

ELLISON, SCHNEIDER & HARRIS L.L.P.

CHRISTOPHER T. ELLISON
ANNE J. SCHNEIDER
JEFFERY D. HARRIS
DOUGLAS K. KERNER
ROBERT E. DONLAN
ANDREW B. BROWN
GREGGORY L. WHEATLAND
CHRISTOPHER M. SANDERS
LYNN M. HAUG
PETER J. KIEL

ATTORNEYS AT LAW
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CALIFORNIA 95816
TELEPHONE (916) 447-2166 FAX (916) 447-3512

ELIZABETH P. EWENS, OF COUNSEL
BRIAN S. BIERING
TERESA W. CHAN
SHANE E. GONWAY
KATHRYN C. COTTER
JEDEDIAH J. GIBSON
CHASE B. KAPPEL
SAMANTHA G. POTTENGER

January 8, 2010

DOCKET	
09-AFC-5	
DATE	<u>JAN 08 2009</u>
RECD.	<u>JAN 08 2009</u>

Commissioner Julia Levin, Presiding Member
Vice Chair James D. Boyd, Associate Member
Mr. Craig Hoffman, Project Manager
Abengoa Mojave Solar Project (09-AFC-5)
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Abengoa Mojave Solar Project (09-AFC-5): Replacement Written Response to Visual Resources Data Request Set 1B, Item 74 and Information Requested by Tom Packard

Dear Commissioners Levin and Boyd:

Abengoa Solar Inc. (the "Applicant") hereby files this correction to the Table in response to Item 74 of Data Request Set 1B promulgated by Staff on October 22, 2009. Additionally, we are responding to verbal requests by Tom Packard regarding Visual Resources.

The Applicant appreciates Staff's time and efforts reviewing the enclosed materials. The Applicant looks forward to working with Staff to achieve complete and satisfactory resolution of all issues in a timely manner. Thank you for your time and consideration of this matter.

Sincerely,

Christopher T. Ellison
Shane E. Conway
Ellison, Schneider & Harris, L.L.P.
Attorneys for Abengoa Solar Inc.

Attachment

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Application for Certification for the)
ABENGOA MOJAVE SOLAR POWER PLANT) Docket No. 09-AFC-5
)
)
_____)

PROOF OF SERVICE

I, Karen A. Mitchell, declare that on January 8, 2010, I served the attached *Replacement Written Response to Visual Resources Data Request Set 1B, Item 74 and Information Requested by Tom Packard* via electronic and U.S. mail to all parties on the attached service list.

I declare under the penalty of perjury that the foregoing is true and correct.



Karen A. Mitchell

SERVICE LIST
09-AFC-5

APPLICANT

Emiliano Garcia Sanz
General Manager
Abengoa Solar Inc.
11500 West 13th Avenue
Lakewood, CO 80215
emiliano.garcia@solar.abengoa.com

Scott D. Frier
Chief Operating Officer
Abengoa Solar Inc.
13911 Park Ave., Ste. 206
Victorville, CA 92392
scott.frier@solar.abengoa.com

Tandy McManes
2030 Addison Street, Suite 420
Berkeley, CA 94704
tandy.mcmannes@solar.abengoa.com

APPLICANT'S CONSULTANTS

Frederick H. Redell, PE
Redell Engineering, Inc.
1820 E. Garry Ave., Ste. 116
Santa Ana, CA 92705
fred@redellengineering.com

COUNSEL FOR APPLICANT

Christopher T. Ellison
Ellison, Schneider & Harris
2600 Capitol Ave.
Sacramento, CA 95816
cte@eslawfirm.com

INTERESTED AGENCIES

California ISO
e-recipient@caiso.com

INTERVENORS

California Unions for Reliable Energy
Tanya A. Gulesserian
Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com

ENERGY COMMISSION

JULIA LEVIN
Commissioner and Presiding Member
jlevin@energy.state.ca.us

JAMES D. BOYD
Vice Chairman and Associate Member
jboyd@energy.state.ca.us

Paul Kramer
Hearing Officer
pkramer@energy.state.ca.us

Chris Hoffman
Project Manager
choffman@energy.state.ca.us

Christine Hammond
Staff Counsel
chammond@energy.state.ca.us

Public Adviser's Office
publicadviser@energy.state.ca.us

Visual Resources

Item 74:

Information Required:

Please provide the variation in average cooling tower heat load per hour (military time) for each month.

Response (CORRECTED):

Table 1 below provides the variation in average cooling tower heat load per hour for each month, as a percentage of full load.

Table 1: Variation in Average Cooling Tower Heat Load per Hour for Each Month

Time (HRS)	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
Month																								
Jan	0%	0%	0%	0%	0%	0%	0%	0%	3%	43%	42%	36%	32%	43%	40%	51%	0%	0%	0%	0%	0%	0%	0%	0%
Feb	0%	0%	0%	0%	0%	0%	0%	0%	25%	57%	51%	48%	45%	51%	54%	62%	30%	0%	0%	0%	0%	0%	0%	0%
Mar	0%	0%	0%	0%	0%	0%	0%	21%	81%	85%	85%	81%	80%	80%	81%	74%	65%	1%	0%	0%	0%	0%	0%	0%
Apr	0%	0%	0%	0%	0%	0%	0%	60%	89%	91%	97%	94%	91%	89%	90%	89%	77%	14%	0%	0%	0%	0%	0%	0%
May	0%	0%	0%	0%	0%	0%	35%	93%	98%	100%	100%	100%	99%	98%	97%	90%	84%	44%	0%	0%	0%	0%	0%	0%
Jun	0%	0%	0%	0%	0%	0%	54%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	73%	0%	0%	0%	0%	0%	0%
Jul	0%	0%	0%	0%	0%	0%	39%	93%	97%	97%	99%	100%	99%	97%	94%	94%	82%	62%	0%	0%	0%	0%	0%	0%
Aug	0%	0%	0%	0%	0%	0%	3%	94%	100%	100%	100%	100%	100%	99%	95%	95%	87%	46%	0%	0%	0%	0%	0%	0%
Sep	0%	0%	0%	0%	0%	0%	0%	73%	100%	100%	97%	93%	87%	88%	88%	94%	72%	2%	0%	0%	0%	0%	0%	0%
Oct	0%	0%	0%	0%	0%	0%	0%	20%	69%	82%	72%	70%	67%	76%	84%	85%	21%	0%	0%	0%	0%	0%	0%	0%
Nov	0%	0%	0%	0%	0%	0%	0%	0%	31%	55%	48%	45%	45%	48%	55%	44%	0%	0%	0%	0%	0%	0%	0%	0%
Dec	0%	0%	0%	0%	0%	0%	0%	0%	3%	45%	36%	32%	36%	45%	44%	42%	0%	0%	0%	0%	0%	0%	0%	0%

Notes: Time shown is standard time (does not reflect daylight savings time).

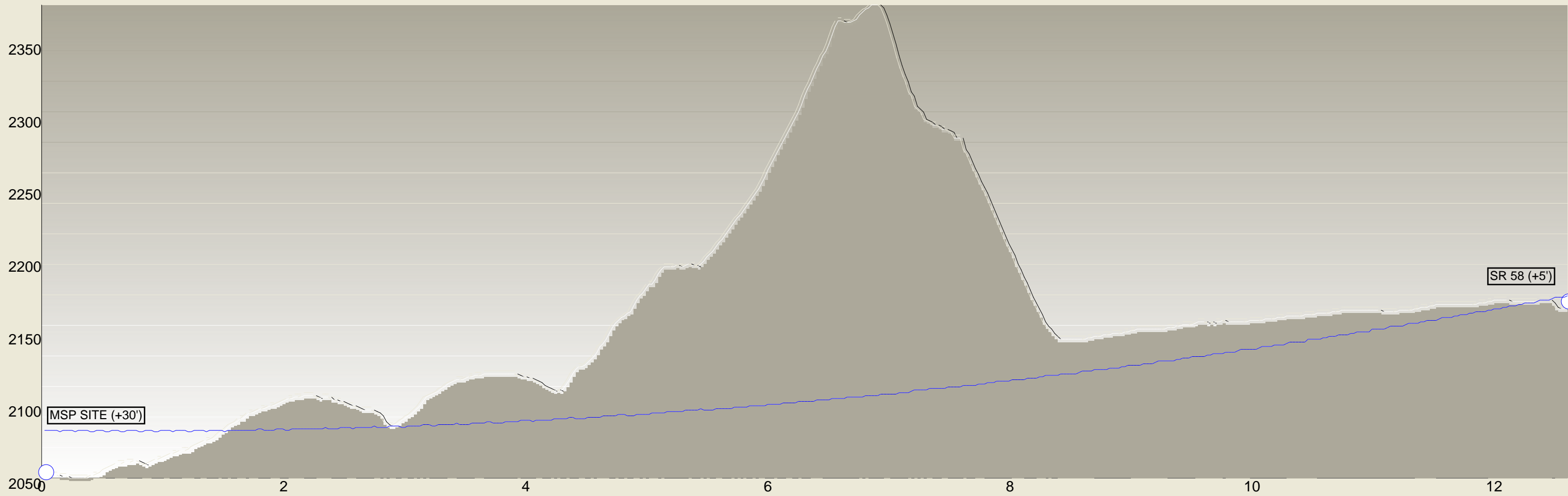
Verbal Requests from Tom Packard

Information Requested:

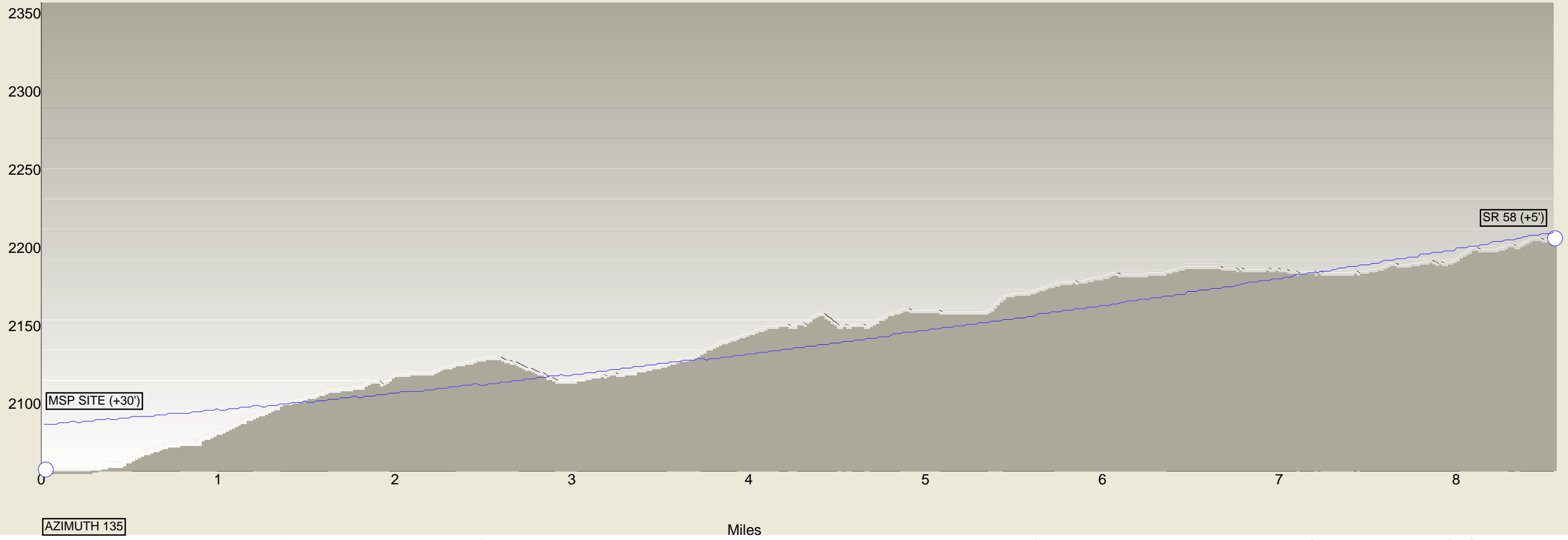
1. Did the visual analysis provided assume a height of finish grade for the analysis? (i.e. did the analysis assume an average height of the equipment?)
2. Did the analysis use USGS mapping?
3. Are there cross-sections available from points along HWY 58 that show the topography obscuring the facility?

Response:

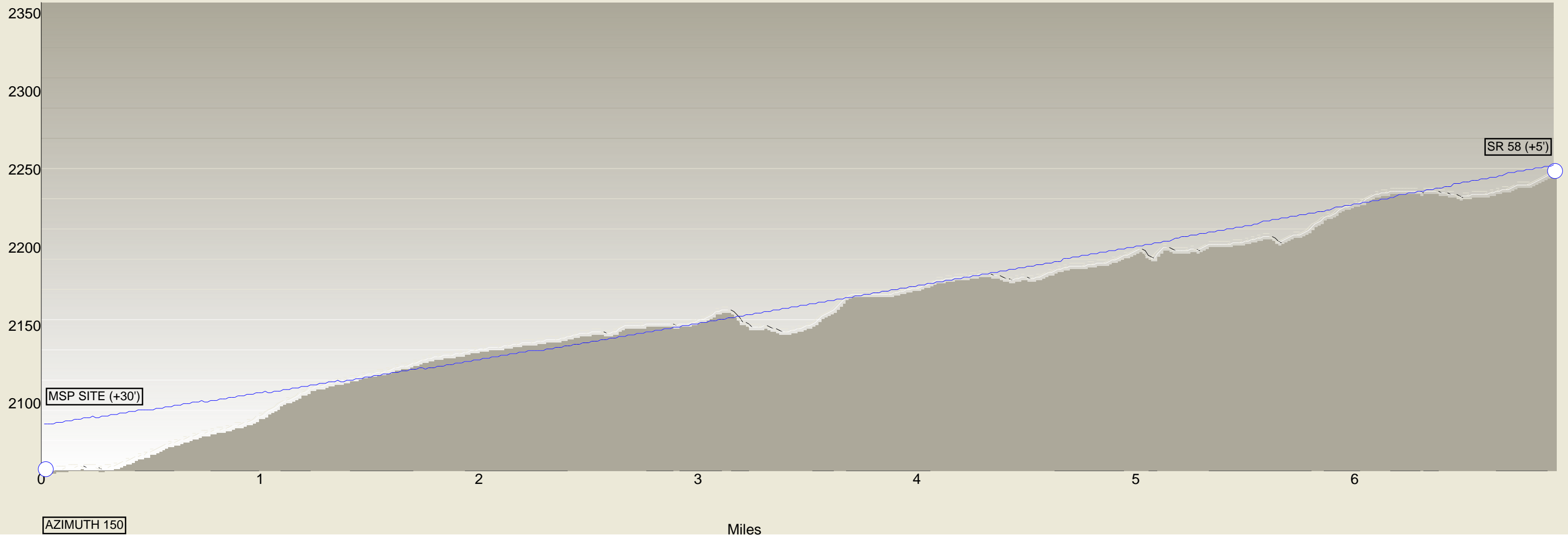
1. The analysis used an equipment height of 30 feet above the elevations set for the power islands. This was based upon the mid-point of the tallest structures in the power island area. Then, topography software which is based upon the USGS maps was used to take a cross-section profile at 15 degree azimuth increments around the project site and out to a 15-mile radius.
2. Yes, the software employed is based upon USGS mapping.
3. The following pages contain a base map and cross sections at 15 degree intervals between Highway 58 and the project site. Lines of sight are shown on the cross sections to clarify where topographic visual barriers exist between the highway and the site. The lines-of-sight were set at 30 feet above power island grade at the plant site, as noted previously in response 1, and at 5 feet above road surface on Highway 58 to account for the height of the viewer. Note that the lines-of-sight shown are not straight, but curved to take into account the curvature of the earth over this extended sight distance.



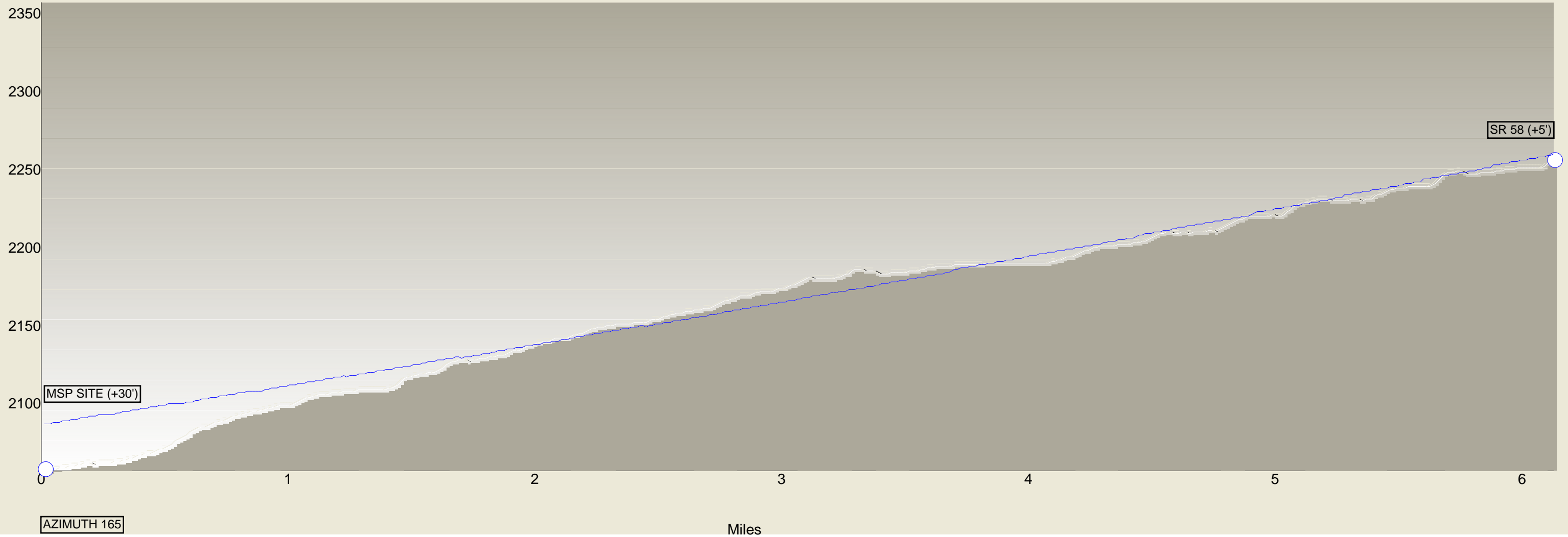
		Miles		Coordinates:	
Total distance:	12 miles, 3187 feet	Climbing:	404 feet	Sec 32 T011N R004W CA San Bernar	
Ground distance:	12 miles, 3196 feet	Descending:	-286 feet	Elevation:	2057 feet
		Elevation change:	117 feet	Grade:	0%
		Min/Max:	2054/2381		



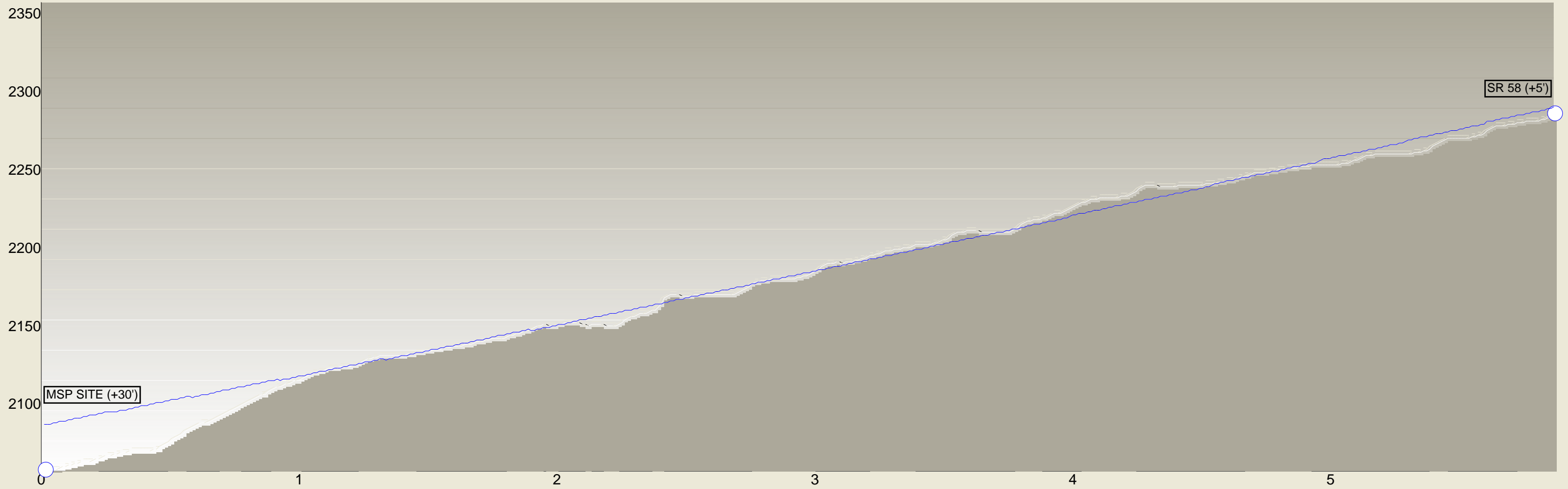
Total distance:	8 miles, 2907 feet	Climbing:	194 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	8 miles, 2909 feet	Descending:	-45 feet	Elevation:	2057 feet
		Elevation change:	148 feet	Grade:	0%
		Min/Max:	2057/2206		



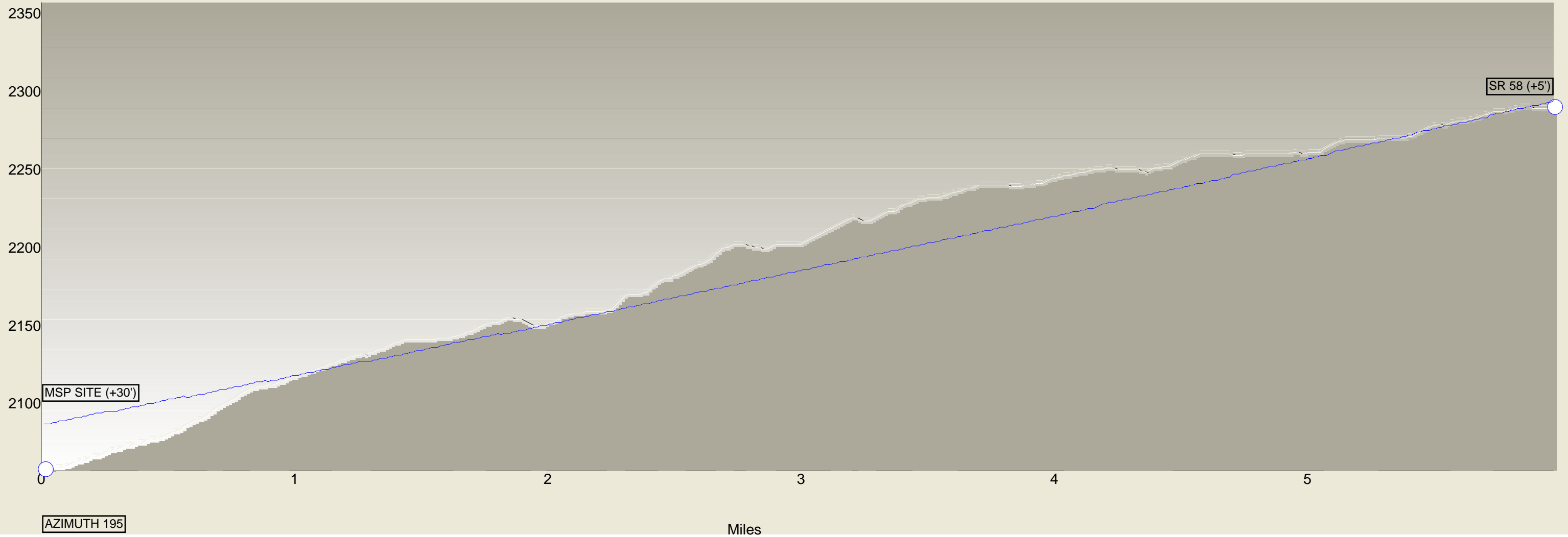
Total distance:	6 miles, 4796 feet	Climbing:	232 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	6 miles, 4798 feet	Descending:	-41 feet	Elevation:	2057 feet
		Elevation change:	191 feet	Grade:	0%
		Min/Max:	2057/2248		



Total distance:	6 miles, 674 feet	Climbing:	213 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	6 miles, 675 feet	Descending:	-15 feet	Elevation:	2059 feet
		Elevation change:	198 feet	Grade:	0%
		Min/Max:	2057/2255		



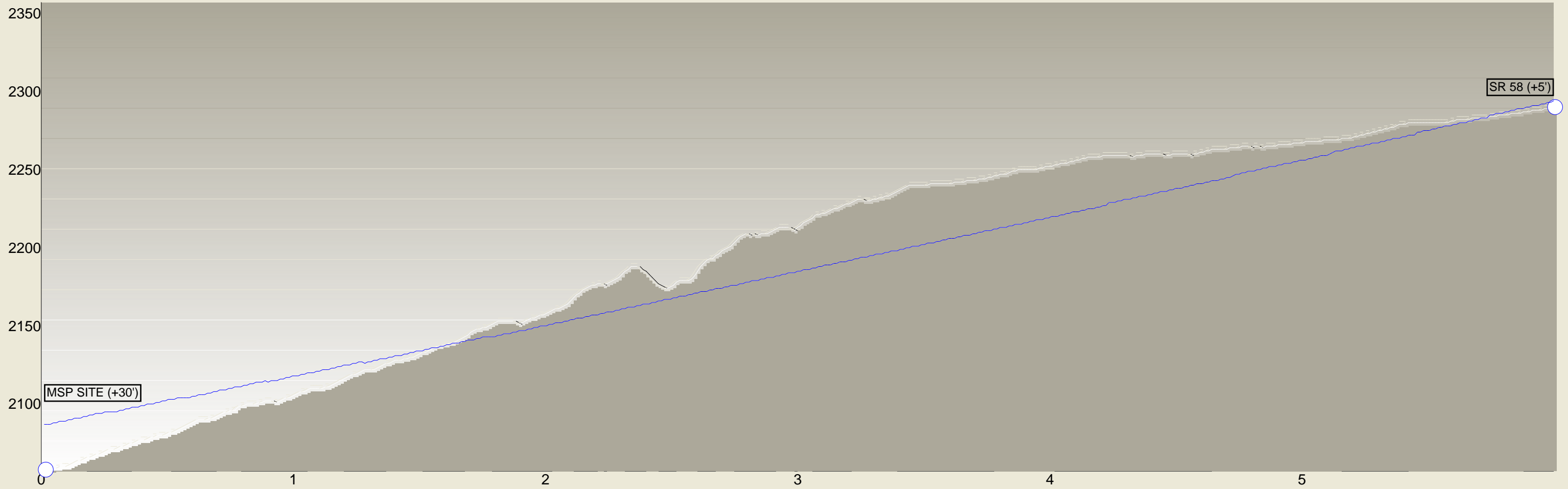
		Miles			
Total distance:	5 miles, 4562 feet	Climbing:	236 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	5 miles, 4564 feet	Descending:	-8 feet	Elevation:	2057 feet
		Elevation change:	228 feet	Grade:	0%
		Min/Max:	2057/2285		



AZIMUTH 195

Miles

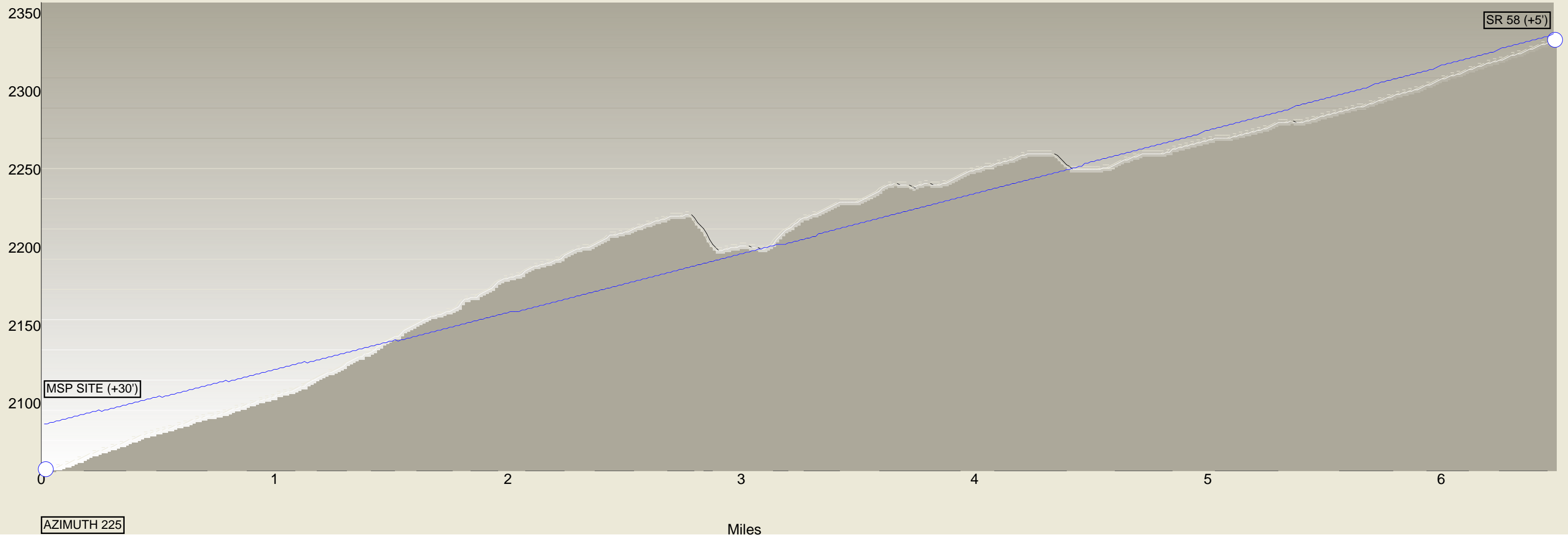
Total distance:	5 miles, 5129 feet	Climbing:	252 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	5 miles, 5131 feet	Descending:	-19 feet	Elevation:	2057 feet
		Elevation change:	232 feet	Grade:	0%
		Min/Max:	2057/2290		



AZIMUTH 210

Miles

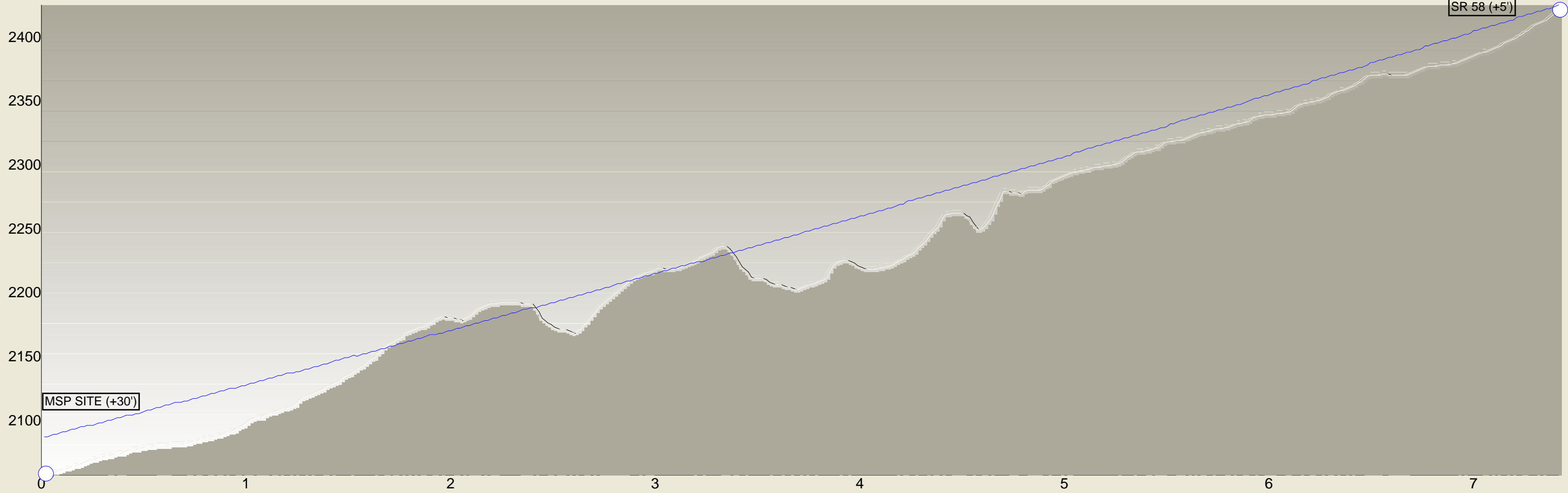
Total distance:	5 miles, 5264 feet	Climbing:	257 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	5 miles, 5266 feet	Descending:	-25 feet	Elevation:	2058 feet
		Elevation change:	231 feet	Grade:	0%
		Min/Max:	2057/2289		



AZIMUTH 225

Miles

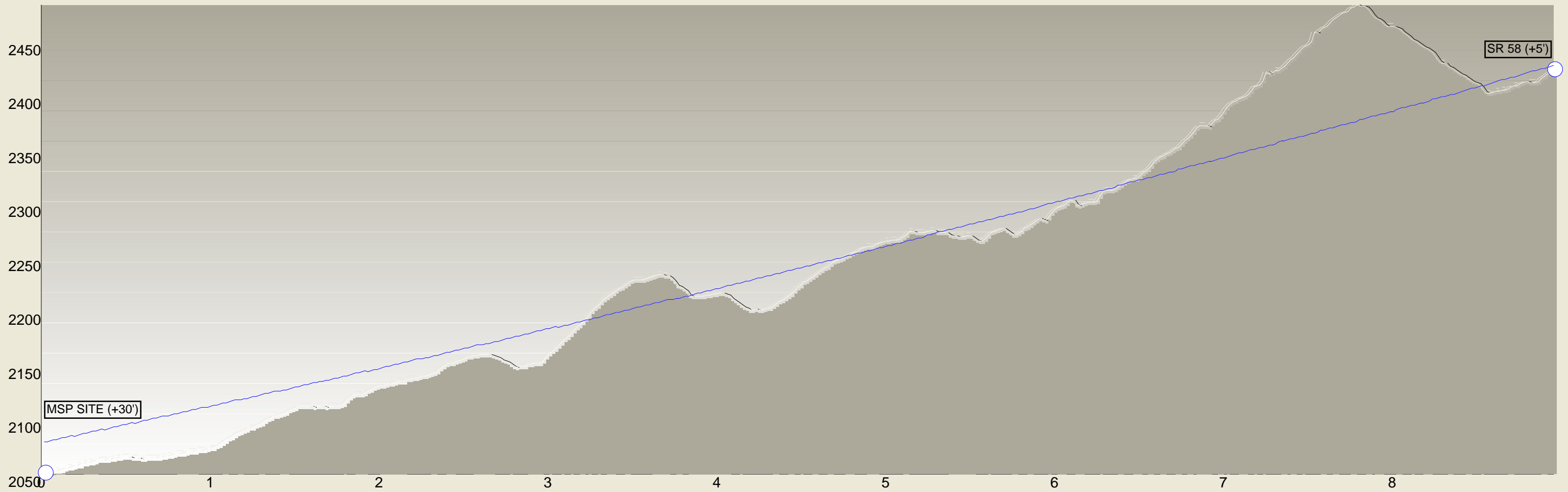
Total distance:	6 miles, 2542 feet	Climbing:	314 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	6 miles, 2545 feet	Descending:	-39 feet	Elevation:	2057 feet
		Elevation change:	274 feet	Grade:	0%
		Min/Max:	2057/2332		



AZIMUTH 240

Miles

Total distance:	7 miles, 2194 feet	Climbing:	450 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	7 miles, 2200 feet	Descending:	-87 feet	Elevation:	2059 feet
		Elevation change:	362 feet	Grade:	1%
		Min/Max:	2057/2420		



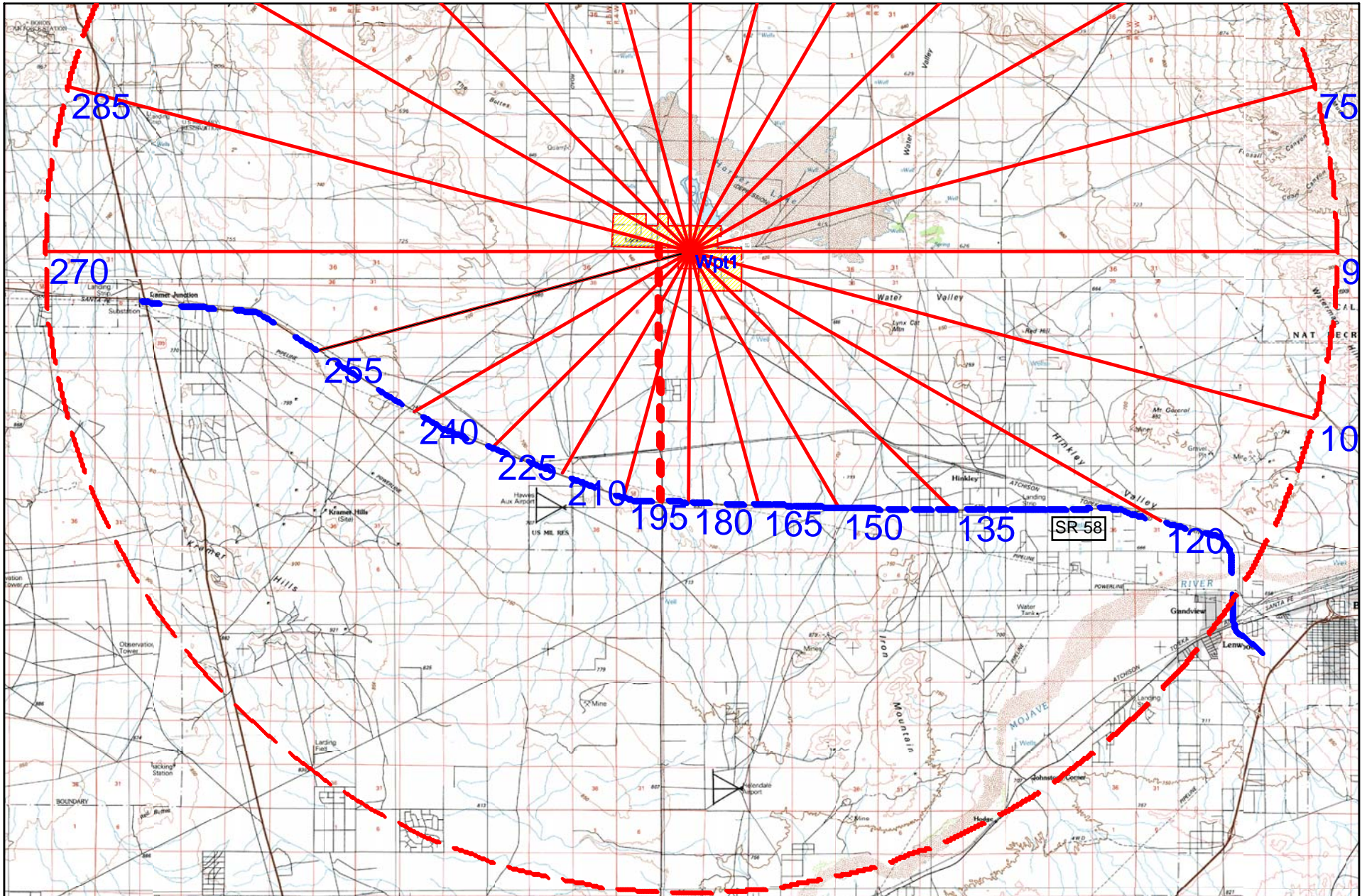
AZIMUTH 255

MSP SITE (+30')

SR 58 (+5')

Miles

Total distance:	8 miles, 5044 feet	Climbing:	539 feet	Coordinates:	Sec 32 T011N R004W CA San Bernar
Ground distance:	8 miles, 5052 feet	Descending:	-164 feet	Elevation:	2057 feet
		Elevation change:	374 feet	Grade:	0%
		Min/Max:	2057/2492		



Name: CUDDEBACK LAKE
 Date: 1/6/2010
 Scale: 1 inch equals 3.157 miles

Location: Sec 20 T010N R004W CA San Bernardino
 Caption: Mojave Solar Project - SR 58 Visibility