

## TABLE OF FIGURES

Figure 1 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Aqua 1).....	4
Figure 2 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Aqua 1) .....	5
Figure 3 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Aqua 1) .....	6
Figure 4 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Aqua 1).....	7
Figure 5 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Aqua 1).....	8
Figure 6 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Aqua 1).....	9
Figure 7 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Aqua 1).....	10
Figure 8 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Aqua 2).....	11
Figure 9 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Aqua 2) .....	12
Figure 10 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Aqua 2) .....	13
Figure 11 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Aqua 2).....	14
Figure 12 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Aqua 2).....	15
Figure 13 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Aqua 2).....	16
Figure 14 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Aqua 2) .....	17
Figure 15 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Green 1) .....	18
Figure 16 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Green 1).....	19
Figure 17 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Green 1).....	20
Figure 18 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Green 1) .....	21
Figure 19 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Green 1) .....	22
Figure 20 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Green 1) .....	23
Figure 21 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Green 1).....	24
Figure 22 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Green 2) .....	25
Figure 23 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Green 2).....	26
Figure 24 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Green 2).....	27
Figure 25 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Green 2) .....	28
Figure 26 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Green 2) .....	29
Figure 27 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Green 2) .....	30
Figure 28 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Green 2).....	31
Figure 29 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Magenta 1).....	32
Figure 30 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Magenta 1) .....	33
Figure 31 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Magenta 1) .....	34
Figure 32 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Magenta 1).....	35
Figure 33 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Magenta 1).....	36
Figure 34 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Magenta 1).....	37
Figure 35 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Magenta 1) .....	38
Figure 36 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Magenta 2).....	39
Figure 37 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Magenta 2) .....	40
Figure 38 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Magenta 2) .....	41
Figure 39 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Magenta 2).....	42
Figure 40 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Magenta 2).....	43
Figure 41 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Magenta 2).....	44
Figure 42 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Magenta 2) .....	45
Figure 43 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Maroon 1).....	46
Figure 44 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Maroon 1) .....	47
Figure 45 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Maroon 1) .....	48
Figure 46 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Maroon 1) .....	49
Figure 47 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Maroon 1) .....	50
Figure 48 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Maroon 1) .....	51

Figure 49 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Maroon 1) .....	52
Figure 50 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Maroon 2).....	53
Figure 51 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Maroon 2) .....	54
Figure 52 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Maroon 2) .....	55
Figure 53 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Maroon 2) .....	56
Figure 54 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Maroon 2) .....	57
Figure 55 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Maroon 2) .....	58
Figure 56 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Maroon 2) .....	59
Figure 57 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Original) .....	60
Figure 58 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Original).....	61
Figure 59 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Original).....	62
Figure 60 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Original) .....	63
Figure 61 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Original) .....	64
Figure 62 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Original) .....	65
Figure 63 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Original) .....	66
Figure 64 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Red) .....	67
Figure 65 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Red).....	68
Figure 66 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Red).....	69
Figure 67 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Red) .....	70
Figure 68 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Red) .....	71
Figure 69 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Red) .....	72
Figure 70 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Red) .....	73
Figure 71 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Violet 1) .....	74
Figure 72 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Violet 1).....	75
Figure 73 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Violet 1).....	76
Figure 74 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Violet 1) .....	77
Figure 75 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Violet 1) .....	78
Figure 76 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Violet 1) .....	79
Figure 77 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Violet 1).....	80
Figure 78 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Violet 2) .....	81
Figure 79 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Violet 2).....	82
Figure 80 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Violet 2).....	83
Figure 81 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Violet 2) .....	84
Figure 82 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Violet 2) .....	85
Figure 83 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Violet 2) .....	86
Figure 84 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Violet 2).....	87
Figure 85 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Yellow 1) .....	88
Figure 86 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Yellow 1) .....	89
Figure 87 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Yellow 1) .....	90
Figure 88 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Yellow 1).....	91
Figure 89 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Yellow 1).....	92
Figure 90 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Yellow 1).....	93
Figure 91 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Yellow 1).....	94
Figure 92 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) (Yellow 2).....	95
Figure 93 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m <sup>3</sup> ) (Yellow 2) .....	96
Figure 94 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m <sup>3</sup> ) (Yellow 2) .....	97
Figure 95 Maximum predicted 24-hour ground level concentration for Al <sub>2</sub> O <sub>3</sub> as PM <sub>10</sub> (30 µg/m <sup>3</sup> ) (Yellow 2).....	98
Figure 96 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m <sup>3</sup> ) (Yellow 2).....	99
Figure 97 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m <sup>3</sup> ) (Yellow 2).....	100
Figure 98 99.9% predicted 1-hour ground level concentration for NO <sub>2</sub> (164 µg/m <sup>3</sup> ) (Yellow 2).....	101

Figure 99 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) from Aqua 1 (most north west launch pad) with respect to location of sensitive receptors .....	102
Figure 100 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) from Maroon 2 (most south east launch pad) with respect to location of sensitive receptors.....	103
Figure 101 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) from Original (most south west launch pad) with respect to location of sensitive receptors.....	104
Figure 102 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m <sup>3</sup> ) from Magenta 1 (closest launch pad to Garma Cultural Knowledge Centre) with respect to location of sensitive receptors .....	105

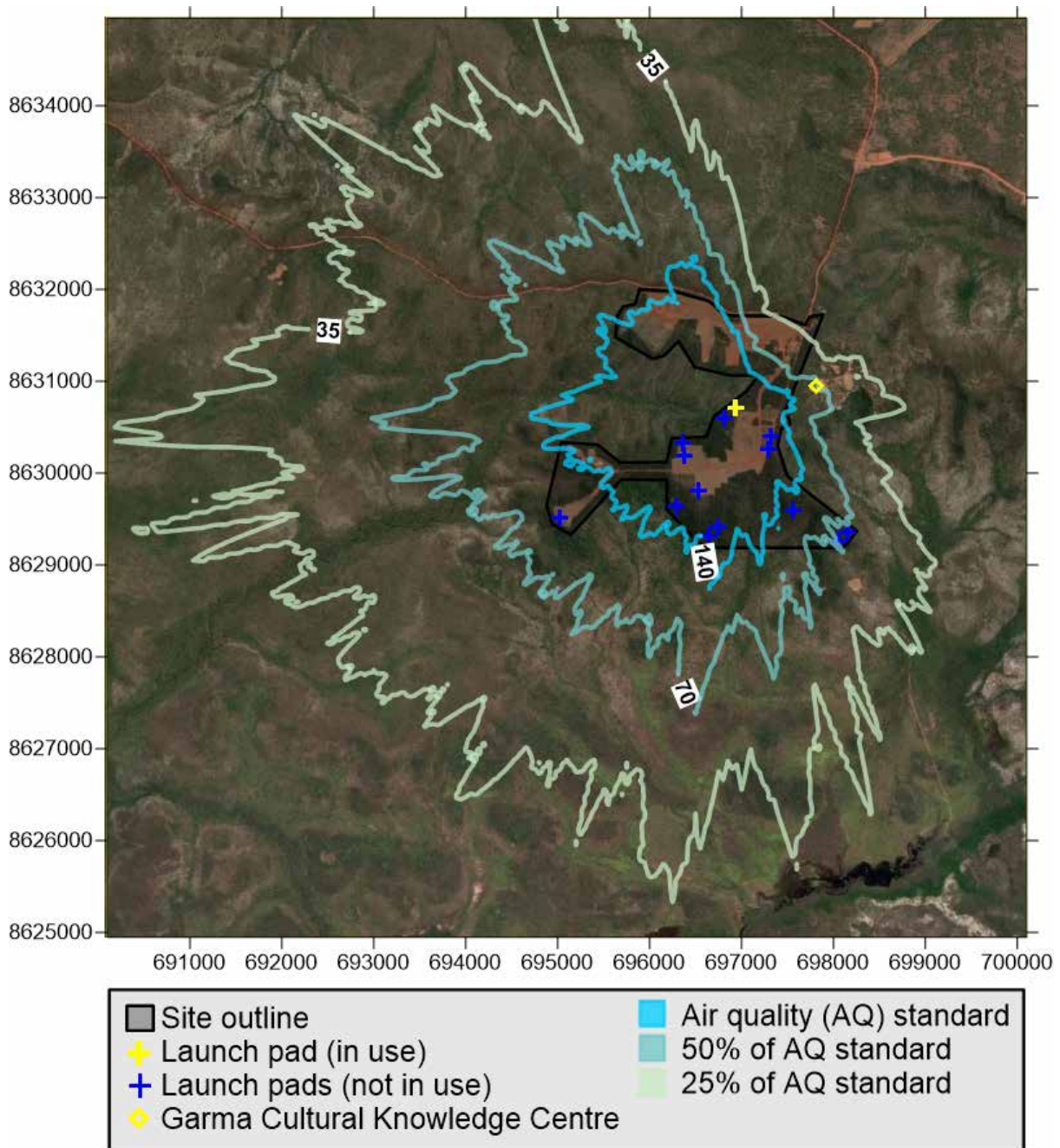


Figure 1 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Aqua 1)



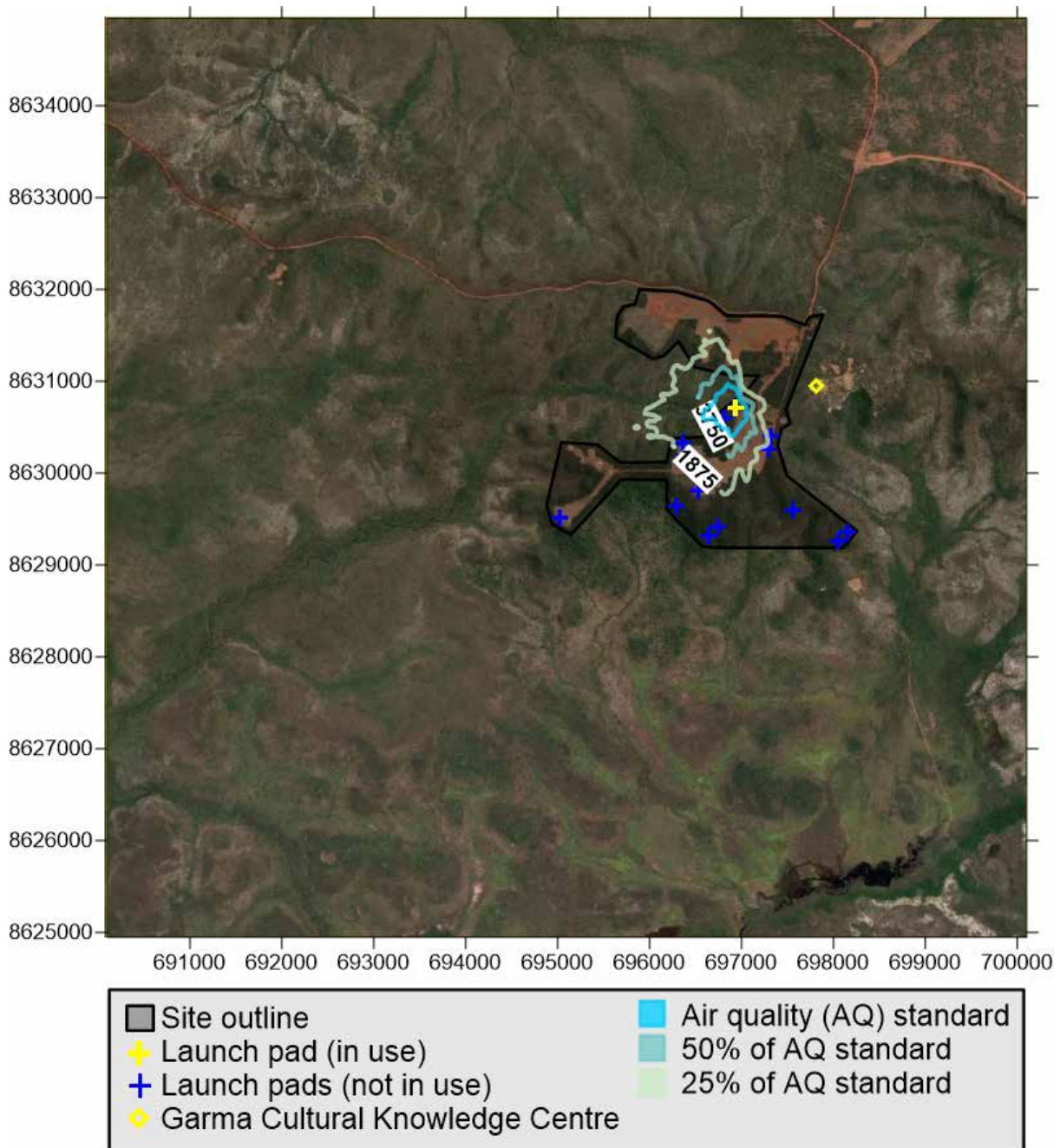


Figure 2 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Aqua 1)

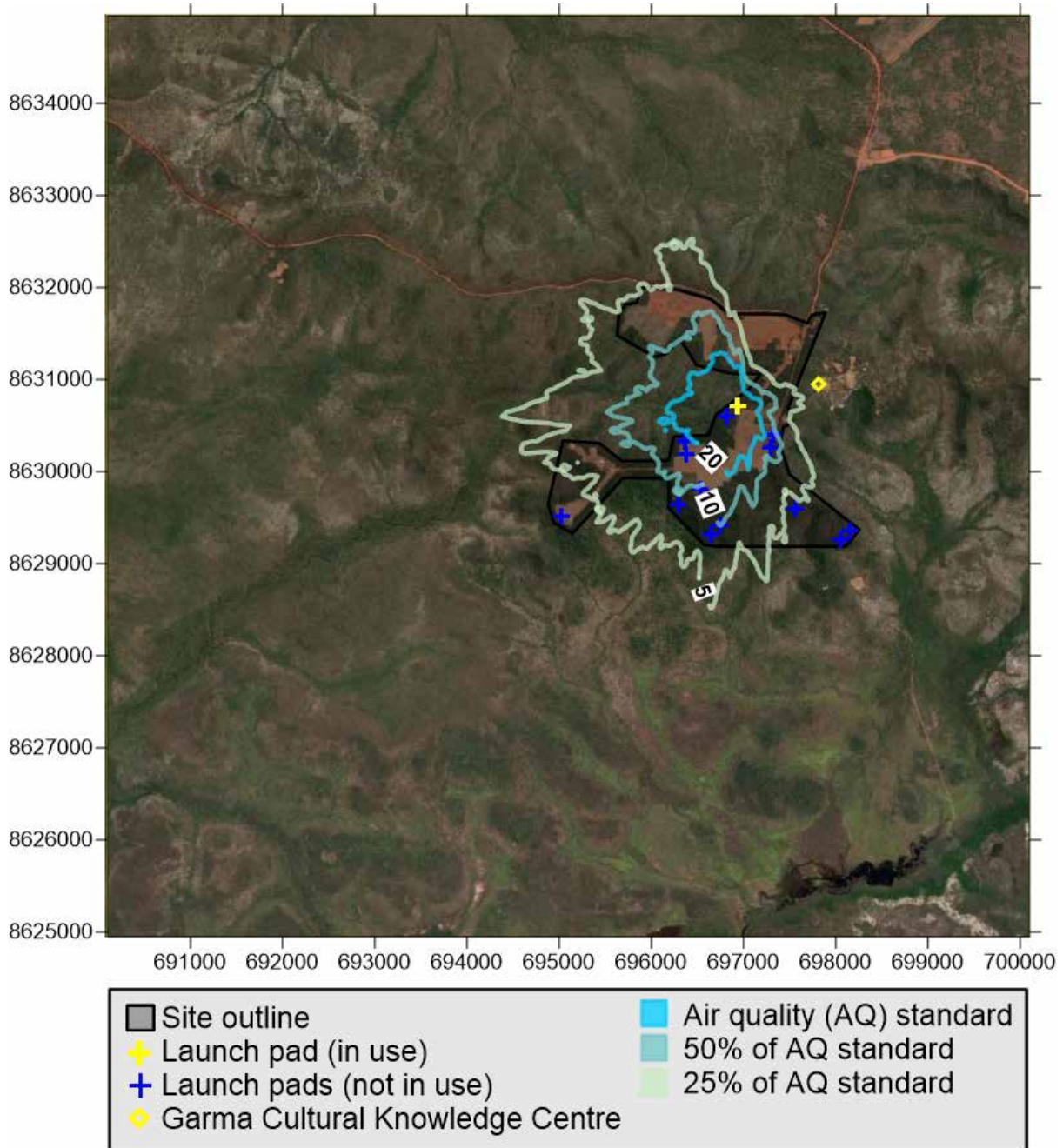


Figure 3 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Aqua 1)



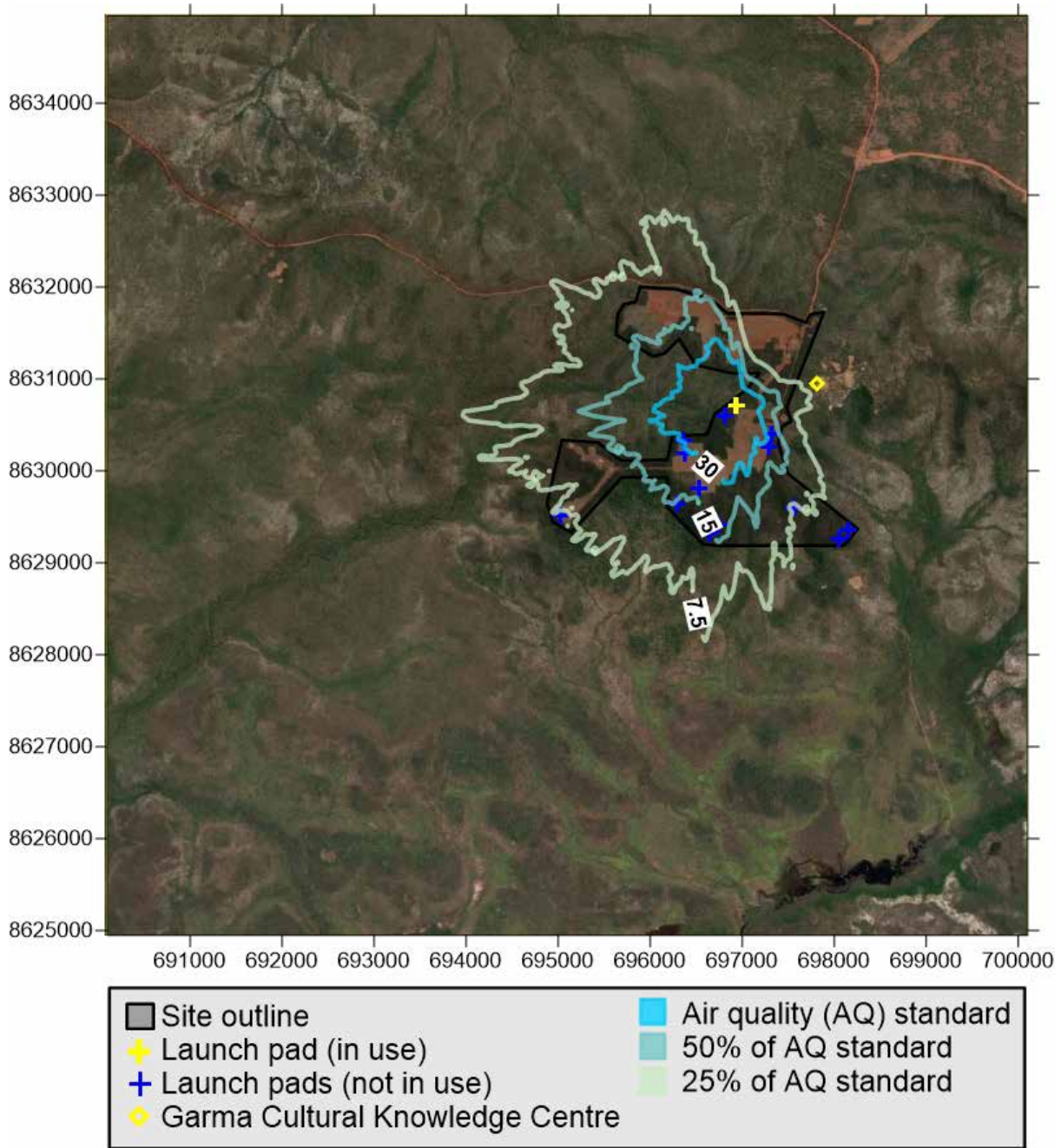


Figure 4 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Aqua 1)

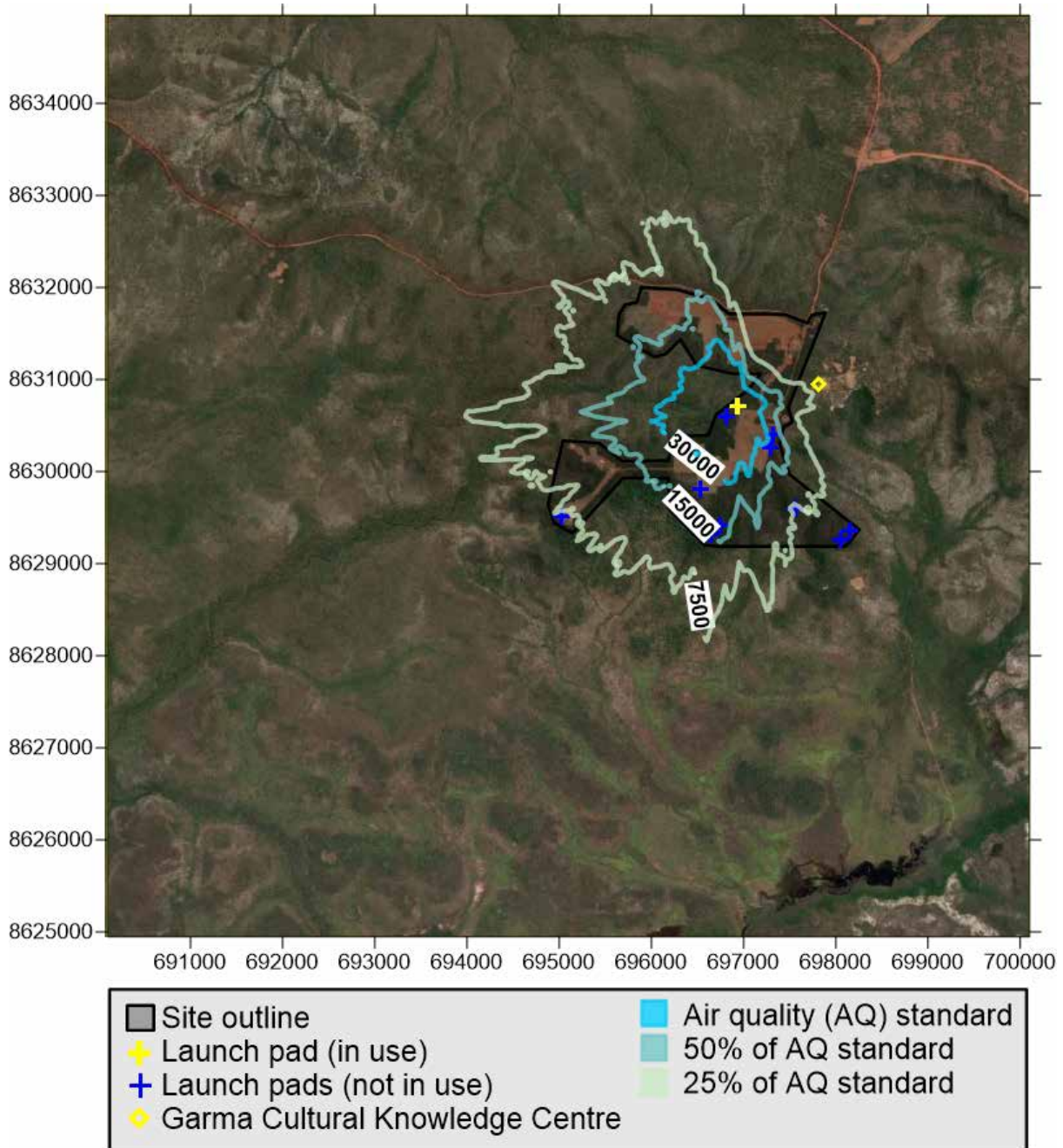


Figure 5 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Aqua 1)



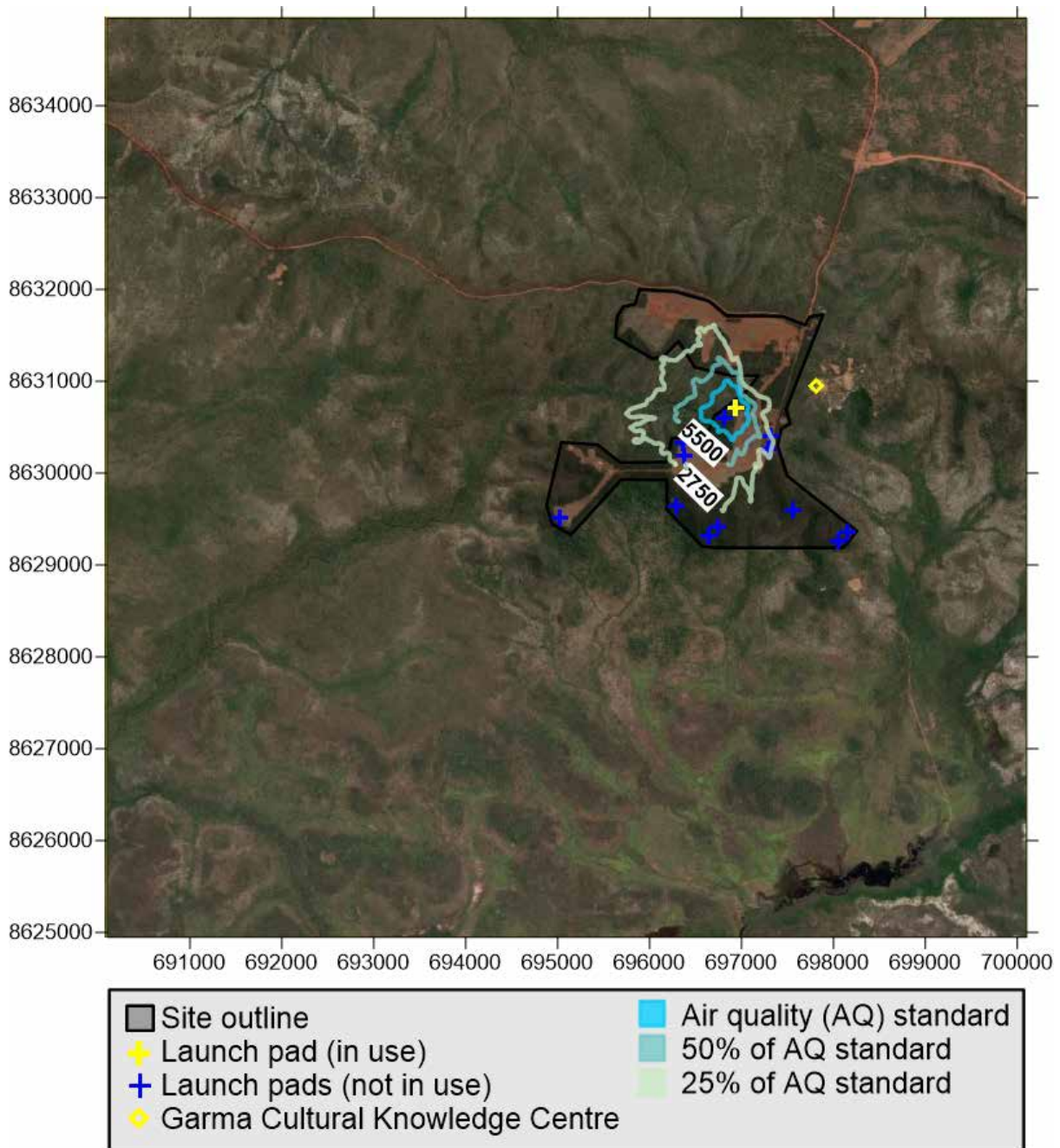


Figure 6 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Aqua 1)

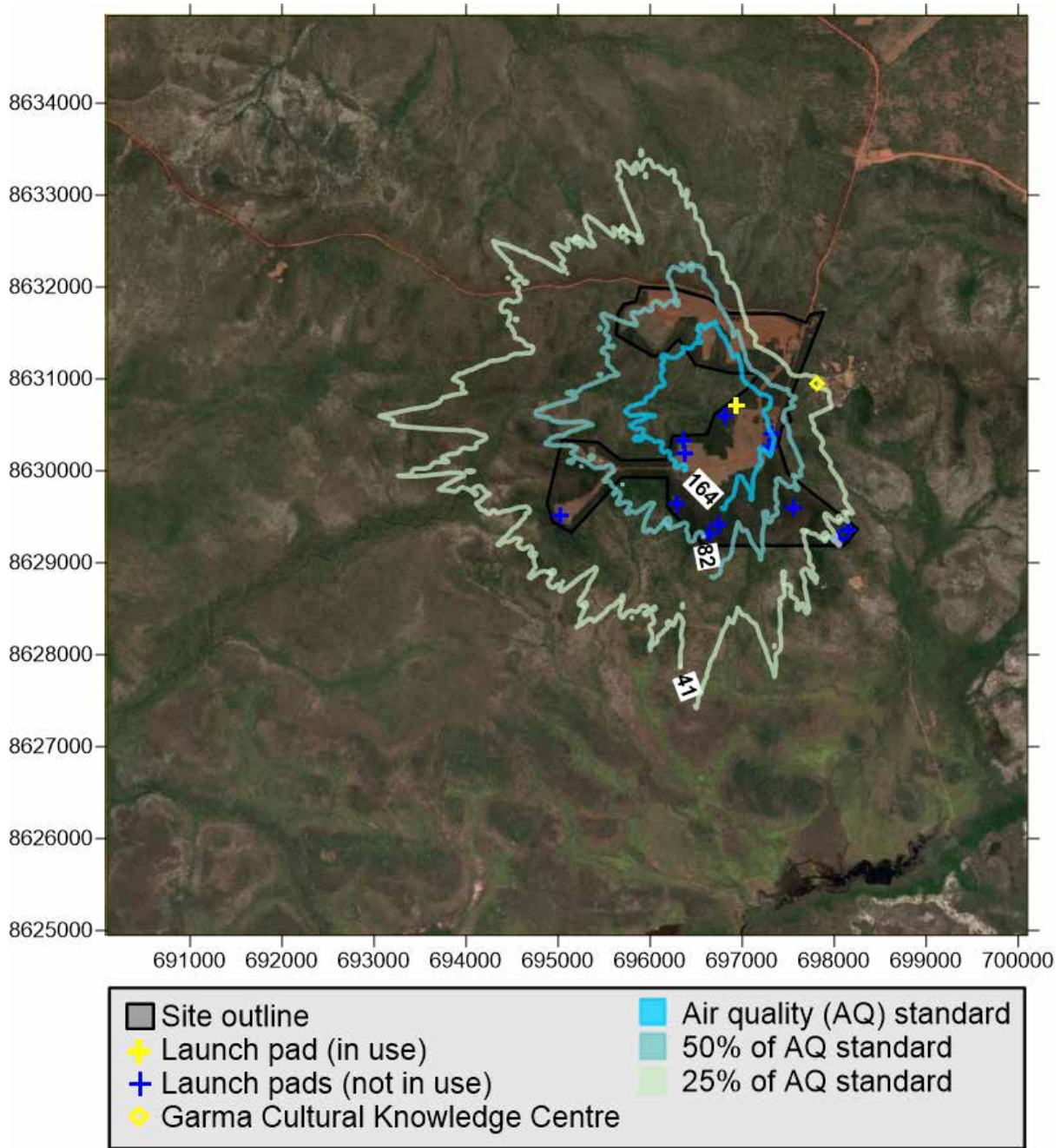


Figure 7 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Aqua 1)



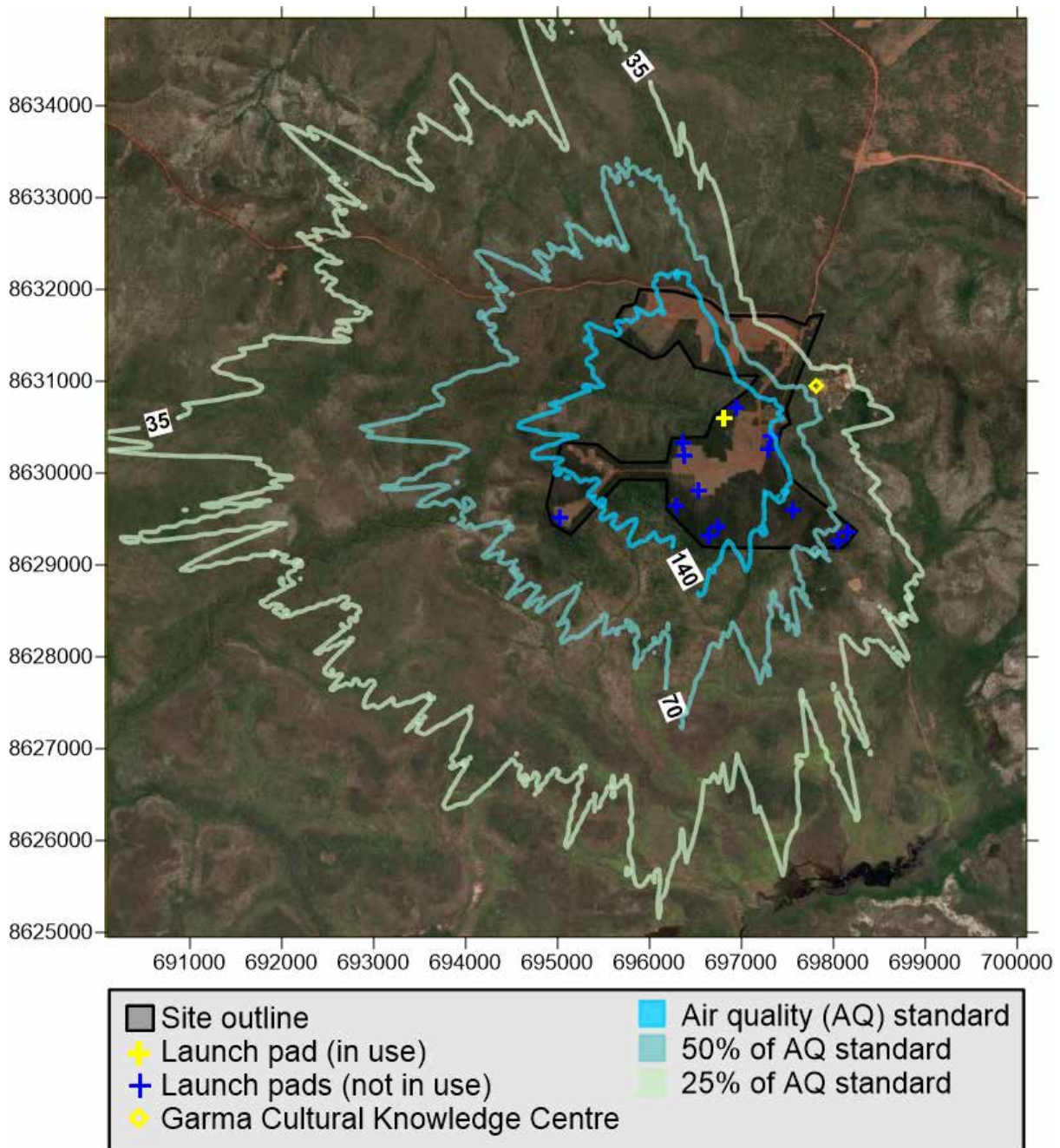


Figure 8 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Aqua 2)



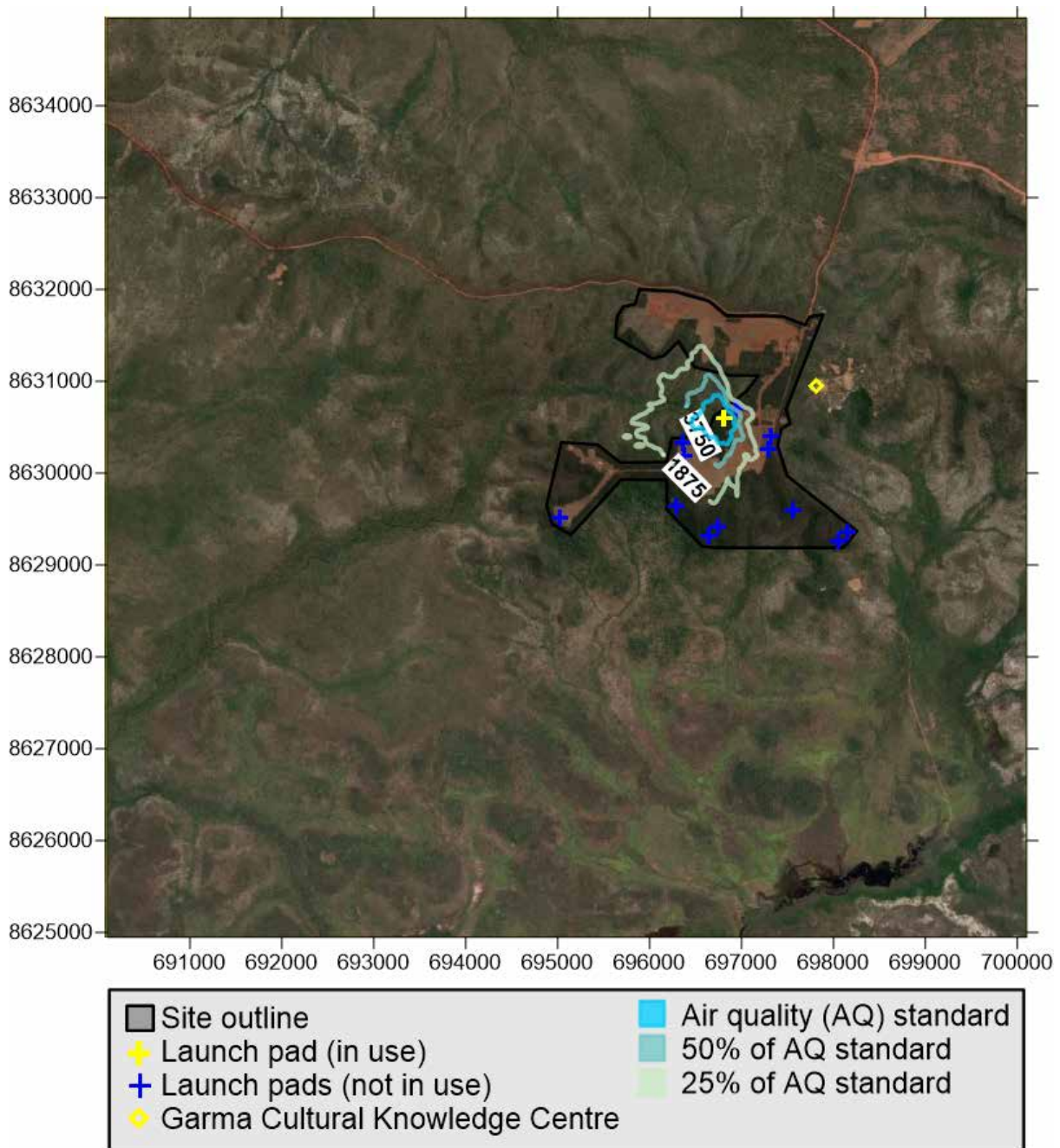


Figure 9 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m³) (Aqua 2)

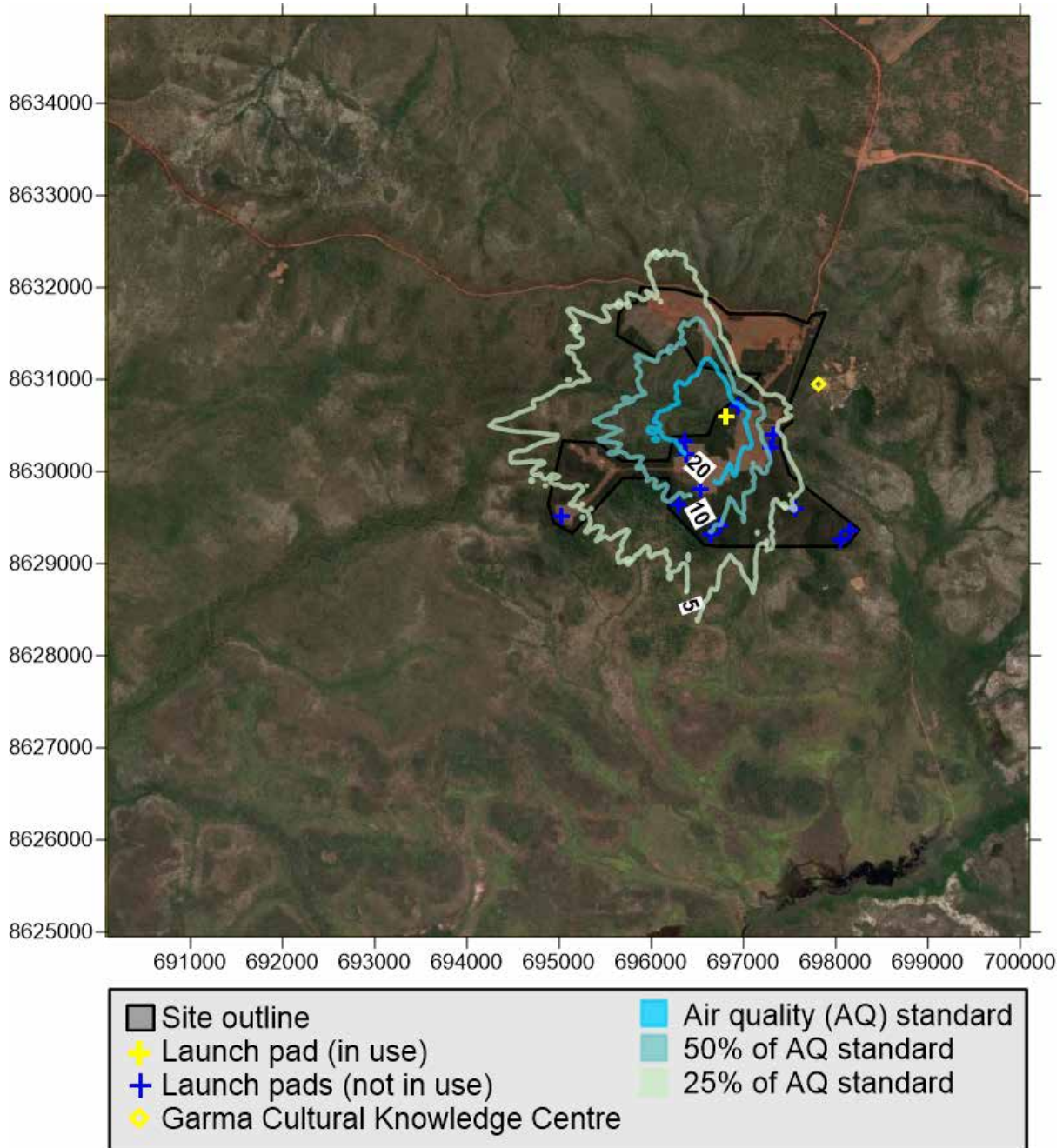


Figure 10 Maximum predicted 24-hour ground level concentration for HCl ( $20 \mu\text{g}/\text{m}^3$ ) (Aqua 2)



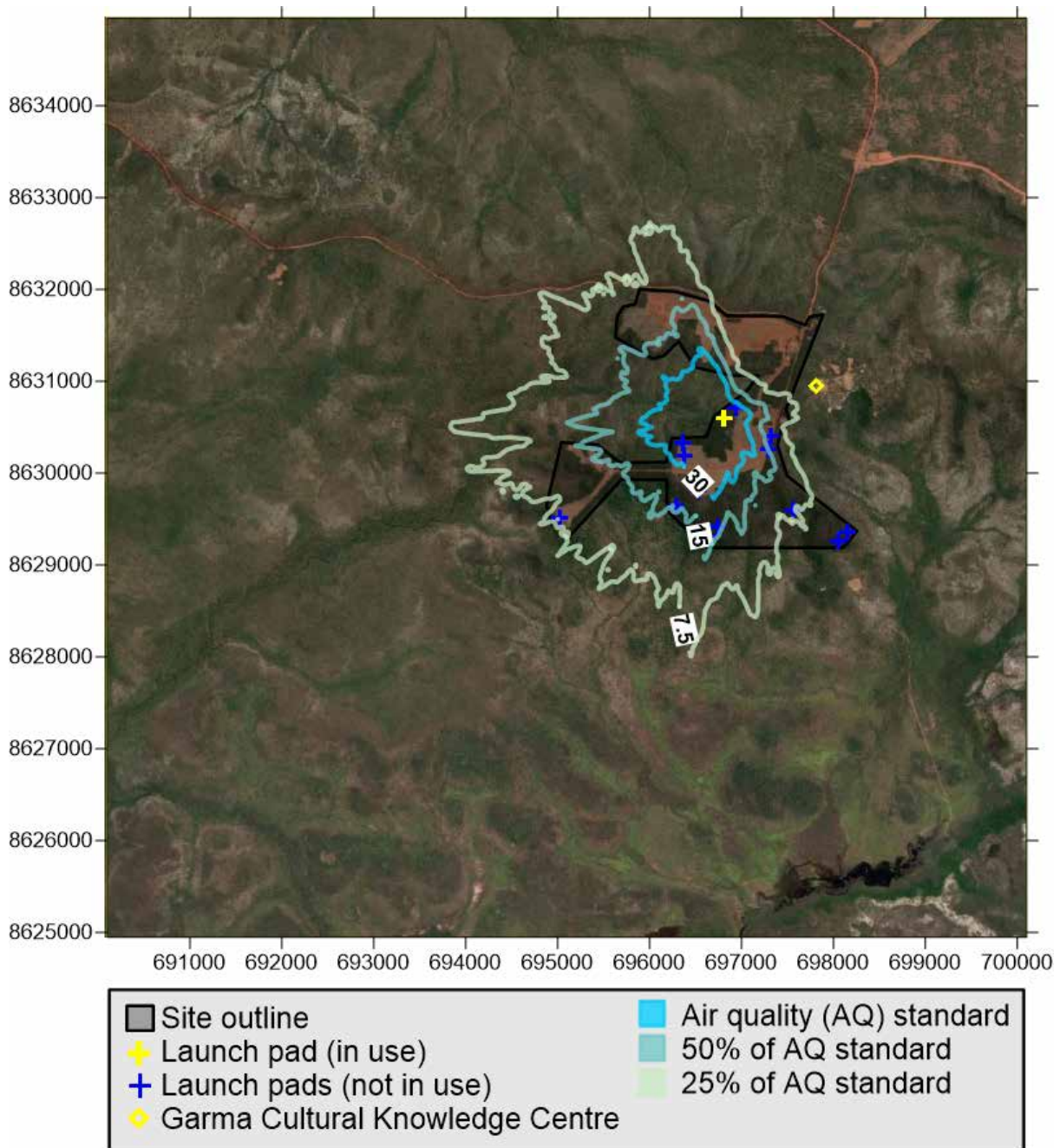


Figure 11 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Aqua 2)



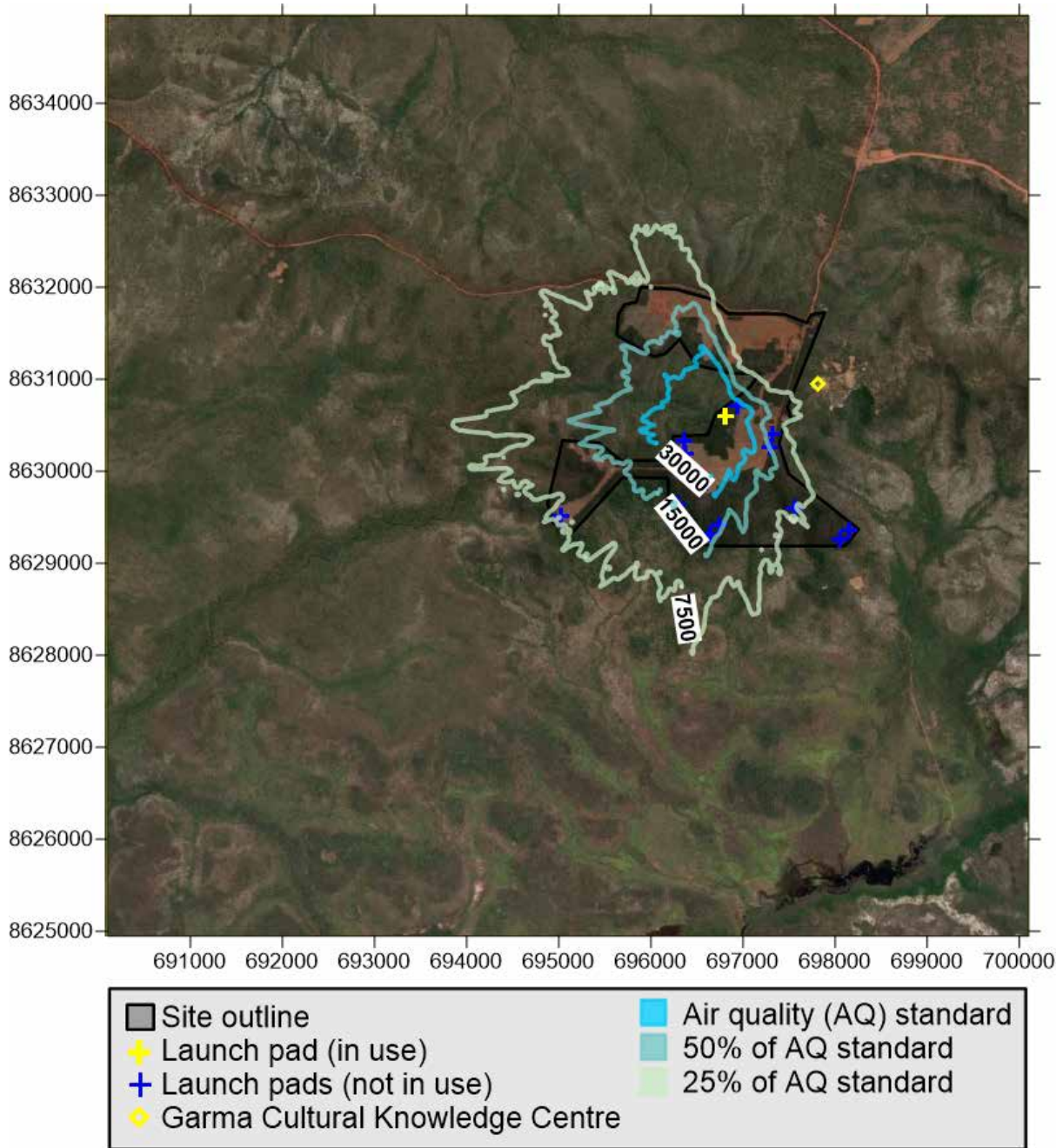


Figure 12 99.9% predicted 1-hour ground level concentration for CO ( $30,000 \mu\text{g}/\text{m}^3$ ) (Aqua 2)

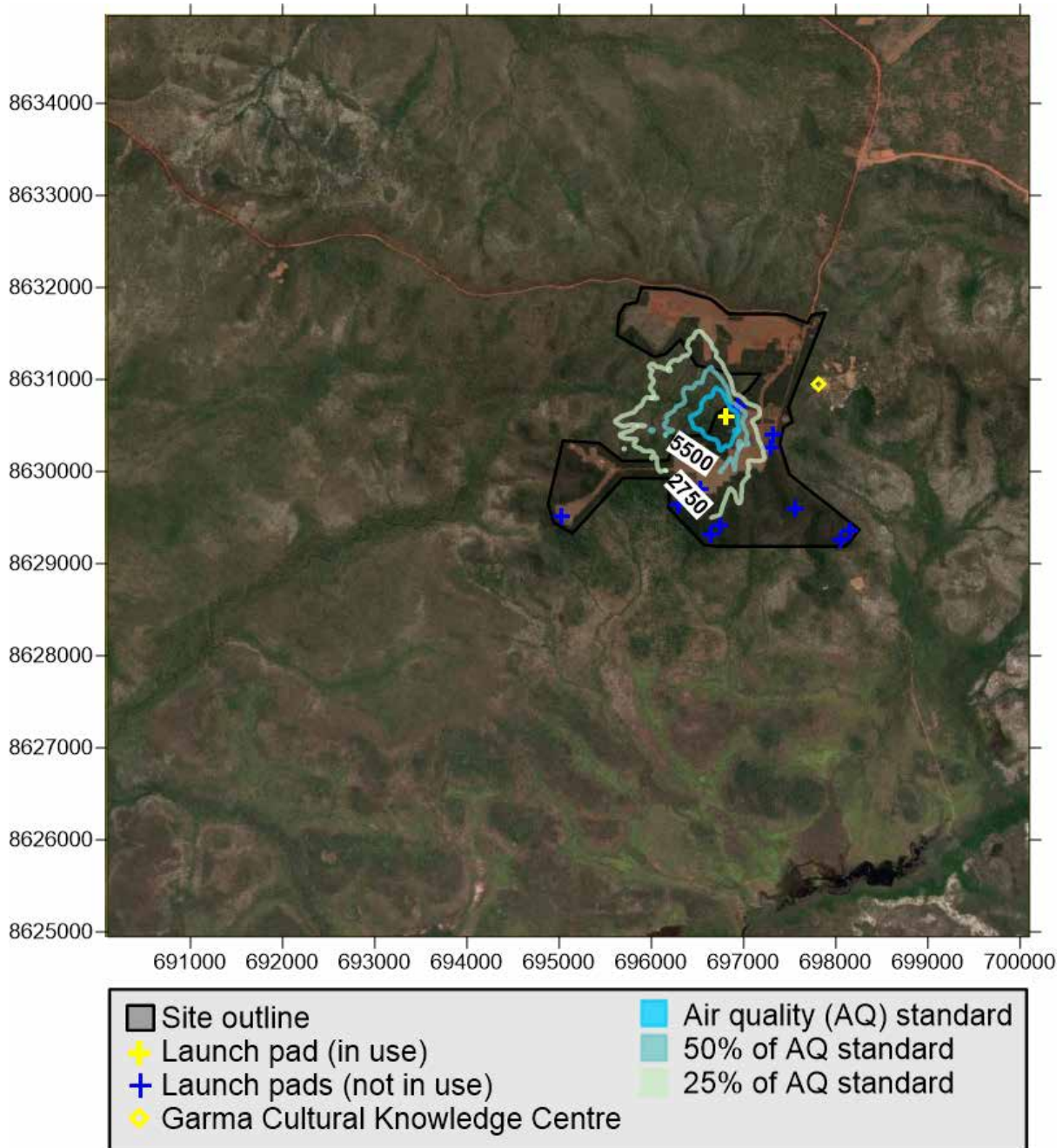


Figure 13 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Aqua 2)



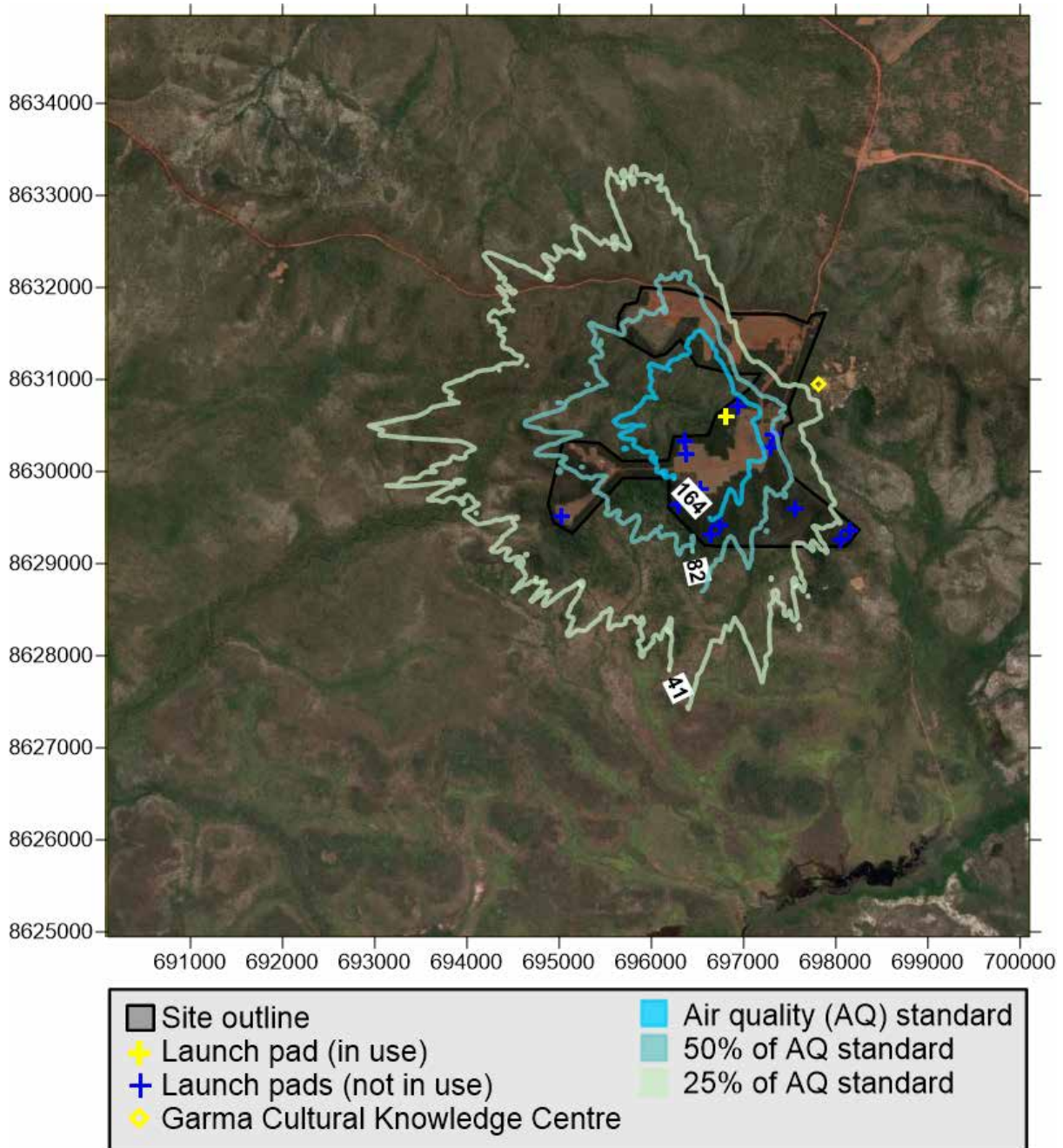


Figure 14 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Aqua 2)



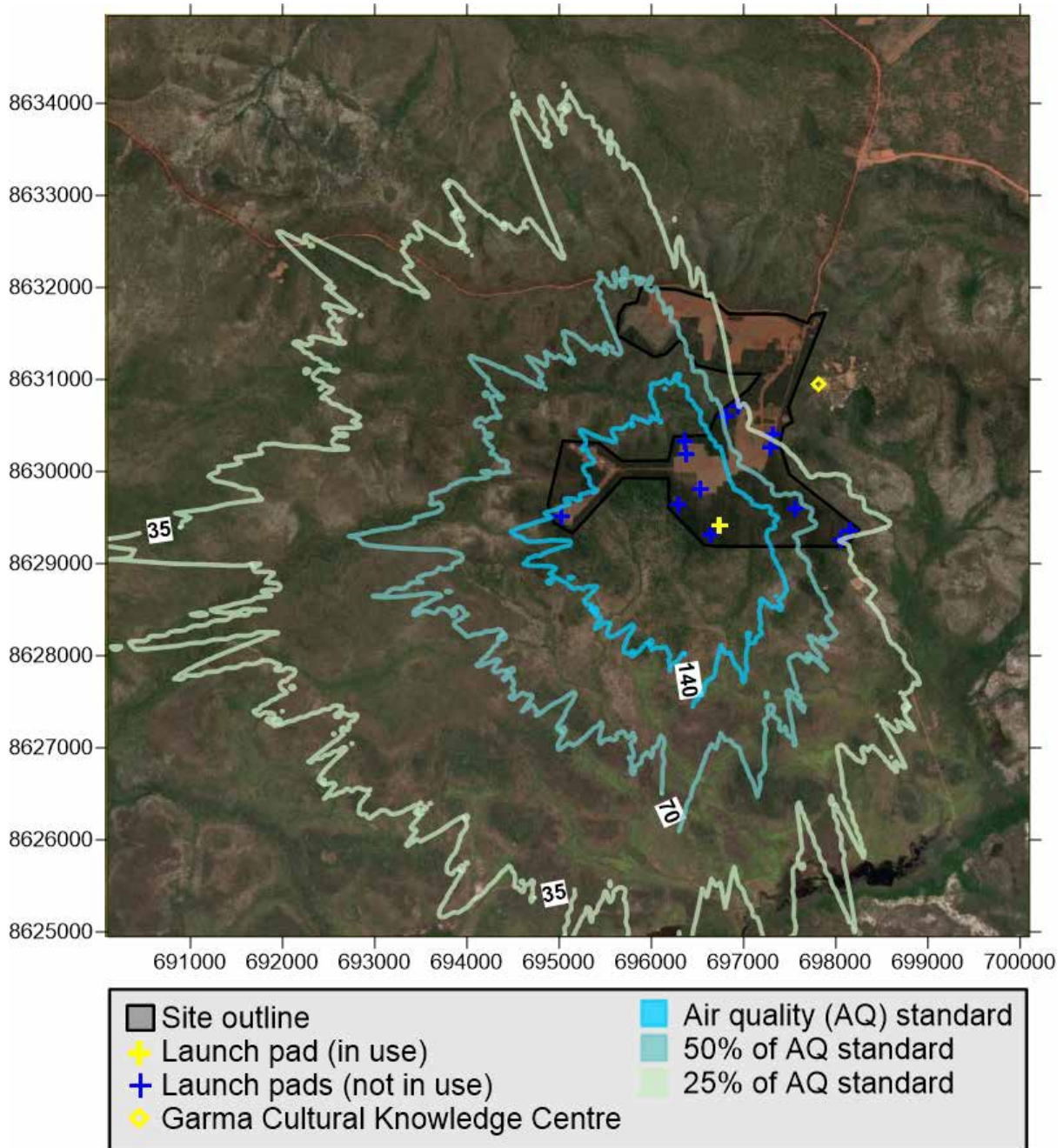


Figure 15 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Green 1)

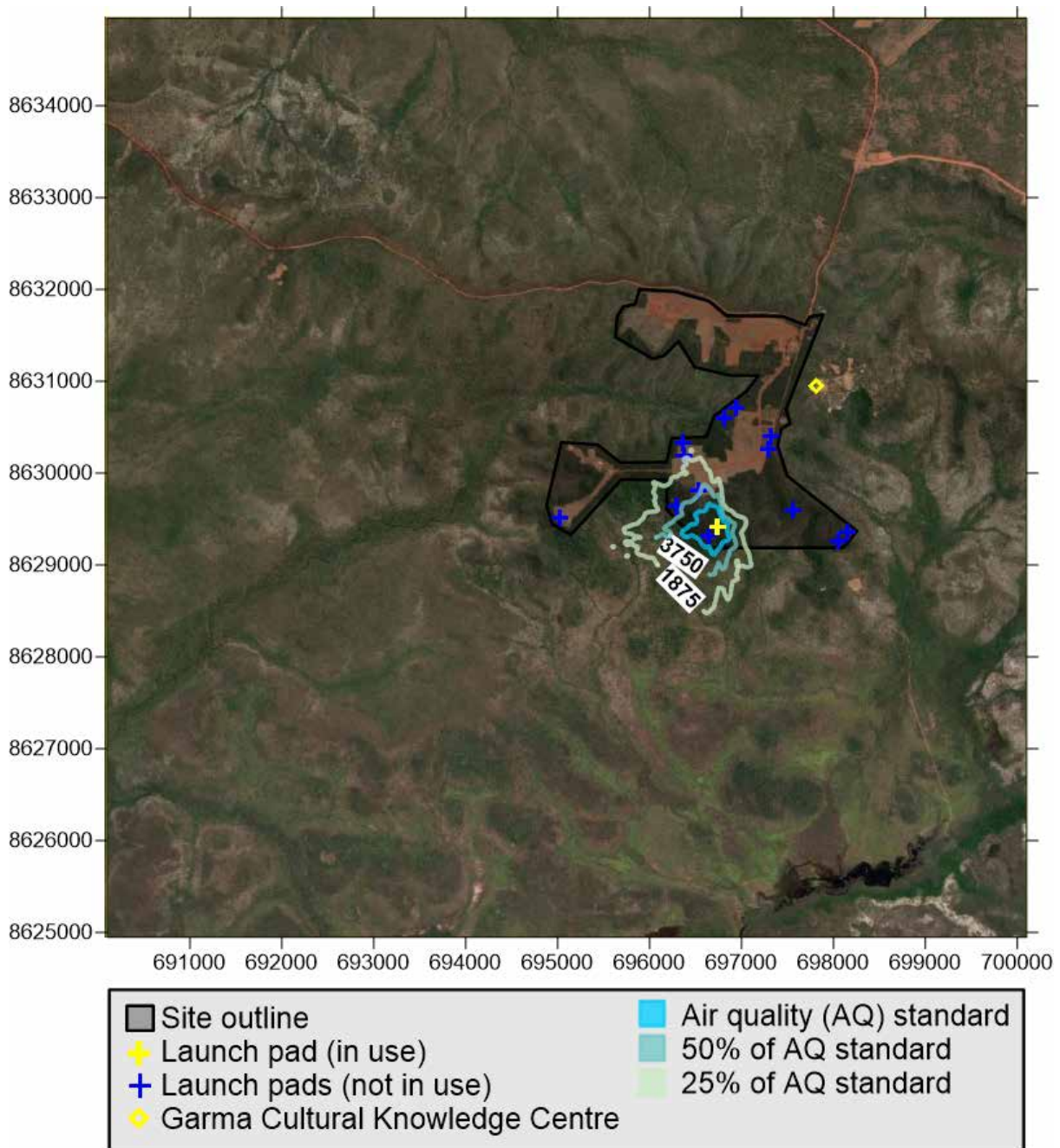


Figure 16 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Green 1)



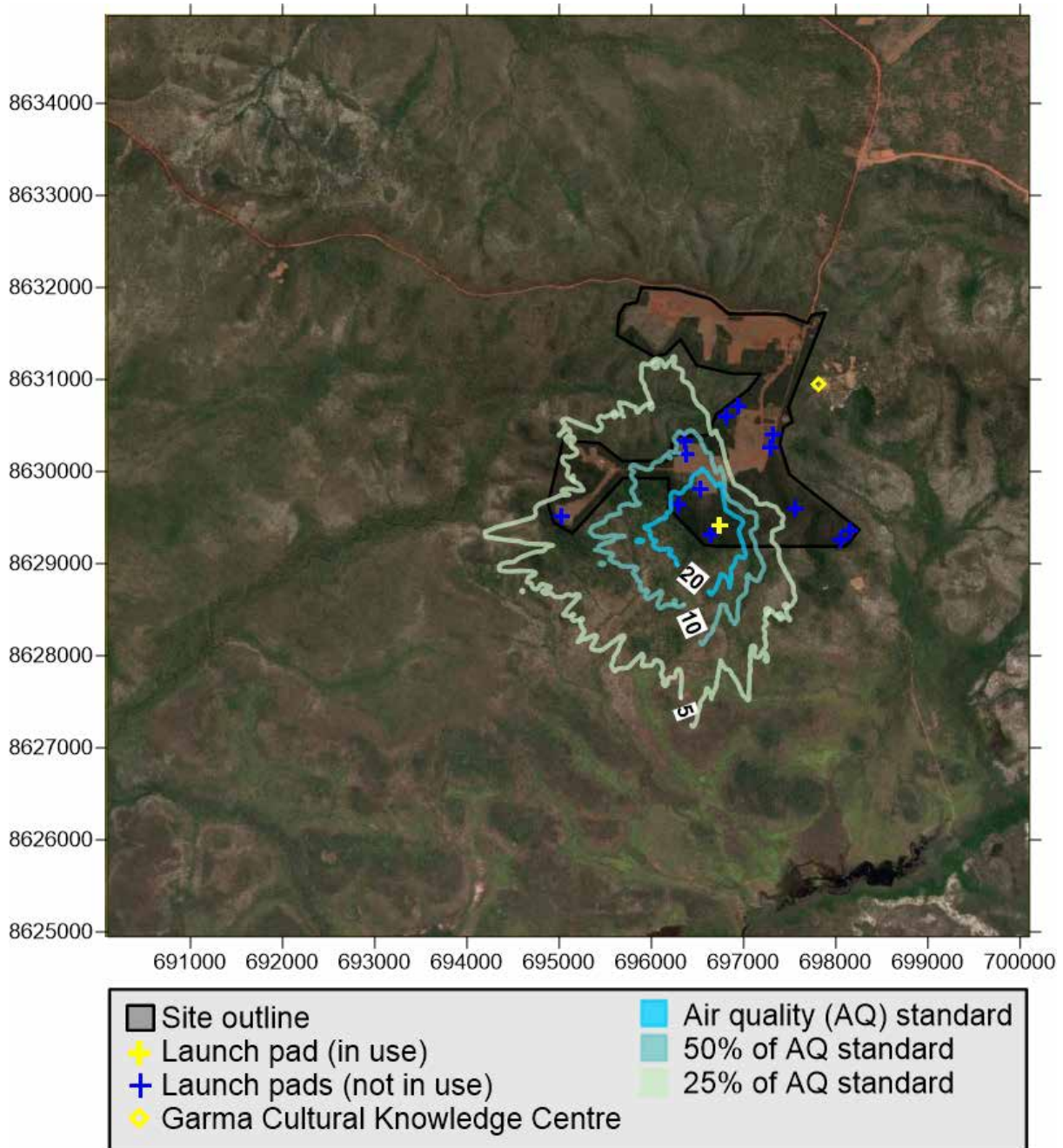


Figure 17 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Green 1)



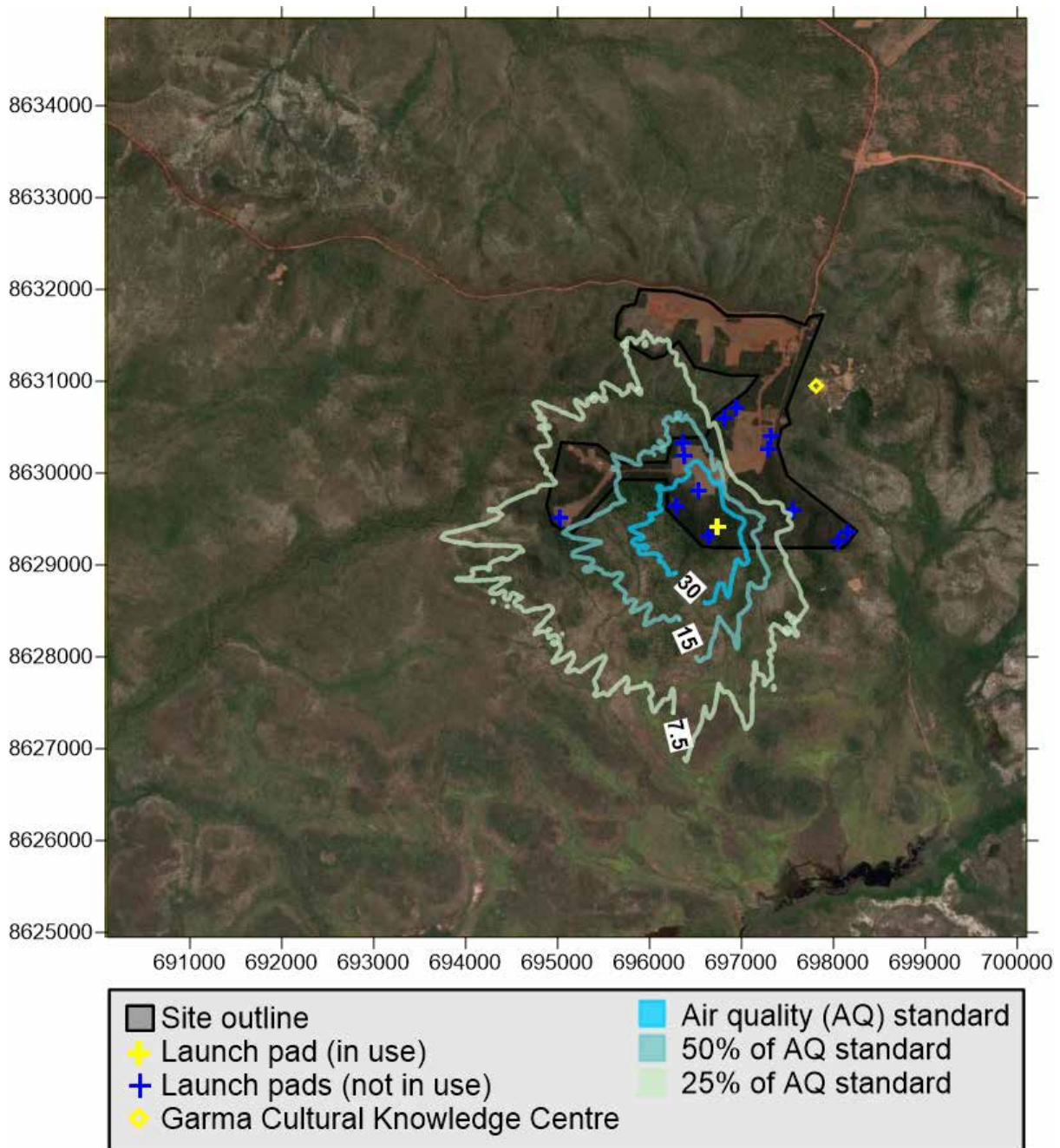


Figure 18 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Green 1)

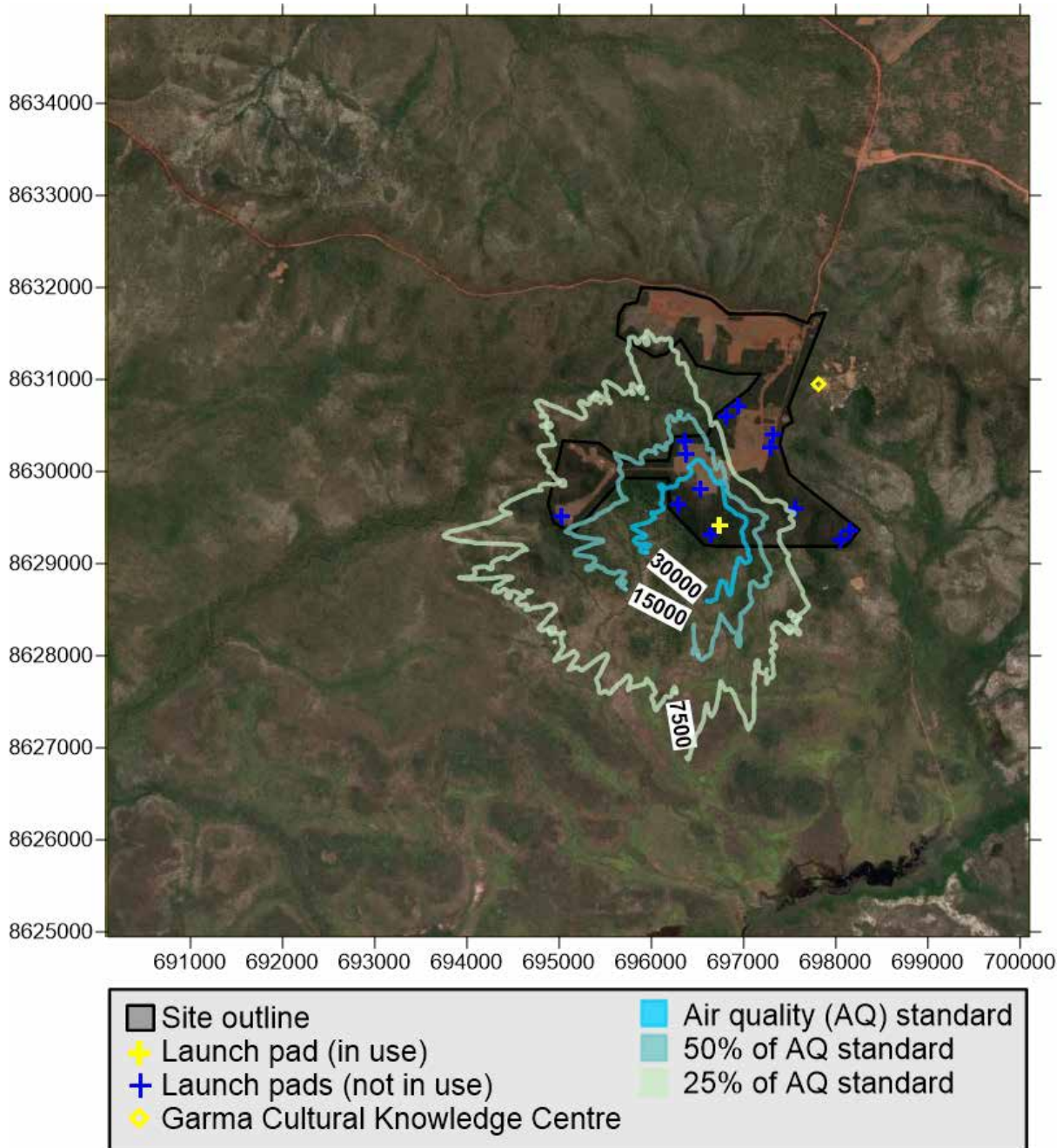


Figure 19 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Green 1)



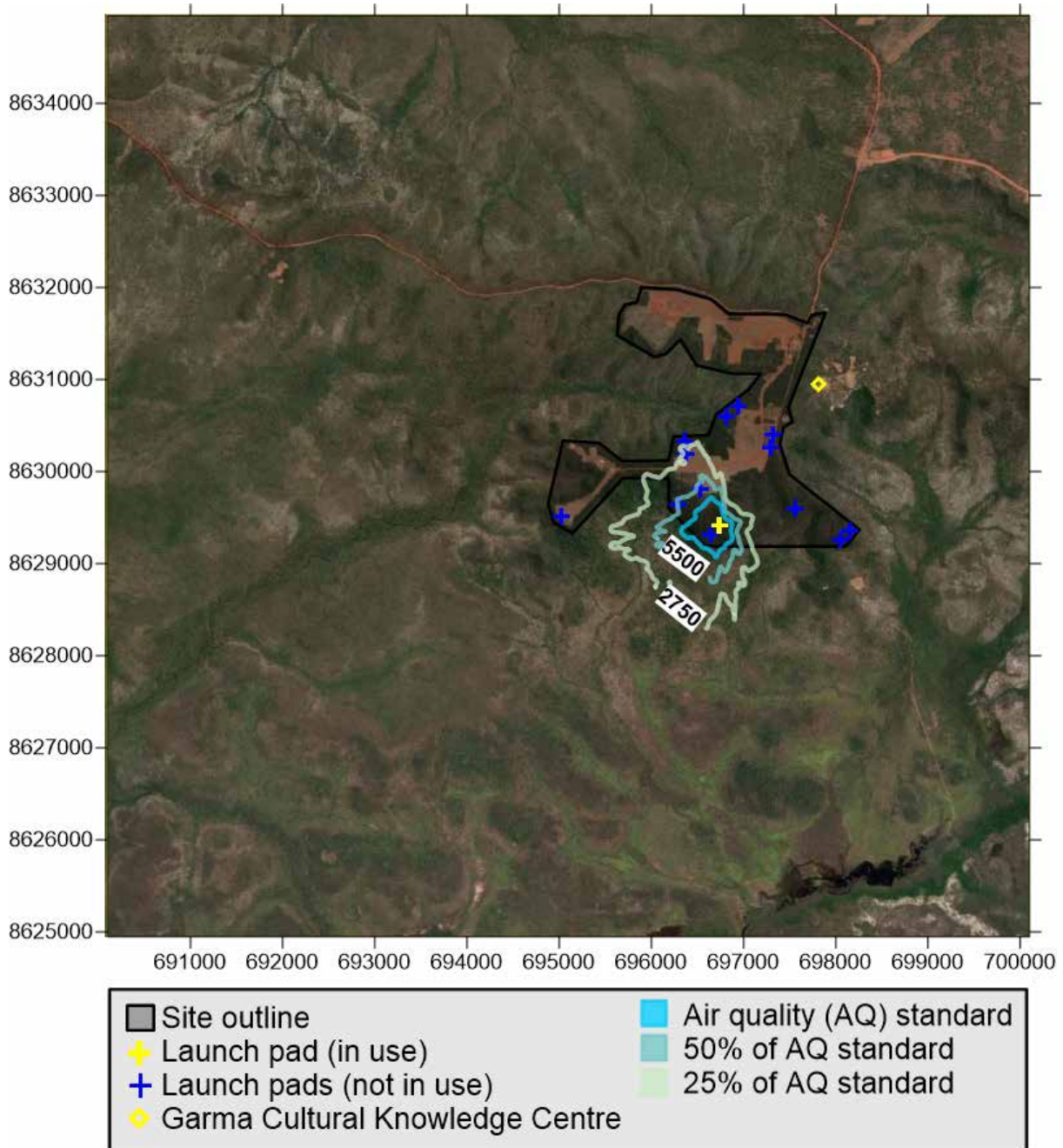


Figure 20 Maximum predicted 8-hour ground level concentration for CO (5,500  $\mu\text{g}/\text{m}^3$ ) (Green 1)



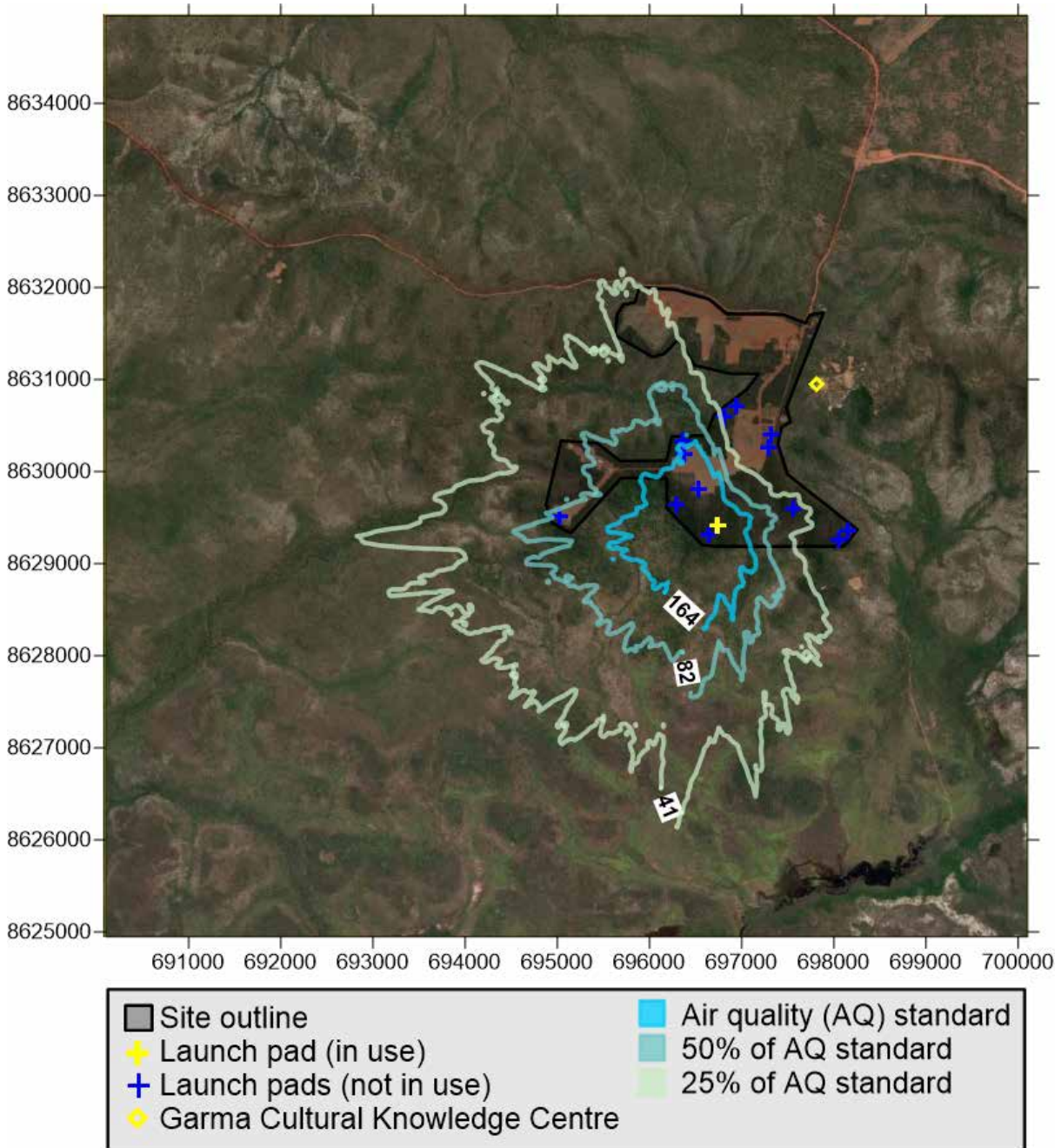


Figure 21 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Green 1)

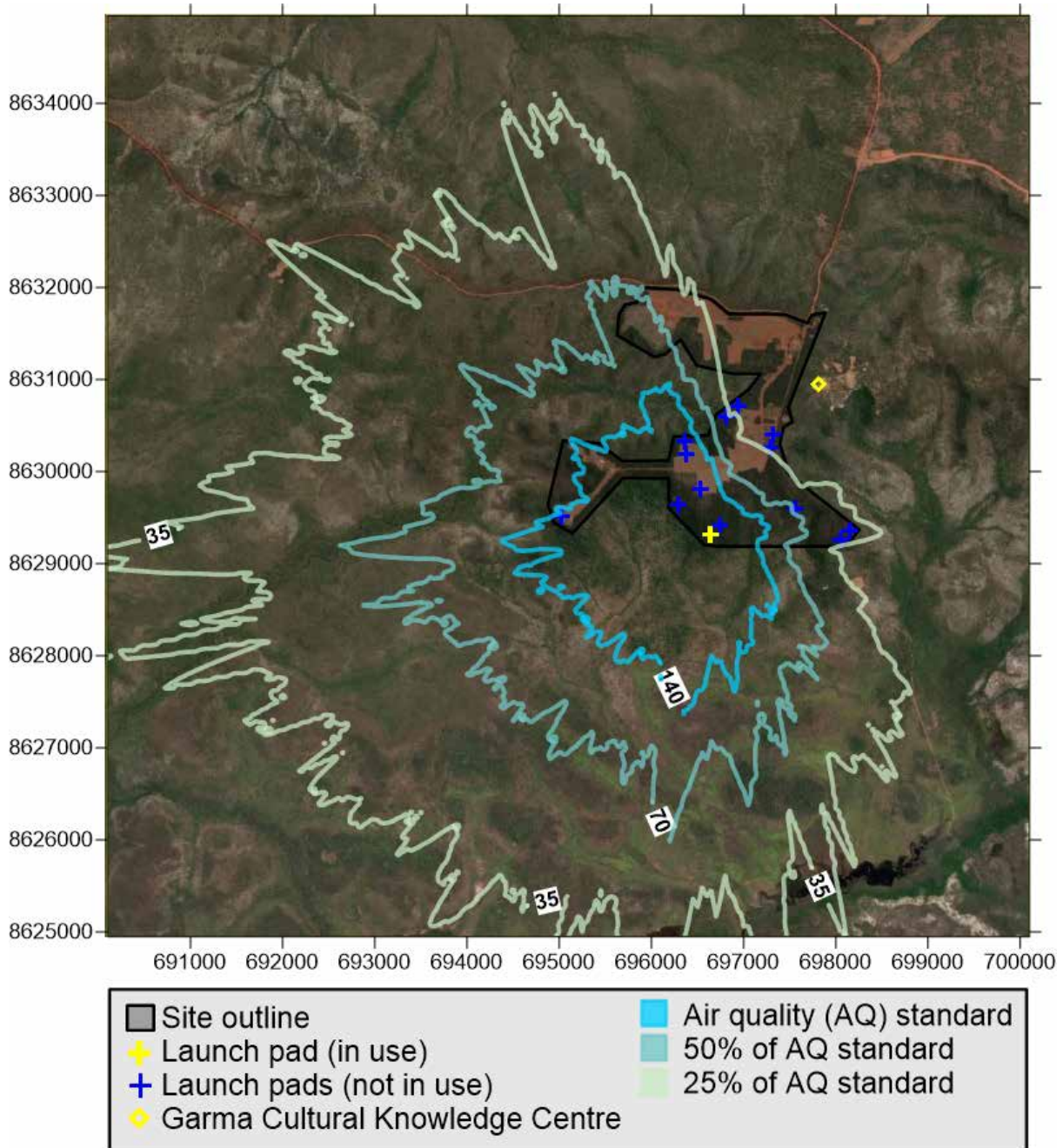


Figure 22 99.9% predicted 1 hour ground level concentration for HCl (140  $\mu\text{g}/\text{m}^3$ ) (Green 2)



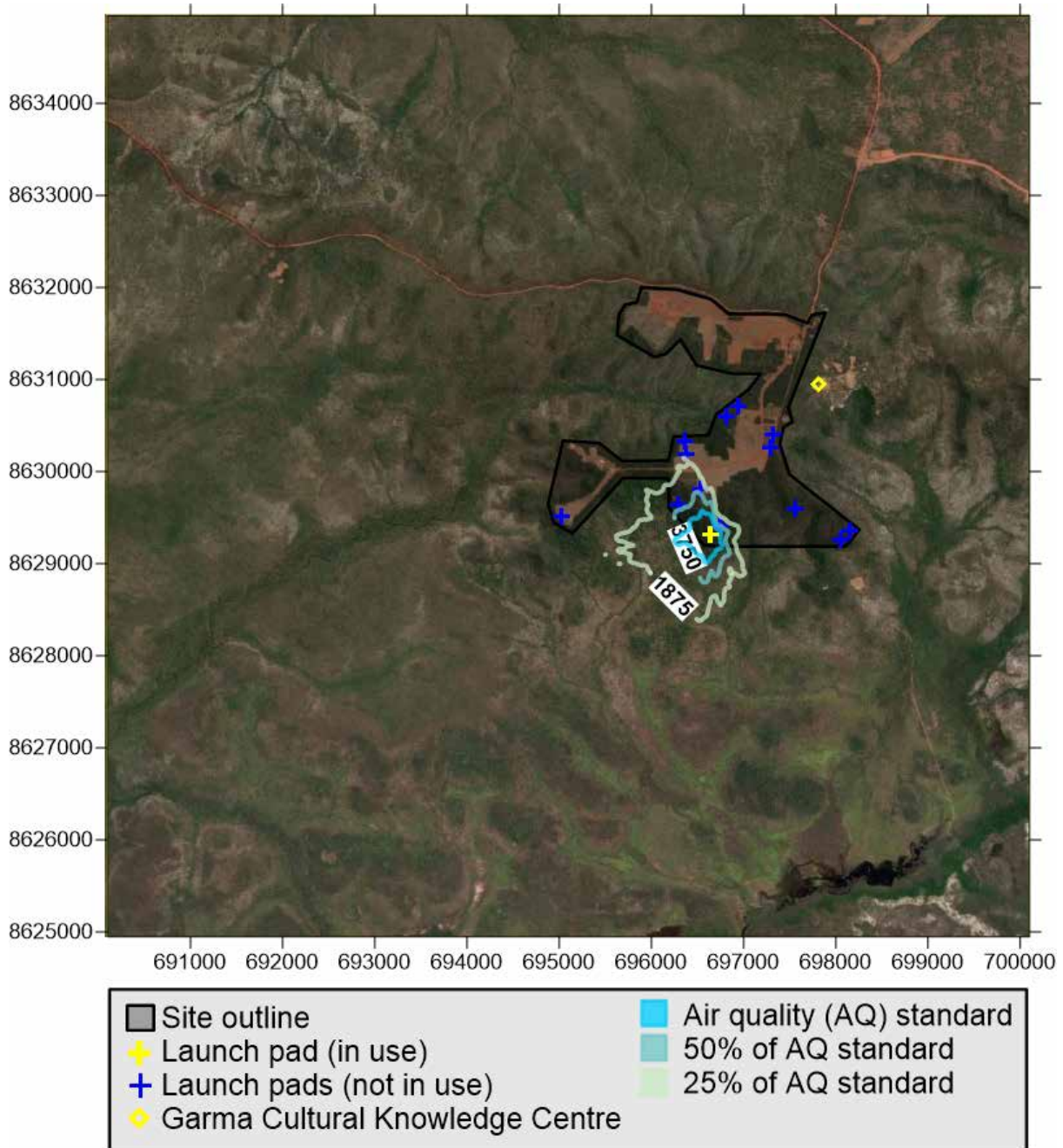


Figure 23 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Green 2)



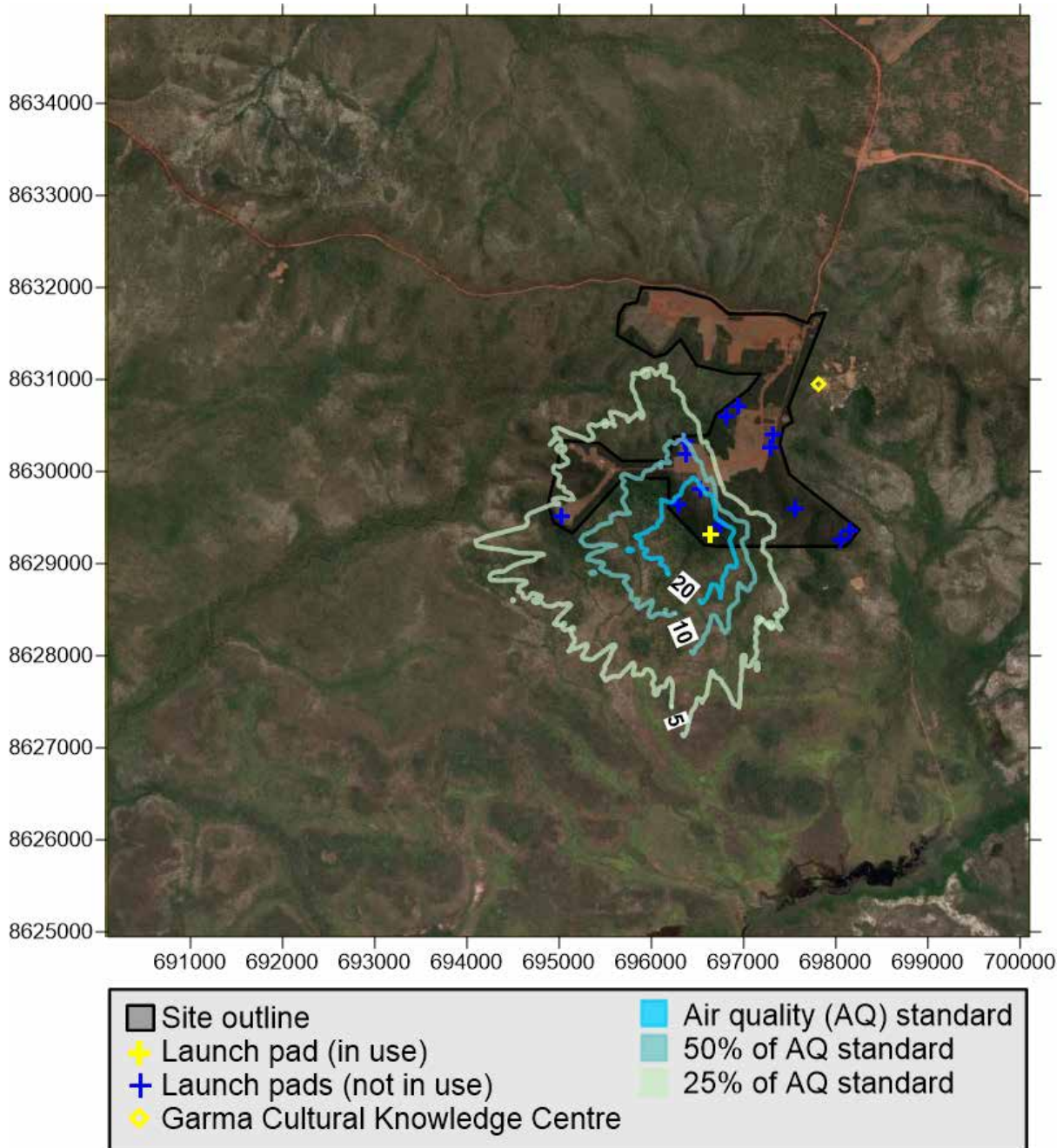


Figure 24 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Green 2)

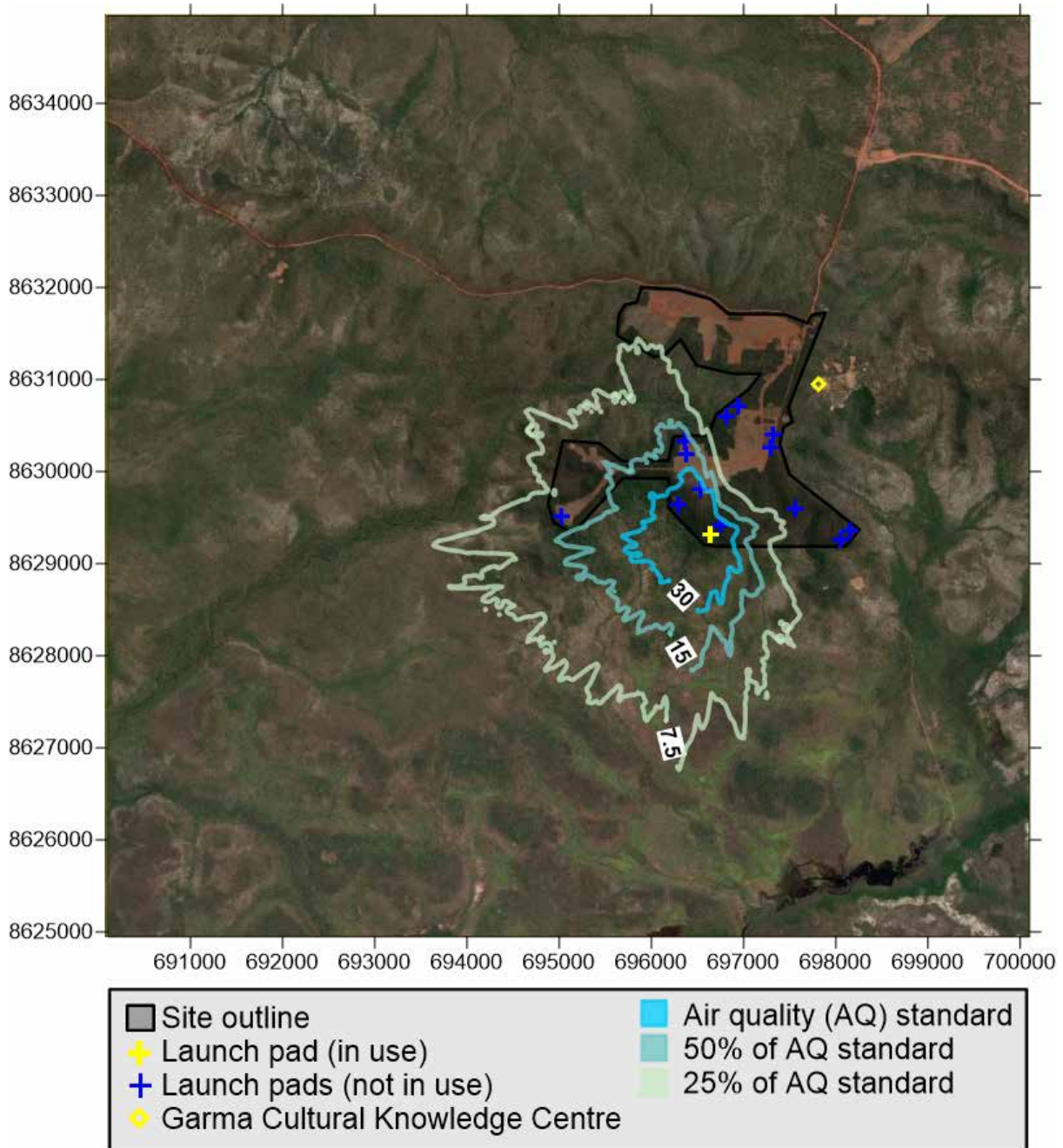


Figure 25 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Green 2)



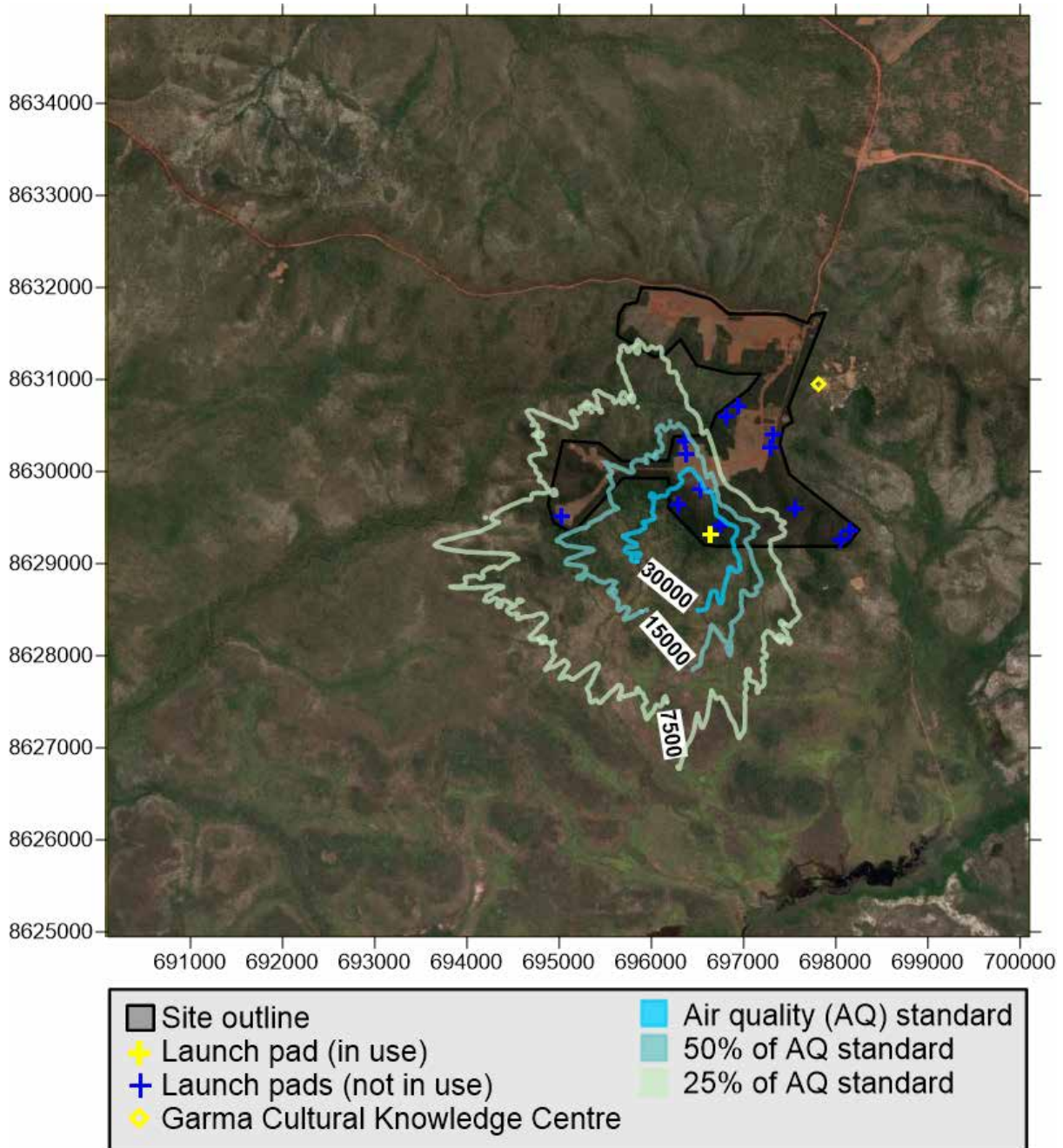


Figure 26 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Green 2)



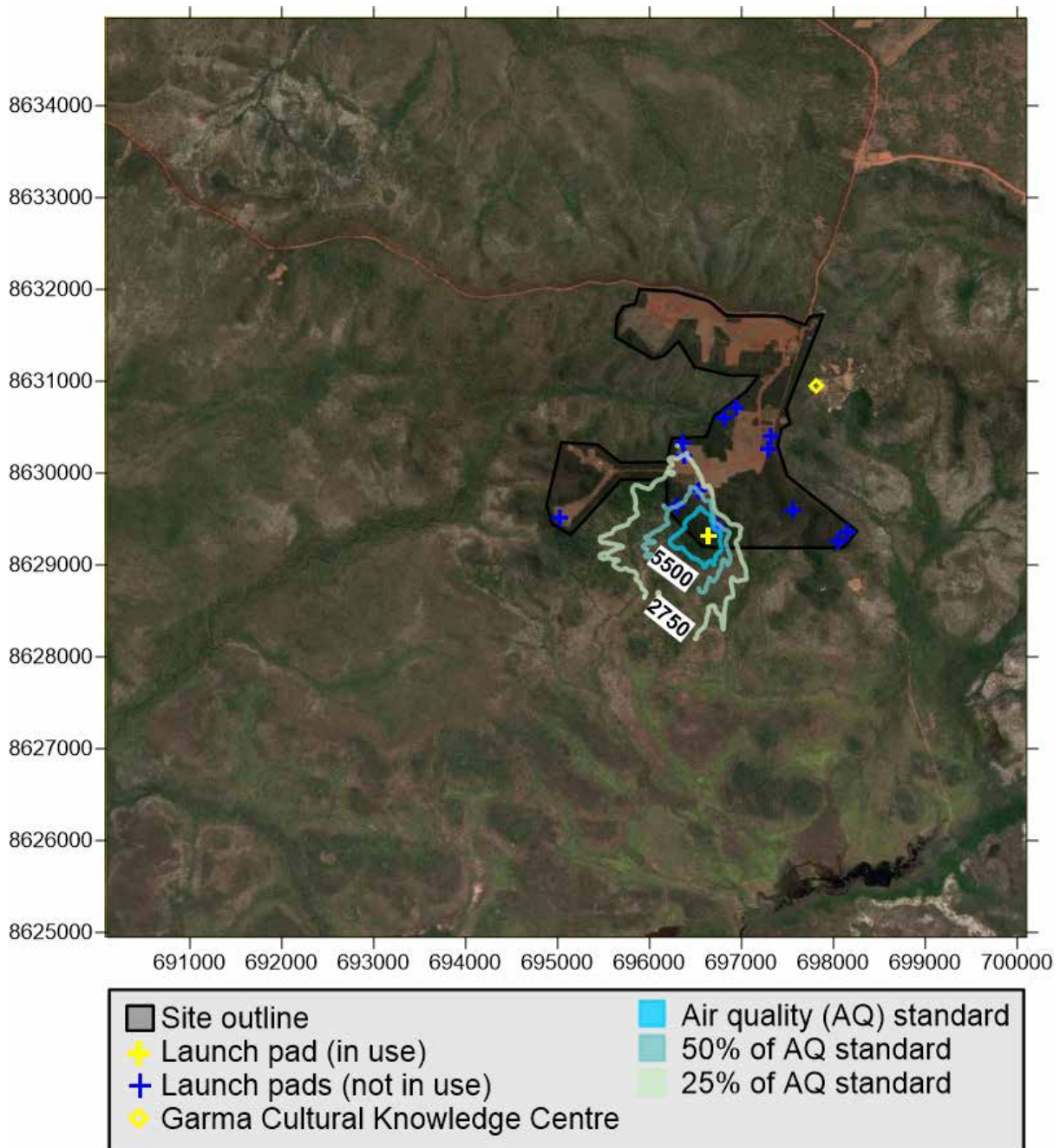


Figure 27 Maximum predicted 8-hour ground level concentration for CO (5,500  $\mu\text{g}/\text{m}^3$ ) (Green 2)

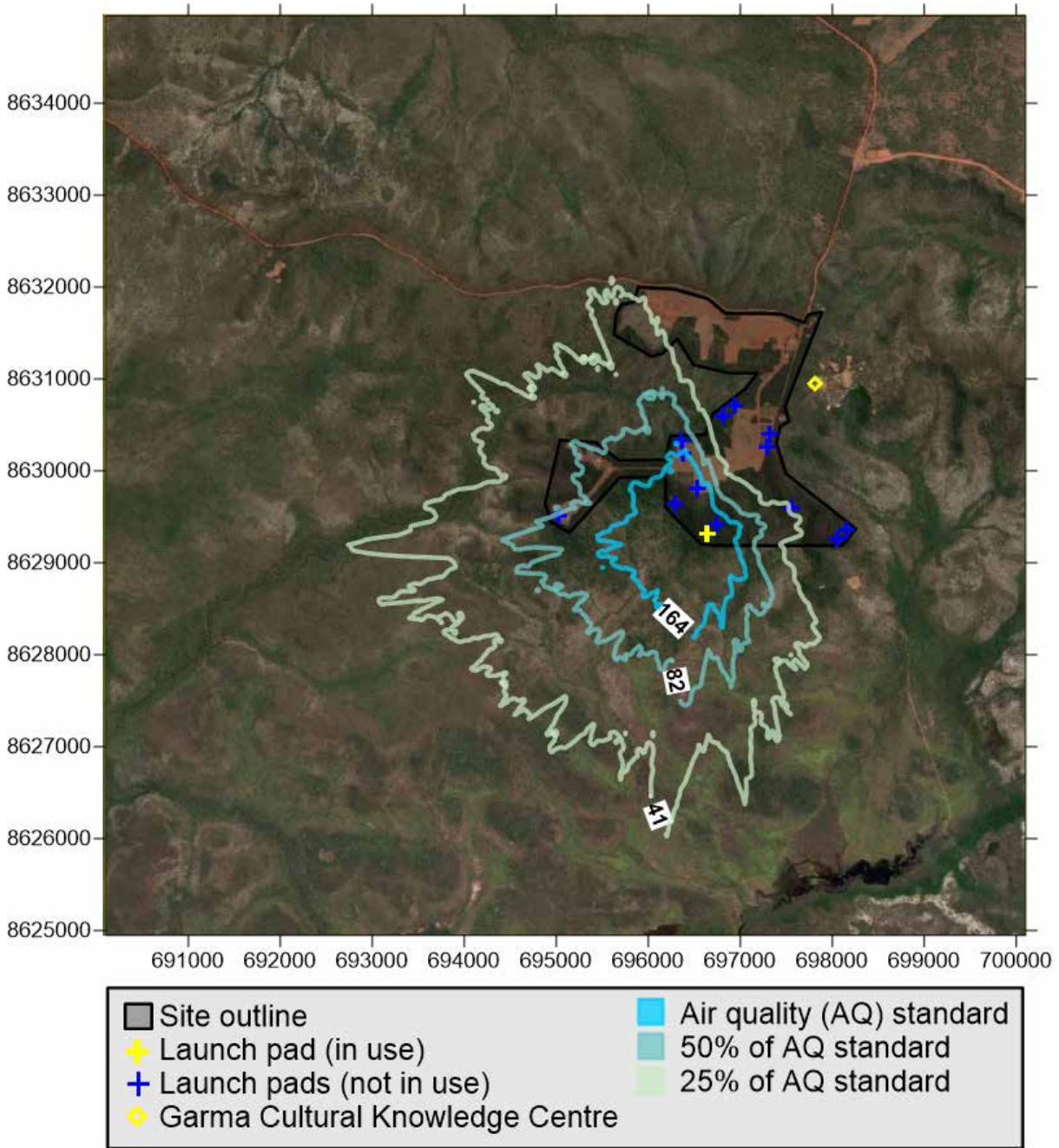


Figure 28 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Green 2)



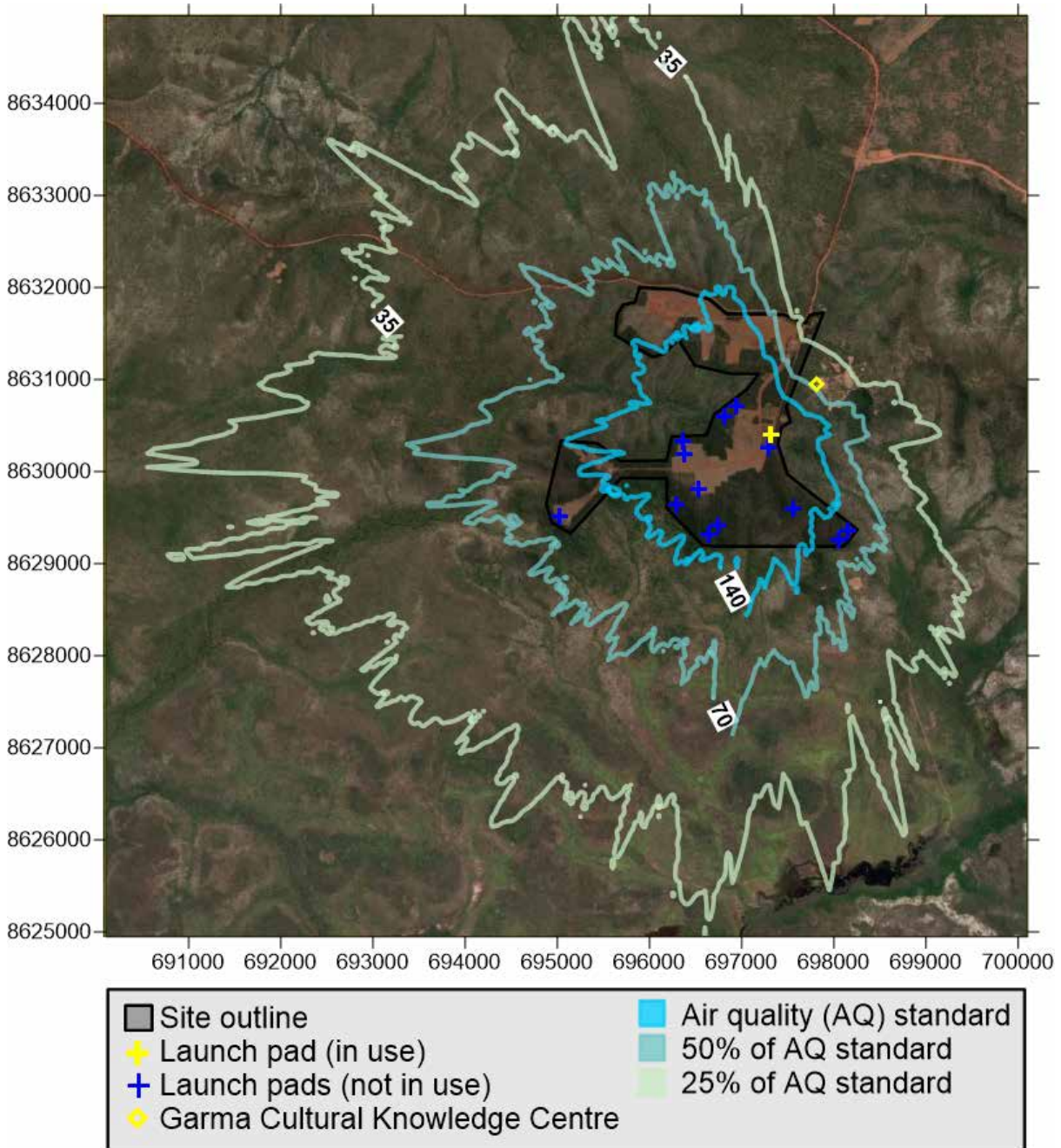


Figure 29 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Magenta 1)

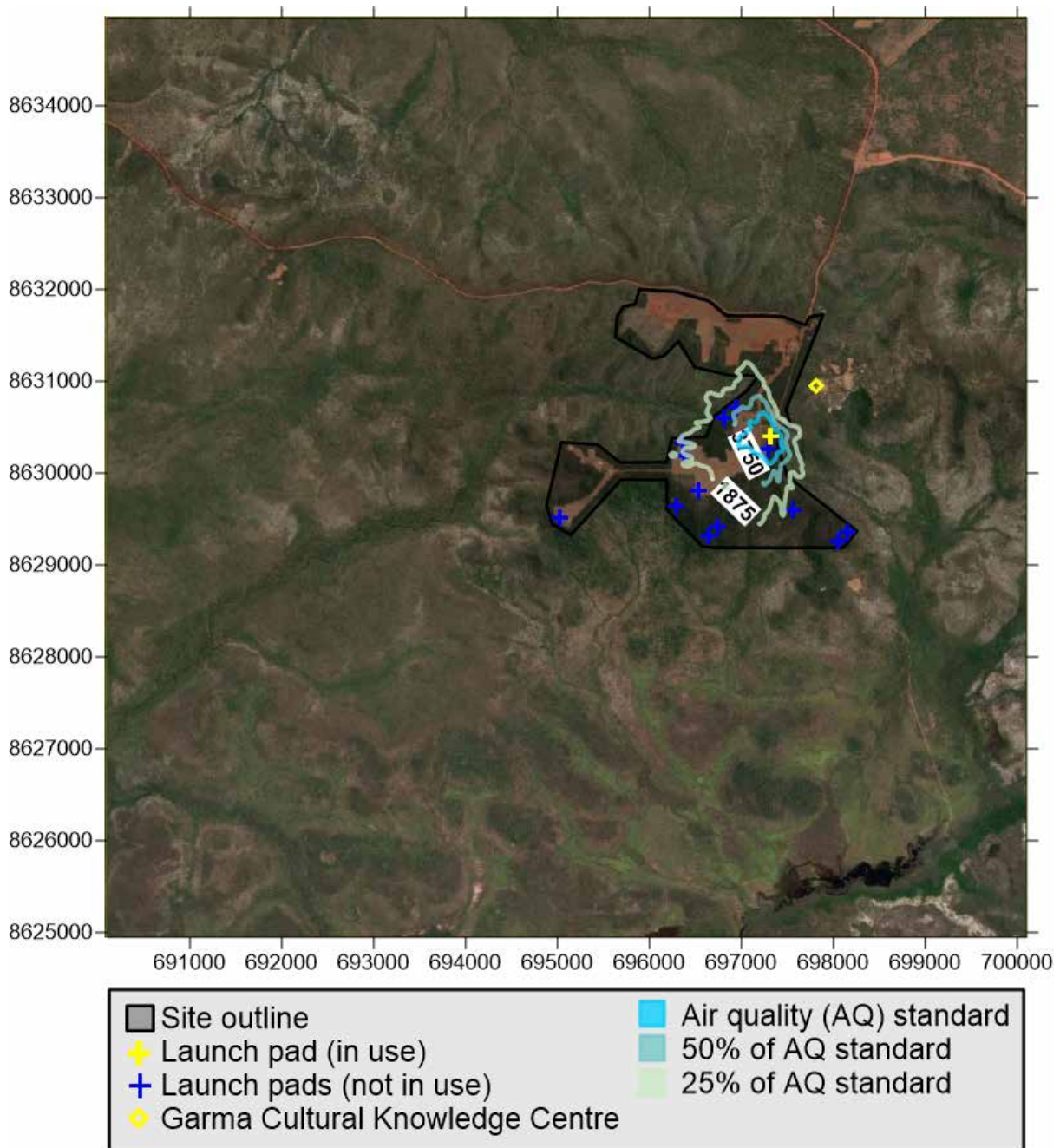


Figure 30 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Magenta 1)



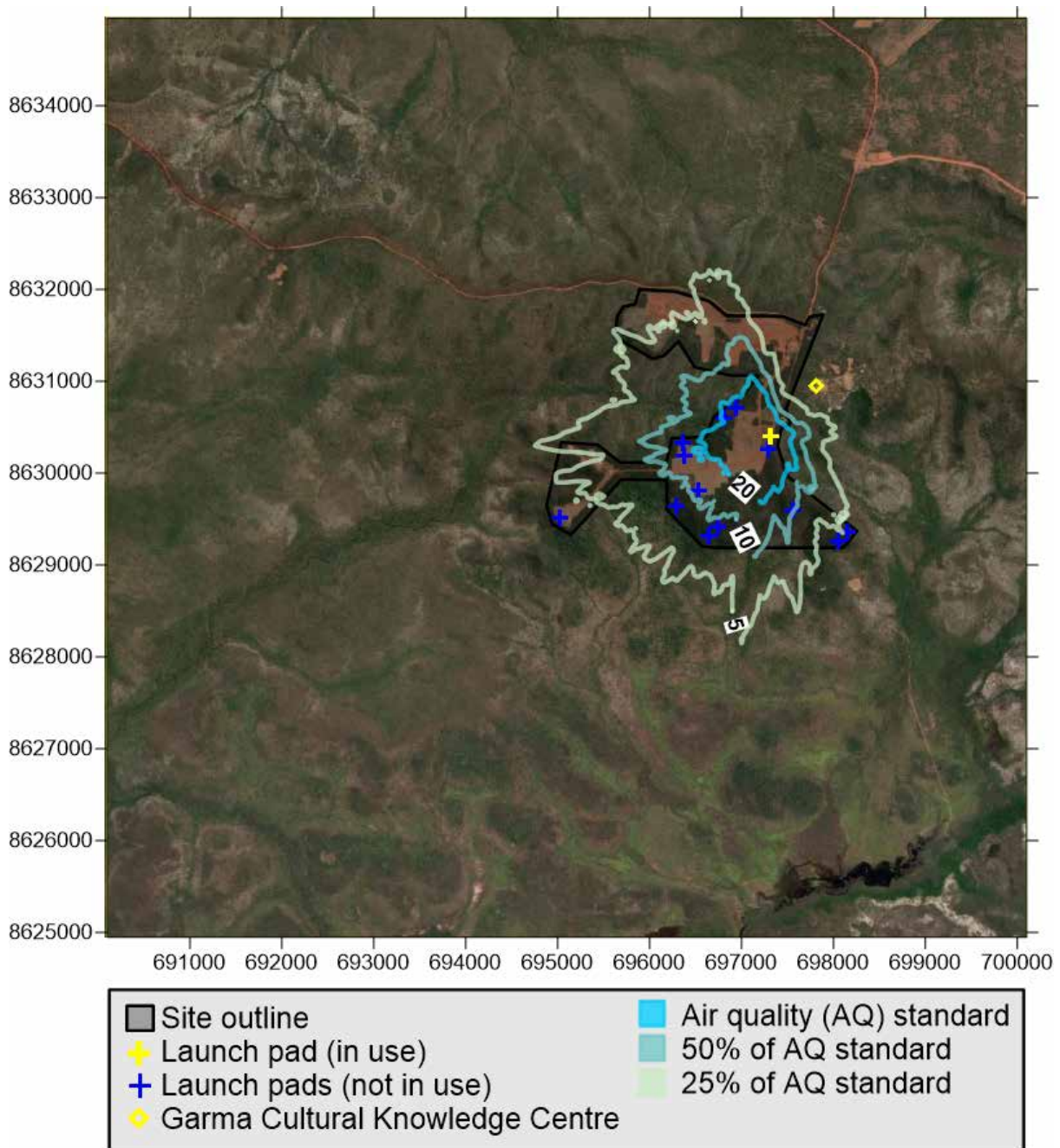


Figure 31 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Magenta 1)

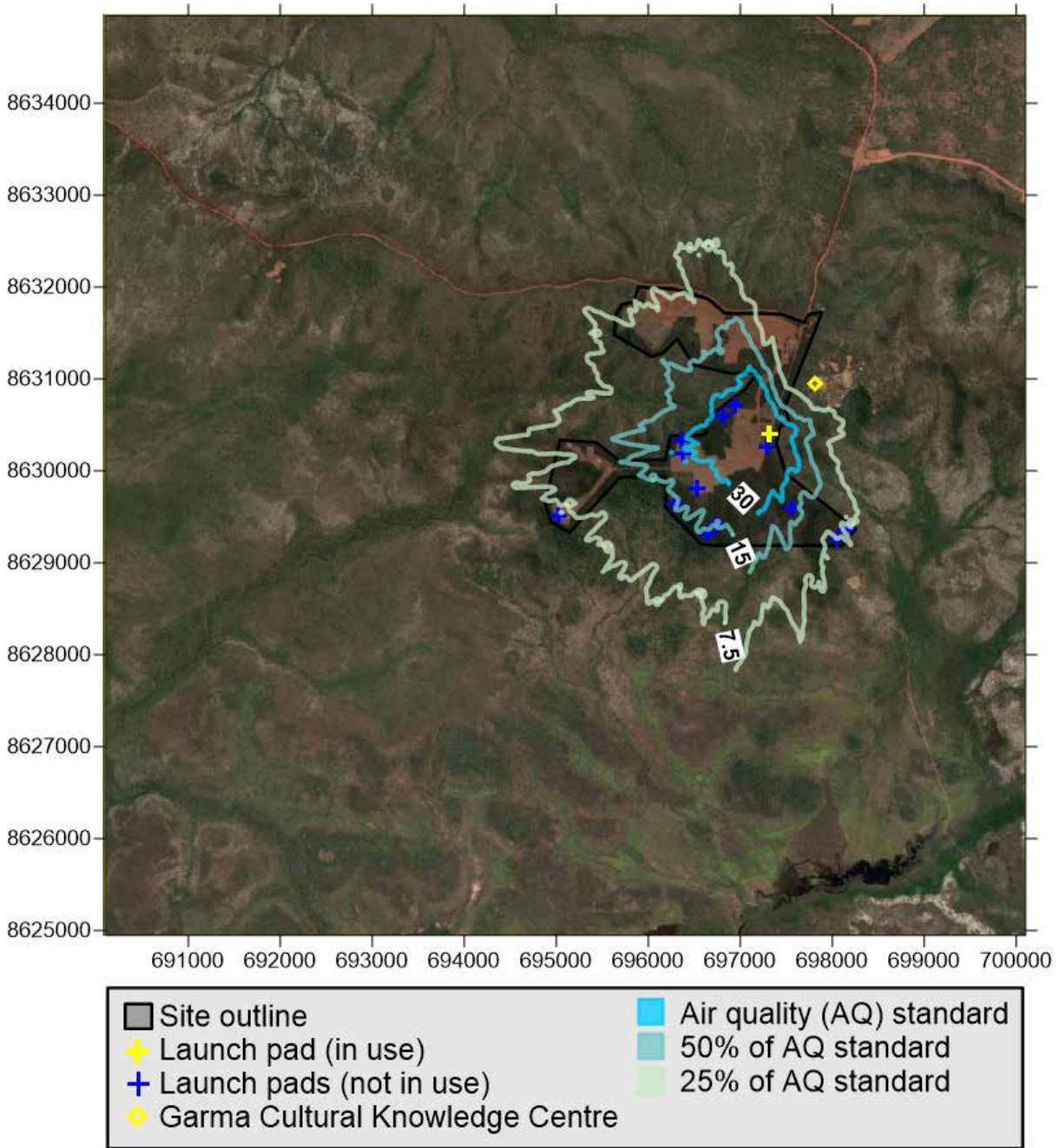


Figure 32 Maximum predicted 24-hour ground level concentration for Al<sub>2</sub>O<sub>3</sub> as PM<sub>10</sub> (30 µg/m<sup>3</sup>) (Magenta 1)



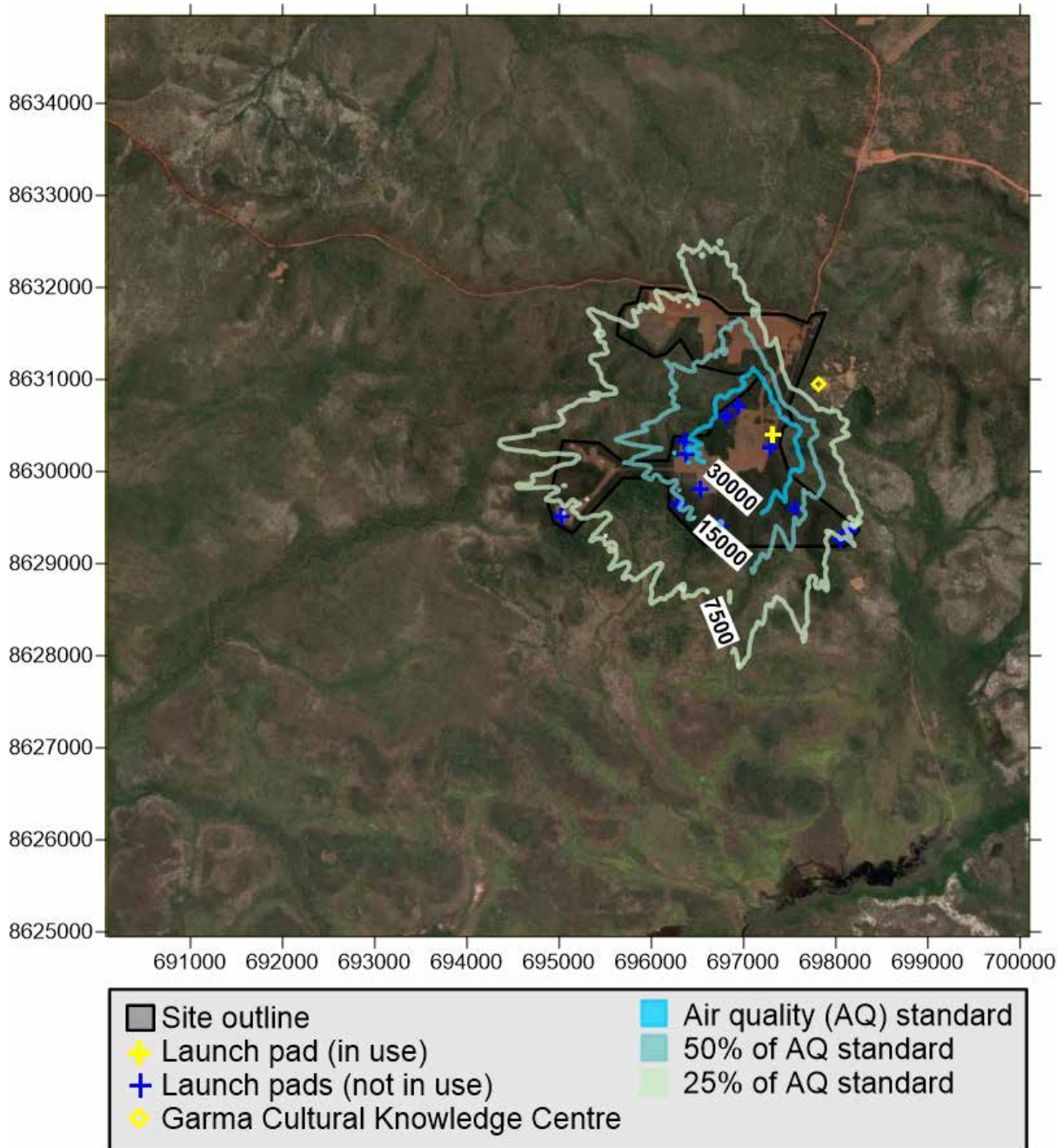


Figure 33 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Magenta 1)

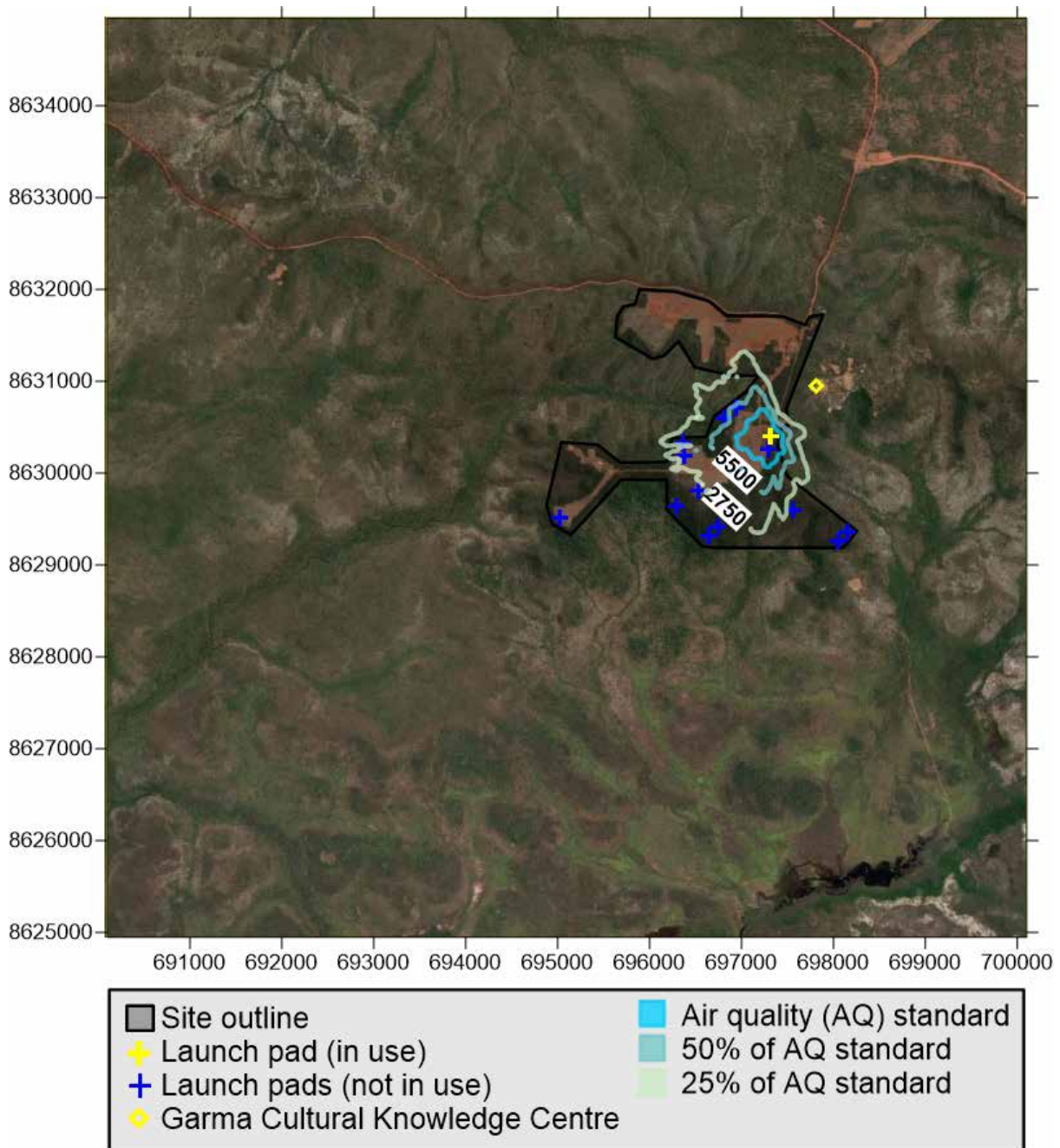


Figure 34 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Magenta 1)



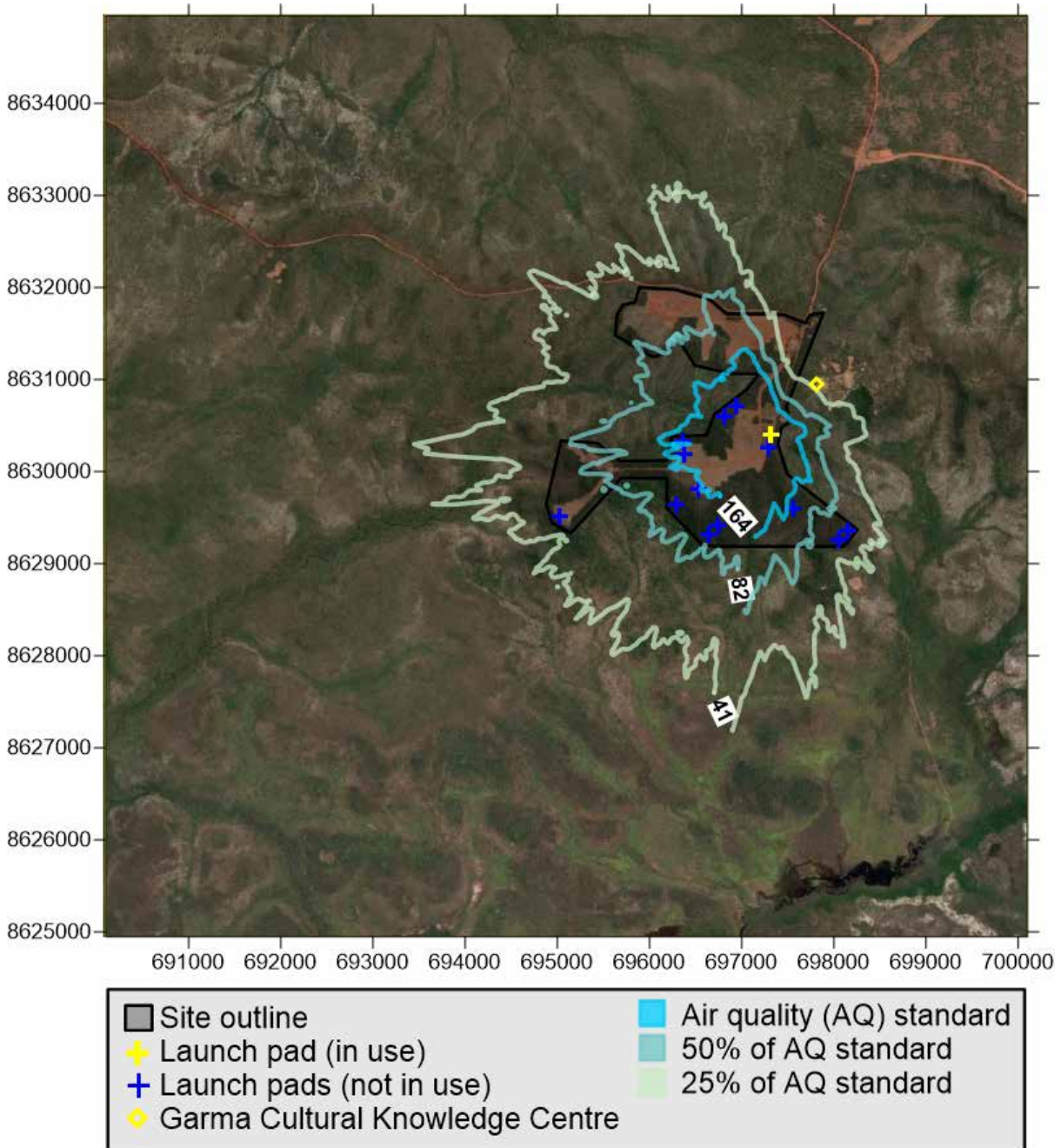


Figure 35 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Magenta 1)

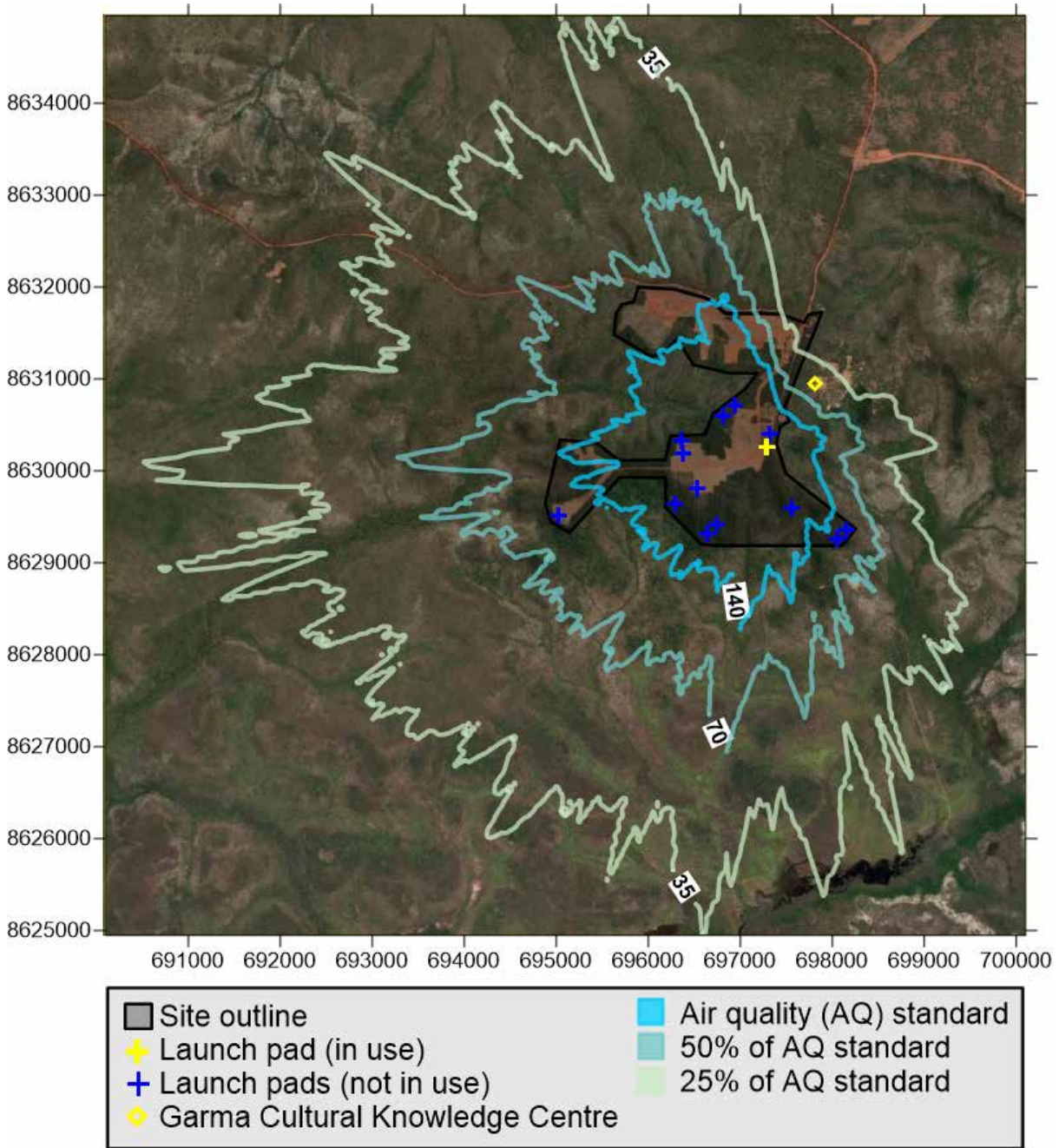


Figure 36 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Magenta 2)



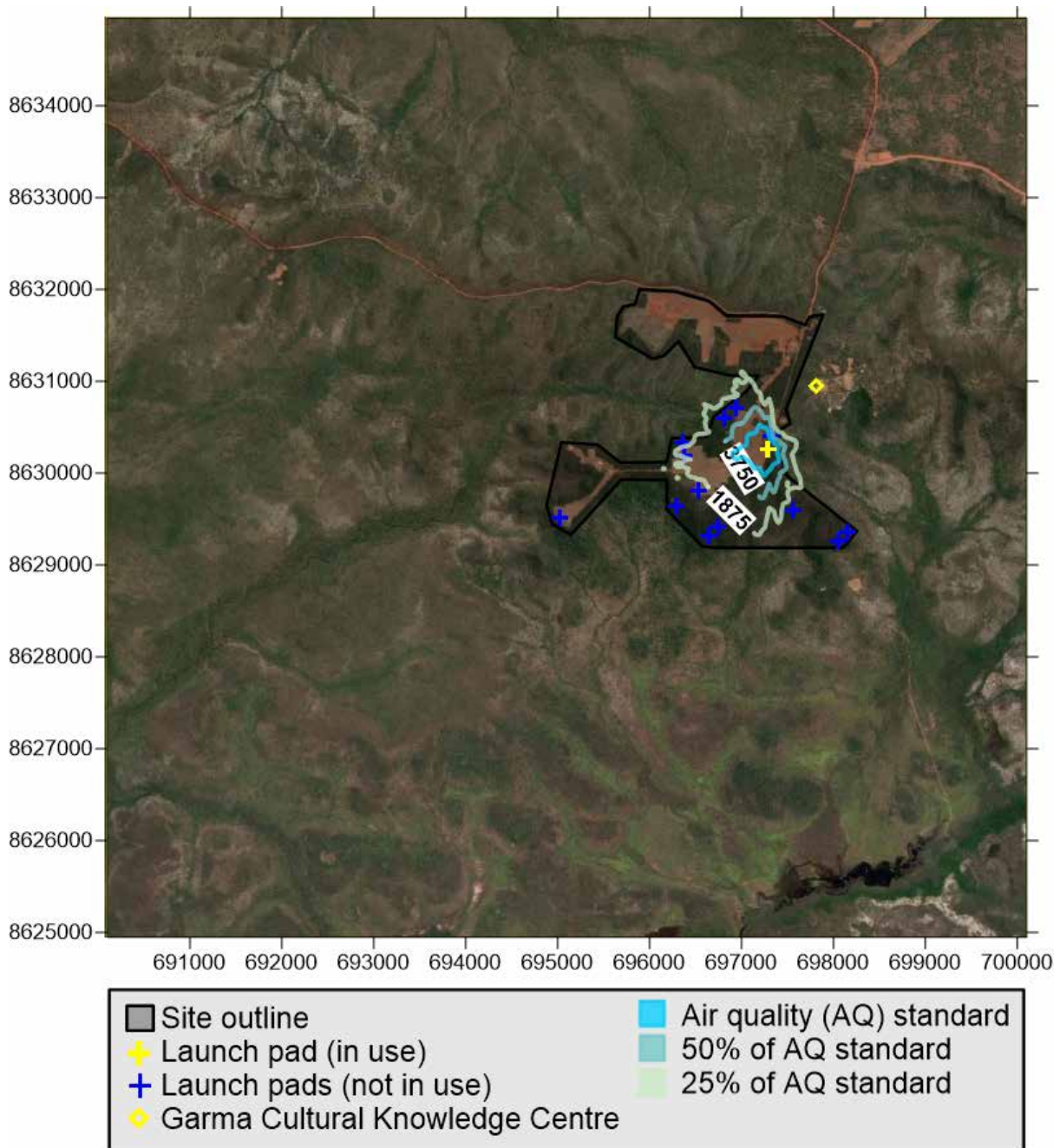


Figure 37 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Magenta 2)

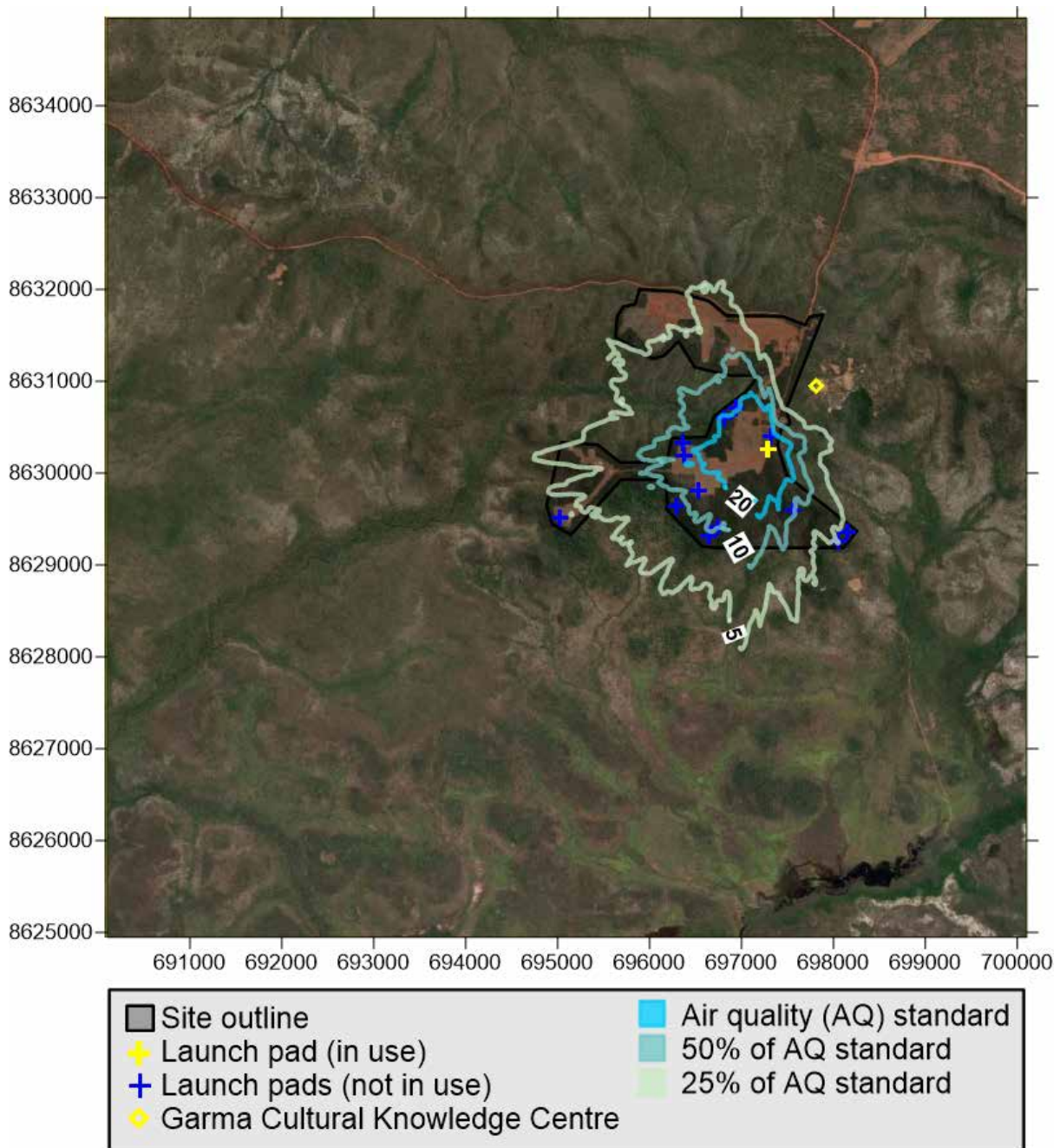


Figure 38 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Magenta 2)



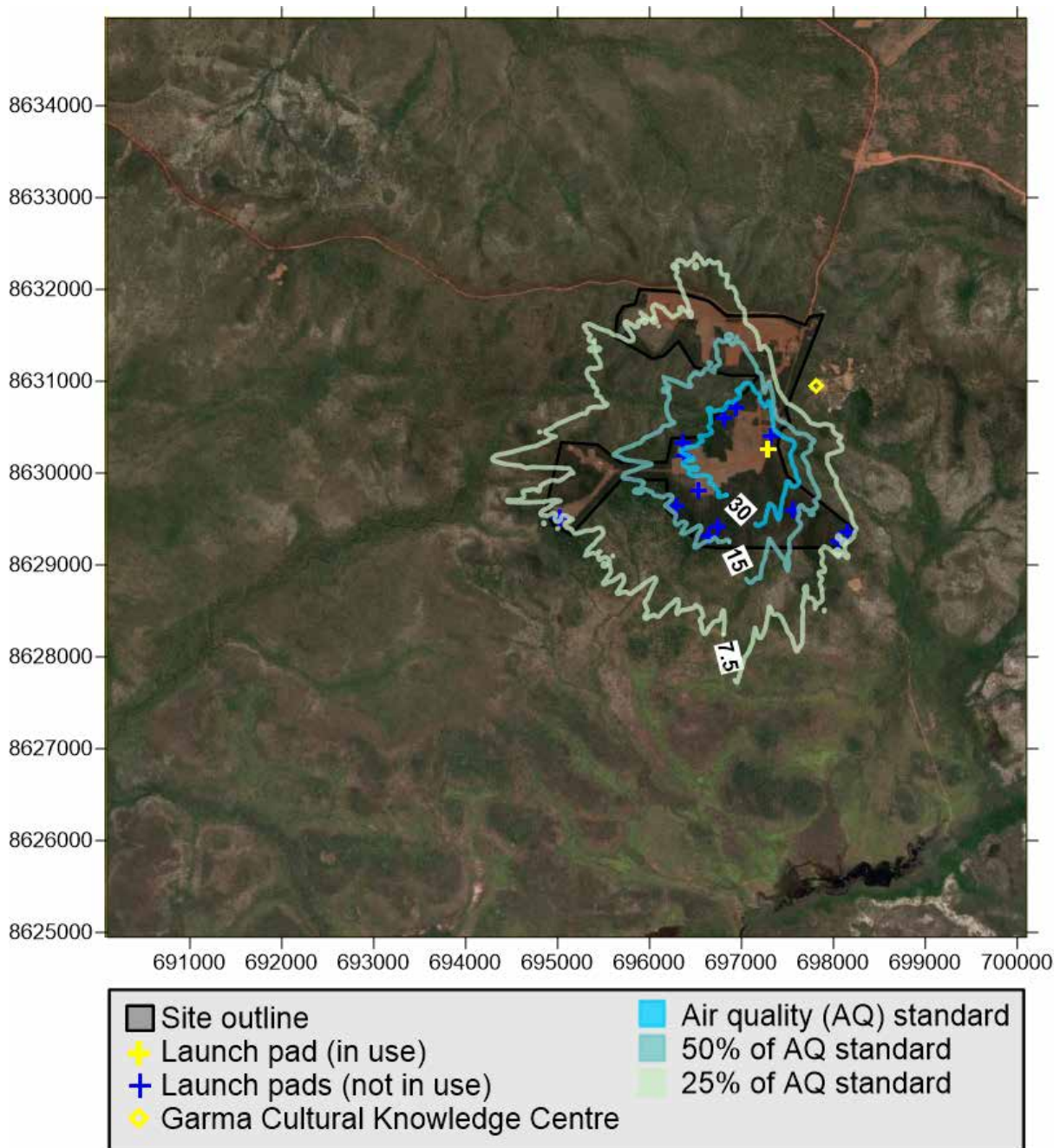


Figure 39 Maximum predicted 24-hour ground level concentration for Al<sub>2</sub>O<sub>3</sub> as PM<sub>10</sub> (30 µg/m<sup>3</sup>) (Magenta 2)

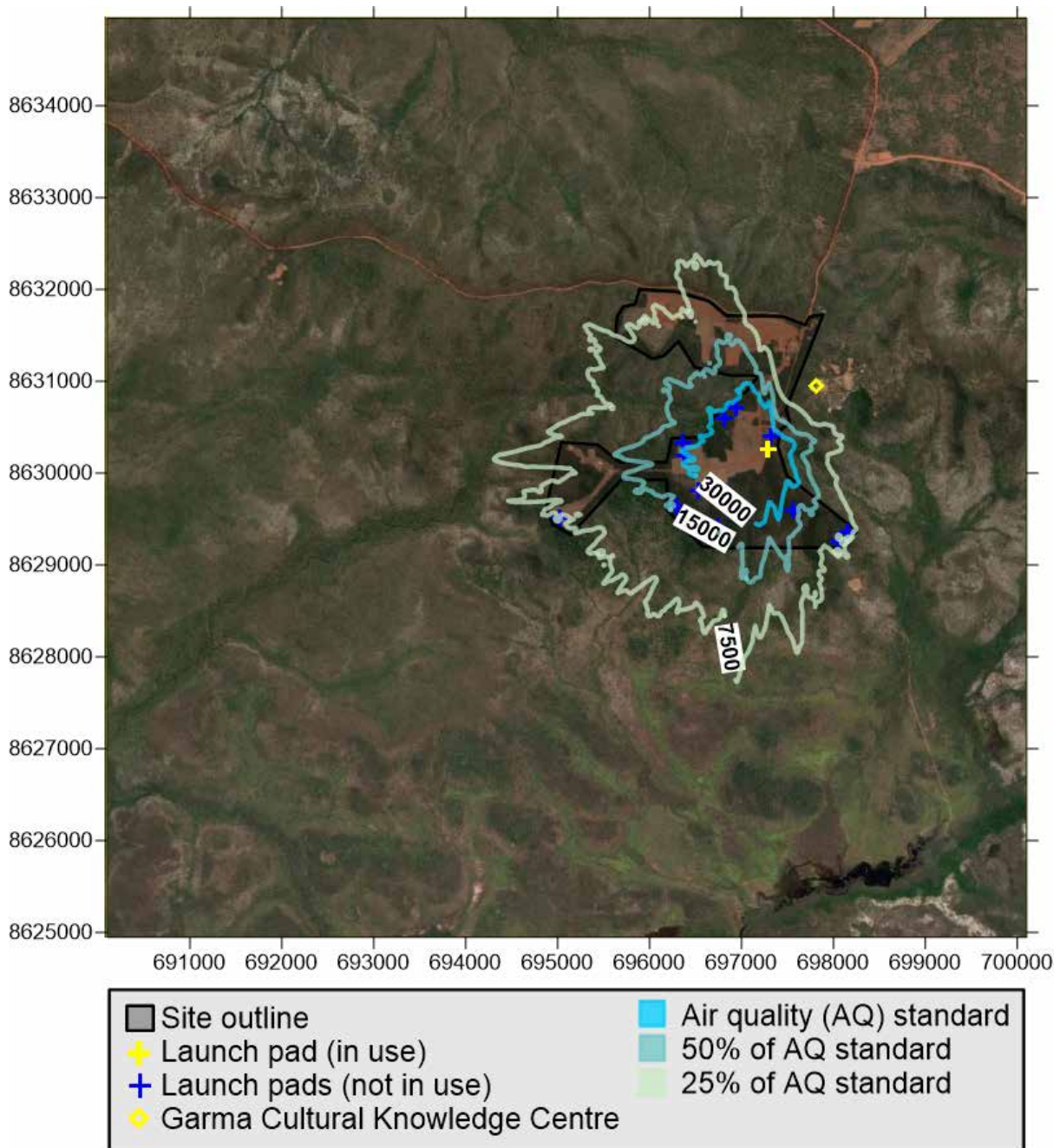


Figure 40 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Magenta 2)



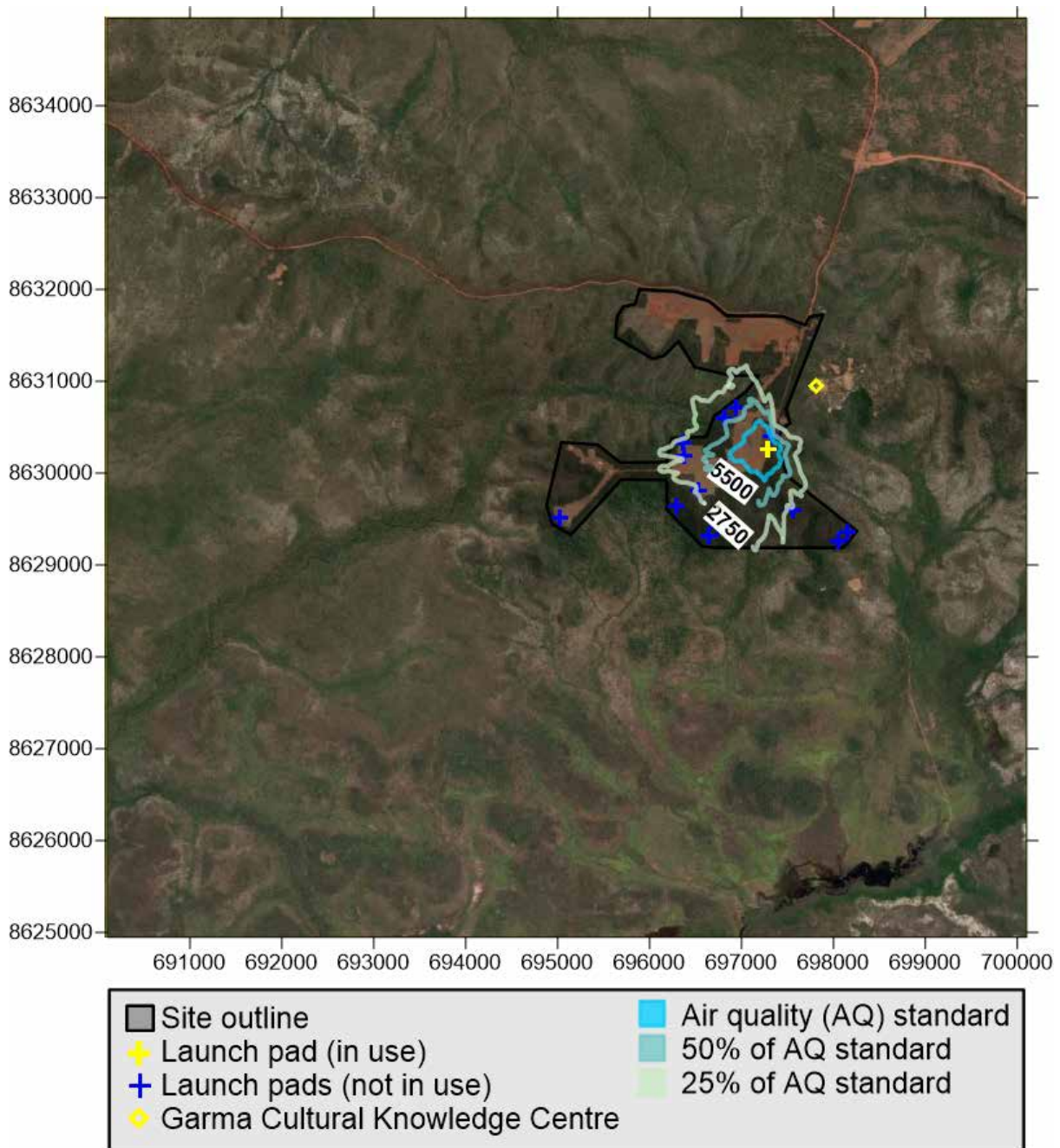


Figure 41 Maximum predicted 8-hour ground level concentration for CO (5,500  $\mu\text{g}/\text{m}^3$ ) (Magenta 2)

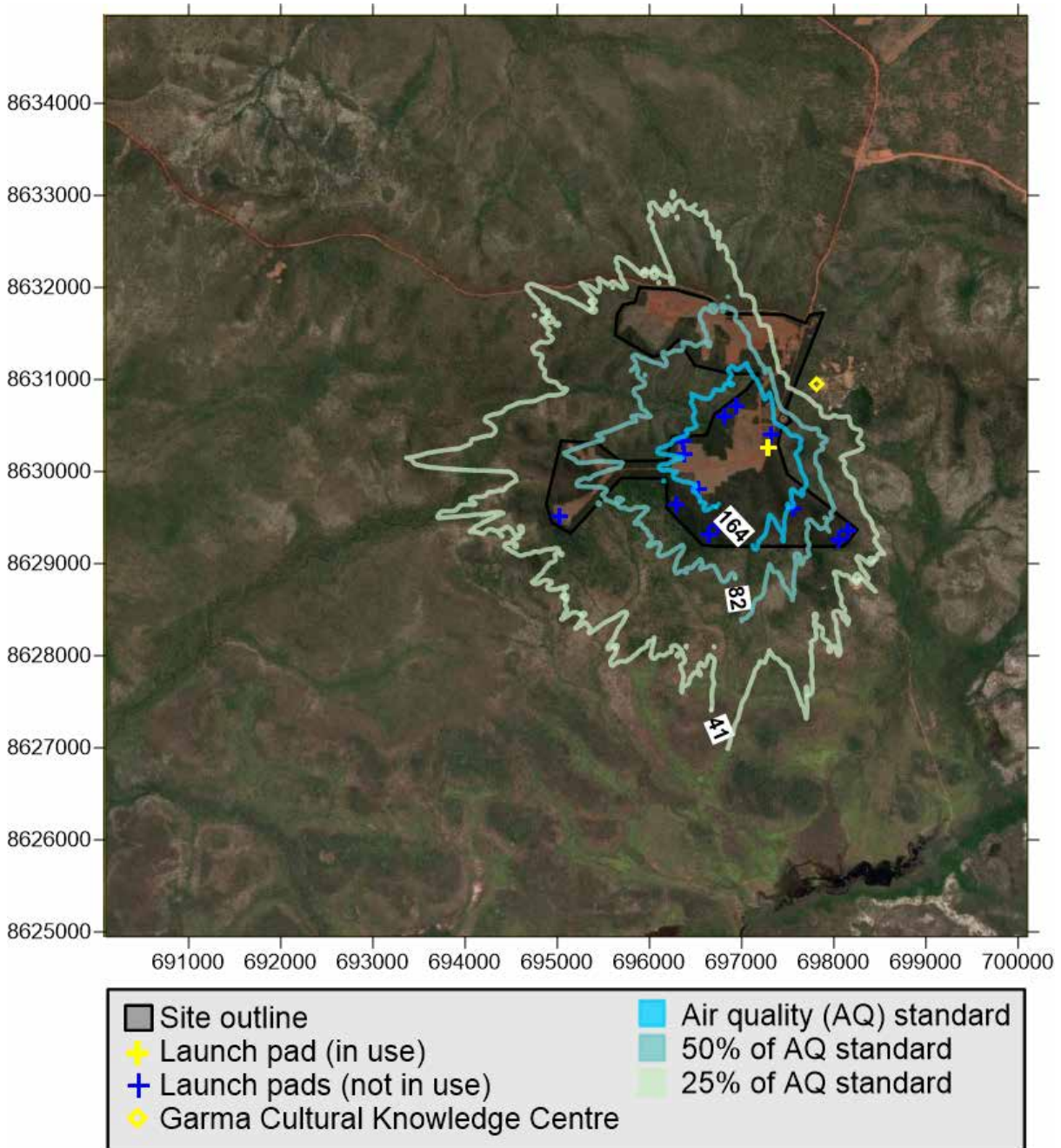


Figure 42 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Magenta 2)



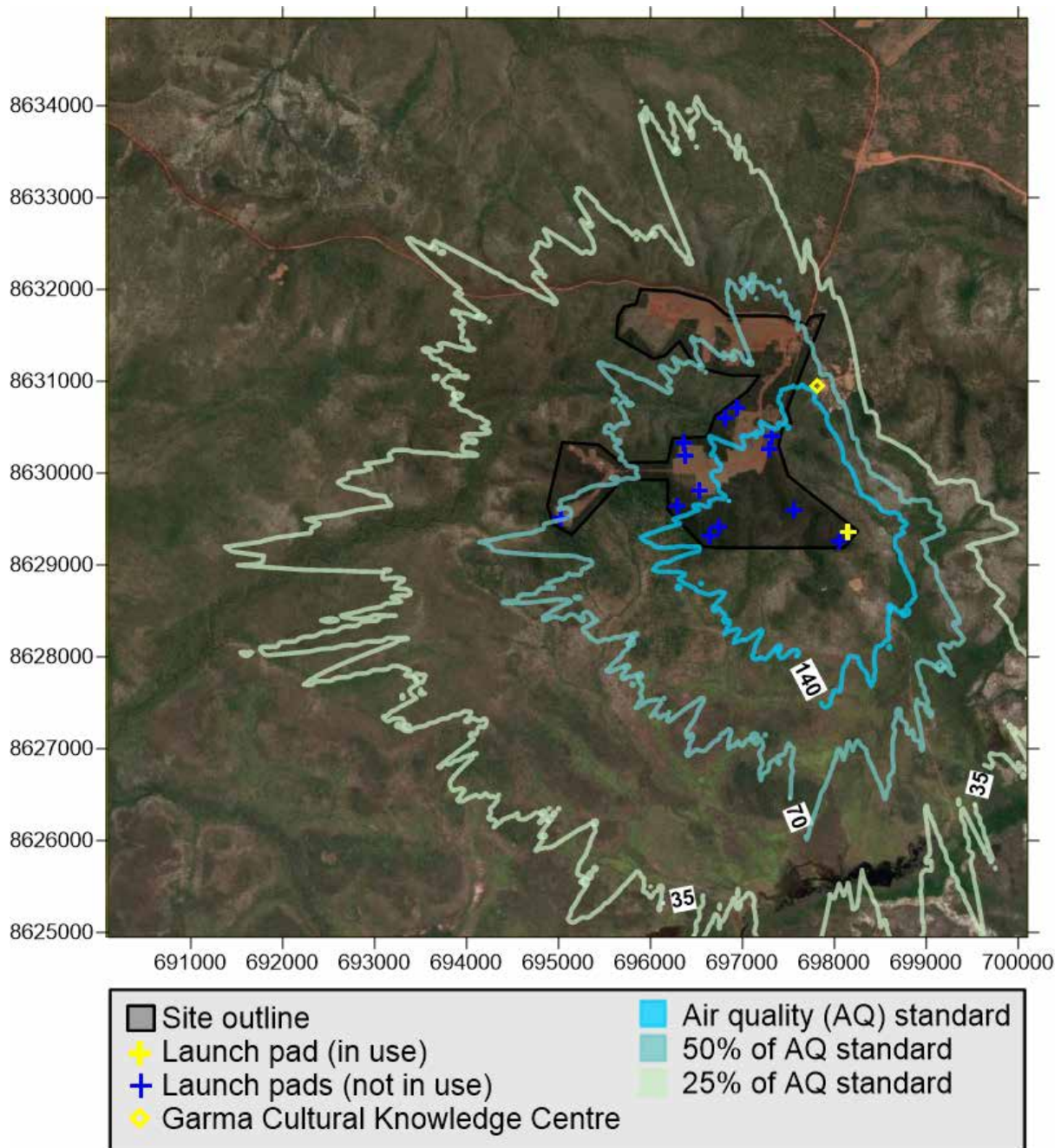


Figure 43 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) (Maroon 1)

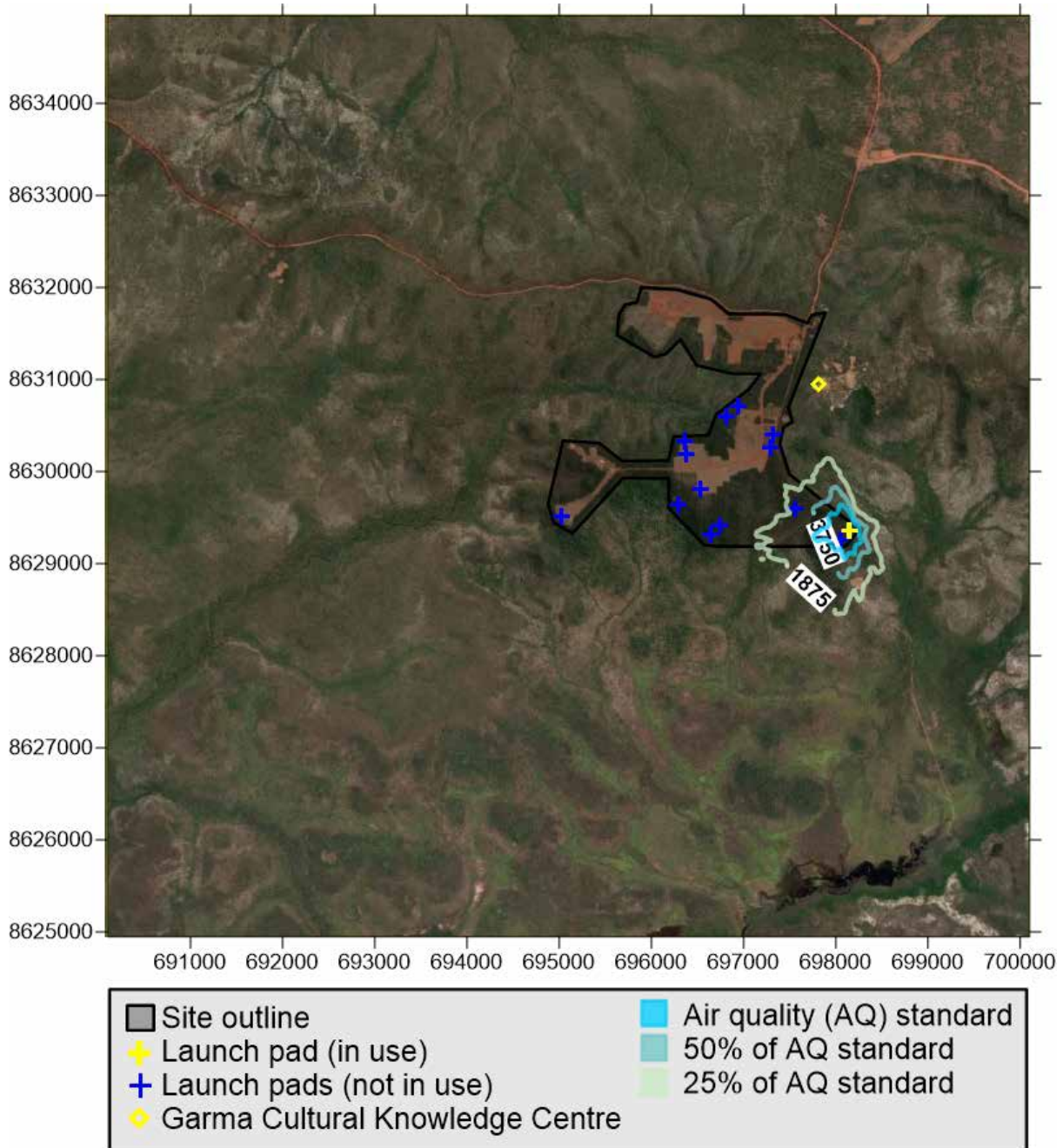


Figure 44 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m³) (Maroon 1)



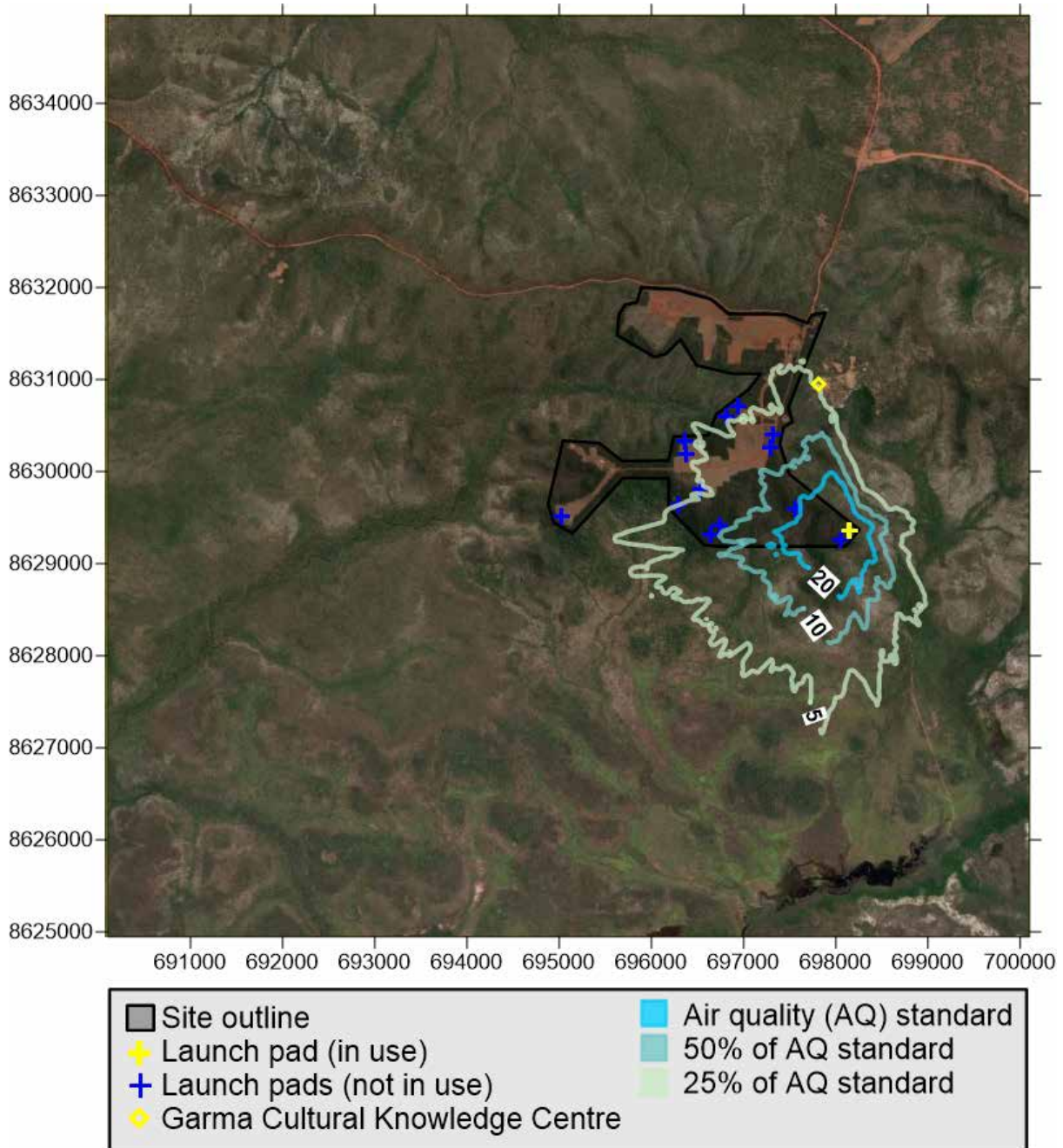


Figure 45 Maximum predicted 24-hour ground level concentration for HCl ( $20 \mu\text{g}/\text{m}^3$ ) (Maroon 1)

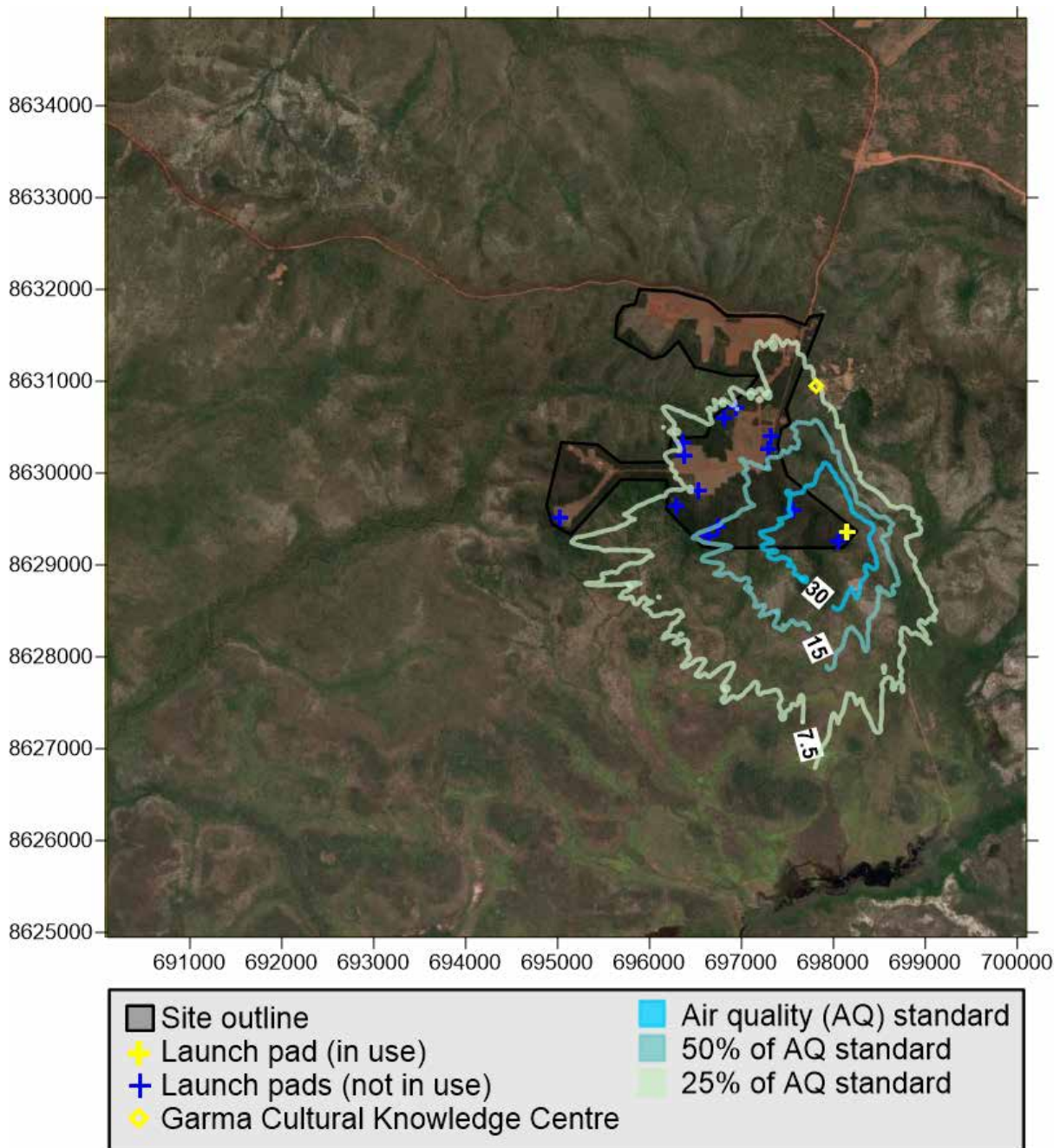


Figure 46 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Maroon 1)



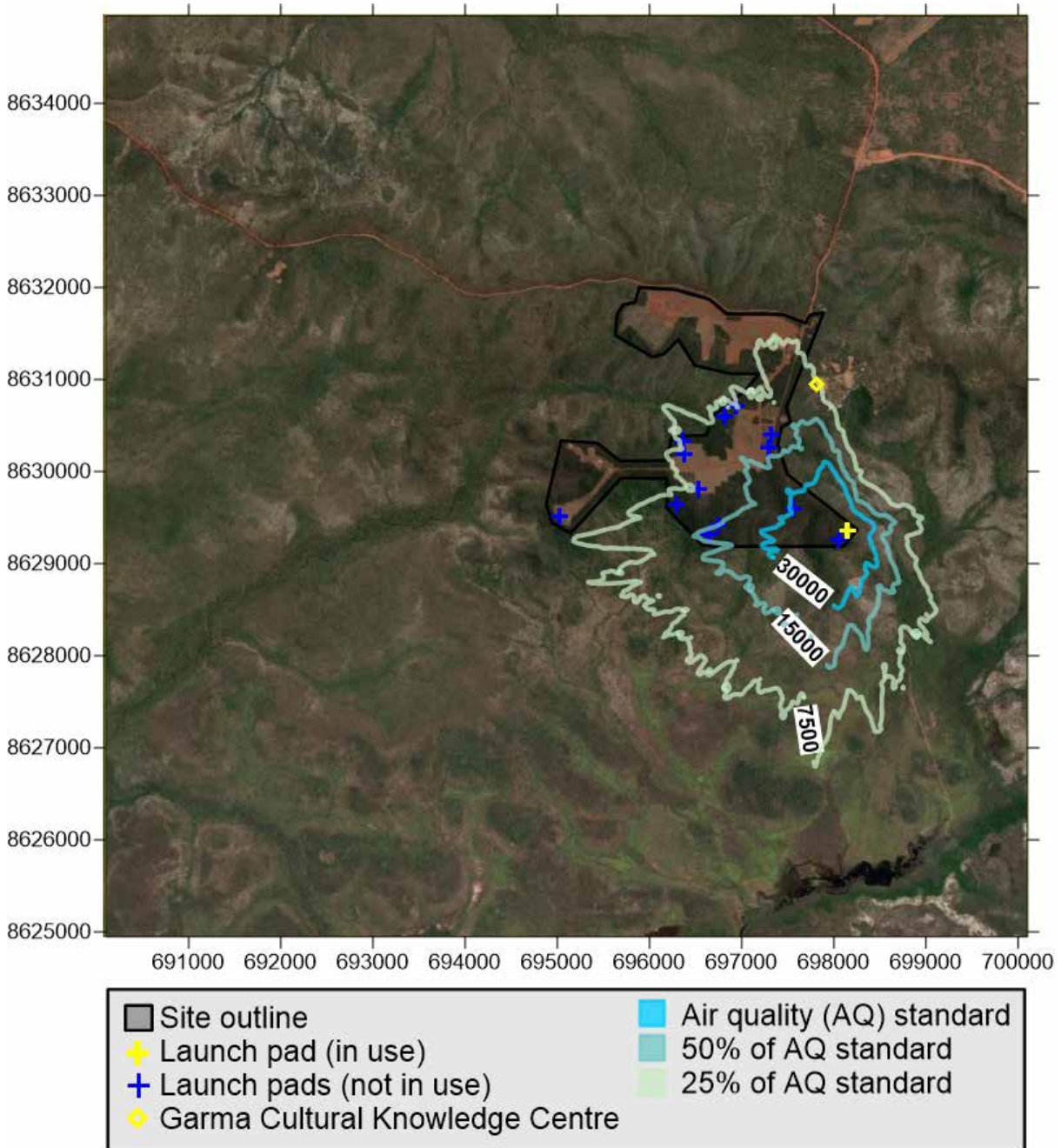


Figure 47 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Maroon 1)

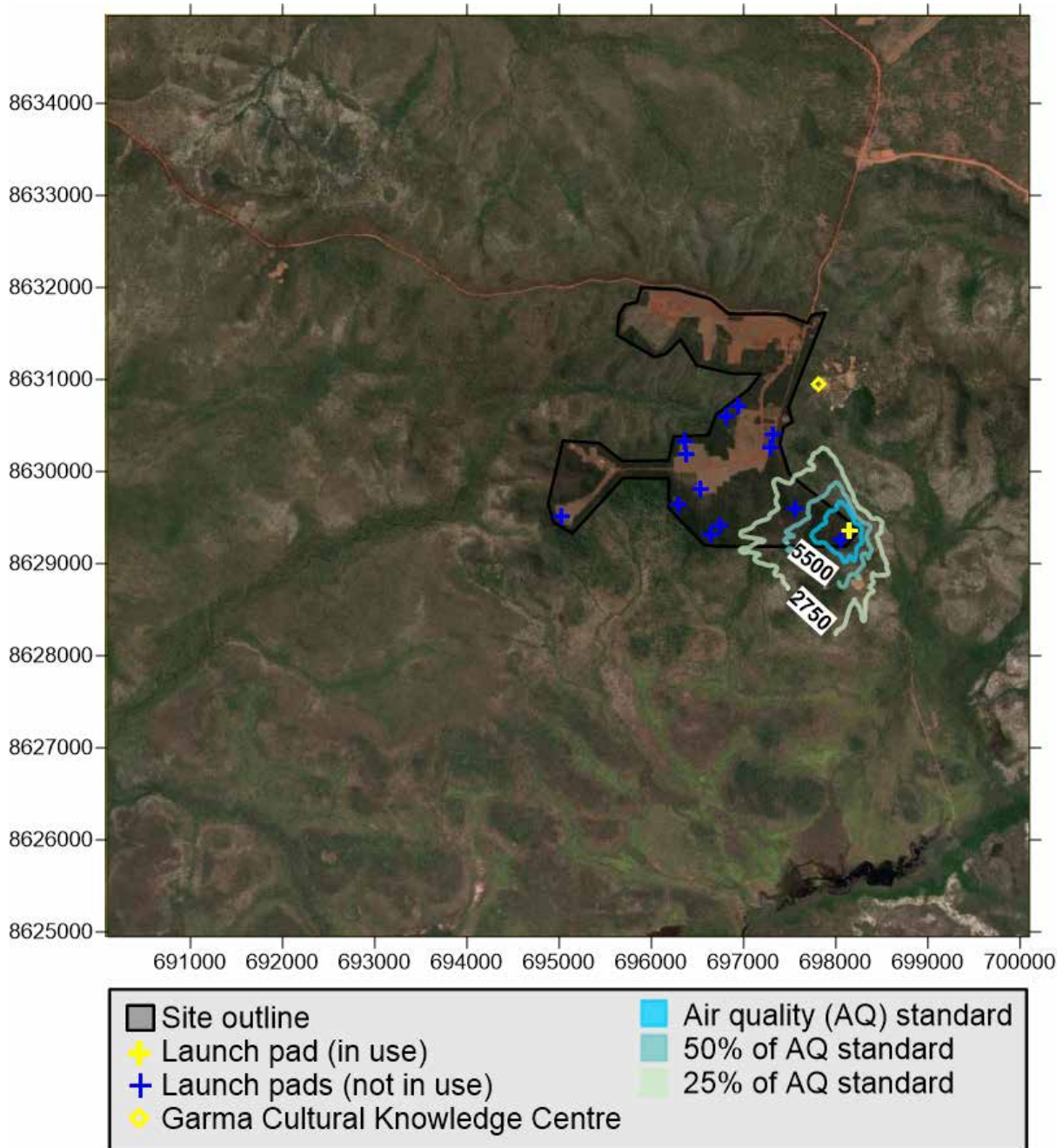


Figure 48 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Maroon 1)



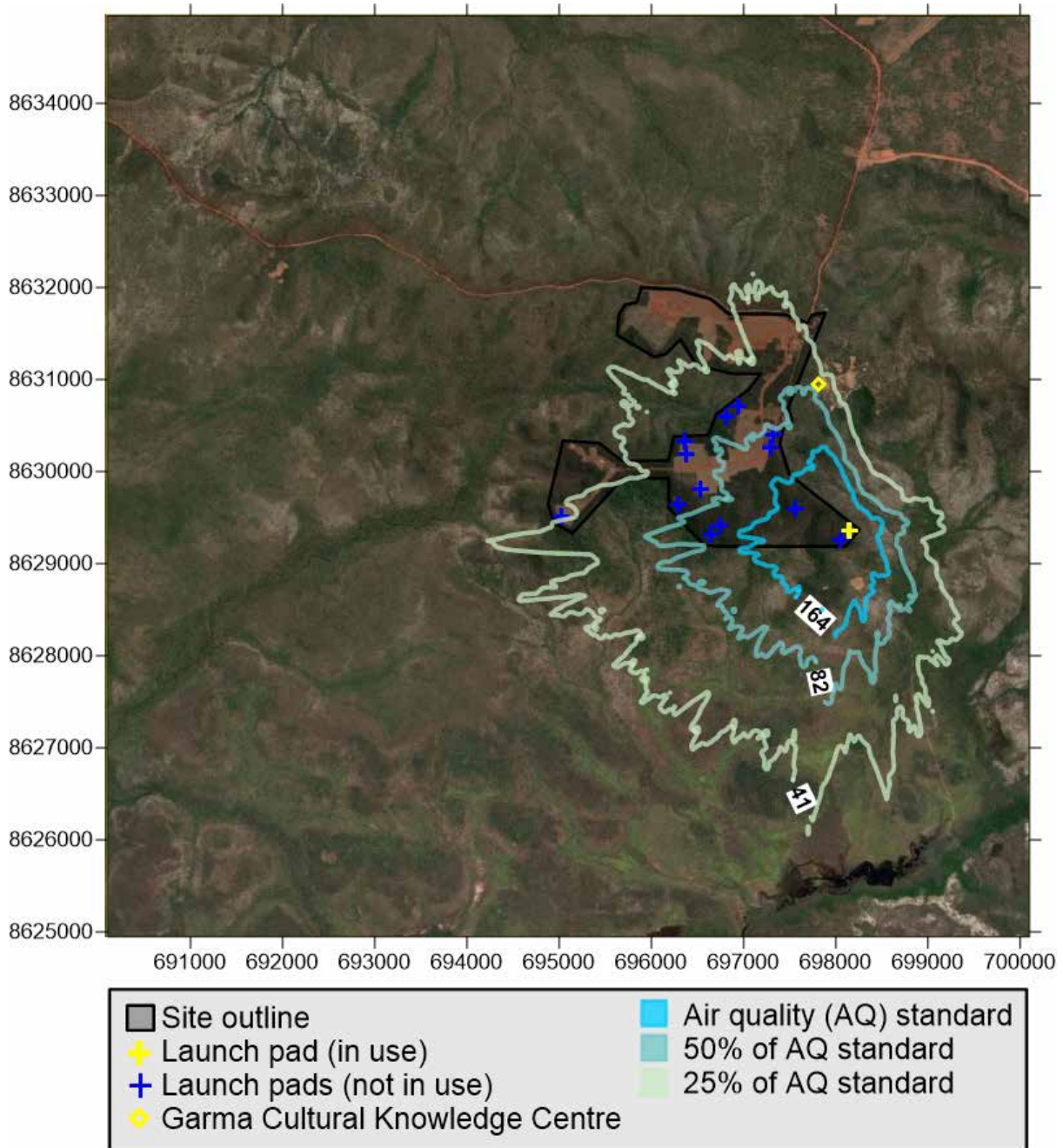


Figure 49 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Maroon 1)

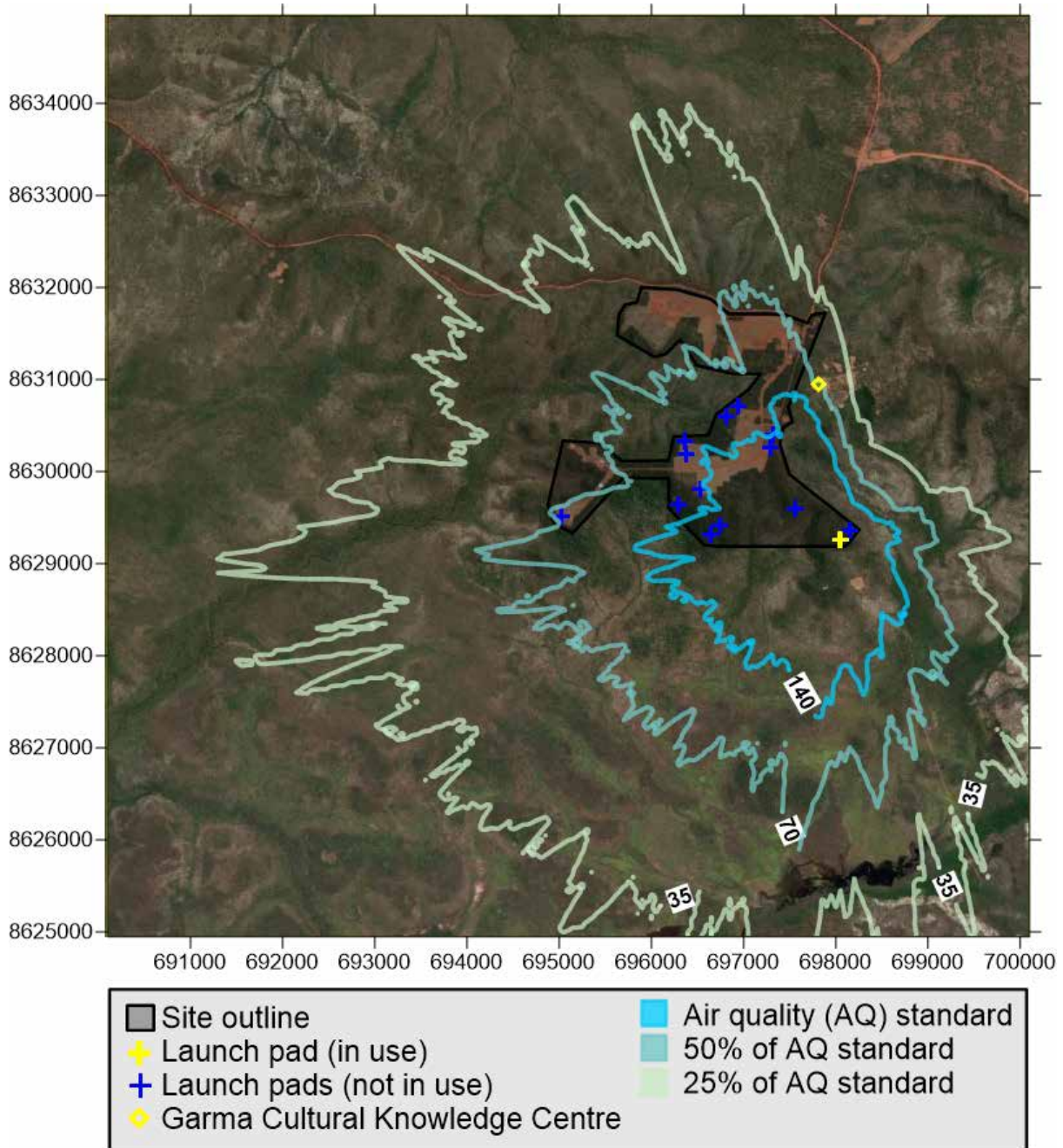


Figure 50 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) (Maroon 2)



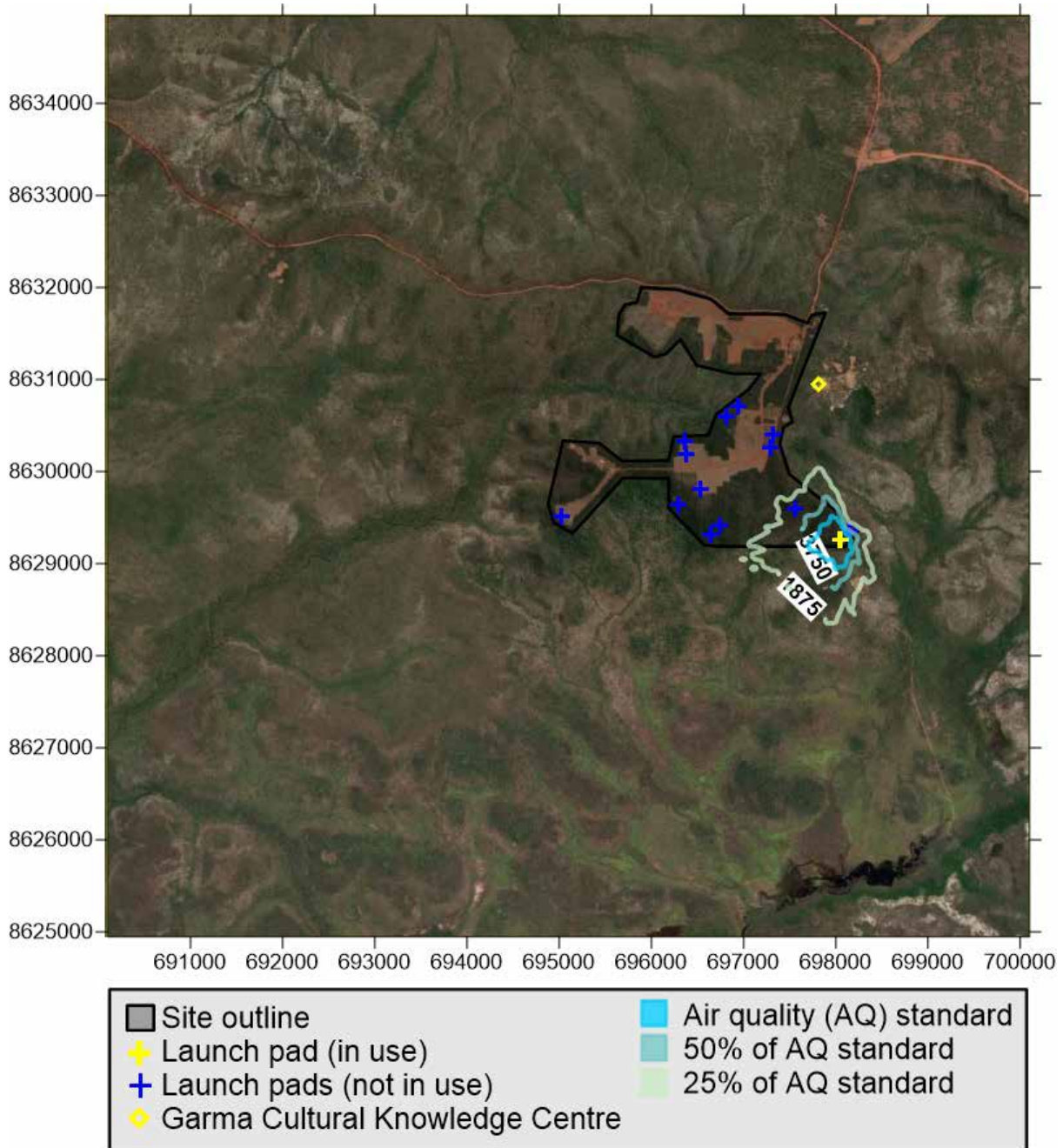


Figure 51 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Maroon 2)

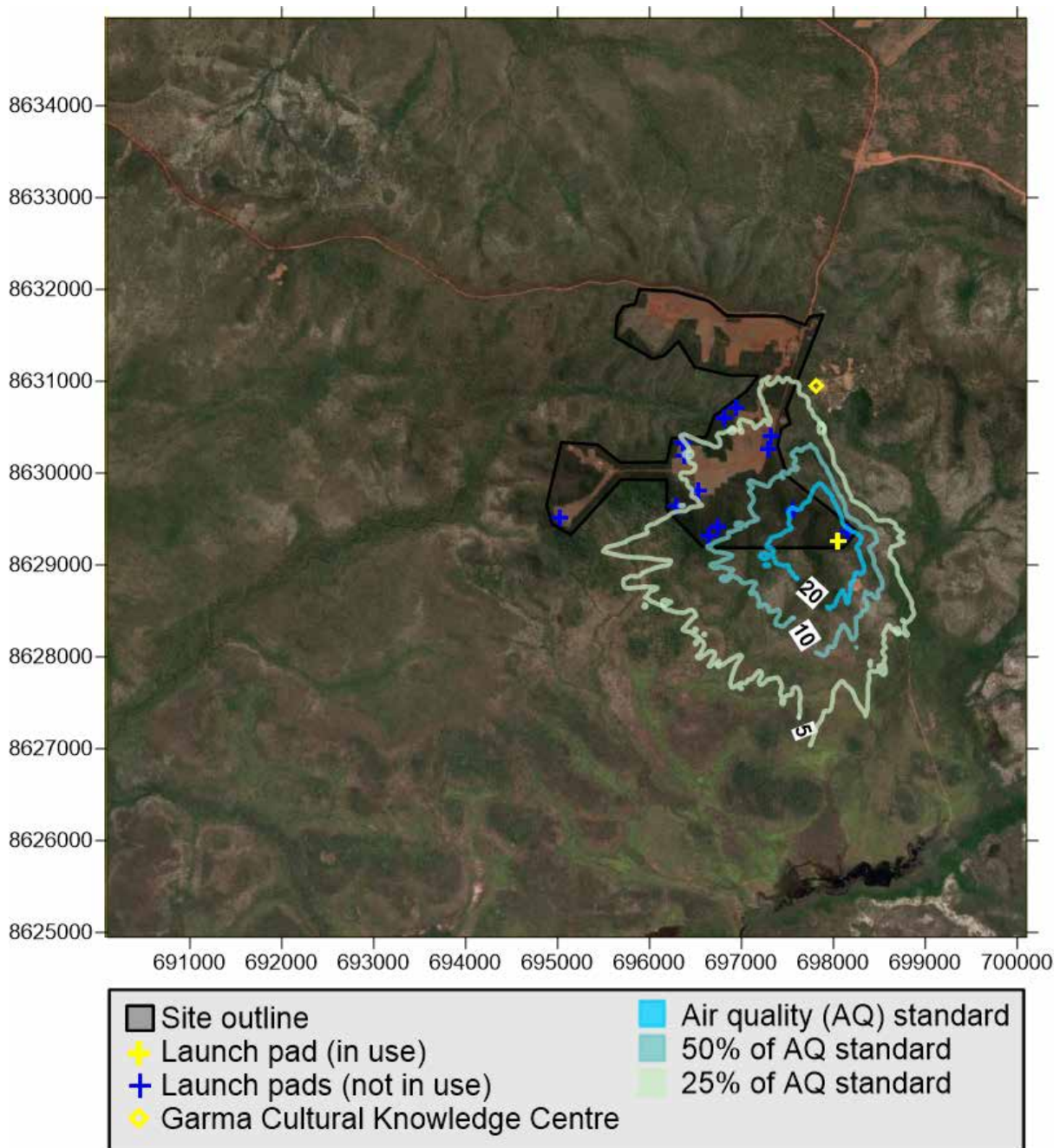


Figure 52 Maximum predicted 24-hour ground level concentration for HCl ( $20 \mu\text{g}/\text{m}^3$ ) (Maroon 2)



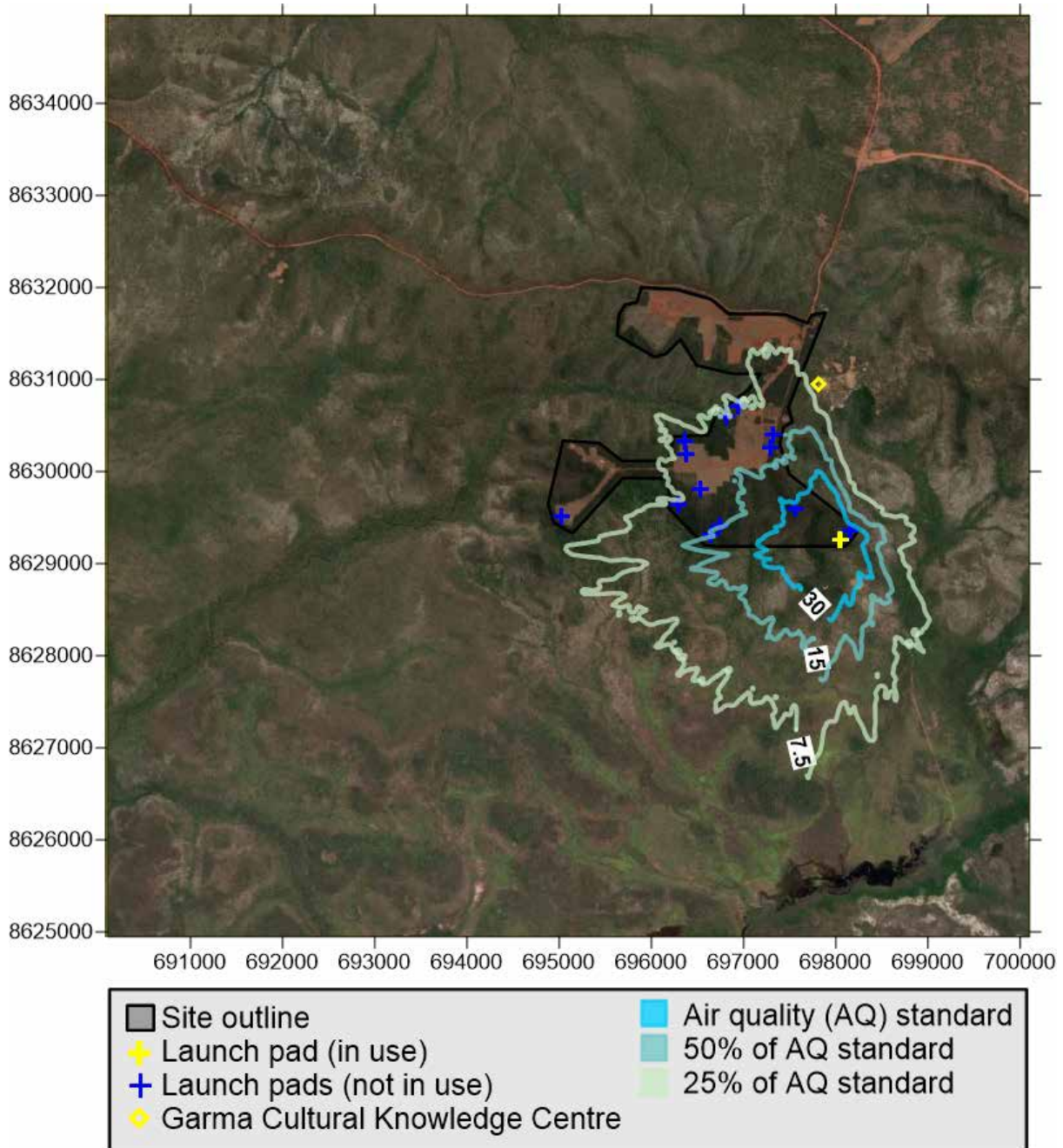


Figure 53 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Maroon 2)

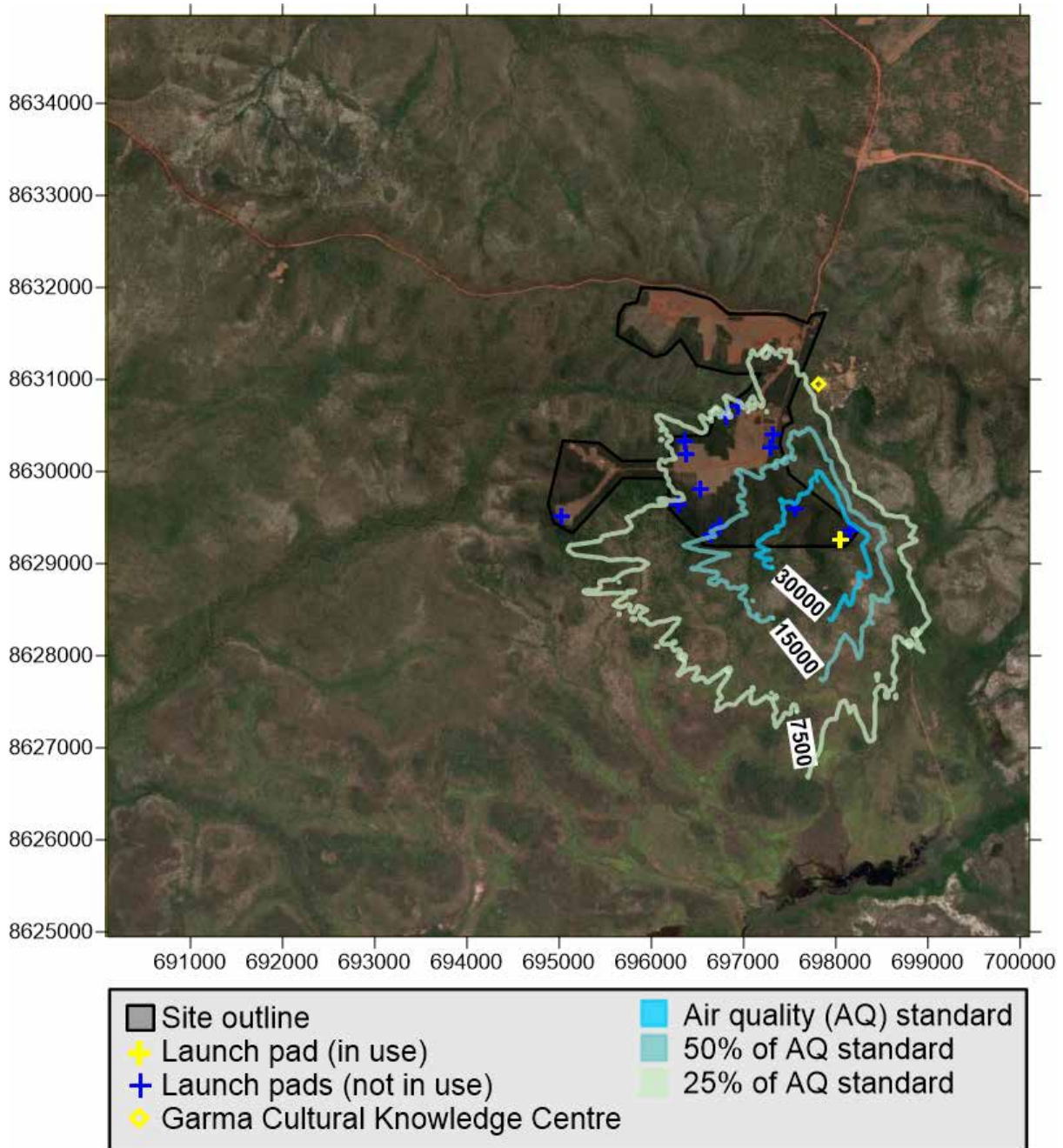


Figure 54 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Maroon 2)



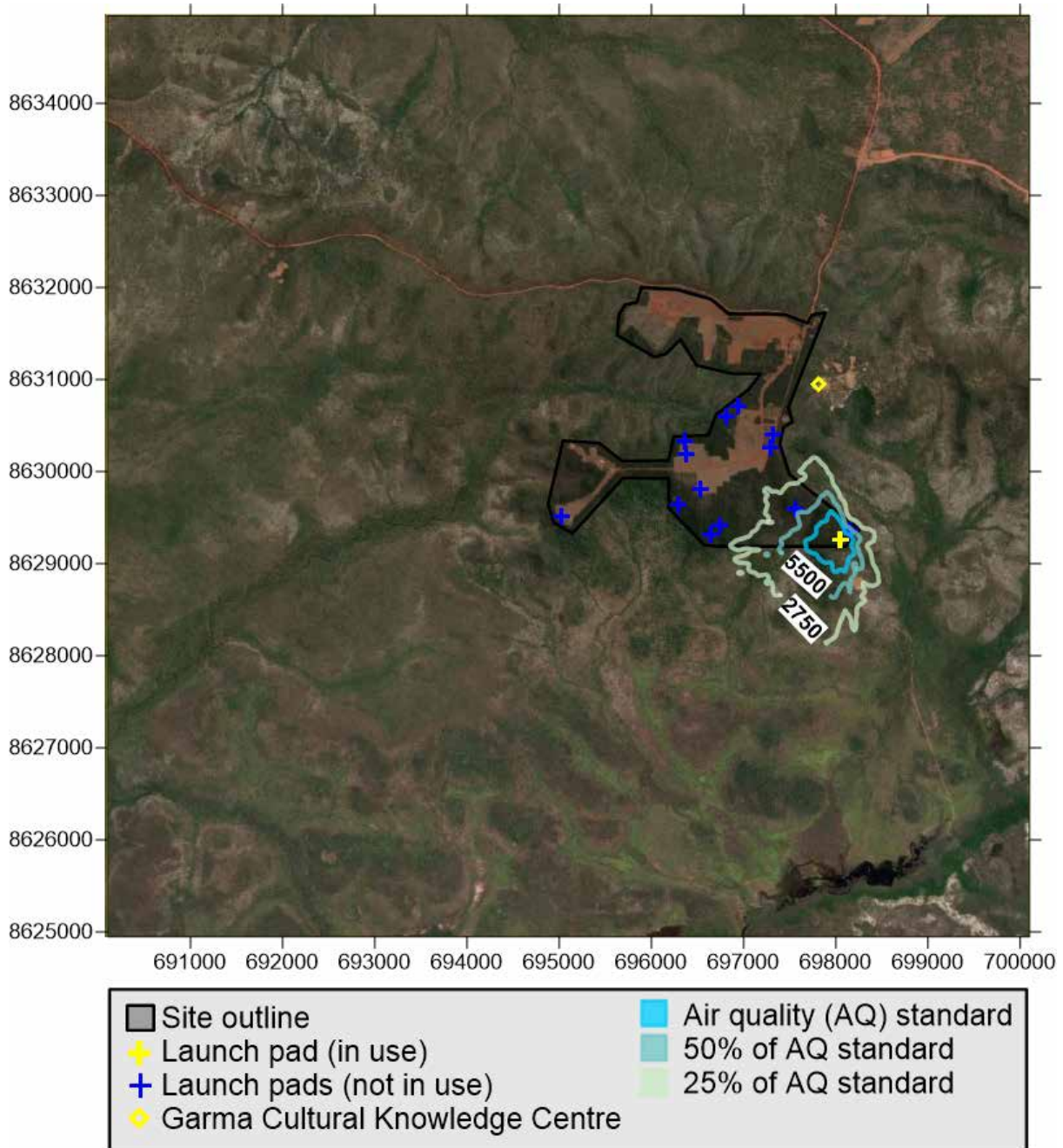


Figure 55 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Maroon 2)

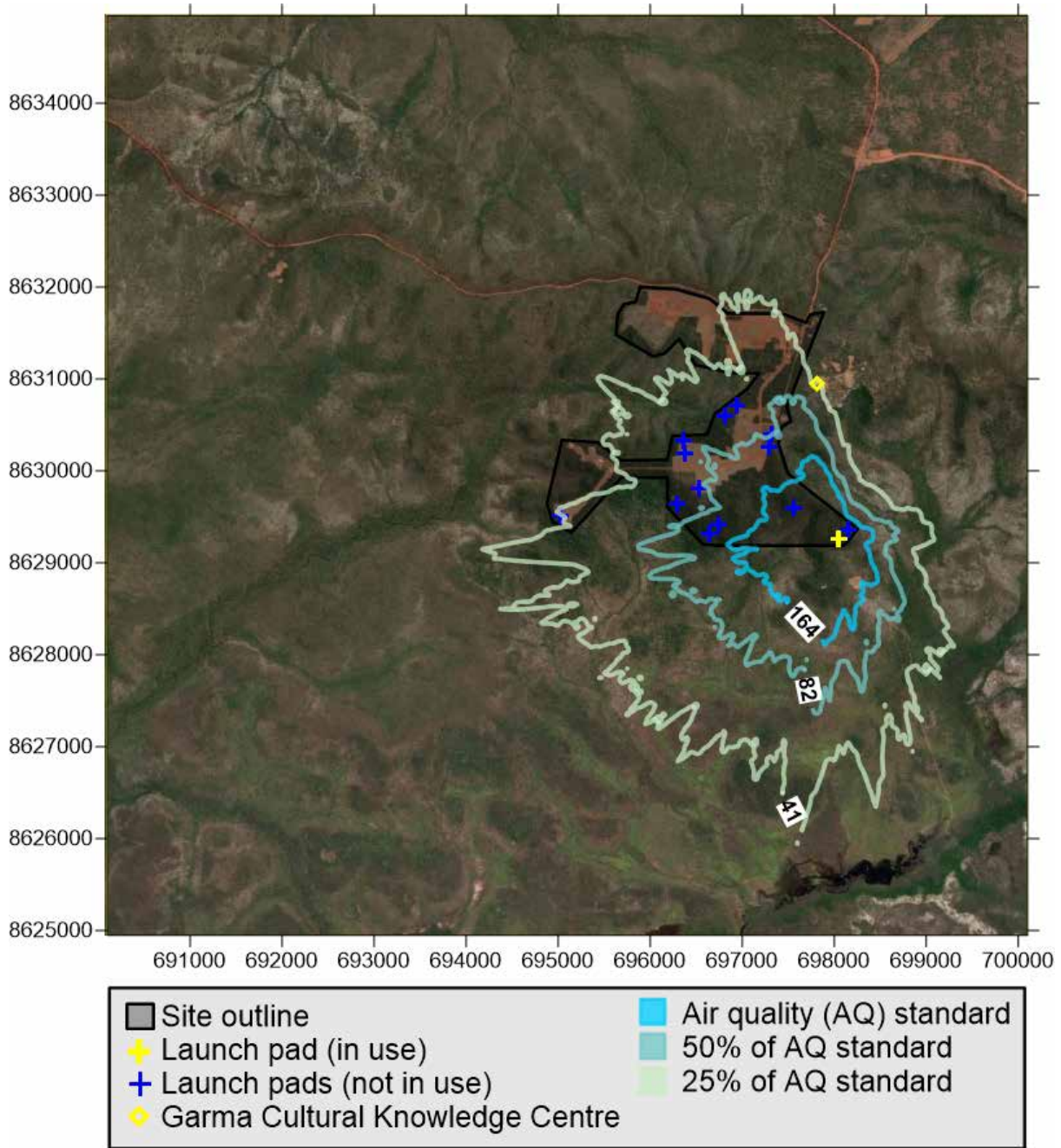


Figure 56 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Maroon 2)



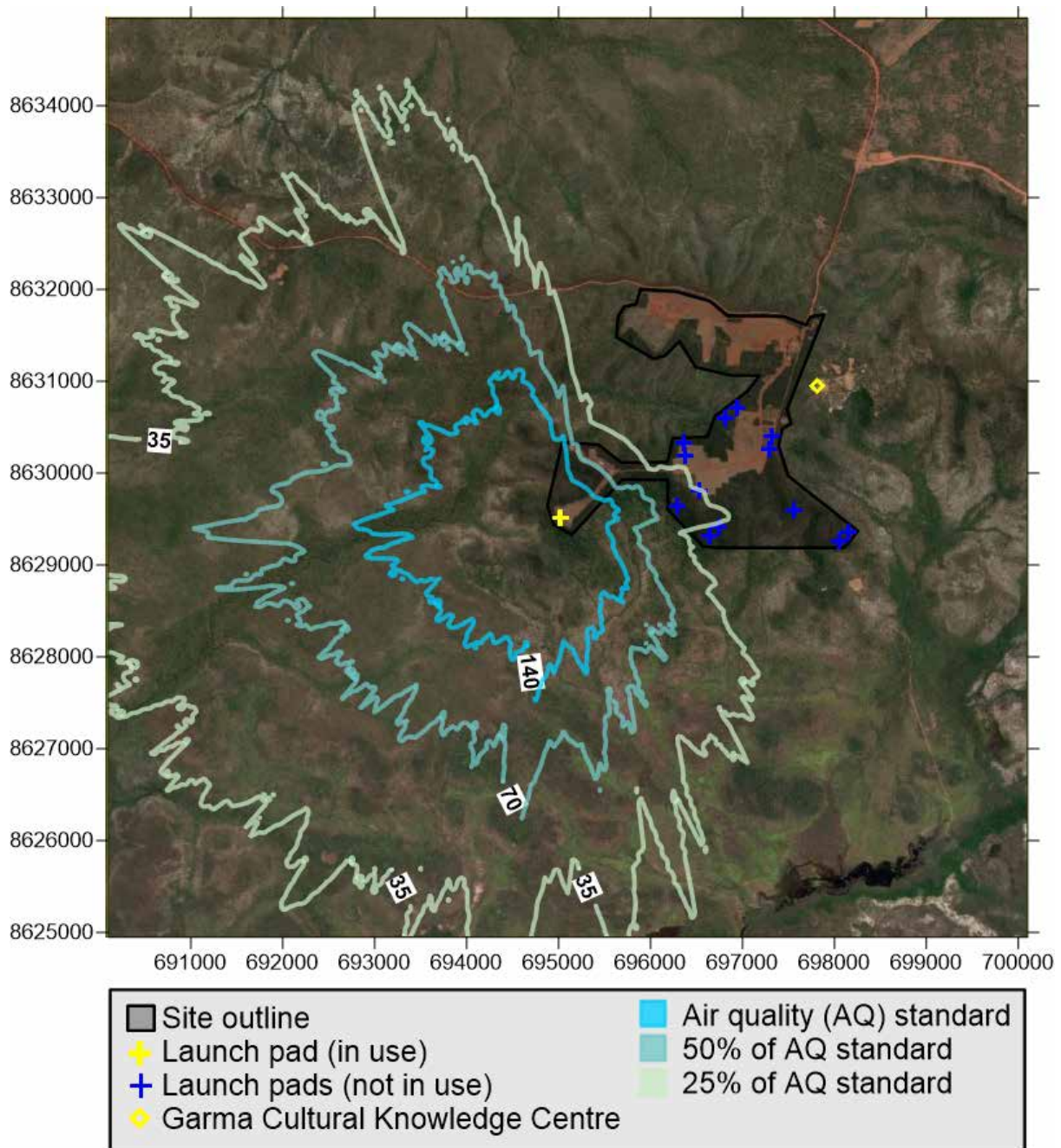


Figure 57 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Original)

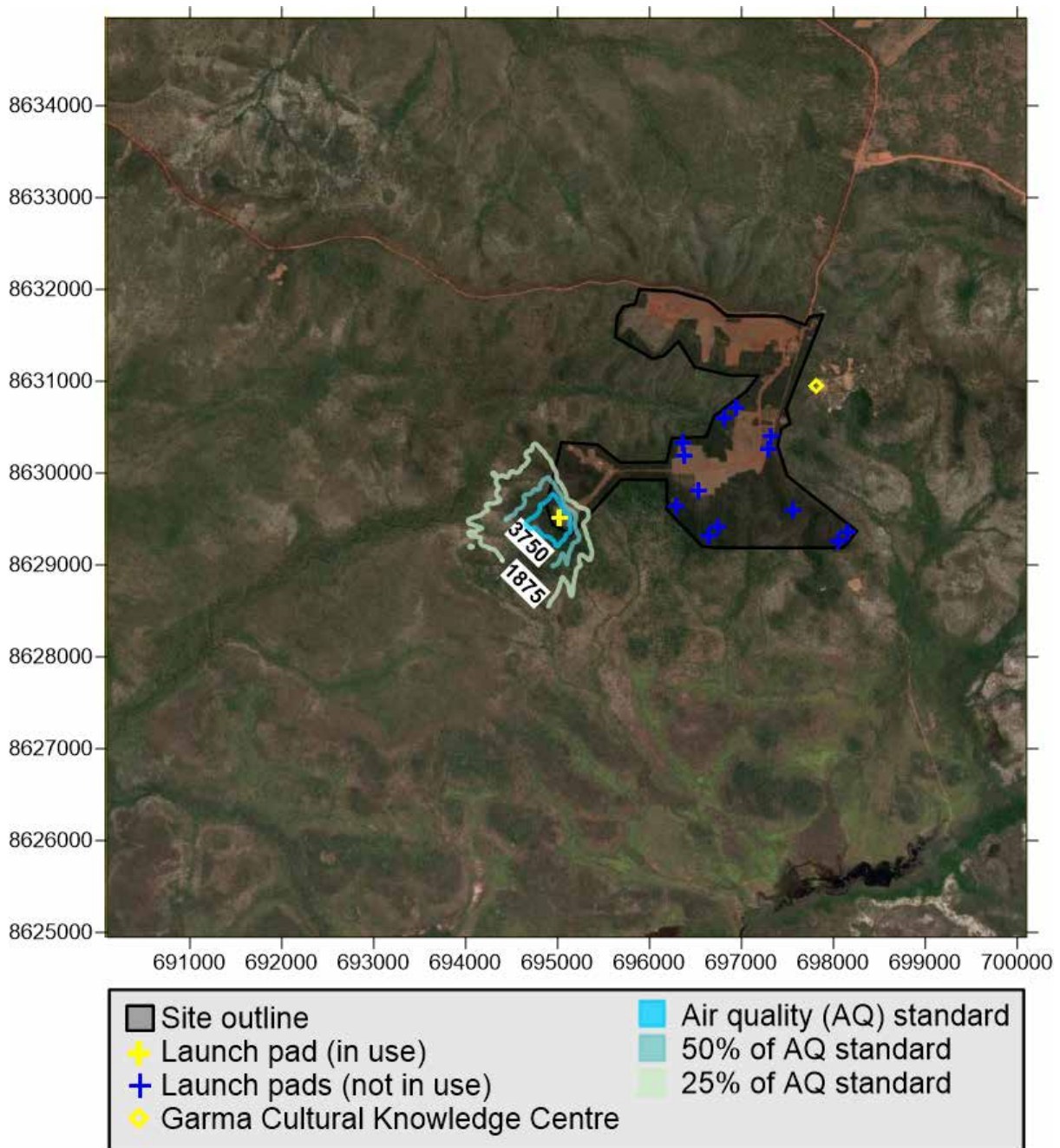


Figure 58 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Original)



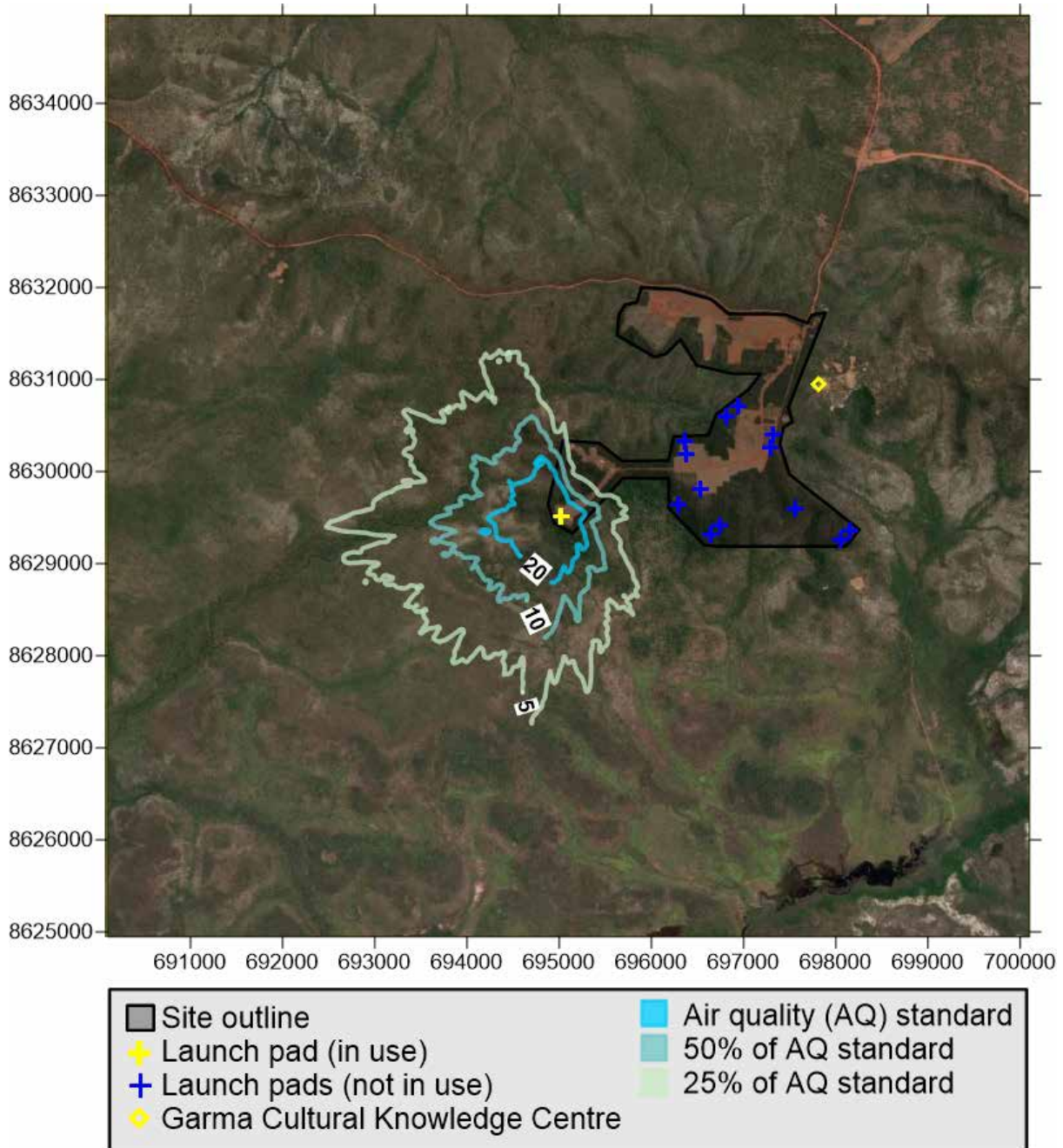


Figure 59 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Original)

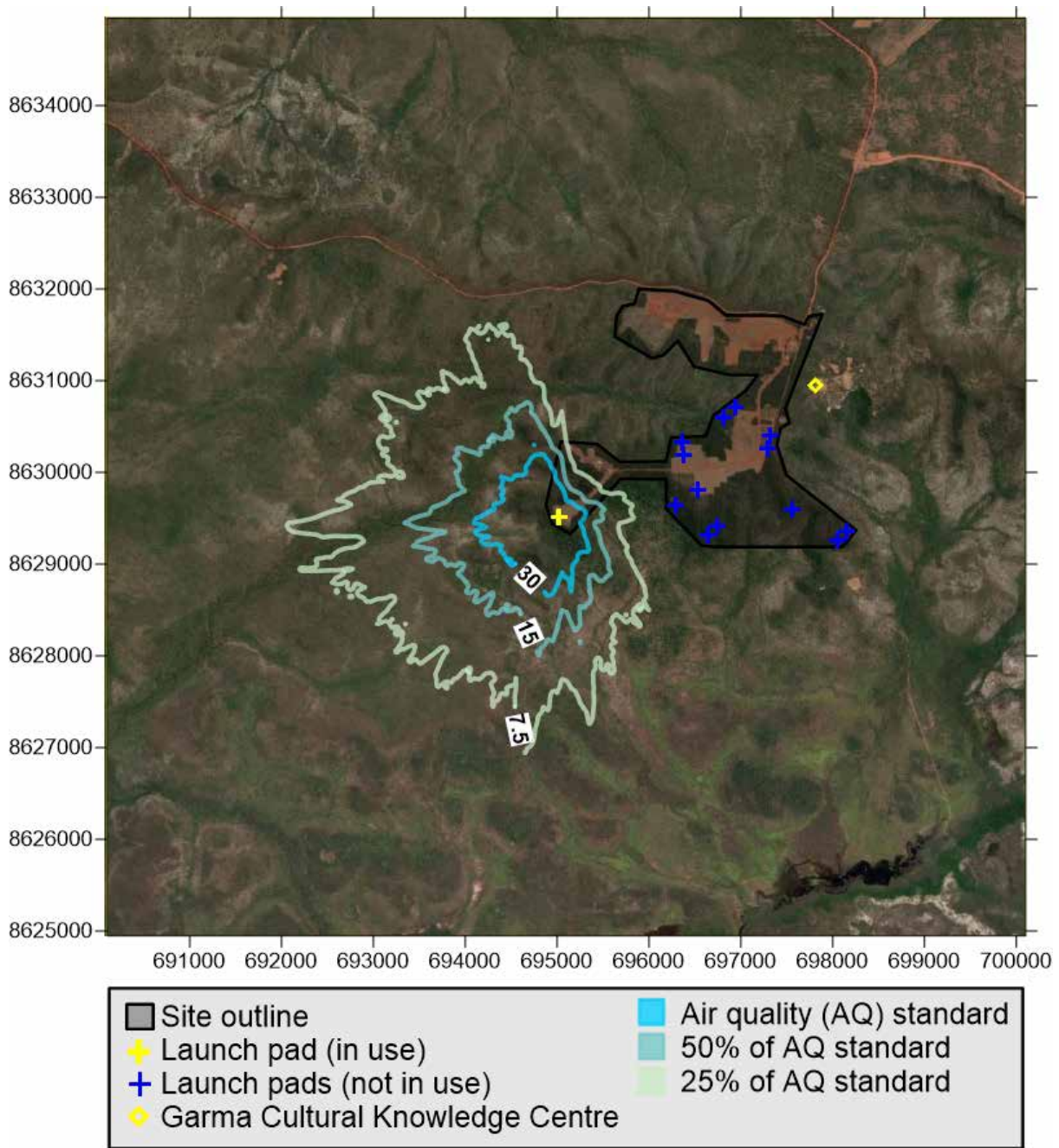


Figure 60 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Original)



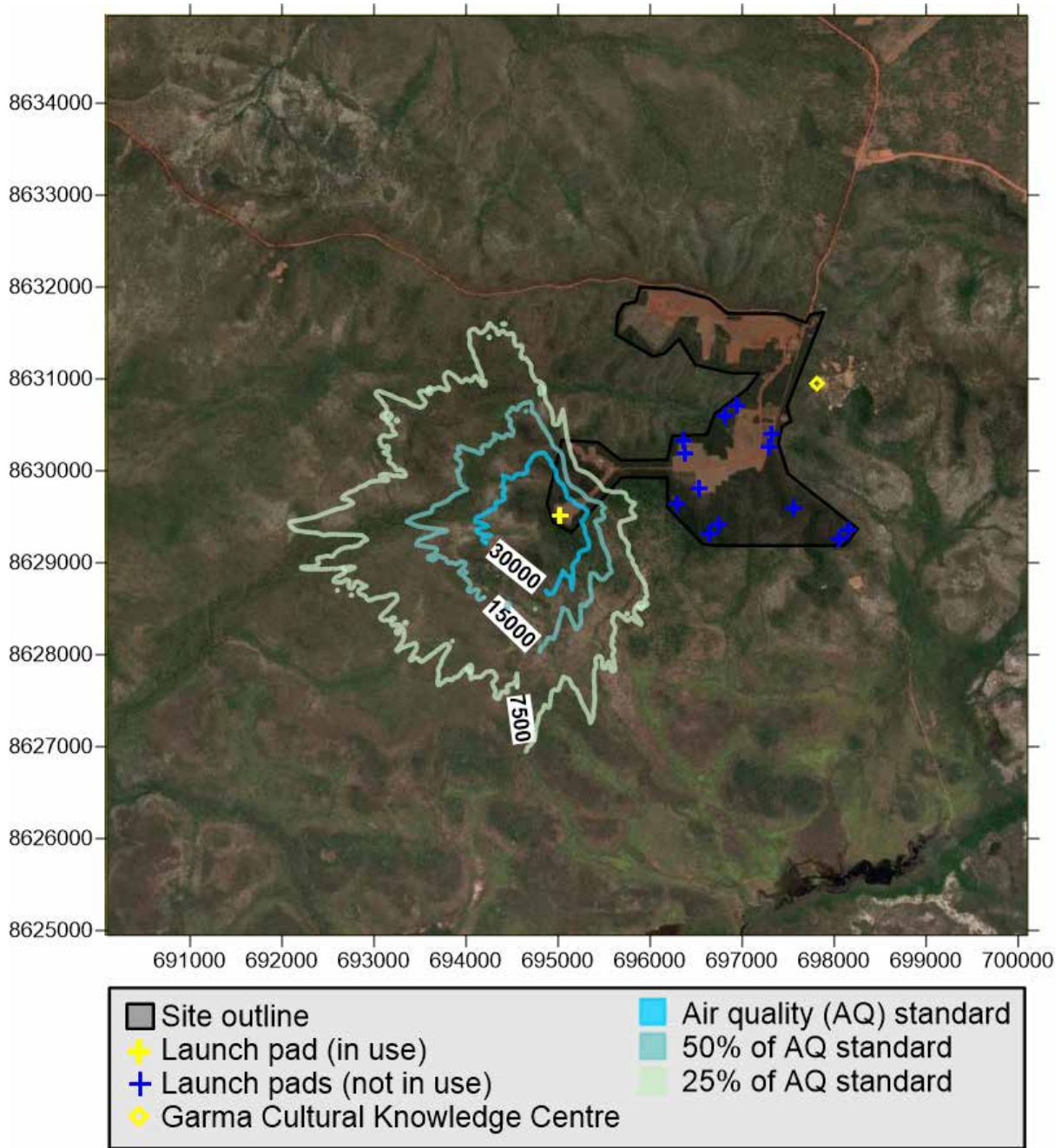


Figure 61 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Original)

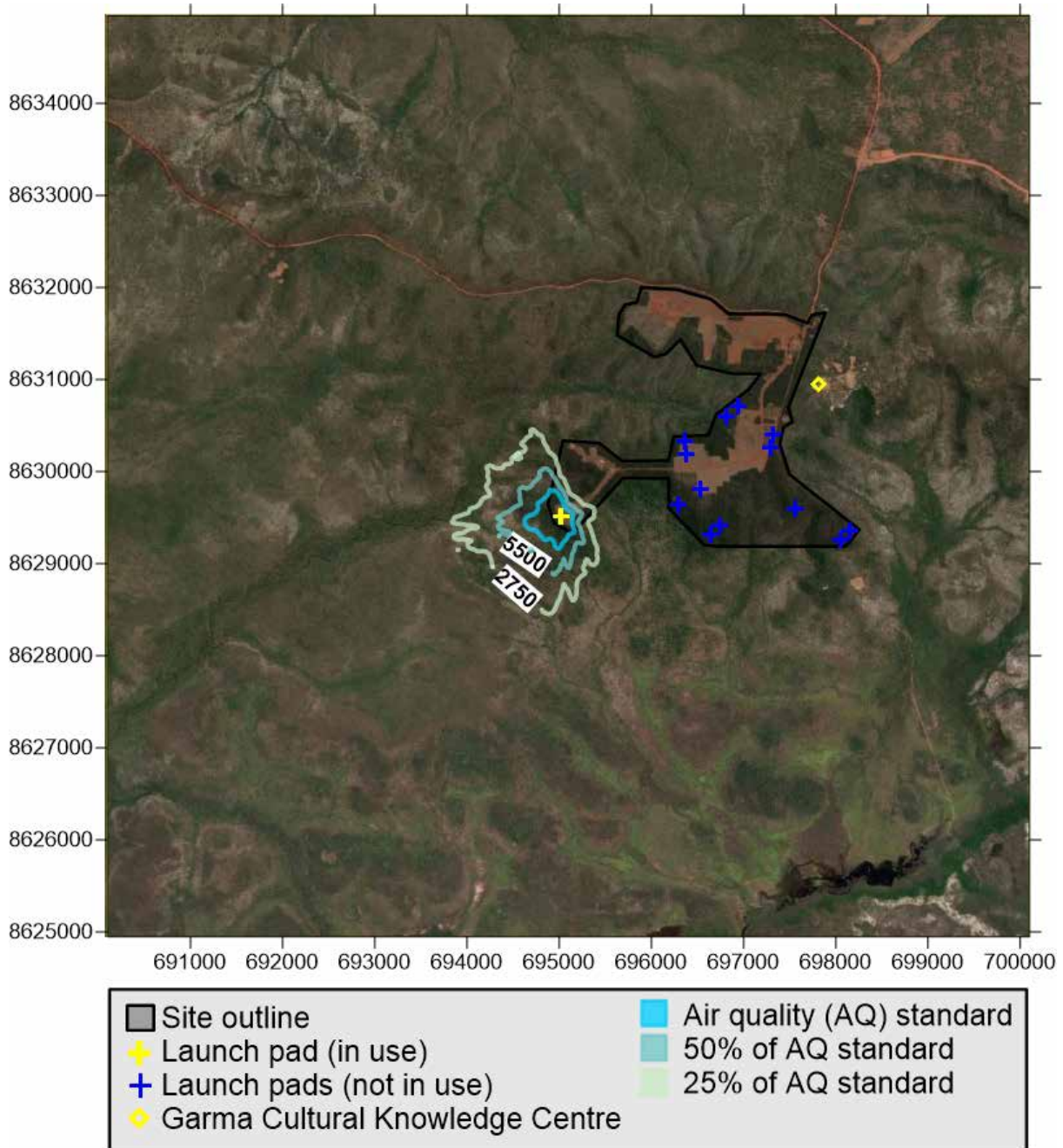


Figure 62 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Original)



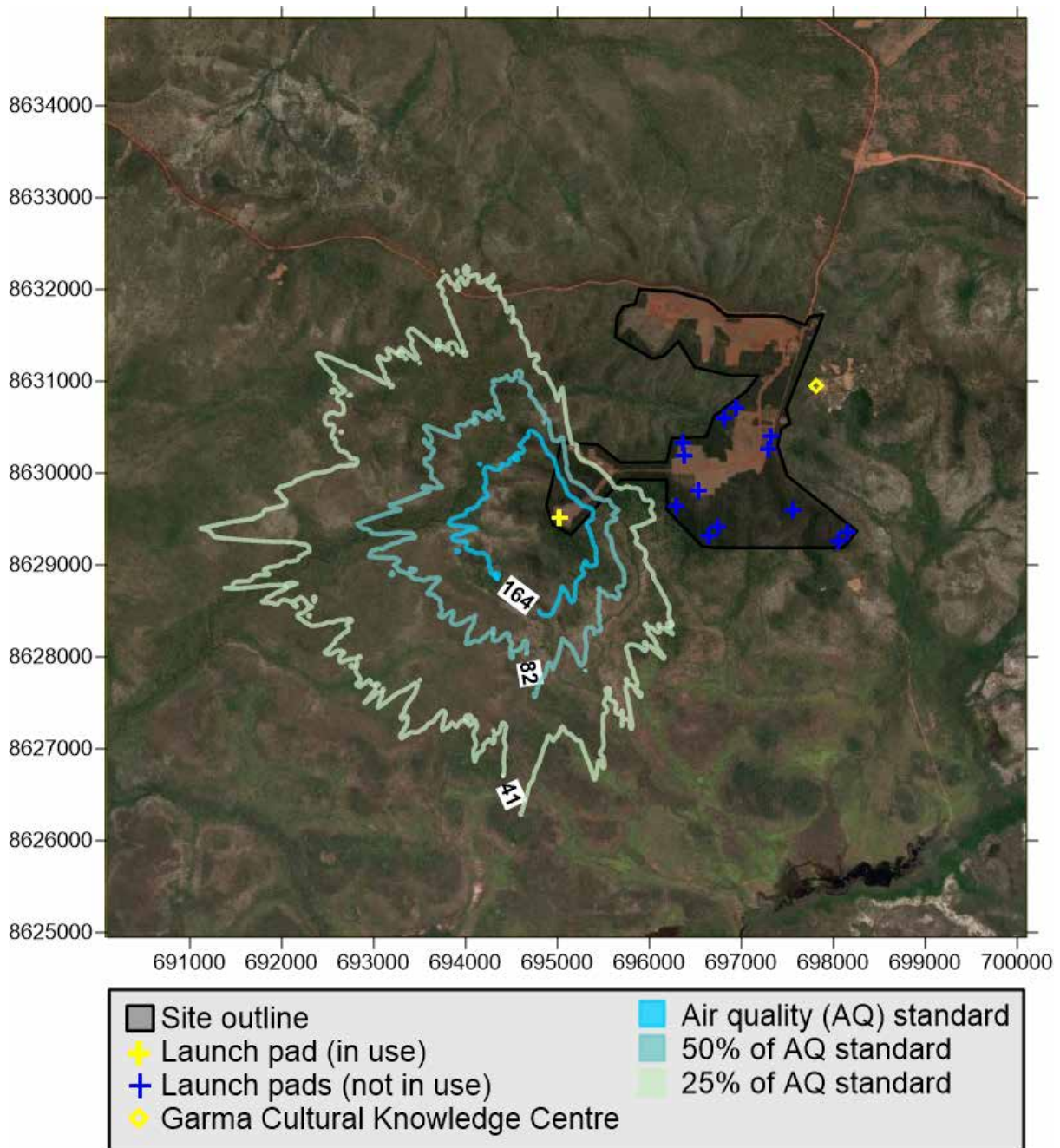


Figure 63 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Original)

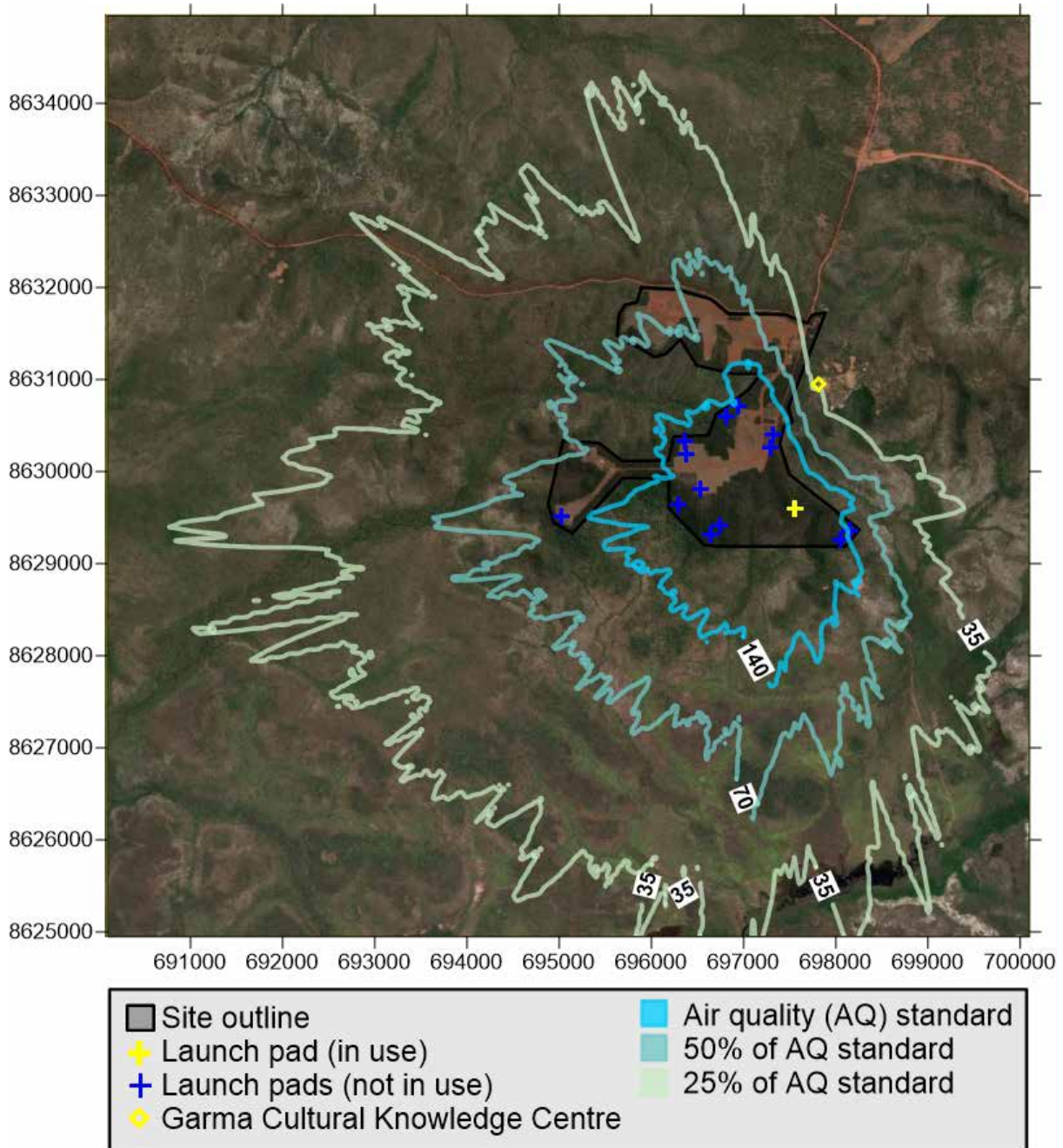


Figure 64 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Red)



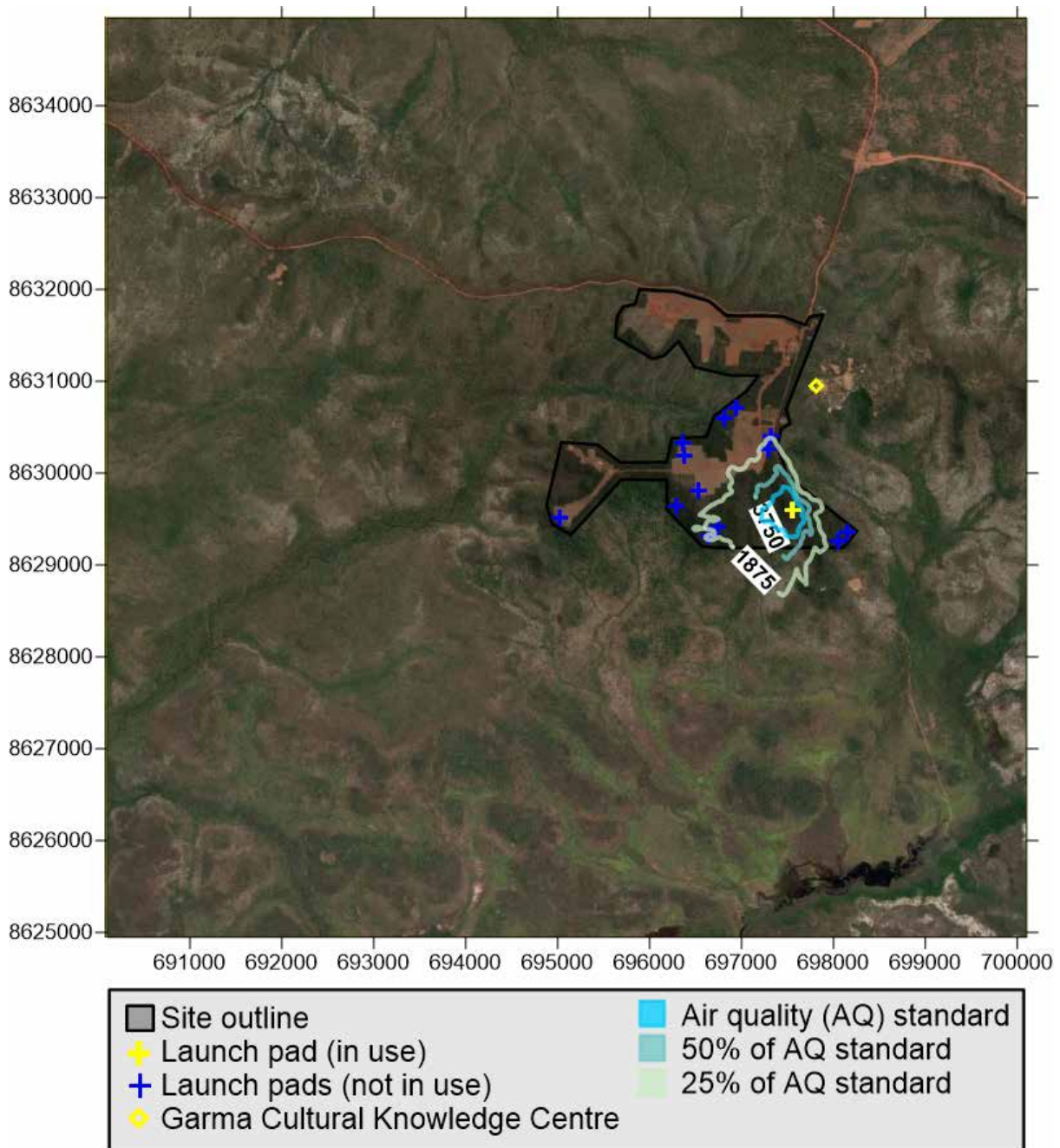


Figure 65 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Red)

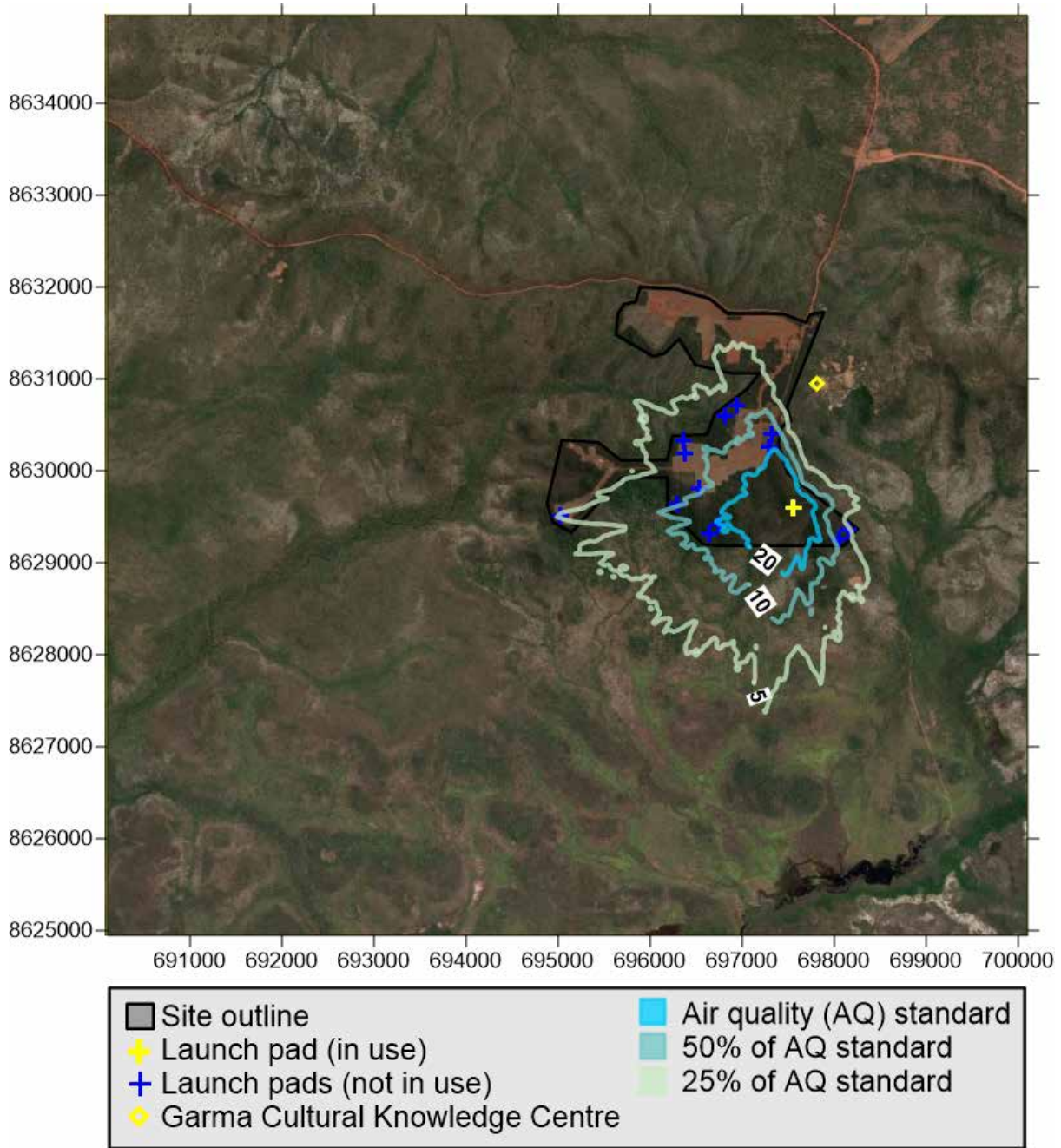


Figure 66 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Red)



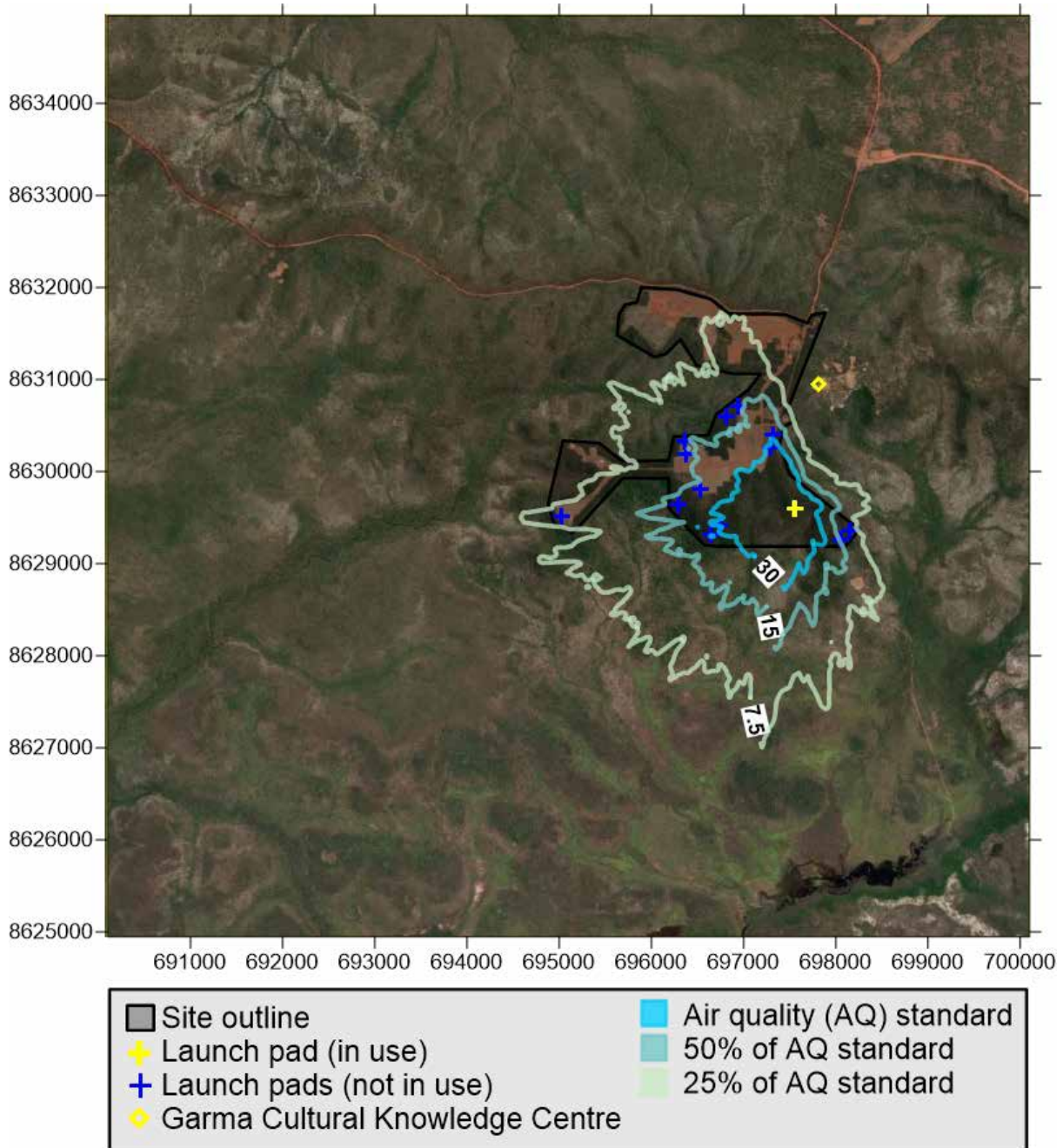


Figure 67 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Red)

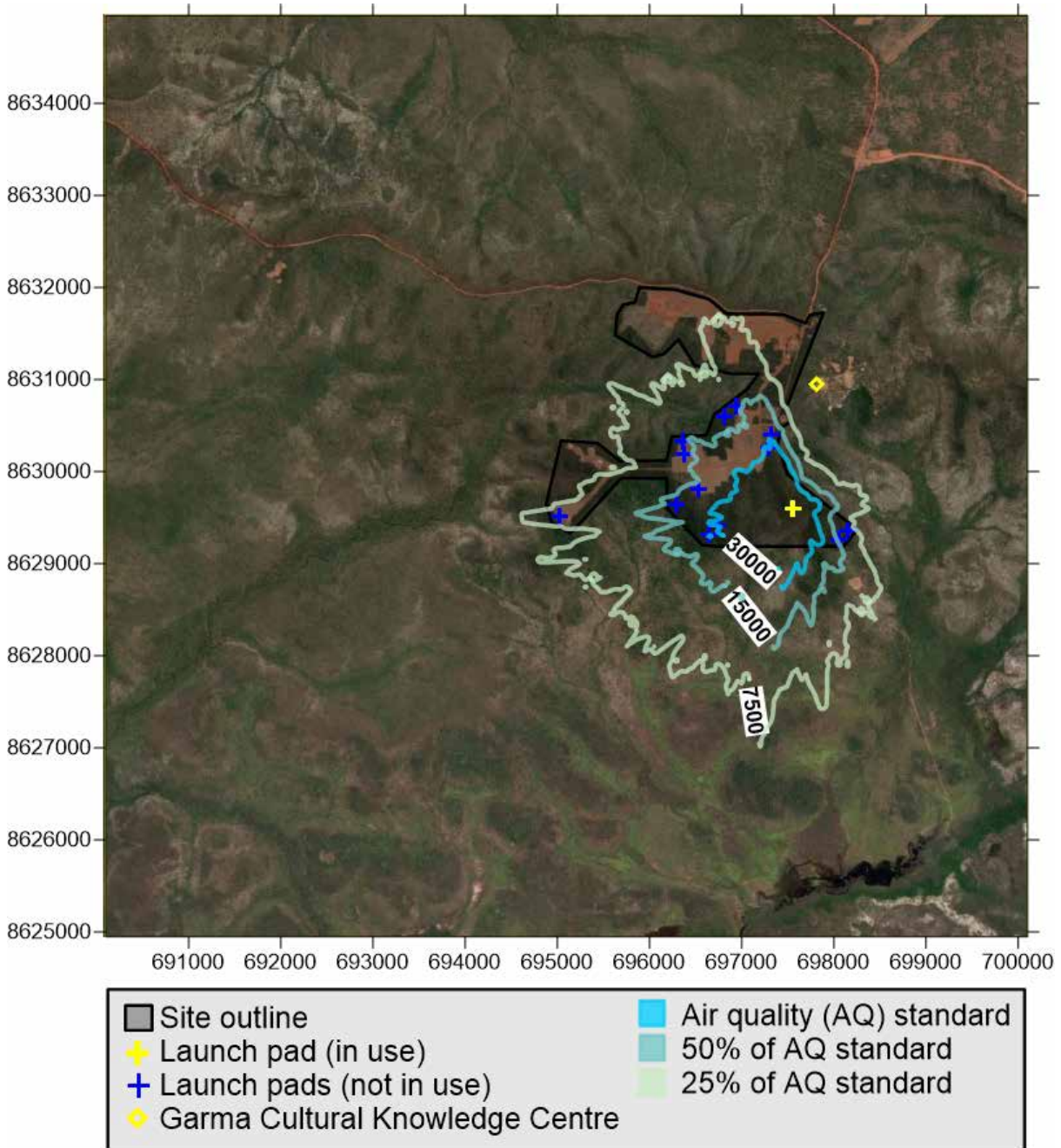


Figure 68 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Red)



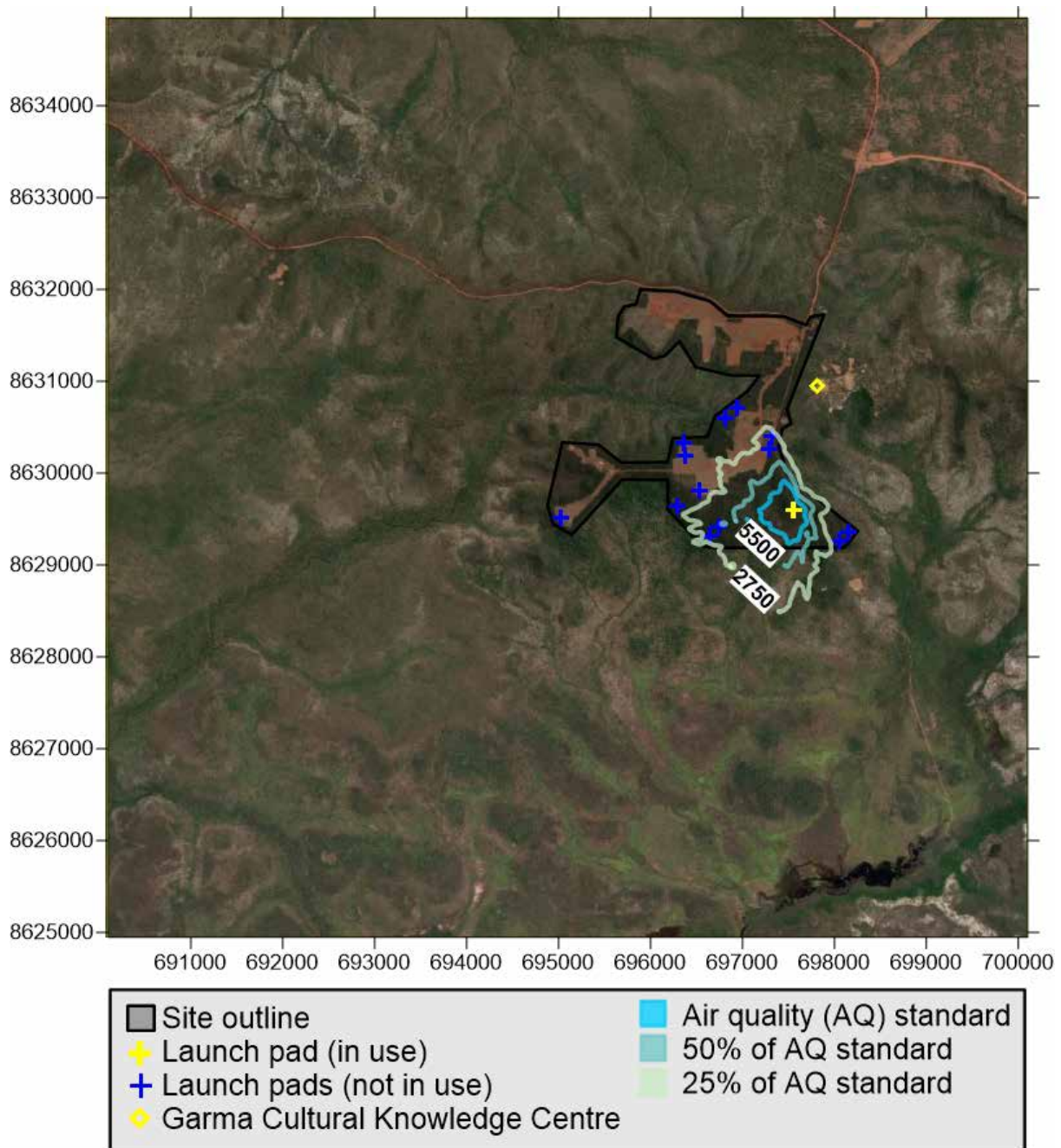


Figure 69 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Red)

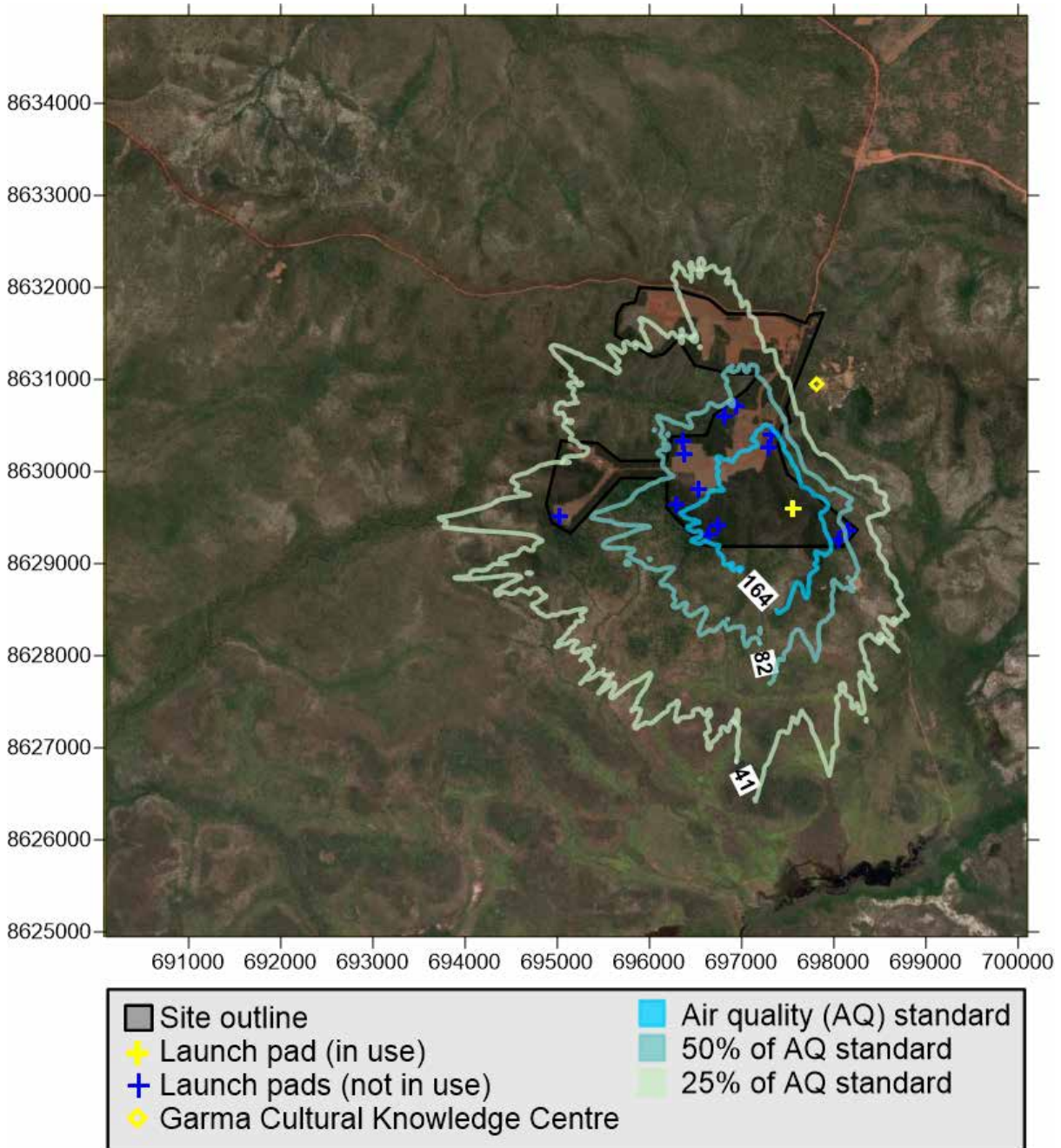


Figure 70 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Red)



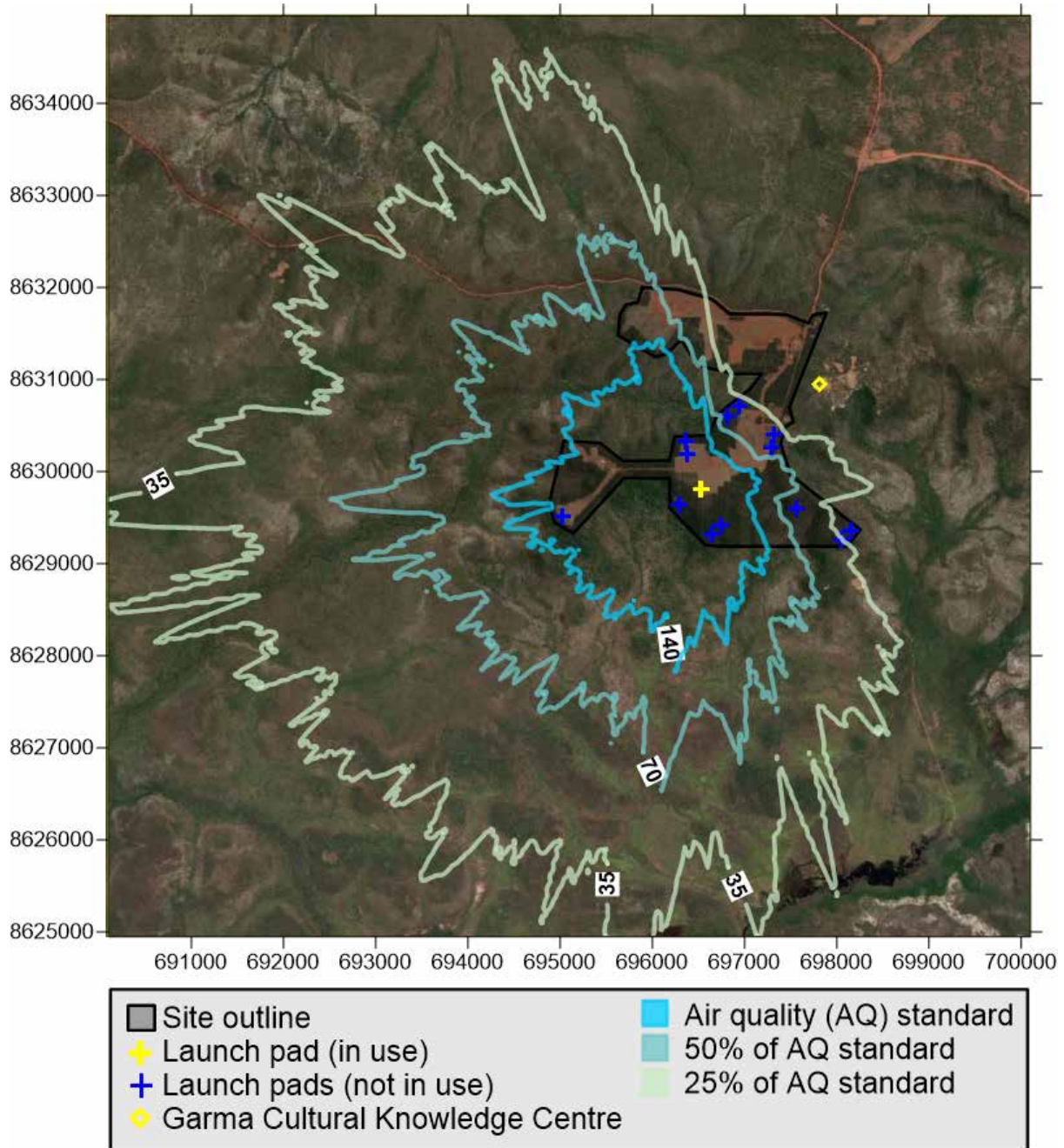


Figure 71 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Violet 1)

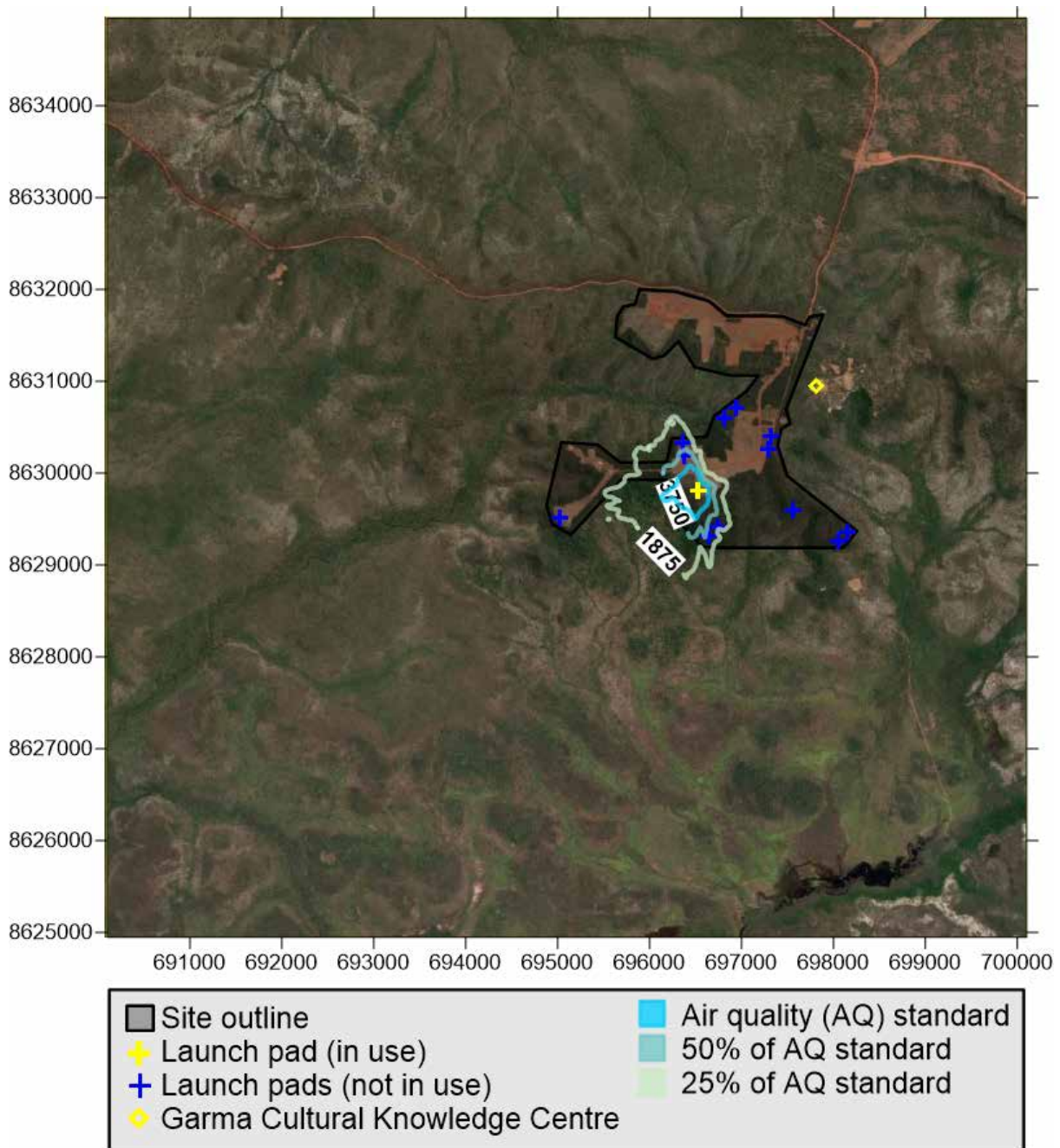


Figure 72 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m³) (Violet 1)



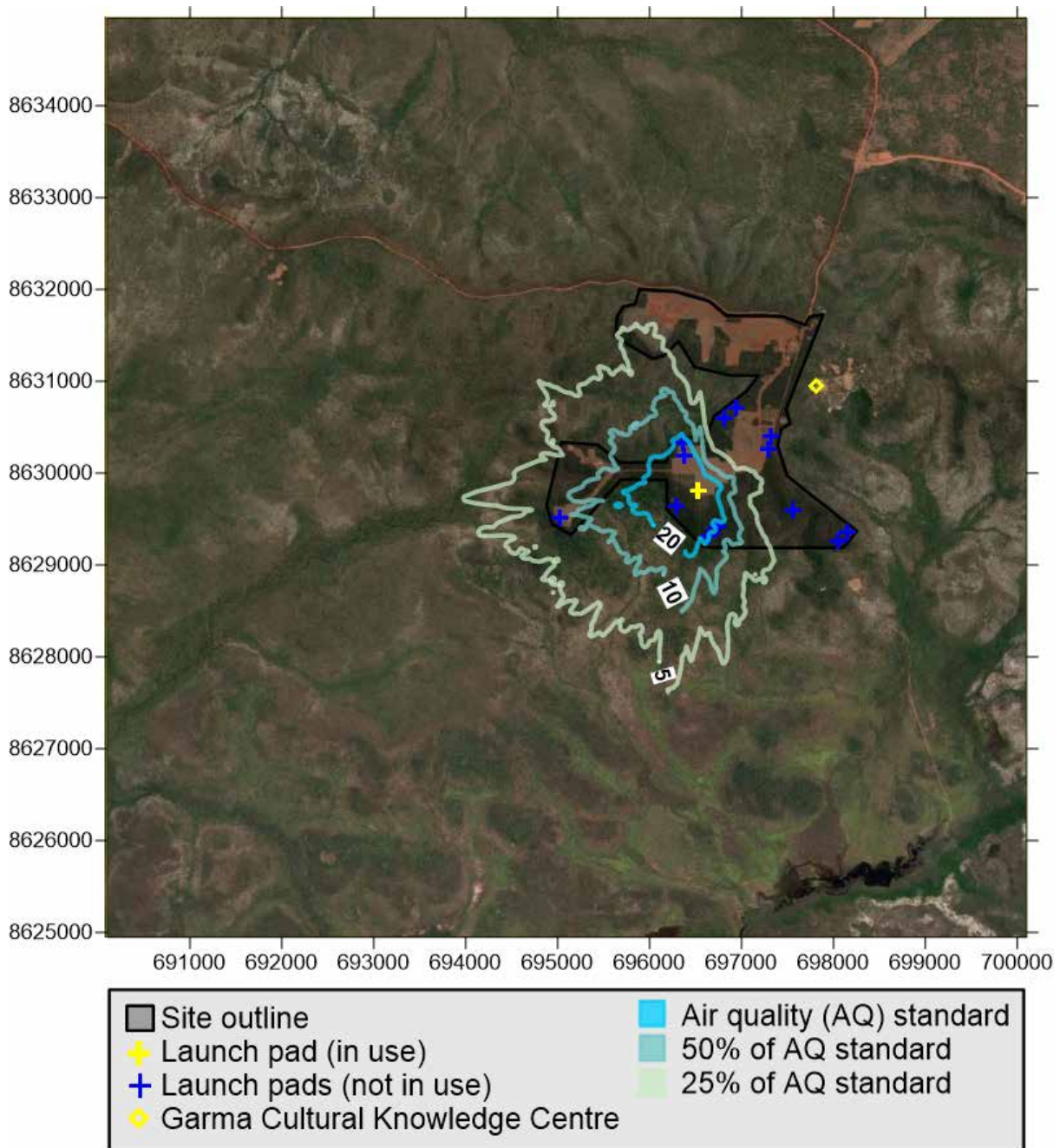


Figure 73 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Violet 1)

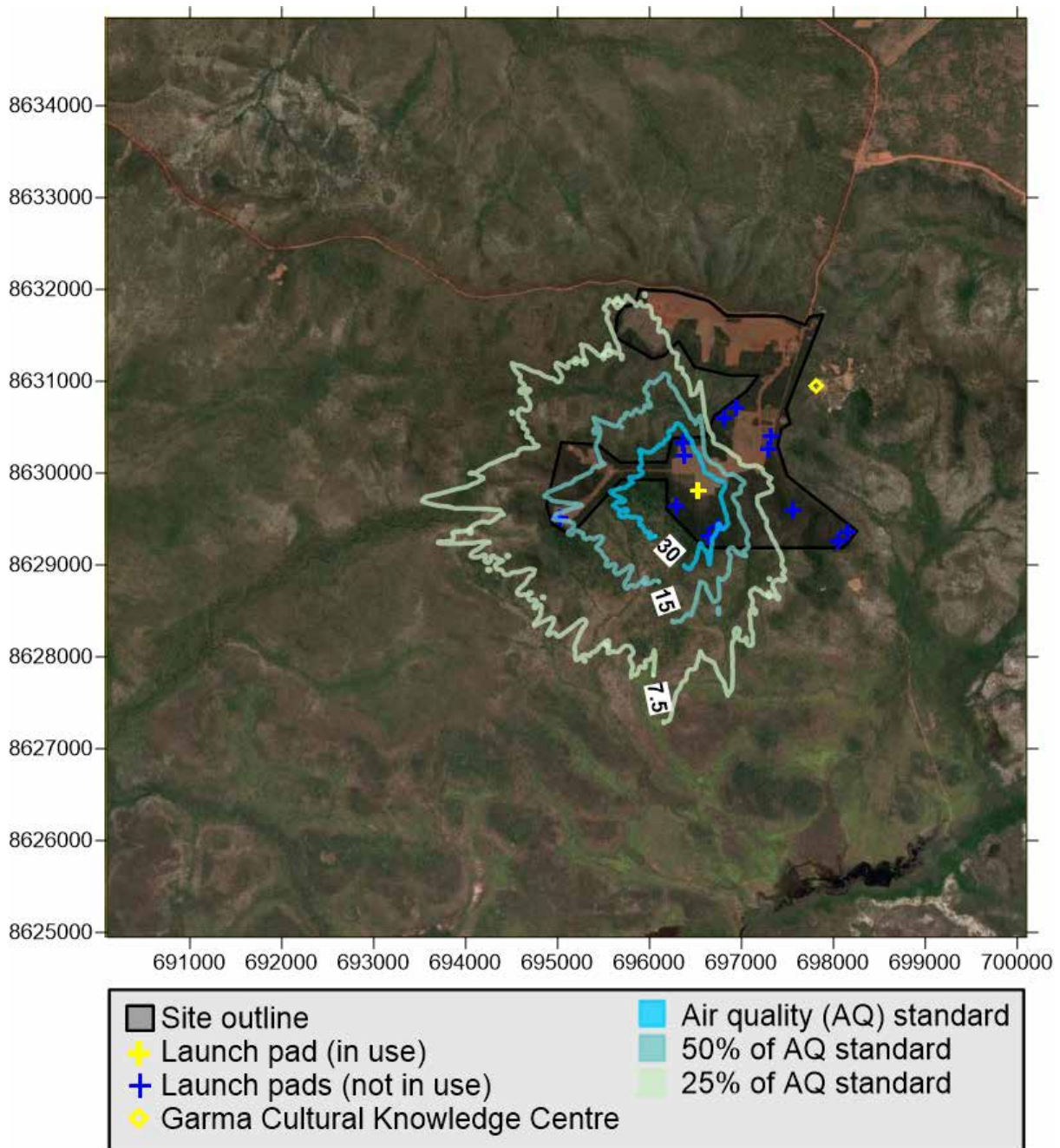


Figure 74 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Violet 1)



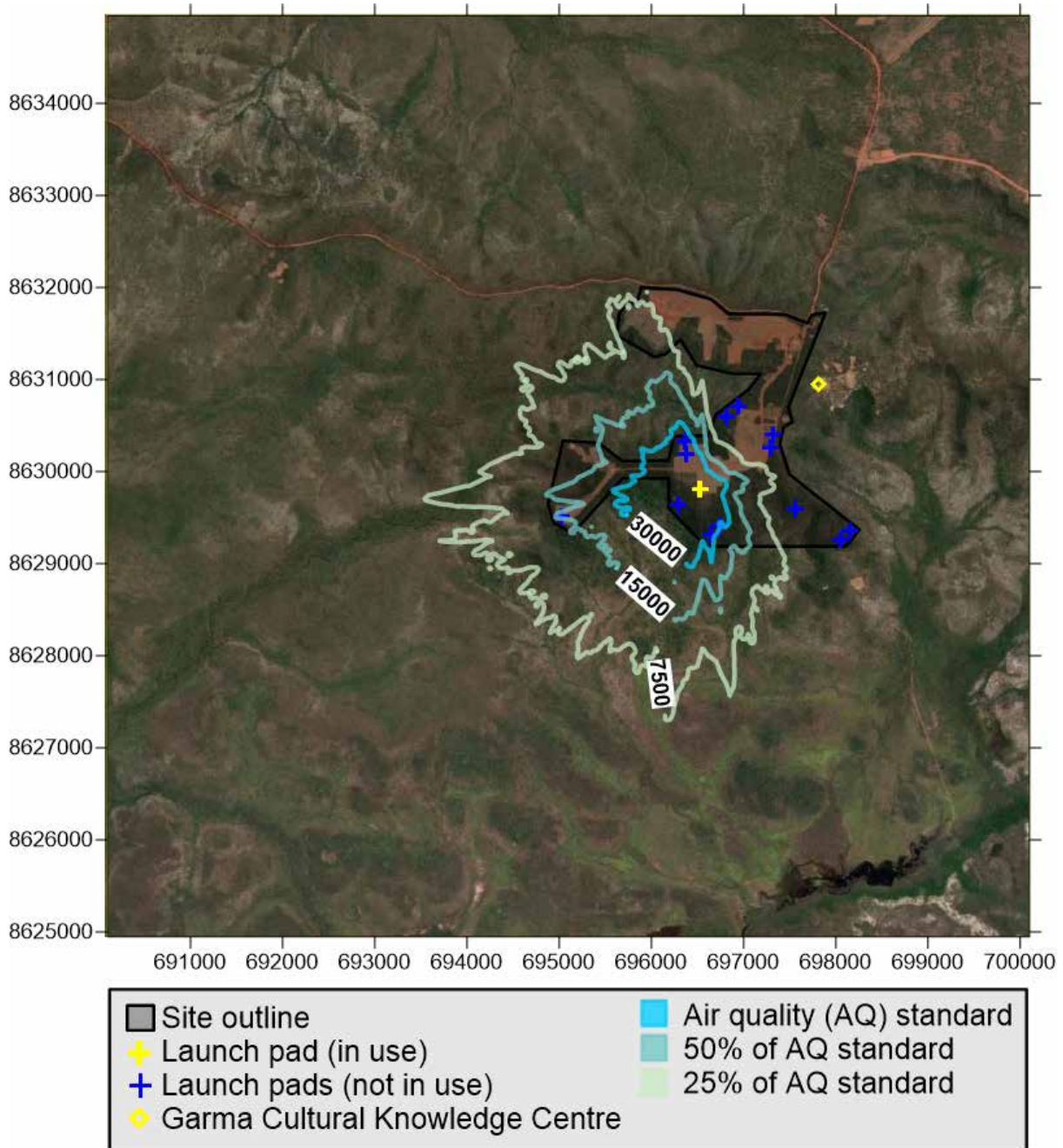


Figure 75 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Violet 1)

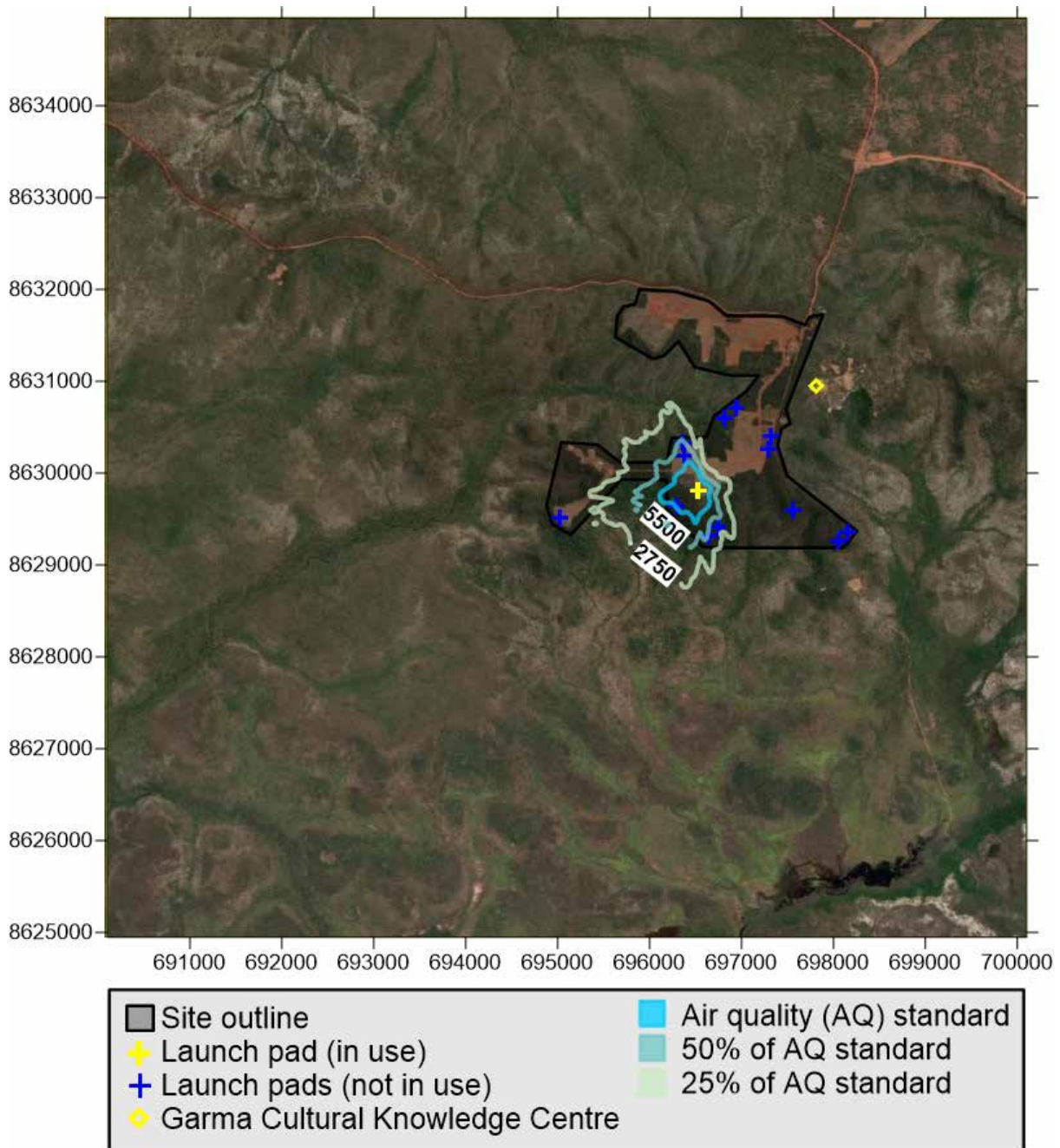


Figure 76 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Violet 1)



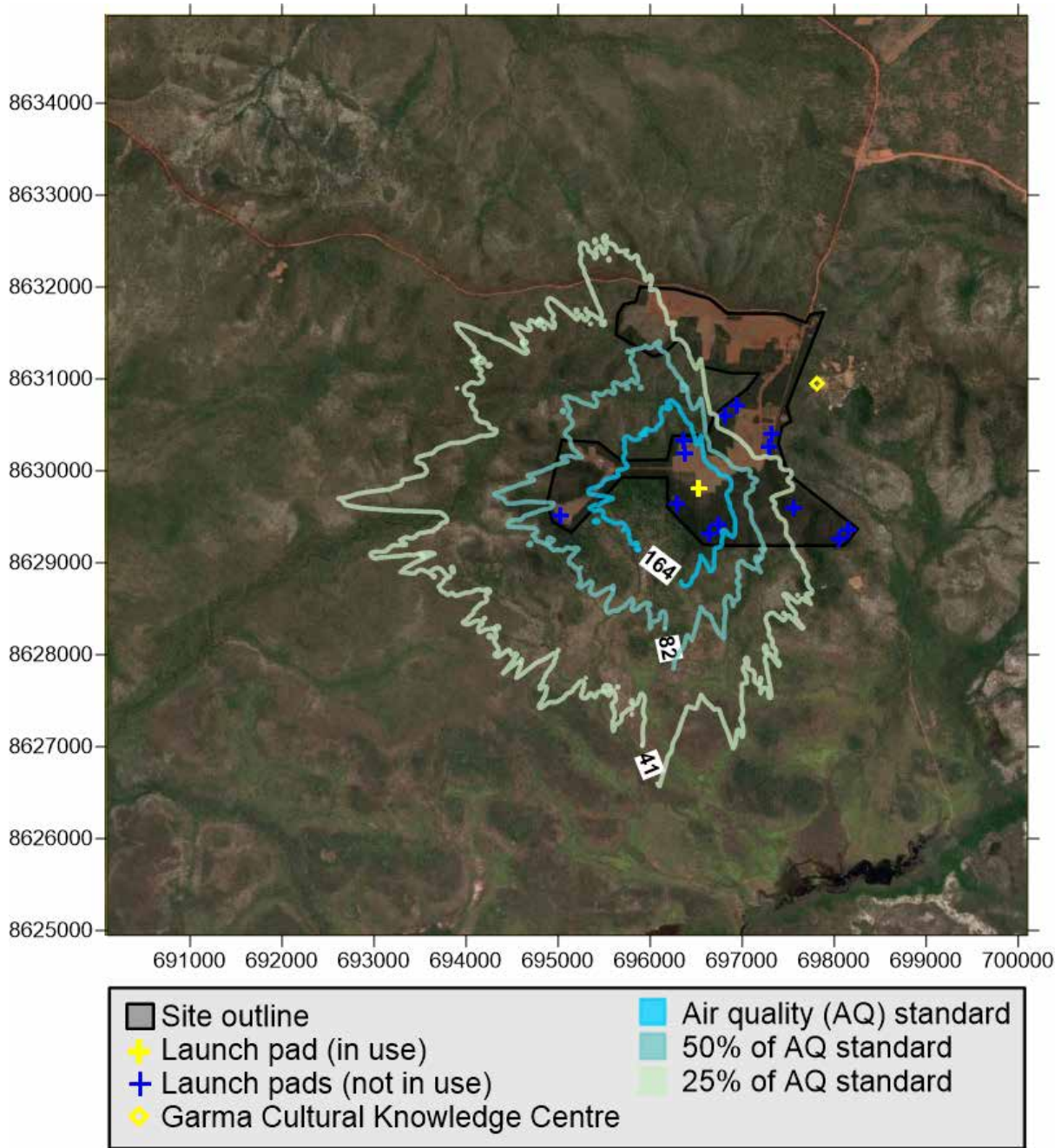


Figure 77 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Violet 1)

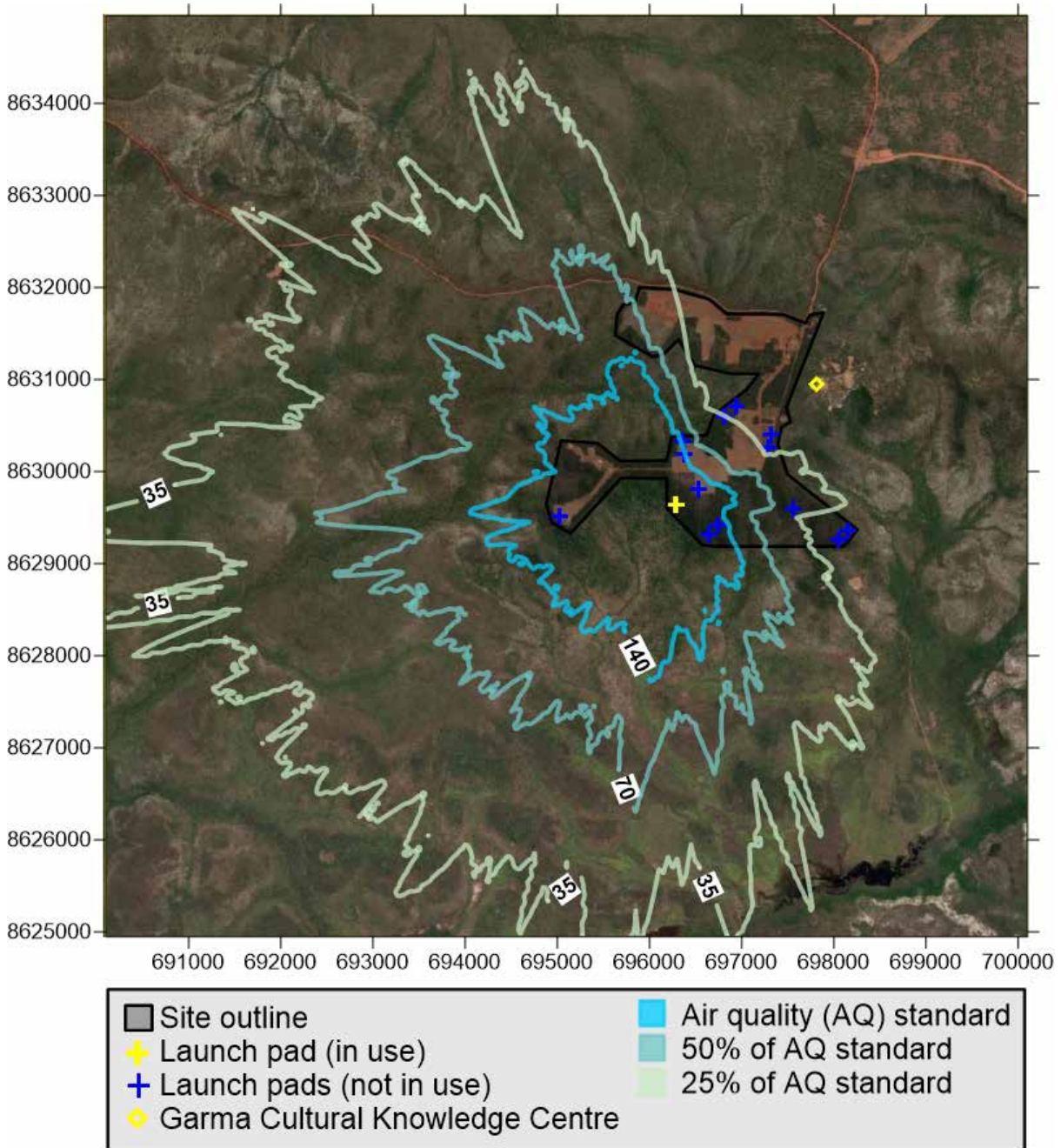


Figure 78 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Violet 2)



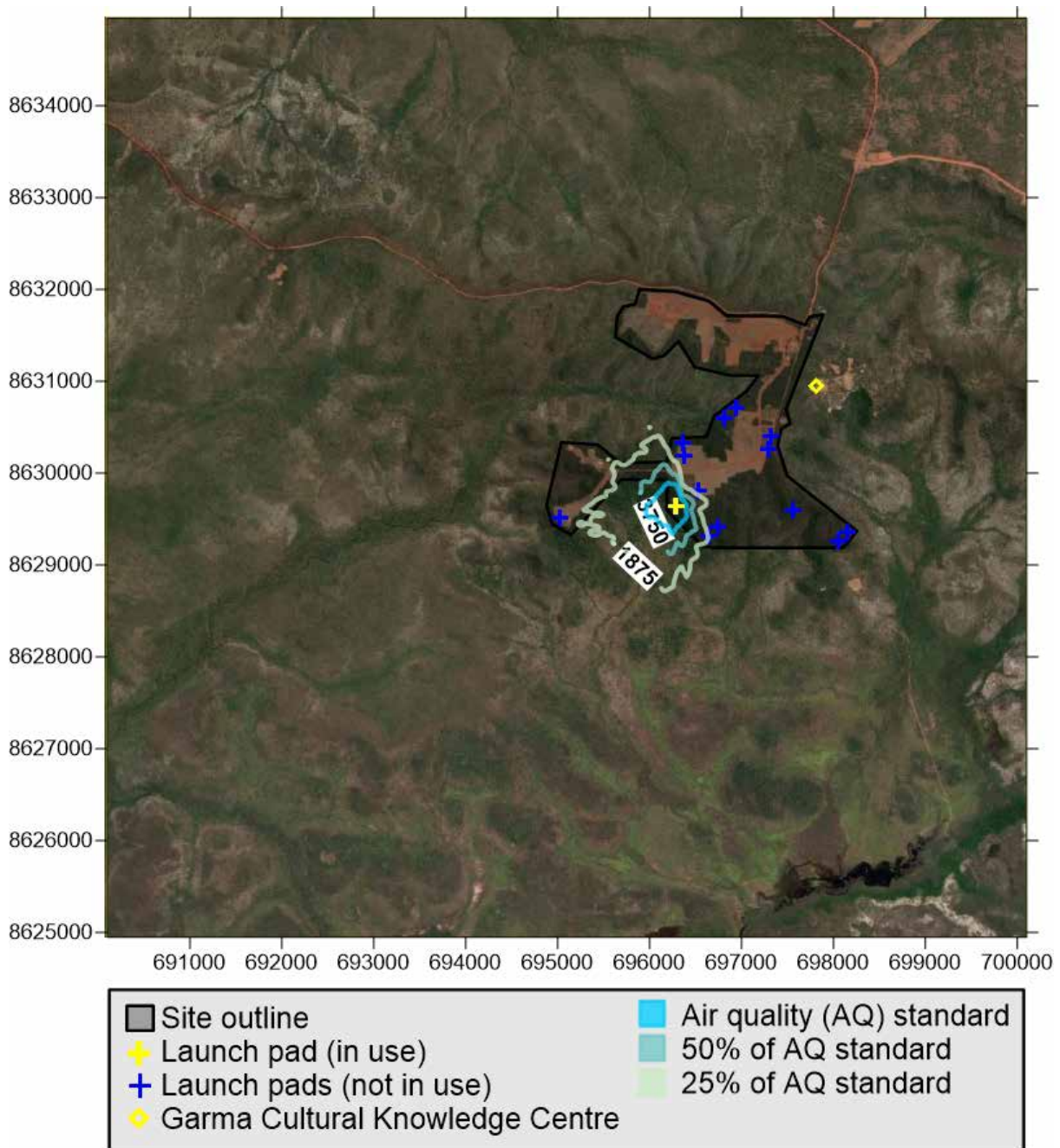


Figure 79 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m³) (Violet 2)

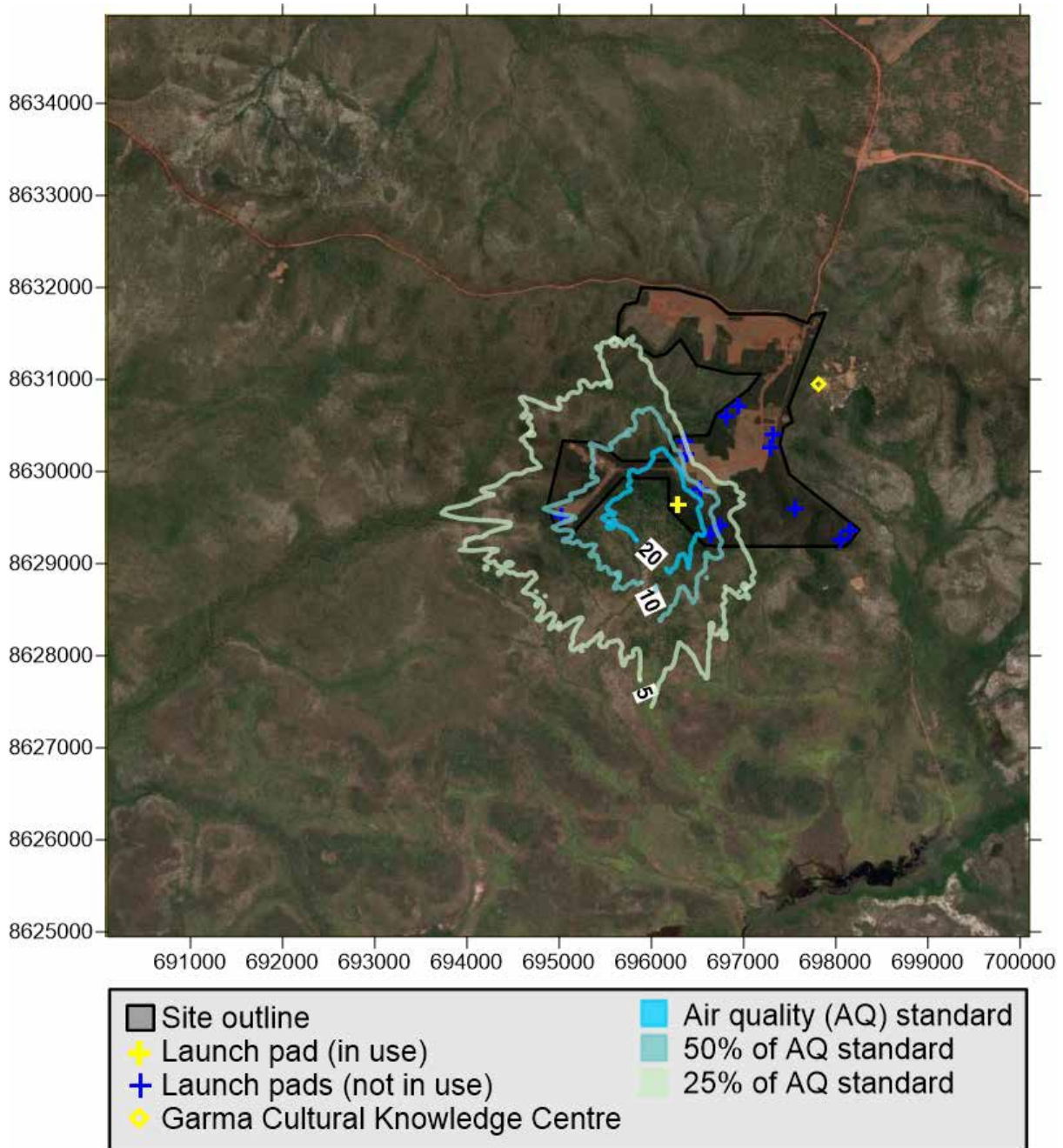


Figure 80 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Violet 2)



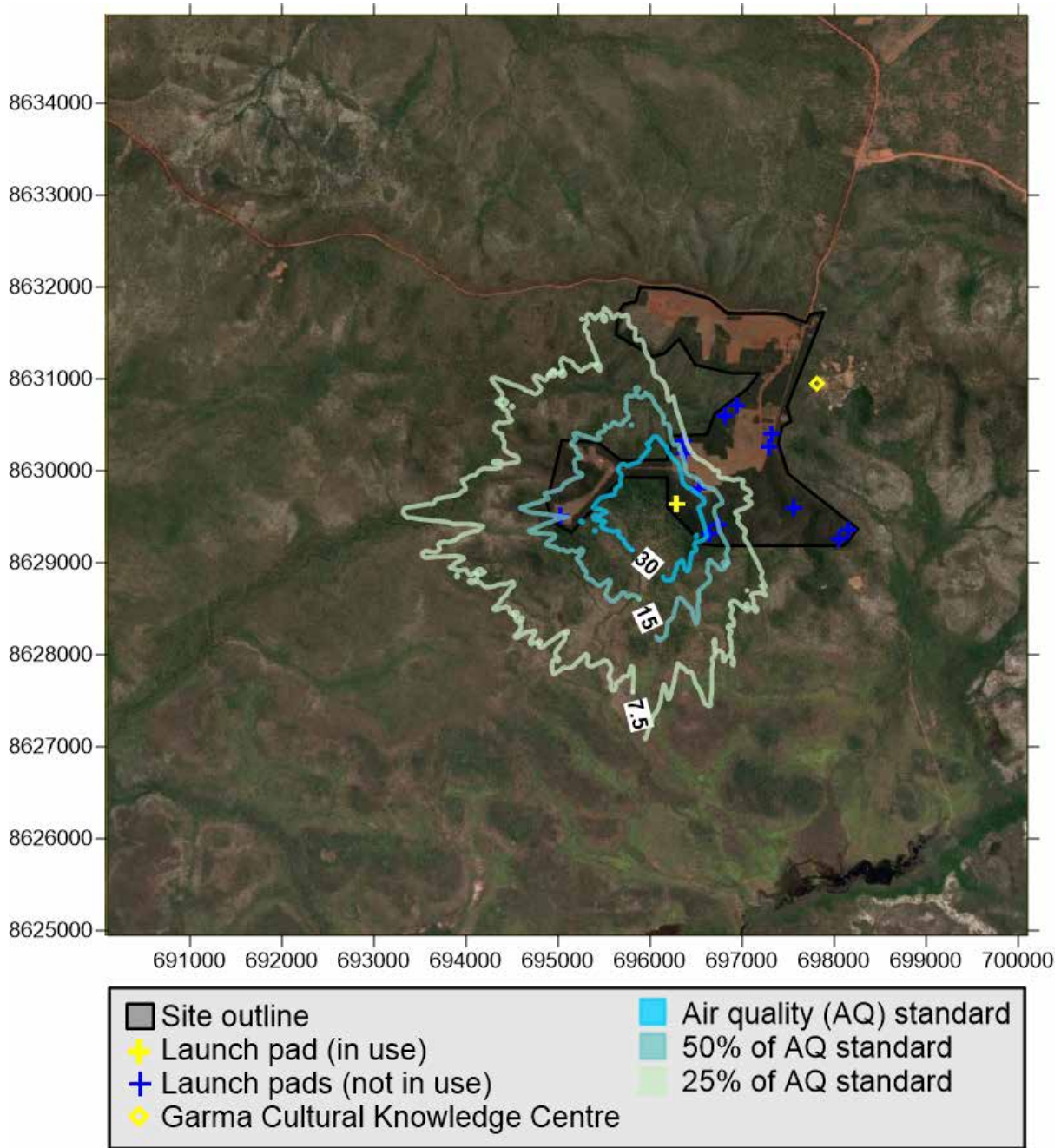


Figure 81 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Violet 2)

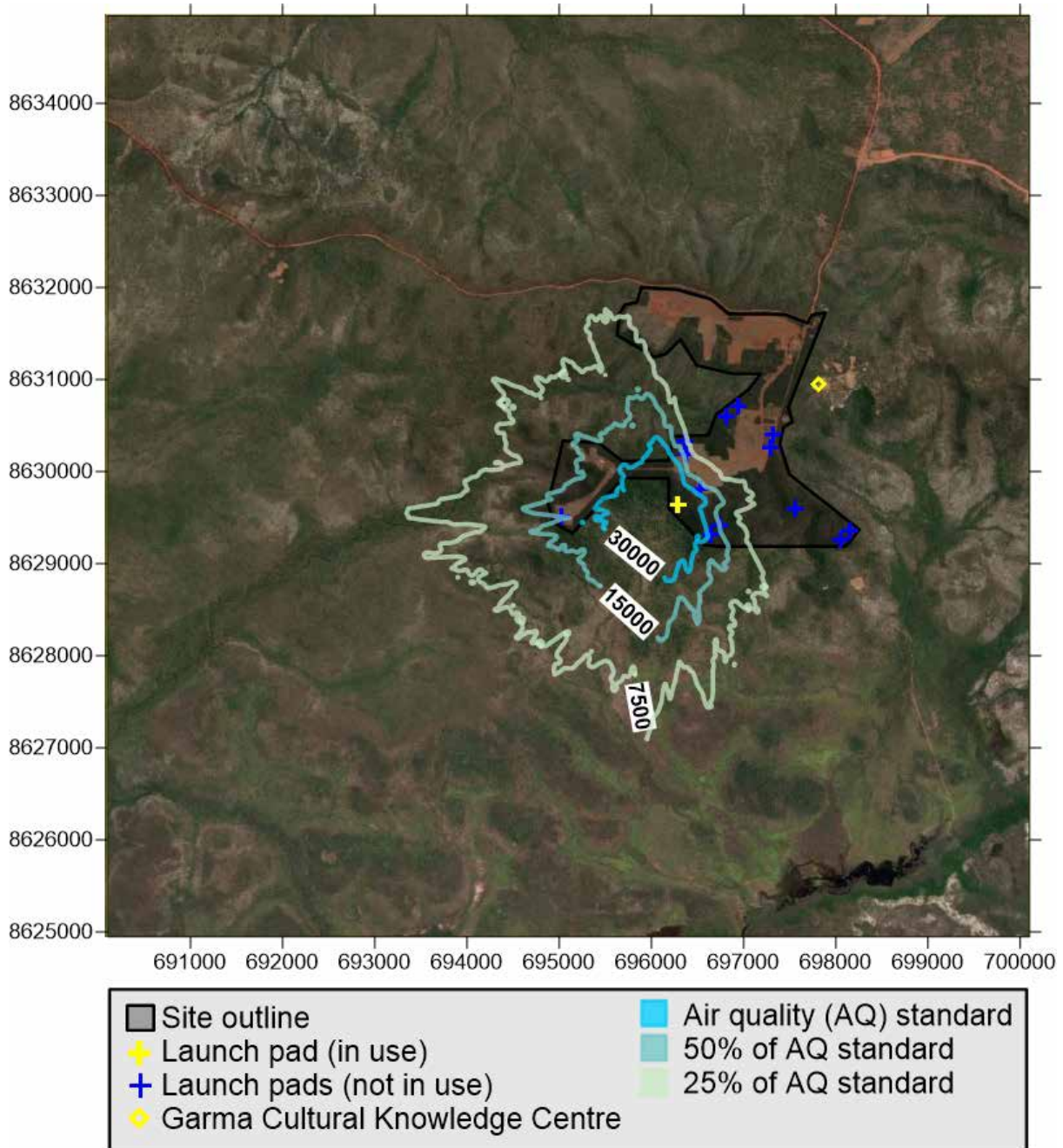


Figure 82 99.9% predicted 1-hour ground level concentration for CO (30,000  $\mu\text{g}/\text{m}^3$ ) (Violet 2)



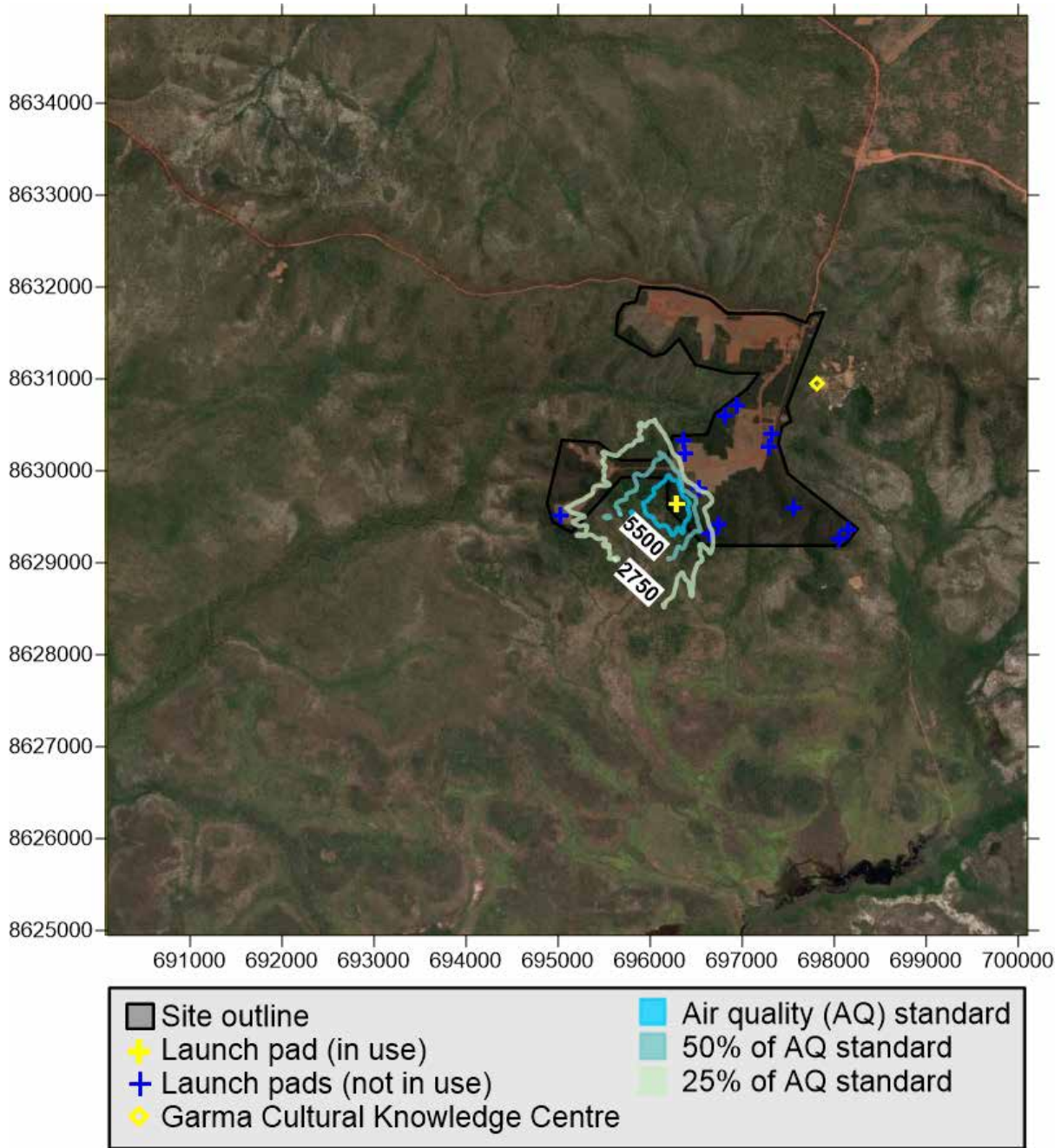


Figure 83 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Violet 2)

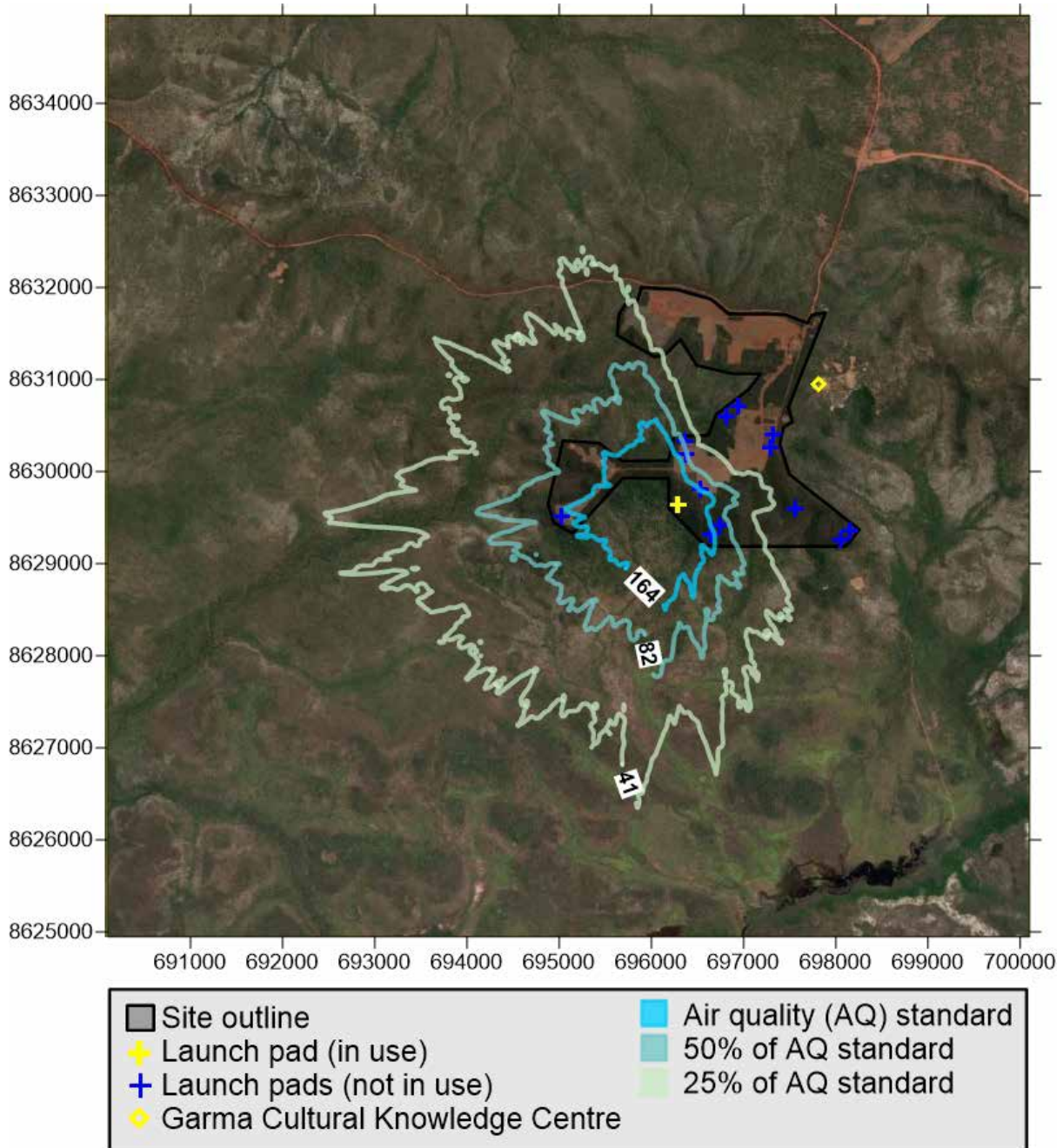


Figure 84 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Violet 2)



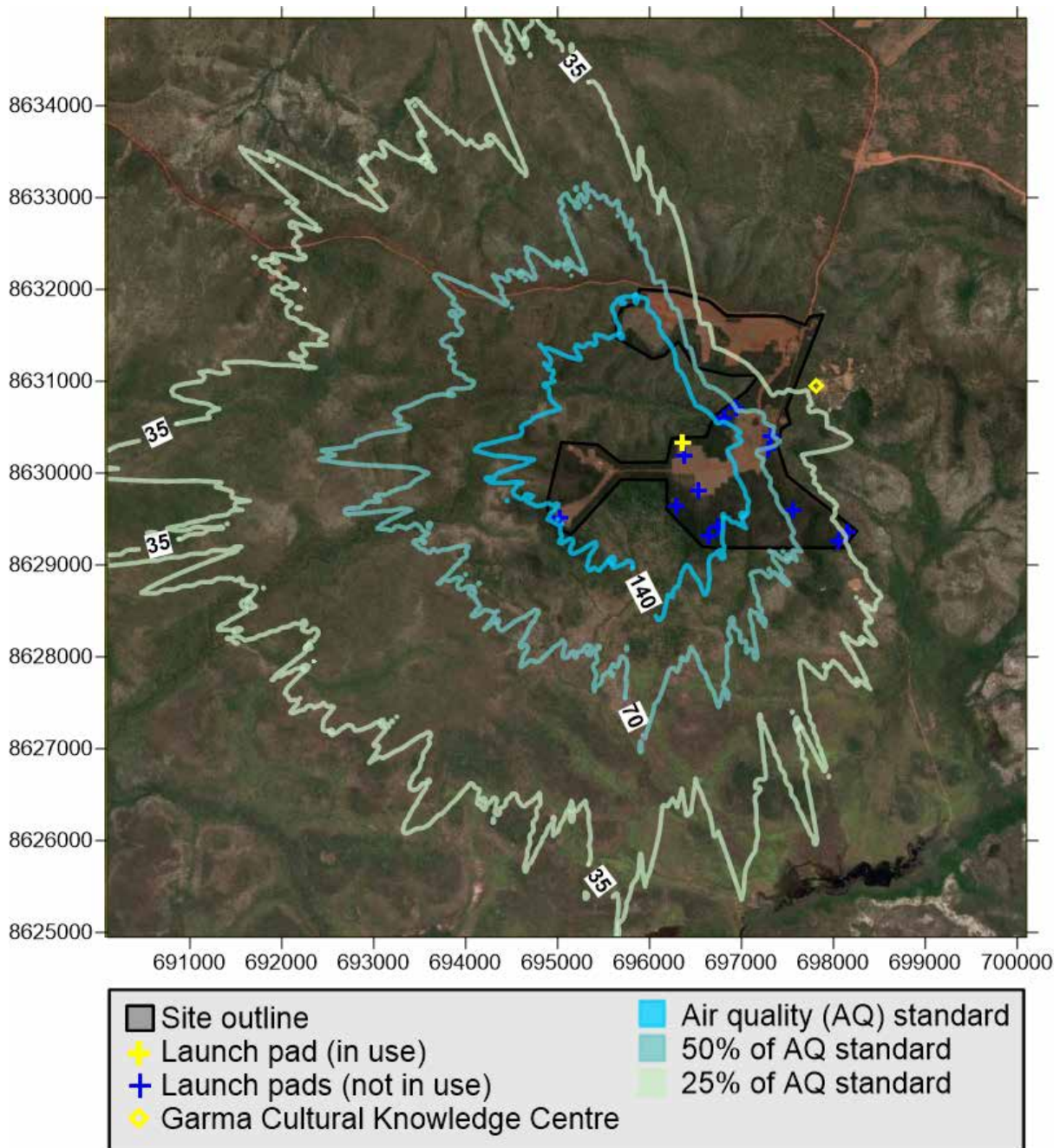


Figure 85 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Yellow 1)

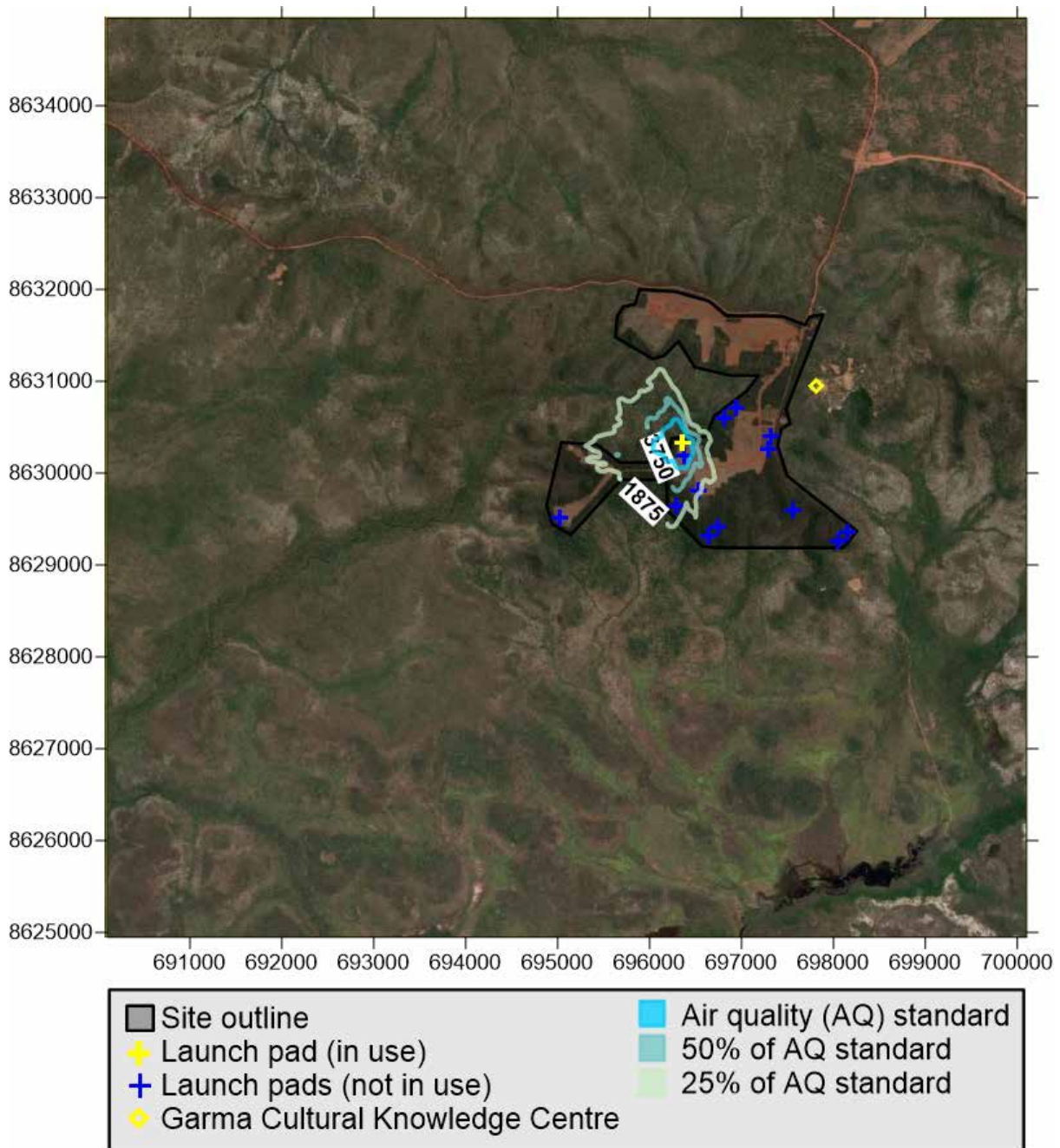


Figure 86 99.9% predicted 15-minute ground level concentration for HCl (3,750  $\mu\text{g}/\text{m}^3$ ) (Yellow 1)



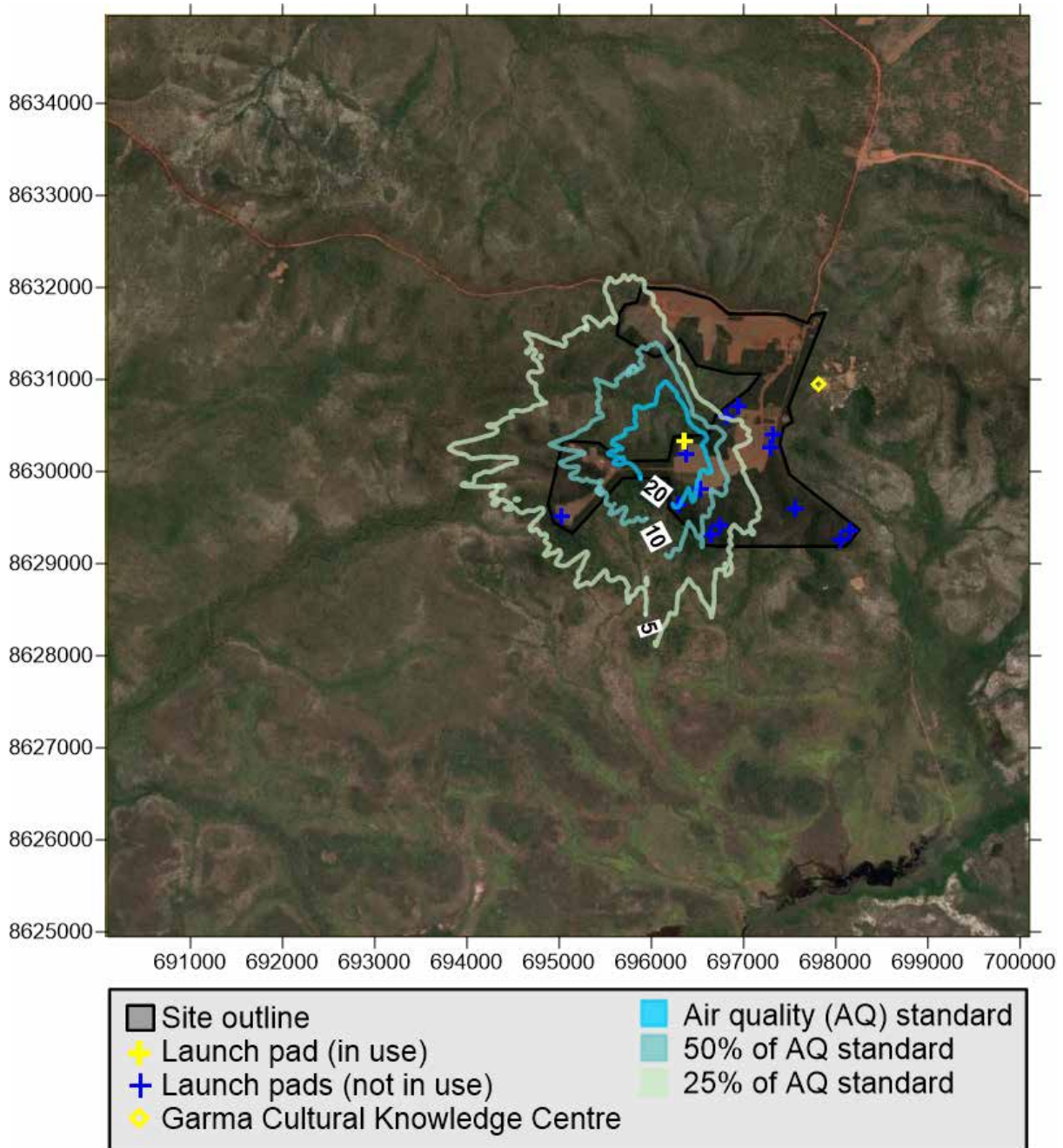


Figure 87 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Yellow 1)

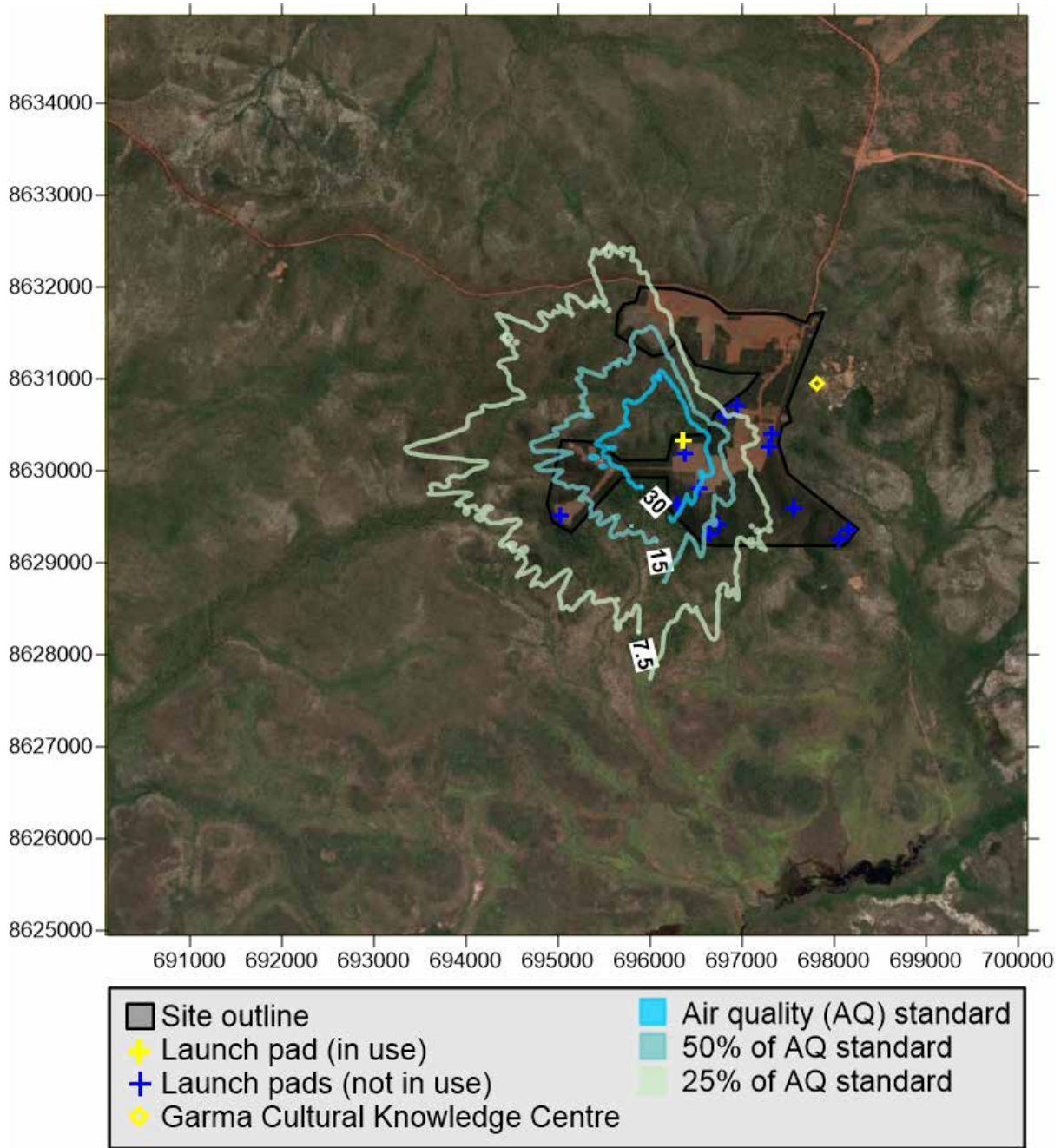


Figure 88 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Yellow 1)



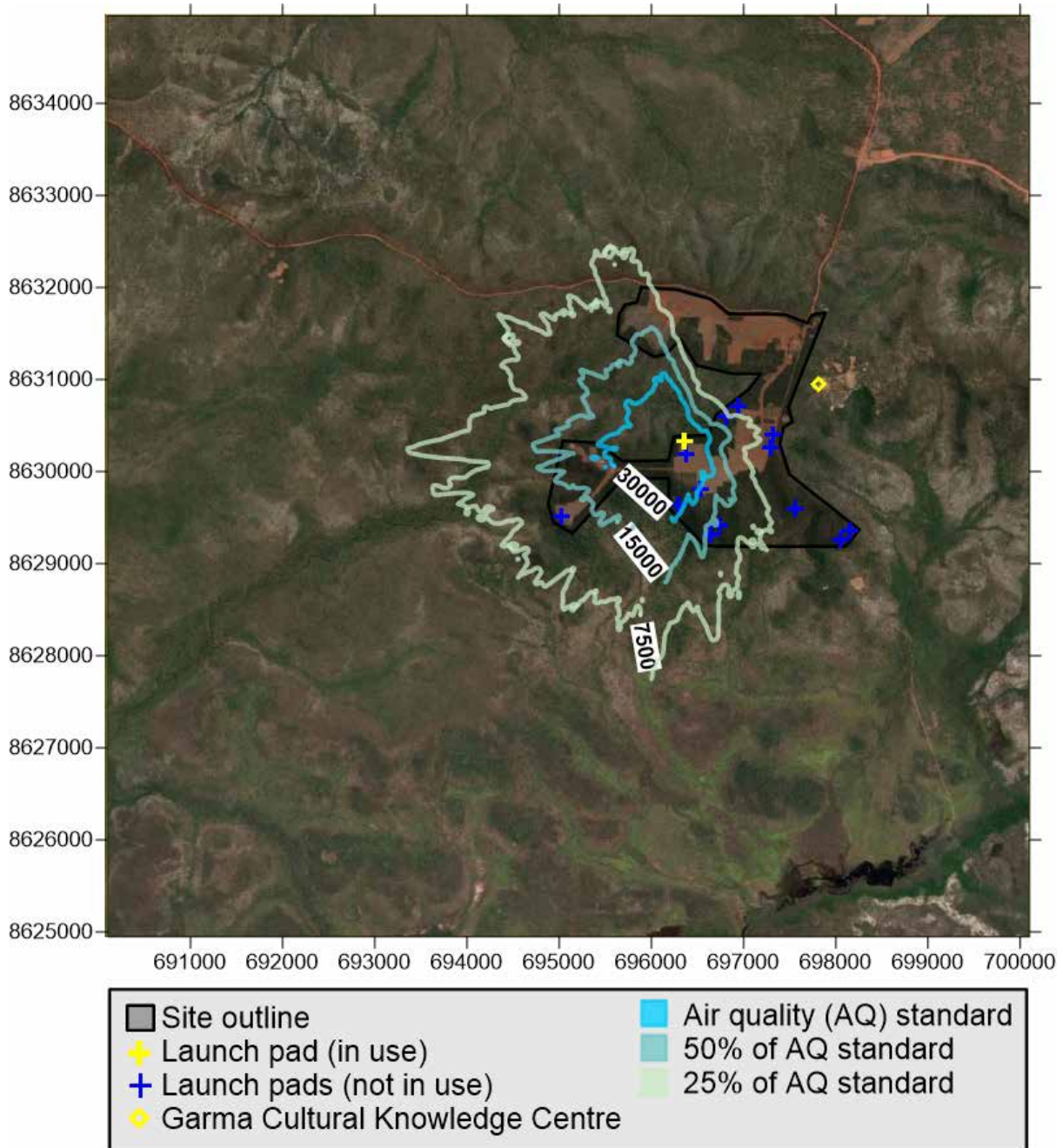


Figure 89 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Yellow 1)

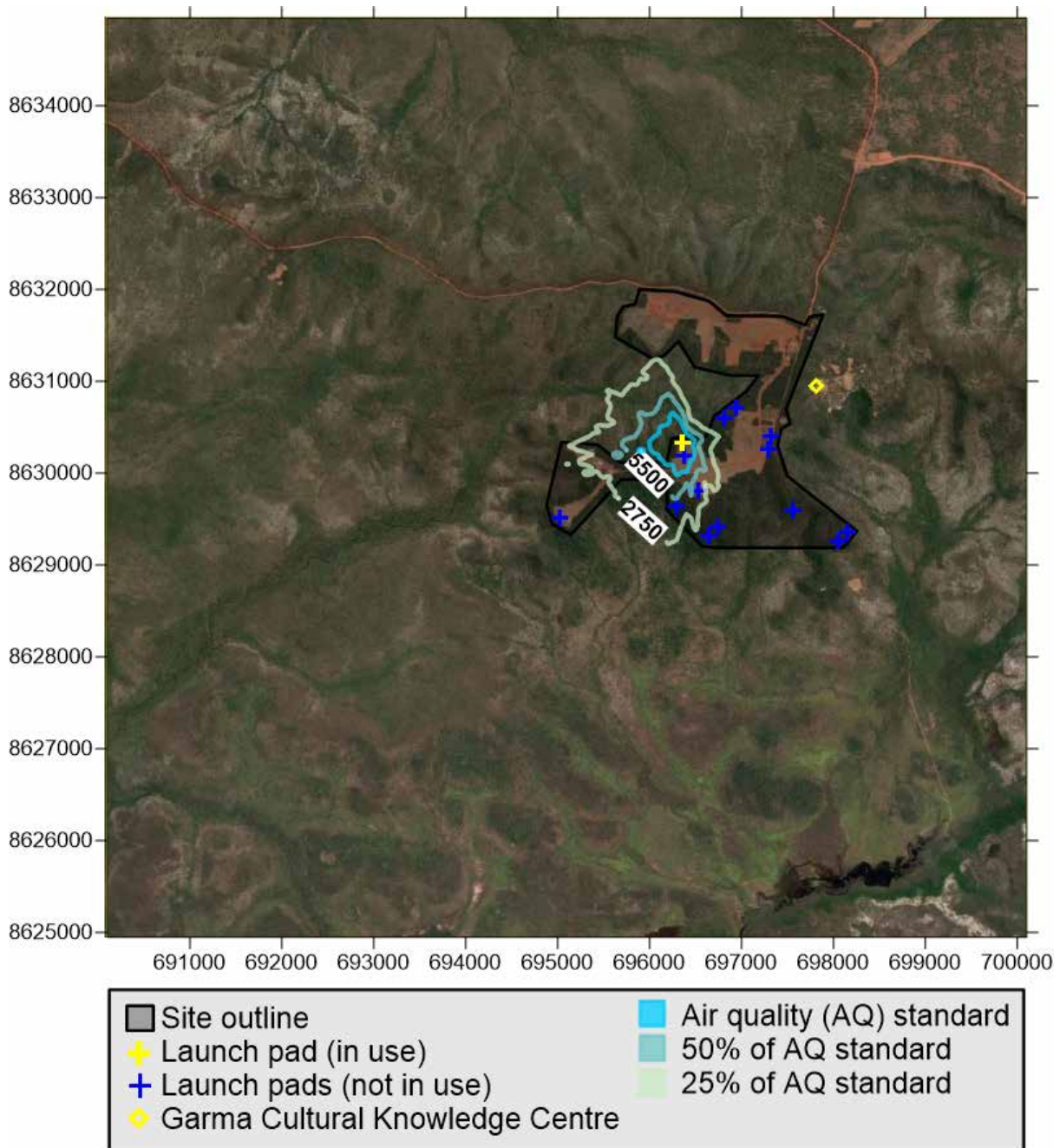


Figure 90 Maximum predicted 8-hour ground level concentration for CO (5,500 µg/m³) (Yellow 1)



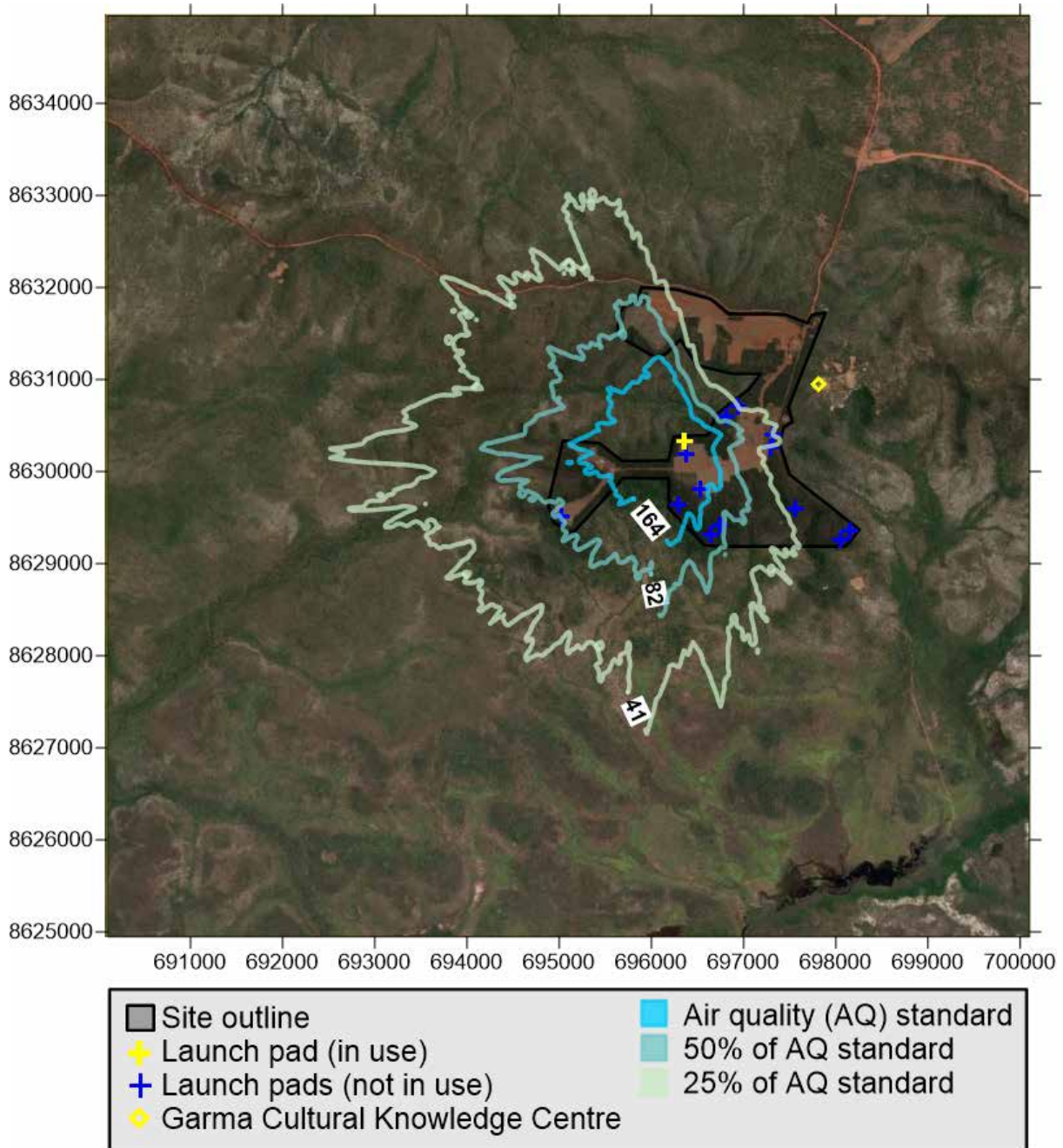


Figure 91 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Yellow 1)

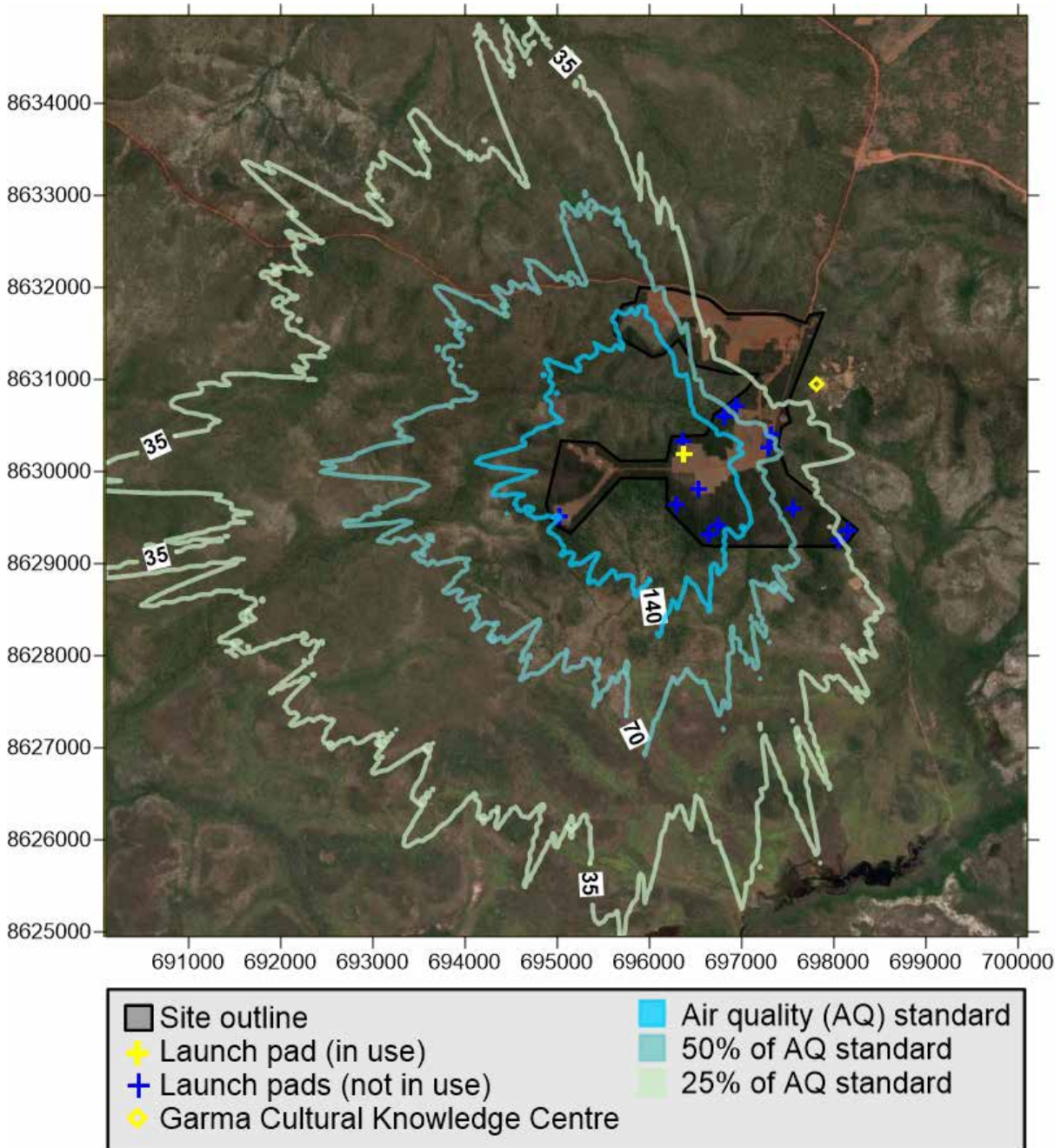


Figure 92 99.9% predicted 1 hour ground level concentration for HCl (140 µg/m³) (Yellow 2)



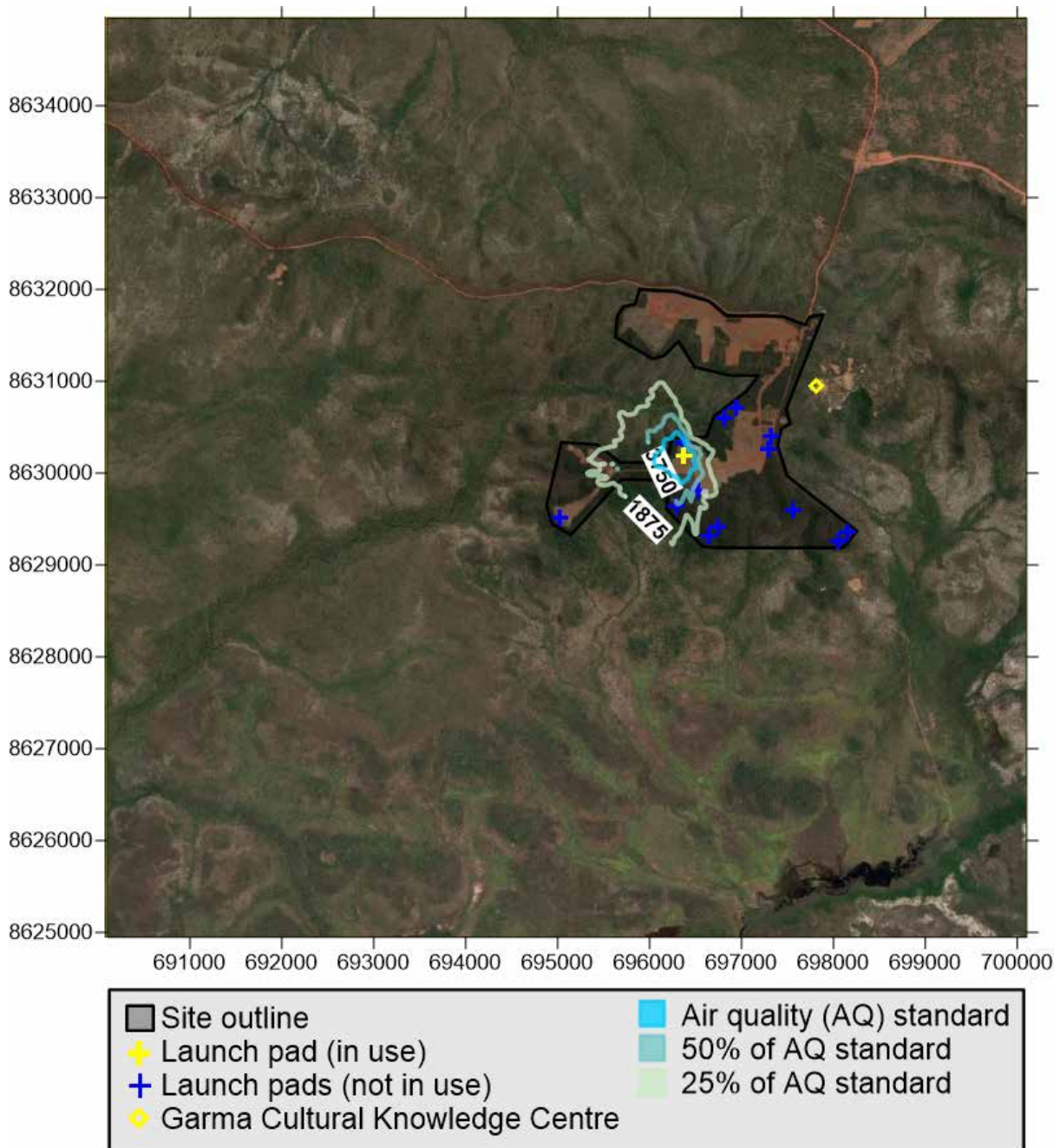


Figure 93 99.9% predicted 15-minute ground level concentration for HCl (3,750 µg/m³) (Yellow 2)

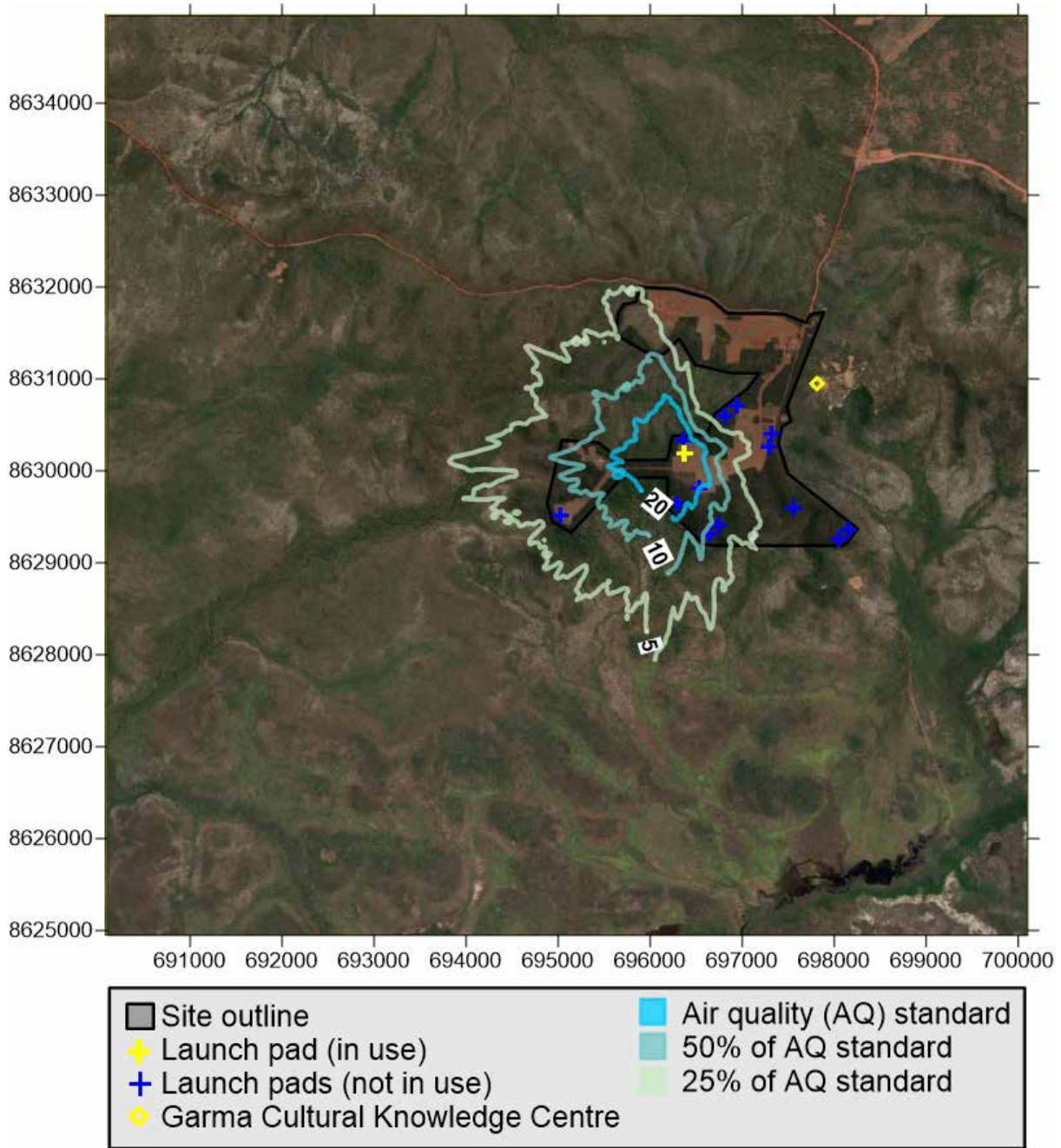


Figure 94 Maximum predicted 24-hour ground level concentration for HCl (20 µg/m³) (Yellow 2)



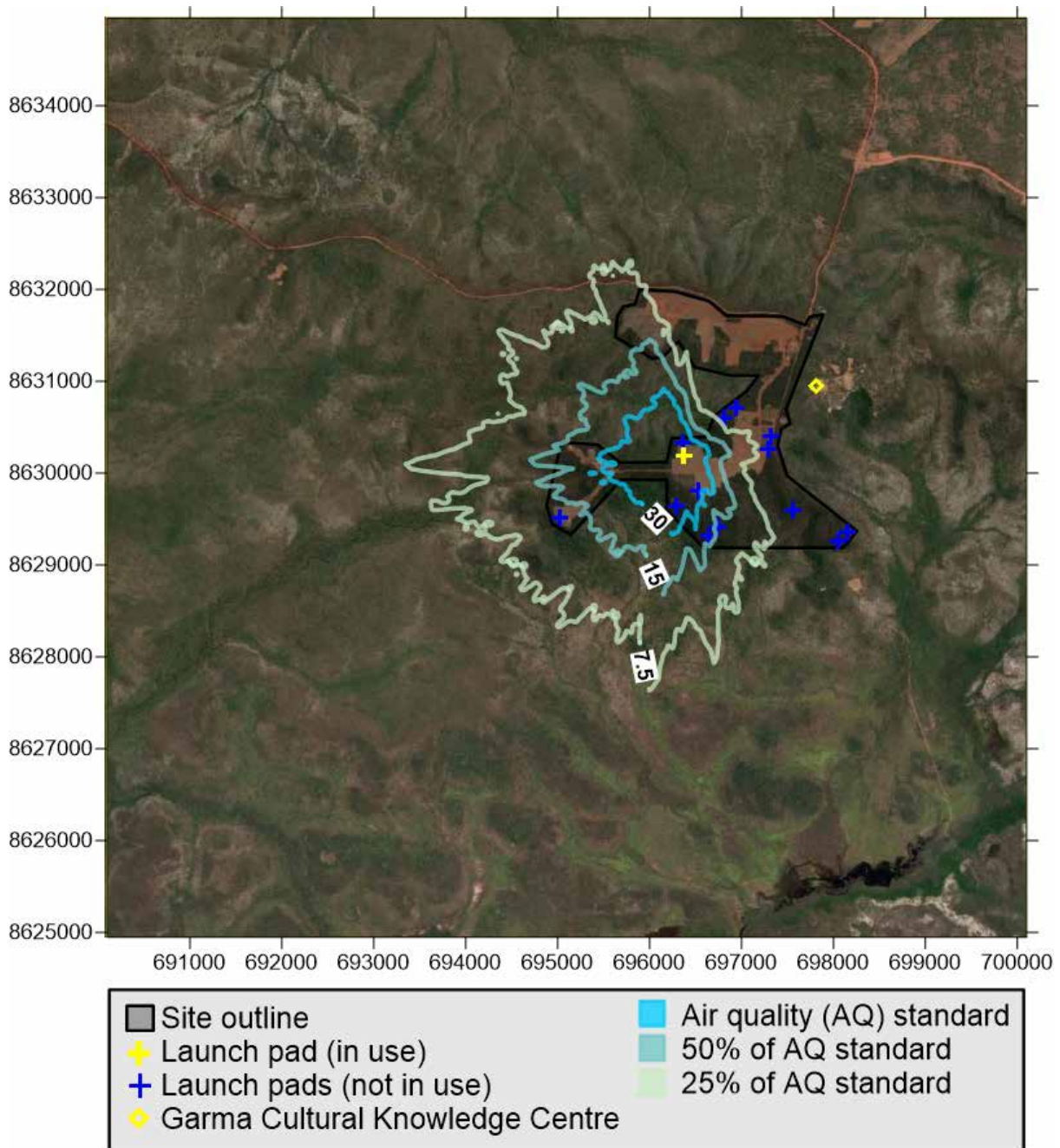


Figure 95 Maximum predicted 24-hour ground level concentration for  $Al_2O_3$  as  $PM_{10}$  ( $30 \mu g/m^3$ ) (Yellow 2)

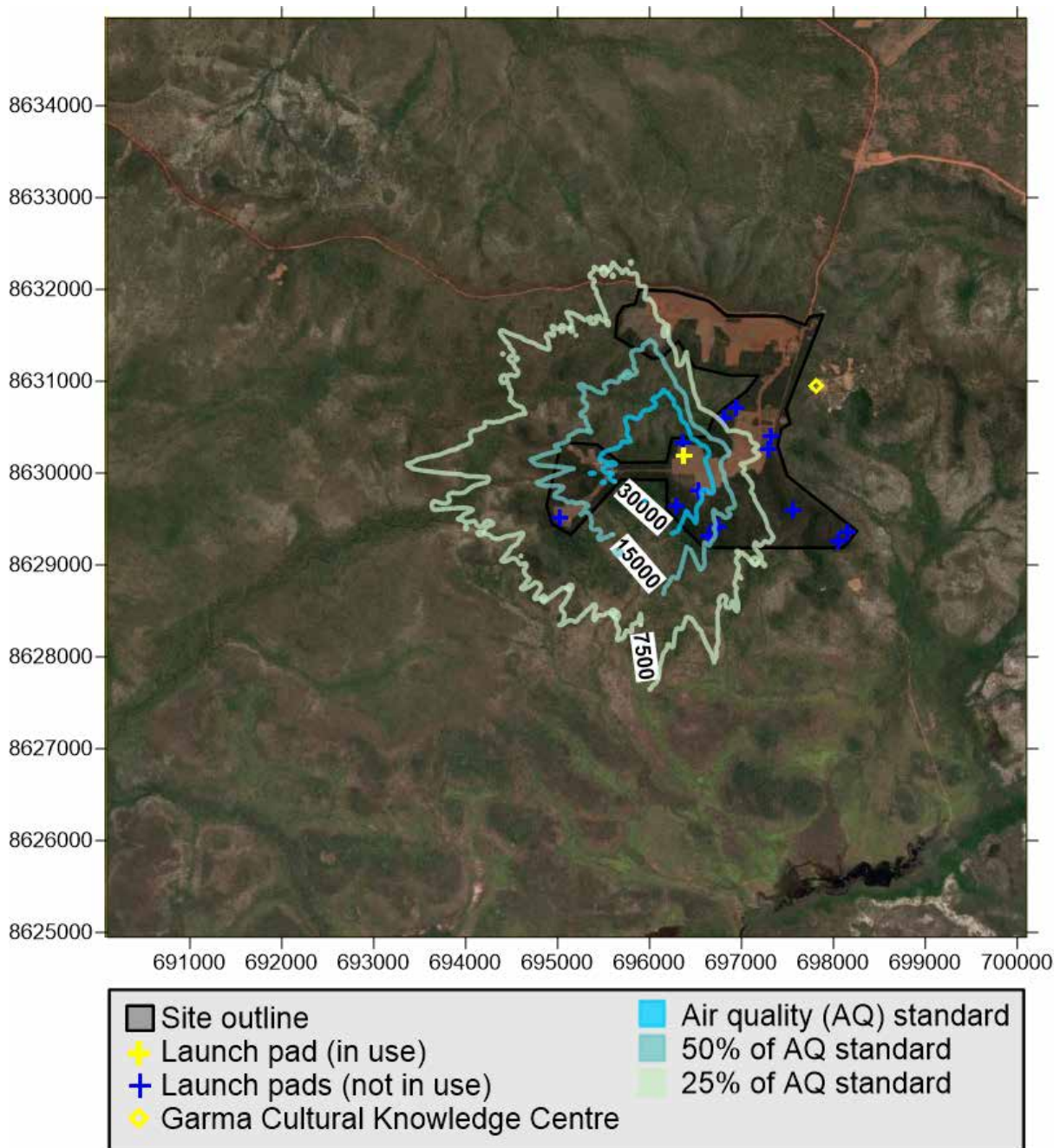


Figure 96 99.9% predicted 1-hour ground level concentration for CO (30,000 µg/m³) (Yellow 2)



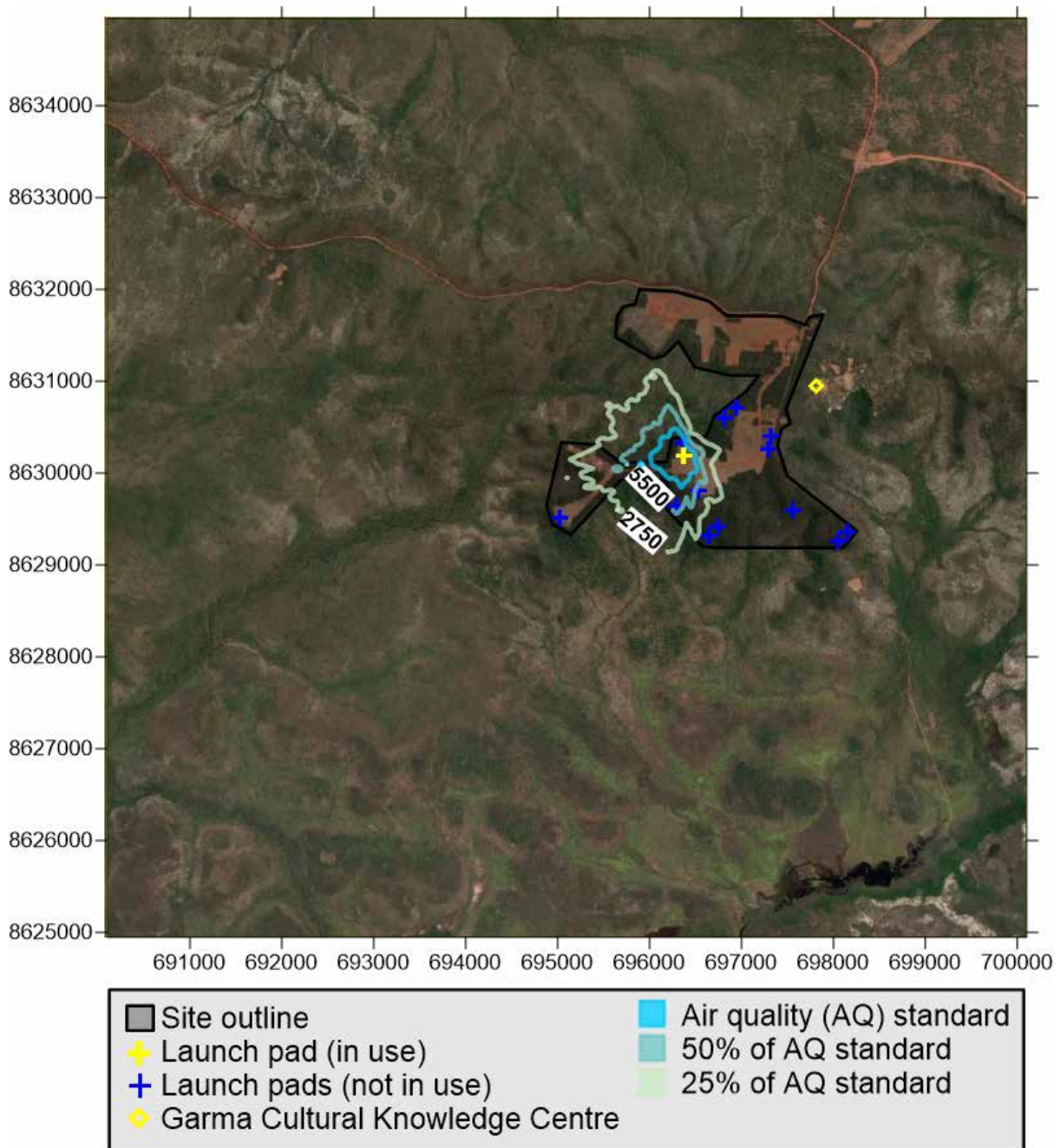


Figure 97 Maximum predicted 8-hour ground level concentration for CO (5,500  $\mu\text{g}/\text{m}^3$ ) (Yellow 2)

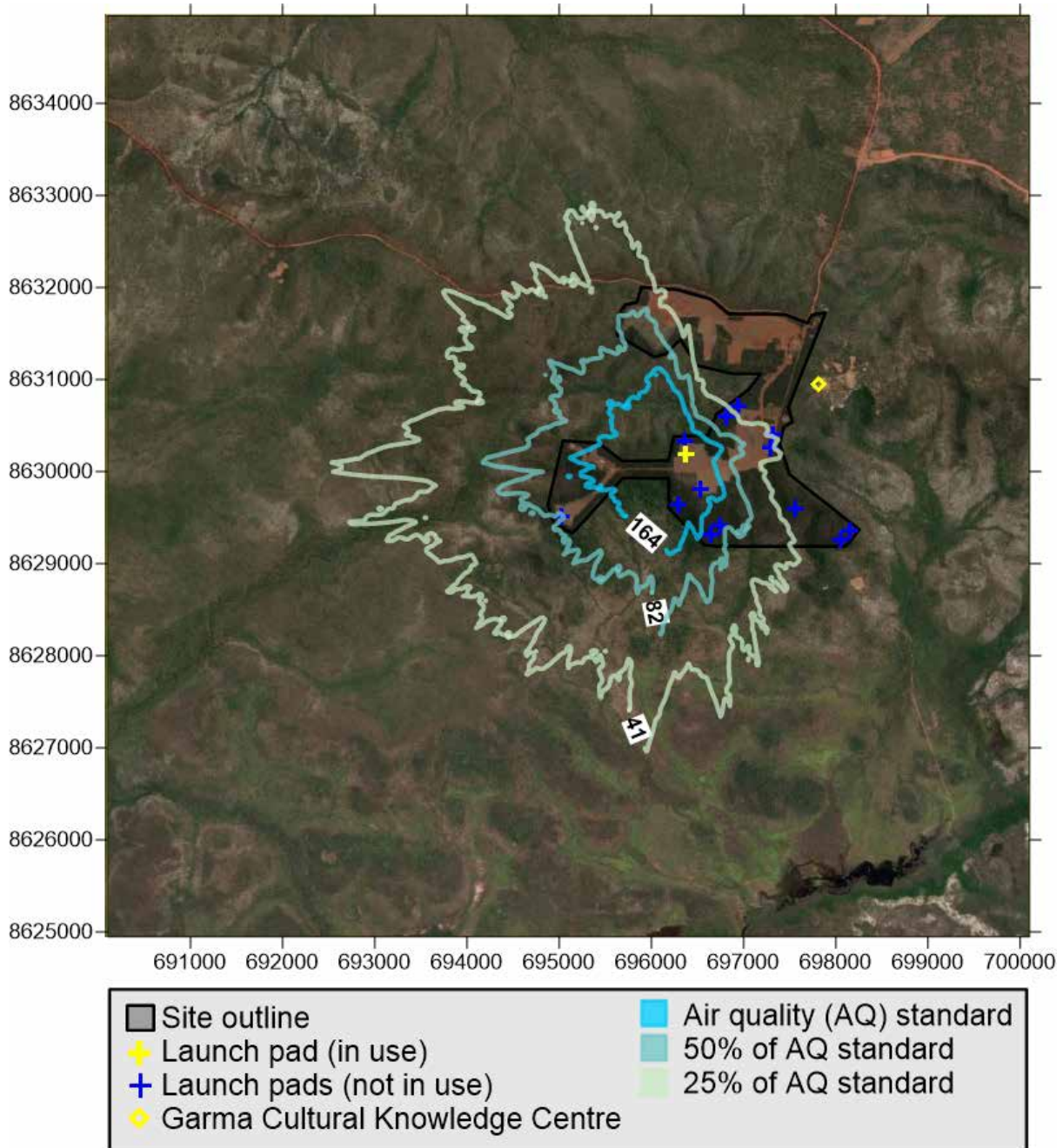


Figure 98 99.9% predicted 1-hour ground level concentration for NO<sub>2</sub> (164 µg/m<sup>3</sup>) (Yellow 2)



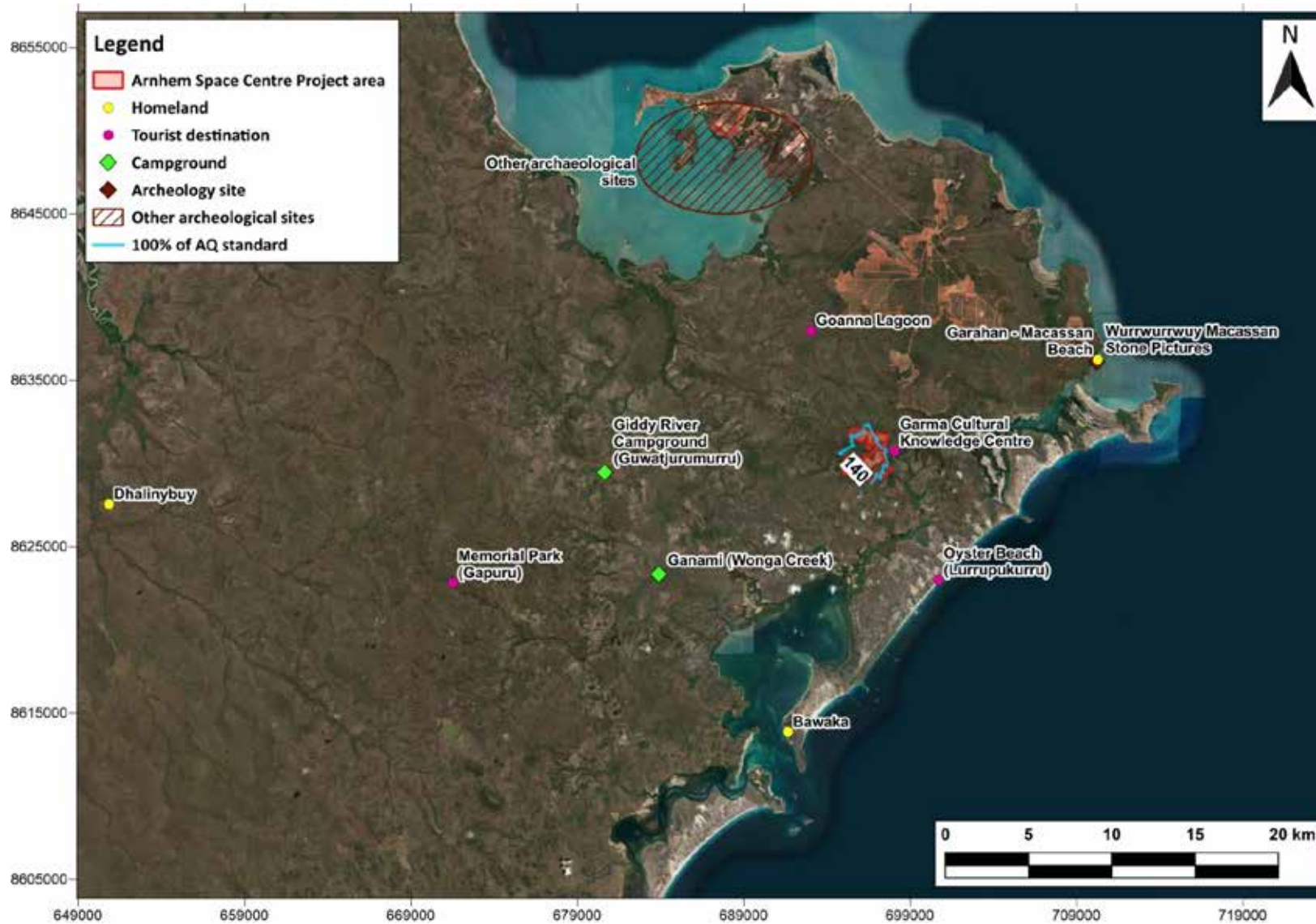


Figure 99 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) from Aqua 1 (most north west launch pad) with respect to location of sensitive receptors

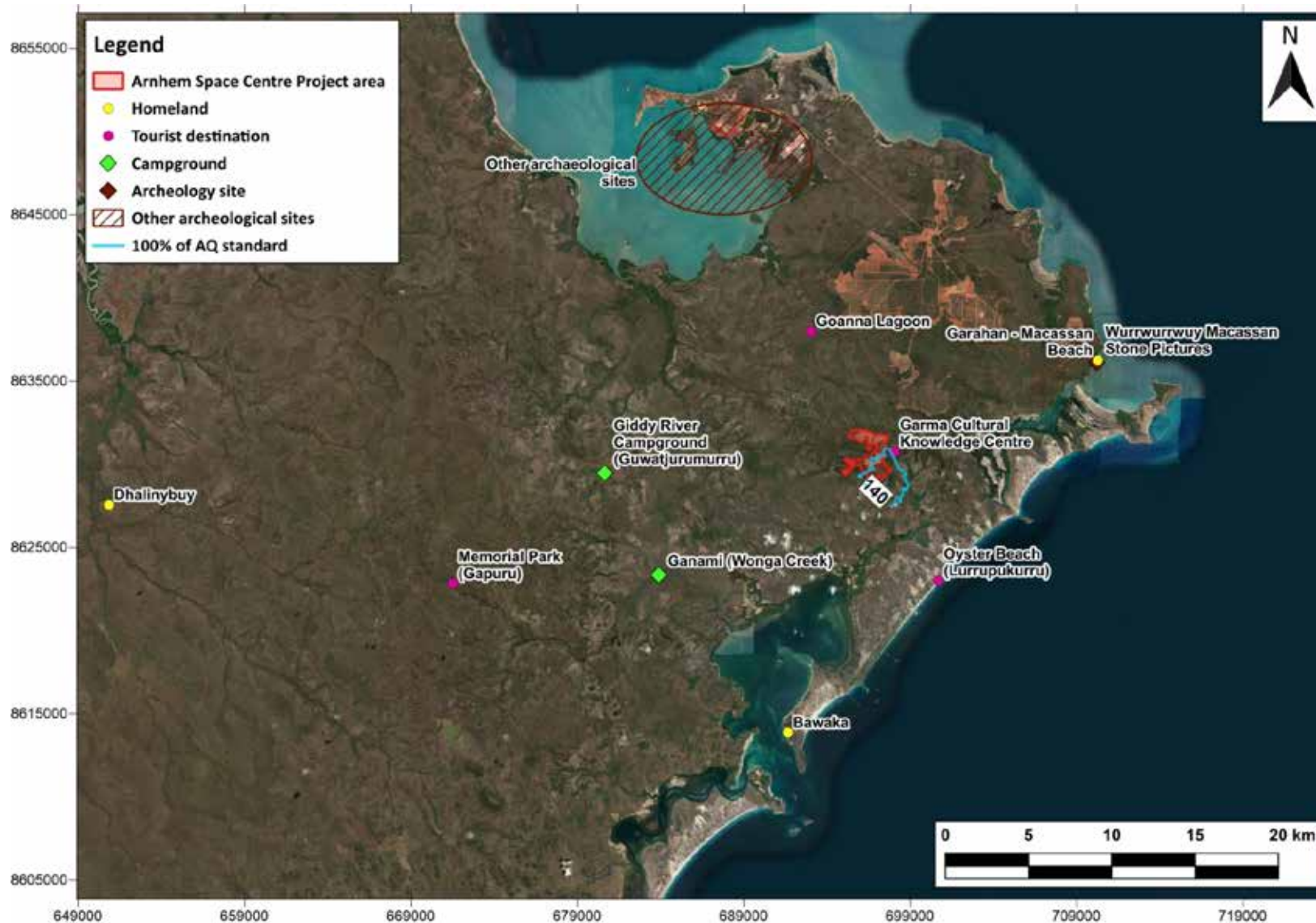


Figure 100 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) from Maroon 2 (most south east launch pad) with respect to location of sensitive receptors



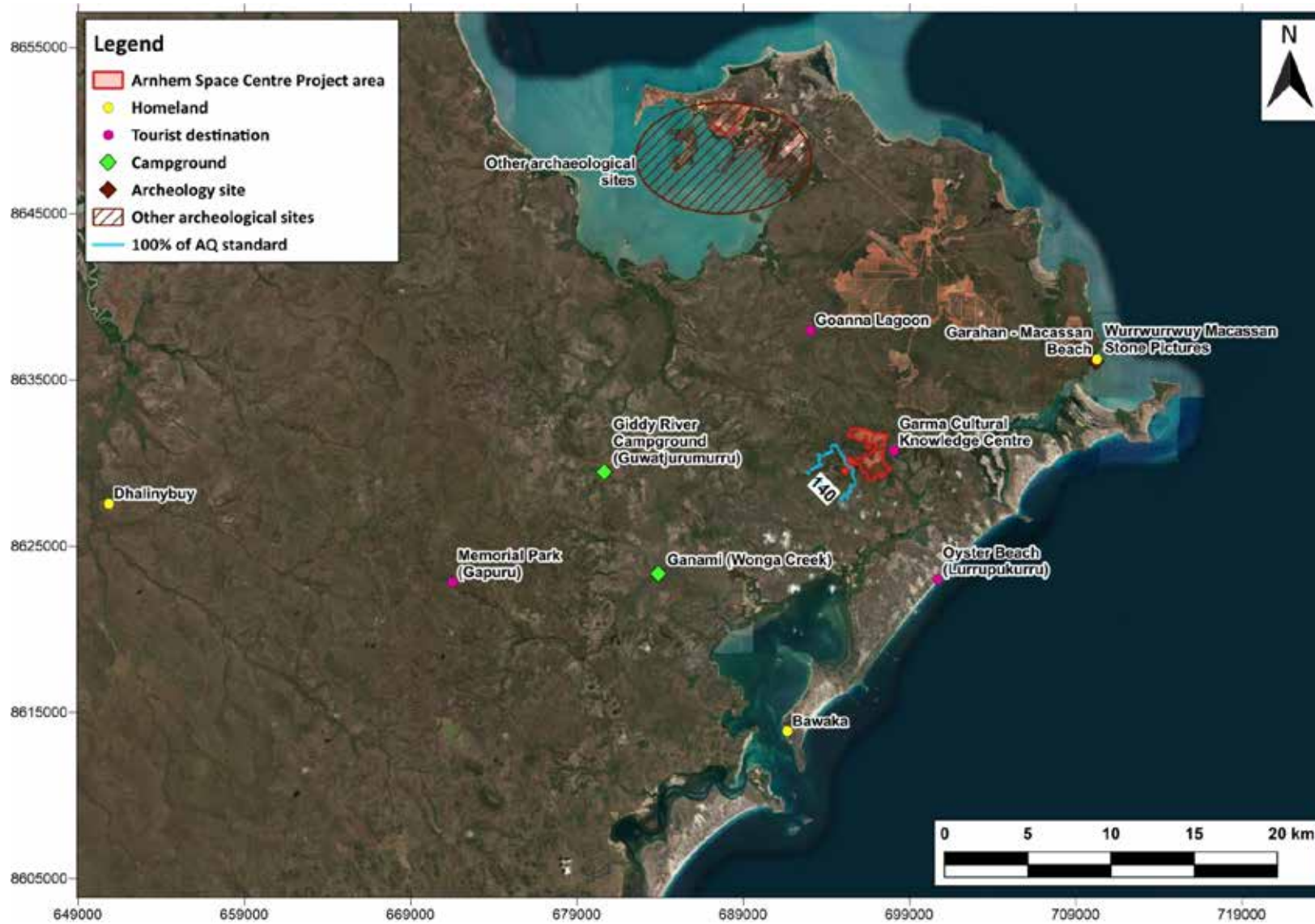


Figure 101 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) from Original (most south west launch pad) with respect to location of sensitive receptors

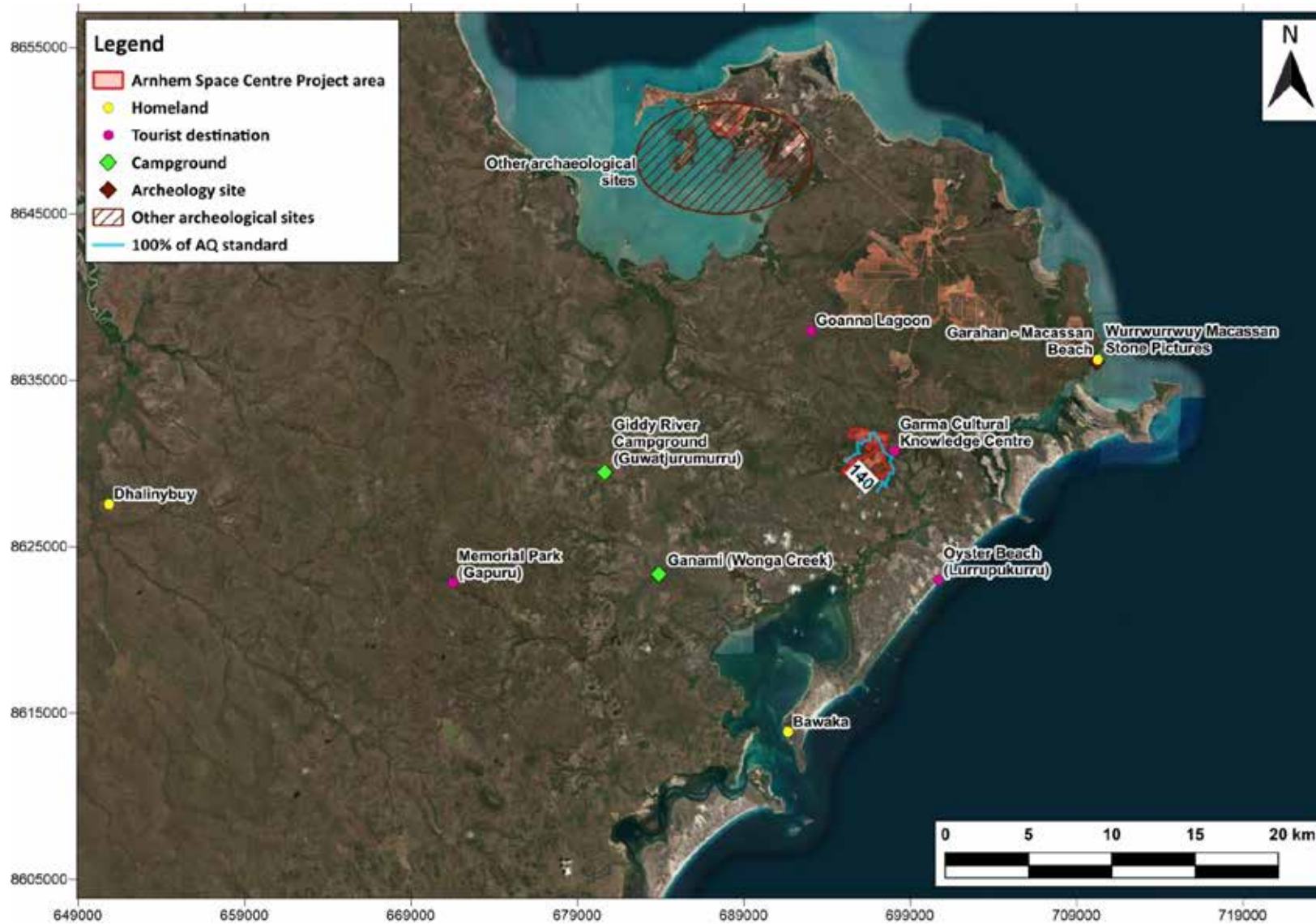


Figure 102 99.9% predicted 1 hour ground level concentration for HCl ( $140 \mu\text{g}/\text{m}^3$ ) from Magenta 1 (closest launch pad to Garma Cultural Knowledge Centre) with respect to location of sensitive receptors