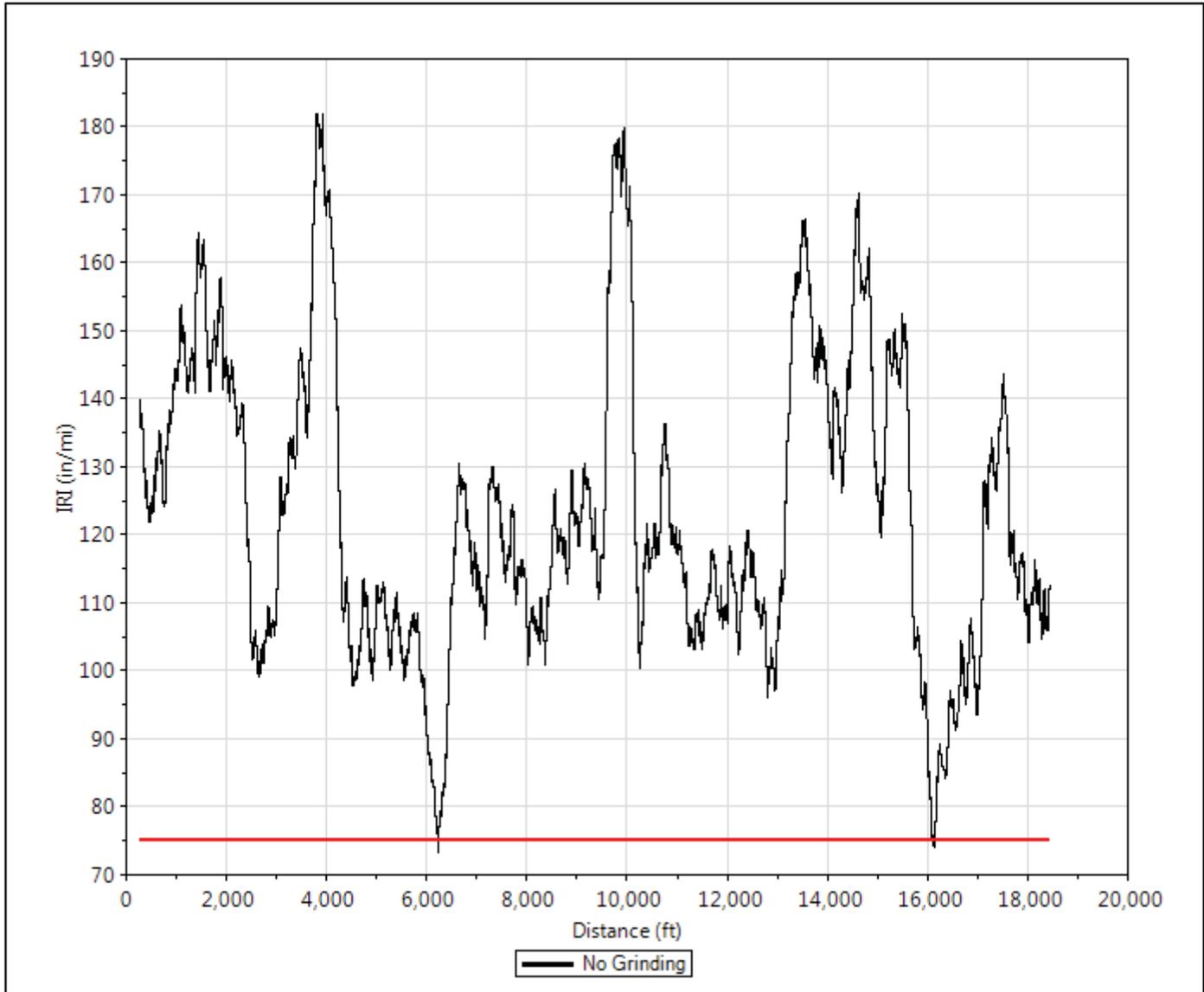


Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	43.97	8,206
120.00	110.00	8.27	1,544
110.00	100.00	8.94	1,669
100.00	90.00	9.99	1,864
90.00	80.00	8.72	1,628
80.00	70.00	6.99	1,305
70.00	60.00	5.69	1,062
60.00	50.00	4.35	813
50.00	40.00	2.49	464
40.00	30.00	0.45	85
30.00	20.00	0.12	22
20.00	10.00	0.02	3
10.00	0.00	0.00	0

Long Continuous

Segment Length (ft): 528.00

Threshold (in/mi): 75.00



No Grinding

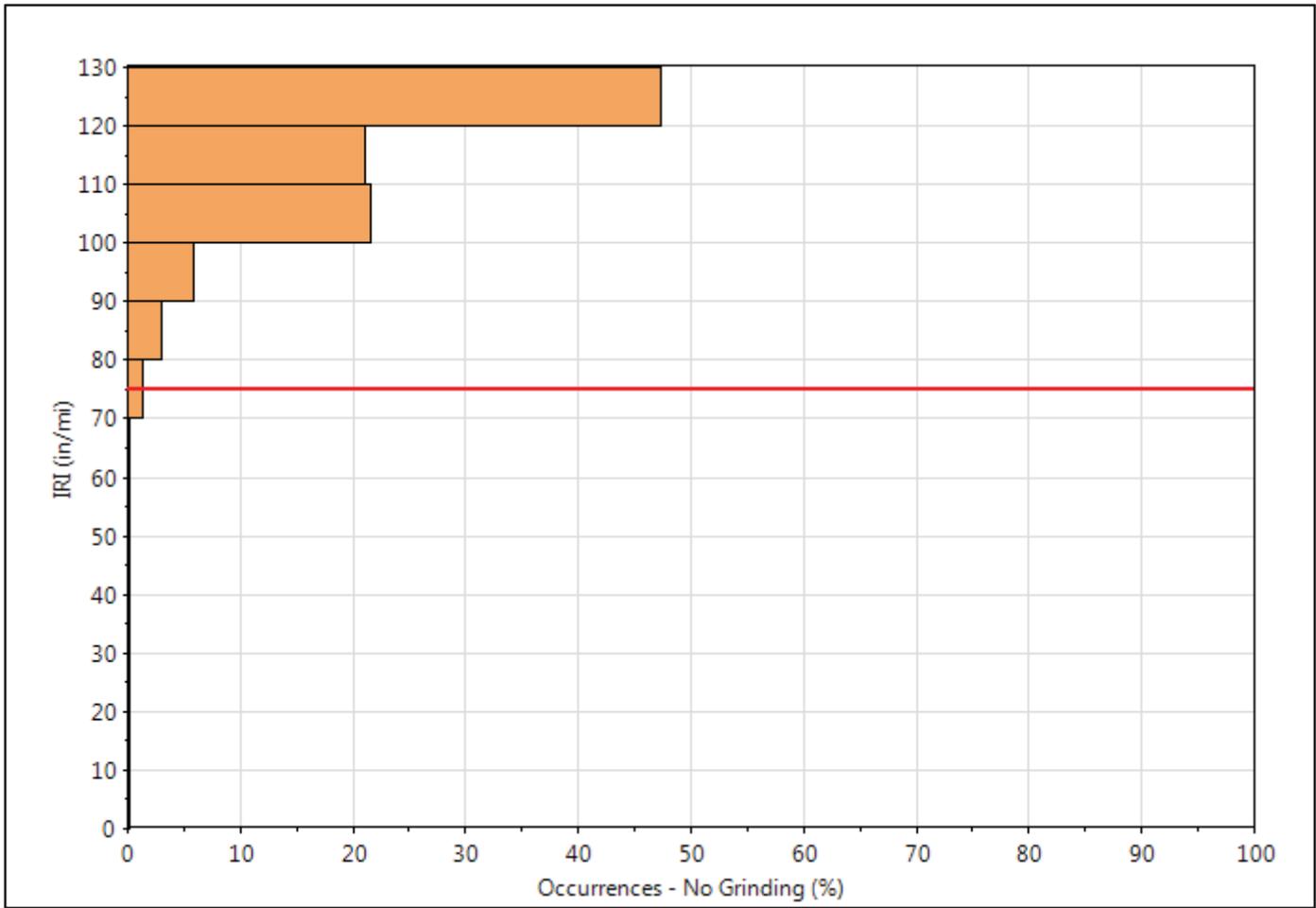
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
273.00	6,228.42	181.92
6,241.58	16,104.83	179.76
16,140.50	18,434.50	143.60

Long Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 99.73

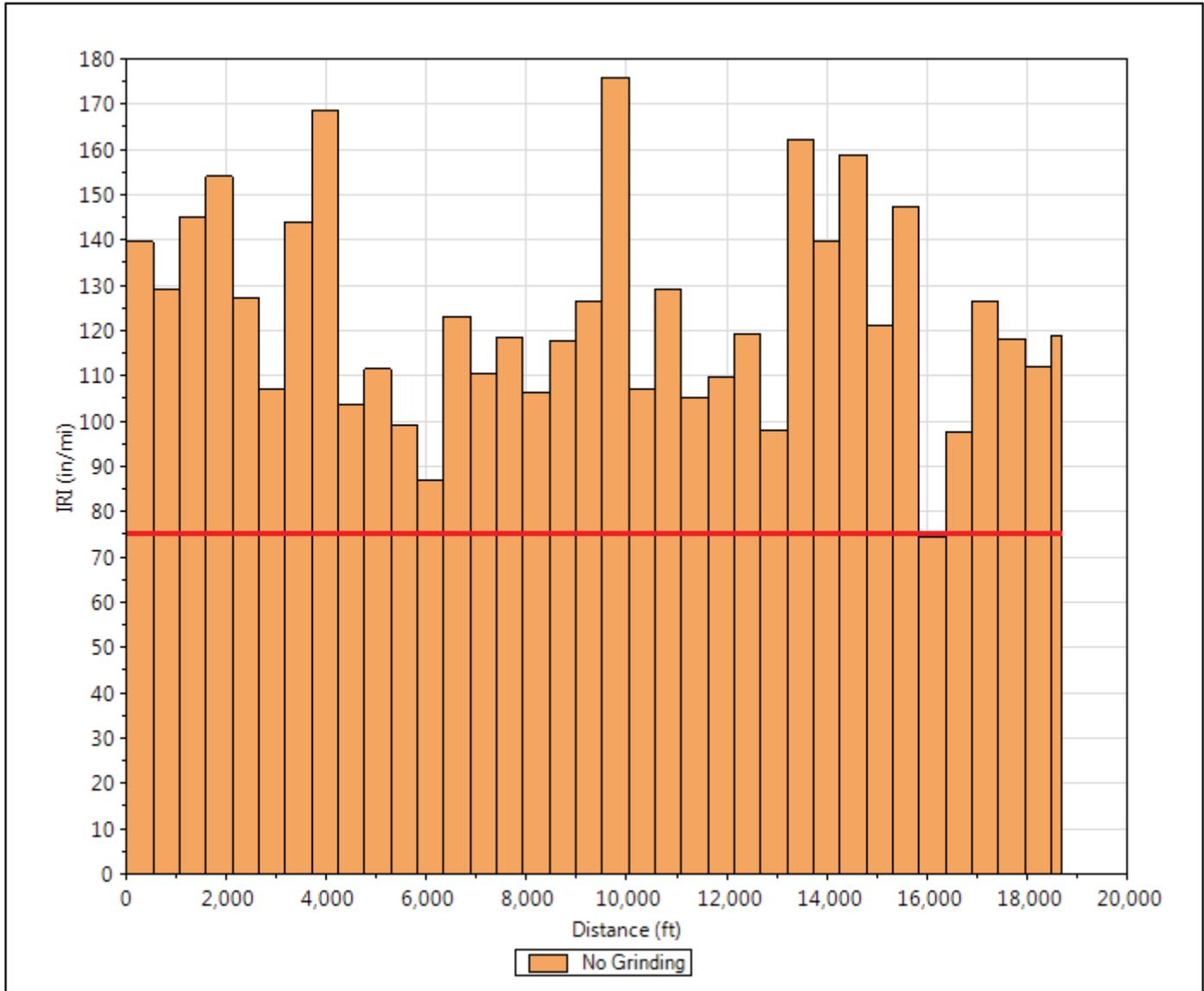
Total Distance Out of Spec (ft): 18,113



Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	47.29	8,588
120.00	110.00	20.99	3,812
110.00	100.00	21.63	3,928
100.00	90.00	5.77	1,049
90.00	80.00	3.06	556
80.00	70.00	1.26	229
70.00	60.00	0.00	0
60.00	50.00	0.00	0
50.00	40.00	0.00	0
40.00	30.00	0.00	0
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Fixed Interval

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
9.00	537.00	528.00	139.65	10
537.00	1,065.00	528.00	129.30	4
1,065.00	1,593.00	528.00	145.02	9
1,593.00	2,121.00	528.00	154.07	10
2,121.00	2,649.00	528.00	127.20	7
2,649.00	3,177.00	528.00	106.98	8
3,177.00	3,705.00	528.00	144.04	8
3,705.00	4,233.00	528.00	168.48	9
4,233.00	4,761.00	528.00	103.61	4
4,761.00	5,289.00	528.00	111.46	5
5,289.00	5,817.00	528.00	98.95	1
5,817.00	6,345.00	528.00	86.83	1
6,345.00	6,873.00	528.00	123.14	9

Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
6,873.00	7,401.00	528.00	110.50	3
7,401.00	7,929.00	528.00	118.47	4
7,929.00	8,457.00	528.00	106.26	5
8,457.00	8,985.00	528.00	117.66	7
8,985.00	9,513.00	528.00	126.56	9
9,513.00	10,041.00	528.00	175.99	5
10,041.00	10,569.00	528.00	106.90	4
10,569.00	11,097.00	528.00	129.01	4
11,097.00	11,625.00	528.00	105.21	3
11,625.00	12,153.00	528.00	109.84	4
12,153.00	12,681.00	528.00	119.18	5
12,681.00	13,209.00	528.00	97.94	7
13,209.00	13,737.00	528.00	162.12	17
13,737.00	14,265.00	528.00	139.65	10
14,265.00	14,793.00	528.00	158.77	4
14,793.00	15,321.00	528.00	121.10	7
15,321.00	15,849.00	528.00	147.51	7
15,849.00	16,377.00	528.00	74.35	0
16,377.00	16,905.00	528.00	97.45	4
16,905.00	17,433.00	528.00	126.37	4
17,433.00	17,961.00	528.00	118.09	4
17,961.00	18,489.00	528.00	112.10	6
18,489.00	18,699.33	209.50	118.78	2

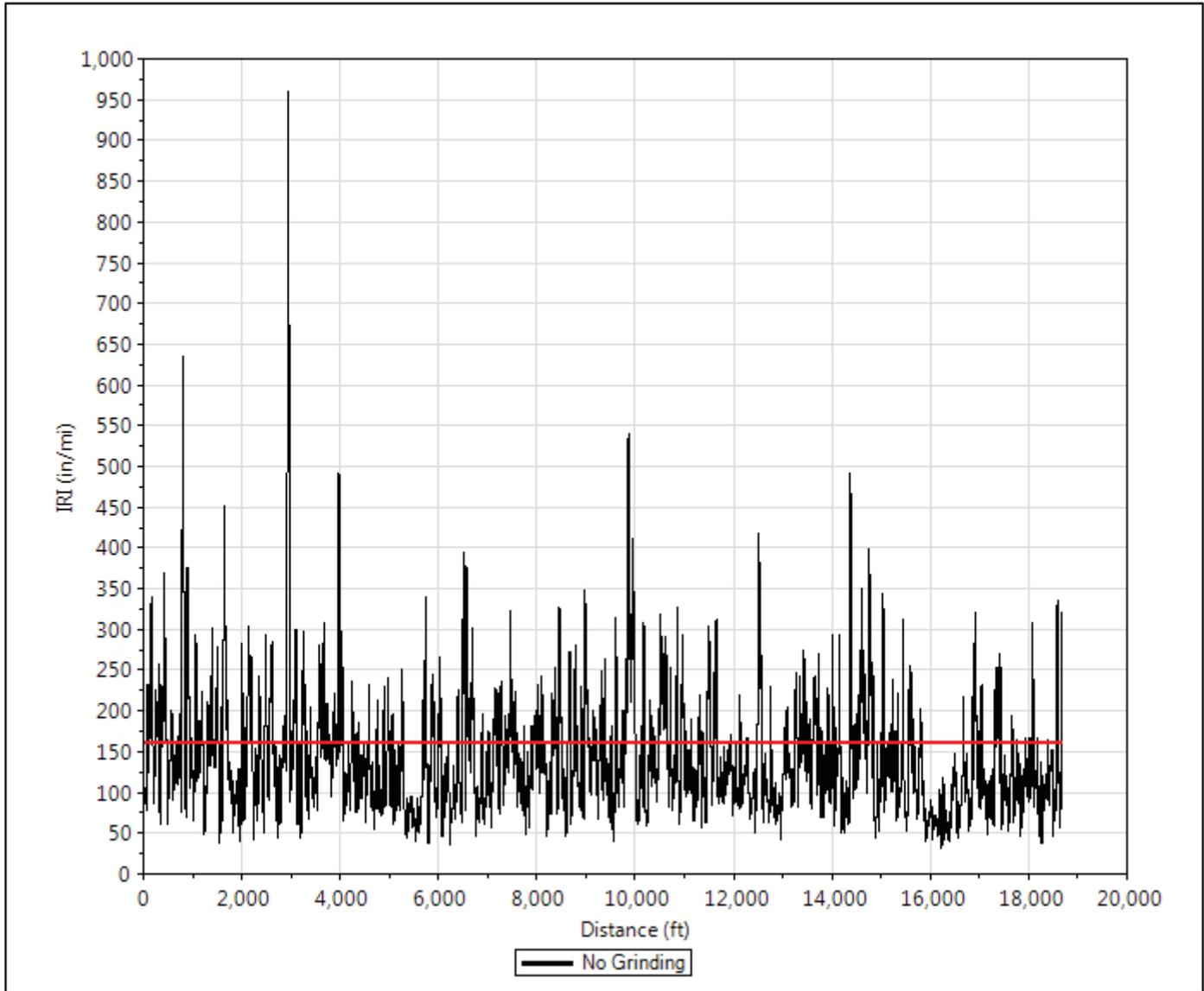
Analysis: Smoothness Assurance

Selections

File	Profile	Section	Apply 250mm Filter
201628_03PLACER89_NB_1_B_9 0_12 5_EXIST_HMAT1 to T2 - 1	Track 2	Full	Yes

Short Continuous

Segment Length (ft): 25.00
 Threshold (in/mi): 160.00



No Grinding

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
67.42	92.50	231.59
109.17	192.42	340.41
233.00	324.17	256.43
348.83	390.58	231.32
393.42	397.75	170.63
399.58	473.50	370.11
554.75	581.33	200.05
661.75	665.33	163.19
704.25	710.25	169.42
718.92	748.17	195.32
765.42	831.92	635.70
871.92	939.00	376.39

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
964.75	968.08	165.73
1,048.67	1,082.92	292.62
1,096.58	1,098.67	162.80
1,102.25	1,103.50	161.87
1,125.17	1,140.50	186.77
1,141.00	1,147.83	187.77
1,172.42	1,207.50	224.41
1,286.75	1,312.58	210.89
1,321.25	1,347.58	205.98
1,357.00	1,364.17	175.83
1,370.58	1,414.33	300.86
1,418.00	1,418.83	160.80
1,432.00	1,433.67	162.31
1,451.17	1,454.17	164.67
1,474.33	1,523.75	278.29
1,581.58	1,591.25	204.97
1,622.67	1,722.83	451.04
1,983.25	2,025.08	283.56
2,069.00	2,080.75	179.94
2,111.75	2,220.83	303.76
2,343.33	2,397.08	243.46
2,467.42	2,505.50	293.00
2,563.42	2,643.25	285.43
2,674.42	2,675.00	160.24
2,837.08	2,857.50	181.66
2,869.50	2,887.67	194.76
2,902.67	2,979.17	960.21
3,012.50	3,023.75	175.51
3,025.25	3,032.08	166.62
3,049.33	3,122.58	299.78
3,220.83	3,280.42	296.98
3,300.67	3,313.58	182.38
3,314.33	3,316.50	160.66
3,316.92	3,319.67	161.98
3,383.58	3,397.08	203.86
3,398.58	3,406.83	180.49
3,551.83	3,598.58	279.58
3,603.75	3,649.83	241.30
3,651.58	3,685.75	308.92
3,691.50	3,701.92	204.27
3,708.42	3,717.00	179.80
3,722.83	3,745.17	207.98
3,748.92	3,752.67	170.28
3,758.08	3,761.83	167.16
3,765.08	3,772.42	171.85
3,786.17	3,788.83	165.65
3,800.25	3,801.08	160.95
3,839.17	3,839.42	160.07
3,841.42	3,903.33	222.47

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
3,904.67	3,916.67	183.92
3,917.50	3,920.00	165.61
3,928.42	3,931.25	167.54
3,944.58	3,947.83	169.83
3,949.17	4,007.17	490.92
4,012.75	4,058.17	296.82
4,224.83	4,225.42	160.32
4,232.92	4,263.50	236.39
4,291.00	4,292.67	162.28
4,294.25	4,299.25	170.13
4,333.50	4,344.92	173.89
4,376.75	4,390.67	185.99
4,391.83	4,392.92	160.88
4,570.92	4,600.50	232.78
4,734.00	4,734.83	161.58
4,737.92	4,763.08	212.78
4,882.17	4,911.67	230.10
4,957.08	4,990.42	240.84
4,993.75	5,002.92	175.44
5,048.33	5,066.92	196.70
5,197.42	5,198.00	160.14
5,241.50	5,288.50	250.81
5,671.25	5,695.42	212.77
5,709.83	5,756.33	339.37
5,845.42	5,846.17	160.54
5,856.58	5,908.83	244.33
5,992.00	6,010.42	197.00
6,012.50	6,048.92	266.25
6,193.83	6,195.75	162.47
6,380.58	6,407.58	226.20
6,490.58	6,536.08	394.83
6,546.50	6,636.00	377.42
6,661.67	6,721.17	300.85
6,875.25	6,899.50	195.45
7,014.75	7,026.75	174.41
7,028.50	7,037.08	170.99
7,107.92	7,118.17	175.16
7,123.83	7,165.75	228.56
7,176.25	7,208.58	225.00
7,209.75	7,210.33	160.47
7,211.92	7,212.50	160.52
7,251.50	7,296.33	235.63
7,298.00	7,302.67	169.29
7,346.75	7,357.75	190.20
7,358.83	7,378.92	193.80
7,382.67	7,384.83	163.84
7,432.00	7,494.17	323.57
7,496.92	7,533.92	211.89
7,553.33	7,558.42	162.61

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
7,559.33	7,581.00	223.61
7,611.25	7,617.17	174.04
7,728.83	7,739.25	181.67
7,740.33	7,744.58	168.05
7,880.08	7,881.42	161.68
7,885.58	7,887.42	162.84
7,889.50	7,902.75	181.81
7,933.08	7,985.58	200.10
8,008.08	8,049.50	232.61
8,074.33	8,075.17	161.27
8,076.33	8,103.08	242.33
8,112.42	8,137.33	220.38
8,297.33	8,338.67	221.61
8,344.42	8,377.83	253.92
8,381.67	8,383.58	161.40
8,386.50	8,388.67	161.95
8,391.33	8,405.17	191.94
8,431.17	8,499.42	326.14
8,631.33	8,677.83	271.54
8,744.75	8,803.17	280.93
8,813.50	8,825.08	181.56
8,895.50	8,920.58	230.16
8,961.17	9,043.17	347.55
9,044.08	9,046.92	168.60
9,049.92	9,052.17	164.21
9,053.92	9,056.50	166.34
9,135.92	9,167.50	200.08
9,175.67	9,188.42	191.13
9,189.67	9,201.08	178.02
9,268.50	9,269.17	160.70
9,272.17	9,327.50	249.01
9,359.67	9,397.67	264.11
9,507.00	9,519.00	181.22
9,599.58	9,628.58	314.75
9,750.08	9,763.67	200.07
9,772.58	9,773.83	161.42
9,792.42	10,000.75	539.98
10,109.67	10,127.08	180.43
10,154.17	10,190.08	308.72
10,296.08	10,321.08	214.11
10,360.42	10,379.17	180.26
10,400.58	10,404.00	164.38
10,413.33	10,416.25	169.19
10,475.92	10,649.67	318.04
10,665.58	10,667.25	162.34
10,701.75	10,729.25	252.97
10,822.17	10,870.50	326.13
10,920.08	10,921.83	160.65
10,929.42	11,000.75	293.37

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
11,026.67	11,031.33	175.28
11,125.58	11,136.92	189.39
11,142.00	11,147.67	179.57
11,289.00	11,314.50	219.80
11,321.25	11,334.58	174.30
11,377.58	11,383.25	172.87
11,389.00	11,394.75	171.00
11,465.25	11,540.92	303.58
11,583.25	11,674.17	313.13
11,942.00	11,948.83	170.58
12,053.42	12,053.75	160.06
12,120.75	12,139.58	220.20
12,262.67	12,264.75	165.82
12,269.75	12,270.08	160.18
12,282.08	12,285.92	166.15
12,483.42	12,575.08	418.49
12,745.17	12,746.42	161.39
12,748.00	12,765.75	230.48
13,016.50	13,027.33	179.94
13,055.67	13,069.08	201.41
13,096.33	13,109.50	205.48
13,247.58	13,293.25	247.82
13,334.83	13,372.17	243.46
13,385.83	13,389.75	163.15
13,399.08	13,465.33	274.56
13,490.67	13,513.50	210.86
13,524.92	13,526.25	160.80
13,531.42	13,533.75	162.73
13,535.75	13,548.83	189.55
13,554.75	13,561.08	165.98
13,598.25	13,600.67	163.86
13,605.08	13,696.50	243.08
13,715.42	13,748.50	269.92
13,753.33	13,766.83	179.67
13,806.33	13,810.08	174.97
13,871.75	13,874.08	163.08
13,906.00	13,938.75	226.97
13,999.42	14,037.08	293.12
14,080.50	14,095.00	179.84
14,134.67	14,162.58	292.40
14,353.58	14,405.83	490.56
14,408.67	14,416.42	181.12
14,474.42	14,497.33	195.57
14,525.67	14,531.25	166.57
14,549.67	14,578.42	273.67
14,582.42	14,687.83	350.68
14,715.17	14,732.25	186.74
14,733.42	14,802.08	398.35
14,814.42	14,842.00	260.19

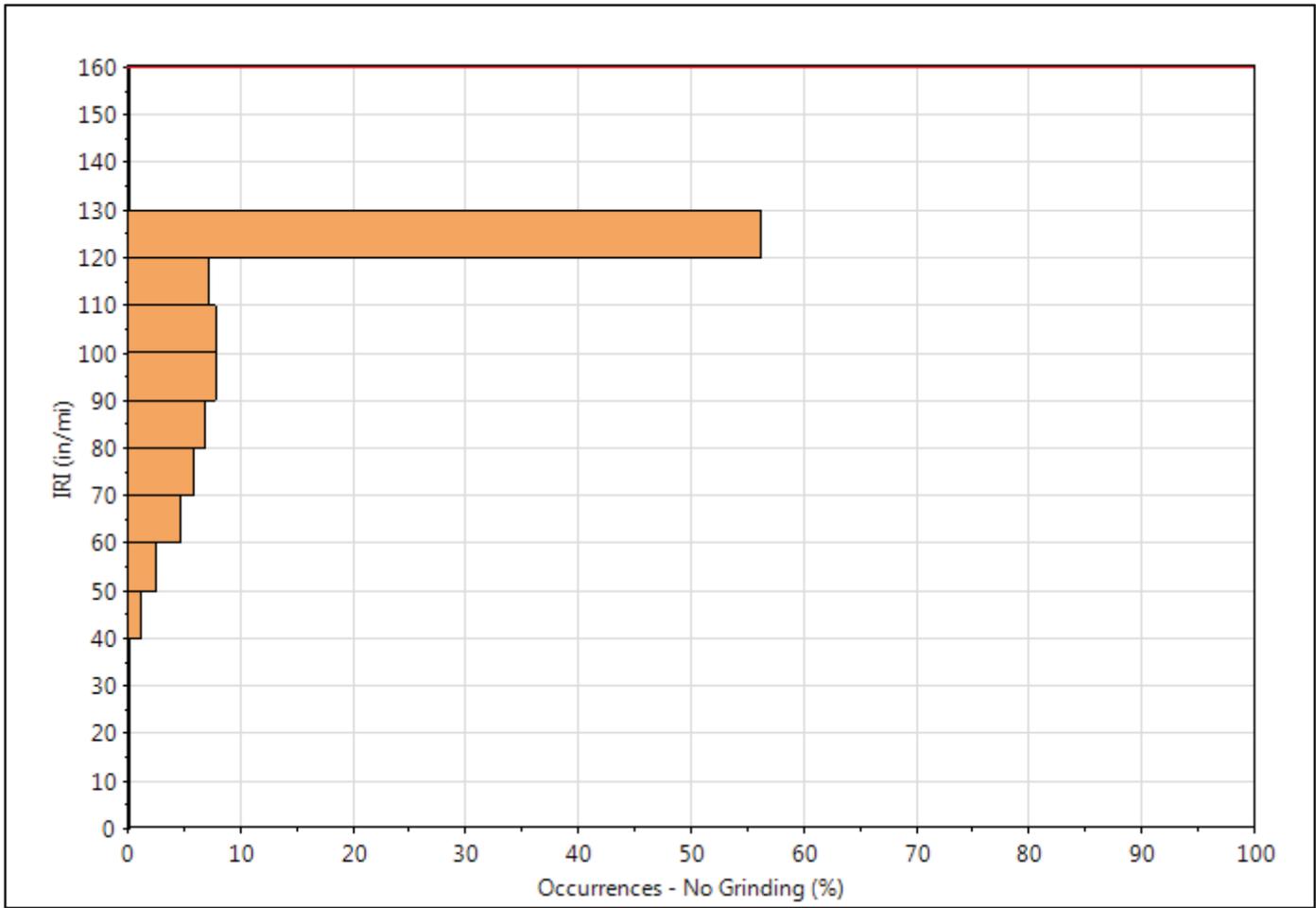
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
14,977.83	14,987.67	172.97
15,020.83	15,053.50	344.56
15,178.33	15,191.25	183.81
15,200.00	15,201.33	162.01
15,227.58	15,261.33	237.70
15,295.83	15,301.00	175.82
15,333.25	15,352.25	222.43
15,352.75	15,354.17	162.00
15,424.83	15,426.25	161.50
15,429.75	15,462.25	312.94
15,552.17	15,582.17	225.28
15,583.33	15,613.50	255.13
15,626.25	15,644.33	191.00
15,789.33	15,794.17	169.54
15,794.83	15,822.75	201.93
16,662.58	16,685.67	217.90
16,849.92	16,866.17	217.21
16,891.00	16,942.75	321.38
16,971.17	16,978.17	175.64
17,021.42	17,049.00	232.95
17,302.08	17,322.58	226.20
17,324.25	17,391.00	253.03
17,401.75	17,431.00	269.81
17,644.83	17,645.42	160.26
17,649.00	17,674.00	193.38
17,753.08	17,755.25	165.34
17,930.75	17,933.58	166.83
18,017.00	18,022.75	166.89
18,065.17	18,094.42	307.89
18,166.33	18,170.25	166.40
18,389.92	18,392.83	162.41
18,394.00	18,394.42	160.10
18,396.92	18,399.75	164.77
18,570.83	18,599.42	335.03
18,680.92	18,686.00	320.95

Short Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 32.90

Total Distance Out of Spec (ft): 6,140

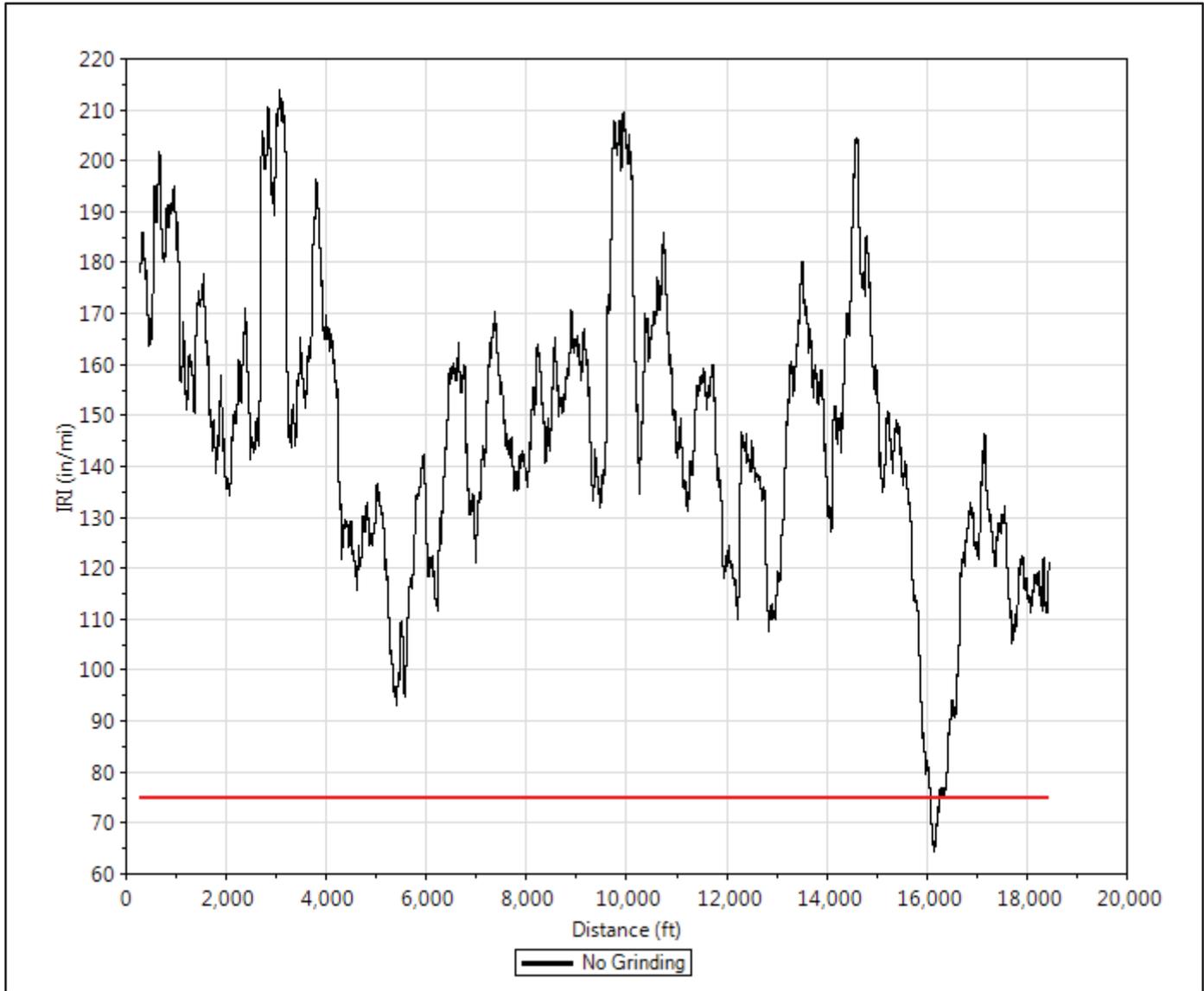


Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	56.11	10,472
120.00	110.00	7.21	1,346
110.00	100.00	7.79	1,454
100.00	90.00	7.78	1,452
90.00	80.00	6.78	1,266
80.00	70.00	5.89	1,100
70.00	60.00	4.62	862
60.00	50.00	2.49	465
50.00	40.00	1.16	217
40.00	30.00	0.16	30
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Long Continuous

Segment Length (ft): 528.00

Threshold (in/mi): 75.00



No Grinding

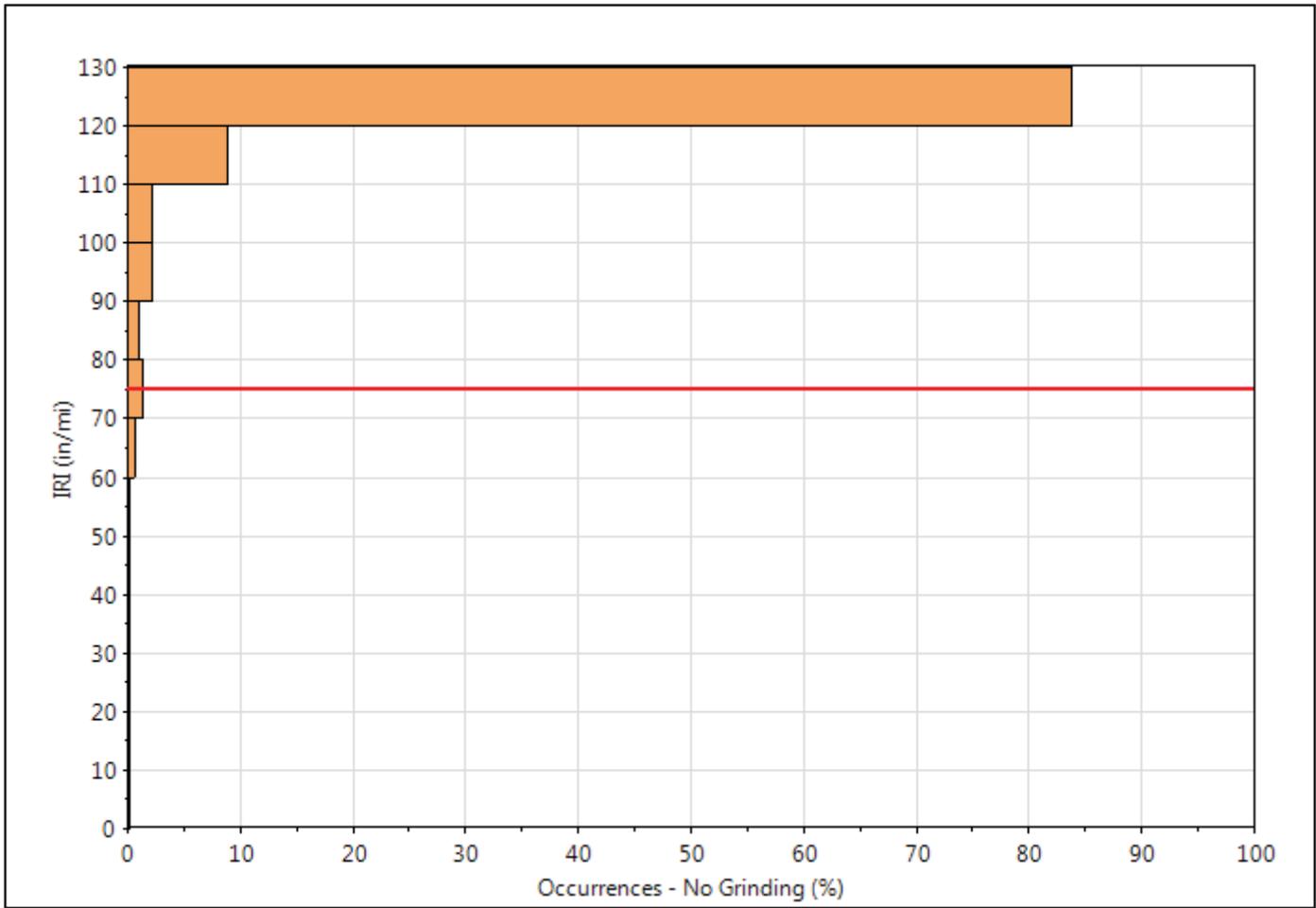
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
273.00	16,070.67	214.01
16,246.00	16,301.00	76.72
16,304.08	18,434.50	146.58

Long Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 99.02

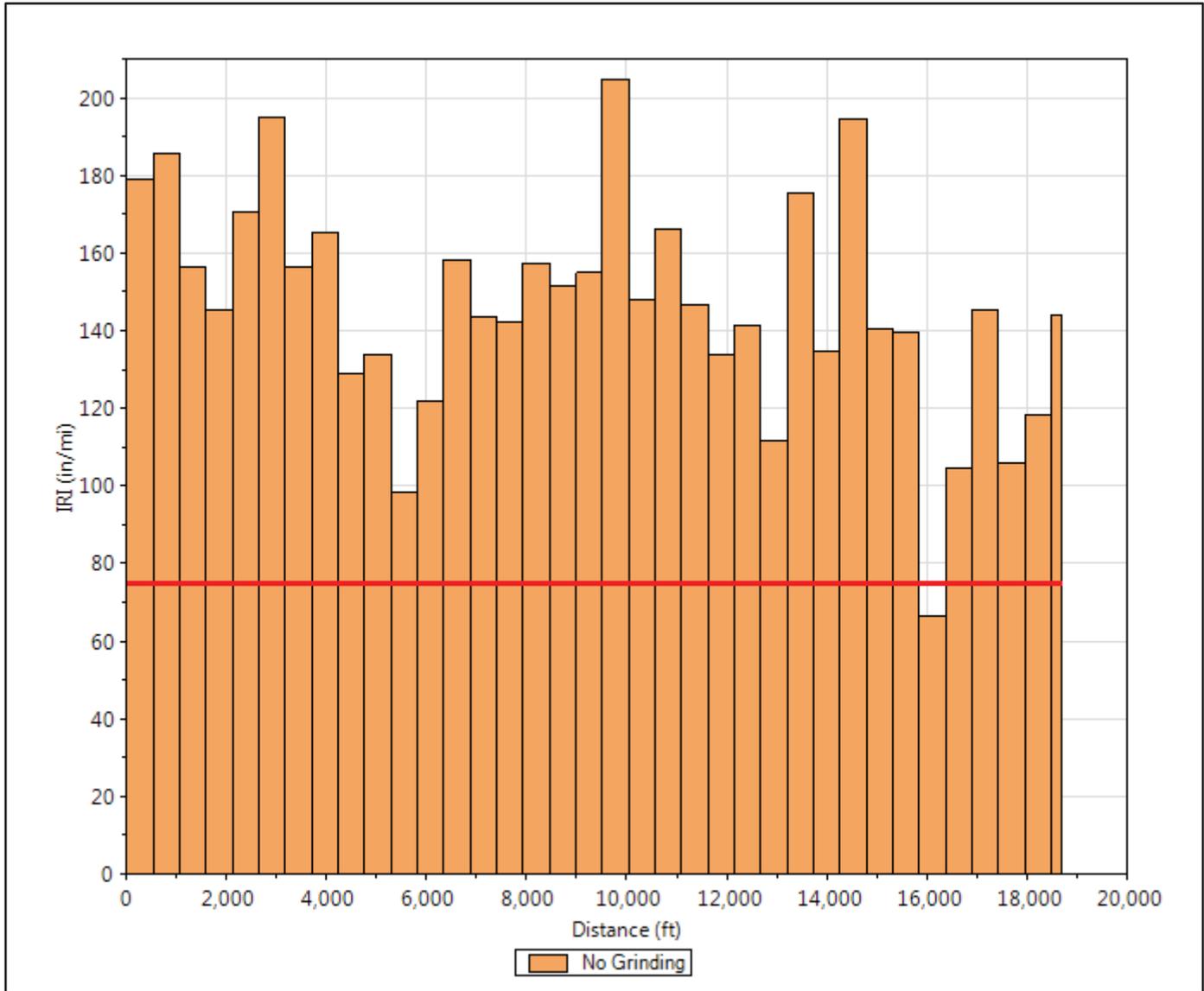
Total Distance Out of Spec (ft): 17,983



Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	83.80	15,219
120.00	110.00	8.84	1,605
110.00	100.00	2.10	381
100.00	90.00	2.14	388
90.00	80.00	1.08	196
80.00	70.00	1.41	256
70.00	60.00	0.64	117
60.00	50.00	0.00	0
50.00	40.00	0.00	0
40.00	30.00	0.00	0
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Fixed Interval

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
9.00	537.00	528.00	179.10	6
537.00	1,065.00	528.00	185.74	8
1,065.00	1,593.00	528.00	156.48	15
1,593.00	2,121.00	528.00	145.24	4
2,121.00	2,649.00	528.00	170.46	4
2,649.00	3,177.00	528.00	194.81	7
3,177.00	3,705.00	528.00	156.39	10
3,705.00	4,233.00	528.00	165.33	17
4,233.00	4,761.00	528.00	128.87	9
4,761.00	5,289.00	528.00	133.77	7
5,289.00	5,817.00	528.00	98.31	2
5,817.00	6,345.00	528.00	121.86	5
6,345.00	6,873.00	528.00	158.36	4

Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
6,873.00	7,401.00	528.00	143.61	13
7,401.00	7,929.00	528.00	142.05	10
7,929.00	8,457.00	528.00	157.43	11
8,457.00	8,985.00	528.00	151.68	6
8,985.00	9,513.00	528.00	154.89	11
9,513.00	10,041.00	528.00	204.66	5
10,041.00	10,569.00	528.00	147.79	7
10,569.00	11,097.00	528.00	166.10	7
11,097.00	11,625.00	528.00	146.65	8
11,625.00	12,153.00	528.00	133.84	4
12,153.00	12,681.00	528.00	141.21	4
12,681.00	13,209.00	528.00	111.58	5
13,209.00	13,737.00	528.00	175.37	12
13,737.00	14,265.00	528.00	134.57	8
14,265.00	14,793.00	528.00	194.69	8
14,793.00	15,321.00	528.00	140.48	8
15,321.00	15,849.00	528.00	139.46	9
15,849.00	16,377.00	528.00	66.65	0
16,377.00	16,905.00	528.00	104.42	3
16,905.00	17,433.00	528.00	145.40	6
17,433.00	17,961.00	528.00	106.07	4
17,961.00	18,489.00	528.00	118.46	6
18,489.00	18,699.33	209.50	144.00	2

Analysis: Ride Quality

Inputs

Threshold (in/mi): 75.00

Segment Length (ft): 528.00

Selections

File	Section	Apply 250mm Filter
201628_03PLACER89_NB_1_B_9 0_12 5_EXIST_HMA T1 to T2 - 1	Full	Yes

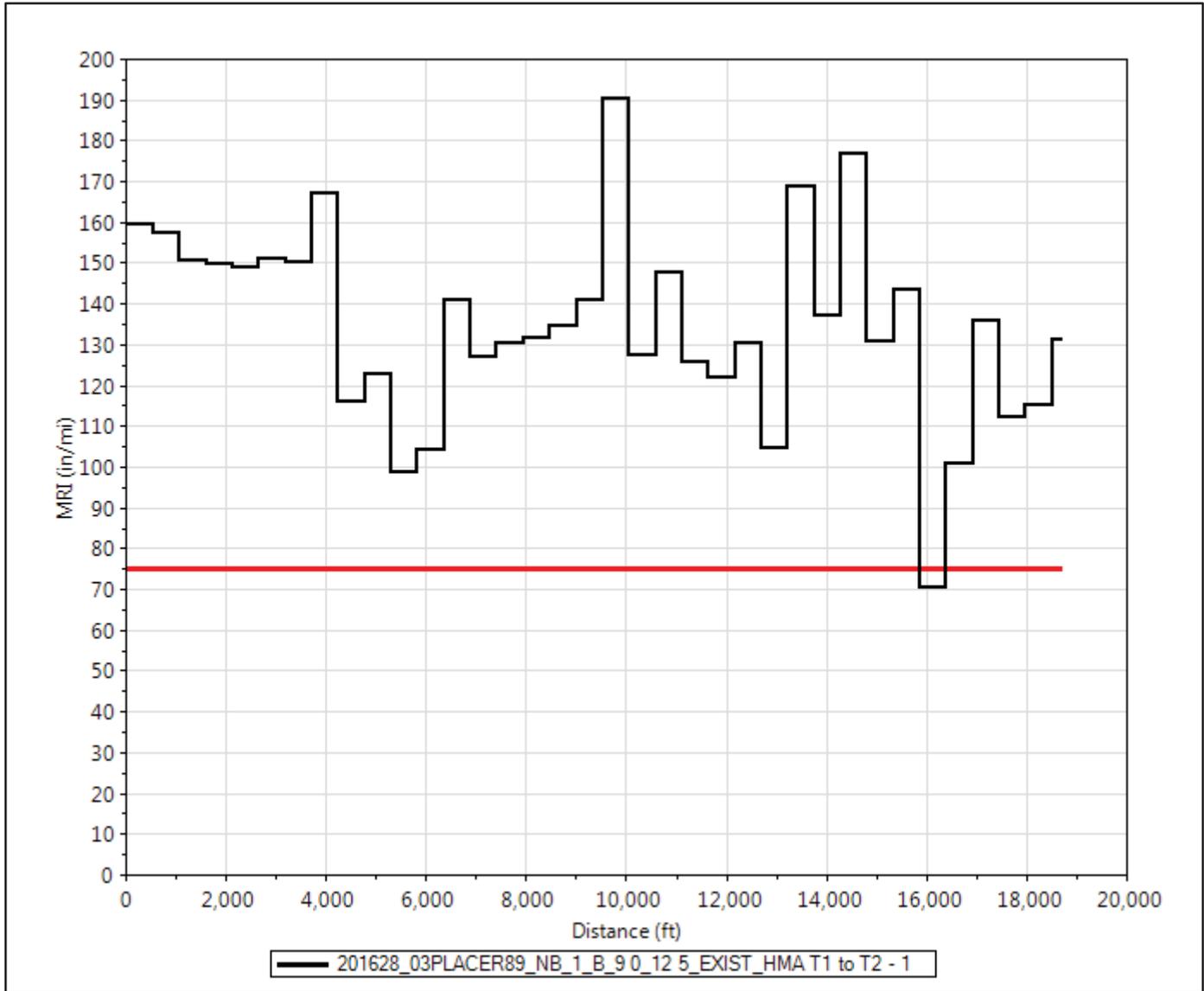
Leave-outs

Results

201628_03PLACER89_NB_1_B_9 0_12 5_EXIST_HMA T1 to T2 - 1

Start Distance (ft)	Stop Distance (ft)	Length (ft)	MRI (in/mi)
9.00	537.00	528.00	159.38
537.00	1,065.00	528.00	157.52
1,065.00	1,593.00	528.00	150.75
1,593.00	2,121.00	528.00	149.65
2,121.00	2,649.00	528.00	148.83
2,649.00	3,177.00	528.00	150.89
3,177.00	3,705.00	528.00	150.21
3,705.00	4,233.00	528.00	166.91
4,233.00	4,761.00	528.00	116.24
4,761.00	5,289.00	528.00	122.61
5,289.00	5,817.00	528.00	98.63
5,817.00	6,345.00	528.00	104.34
6,345.00	6,873.00	528.00	140.75
6,873.00	7,401.00	528.00	127.05
7,401.00	7,929.00	528.00	130.26
7,929.00	8,457.00	528.00	131.84
8,457.00	8,985.00	528.00	134.67
8,985.00	9,513.00	528.00	140.73
9,513.00	10,041.00	528.00	190.33
10,041.00	10,569.00	528.00	127.35
10,569.00	11,097.00	528.00	147.55
11,097.00	11,625.00	528.00	125.93
11,625.00	12,153.00	528.00	121.84
12,153.00	12,681.00	528.00	130.19
12,681.00	13,209.00	528.00	104.76
13,209.00	13,737.00	528.00	168.75
13,737.00	14,265.00	528.00	137.11
14,265.00	14,793.00	528.00	176.73
14,793.00	15,321.00	528.00	130.79
15,321.00	15,849.00	528.00	143.49
15,849.00	16,377.00	528.00	70.50
16,377.00	16,905.00	528.00	100.94

Start Distance (ft)	Stop Distance (ft)	Length (ft)	MRI (in/mi)
16,905.00	17,433.00	528.00	135.89
17,433.00	17,961.00	528.00	112.08
17,961.00	18,489.00	528.00	115.28
18,489.00	18,699.33	209.50	131.39



Analysis: Smoothness Assurance

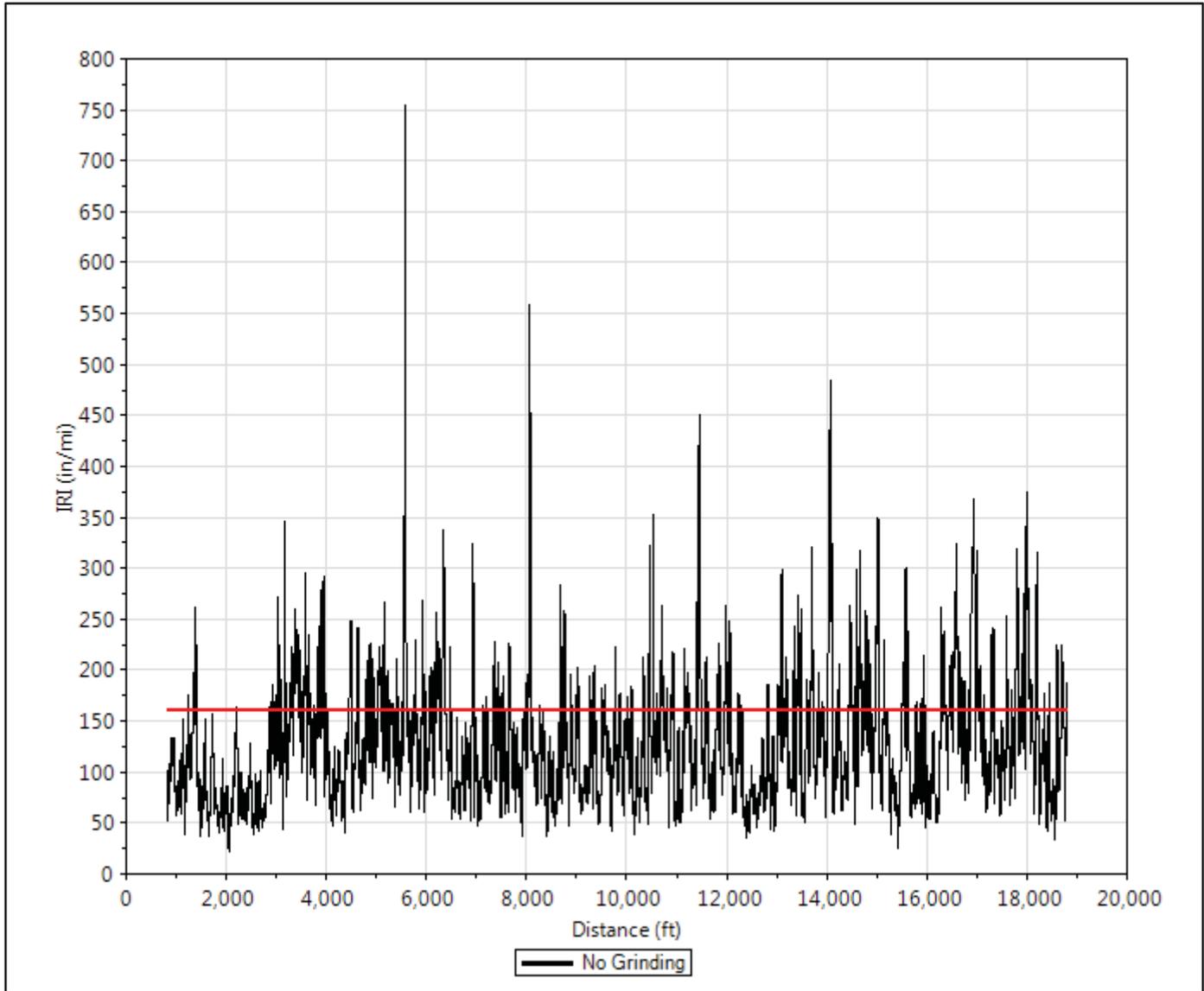
Selections

File	Profile	Section	Apply 250mm Filter
201628_03PLACER89_SB_1_B_12.5_9.0_EXIST_HMA T1 to T2 - 1 -S2	Track 1	Full	Yes

Short Continuous

Segment Length (ft): 25.00

Threshold (in/mi): 160.00



No Grinding

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
1,233.83	1,245.58	175.70
1,330.00	1,353.50	196.76
1,357.42	1,361.00	169.31
1,367.50	1,371.75	167.30
1,377.00	1,406.33	262.21
2,192.08	2,194.42	163.57
2,861.00	2,863.00	163.92
2,907.42	2,917.25	185.82
2,940.00	2,946.92	168.37
2,977.75	2,987.75	175.65
3,015.00	3,050.08	271.22
3,096.67	3,098.17	163.37

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
3,100.42	3,112.92	191.51
3,153.75	3,187.83	345.96
3,258.83	3,268.17	179.68
3,273.67	3,283.83	187.41
3,292.08	3,321.67	222.26
3,333.92	3,431.58	259.24
3,433.42	3,463.42	234.28
3,464.58	3,468.67	177.91
3,477.08	3,480.17	164.54
3,527.33	3,536.08	193.78
3,562.08	3,599.67	294.80
3,634.33	3,676.83	234.34
3,763.75	3,768.92	164.87
3,807.67	3,826.33	221.96
3,843.58	3,875.75	243.70
3,885.50	3,928.25	286.71
3,930.92	3,964.00	291.45
3,990.75	4,005.83	178.04
4,006.25	4,010.25	169.21
4,455.92	4,504.58	248.81
4,596.75	4,600.83	172.22
4,618.75	4,649.25	241.83
4,786.33	4,801.17	190.09
4,804.25	4,808.00	167.50
4,821.00	4,853.17	224.70
4,854.33	4,861.58	167.99
4,891.42	4,918.42	226.68
4,954.42	4,964.67	191.77
5,027.00	5,081.83	222.49
5,100.67	5,140.17	224.85
5,153.83	5,189.25	266.16
5,202.08	5,227.50	198.57
5,278.92	5,283.08	169.64
5,291.00	5,294.83	162.62
5,296.33	5,302.67	166.55
5,305.67	5,309.00	164.72
5,319.50	5,323.58	167.48
5,335.42	5,338.08	164.08
5,384.67	5,386.58	162.66
5,402.75	5,423.92	210.95
5,498.08	5,498.92	160.49
5,502.75	5,507.08	168.95
5,532.83	5,600.33	755.14
5,602.75	5,604.42	163.89
5,624.00	5,628.08	172.99
5,735.83	5,744.92	175.91
5,748.33	5,749.92	162.90
5,758.08	5,759.83	163.45
5,769.50	5,795.17	229.53

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
5,905.00	5,945.67	268.56
5,992.50	6,000.00	178.95
6,072.00	6,096.50	202.04
6,102.92	6,129.17	199.27
6,168.67	6,204.92	257.12
6,208.83	6,263.67	227.29
6,315.00	6,382.83	337.41
6,471.25	6,488.58	223.12
6,905.00	6,942.42	324.17
7,140.08	7,142.92	164.60
7,200.92	7,207.58	174.30
7,209.08	7,211.83	164.43
7,339.92	7,341.83	166.22
7,342.67	7,369.83	228.46
7,412.50	7,436.42	207.66
7,458.83	7,467.00	173.00
7,511.83	7,543.25	193.28
7,585.50	7,587.42	161.96
7,649.00	7,681.75	225.87
7,683.67	7,691.25	173.95
7,994.50	8,003.75	187.57
8,024.33	8,086.92	559.00
8,273.00	8,275.58	164.67
8,330.33	8,331.58	161.62
8,333.00	8,334.08	161.36
8,669.75	8,698.42	282.90
8,698.83	8,700.33	161.46
8,734.67	8,790.50	257.62
8,876.58	8,899.92	195.02
8,993.33	9,017.92	185.19
9,026.42	9,037.92	203.10
9,261.25	9,284.33	193.25
9,341.00	9,364.83	203.59
9,509.67	9,518.33	182.00
9,525.08	9,528.50	162.84
9,543.58	9,550.25	170.30
9,557.83	9,567.33	185.63
9,574.00	9,584.83	181.80
9,747.17	9,749.25	161.73
9,761.33	9,786.58	223.05
9,855.08	9,872.33	178.02
10,017.83	10,029.75	174.06
10,030.17	10,031.92	161.57
10,085.92	10,109.67	183.43
10,329.83	10,355.42	213.03
10,441.92	10,475.00	323.04
10,519.67	10,549.00	352.89
10,612.33	10,617.50	176.41
10,634.17	10,636.42	162.72

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
10,680.83	10,737.83	262.55
10,791.67	10,810.67	181.93
10,814.25	10,819.00	174.70
10,892.67	10,908.00	202.22
10,911.58	10,938.92	218.05
11,139.00	11,164.17	221.77
11,169.67	11,177.42	183.47
11,193.58	11,198.75	176.47
11,203.58	11,230.25	197.84
11,234.08	11,244.67	177.61
11,393.00	11,483.33	450.38
11,571.92	11,606.50	212.80
11,618.25	11,621.42	168.56
11,797.92	11,818.75	195.30
11,841.17	11,866.00	226.93
11,960.75	12,000.42	262.85
12,013.75	12,028.33	180.99
12,043.58	12,076.25	248.53
12,229.00	12,239.92	176.50
12,301.92	12,306.33	165.56
12,817.17	12,827.25	186.45
12,829.33	12,838.92	176.88
13,011.00	13,012.92	162.70
13,015.58	13,033.67	185.47
13,076.42	13,119.17	299.44
13,155.25	13,155.58	160.17
13,163.83	13,189.42	197.80
13,196.42	13,210.50	213.27
13,329.33	13,357.33	242.50
13,391.83	13,394.50	164.59
13,397.33	13,444.92	272.72
13,464.08	13,492.83	259.28
13,598.67	13,606.42	190.67
13,620.08	13,623.58	169.97
13,680.75	13,742.67	321.07
13,821.00	13,840.08	197.02
13,875.42	13,876.42	161.05
13,882.33	13,883.00	160.46
13,886.92	13,888.58	161.56
13,895.58	13,900.00	168.72
13,943.25	13,945.58	164.45
14,018.67	14,109.08	485.13
14,205.75	14,214.17	180.83
14,247.25	14,258.67	205.76
14,438.67	14,510.33	264.10
14,576.75	14,606.25	297.97
14,635.25	14,698.67	317.51
14,722.17	14,746.17	189.28
14,754.58	14,808.17	258.38

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
14,838.50	14,864.17	228.92
14,881.42	14,883.08	160.71
14,961.75	15,048.33	348.90
15,133.92	15,163.50	230.09
15,501.75	15,546.83	207.62
15,559.42	15,592.92	300.94
15,607.42	15,636.42	237.44
15,773.33	15,777.67	165.91
15,782.25	15,785.92	169.22
15,884.42	15,891.42	172.46
15,926.25	15,953.42	214.21
15,965.50	15,970.17	164.87
16,273.08	16,305.83	261.74
16,308.83	16,366.75	237.19
16,373.50	16,376.83	164.57
16,393.08	16,395.50	163.46
16,438.08	16,439.75	161.07
16,440.58	16,460.67	203.49
16,462.75	16,491.08	214.65
16,497.33	16,522.92	217.55
16,532.83	16,620.50	324.43
16,625.58	16,629.25	170.23
16,655.50	16,656.17	160.25
16,656.92	16,662.25	170.97
16,666.92	16,691.83	218.28
16,742.42	16,749.58	188.90
16,838.50	16,850.00	180.10
16,852.33	16,853.83	161.93
16,861.33	16,862.17	161.73
16,869.00	16,965.50	368.67
16,982.25	17,022.58	316.70
17,025.75	17,028.00	163.12
17,029.58	17,032.42	164.95
17,033.25	17,036.33	166.85
17,037.17	17,042.92	173.93
17,045.67	17,048.83	166.51
17,051.17	17,075.25	204.06
17,126.33	17,133.83	176.21
17,277.75	17,305.58	238.02
17,312.42	17,341.67	240.67
17,582.42	17,633.00	253.41
17,697.50	17,703.67	180.65
17,776.00	17,832.42	318.90
17,868.50	17,879.00	173.37
17,894.92	17,946.33	275.41
17,964.42	18,058.58	375.06
18,102.75	18,114.17	185.52
18,175.92	18,221.92	316.22
18,333.33	18,339.92	176.70

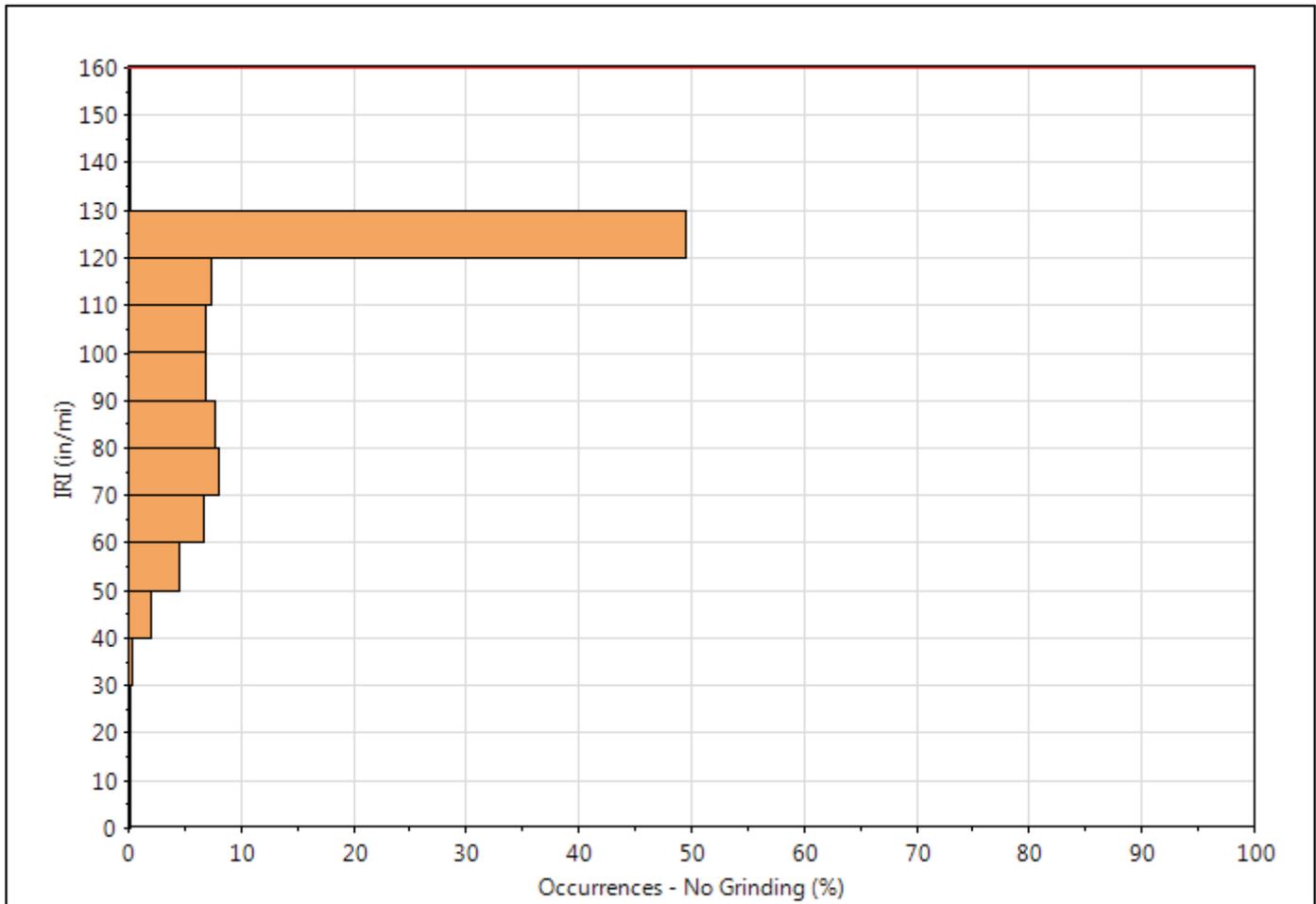
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
18,434.17	18,446.08	187.08
18,585.92	18,623.08	224.07
18,680.58	18,741.17	224.15
18,786.33	18,793.00	186.94

Short Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 25.12

Total Distance Out of Spec (ft): 4,518

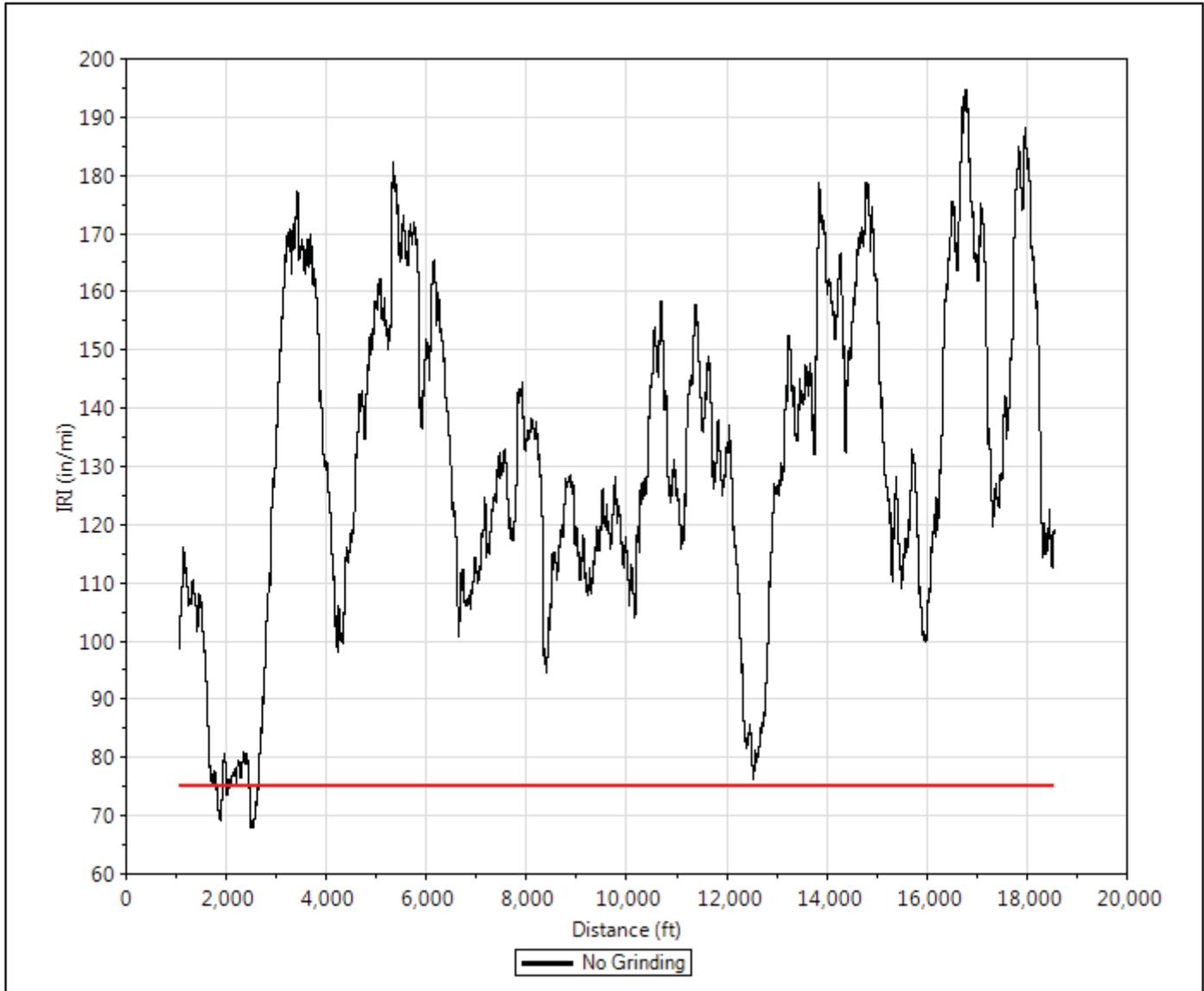


Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	49.54	8,909
120.00	110.00	7.29	1,312
110.00	100.00	6.90	1,242
100.00	90.00	6.89	1,240
90.00	80.00	7.68	1,381
80.00	70.00	8.01	1,441
70.00	60.00	6.69	1,204
60.00	50.00	4.49	807
50.00	40.00	2.07	372
40.00	30.00	0.28	50
30.00	20.00	0.14	26
20.00	10.00	0.00	0

Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
10.00	0.00	0.00	0

Long Continuous

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



No Grinding

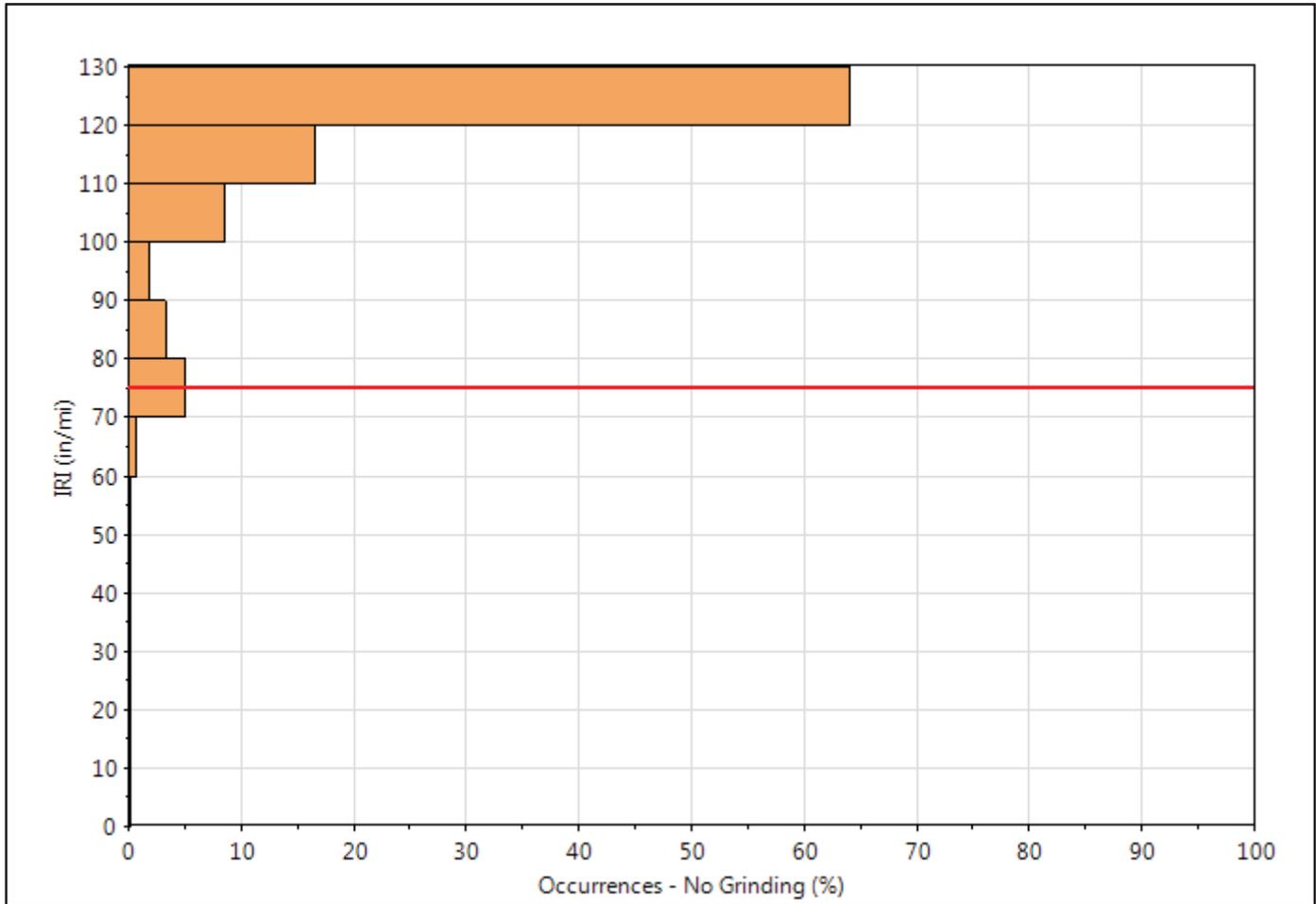
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
1,065.00	1,797.42	116.00
1,919.17	2,008.92	80.69
2,024.92	2,043.92	76.29
2,050.17	2,052.67	75.16
2,055.17	2,073.08	76.11
2,073.92	2,460.75	80.89
2,615.42	2,617.17	75.07
2,639.25	18,545.83	194.71

Long Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 98.15

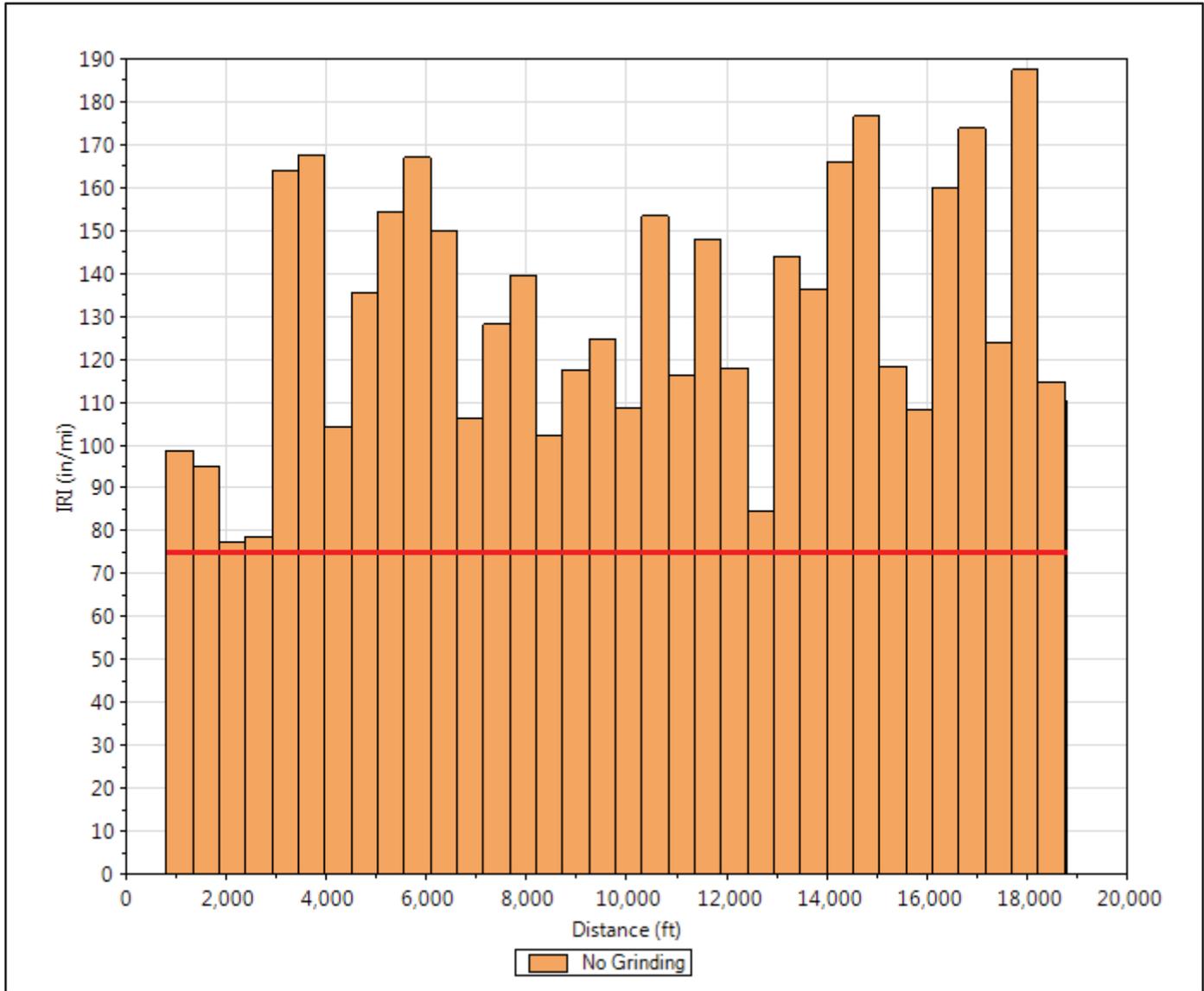
Total Distance Out of Spec (ft): 17,157



Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	64.06	11,198
120.00	110.00	16.54	2,891
110.00	100.00	8.51	1,488
100.00	90.00	1.86	325
90.00	80.00	3.31	579
80.00	70.00	5.05	882
70.00	60.00	0.68	120
60.00	50.00	0.00	0
50.00	40.00	0.00	0
40.00	30.00	0.00	0
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Fixed Interval

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
801.00	1,329.00	528.00	98.78	1
1,329.00	1,857.00	528.00	95.12	4
1,857.00	2,385.00	528.00	77.22	1
2,385.00	2,913.00	528.00	78.60	2
2,913.00	3,441.00	528.00	163.76	12
3,441.00	3,969.00	528.00	167.64	11
3,969.00	4,497.00	528.00	104.12	3
4,497.00	5,025.00	528.00	135.44	9
5,025.00	5,553.00	528.00	154.15	15
5,553.00	6,081.00	528.00	167.04	10
6,081.00	6,609.00	528.00	150.07	6
6,609.00	7,137.00	528.00	106.31	1
7,137.00	7,665.00	528.00	128.13	10

Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
7,665.00	8,193.00	528.00	139.57	4
8,193.00	8,721.00	528.00	102.34	5
8,721.00	9,249.00	528.00	117.57	4
9,249.00	9,777.00	528.00	124.48	9
9,777.00	10,305.00	528.00	108.51	5
10,305.00	10,833.00	528.00	153.37	8
10,833.00	11,361.00	528.00	116.22	7
11,361.00	11,889.00	528.00	147.93	5
11,889.00	12,417.00	528.00	117.77	5
12,417.00	12,945.00	528.00	84.47	2
12,945.00	13,473.00	528.00	144.07	10
13,473.00	14,001.00	528.00	136.13	10
14,001.00	14,529.00	528.00	165.97	4
14,529.00	15,057.00	528.00	176.61	7
15,057.00	15,585.00	528.00	118.33	3
15,585.00	16,113.00	528.00	108.33	7
16,113.00	16,641.00	528.00	160.10	10
16,641.00	17,169.00	528.00	173.82	16
17,169.00	17,697.00	528.00	123.68	3
17,697.00	18,225.00	528.00	187.41	7
18,225.00	18,753.00	528.00	114.68	4
18,753.00	18,810.67	56.83	110.27	1

Analysis: Smoothness Assurance

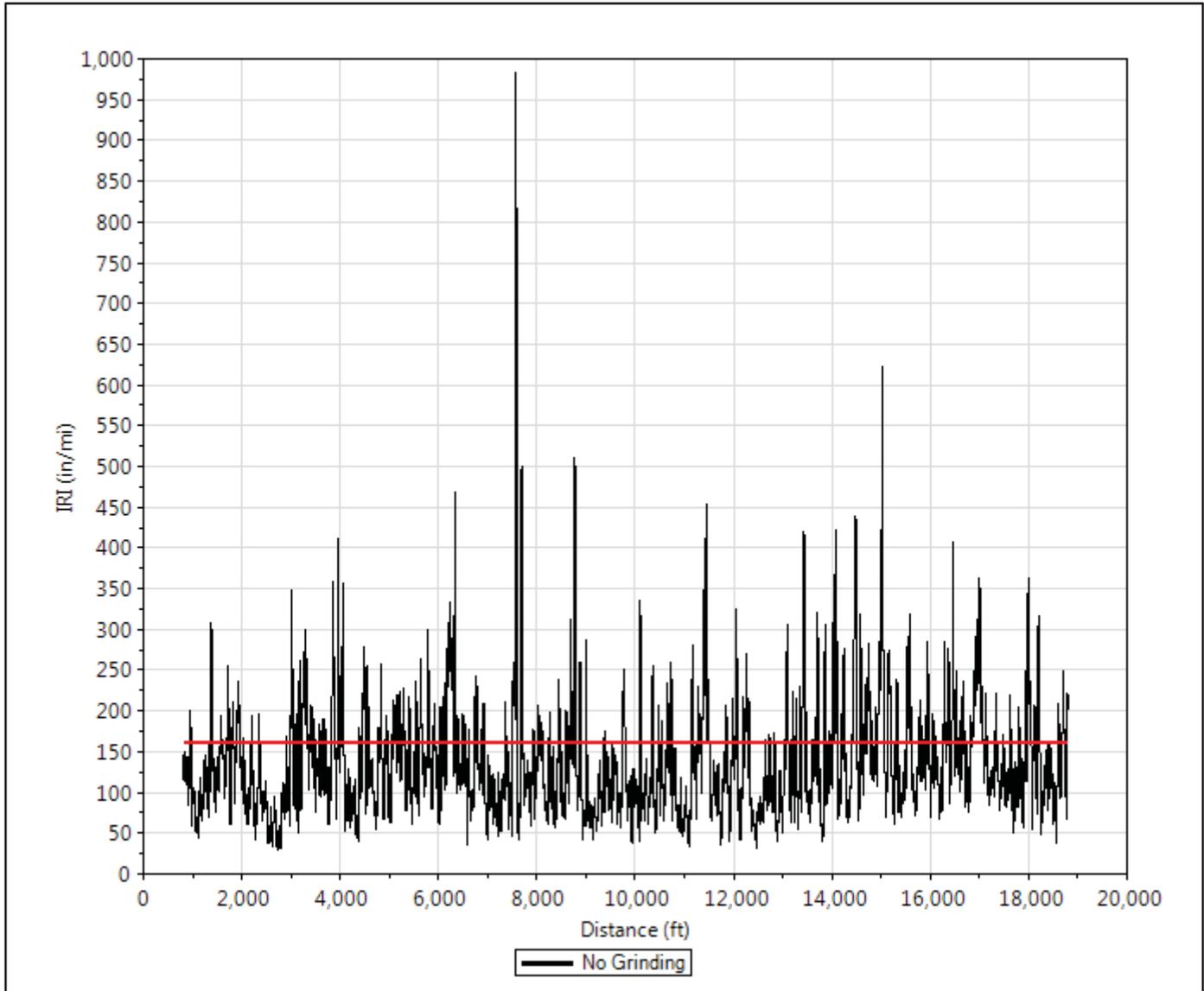
Selections

File	Profile	Section	Apply 250mm Filter
201628_03PLACER89_SB_1_B_12.5_9.0_EXIST_HMA T1 to T2 - 1 -S2	Track 2	Full	Yes

Short Continuous

Segment Length (ft): 25.00

Threshold (in/mi): 160.00



No Grinding

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
938.42	971.25	200.53
1,371.83	1,406.42	309.00
1,565.83	1,584.42	194.22
1,586.08	1,592.92	180.57
1,607.33	1,610.33	164.50
1,697.08	1,700.83	168.19
1,703.42	1,753.58	255.40
1,801.58	1,832.08	211.91
1,876.17	1,884.83	175.50
1,889.92	1,958.42	235.78
1,960.25	1,964.08	174.54
2,024.00	2,027.08	165.84

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
2,189.00	2,198.92	193.72
2,342.00	2,358.33	195.54
2,907.75	2,915.17	169.23
2,980.50	3,047.50	347.28
3,056.25	3,056.50	160.03
3,089.50	3,091.92	166.81
3,092.67	3,114.17	197.14
3,157.25	3,183.58	261.28
3,234.67	3,322.75	299.08
3,324.17	3,335.08	193.07
3,340.33	3,348.67	173.87
3,380.92	3,384.08	162.29
3,385.08	3,389.17	166.87
3,398.25	3,426.08	206.50
3,433.58	3,435.92	165.68
3,439.08	3,458.92	203.59
3,474.33	3,479.50	179.63
3,482.33	3,489.83	166.65
3,492.25	3,495.50	163.97
3,574.25	3,581.92	183.52
3,583.17	3,592.92	175.93
3,638.58	3,676.08	190.54
3,706.00	3,718.75	177.60
3,833.08	3,891.92	358.91
3,941.00	3,991.08	411.77
4,012.50	4,079.33	357.43
4,389.83	4,397.75	179.14
4,405.83	4,406.42	160.43
4,456.33	4,507.42	279.01
4,547.25	4,574.33	255.63
4,575.67	4,584.25	175.18
4,773.00	4,778.00	179.08
4,786.08	4,789.92	168.14
4,805.42	4,813.17	180.01
4,816.33	4,849.83	256.40
4,912.58	4,918.17	164.23
4,921.67	4,934.67	193.05
4,948.83	4,950.75	164.21
4,952.58	4,972.25	175.73
5,051.58	5,058.33	170.75
5,067.25	5,078.50	206.14
5,082.33	5,136.33	212.34
5,147.67	5,175.17	219.80
5,187.08	5,191.33	164.54
5,194.58	5,226.00	223.14
5,261.58	5,273.08	184.56
5,274.42	5,308.75	227.80
5,401.42	5,423.00	217.74
5,539.33	5,555.92	235.89

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
5,619.75	5,662.50	263.68
5,664.50	5,666.58	166.14
5,771.00	5,828.92	298.71
5,891.33	5,915.75	209.27
5,920.08	5,929.83	175.25
6,038.33	6,061.17	204.38
6,080.25	6,131.42	233.15
6,164.08	6,299.67	333.07
6,299.92	6,304.92	169.00
6,314.92	6,352.42	468.42
6,373.17	6,395.58	195.14
6,396.00	6,397.75	163.77
6,477.00	6,500.83	195.46
6,510.33	6,533.50	194.36
6,553.75	6,560.42	183.92
6,609.00	6,618.67	176.43
6,728.75	6,769.67	243.64
6,774.92	6,809.50	229.69
6,856.08	6,872.75	177.30
6,874.42	6,875.67	162.35
6,899.75	6,931.42	208.93
6,932.83	6,940.83	176.17
7,351.83	7,375.17	210.85
7,506.75	7,596.92	982.69
7,668.50	7,709.42	499.95
7,712.75	7,719.50	177.73
7,928.00	7,938.08	176.43
8,013.50	8,038.83	206.94
8,043.33	8,047.33	175.86
8,048.58	8,049.83	162.42
8,052.33	8,071.92	194.10
8,095.08	8,114.83	186.34
8,116.50	8,117.00	160.40
8,248.00	8,263.25	198.77
8,265.67	8,268.42	164.97
8,270.75	8,271.08	160.17
8,434.00	8,461.42	237.78
8,590.17	8,609.33	199.40
8,636.00	8,643.25	181.33
8,647.67	8,650.67	175.76
8,671.42	8,710.33	312.27
8,722.33	8,722.92	160.37
8,734.08	8,736.92	170.00
8,749.67	8,802.50	509.63
8,857.33	8,902.17	259.81
8,989.25	9,017.83	287.85
9,350.50	9,353.83	167.59
9,395.08	9,400.17	174.91
9,518.67	9,520.33	161.76

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
9,738.25	9,791.83	250.13
10,084.42	10,110.75	334.86
10,332.50	10,359.83	254.89
10,468.50	10,490.83	206.65
10,527.92	10,543.83	187.90
10,631.25	10,661.33	234.73
10,671.50	10,696.75	208.57
10,723.42	10,750.92	260.33
11,142.92	11,186.33	281.58
11,267.42	11,301.58	228.92
11,304.67	11,321.17	193.06
11,325.42	11,342.42	187.44
11,364.50	11,469.08	452.58
11,470.00	11,507.50	238.73
11,840.75	11,865.00	207.12
11,967.17	11,990.42	214.50
12,016.17	12,017.75	161.63
12,025.00	12,033.17	168.67
12,039.58	12,076.17	325.55
12,188.58	12,189.33	161.15
12,189.58	12,215.33	217.66
12,235.33	12,277.83	270.19
12,298.42	12,325.50	215.86
12,640.33	12,642.33	163.74
12,716.92	12,720.67	170.96
12,722.83	12,732.75	168.80
12,820.83	12,838.25	173.10
13,041.00	13,044.08	165.50
13,049.33	13,059.17	168.85
13,068.67	13,117.67	306.48
13,182.33	13,188.67	165.54
13,191.25	13,207.42	222.73
13,212.00	13,217.50	163.92
13,256.33	13,278.92	214.52
13,343.25	13,359.50	230.33
13,362.42	13,367.00	162.64
13,389.92	13,446.42	419.69
13,466.08	13,483.42	198.77
13,585.92	13,588.67	165.26
13,599.92	13,602.92	163.71
13,642.25	13,674.25	191.25
13,688.83	13,728.33	321.55
13,846.75	13,873.50	304.87
13,922.75	13,931.83	174.64
13,986.42	13,992.25	170.17
14,017.83	14,104.67	422.32
14,193.33	14,231.42	268.73
14,233.92	14,236.42	171.95
14,237.58	14,270.58	276.62

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
14,403.00	14,408.83	169.88
14,413.25	14,511.67	439.18
14,568.08	14,606.42	319.45
14,655.25	14,687.50	232.99
14,690.83	14,701.08	190.69
14,708.92	14,782.17	283.16
14,782.42	14,788.83	181.81
14,805.75	14,809.00	175.88
14,822.17	14,828.17	187.37
14,874.33	14,892.50	203.91
14,893.50	14,899.42	170.51
14,936.25	15,075.50	621.86
15,119.83	15,210.83	274.12
15,291.42	15,293.00	162.46
15,301.92	15,304.75	168.12
15,311.67	15,336.67	238.82
15,516.33	15,614.08	318.90
15,621.42	15,624.08	170.78
15,762.00	15,764.92	162.60
15,773.92	15,805.50	212.07
15,833.17	15,849.00	180.90
15,866.33	15,870.17	163.69
15,904.42	15,947.00	285.57
15,954.83	15,981.75	243.68
15,982.67	15,986.50	169.24
16,031.33	16,043.33	196.67
16,076.75	16,084.33	187.14
16,085.08	16,098.92	171.81
16,261.58	16,305.08	284.00
16,309.42	16,316.83	171.33
16,321.92	16,333.00	186.53
16,339.67	16,349.33	191.31
16,351.33	16,379.75	277.40
16,436.33	16,438.83	162.87
16,440.17	16,441.42	161.27
16,443.17	16,489.67	407.92
16,496.00	16,543.08	249.01
16,564.83	16,569.83	165.08
16,574.83	16,576.92	166.13
16,586.42	16,607.00	187.09
16,640.75	16,685.83	236.86
16,689.33	16,693.33	175.91
16,736.50	16,737.83	161.94
16,819.33	16,852.75	195.03
16,855.08	16,860.42	168.76
16,862.92	17,076.67	363.92
17,117.08	17,120.83	165.32
17,121.75	17,145.67	220.51
17,145.83	17,146.00	160.01

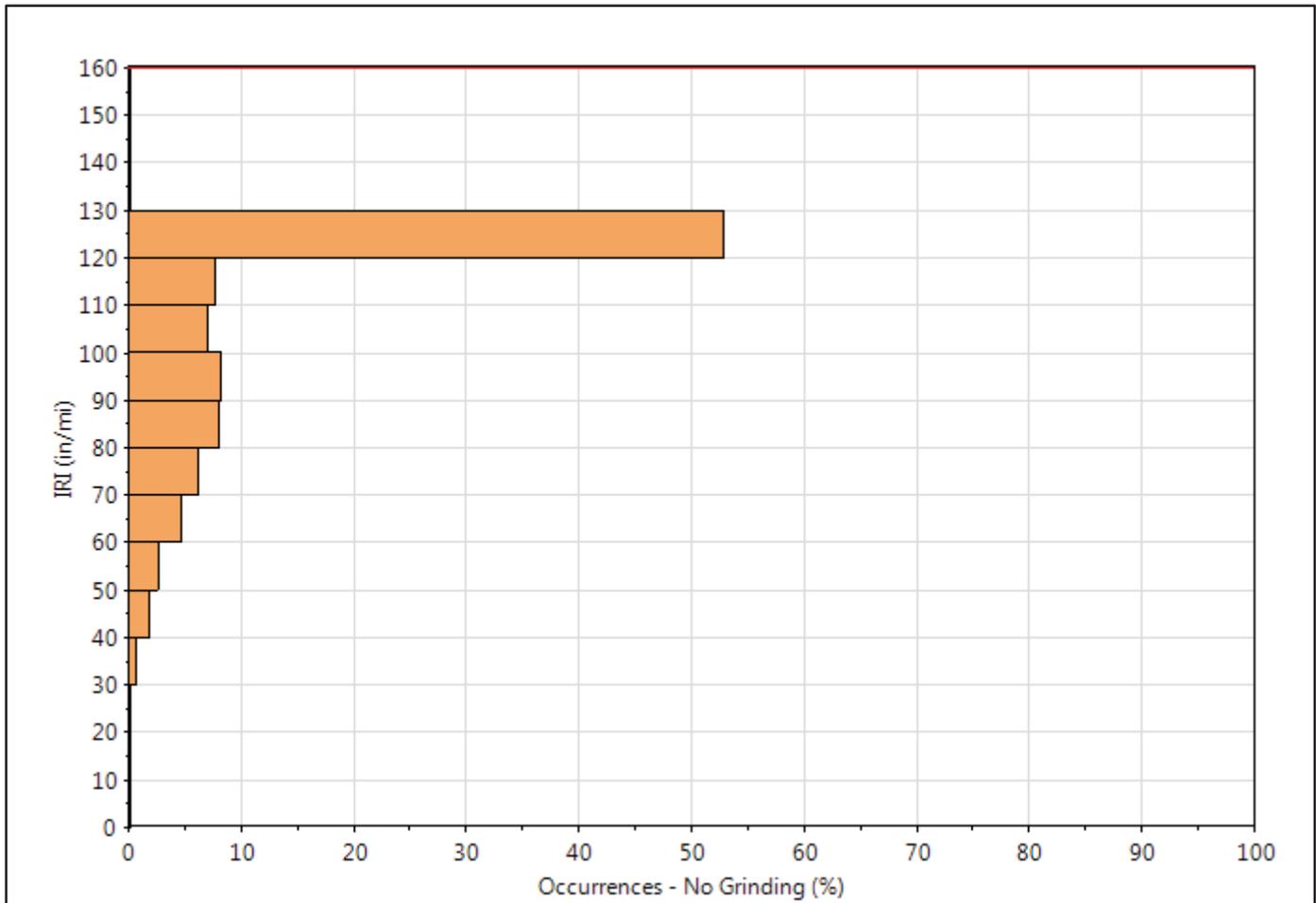
Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
17,171.58	17,175.33	169.32
17,316.67	17,341.42	221.40
17,375.67	17,377.00	162.65
17,486.83	17,493.17	170.74
17,618.33	17,642.33	218.47
17,797.50	17,808.25	205.66
17,817.17	17,827.92	178.70
17,921.67	17,945.25	249.08
17,960.83	18,055.75	363.47
18,102.42	18,131.00	207.38
18,175.67	18,224.08	317.40
18,378.08	18,380.25	160.95
18,432.42	18,433.92	161.95
18,595.50	18,622.25	209.08
18,679.67	18,680.92	160.77
18,685.25	18,731.67	249.26
18,782.00	18,797.33	220.99

Short Continuous Histogram

No Grinding

Total Percent Out of Spec (%): 29.39

Total Distance Out of Spec (ft): 5,286

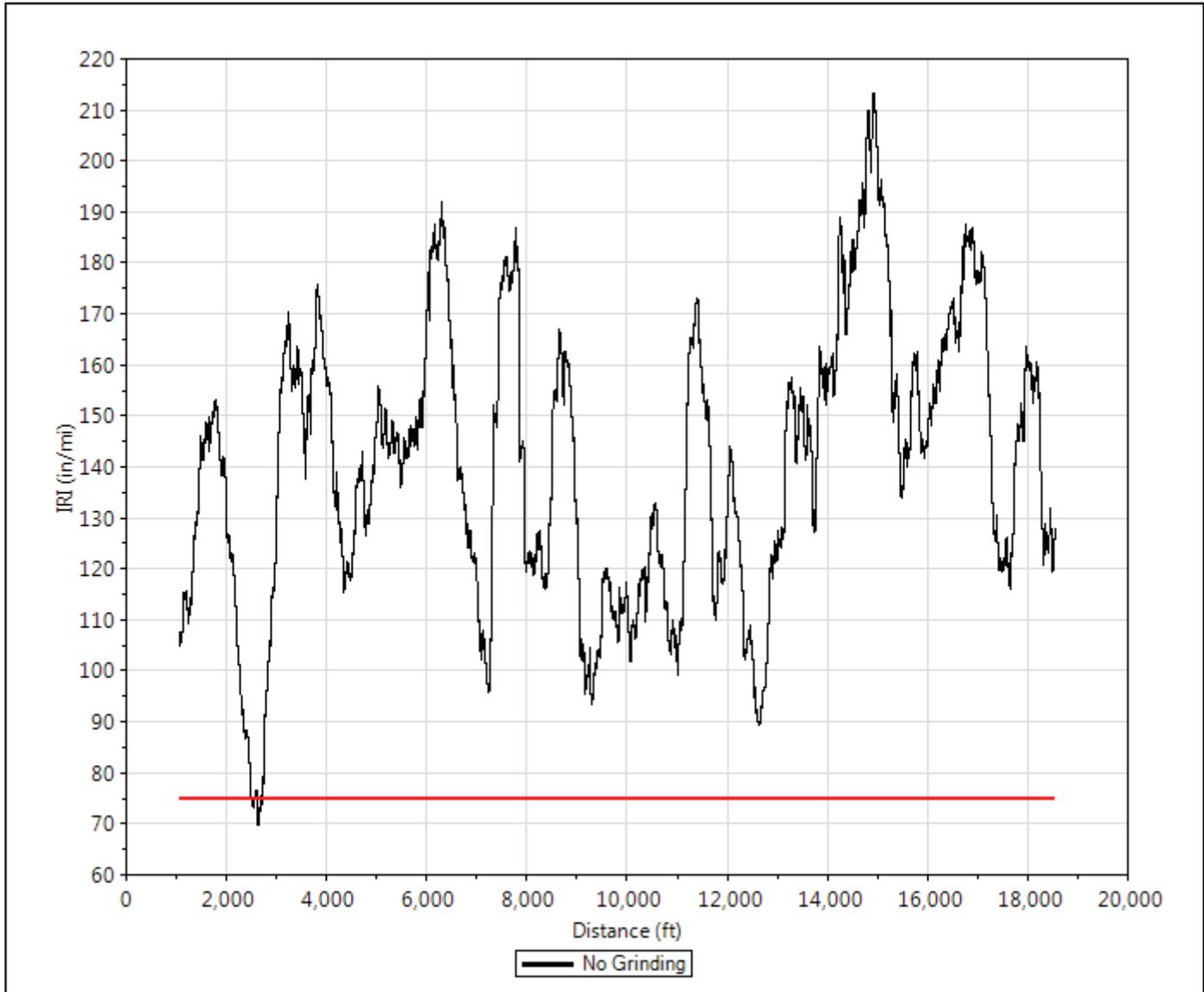


Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	52.82	9,500

Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	52.82	9,500
120.00	110.00	7.74	1,392
110.00	100.00	7.02	1,263
100.00	90.00	8.23	1,481
90.00	80.00	8.08	1,453
80.00	70.00	6.26	1,125
70.00	60.00	4.71	848
60.00	50.00	2.60	468
50.00	40.00	1.87	336
40.00	30.00	0.66	119
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Long Continuous

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



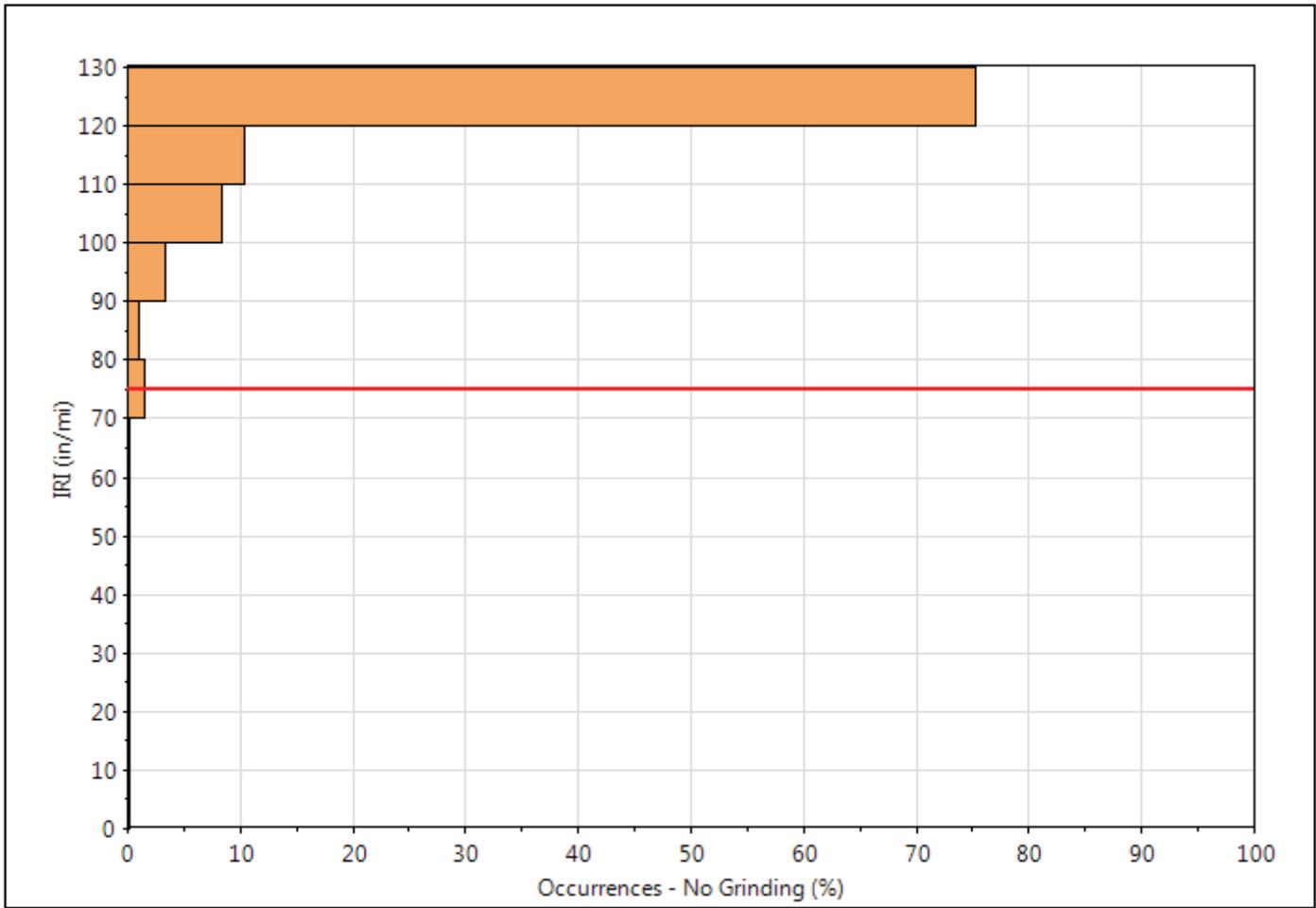
No Grinding

Start Distance (ft)	Stop Distance (ft)	IRI (in/mi)
1,065.00	2,493.83	153.27
2,564.00	2,565.75	75.07
2,569.08	2,583.92	75.61
2,584.75	2,605.33	76.40
2,688.42	2,697.25	75.60
2,700.50	2,701.75	75.04
2,723.17	18,545.83	213.41

Long Continuous Histogram

No Grinding

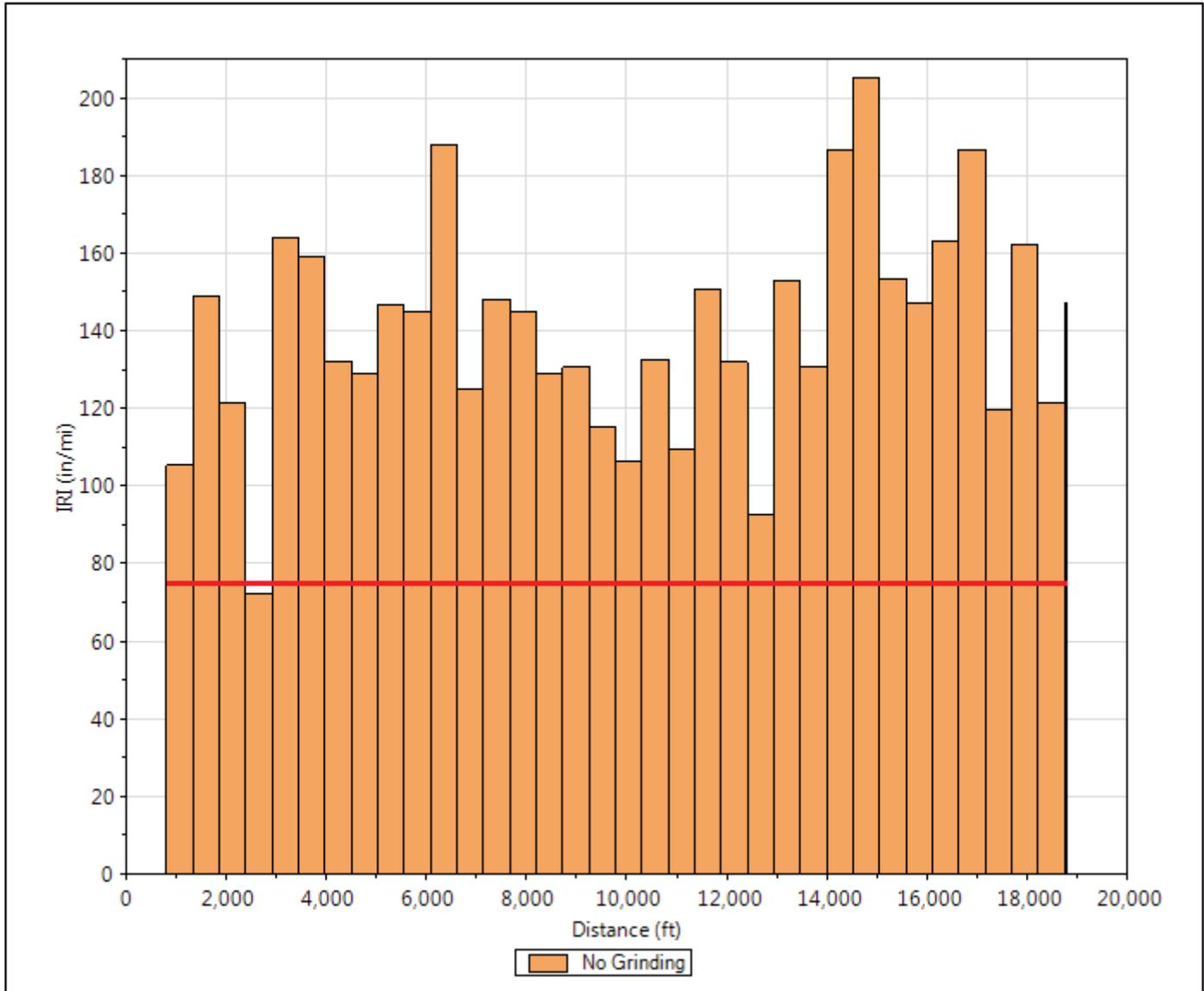
Total Percent Out of Spec (%): 98.96
 Total Distance Out of Spec (ft): 17,299



Max IRI (in/mi)	Min IRI (in/mi)	No Grinding (%)	No Grinding (ft)
∞	120.00	75.22	13,149
120.00	110.00	10.33	1,806
110.00	100.00	8.43	1,474
100.00	90.00	3.42	598
90.00	80.00	1.00	176
80.00	70.00	1.58	277
70.00	60.00	0.01	2
60.00	50.00	0.00	0
50.00	40.00	0.00	0
40.00	30.00	0.00	0
30.00	20.00	0.00	0
20.00	10.00	0.00	0
10.00	0.00	0.00	0

Fixed Interval

Segment Length (ft): 528.00
 Threshold (in/mi): 75.00



Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
801.00	1,329.00	528.00	105.29	1
1,329.00	1,857.00	528.00	148.66	7
1,857.00	2,385.00	528.00	121.29	6
2,385.00	2,913.00	528.00	72.28	1
2,913.00	3,441.00	528.00	163.71	14
3,441.00	3,969.00	528.00	159.04	10
3,969.00	4,497.00	528.00	132.04	5
4,497.00	5,025.00	528.00	128.94	11
5,025.00	5,553.00	528.00	146.45	10
5,553.00	6,081.00	528.00	145.01	8
6,081.00	6,609.00	528.00	187.72	10
6,609.00	7,137.00	528.00	124.93	7
7,137.00	7,665.00	528.00	148.19	2

Start Distance (ft)	Stop Distance (ft)	Length (ft)	No Grinding IRI (in/mi)	No Grinding Defect Count
7,665.00	8,193.00	528.00	144.87	9
8,193.00	8,721.00	528.00	129.12	8
8,721.00	9,249.00	528.00	130.67	5
9,249.00	9,777.00	528.00	115.06	4
9,777.00	10,305.00	528.00	106.39	2
10,305.00	10,833.00	528.00	132.67	6
10,833.00	11,361.00	528.00	109.35	4
11,361.00	11,889.00	528.00	150.62	3
11,889.00	12,417.00	528.00	131.91	8
12,417.00	12,945.00	528.00	92.53	4
12,945.00	13,473.00	528.00	153.05	11
13,473.00	14,001.00	528.00	130.52	8
14,001.00	14,529.00	528.00	186.61	6
14,529.00	15,057.00	528.00	205.08	10
15,057.00	15,585.00	528.00	153.42	6
15,585.00	16,113.00	528.00	146.96	12
16,113.00	16,641.00	528.00	163.25	13
16,641.00	17,169.00	528.00	186.70	9
17,169.00	17,697.00	528.00	119.82	5
17,697.00	18,225.00	528.00	162.26	6
18,225.00	18,753.00	528.00	121.61	5
18,753.00	18,810.67	56.83	146.92	1

Analysis: Ride Quality

Inputs

Threshold (in/mi): 75.00
 Segment Length (ft): 528.00

Selections

File	Section	Apply 250mm Filter
201628_03PLACER89_SB_1_B_12.5_9.0_EXIST_HMA T1 to T2 - 1 -S2	Full	Yes

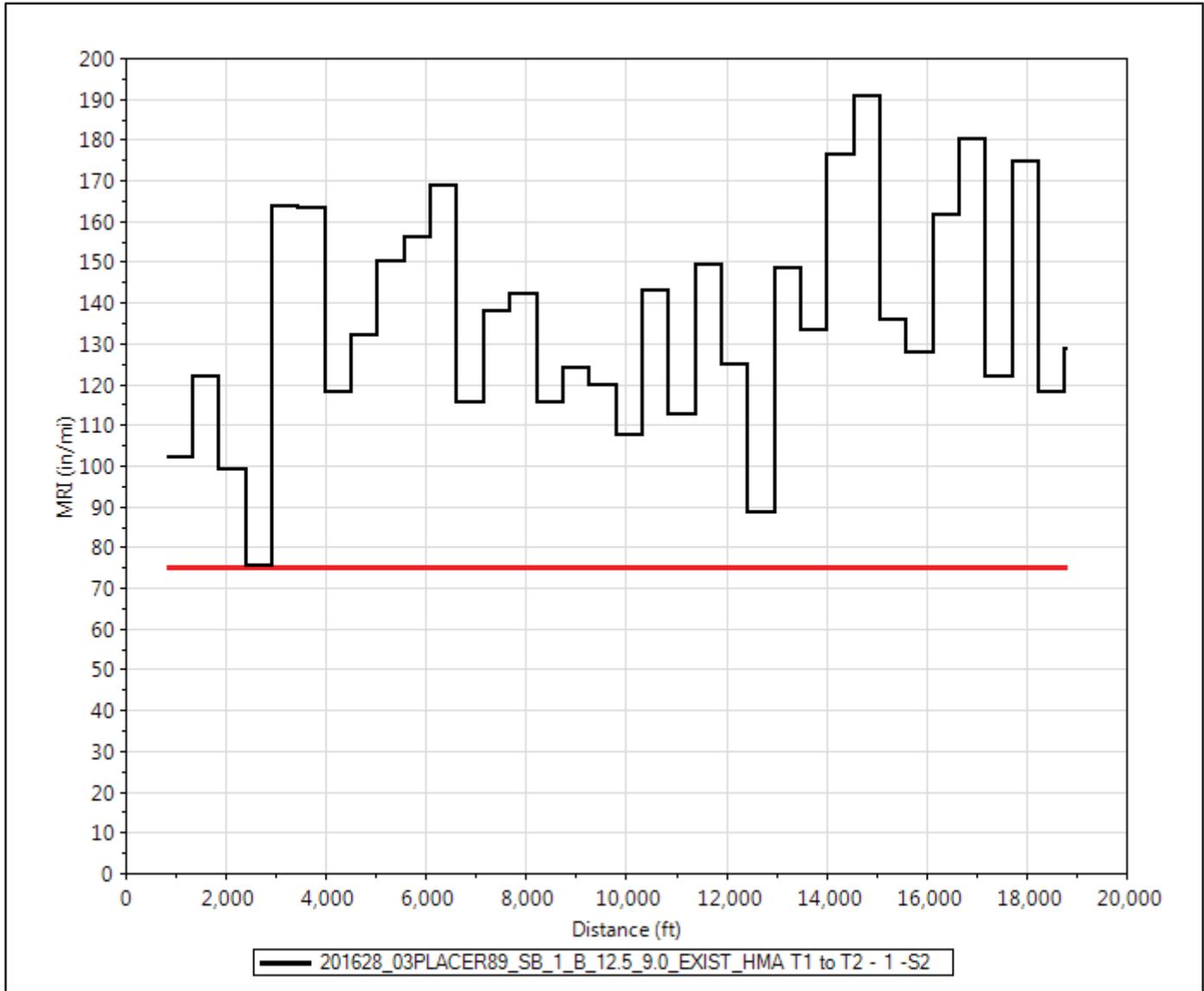
Leave-outs

Results

201628_03PLACER89_SB_1_B_12.5_9.0_EXIST_HMA T1 to T2 - 1 -S2

Start Distance (ft)	Stop Distance (ft)	Length (ft)	MRI (in/mi)
801.00	1,329.00	528.00	102.03
1,329.00	1,857.00	528.00	121.89
1,857.00	2,385.00	528.00	99.25
2,385.00	2,913.00	528.00	75.44
2,913.00	3,441.00	528.00	163.74
3,441.00	3,969.00	528.00	163.34
3,969.00	4,497.00	528.00	118.08
4,497.00	5,025.00	528.00	132.19
5,025.00	5,553.00	528.00	150.30
5,553.00	6,081.00	528.00	156.02
6,081.00	6,609.00	528.00	168.89
6,609.00	7,137.00	528.00	115.62
7,137.00	7,665.00	528.00	138.16
7,665.00	8,193.00	528.00	142.22
8,193.00	8,721.00	528.00	115.73
8,721.00	9,249.00	528.00	124.12
9,249.00	9,777.00	528.00	119.77
9,777.00	10,305.00	528.00	107.45
10,305.00	10,833.00	528.00	143.02
10,833.00	11,361.00	528.00	112.79
11,361.00	11,889.00	528.00	149.27
11,889.00	12,417.00	528.00	124.84
12,417.00	12,945.00	528.00	88.50
12,945.00	13,473.00	528.00	148.56
13,473.00	14,001.00	528.00	133.33
14,001.00	14,529.00	528.00	176.29
14,529.00	15,057.00	528.00	190.85
15,057.00	15,585.00	528.00	135.88
15,585.00	16,113.00	528.00	127.65
16,113.00	16,641.00	528.00	161.68
16,641.00	17,169.00	528.00	180.26
17,169.00	17,697.00	528.00	121.75

Start Distance (ft)	Stop Distance (ft)	Length (ft)	MRI (in/mi)
17,697.00	18,225.00	528.00	174.83
18,225.00	18,753.00	528.00	118.14
18,753.00	18,810.67	56.83	128.60





CITY OF COLUSA

425 WEBSTER ST.
COLUSA, CA 95932
(530) 458-3320

January 4, 2016

Sarju Patel, P.E.
California Department of Transportation
District 3 – Maintenance Engineering Design
703 B Street
Marysville, CA 95901

Dear Mr. Patel,

In regards to your inquiry about obtaining water from the City of Colusa for roadway project on Route 45 between Colusa and Princeton scheduled for June 2016, we have sufficient potable water for your needs. We have hydrant meters for these situations. Hydrant meter applications for bulk water can be obtained at City Hall, 425 Webster st. Colusa CA. A \$500 deposit is required. There is a \$30 monthly charge, and water rate of \$1.36 per hundred cubic feet.

We can place a meter along Main street, near the Cal Trans Yard on Will S Green Ave, or a location that you might find more convenient. I ask that you give me 2 weeks notice in order to place the hydrant where and when you need it.

Sincerely,

Todd Heidrick
Utilities Superintendent
City of Colusa
530.682.9361
wastewater@cityofcolusa.com



P.O. Box 98
Princeton, CA 95970
(530) 439-2248
(530) 439-2163 Fax

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Bill Weller

Ron Withrow

STAFF

J. MARK ATLAS
Attorney

LANCE BOYD
Manager/Treasurer

ANDREA ROACH
Board Secretary

January 14, 2016

Sarju Patel, P.E.
California Department of Transportation
District 3-Maintenance Engineering Design
703 B Street
Marysville, CA 95901

Dear Mr. Patel,

The Princeton-Codora-Glenn Irrigation District would normally have water in our canal system during the time of your proposed construction project. We do not however know whether the continuing drought conditions might adversely impact our available water supply this year. If we have water in our system during the time of your need, we should be able to provide the amount you have requested.

Please let us know if you need any further information.

Sincerely,

Lance Boyd
PCGID Manager