ALTERNATIVE COMPLIANCE PLAN

Enterprise Products Operating LLC

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ALLIANT ENVIRONMENTAL

TABLE OF CONTENTS

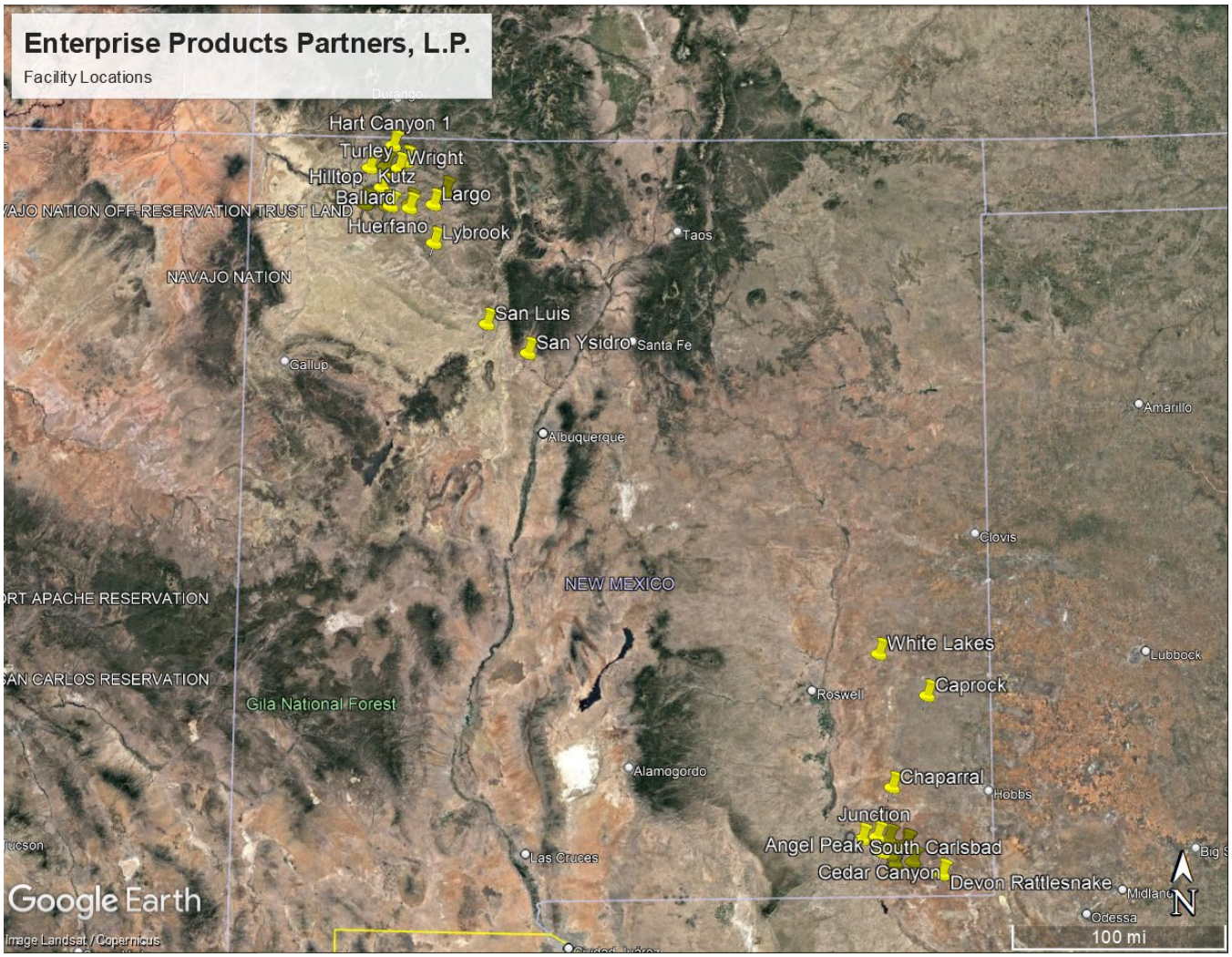
LIST OF FIGURES

LIST OF TABLES

1. EXECUTIVE SUMMARY

Enterprise Products Operating LLC (Enterprise) is a midstream natural gas company with numerous facility locations in New Mexico. Figure 1 provides an overview of the facilities and their locations in New Mexico.

Figure 1. Enterprise Products Operating LLC New Mexico Facility Locations



Enterprise is submitting an alternative compliance plan (ACP) in accordance with Paragraph (10) of Subsection B of 20.2.50.113 NMAC, which states:

> *In lieu of complying with the emission standards for individual engines and turbines established in Subsection B of 20.2.50.113 NMAC, an owner or operator may elect to comply with the emission standards through an Alternative Compliance Plan (ACP) approved by the department. An ACP must include the list of engines or turbines subject to the ACP, and a demonstration that the total allowable emissions for the*

engines or turbines subject to the ACP will not exceed the total allowable emissions under the emission standards of this Part.

The ACP detailed herein addresses Nitrogen Dioxide (NO_x), Carbon Monoxide (CO), and Volatile Organic Compound (VOC) emissions from all subject units in the Enterprise fleet. The ACP also provides a demonstration that that the total allowable emissions for Enterprise's fleet of engines and turbines will not exceed the total allowable emissions under this Part for each pollutant. Along with emissions reductions, the geographical location of those reductions were evaluated and environmental justice considerations assessed.

If approved, Enterprise will meet the total allowable emissions established under the emission standards of 20.2.50.113 NMAC for all three pollutants by January 1, 2029 for engines and January 1, 2028 for turbines.

Additionally, an environmental justice review is detailed herein that evaluates the areas surrounding the units of the fleet that are on an individual basis in excess of the limits established in 20.2.50.113 NMAC.

2. INTRODUCTION

2.1 Regulatory Background

20.2.50 NMAC, Oil and Gas Sector – Ozone Precursor Pollutants, became effective on August 5, 2022. The Part applies to sources located within areas of the state under the board's jurisdiction that, as of the effective date or anytime thereafter, are causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone, as measured by a design value calculated and based on data from one or more department monitors. As of the effective date, sources located in the following counties of the state are subject to this Part: Chaves, Dona Ana, Eddy, Lea, Rio Arriba, Sandoval, San Juan, and Valencia.

Pursuant to 20.2.50.113.B(1) NMAC,

> *"The owner or operator of a portable or stationary natural gas-fired spark ignition engine, compression ignition engine, or natural gas-fired combustion turbine shall ensure compliance with the emission standards by the dates specified in Subsection B of 20.2.50.113 NMAC, except as otherwise specified under an Alternative Compliance Plan approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC."*

Table 1 below shows the emissions standards for existing engines, as specified in Subsection B of 20.2.50.113 NMAC.

Table 1. Emission Standards for Existing Natural Gas-Fired Spark Ignition Engines

Engine Type	Rated bhp	NO_x	CO	NMNEHC (as propane)
2 Stroke Lean Burn	>1,000 bhp	3.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	>1,000 bhp and <1,775 bhp	2.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	≥1,775 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich Burn	>1,000 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

Table 2 below shows the emissions standards for existing turbines, as specified in Subsection B of 20.2.50.113 NMAC.

Table 2. Emission Standards for Stationary Combustion Turbines

Turbine Rating (bhp)	NO_x (ppmvd @15% O_2)	CO (ppmvd @15% O_2)	NMNEHC (as propane, ppmvd @15% O_2)
>1,000 and <4,100	150	50	9
≥4,100 and <15,000	50	50	9
≥15,000	50	50 or 93% reduction	5 or 50% reduction

2.2 Turbine Information

Enterprise's current fleet of turbines and their associated permitted emissions are detailed in Table 3 below. Additional information regarding each unit's make, model, and horsepower is also provided.

Table 3. Existing Turbines and Associated Emissions

Site	Unit	Make	Model	HP	Permitted NOx tpy (8760 hrs)	Permitted CO tpy (8760 hrs)	Permitted VOC tpy (8760 hrs)
South Carlsbad	1	Solar	Centaur T-4702	4328	90.8	11.3	3.4
South Carlsbad	2	Solar	Centaur T-4702	4328	90.8	11.3	3.4
South Carlsbad	5	Solar	Centaur 40-4700	4111	19.4	25.80	6.2
Blanco	T-C01	Rolls Royce	GE 5221W	22280	350.4	78.10	1.4
Blanco	T-C02	Rolls Royce	GE 5221W	22280	350.4	78.10	1.4
Blanco	T-D01	Rolls Royce	GE M5322B	32550	628.0	94.70	2
Caprock	3	Solar	Saturn T-1302	1113	19.7	26.80	0.66
Caprock	4	Solar	Centaur T-4702	4082	16.7	20.60	8.5
Caprock	5	Solar	Centaur T-4702	4082	16.7	20.60	8.5
Caprock	6	Solar	Centaur T-4702	4082	16.7	20.60	8.5
Chaco	17	GE	Frame 5	19500	344.0	138.00	3.1
Chaco	18	GE	Frame 5	19500	344.0	138.00	3.1
Chaco	35	Solar	Mars 15000	15000	333.6	10.40	1
Chaco	36	Solar	Mars 15000	15000	333.6	10.40	1
Chaco	37	Solar	Mars 15000	15000	333.6	10.40	1
Chaco	49	Solar	Solar 60-7000S	6039	34.9	25.30	1
Huerfano	8	Solar	Saturn T-1602	1600	28.2	34.40	2.5
Huerfano	9	Solar	Saturn T-1602	1600	28.2	34.40	2.5
Huerfano	10	Solar	Saturn T-1602	1600	28.2	34.40	2.5
Huerfano	11	Solar	Centaur T-4702	4700	15.5	18.90	5.4
Lybrook	5	Solar	Centaur T-4702	3538	23.1	18.50	5.3
Lybrook	6	Solar	Centaur T-4702	3538	23.1	18.50	5.3
San Luis	1	Solar	Saturn T-1200	1200	18.1	23.70	1
San Luis	6	Solar	Saturn 20-1602	1600	28.2	34.40	2.5
San Luis	7	Solar	Saturn 20-1602	1600	28.2	34.40	2.5
San Luis	8	Solar	Saturn 20-1602	1600	28.2	34.40	2.5
San Luis	9	Solar	Saturn 20-1602	1600	28.2	34.40	2.5
San Ysidro	5	Solar	Centaur T-4700S	3848	17.7	21.58	7.12
San Ysidro	6	Solar	Centaur T-4700S	3848	17.7	21.58	7.12
White Lakes	4	Solar	Saturn T-1200	1200	17.99	23.66	0.72
White Lakes	6	Solar	Centaur T-4702S	4082	16.95	20.89	9.2
White Lakes	7	Solar	Centaur T-4702S	4082	16.95	20.89	9.2
White Lakes	8	Solar	Saturn T-1602	1336	24.77	0.84	0.6

2.3 Engine Information

Enterprise's current fleet of engines and their associated permitted emissions are detailed in Table 3 below. Additional information regarding each unit's make, model, and horsepower is also provided.

Table 4. Existing Engines and Associated Emissions

Site	Unit	Make	Model	HP	Permitted NOx tpy (8760 hrs)	Permitted CO tpy (8760 hrs)	Permitted VOC tpy (8760 hrs)
Chaparral	E-1000	Caterpillar	G3516 LE	1340	19.4	4.0	3.2
Chaparral	E-2000	Caterpillar	G3516 LE	1340	19.4	23.3	6.3
Chaparral	E-3000	Waukesha	L7042GL	1547	22.4	7.9	14.9
Chaparral	E-4000	Waukesha	L7042GL	1547	22.4	7.9	14.9
Chaparral	E-5000	Caterpillar	G3516 LE	1340	19.4	23.3	6.3
Chaparral	E-6000	Caterpillar	G3516 LE	1340	25.9	24.1	3.4
Chaparral	E-7000	Caterpillar	G3516 LE	1340	25.9	6.0	5.4
Devon Cotton Draw	ENG-1	Caterpillar	G3606 LE	1863	8.99	36.0	13.67
Devon Cotton Draw	ENG-2	Caterpillar	G3606 LE	1863	8.99	36.0	13.67
Poker Lake	ENG-1.2	Waukesha	L5794 GSI	1380	26.7	33.3	16.7
Poker Lake	ENG-2.2	Waukesha	L5794 GSI	1380	26.7	26.3	2.3
Poker Lake	ENG-3.2	Waukesha	L5794 GSI	1380	26.7	11.2	16.7
Poker Lake	ENG-4.2	Waukesha	L7044 GSI	1680	10.1	20.3	3.7
Trunk C	ENG-1.2	Waukesha	L5794GSI	1380	26.7	11.0	13.3
Trunk C	ENG-2.2	Waukesha	L5794GSI	1380	26.7	26.3	2.3
Trunk C	ENG-3.2	Waukesha	L5794GSI	1380	26.7	33.3	13.3
XTO Nash	ENG 1	Caterpillar	G3516 TALE	1340	19.41	1.67	1.55
XTO Nash	ENG 2	Caterpillar	G3516 TALE	1340	19.41	1.67	1.55
Devon Rattlesnake	ENG-1	Caterpillar	G3606 LE	1863	8.99	27.0	12.59
Devon Rattlesnake	ENG-2	Caterpillar	G3606 LE	1863	8.99	27.0	12.59
Devon Rattlesnake	ENG-3	Caterpillar	G3606 LE	1863	8.99	27.0	12.59
Cedar Canyon	1	Caterpillar	3516	1380	9.56	11.9	8
Cedar Canyon	2	Caterpillar	3516	1380	9.56	11.9	8
Cedar Canyon	3	Caterpillar	G3606A4	1875	14.28	16.1	11.77
Cedar Canyon	4	Caterpillar	G3606A4	1875	14.28	16.1	11.77
Cedar Canyon	5	Caterpillar	G3606A4	1875	14.28	16.1	11.77
Cedar Canyon	6	Caterpillar	G3606A4	1875	14.28	16.1	11.77
Oxy Sand Dunes South	ENG-1	Caterpillar	G3606 A4	1875	13.01	5.4	11.15
Oxy Sand Dunes South	ENG-2	Caterpillar	G3606 A4	1875	13.01	5.4	11.15
Oxy Sand Dunes South	ENG-3	Caterpillar	G3606 A4	1875	13.01	5.4	11.15
Oxy Sand Dunes South	ENG-4	Caterpillar	G3606 A4	1875	13.01	5.4	11.15
Oxy Sand Dunes South	ENG-5	Caterpillar	G3606 A4	1875	13.01	5.4	11.15
Oxy Sand Dunes South	ENG-6	Caterpillar	G3608 A4	2500	16.45	9.6	16.73
Oxy Sand Dunes Central	ENG-1	Caterpillar	G3616A4	5000	15.21	22.2	21.1

Table 5. Existing Engines and Associated Emissions (Cont'd)

Site	Unit	Make	Model	HP	Permitted NOx tpy (8760 hrs)	Permitted CO tpy (8760 hrs)	Permitted VOC tpy (8760 hrs)
Oxy Sand Dunes Central	ENG-2	Caterpillar	G3616A4	5000	15.21	22.2	21.1
Oxy Sand Dunes Central	ENG-3	Caterpillar	G3616A4	5000	15.21	22.2	21.1
Oxy Sand Dunes Central	ENG-4	Caterpillar	G3616A4	5000	15.21	22.2	21.1
Oxy Sand Dunes North	ENG-1	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-2	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-3	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-4	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-5	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-6	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-7	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Oxy Sand Dunes North	ENG-8	Caterpillar	G3606 A4	1875	10.36	5.4	10.14
Junction	ENG-1	Caterpillar	G3516LE	1340	25.88	4.69	5.97
Angel Peak	1	Caterpillar	3612	3335	25.92	92.7	22.59
Ballard	1	Caterpillar	3612	3335	23.99	6.85	10
Ballard	2	Caterpillar	3612	3335	23.99	85.68	18.18
Chaco	8	Caterpillar	3616	4445	28.2	7.70	7.1
Chaco	11	Caterpillar	3616	4445	28.2	7.70	7.1
Chaco	12	Clark	TLA-10	3400	218	75.50	10.8
Chaco	13	Clark	TLA-10	3400	218	7.60	10.8
Chaco	14	Clark	TLA-10	3400	218	75.50	10.8
Chaco	32	Caterpillar	3608	2222	20.2	3.80	3.6
Chaco	33	Caterpillar	3608	2222	20.2	3.80	3.6
Chaco	34	Caterpillar	3608	2222	20.2	3.80	3.6
Chaco	50	Caterpillar	G3612 TALE	3550	22.5	8.10	10.5
Hart Canyon 1	1	Caterpillar	G3612 TALE	3135	25.9	92.58	22.59
Hart Canyon 2	A	Caterpillar	3516	1085	31.4	21.1	10.5
Hart Canyon 2	B	Caterpillar	3516	1085	31.4	21.1	10.5
Hart Canyon 2	C	Caterpillar	3516	1085	3.14	21.1	10.5
Hilltop	1	Caterpillar	3516	1085	21.1	21.1	3.6
Kutz	1	Caterpillar	3612	3162	25.92	80.51	19.64
Kutz	2	Caterpillar	3612	3162	25.92	6.44	10.8
Largo	1	Caterpillar	3612	3335	22.5	12.2	10.6
Largo	2	Caterpillar	3612	3335	22.5	61.2	22.5
Martinez Canyon	1a	Caterpillar	G3612 TALE	3081	25.90	70.40	25.9
Wright	1	Caterpillar	3516	1085	20.95	24.36	5.24
3B-1 Turley	1	Caterpillar	3612	3162	22.87	80.0	18.63

3. PROPOSED ALTERNATIVE COMPLIANCE PLAN

3.1 Nitrogen Dioxide (NO_x) Overview

Enterprise has conducted an inventory of their engines and turbines, pursuant 20.2.50.113.B(2). Stack testing was conducted for the units in their fleet, and it was determined that some of the units had been over permitted in the past. The stack testing results for turbines can be found in Appendix A and engines in Appendix B.

For the proposed alternative compliance plan, Enterprise plans to re-permit some of annual emissions from their engines and turbines based on the stack testing results. The methodology used for each unit's re-permitting efforts is detailed in Section 3.1.1 below.

3.1.1 Compliance Methodology

To comply with the rule's emission limits, some of the units in Enterprise's fleet will need to be re-permitted. Detailed below are different compliance methodologies and which units they were applied to.

The following turbine and engine units will be left as currently permitted:

- South Carlsbad – Units 1, 2, and 5
- Caprock – Units 3, 4, 5, and 6
- Huerfano – Units 8, 9, 10, and 11
- San Ysidro – Units 5 and 6
- White Lakes – units 4, 6, 7, and 8
- Chaparral – Units E-1000, E-2000, E-3000, E-4000, E-5000, E6000, and E-7000
- Devon Cotton Draw – Units ENG-1 and ENG-2
- Poker Lake – Units ENG-1.2, ENG-2.2, and ENG-3.2
- XTO Nash – Units ENG-1 and ENG-2
- Devon Rattlesnake – Units ENG-1, ENG-2, and ENG-3
- Cedar Canyon – Units 1 and 2
- Oxy Sand Dune Central – Units ENG-1, ENG-2, ENG-3, and ENG-4
- Junction – Unit ENG-1
- Carson – Unit 1
- Chaco – Unit 8 and 11
- Wright – Unit 1

Stack testing has historically been completed for units in order to demonstrate compliance with their current permitted emissions limits. These stack testing results were evaluated for each unit and will be used to re-permit some units. For some units, an additional safety factor was applied. The magnitude of the safety factor was dependent on the confidence of the test, historical stack testing performance of the unit, age of the unit, etc. The stack test value used for each unit are identified in red outline in Appendix A for turbines and in Appendix B for engines. The units to be re-permitted based on their stack tests and their respective safety factors are detailed below.

The following units will be re-permitted with emission values from a recent stack test:

- Trunk C – Unit ENG-2.2
- Chaco – Unit 34

The following units will be re-permitted with emission values from the worst-case stack test in the last five years with a 5% safety factor:
- Blanco – Units T-C01 and T-C02

The following units will be re-permitted with emission values from the worst-case stack test in the last five years with a 10% safety factor:
- Chaco – Units 17 and 18

The following units will be re-permitted with emission values from the worst-case stack test in the last five years with a 15% safety factor:
- Chaco – Unit 35

The following units will be re-permitted with emission values from the worst-case stack test in the last five years with a 25% safety factor:
- Chaco – Unit 49
- San Luis – Unit 9
- Lybrook – Units 5 and 6

The following units will be re-permitted with emission values from the most recent stack test with a 25% safety factor:
- Chaco – Units 32, 36, and 37
- San Luis – Unit 1
- Hart Canyon 2 – Unit A

The following units will be re-permitted with emission values from a stack test from a similar unit at the same facility with a 25% safety factor:
- San Luis – Units 6, 7, and 8
- Trunk C – Units ENG-1.2 and ENG-3.2
- Chaco – Unit 33
- Hart Canyon 2 – Unit B

Some units had stack test results that fell well below the rule limit. In an effort to remain conservative and to maintain necessary operational flexibility, the following units will be re-permitted to the rule limit applicable to each unit instead of each respective stack test result:
- Poker Lake – Unit ENG-4.2
- Cedar Canyon – Units 3, 4, 5, and 6
- Oxy Sand Dunes South – Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, and ENG-6
- Oxy Sand Dunes North – Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, ENG-7 and ENG-8
- Angel Peak – Unit 1
- Ballard – Units 1 and 2
- Chaco – Unit 50
- Kutz – Units 1 and 2
- Largo – Units 1 and 2
- 3B-1 Turley – Unit Eng 1
- Martinez Canyon – Unit 1a

Some units will not need to run continuously throughout the year, and some are in place as backup for other units. The following units will reduce their annual operating hours to comply with the rule:

- Chaco – Unit 12, 13, and 14 (5,840 hours per year)
- Hart Canyon 1 – Unit 1 (876 hours per year)
- Hart Canyon 2 – Unit C (876 hours per year)
- Hilltop – Unit 1 (876 hours per year)

3.1.2 Compliance Timeline

Enterprise has met the first milestone of the compliance schedule pursuant to 20.2.50.113.B(2) and (7) NMAC, with over 30% of the company's engines and turbines meeting the requirements established in this alternative compliance plan. Enterprise will meet the next two milestones as required under the Rule through re-permitting as established in this alternative compliance plan.

3.1.3 NO_x Permitting and Rule Summary

Table 6, Table 7, and Table 8 below provide a summary of the turbines and engines that will be subject to this ACP, their currently permitted NO_x emissions, the "to be permitted" value, the NO_x emission limit for each unit based on Subpart B of 20.2.50.113 NMAC, and how the to be permitted value compares to the rule thresholds.

Table 6. Turbine NO_x Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted NO_x tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule NOx Emission Limit (ppm)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
South Carlsbad	1	90.8	90.8	50	34.69	56.11
South Carlsbad	2	90.8	90.8	50	34.69	56.11
South Carlsbad	5	19.4	19.4	50	32.97	-13.57
Blanco	T-C01	350.4	300.1	50	150.08	150.01
Blanco	T-C02	350.4	306.3	50	150.08	156.21
Blanco	T-D01	628	336.1	50	255.22	80.91
Caprock	3	19.7	19.7	150	33.90	-14.20
Caprock	4	16.7	16.7	50	31.46	-14.76
Caprock	5	16.7	16.7	50	31.46	-14.76
Caprock	6	16.7	16.7	50	31.46	-14.76
Chaco	17	344	140.3	50	167.47	-27.17
Chaco	18	344	128.8	50	165.58	-36.75
Chaco	35	333.6	167.5	50	95.13	72.36
Chaco	36	333.6	163.5	50	95.13	68.35
Chaco	37	333.6	156.0	50	95.13	60.86
Chaco	49	34.9	5.1	50	38.79	-33.64
Huerfano	8	28.2	28.2	50	39.59	-11.39
Huerfano	9	28.2	28.2	50	39.59	-11.39
Huerfano	10	28.2	28.2	50	39.59	-11.39
Huerfano	11	15.46	15.5	50	28.94	-13.48
Lybrook	5	23.1	12.88	150	85.40	-72.53
Lybrook	6	23.1	12.88	150	85.40	-72.53
San Luis	1	18.1	3.6	150	28.32	-24.70
San Luis	6	28.2	16.4	150	39.59	-23.22
San Luis	7	28.2	16.4	150	39.59	-23.22
San Luis	8	28.2	16.4	150	39.59	-23.22
San Luis	9	28.2	16.4	150	39.59	-23.22
San Ysidro	5	17.74	17.7	150	90.34	-72.60
San Ysidro	6	17.74	17.7	150	90.34	-72.60
White Lakes	4	17.99	18.0	150	29.03	-11.04
White Lakes	6	16.95	17.0	50	32.76	-15.81
White Lakes	7	16.95	17.0	50	32.76	-15.81
White Lakes	8	24.77	24.8	150	34.94	-10.17

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 7. Engine NO_x Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted NO_x tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule NOx Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Chaparral	E-1000	19.4	19.4	2.00	25.88	-6.48
Chaparral	E-2000	19.4	19.4	2.00	25.88	-6.48
Chaparral	E-3000	22.4	22.4	2.00	29.88	-7.48
Chaparral	E-4000	22.4	22.4	2.00	29.88	-7.48
Chaparral	E-5000	19.4	19.4	2.00	25.88	-6.48
Chaparral	E-6000	25.9	25.9	2.00	25.90	0.00
Chaparral	E-7000	25.9	25.9	2.00	25.90	0.00
Devon Cotton Draw	ENG-1	9.0	9.0	0.50	9.00	0.00
Devon Cotton Draw	ENG-2	9.0	9.0	0.50	9.00	0.00
Poker Lake	ENG-1.2	26.7	26.7	0.50	6.66	20.04
Poker Lake	ENG-2.2	26.7	26.7	0.50	6.66	20.04
Poker Lake	ENG-3.2	26.7	26.7	0.50	6.66	20.04
Poker Lake	ENG-4.2	10.1	8.11	0.50	8.11	0.00
Trunk C	ENG-1.2	26.7	11.2	0.50	6.66	4.50
Trunk C	ENG-2.2	26.7	11.2	0.50	6.66	4.50
Trunk C	ENG-3.2	26.7	11.2	0.50	6.66	4.50
XTO Nash	ENG 1	19.4	19.4	2.00	25.88	-6.47
XTO Nash	ENG 2	19.4	19.4	2.00	25.88	-6.47
Devon Rattlesnake	ENG-1	9.0	9.0	0.50	9.00	0.00
Devon Rattlesnake	ENG-2	9.0	9.0	0.50	9.00	0.00
Devon Rattlesnake	ENG-3	9.0	9.0	0.50	9.00	0.00
Cedar Canyon	1	9.6	9.6	2.00	26.65	-17.09
Cedar Canyon	2	9.6	9.6	0.50	26.65	-17.09
Cedar Canyon	3	14.3	9.05	0.50	9.05	0.00
Cedar Canyon	4	14.3	9.05	0.50	9.05	0.00
Cedar Canyon	5	14.3	9.05	0.50	9.05	0.00
Cedar Canyon	6	14.3	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-1	13.0	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-2	13.0	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-3	13.0	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-4	13.0	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-5	13.0	9.05	0.50	9.05	0.00
Oxy Sand Dunes South	ENG-6	16.5	12.1	0.50	12.07	0.00
Oxy Sand Dunes Central	ENG-1	15.2	15.2	0.50	24.14	-8.93
Oxy Sand Dunes Central	ENG-2	15.2	15.2	0.50	24.14	-8.93
Oxy Sand Dunes Central	ENG-3	15.2	15.2	0.50	24.14	-8.93

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 8. Engine NO_x Permitted, To Be Permitted, and Rule Comparison (Cont'd)

Site	Unit	Permitted NO_x tpy (8760 hrs)	(Permitted or to be permitted based on stack test (tpy)	Rule NOx Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Oxy Sand Dunes Central	ENG-4	15.2	15.2	0.50	24.14	-8.93
Oxy Sand Dunes North	ENG-1	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-2	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-3	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-4	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-5	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-6	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-7	10.4	9.05	0.50	9.05	0.00
Oxy Sand Dunes North	ENG-8	10.4	9.05	0.50	9.05	0.00
Junction	ENG-1	25.9	25.9	2.00	25.88	0.00
Angel Peak	1	25.9	16.1	0.50	16.10	0.00
Ballard	1	24.0	16.1	0.50	16.10	0.00
Ballard	2	24.0	16.1	0.50	16.10	0.00
Carson	1	22.2	22.2	0.50	11.11	11.12
Chaco	8	28.2	28.2	0.50	21.46	6.74
Chaco	11	28.2	28.2	0.50	21.46	6.74
Chaco	12	218.0	87.5	3.00	98.49	-11.01
Chaco	13	218.0	109.9	3.00	98.49	11.37
Chaco	14	218.0	126.5	3.00	98.49	28.01
Chaco	32	20.2	13.9	0.50	10.73	3.18
Chaco	33	20.2	13.9	0.50	10.73	3.18
Chaco	34	20.2	17.3	0.50	10.73	6.57
Chaco	50	22.5	17.14	0.50	17.14	0.00
Hart Canyon 1	1	2.6	2.6	0.50	15.14	-12.55
Hart Canyon 2	A	31.4	21.9	2.00	20.95	0.92
Hart Canyon 2	B	31.4	21.9	2.00	20.95	0.92
Hart Canyon 2	C	3.1	3.1	2.00	20.95	-17.81
Hilltop	1	2.1	2.1	2.00	20.95	-18.85
Kutz	1	25.9	15.3	0.50	15.3	0.00
Kutz	2	25.9	15.3	0.50	15.3	0.00
Largo	1	22.5	16.1	0.50	16.1	0.00
Largo	2	22.5	16.1	0.50	16.1	0.00
Martinez Canyon	1a	25.9	14.9	0.50	14.9	0.00
Wright	1	21.0	21.0	2.00	21	0.00
3B-1 Turley	1	22.87	15.3	0.50	15.3	0.00

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

3.2 Carbon Monoxide (CO) Overview

Enterprise has conducted an inventory of their engines and turbines, pursuant 20.2.50.113.B(2). Stack testing was conducted for the units in their fleet, and it was determined that some of the units had been over permitted in the past. The stack testing results for turbines can be found in Appendix A and engines in Appendix B

For the proposed alternative compliance plan, Enterprise plans to re-permit some of annual emissions from their engines and turbines based on the stack testing results. The methodology used for each unit's re-permitting efforts is detailed in Section 3.1.1 below.

3.2.1 Compliance Methodology

To comply with the rule's emission limits, some of the units in Enterprise's fleet will need to be re-permitted. Detailed below are different compliance methodologies and which units they were applied to.

The following turbine and engine units will be left as currently permitted:

- South Carlsbad – Units 1, 2, and 5
- Caprock – Units 3, 4, 5, and 6
- Lybrook – Units 5 and 6
- San Luis – Unit 1, 6, 7, 8, and 9
- San Ysidro – Units 5 and 6
- White Lakes – Units 4, 6, 7, and 8
- Chaparral – Units E-1000, E-2000, E-3000, E-4000, E-5000, E6000, and E-7000
- Devon Cotton Draw – Units ENG-1 and ENG-2
- Poker Lake – Units ENG-1.2, ENG-2.2, and ENG-3.2
- Trunk C – Units ENG-1.2, ENG-2.2, and ENG-3.2
- XTO Nash – Units ENG-1 and ENG-2
- Devon Rattlesnake – Units ENG-1, ENG-2, and ENG-3
- Cedar Canyon – Units 1, 2, 3, 4, 5, and 6
- Oxy Sand Dune South – Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, and ENG-6
- Oxy Sand Dune Central – Units ENG-1, ENG-2, ENG-3, and ENG-4
- Oxy Sand Dunes North – Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, ENG-7, and ENG-8
- Junction – Unit ENG-1
- Angel Peak – Unit 1
- Ballard – Units 1 and 2
- Carson – Unit 1
- Chaco – Unit 8, 13, 32, 33, 34, and 50
- Hart Canyon 2 – Units A, B, and C
- Hilltop – Unit 1
- Wright – Unit 1
- Kutz – Unit 2

Stack testing has historically been completed for units in order to demonstrate compliance with their current permitted emissions limits. These stack testing results were evaluated for each unit and will be used to re-permit some units. For some units, an additional safety factor was applied. The magnitude of the safety factor was dependent on the confidence of the test, historical stack testing performance of the unit, age of the unit, etc. The stack test value used for each unit are identified in red outline in Appendix A for turbines and in Appendix B for engines. The units to be re-permitted based on their stack tests and their respective safety factors are detailed below.

The following units will be re-permitted with emission values from a recent stack test:
- 3B-1 Turley – Unit 1
- Kutz – Unit 1

The following units will be re-permitted with emission values from a recent stack test with a 25% safety factor:
- Largo – Unit 1

The following units will be re-permitted with emission values from a recent stack test with a 30% safety factor:
- Blanco – Units T-C01, T-C02, and T-D01
- Chaco – Units 11, 12, 14, 17, 18, 35, 36, 37, and 49

The following units will be re-permitted with emission values from a recent stack test with a 50% safety factor:
- Martinez Canyon – Unit 1a

Some units had stack test results that fell well below the rule limit. In an effort to remain conservative and to maintain necessary operational flexibility, the following units will be re-permitted to the rule limit applicable to each unit instead of each respective stack test result:
- Huerfano – Units 8, 9, 10, and 11
- Largo – Unit 2

Some units have historically not needed to run continuously throughout the year, and some are in place as backup for other units. The following units will reduce their annual operating hours to comply with the rule:
- Chaco – Unit 12, 13, and 14 (5,840 hours per year)
- Hart Canyon 1 – Unit 1 (876 hours per year)
- Hart Canyon 2 – Unit C (876 hours per year)
- Hilltop – Unit 1 (876 hours per year)

3.2.2 Compliance Timeline

Enterprise has met the first milestone of the compliance schedule pursuant to 20.2.50.113.B(2) and (7) NMAC, with over 30% of the company's engines and turbines meeting the requirements established in this alternative compliance plan. Enterprise will meet the next two milestones as required under the Rule through re-permitting as established in this alternative compliance plan.

3.2.3 CO Permitting and Rule Summary

Table 9, Table 10, and Table 11 below provide a summary of the turbines and engines that will be subject to this ACP, their currently permitted CO emissions, the "to be permitted" value, the CO emission limit for each unit based on Subpart B of 20.2.50.113 NMAC, and how the to be permitted value compares to the rule thresholds.

Table 9. Turbine CO Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted CO tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule CO Emission Limit (ppm)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
South Carlsbad	1	11.3	11.3	50	20.78	-9.48
South Carlsbad	2	11.3	11.3	50	20.78	-9.48
South Carlsbad	5	25.8	25.8	50	19.75	6.05
Blanco	T-C01	78.1	30.9	50	89.90	-58.96
Blanco	T-C02	78.1	31.7	50	89.90	-58.18
Blanco	T-D01	94.7	55.6	50	152.87	-97.23
Caprock	3	26.8	26.8	50	6.77	20.03
Caprock	4	20.6	20.6	50	18.84	1.76
Caprock	5	20.6	20.6	50	18.84	1.76
Caprock	6	20.6	20.6	50	18.84	1.76
Chaco	17	138	25.9	50	100.31	-74.46
Chaco	18	138	20.6	50	99.18	-78.62
Chaco	35	10.4	3.4	50	56.98	-53.62
Chaco	36	10.4	4.7	50	56.98	-52.31
Chaco	37	10.4	2.4	50	56.98	-54.53
Chaco	49	25.3	1.6	50	23.24	-21.65
Huerfano	8	34.4	7.9	50	7.9	0.00
Huerfano	9	34.4	7.9	50	7.9	0.00
Huerfano	10	34.4	7.9	50	7.9	0.00
Huerfano	11	18.9	17.34	50	17.34	0.00
Lybrook	5	18.5	18.5	50	17.05	1.45
Lybrook	6	18.5	18.5	50	17.05	1.45
San Luis	1	23.7	23.7	50	5.65	18.05
San Luis	6	34.4	34.4	50	7.90	26.50
San Luis	7	34.4	34.4	50	7.90	26.50
San Luis	8	34.4	34.4	50	7.90	26.50
San Luis	9	34.4	34.4	50	7.90	26.50
San Ysidro	5	21.58	21.6	50	18.04	3.54
San Ysidro	6	21.58	21.6	50	18.04	3.54
White Lakes	4	23.66	23.7	50	5.80	17.86
White Lakes	6	20.89	20.9	50	19.62	1.27
White Lakes	7	20.89	20.9	50	19.62	1.27
White Lakes	8	0.84	0.8	25	3.49	-2.65

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 10. Engine CO Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted CO tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule CO Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Chaparral	E-1000	4.0	4.0	0.6	7.76	-3.76
Chaparral	E-2000	23.3	23.3	0.6	7.76	15.54
Chaparral	E-3000	7.9	7.9	0.6	8.96	-1.07
Chaparral	E-4000	7.9	7.9	0.6	8.96	-1.07
Chaparral	E-5000	23.3	23.3	0.6	7.76	15.54
Chaparral	E-6000	24.1	24.1	0.6	7.76	16.35
Chaparral	E-7000	6.0	6.1	0.6	7.76	-1.76
Devon Cotton Draw	ENG-1	36.0	36.0	0.6	10.79	25.20
Devon Cotton Draw	ENG-2	36.0	36.0	0.6	10.79	25.20
Poker Lake	ENG-1.2	33.3	33.3	0.6	8.00	25.32
Poker Lake	ENG-2.2	26.3	26.3	0.6	8.00	18.26
Poker Lake	ENG-3.2	11.2	11.2	0.6	8.00	3.23
Poker Lake	ENG-4.2	20.3	20.3	0.6	9.73	10.56
Trunk C	ENG-1.2	11.0	11.0	0.6	8.00	2.96
Trunk C	ENG-2.2	26.3	26.3	0.6	8.00	18.31
Trunk C	ENG-3.2	33.3	33.3	0.6	8.00	25.32
XTO Nash	ENG 1	1.67	1.67	0.6	7.76	-6.10
XTO Nash	ENG 2	1.67	1.67	0.6	7.76	-6.10
Devon Rattlesnake	ENG-1	27.0	27.0	0.6	10.79	16.21
Devon Rattlesnake	ENG-2	27.0	27.0	0.6	10.79	16.21
Devon Rattlesnake	ENG-3	27.0	27.0	0.6	10.79	16.21
Cedar Canyon	1	11.9	11.9	0.6	8.00	3.86
Cedar Canyon	2	11.9	11.9	0.6	8.00	3.86
Cedar Canyon	3	16.1	16.1	0.6	10.86	5.25
Cedar Canyon	4	16.1	16.1	0.6	10.86	5.25
Cedar Canyon	5	16.1	16.1	0.6	10.86	5.25
Cedar Canyon	6	16.1	16.1	0.6	10.86	5.25
Oxy Sand Dunes South	ENG-1	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes South	ENG-2	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes South	ENG-3	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes South	ENG-4	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes South	ENG-5	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes South	ENG-6	9.6	9.6	0.6	14.48	-4.84
Oxy Sand Dunes Central	ENG-1	22.2	22.2	0.6	28.97	-6.74
Oxy Sand Dunes Central	ENG-2	22.2	22.2	0.6	28.97	-6.74
Oxy Sand Dunes Central	ENG-3	22.2	22.2	0.6	28.97	-6.74

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 11. Engine CO Permitted, To Be Permitted, and Rule Comparison (Cont'd)

Site	Unit	Permitted CO tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule CO Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Oxy Sand Dunes Central	ENG-4	22.2	22.2	0.6	28.97	-6.74
Oxy Sand Dunes North	ENG-1	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-2	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-3	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-4	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-5	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-6	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-7	5.4	5.4	0.6	10.86	-5.43
Oxy Sand Dunes North	ENG-8	5.4	5.4	0.6	10.86	-5.43
Junction	ENG-1	4.69	4.69	0.6	7.76	-3.07
Angel Peak	1	92.7	92.7	0.6	19.32	73.42
Ballard	1	6.85	6.85	0.6	19.32	-14.47
Ballard	2	85.68	85.68	0.6	19.32	66.36
Carson	1	64.0	64.0	0.6	13.34	50.68
Chaco	8	7.70	7.70	0.6	25.75	-18.05
Chaco	11	7.70	7.70	0.6	25.75	-19.32
Chaco	12	75.5	34.77	0.6	19.70	15.07
Chaco	13	7.60	7.60	0.6	19.70	-12.10
Chaco	14	75.5	34.62	0.6	19.70	14.92
Chaco	32	3.80	3.80	0.6	12.87	-9.07
Chaco	33	3.80	3.80	0.6	12.87	-9.07
Chaco	34	3.80	3.80	0.6	12.87	-9.07
Chaco	50	8.10	8.10	0.6	20.57	-12.47
Hart Canyon 1	1	92.58	18.16	0.6	18.16	0.00
Hart Canyon 2	A	21.1	21.1	0.6	6.29	14.77
Hart Canyon 2	B	21.1	21.1	0.6	6.29	14.77
Hart Canyon 2	C	21.1	2.11	0.6	6.29	-4.18
Hilltop	1	21.1	2.11	0.6	6.29	-4.18
Kutz	1	80.51	6.44	0.6	18.32	-11.88
Kutz	2	6.44	6.44	0.6	18.32	-11.88
Largo	1	12.2	1.5	0.6	19.32	-17.85
Largo	2	61.2	19.3	0.6	19.32	0.00
Martinez Canyon	1a	70.40	26.78	0.6	17.85	8.93
Wright	1	24.36	24.36	0.6	6.29	18.07
3B-1 Turley	1	80.0	53.0	0.6	18.32	34.68

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

3.3 Volatile Organic Compounds (VOC) Overview

Enterprise has conducted an inventory of their engines and turbines, pursuant 20.2.50.113.B(2) NMAC. It was determined that, as currently permitted, the fleet of engines and turbines included in this alternative compliance plan meet the fleet-wide emissions requirements.

3.3.1 Compliance Methodology

Enterprise's fleet-wide VOC emissions are significantly lower than the required emissions threshold of the Rule. No re-permitting efforts will be required to implement this alternative compliance plan.

3.3.2 Compliance Timeline

Since there are no re-permitting efforts required to comply with the alternative compliance plan as established, Enterprise's fleet will meet all three compliance milestones of the Rule upon the implementation of this alternative compliance plan pursuant to 20.2.50.113.B(2) and (7) NMAC

3.3.3 VOC Permitting and Rule Summary

Table 12, Table 13, and Table 14 below provide a summary of the turbines and engines that will be subject to this ACP, their currently permitted VOC emissions, the value used to demonstrate compliance moving forward, the VOC emission limit for each unit based on Subpart B of 20.2.50.113 NMAC, and how the permitted value compares to the rule thresholds.

Table 12. Turbine VOC Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted VOC tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule VOC Emission Limit (ppm)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
South Carlsbad	1	3.4	3.4	9	5.99	-2.59
South Carlsbad	2	3.4	3.4	9	5.99	-2.59
South Carlsbad	5	6.2	6.2	9	5.69	0.51
Blanco	T-C01	1.4	1.4	9	14.39	-12.99
Blanco	T-C02	1.4	1.4	9	14.39	-12.99
Blanco	T-D01	2	2.0	9	24.47	-22.47
Caprock	3	0.66	0.7	9	1.95	-1.29
Caprock	4	8.5	8.5	9	5.43	3.07
Caprock	5	8.5	8.5	9	5.43	3.07
Caprock	6	8.5	8.5	9	5.43	3.07
Chaco	17	3.1	3.1	9	16.06	-12.96
Chaco	18	3.1	3.1	9	15.87	-12.77
Chaco	35	1	1.0	9	9.12	-8.12
Chaco	36	1	1.0	9	9.12	-8.12
Chaco	37	1	1.0	9	9.12	-8.12
Chaco	49	1	1.0	9	6.69	-5.69
Huerfano	8	2.5	2.5	9	2.28	0.22
Huerfano	9	2.5	2.5	9	2.28	0.22
Huerfano	10	2.5	2.5	9	2.28	0.22
Huerfano	11	5.4	5.4	9	4.99	0.41
Lybrook	5	5.3	5.3	9	4.91	0.39
Lybrook	6	5.3	5.3	9	4.91	0.39
San Luis	1	1	1.0	9	1.63	-0.63
San Luis	6	2.5	2.5	9	2.28	0.22
San Luis	7	2.5	2.5	9	2.28	0.22
San Luis	8	2.5	2.5	9	2.28	0.22
San Luis	9	2.5	2.5	9	2.28	0.22
San Ysidro	5	7.12	7.1	9	5.20	1.92
San Ysidro	6	7.12	7.1	9	5.20	1.92
White Lakes	4	0.72	0.7	9	1.67	-0.95
White Lakes	6	9.2	9.2	9	5.65	3.55
White Lakes	7	9.2	9.2	9	5.65	3.55
White Lakes	8	0.6	0.6	9	2.01	-1.41

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 13. Engine VOC Permitted, To Be Permitted, and Rule Comparison

Site	Unit	Permitted VOC tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule VOC Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Chaparral	E-1000	3.2	3.2	0.7	9.06	-5.86
Chaparral	E-2000	6.3	6.3	0.7	9.06	-2.76
Chaparral	E-3000	14.9	14.9	0.7	10.46	4.44
Chaparral	E-4000	14.9	14.9	0.7	10.46	4.44
Chaparral	E-5000	6.3	6.3	0.7	9.06	-2.76
Chaparral	E-6000	3.4	3.4	0.7	9.06	-5.66
Chaparral	E-7000	5.4	5.4	0.7	9.06	-3.66
Devon Cotton Draw	ENG-1	13.7	13.7	0.7	12.59	1.08
Devon Cotton Draw	ENG-2	13.7	13.7	0.7	12.59	1.08
Poker Lake	ENG-1.2	16.7	16.7	0.7	9.33	7.37
Poker Lake	ENG-2.2	2.3	2.3	0.7	9.33	-7.03
Poker Lake	ENG-3.2	16.7	16.7	0.7	9.33	7.37
Poker Lake	ENG-4.2	3.7	3.7	0.7	11.36	-7.66
Trunk C	ENG-1.2	13.3	13.3	0.7	9.33	3.97
Trunk C	ENG-2.2	2.3	2.3	0.7	9.33	-7.03
Trunk C	ENG-3.2	13.3	13.3	0.7	9.33	3.97
XTO Nash	ENG 1	1.55	1.55	0.7	9.06	-7.51
XTO Nash	ENG 2	1.55	1.55	0.7	9.06	-7.51
Devon Rattlesnake	ENG-1	12.6	12.6	0.7	12.59	0.00
Devon Rattlesnake	ENG-2	12.6	12.6	0.7	12.59	0.00
Devon Rattlesnake	ENG-3	12.6	12.6	0.7	12.59	0.00
Cedar Canyon	1	8.0	8.0	0.7	9.33	-1.33
Cedar Canyon	2	8.0	8.0	0.7	9.33	-1.33
Cedar Canyon	3	11.8	11.8	0.7	12.67	-0.90
Cedar Canyon	4	11.8	11.8	0.7	12.67	-0.90
Cedar Canyon	5	11.8	11.8	0.7	12.67	-0.90
Cedar Canyon	6	11.8	11.8	0.7	12.67	-0.90
Oxy Sand Dunes South	ENG-1	11.2	11.2	0.7	12.67	-1.52
Oxy Sand Dunes South	ENG-2	11.2	11.2	0.7	12.67	-1.52
Oxy Sand Dunes South	ENG-3	11.2	11.2	0.7	12.67	-1.52
Oxy Sand Dunes South	ENG-4	11.2	11.2	0.7	12.67	-1.52
Oxy Sand Dunes South	ENG-5	11.2	11.2	0.7	12.67	-1.52
Oxy Sand Dunes South	ENG-6	16.7	16.7	0.7	16.90	-0.17
Oxy Sand Dunes Central	ENG-1	21.1	21.1	0.7	33.80	-12.70
Oxy Sand Dunes Central	ENG-2	21.1	21.1	0.7	33.80	-12.70
Oxy Sand Dunes Central	ENG-3	21.1	21.1	0.7	33.80	-12.70

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

Table 14. Engine VOC Permitted, To Be Permitted, and Rule Comparison (Cont'd)

Site	Unit	Permitted VOC tpy (8760 hrs)	Permitted or to be permitted based on stack test (tpy)	Rule VOC Emission Limit (g/hp-hr)	Limit Based on Rule (tpy)	Rule Comparison (tpy)*
Oxy Sand Dunes Central	ENG-4	21.1	21.1	0.7	33.80	-12.70
Oxy Sand Dunes North	ENG-1	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-2	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-3	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-4	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-5	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-6	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-7	10.1	10.1	0.7	12.67	-2.53
Oxy Sand Dunes North	ENG-8	10.1	10.1	0.7	12.67	-2.53
Junction	ENG-1	6.0	6.0	0.7	9.06	-3.09
Angel Peak	1	22.6	22.6	0.7	22.54	0.05
Ballard	1	10.0	10.0	0.7	22.54	-12.54
Ballard	2	18.2	18.2	0.7	22.54	-4.36
Carson	1	15.3	15.3	0.7	15.56	-0.22
Chaco	8	7.1	7.1	0.7	30.05	-22.95
Chaco	11	7.1	7.1	0.7	30.05	-22.95
Chaco	12	10.8	10.8	0.7	22.98	-12.18
Chaco	13	10.8	10.8	0.7	22.98	-12.18
Chaco	14	10.8	10.8	0.7	22.98	-12.18
Chaco	32	3.6	3.6	0.7	15.02	-11.42
Chaco	33	3.6	3.6	0.7	15.02	-11.42
Chaco	34	3.6	3.6	0.7	15.02	-11.42
Chaco	50	10.5	10.5	0.7	24.00	-13.50
Hart Canyon 1	1	22.6	22.6	0.7	21.19	1.40
Hart Canyon 2	A	10.5	10.5	0.7	7.33	3.17
Hart Canyon 2	B	10.5	10.5	0.7	7.33	3.17
Hart Canyon 2	C	10.5	10.5	0.7	7.33	3.17
Hilltop	1	3.6	3.6	0.7	7.33	-3.73
Kutz	1	19.6	19.6	0.7	21.37	-1.73
Kutz	2	10.8	10.8	0.7	21.37	-10.57
Largo	1	10.6	10.6	0.7	22.54	-11.94
Largo	2	22.5	22.5	0.7	22.54	-0.04
Martinez Canyon	1a	25.90	25.90	0.7	20.83	5.07
Wright	1	5.2	5.2	0.7	7.33	-2.09
3B-1 Turley	1	18.6	18.6	0.7	21.37	-2.74

*Rule Comparison (tpy) = Permitted or to be permitted based on stack test (tpy) – Limit Based on Rule (tpy)

3.4 Fleet-Wide Compliance Summary

Based on the emission limits established in Subpart B of 20.2.50.113 NMAC for existing engines and turbines, The fleet-wide NO_x, CO, and VOC emission limits that Enterprise must meet are detailed in Table 15 below. Enterprise's fleet-wide total once all permits have been updated are also summarized in Table 15 below. This demonstrates compliance with the emission thresholds established in Subpart B of 20.2.50.113 NMAC and the compliance schedule as defined in 20.2.50.113.B(2) and 20.2.50.113.B(7) NMAC and shown below in Table 16 and Table 17.

Table 15. Rule Emissions Threshold Comparison

	Regulatory Emissions Threshold (tpy)	Enterprise Fleet-Wide Emissions (tpy)	Net Emissions Compared to the Regulation
NO_x	3,594.22	3592.15	-2.06
CO	1972.82	1901.34	-71.48
VOC	1291.95	925.59	-366.36

Table 16. Schedule of Compliance for Existing Engines

Regulatory Compliance Date	Total Percent Meeting Standard
January 1, 2025	30%
January 1, 2027	65%
January 1, 2029	100%

Table 17. Schedule of Compliance for Existing Turbines

Regulatory Compliance Date	Total Percent Meeting Standard
January 1, 2024	30%
January 1, 2026	65%
January 1, 2028	100%

3.5 Geographical Summary

Additionally, consideration was given to the geographical location of NO_x reductions due to it being the most significant pollutant, as represented in Table 15 above. Table 18 below provides a summary of the two regions evaluated. The Northwest region includes facilities located in San Juan, Rio Arriba, and Sandoval County and the Southwest region includes facilities located in Eddy, Lea, and Chaves County. NO_x reduction was calculated as the percent difference between the total regional currently permitted NO_x emissions and the NO_x emissions to be permitted for compliance with this ACP. The Northwest region has the most emissions currently permitted, constituting approximately 81% of the fleet-wide emissions. The Northwest region will also have the most significant reductions from the implementation of the ACP, with approximately 81% of the reductions occurring in this geographic region.

Table 18. Geographical NO_x Emissions Summary

Region	Currently Permitted	To Be Permitted	NO_x Reduction
Northwest	4,491.96 tpy	2612.62 tpy	58.2%
Southeast	1,083.67 tpy	979.53 tpy	9.6%

4. ENVIRONMENTAL JUSTICE CONSIDERATIONS

4.1 Background Information

New Mexico Environmental Justice Executive Order 2005-056[1] resulted in the creation of the New Mexico EJ Task Force, increased community outreach, notice and participation in permitting activities and public hearings in New Mexico.

NMED has defined Environmental Justice as the following:[2]

> "*Environmental Justice at the New Mexico Environment Department is the fair treatment and meaningful opportunities for involvement of all New Mexicans regarding the development and enforcement of environmental laws and regulations.*"

The NMED Air Quality Bureau (AQB) develops Public Involvement Plans (PIPs) for the processing of air quality permit applications in accordance with the requirements at 20.2.72 NMAC. Elements presented by NMED AQB in the PIPs include:

- NMED assesses a combination of environmental and demographic factors (e.g., low income community, minority community, limited English proficiency individuals, linguistically isolated households, etc.) to ensure appropriate promotion of public outreach.
- EPA's EJSCREEN tool is used identify communities that are low income and minority populations for notification and outreach communication.
- A 4-mile radius from each facility is used as the basis for the EJSCREEN American Community Survey
- (ACS) Summary Report.

[1] https://www.env.nm.gov/wp-content/uploads/sites/10/2019/10/EO_2005_056.pdf

[2] https://www.env.nm.gov/general/environmental-justice-in-new-mexico/

4.2 Initial Filter Approach for Screening

"In past screening experience, EPA has found it helpful to establish a suggested starting point for the purpose of identifying geographic areas that may warrant further consideration, analysis, or outreach. The use of an initial filter promotes consistency and provides a pragmatic first step for EPA programs and regions when interpreting screening results. For early applications of EJScreen, EPA identified the 80th percentile filter as that initial starting point. In other words, an area with any of the 12 EJ Indexes at or above the 80th percentile nationally should be considered as a potential candidate for further review. Further review may include considering other factors and other sources of information such as health-based information, local knowledge, proximity and exposure to environmental hazards, susceptible populations, unique exposure pathways, and other federal, regional, state, and local data. This filter is simply a starting point, and additional analysis should be performed before making any decisions about potential environmental justice issues. As EPA gains further experience and insight into the performance of the tool and its applicability for different uses, program offices and regions may opt to designate starting points that are more inclusive or specifically tailored to meet programmatic needs more effectively.

The 80th percentile filter in EJScreen is not intended to designate an area as an "EJ community." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. Nor does the use of the 80th percentile filter suggest that all of the 13 environmental indicators are equal in terms of their impact on human health and the environment. Instead, the 80th percentile filter encourages programs to consider environmental indicators outside of their areas of concentration." [3]

[3] Refer to the EJSCREEN Technical Documentation for more information on this topic. https://www.epa.gov/system/files/documents/2023-06/ejscreen-tech-doc-version-2-2.pdf

4.3 Uncertainty in Estimates for Small Areas

"It is important to understand that EJScreen is not a detailed risk analysis. It is a screening tool that examines some of the relevant issues related to environmental justice, and there is uncertainty in the data included. It is important to understand both of these limitations.

The first limitation arises because a screening tool cannot capture all the relevant issues that should be considered (e.g., other environmental concerns). Any national screening tool must balance a desire for data quality and national coverage against the goal of including as many important environmental factors as feasible given resource constraints.

Many environmental concerns are not yet included in comprehensive, nationwide databases. For example, data on environmental factors such as drinking water quality and indoor air quality are not available with adequate quality, coverage and/or resolution to be included in this national screening tool. EJScreen cannot provide data on every environmental impact and demographic factor that may be important to any location. Therefore, its initial results should be supplemented with additional information and local knowledge whenever appropriate, for a more complete picture of a location.

The second important limitation is that EJScreen relies on demographic and environmental estimates that involve substantial uncertainty. This is especially true when looking at a small geographic area, such as a single Census block group. A single block group is often small and has uncertain estimates. Therefore, it is typically very useful and advisable to summarize EJScreen data within a larger area that may cover several block groups, in what is called a "buffer" report.

The demographic estimates, such as percent low-income, come from surveys, not a full census of all households. This means the Census Bureau may estimate that a block group is 30% low-income, for example, but it might actually be 20% or 40% in some cases.

All indicators are calculated for each block group. The only exception is certain environmental indicators for air quality (PM, ozone, and air toxics indicators). Those air data were obtained for each Census tract, so each block group in a tract was assigned the same environmental indicator value, as described in the Technical Documentation." [4]

[4] Refer to the EJSCREEN Technical Documentation for more information on this topic.
https://www.epa.gov/ejscreen/limitations-and-caveats-using-ejscreen

4.4 EJScreen Data Overview

4.4.1 Socioeconomic Indicators[5]

All demographic indicators are from Census Bureau's ACS 2017-2021 5-year Summary (EJSCREEN Version 2.2, June 2023). EJScreen uses socioeconomics indicators as very general indicators of a community's potential susceptibility to the types of environmental factors included in EJScreen. There are seven socioeconomic indicators featured in EJScreen. These indicators form the basis for both the demographic index and the supplemental demographic index:

- **People of Color** - The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial.
- **Low-Income** - The percent of a block group's population in households where the household income is less than or equal to twice the federal "poverty level."
- **Unemployment rate** – The percent of a block group's population that did not have a job at all during the reporting period, made at least one specific active effort to find a job during the prior four weeks, and were available for work (unless temporarily ill).
- **Limited English-speaking household** – A "limited English speaking household" is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English.
- **Less than high school education** – Percent of people age 25 or older in a block group whose education is short of a high school diploma.
- **Under age 5** - Percent of people in a block group under the age of 5.
- **Over age 64** - Percent of people in a block group over the age of 64.

4.4.2 Demographic Index[6]

The Demographic Index in EJScreen is a combination of percent low-income and percent people of color. These are the two demographic factors explicitly named in Executive Order 12898 on Environmental Justice. For each Census block group, these two numbers are simply averaged together. The formula is as follows:

$$Demographic\ Index = \frac{\%\ Low\ Income + \%\ People\ of\ Color}{2}$$

For example, if a Census block group has a low-income indicator value of 25% and a people of color indicator value of 75%, the Demographic Index value would be 50%.

4.4.3 Supplemental Demographic Index

The Supplemental Demographic Index uses the same updated methodology and calculation as the EJ Indexes but replaces the current Demographic Index (the average percent low-income and percent people of color) with a supplemental five-factor demographic index. The five socioeconomic indicators considered are percent low life expectancy, percent low-income, percent unemployed, percent limited English speaking, and percent less than high school education.

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[5] https://www.epa.gov/system/files/documents/2023-06/ejscreen-tech-doc-version-2-2.pdf

[6] https://www.epa.gov/system/files/documents/2023-06/ejscreen-tech-doc-version-2-2.pdf

4.5 EJ Identification Assessment

Based on the Alternative Compliance Plan established in Section 3, some units will remain above the emissions requirements of Subsection B of 20.2.50.113 NMAC for NO_x, CO, and VOC on an individual basis. For these units, an initial filter screening, as described in Section 4.2, was conducted. For facilities identified during the initial filter screening as needing further evaluation, an additional analysis was conducted.

For the purposes of this evaluation, Enterprise facilities were grouped by geographic location, Northwest New Mexico and Southeast New Mexico. The community surrounding each facility was evaluated independently for both socioeconomic indicators and pollution and source indicators, as necessary.

4.5.1 High-Level Summary

EJ aspects are moderate for Enterprise facilities located in Northwest New Mexico because the demographic indicators that are most frequently analyzed vary for the area encompassing the facilities:

- Demographic Index: 27% to 85% vs 51% state average
- People of Color: 22% to 98% vs 65% state average
- Low Income: 31% to 78% vs 40% state average

EJ aspects are moderate for Enterprise facilities located in Southeast New Mexico because the demographic indicators that are most frequently analyzed vary for the area encompassing the facilities:

- Demographic Index: 36% to 55% vs 51% state average
- People of Color: 38% to 64% vs 65% state average
- Low Income: 33% to 53% vs 40% state average

Although there is no definitive policy or procedure for EJ Index use, to date EPA has identified the 80th percentile as the starting point for identifying areas that may warrant further consideration, analysis, or outreach.[7]

The Federal CLEAN Future Act, as currently introduced, provides insight into being located in an "overburden census tract." The Act defines this as:

> *"Having a greater than 100 in 1 million total cancer risk per the National Air Toxics Assessment (NATA) [or] Having an annual mean concentration of $PM_{2.5}$ of greater than 8 micrograms per cubic meter, as determined over the most recent 3-year period for which data are available."*

For the locations of Enterprise facilities, NATA Cancer Risk and $PM_{2.5}$ are below the proposed CLEAN Future Act overburdened census tract thresholds.

4.5.2 EJSCREEN Report and Mapping Considerations – Northwest Area

4.5.2.1 Proximity Considerations

For Enterprise facilities located in Northwest New Mexico, the proximity of the facilities to tribal areas, schools, places of worship, and hospitals, parks, and facilities reporting to the EPA or the NMED were considered and evaluated:

- Tribal Areas – As shown in Figure 3 and 4, the nearest EPA Tribal Area is Off-Reservation Trust Land owned by the Navajo Nation.

[7] EPA answer to question about EJSCREEN, Does EPA use any filters, benchmarks, or thresholds, as a part of interpreting indicators or indexes found in reports, as part of the screening process? - "In past screening experience, EPA has found it helpful to establish a suggested Agency starting point for the purpose of identifying geographic areas that may warrant further consideration, analysis or outreach. The use of an initial filter promotes consistency and provides a pragmatic first step for EPA programs and regions when interpreting screening results. For early applications of EJSCREEN, EPA identified the 80th percentile filter as that initial starting point. As EPA gains further experience and insight into the performance of the tool and its applicability for different uses, program offices and regions may opt to designate starting points that are more inclusive or specifically tailored to meet programmatic needs more effectively. Read the EJSCREEN Technical Documentation for more information on this topic. https://www.epa.gov/ejscreen/frequent-questions-about-ejscreen

- Schools, Places of Worship, Hospitals – As shown in Figure 5 and 6, the nearest schools, Rio Vista High School, Naaba Ani Elementary School, Bloomfield High School, Charly Y Brown School, and Mesa Alta Junior High School, are located within a four-mile radius of facilities.
- Parks - There are no National Park Service (NPS) parks in close proximity to facilities in the Northwest, as shown in Figure 7 and 8.
- Facilities Reporting to EPA (TRI and Superfund) - TRI/RSEI – There are two TRI facilities reporting to the EPA within a four-mile radius of the facilities, as shown in Figure 9 and 10.

Due to EJScreen map size limitations, two sets of proximity maps are included. The first, classified as Northwest Area 1, contains proximity to Lybrook, Largo, Huerfano, Chaco, Wright, Hart Canyon 1, Hart Canyon 2, Martinez Canyon, Carson, Blanco, 3B-1 Turley, and Angel Peak. The second, classified as Northwest Area 2 set contains San Ysidro and San Luis.

Figure 2. Proximity to Tribal Areas – Northwest Area 1

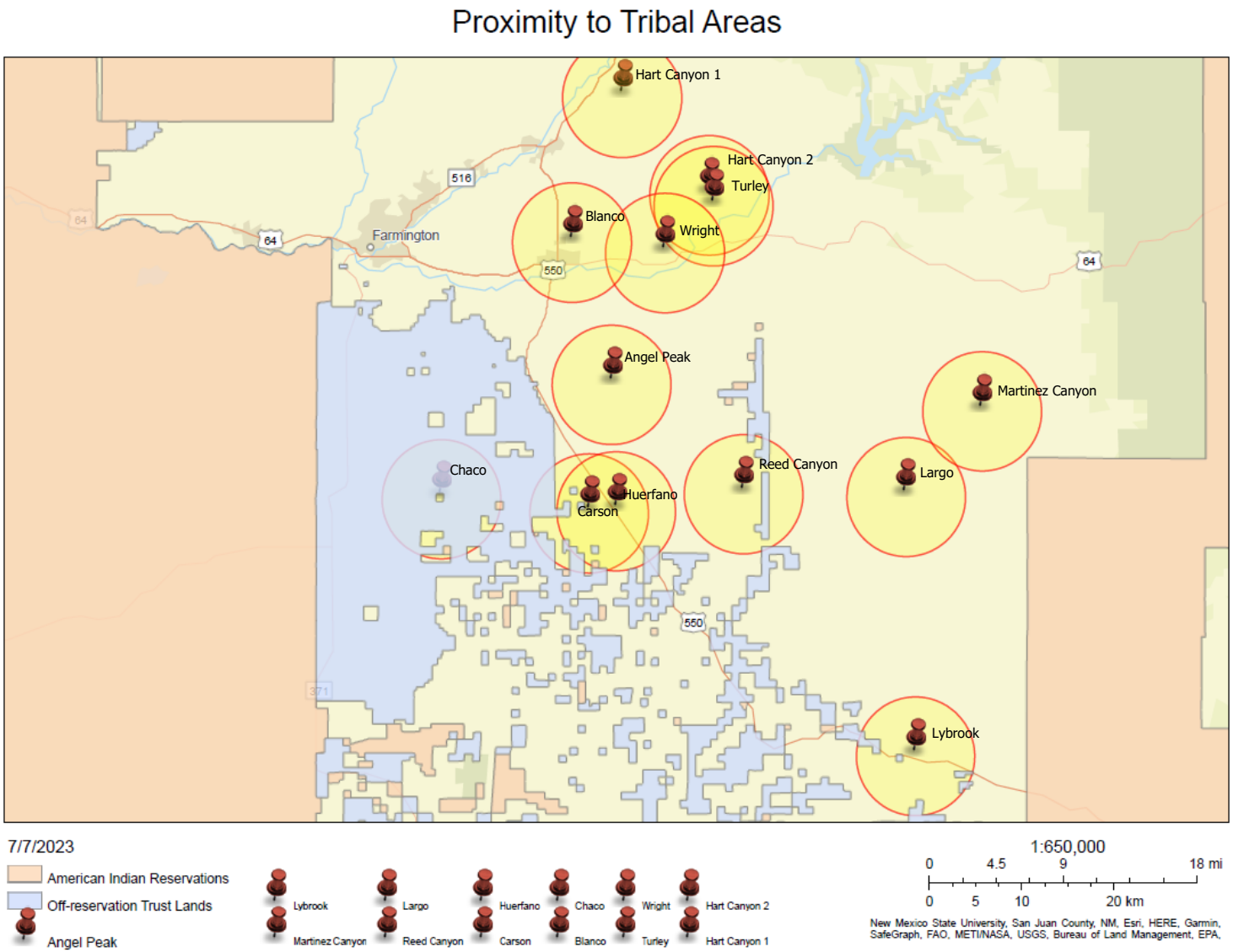


Figure 3. Proximity to Tribal Areas – Northwest Area 2

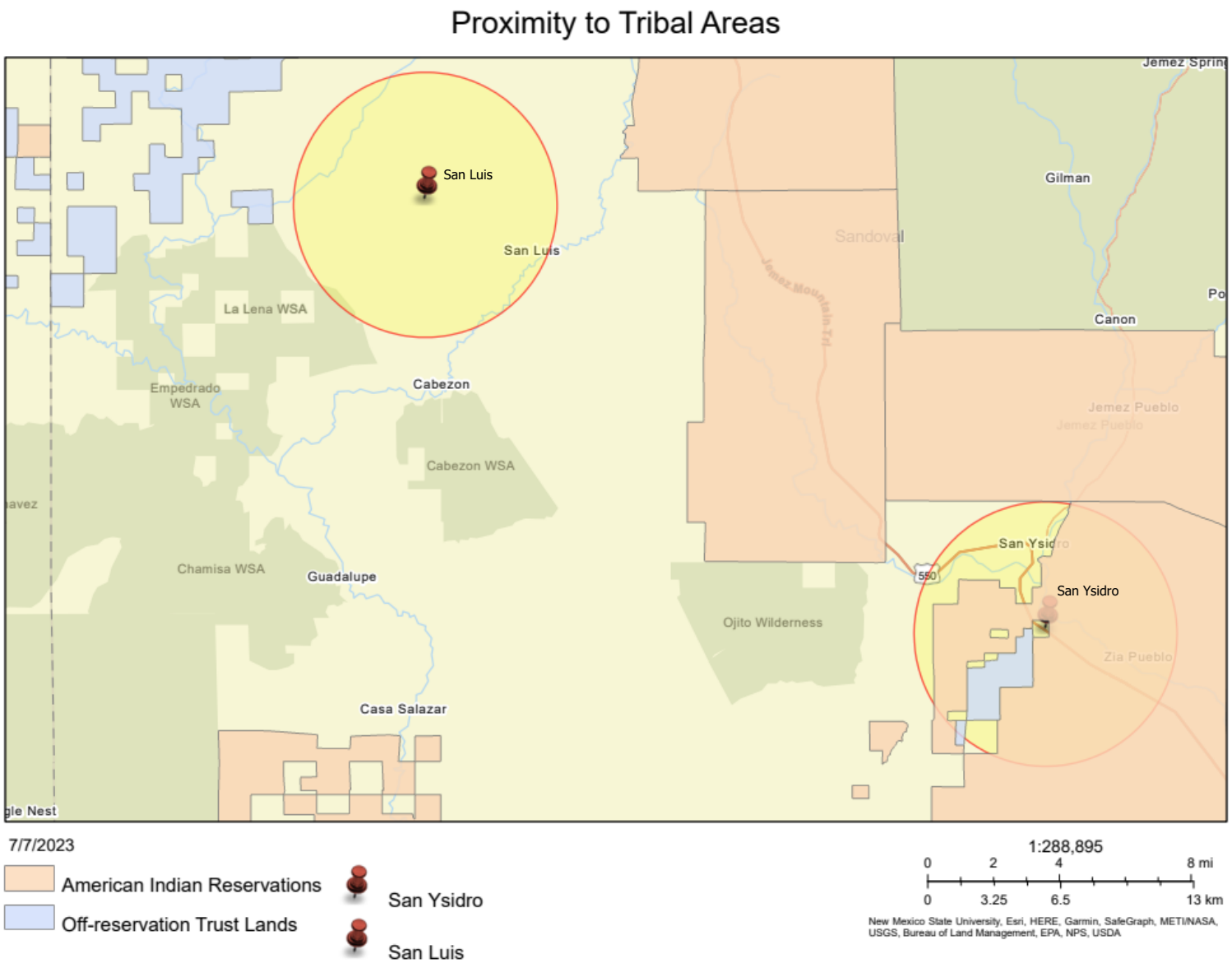


Figure 4. Proximity to Schools, Places of Worship, and Hospitals – Northwest Area 1

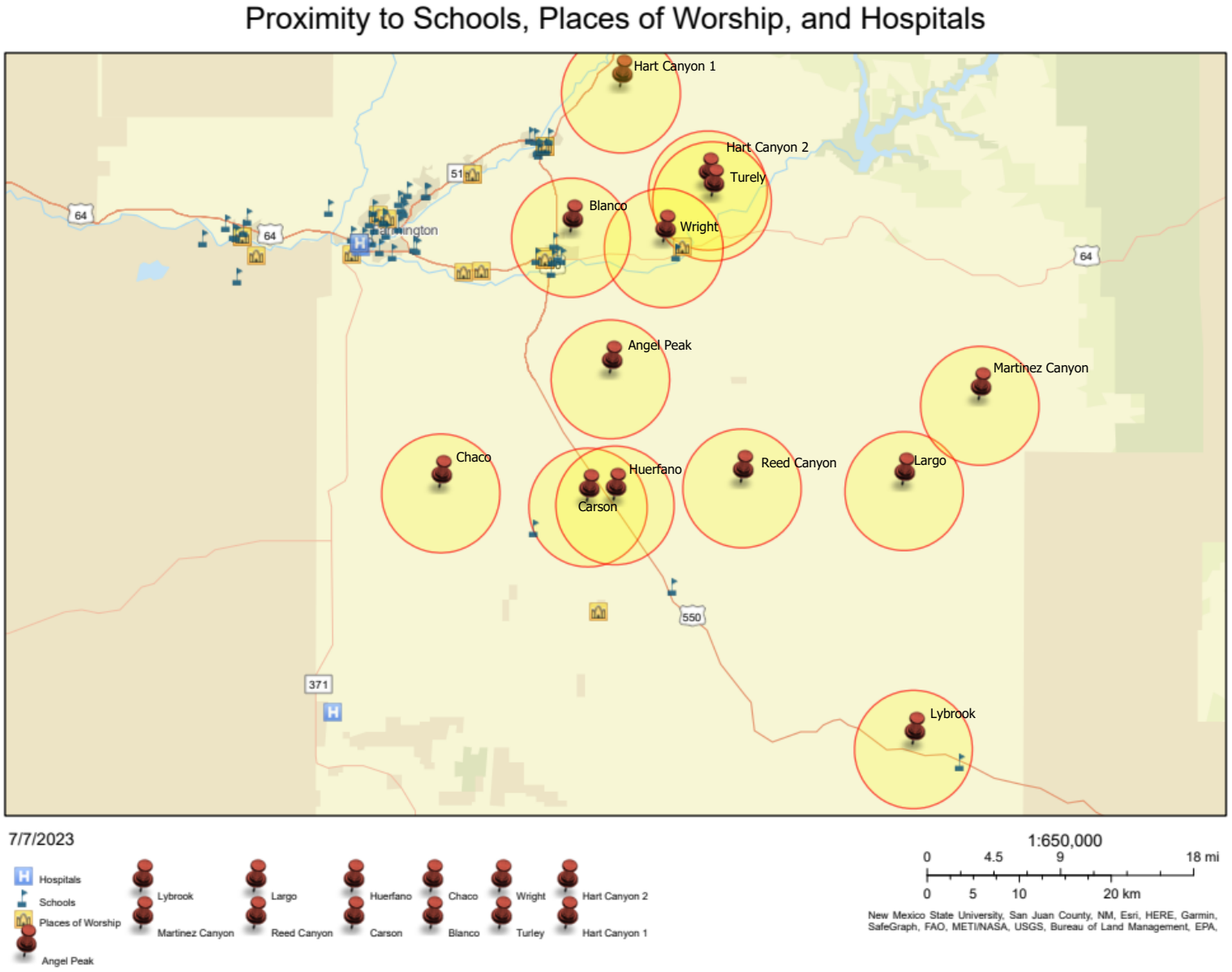


Figure 5. Proximity to Schools, Places of Worship, and Hospitals - Northwest Area 2

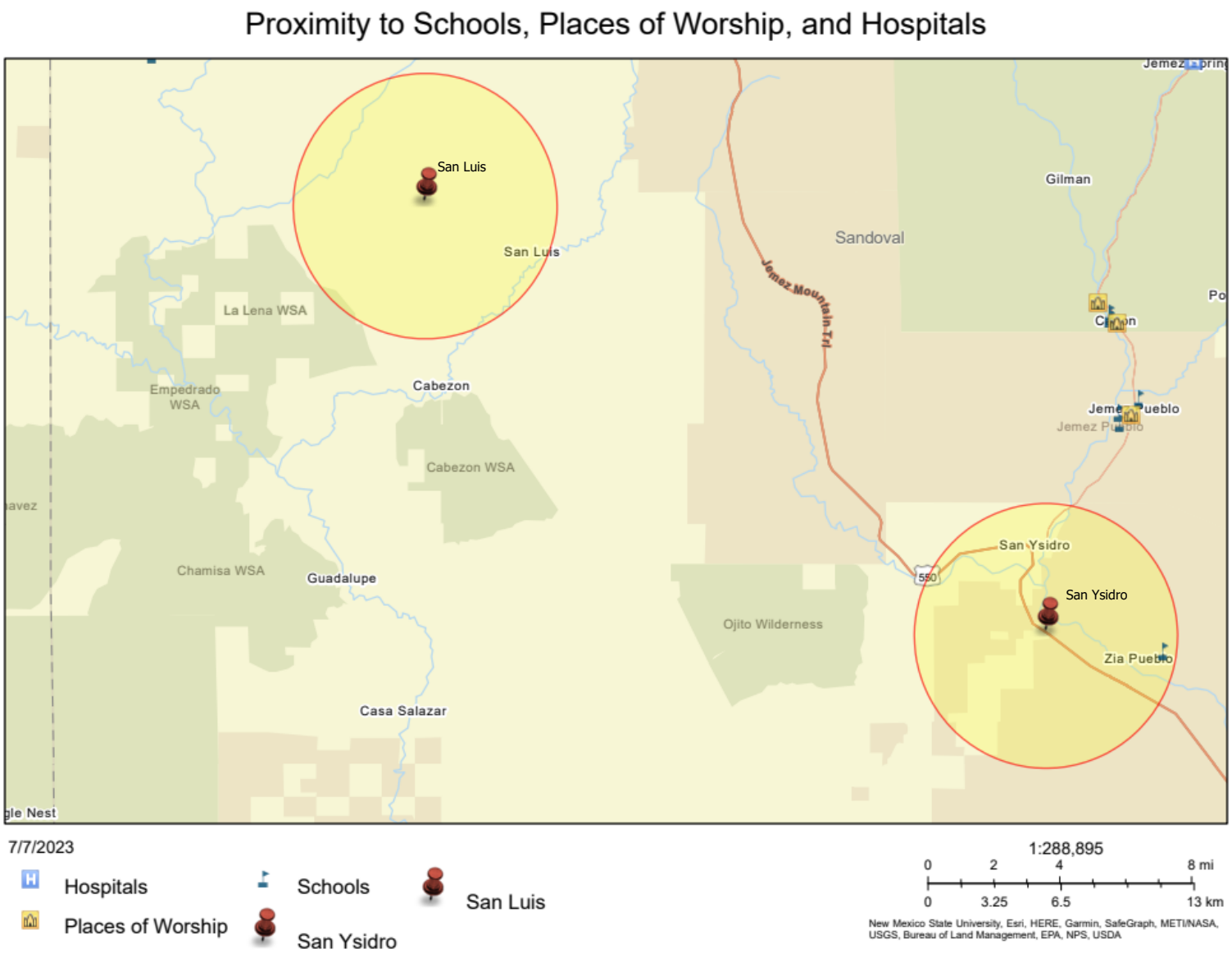


Figure 6. Proximity to Parks – Northwest Area 1

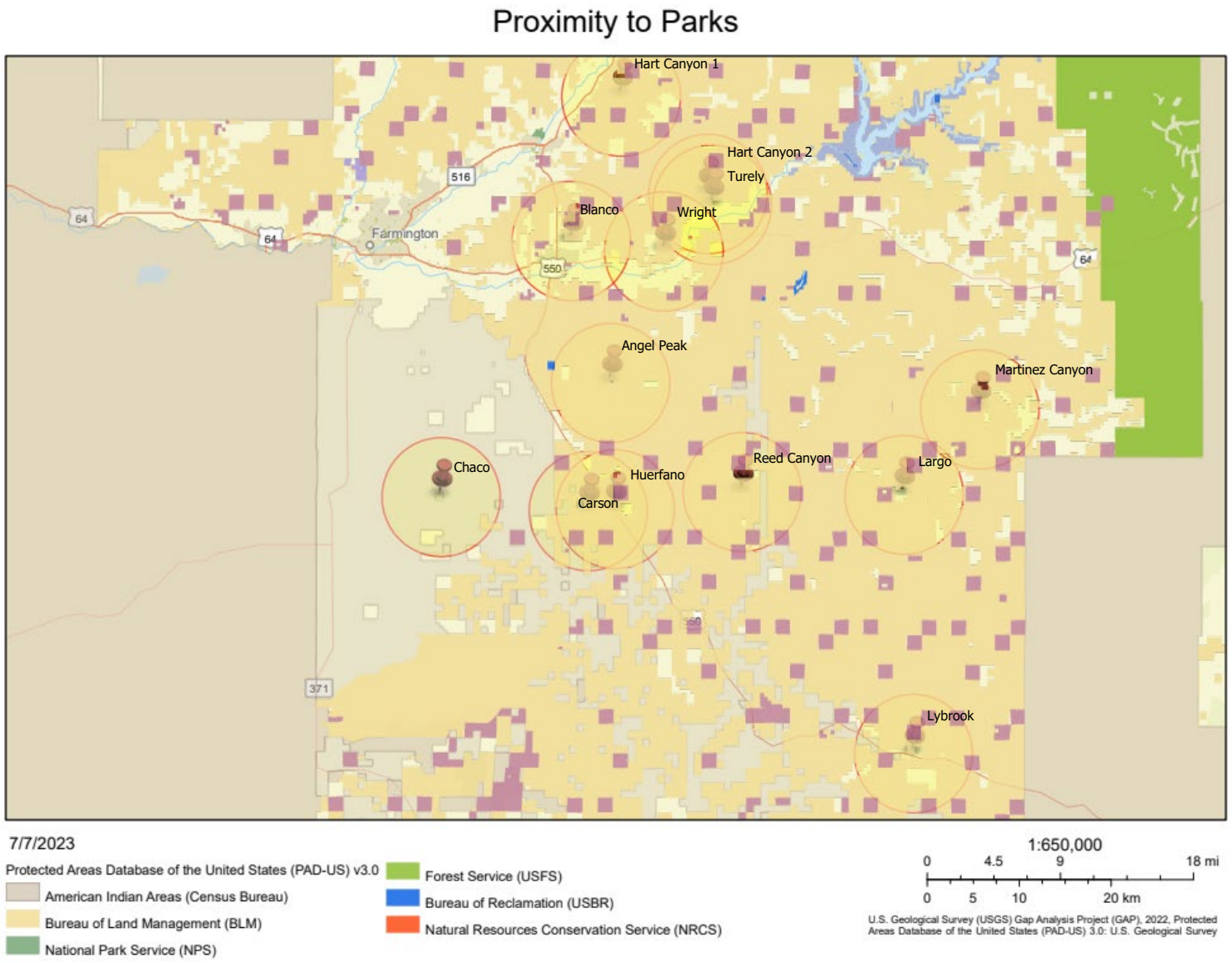


Figure 7. Proximity to Parks - Northwest Area 2

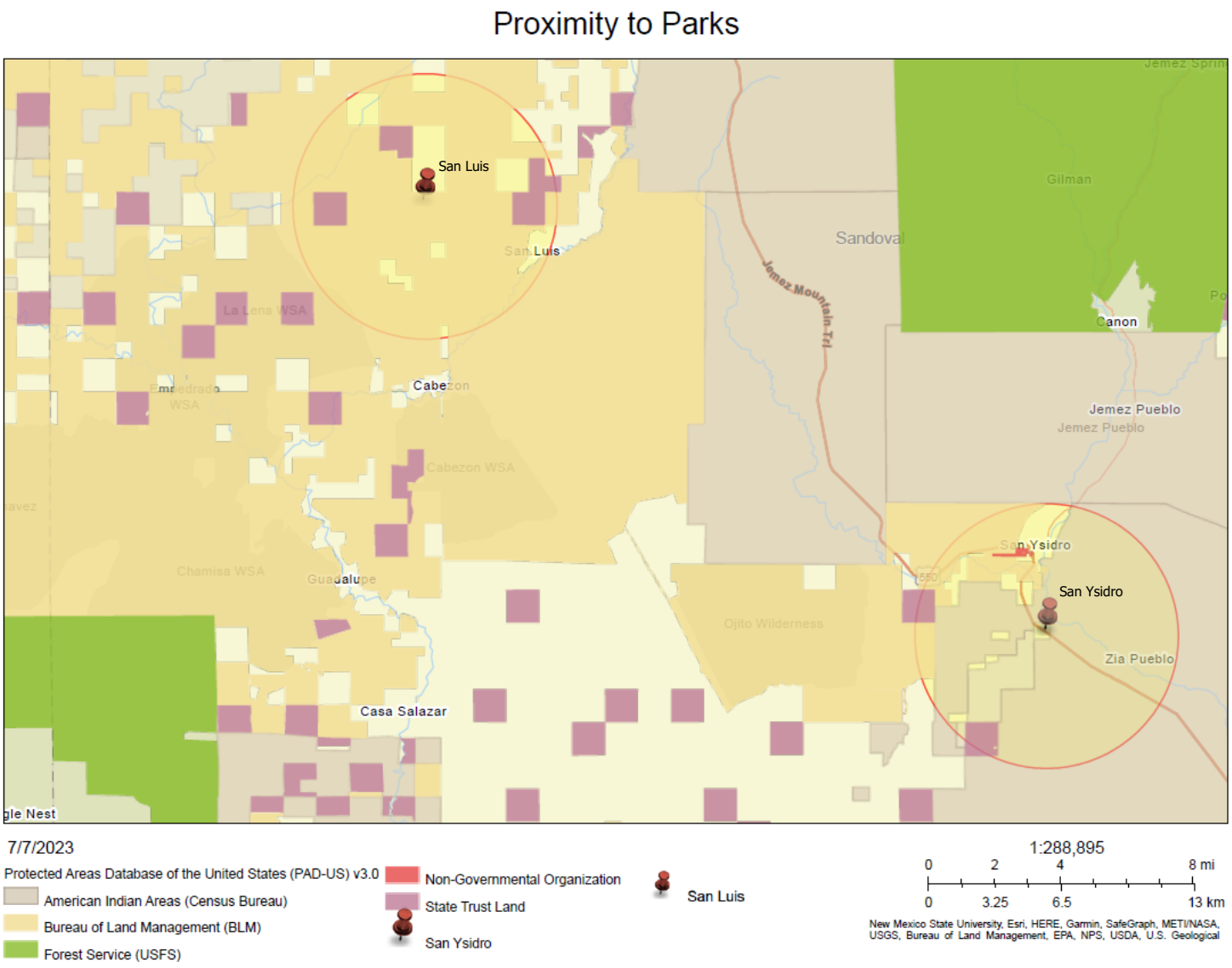


Figure 8. Proximity to Facilities Reporting to EPA (TRI and Superfund) – Northwest Area 1

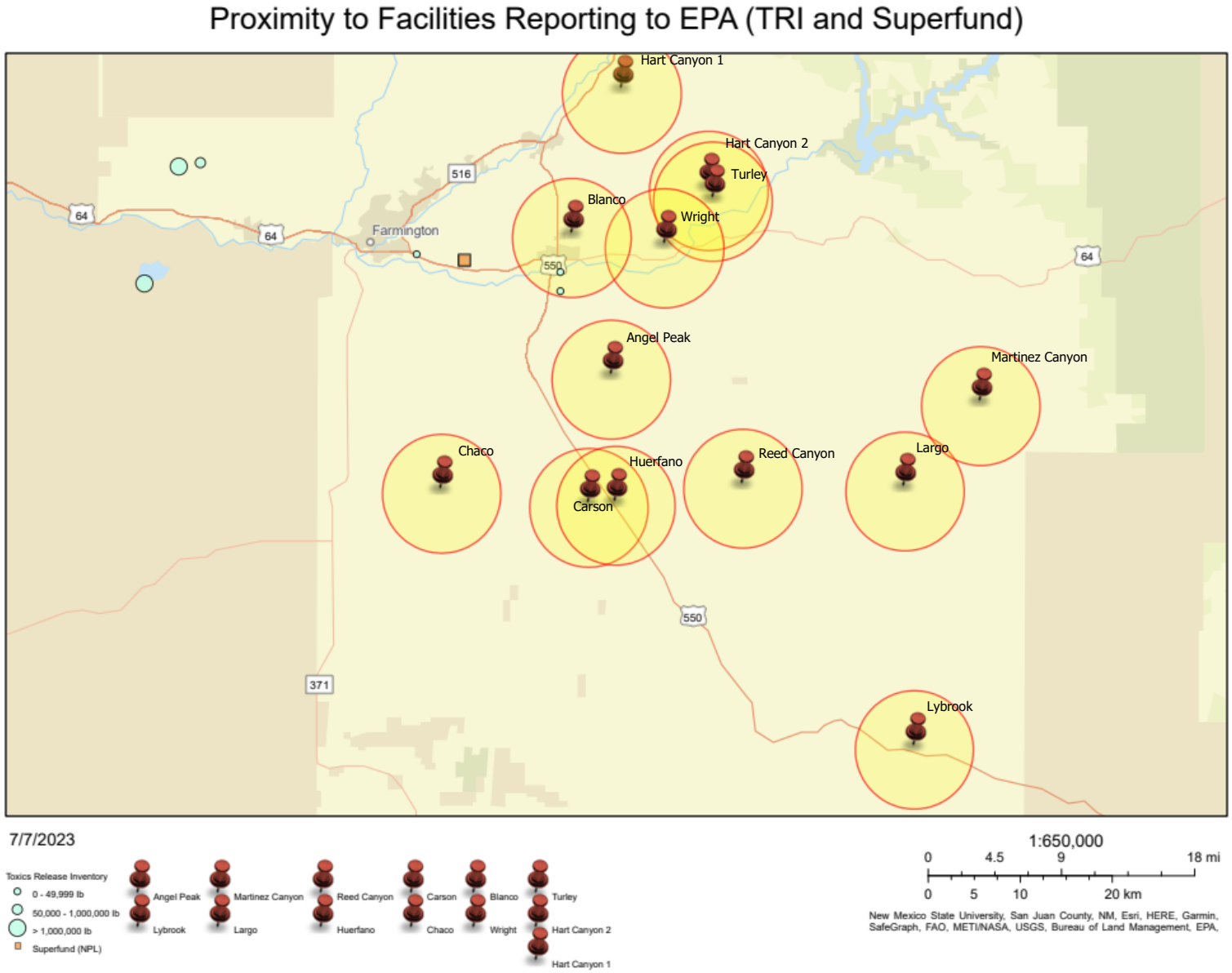
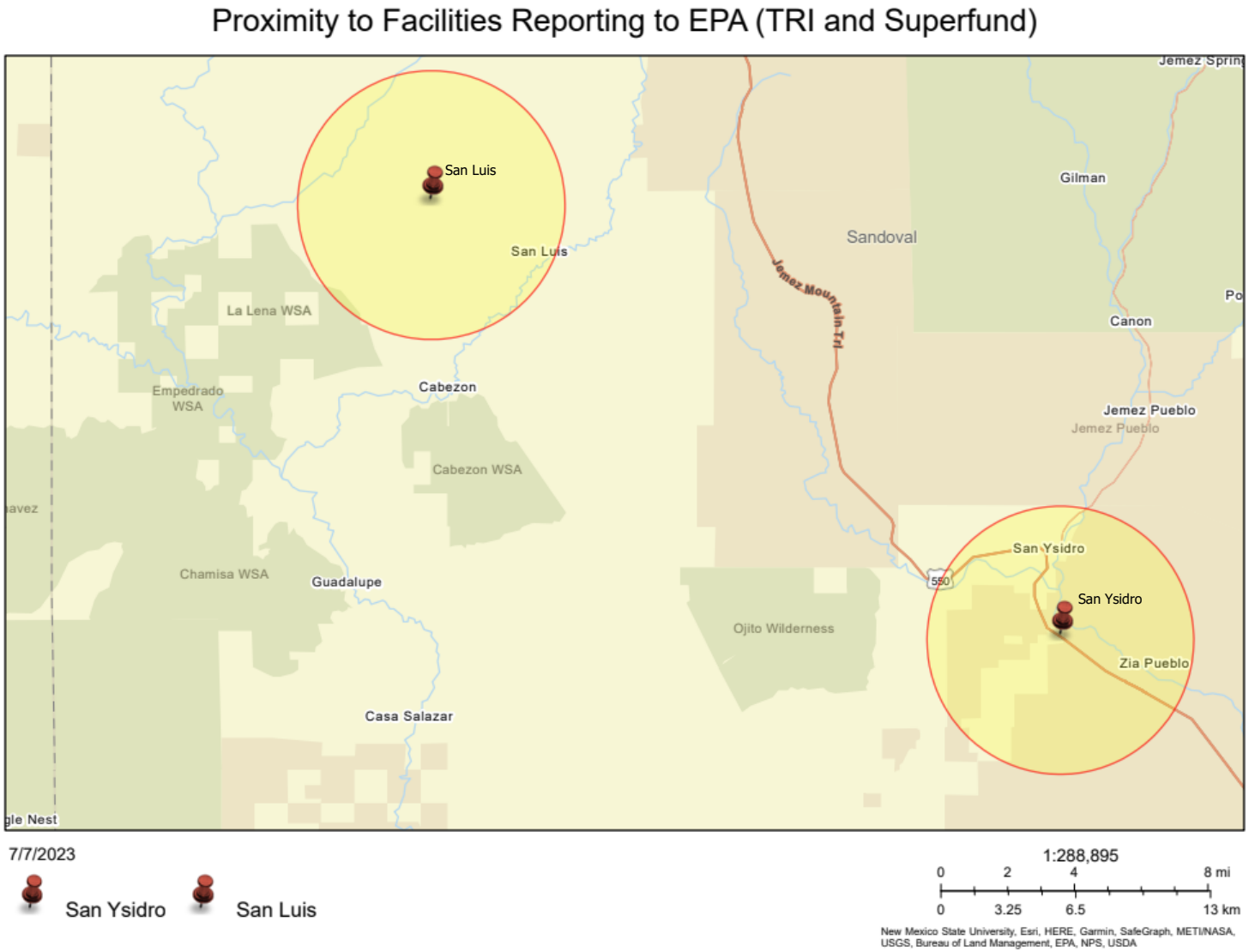


Figure 9. Proximity to Facilities Reporting to EPA (TRI and Superfund) - Northwest Area 2



4.5.2.2 Demographic Indicator Considerations

For the region encompassing the facilities in Northwest New Mexico, there is minimal population (15,843) within 750+ sq. mile area encompassing the facilities' locations. EJSCREEN demographic indicators were compiled for the 4-mile radius surrounding each facility in Northwest New Mexico. Compiled EJSCREEN data for facilities in Northwest New Mexico can be seen in Table 19. A detailed environmental indicators analysis was conducted for facilities that had one or more demographic indicators above the 80th percentile when compared to either state or national averages. This analysis can be found in Section 4.6.1 of this ACP.

4.5.2.3 Environmental Indicator Considerations

For the region encompassing the facilities in Northwest New Mexico, ozone (60.4 to 62 ppb) is slightly lower than the state average (64.7 ppb), placing the region in the 5th to 23rd percentile. Ozone is also very similar to the national average (61.6 ppb), placing the region in the 44th to 57th percentile.

Other Air Quality Indicators show results **lower than or equal** to the state and national averages, including NATA Cancer Risk, Diesel Particulate Matter, Traffic Proximity, Superfund Proximity, Hazardous Waste Proximity, Underground Storage Tanks, and Wastewater Discharge.

Particulate Matter smaller than 2.5 microns (3.45 to 4.94 µg/m^3) is slightly lower than the state average (5.16 µg/m^3) but is significantly lower than the national average (8.08 µg/m^3).

4.5.3 EJSCREEN Report and Mapping Considerations – Southeast Area

4.5.3.1 Proximity Considerations

For Enterprise facilities located in Southeast New Mexico, the proximity of the facility to tribal areas, schools, places of worship, and hospitals, parks, and facilities reporting to the EPA or the NMED were considered and evaluated:

- Tribal Areas – There are no EPA Tribal Areas within a close proximity to facilities in the Southeast, as shown in Figure 11 and Figure 12.
- Schools, Places of Worship, Hospitals - The nearest schools, Loving Middle School and Loving Senior High School, are located within the four-mile radius of facilities in the Southeast, as shown in Figure 13 and Figure 14.
- Parks - There are no National Park Service (NPS) parks in close proximity to facilities in the Southeast, as shown in Figure 15 and Figure 16.
- Facilities Reporting to EPA (TRI and Superfund) - TRI/RSEI – There are no TRI or Superfund sites within close proximity to facilities in the Southeast, as shown in Figure 17 and Figure 18.

Due to EJScreen map size limitations, two sets of proximity maps are included. The first, classified as Southeast Area 1, contains proximity to Devon Rattlesnake, Trunk C, Cedar Canyon, South Carlsbad, Devon Cotton Draw, Poker Lake, Junction, and Chaparral. The second, classified as Southeast Area 2 set contains Caprock and White Lakes.

Figure 10. Proximity to Tribal Areas – Southeast Area 1

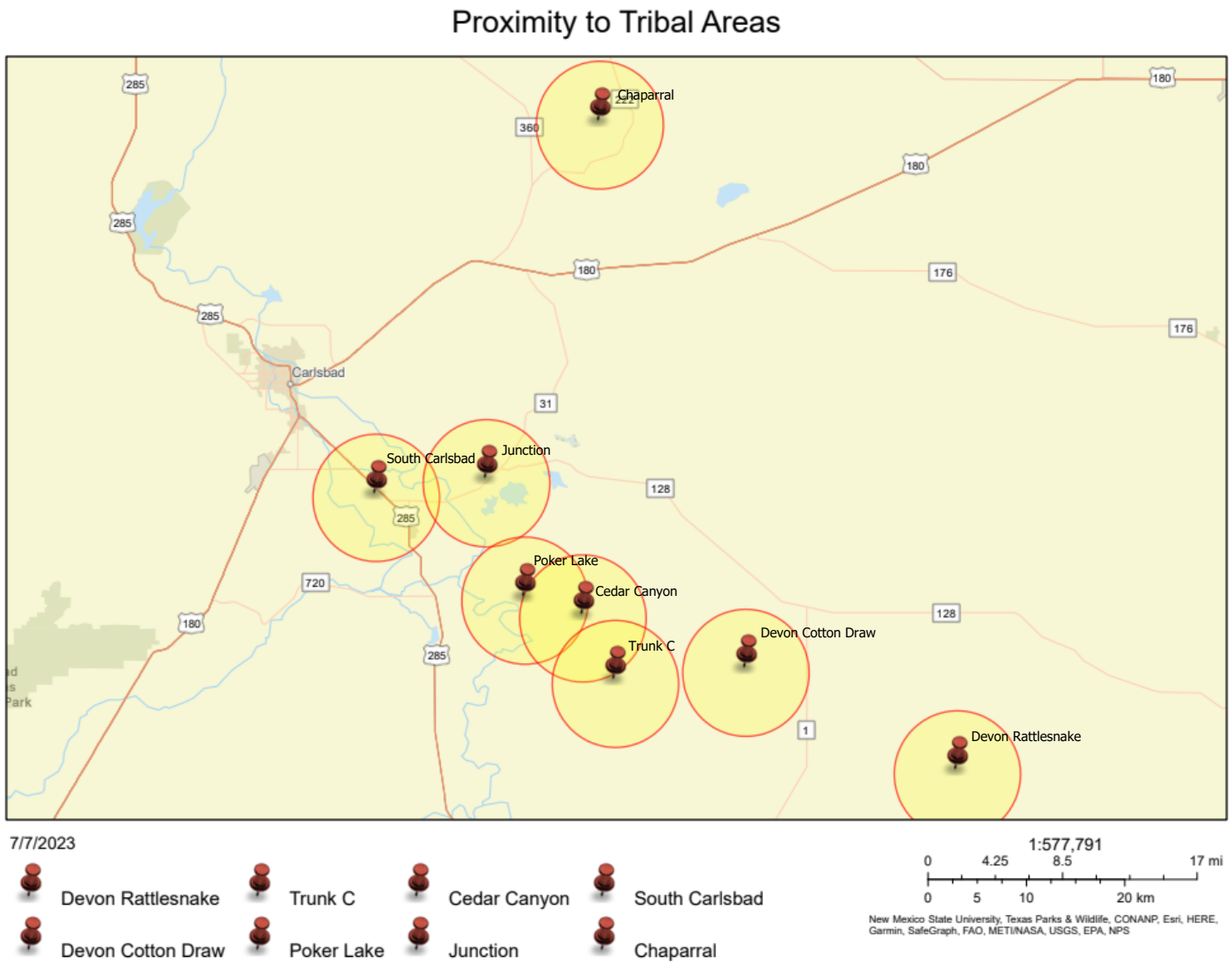


Figure 11. Proximity to Tribal Areas – Southeast Area 2

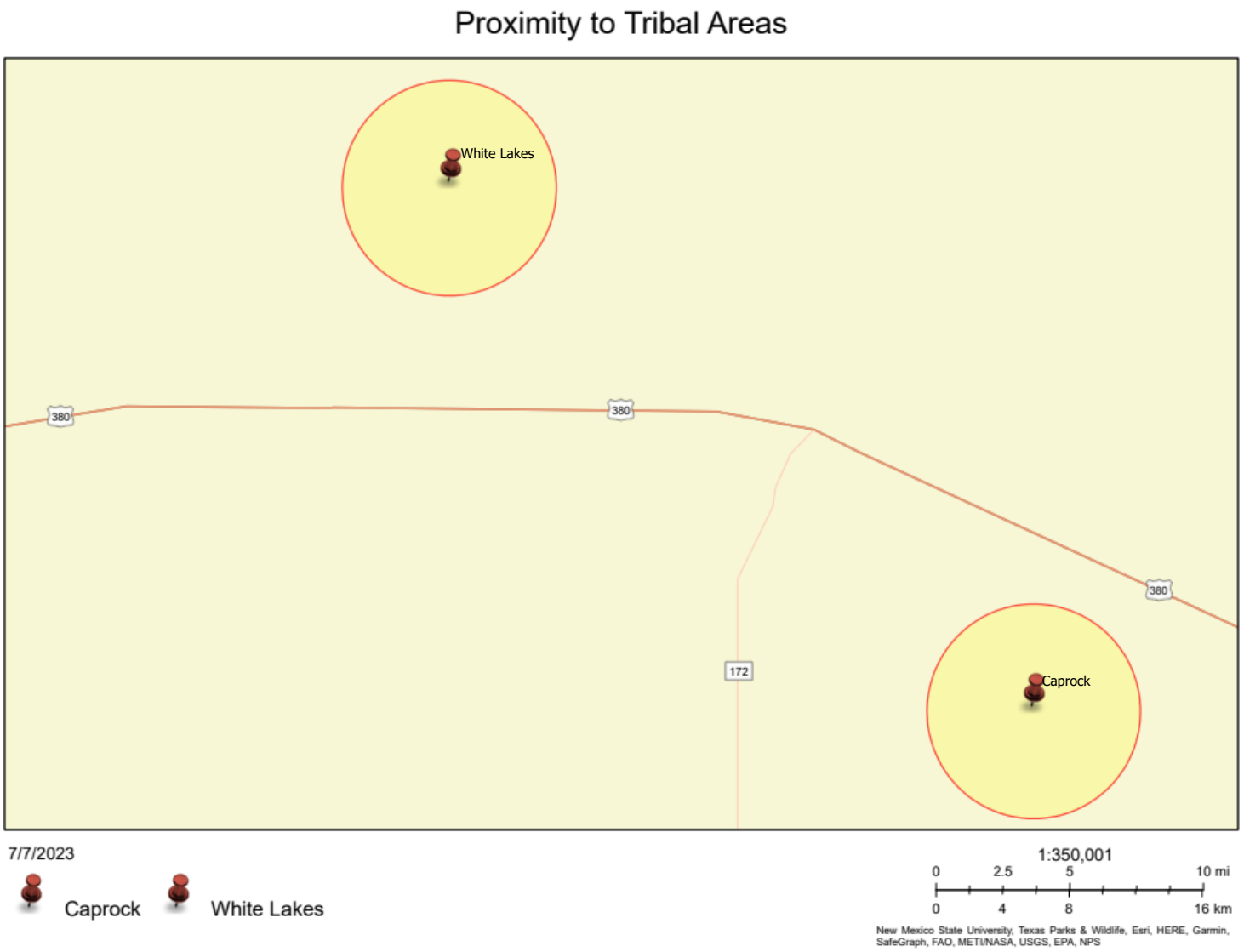


Figure 12. Proximity to Schools, Places of Worship, and Hospitals – Southeast Area 1

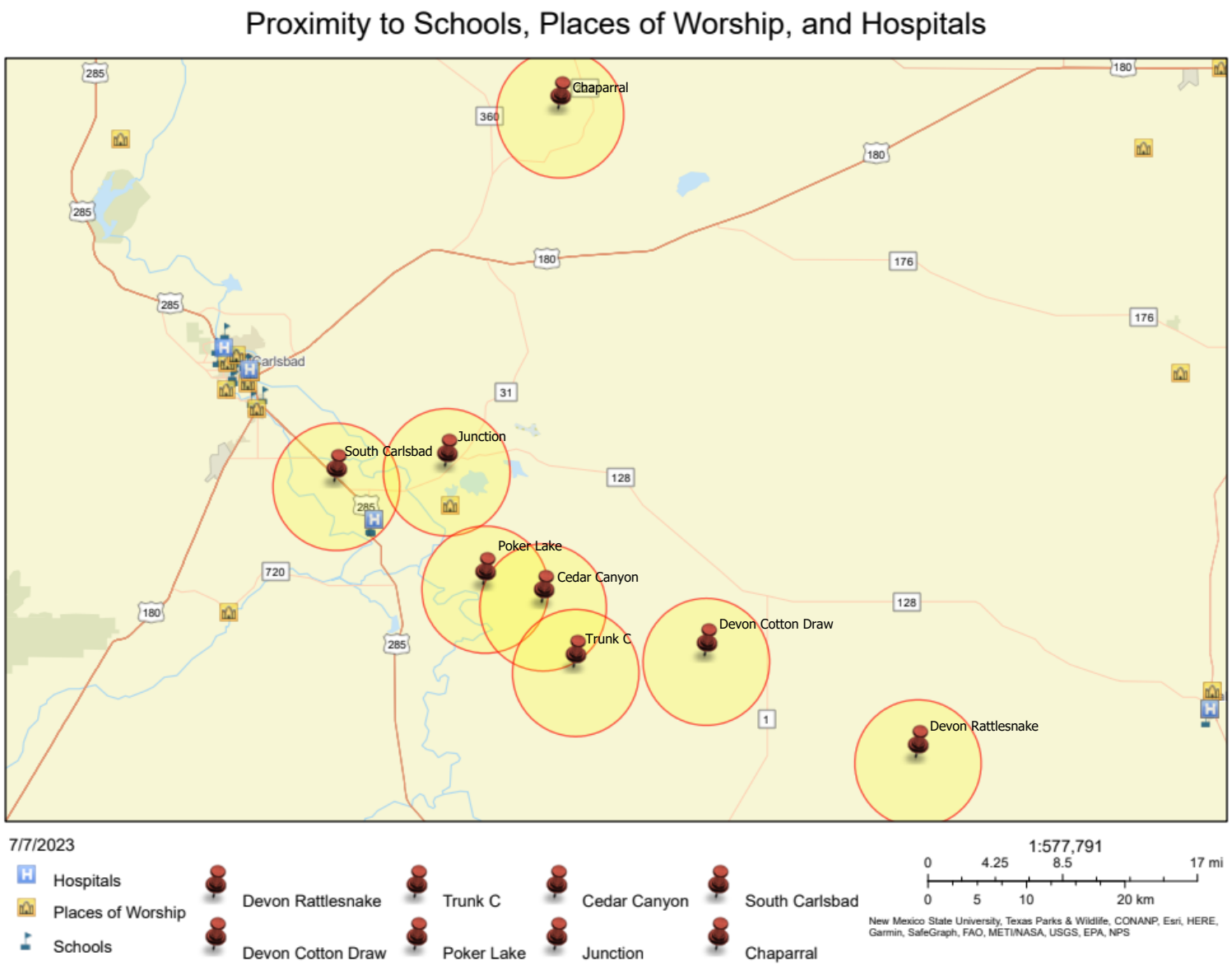


Figure 13. Proximity to Schools, Places of Worship, and Hospitals – Southeast Area 2

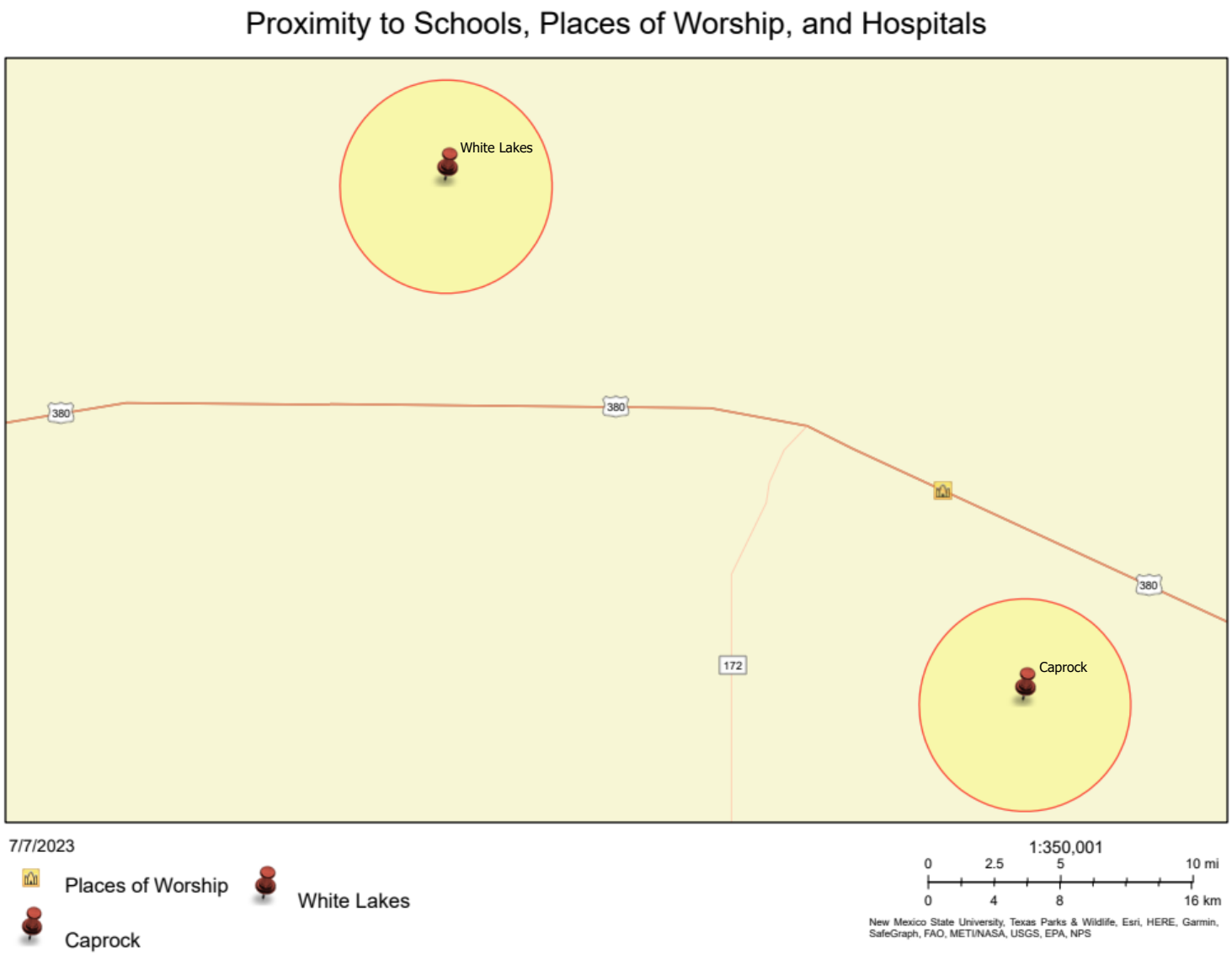


Figure 14. Proximity to Parks – Southeast Area 1

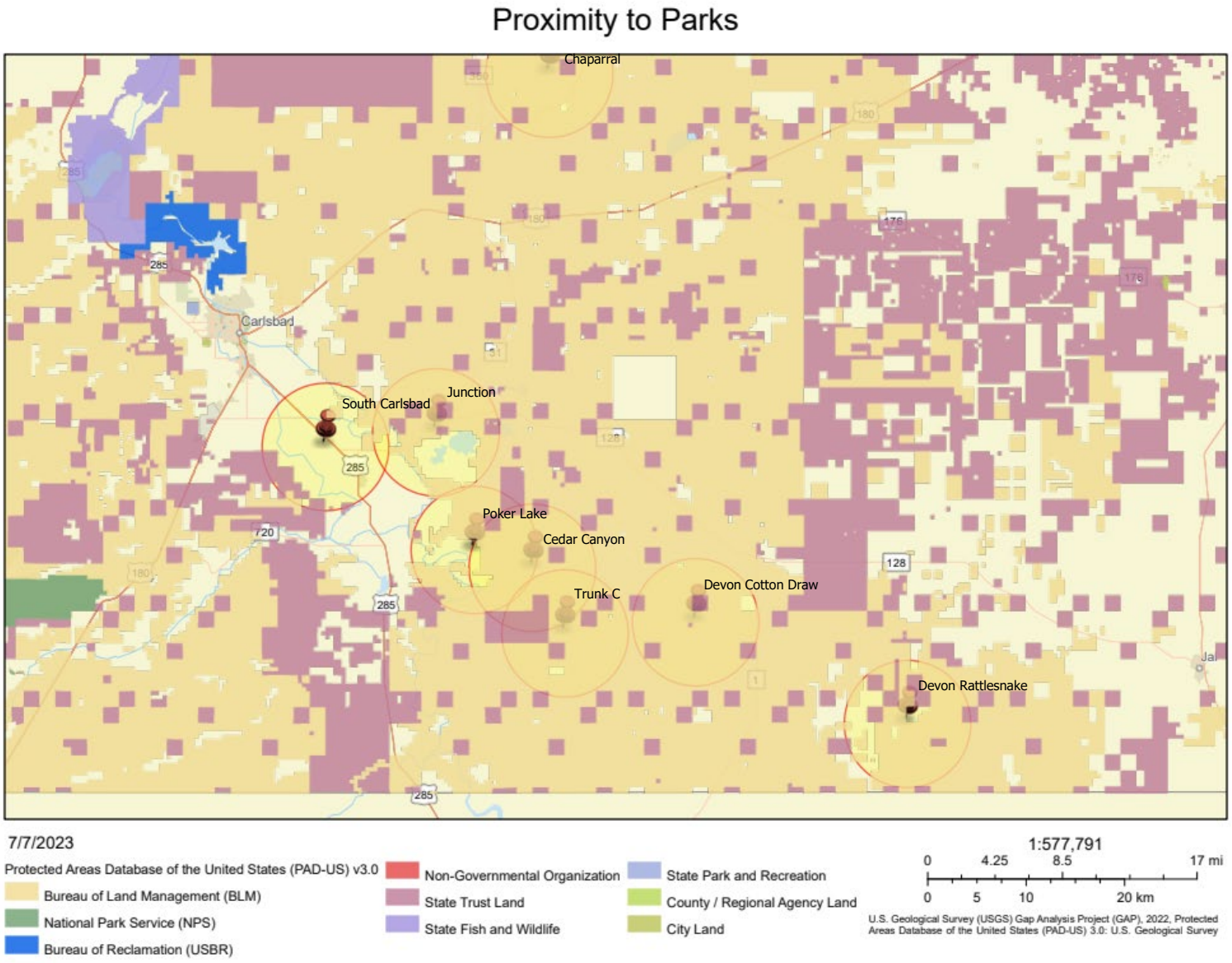


Figure 15. Proximity to Parks – Southeast Area 2

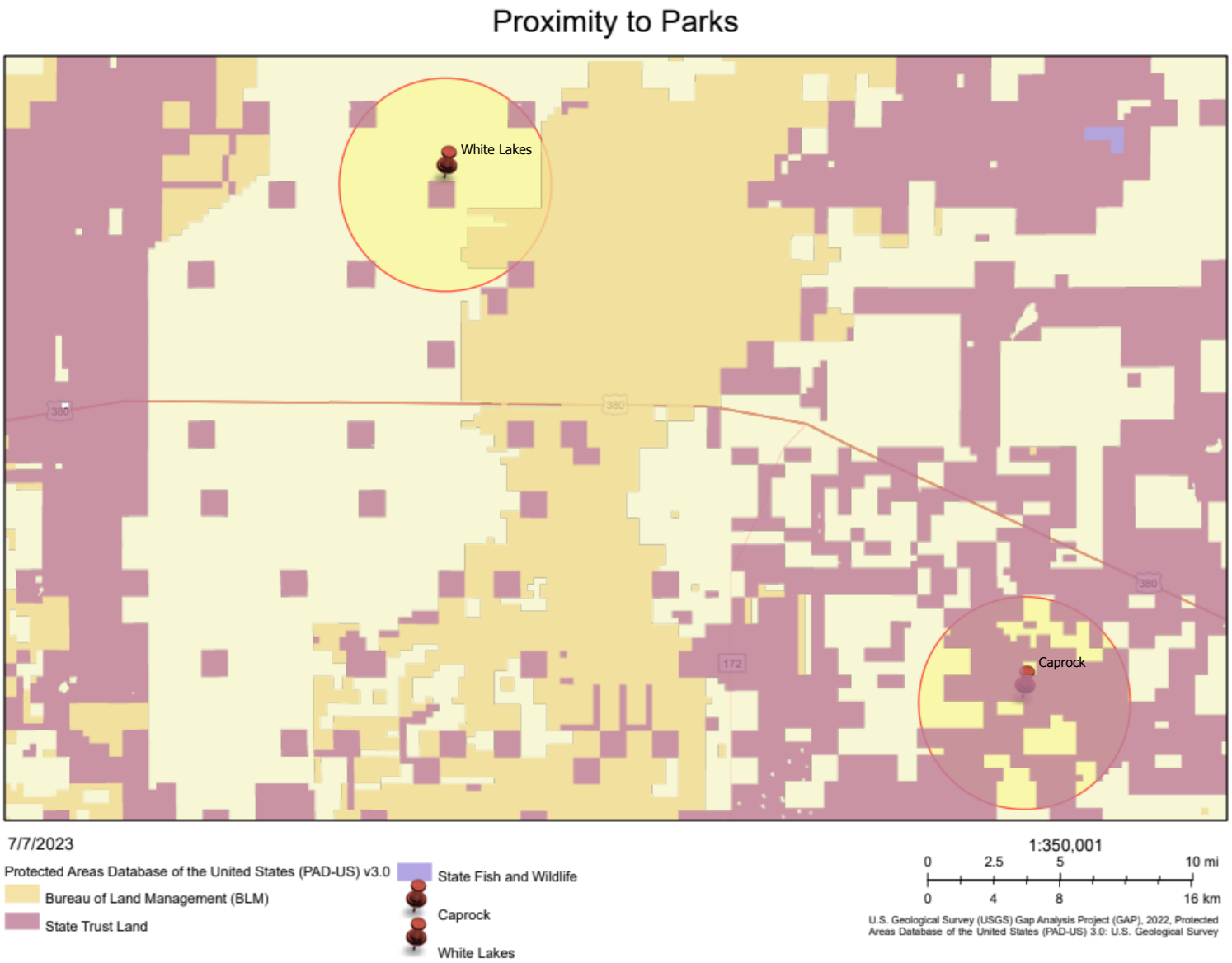


Figure 16. Proximity to Facilities Reporting to EPA (TRI and Superfund) – Southeast 1

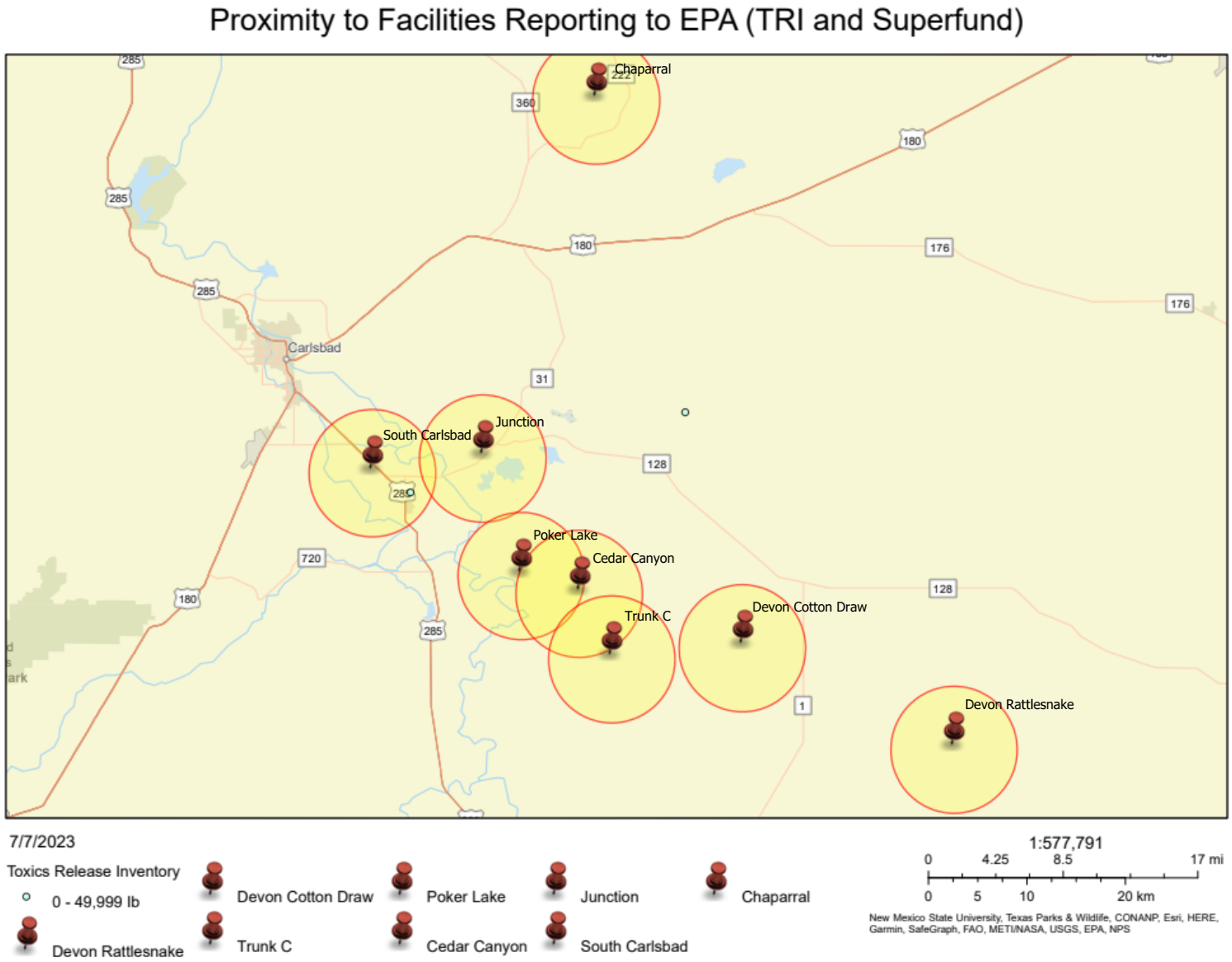
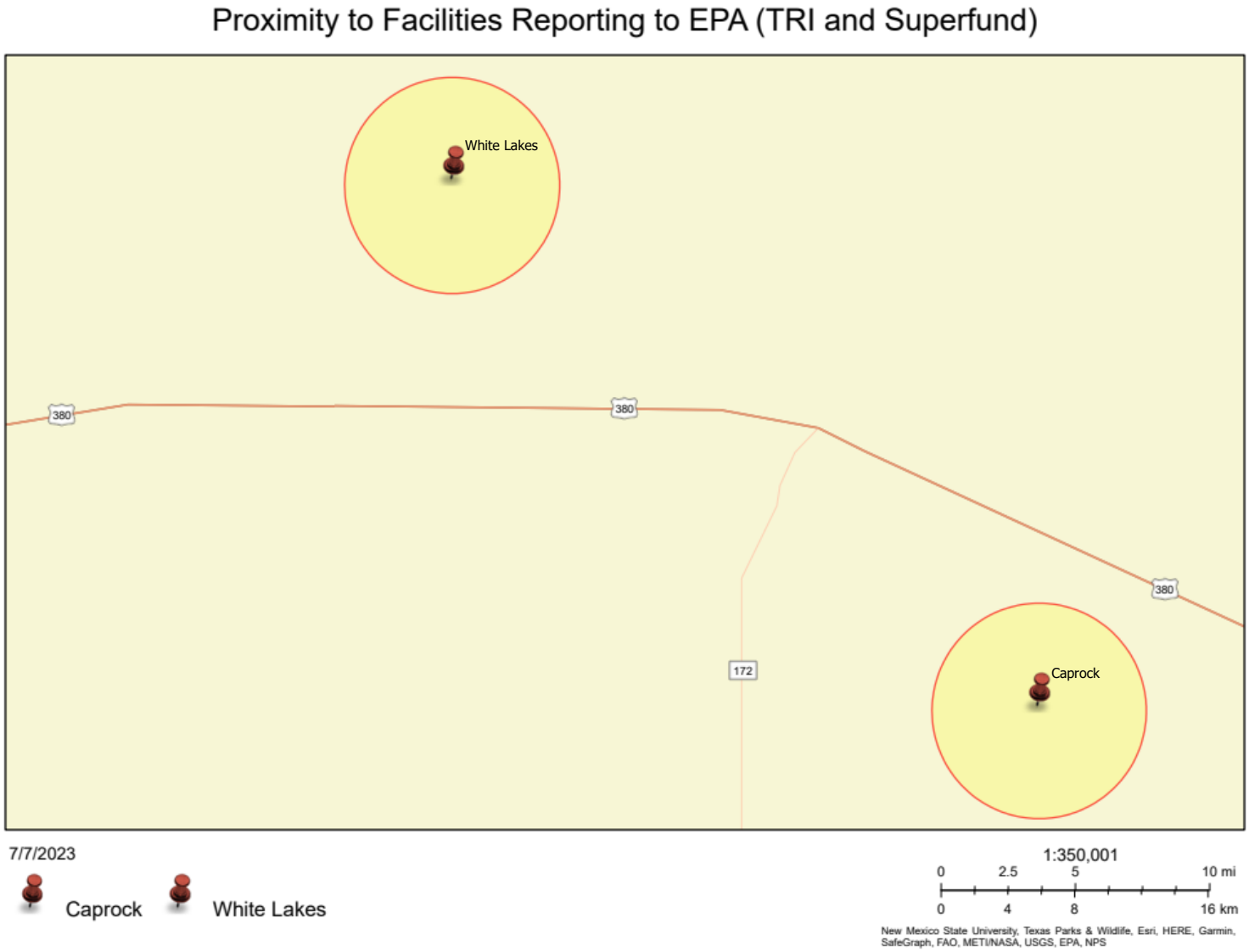


Figure 17. Proximity to Facilities Reporting to EPA (TRI and Superfund) – Southeast 2



4.5.3.2 Demographic Indicator Considerations

For the region encompassing the facility in Southeast New Mexico, there is minimal population (2,836) within 250+ sq. mile area encompassing the facility location. EJSCREEN demographic indicators were compiled for the 4-mile radius surrounding each facility in Southeast New Mexico. Compiled EJSCREEN data for facilities in Northwest New Mexico can be seen in Table 20. A detailed environmental indicators analysis was conducted for facilities that had one or more demographic indicators above the 80th percentile when compared to either state or national averages. This analysis can be found in Section 4.6.2 of this ACP.

4.5.3.3 Environmental Indicator Considerations

For the region encompassing the facilities in Southeast New Mexico, ozone (65.3 to 74.2 ppb) is slightly lower than the state average (64.7 ppb), placing the region in the 60th to 98th percentile. Ozone is also higher than the national average (61.6 ppb), placing the region in the 76th to 97th percentile.

Other Air Quality Indicators show results **lower than or equal** to the state and national averages, including NATA Cancer Risk, NATA Respiratory Hazard Index, Diesel Particulate Matter, Traffic Proximity, Superfund Proximity, Hazardous Waste Proximity, Underground Storage Tanks, and Wastewater Discharge.

Particulate Matter smaller than 2.5 microns (5.32-6.64 µg/m^3) is slightly higher than the state average (5.16 µg/m^3) but is significantly lower than the national average (8.08 µg/m^3).

Table 19. EJSCREEN Socioeconomic Indicators– Northwest New Mexico[8]

	State Average	USA Average	Blanco			Chaco			Carson			Hart Canyon 1			Hart Canyon 2			3B-1 Turley			San Luis			Angel Peak		
Population	2,116,000	331,900,000	10,200			200			-			1,865			508			560			12			-		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Socioeconomic Indicators																										
Demographic Index	51	35	54	54	77	78	89	94	N/A	N/A	N/A	27	13	46	43	37	68	43	37	68	77	88	94	N/A	N/A	N/A
Supplemental Demographic Index	17	14	19	63	76	30	93	95	N/A	N/A	N/A	13	35	50	14	39	55	14	40	56	31	94	95	N/A	N/A	N/A
People of Color	65	39	60	45	72	89	82	88	N/A	N/A	N/A	22	5	41	52	36	68	53	36	68	83	75	84	N/A	N/A	N/A
Low Income	40	31	47	62	78	68	87	92	N/A	N/A	N/A	31	38	57	34	42	61	34	42	61	71	90	94	N/A	N/A	N/A
Unemployment Rate	7	6	4	48	53	9	70	77	N/A	N/A	N/A	4	47	51	10	74	80	10	75	81	16	88	92	N/A	N/A	N/A
Limited English Speaking	6	5	10	80	84	28	96	96	N/A	N/A	N/A	0	0	0	2	52	65	3	54	66	23	94	94	N/A	N/A	N/A
Less Than High School Education	14	12	15	63	72	26	83	88	N/A	N/A	N/A	10	47	56	6	33	39	6	34	40	26	83	88	N/A	N/A	N/A
Under Age 5	5	6	9	82	81	4	50	43	N/A	N/A	N/A	2	28	22	4	47	41	4	49	42	7	69	66	N/A	N/A	N/A
Over Age 64	19	17	17	50	55	17	50	56	N/A	N/A	N/A	28	80	86	24	73	79	24	71	78	15	41	47	N/A	N/A	N/A
Low Life Expectancy	19	20	19	40	43	22	75	74	N/A	N/A	N/A	19	43	45	18	30	35	18	30	35	19	46	47	N/A	N/A	N/A

*N/A indicated that data is not available or that there is no recorded population within a 4-mile buffer zone of the facility.

	State Average	USA Average	Wright			Martinez Canyon			San Ysidro			Lybrook			Largo			Huerfano		
Population	2,116,000	331,900,000	1,762			4			531			154			10			26		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Socioeconomic Indicators																				
Demographic Index	51	35	49	47	74	85	96	97	80	91	95	85	96	97	85	96	97	79	90	95
Supplemental Demographic Index	17	14	19	64	77	31	93	95	26	86	91	31	94	95	31	93	95	31	93	95
People of Color	65	39	59	44	72	91	85	89	98	94	95	91	86	90	91	85	89	90	84	89
Low Income	40	31	39	51	68	78	94	96	62	81	90	78	95	97	78	94	96	67	87	92
Unemployment Rate	7	6	14	84	89	9	72	78	14	86	90	10	74	80	9	72	78	7	63	71
Limited English Speaking	6	5	10	80	84	18	91	92	10	81	85	19	91	82	18	91	92	30	96	96
Less Than High School Education	14	12	15	63	71	18	69	78	19	71	80	19	72	80	18	69	78	28	85	90
Under Age 5	5	6	11	87	88	8	79	77	9	80	78	8	79	77	8	79	77	4	51	44
Over Age 64	19	17	16	46	51	20	61	67	6	10	12	20	60	66	20	61	67	18	53	58
Low Life Expectancy	19	20	18	36	39	N/A	N/A	N/A	0	0	0	1	2	0	N/A	N/A	N/A	22	75	74

*N/A indicated that data is not available or that there is no recorded population within a 4-mile buffer zone of the facility.

[8] EJSCREEN Mapper Version 2.2, June 2023

Table 20. EJSCREEN Socioeconomic Indicators – Southeast New Mexico[9]

	State Average	USA Average	South Carlsbad			Poker Lake			Trunk C			Devon Cotton Draw			Caprock		
Population	2,116,000	331,900,000	2,694			-			-			4			14		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Socioeconomic Indicators																	
Demographic Index	51	35	48	46	73	N/A	N/A	N/A	N/A	N/A	N/A	40	32	64	36	25	60
Supplemental Demographic Index	17	14	16	50	65	N/A	N/A	N/A	N/A	N/A	N/A	17	53	68	22	74	83
People of Color	65	39	64	49	74	N/A	N/A	N/A	N/A	N/A	N/A	44	25	62	38	18	57
Low Income	40	31	33	41	60	N/A	N/A	N/A	N/A	N/A	N/A	36	45	64	34	43	62
Unemployment Rate	7	6	5	54	61	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	6	59	66
Limited English Speaking	6	5	3	55	67	N/A	N/A	N/A	N/A	N/A	N/A	13	86	89	23	93	94
Less Than High School Education	14	12	18	69	78	N/A	N/A	N/A	N/A	N/A	N/A	19	71	80	30	88	91
Under Age 5	5	6	7	70	68	N/A	N/A	N/A	N/A	N/A	N/A	5	52	47	2	26	21
Over Age 64	19	17	14	38	42	N/A	N/A	N/A	N/A	N/A	N/A	19	58	64	24	73	79
Low Life Expectancy	19	20	21	70	69	N/A	N/A	N/A	N/A	N/A	N/A	14	7	9	17	21	23

*N/A indicated that data is not available or that there is no recorded population within a 4-mile buffer zone of the facility.

	State Average	USA Average	Devon Rattlesnake			Cedar Canyon			Junction			Chaparral			White Lakes		
Population	2,116,000	331,900,000	-			35			87			-			2		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Socioeconomic Indicators																	
Demographic Index	51	35	N/A	N/A	N/A	53	53	77	43	37	68	N/A	N/A	N/A	55	58	79
Supplemental Demographic Index	17	14	N/A	N/A	N/A	20	66	78	17	53	68	N/A	N/A	N/A	24	79	86
People of Color	65	39	N/A	N/A	N/A	62	47	73	54	37	68	N/A	N/A	N/A	58	42	71
Low Income	40	31	N/A	N/A	N/A	43	55	73	33	41	60	N/A	N/A	N/A	53	71	83
Unemployment Rate	7	6	N/A	N/A	N/A	11	78	83	9	71	77	N/A	N/A	N/A	5	54	60
Limited English Speaking	6	5	N/A	N/A	N/A	4	62	73	3	58	70	N/A	N/A	N/A	15	87	90
Less Than High School Education	14	12	N/A	N/A	N/A	21	75	82	18	69	78	N/A	N/A	N/A	29	86	90
Under Age 5	5	6	N/A	N/A	N/A	11	87	89	8	80	78	N/A	N/A	N/A	12	89	91
Over Age 64	19	17	N/A	N/A	N/A	9	19	21	8	16	19	N/A	N/A	N/A	19	58	64
Low Life Expectancy	19	20	N/A	N/A	N/A	20	60	59	21	67	66	N/A	N/A	N/A	16	20	21

*N/A indicated that data is not available or that there is no recorded population within a 4-mile buffer zone of the facility.

[9] EJSCREEN Mapper Version 2.2, June 2023

4.6 Additional Analysis for Communities Above 80th Percentile Socioeconomic Indicators

Based on the results in Table 19 and Table 20, an additional analysis was conducted for facilities that were in a community with more than one socioeconomic indicator above the 80th percentile. Since socioeconomic indicators were used as an initial filter approach, as detailed in Section 4.2 and EJSCREEN's uncertainty in estimates in small areas, as detailed in Section 4.3, Enterprise has chosen to provide an additional analysis for communities that have more than one socioeconomic indicator above the 80th percentile. If the community was above the 80th percentile for people of color or low-income, an additional analysis was provided even if it was the only indicator. The additional analysis included evaluating the surrounding pollution and sources within the community.

Pollution and source indicators evaluated include the following:

- Particulate Matter 2.5 (µg/m^3)
- Ozone (ppb)
- Diesel Particulate Matter (µg/m^3)
- Air Toxics Cancer Risk (lifetime risk per million)
- Air Toxics Respiratory Health Index
- Toxic Releases to Air
- Traffic Proximity (daily traffic count/distance to road)
- Lead Paint (% Pre-1960 housing)
- Superfund Proximity (site count/km distance)
- RMP Facility Proximity (facility count/km distance)
- Hazardous Waste Proximity (facility count/km distance)
- Underground Storage Tanks (count/km^2)
- Wastewater Discharge (toxicity weighted concentration/ m distance)

The facilities located in the Northwest are detailed in Section 4.6.1 and facilities located in the Southeast are detailed in Section 4.6.2.

4.6.1 Facilities in Northwest New Mexico

Facilities requiring an additional analysis in the Northwest include Blanco, Chaco, San Luis, Wright, Martinez Canyon, San Ysidro, Lybrook, Largo, and Huerfano. The results of the additional analysis for pollution and source indicators in the Northwest are detailed in Table 21 and Table 22.

Table 21. Pollution and Source Indicators - Northwest[10]

	State Average	USA Average	Blanco			Chaco			San Luis			Wright		
Population	2,116,000	331,900,000	10,200			200			12			1,762		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Pollution and Sources														
Particulate Matter 2.5 (µg/m3)	5.16	8.08	4.94	39	3	4.07	21	0	3.74	13	0	4.68	32	2
Ozone (ppb)	64.7	61.6	61	10	49	60.4	5	44	62	23	57	61.9	22	56
Diesel Particulate Matter* (µg/m3)	0.194	0.261	0.0461	22	3	0.02	8	0	0.02	7	0	0.0191	7	0
Air Toxics Cancer Risk* (lifetime risk per million)	20	28	19	0	1	10	0	1	10	0	1	20	26	3
Air Toxics Respiratory HI*	0.21	0.31	0.29	29	4	0.2	29	4	0.1	4	1	0.3	69	31
Toxic Releases to Air	29	4600	180	98	30	11	52	9	4.9	47	7	93	95	23
Traffic Proximity (daily traffic count/distance to road)	84	210	3.5	19	9	0.19	3	0	0.25	5	0	1.7	14	6
Lead Paint (% Pre-1960 Housing)	0.19	0.3	0.092	47	34	0.08	46	32	0.16	60	44	0.061	40	28
Superfund Proximity (site count/km distance)	0.14	0.13	0.1	68	67	0.04	47	39	0.03	34	24	0.058	52	48
RMP Facility Proximity (facility count/km distance)	0.15	0.43	0.45	92	74	0.13	63	40	0.04	61	6	0.15	69	46
Hazardous Waste Proximity (facility count/km distance)	0.73	1.9	0.061	29	12	0.03	21	5	0.05	27	10	0.043	25	7
Underground Storage Tanks (count/km2)	3.3	3.9	4	78	73	0.001	0	0	0.01	26	22	0.032	29	24
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.47	22	0.005	40	61	2E-05	21	20	0.02	49	72	0.007	41	64

[10] EJSCREEN Mapper Version 2.2, June 2023

Table 22. Pollution and Source Indicators – Northwest (Cont'd)[11]

	State Average	USA Average	Martinez Canyon			San Ysidro			Lybrook			Largo			Huerfano		
Population	2,116,000	331,900,000	4			531			154			10			26		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Pollution and Sources																	
Particulate Matter 2.5 (µg/m3)	5.16	8.08	3.9	17	0	3.45	1	0	3.89	17	0	3.9	17	0	4.07	21	0
Ozone (ppb)	64.7	61.6	61.9	22	56	61.6	19	54	61.9	22	56	61.9	22	56	60.4	5	44
Diesel Particulate Matter* (µg/m3)	0.194	0.261	0.0168	5	0	0.018	6	0	0.0168	5	0	0.017	5	0	0.020	8	0
Air Toxics Cancer Risk* (lifetime risk per million)	20	28	10	0	1	10	0	1	10	0	1	10	0	1	10	0	1
Air Toxics Respiratory HI*	0.21	0.31	0.1	4	1	0.1	4	1	0.1	4	1	0.1	4	1	0.2	29	4
Toxic Releases to Air	29	4600	0.61	42	4	4.3	47	6	0.59	42	4	0.61	42	4	9.8	51	8
Traffic Proximity (daily traffic count/distance to road)	84	210	N/A	N/A	N/A	0.17	3	0	N/A	N/A	N/A	N/A	N/A	N/A	0.12	2	0
Lead Paint (% Pre-1960 Housing)	0.19	0.3	0.12	53	38	0.19	62	46	0.12	53	38	0.12	53	38	0.11	51	36
Superfund Proximity (site count/km distance)	0.14	0.13	0.0015	22	10	0.02	29	18	0.014	22	10	0.014	22	10	0.039	44	35
RMP Facility Proximity (facility count/km distance)	0.15	0.43	0.016	23	1	0.03	29	4	0.016	23	1	0.016	23	1	0.12	59	35
Hazardous Waste Proximity (facility count/km distance)	0.73	1.9	0.01	3	0	0.041	24	7	0.01	3	0	0.01	3	0	0.031	20	4
Underground Storage Tanks (count/km2)	3.3	3.9	0.0099	26	22	0.089	32	27	0.0096	26	22	0.01	26	22	0.002	0	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.47	22	4E-05	22	24	0.025	53	74	4E-05	22	24	4E-05	22	24	2E-05	21	21

[11] EJSCREEN Mapper Version 2.2, June 2023

4.6.1.1 Blanco

The community surrounding the Blanco facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators except Toxic Releases to Air and RMP Facility Proximity. Toxic Releases to Air are in the 98th percentile when compared to the state, but only in the 30th percentile when compared to the US. RMP Facility Proximity is in the 92nd percentile when compared to the state, but only in the 74th percentile when compared to the US.

Additionally, Ozone, Diesel Particulate Matter, Air Toxics Respiratory Hazard Index, Traffic Proximity, Lead Paint (% Pre-1960 Housing), Hazardous Waste Proximity, and Wastewater Discharge are below the 50th percentile when compared to the state average.

4.6.1.2 Chaco

The community surrounding the Chaco facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 65th percentile when compared to the state average and 50th percentile when compared to the national average.

4.6.1.3 San Luis

The community surrounding the San Luis facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 65th percentile when compared to the state average and 50th percentile when compared to the national average.

4.6.1.4 Wright

The community surrounding the Wright facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators except Toxic Releases to Air. Toxic Releases to Air is in the 95th percentile when compared to the state, but only in the 23rd percentile when compared to the US. Additionally, all pollution and source indicators are below the 70th percentile when compared to the state average and 60th percentile when compared to the national average.

4.6.1.5 Martinez Canyon

The community surrounding the Martinez Canyon facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 55th percentile when compared to the state average and 60th percentile when compared to the national average.

4.6.1.6 San Ysidro

The community surrounding the San Ysidro facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 65th percentile when compared to the state average and 75th percentile when compared to the national average.

4.6.1.7 Lybrook

The community surrounding the Lybrook facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 55th percentile when compared to the state average and 60th percentile when compared to the national average.

4.6.1.8 Largo

The community surrounding the Largo facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 55th percentile when compared to the state average and 60th percentile when compared to the national average.

4.6.1.9 Huerfano

The community surrounding the Huerfano facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators. Additionally, all pollution and source indicators are below the 60th percentile when compared to the state average and 45th percentile when compared to the national average.

4.6.2 Summary of Facilities in Northwest New Mexico

Facilities and surrounding communities in the Northwest of New Mexico that were identified as needing an additional analysis and evaluated by Enterprise were determined to not be significantly impacted by surrounding pollution and sources as shown by the pollution and sources indicators. Additionally, the communities surrounding each of the facilities in the Northwest are below the proposed Clean Future Act overburdened census tract thresholds for NATA Cancer Risk and $PM_{2.5}$

4.6.3 Facilities in Southeast New Mexico

Facilities requiring an additional analysis in the Southeast include Devon Cotton Draw, Caprock, Cedar Canyon, and White Lakes. The results of the additional analysis for pollution and source indicators in the Southeast are detailed in Table 23.

Table 23. Pollution and Source Indicators – Southeast[12]

	State Average	USA Average	Devon Cotton Draw			Caprock			Cedar Canyon			White Lakes		
Population	2,116,000	331,900,000	4			14			35			2		
Indicators	*Value*	*Value*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*	*Value*	*%tile in State*	*%tile in USA*
Pollution and Sources														
Particulate Matter 2.5 (µg/m3)	5.16	8.08	6.64	96	14	6.02	77	8	6.29	84	10	5.32	48	4
Ozone (ppb)	64.7	61.6	71.7	97	96	67.9	84	88	74.2	98	97	65.3	60	76
Diesel Particulate Matter* (µg/m3)	0.194	0.261	0.0242	11	1	0.0246	12	1	0.0243	11	1	0.0195	7	0
Air Toxics Cancer Risk* (lifetime risk per million)	20	28	20	26	3	20	26	3	20	26	3	20	26	3
Air Toxics Respiratory HI*	0.21	0.31	0.2	29	4	0.2	29	4	0.2	29	4	0.2	29	4
Toxic Releases to Air	29	4600	3.2	46	6	0.93	43	4	0.038	27	2	0.36	40	3
Traffic Proximity (daily traffic count/distance to road)	84	210	0	0	0	N/A	N/A	N/A	0.2	4	0	0.17	3	0
Lead Paint (% Pre-1960 Housing)	0.19	0.3	0.5	87	73	0.55	90	77	0.081	45	32	0.32	76	60
Superfund Proximity (site count/km distance)	0.14	0.13	0.032	40	29	0.011	19	5	0.0095	10	3	0.054	51	45
RMP Facility Proximity (facility count/km distance)	0.15	0.43	0.15	67	44	0.031	29	4	0.64	96	81	0.077	42	21
Hazardous Waste Proximity (facility count/km distance)	0.73	1.9	0.027	18	3	0.022	16	2	0.048	26	9	0.11	40	21
Underground Storage Tanks (count/km2)	3.3	3.9	0.0052	23	0	0.014	27	22	0.0076	25	0	0	0	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.47	22	0	0	0	N/A	N/A	N/A	8E-09	2	1	4.7E-08	4	2

[12] EJSCREEN Mapper Version 2.2, June 2023

4.6.3.1 Devon Cotton Draw

The community surrounding the Devon Cotton Draw facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators except Particulate Matter 2.5, Ozone, and Lead Paint. Particulate Matter 2.5 is in the 96th percentile when compared to the state but is below the proposed Clean Future Act overburdened census tract threshold. Lead Paint is in the 87th percentile when compared to the state, but only in the 73rd percentile when compared to the US.

4.6.3.2 Caprock

The community surrounding the Caprock facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators except Ozone and Lead Paint. Lead Paint is in the 90th percentile when compared to the state, but only in the 77th percentile when compared to the US.

4.6.3.3 Cedar Canyon

The community surrounding the Cedar Canyon facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators except Particulate Matter 2.5, Ozone, and RMP Facility Proximity. Particulate Matter 2.5 is in the 84th percentile when compared to the state but is below the proposed Clean Future Act overburdened census tract threshold. RMP Facility Proximity is in the 96th percentile when compared to the state, but only in the 81st percentile when compared to the US.

4.6.3.4 White Lakes

The community surrounding the White Lakes facility was below the 80th percentile when compared to state and national averages for all pollution and source indicators.

4.6.4 Summary of Facilities in Southeast New Mexico

Facilities and surrounding communities in the Southeast of New Mexico that were identified as needing an additional analysis and evaluated by Enterprise were determined to not be significantly impacted by surrounding pollution and sources as shown by the pollution and sources indicators. Additionally, the communities surrounding each of the facilities in the Southeast are below the proposed Clean Future Act overburdened census tract thresholds for NATA Cancer Risk and $PM_{2.5}$

5. THIRD PARTY CERTIFICATION

APPENDIX A. TURBINE DOCUMENTATION

ASTM 6522 Method 19

Performance Test Report

Test Date: 10/1/19

Source:

General Electric M5322B
Gas Fueled Turbine

Unit #: C-1
Serial #: 179576

Location:

Blanco CS

Prepared on behalf of:

Enterprise Products Operating

	CO		NOx								
		State			State								
Results ppmvd		8.25			60.35								
Results lb/hr		5.43			65.24								
Permit lb/hr		17.80			80.00								
Results TPY		23.78			285.76								
Permit TPY		78.10			350.40								
PASS ALL		**Pass**			**Pass**								

Test Started: 14:10:00 Test Completed: 15:30:50

303 W. 3rd St (580) 225-0403 Elk City, OK 73644

ASTM 6522 Method 19
Performance Test Report

Test Date: 10/1/19

Source:
General Electric M5322B
Gas Fueled Turbine

Unit #: C-2
Serial #: 214369

Location:
Blanco

Prepared on behalf of:
Enterprise Products Operating

	CO		NOx			
	State		State			
Results ppmvd	9.59		69.70			
Results lb/hr	5.58		66.60			
Permit lb/hr	17.80		80.00			
Results TPY	24.44		291.69			
Permit TPY	78.10		350.40			
PASS ALL	**Pass**		**Pass**			

Test Started: 12:45:11 Test Completed: 14:06:01

303 W. 3rd St (580) 225-0403 Elk City, OK 73644

6.0 Test Results and Turbine Data

Table 6.1 Test Results

Run Number			Run 1		Run 2	Run 3	Run Length
Test Date & Start Time	10/5/2022		10:20 AM		10:47 AM	11:14 AM	20 Minutes
Turbine Specs							
Location	Blanco C&D Compressor Station				Unit #	T-D01	
Make			GE				
Model			M5002B				
Serial number			226332			Catalyst	No
mfg. rated hp			35550				
mfg. rated rpm			5100				
Turbine Operation			**Run 1**		**Run 2**	**Run 3**	**Average**
Test Horsepower			19585		19585	19585	19585
Test RPM			5059		5060	5059	5059
Percent Load %			55.09%		55.09%	55.09%	55.09%
Ambient Conditions					Elevation ft.=	5610	
Ambient Temperature Deg (F)			58		59	60	59
Barometric Pressure ("hg)			30.09		30.09	30.08	30.09
Exhaust Flow Data							
Q Stack (dscfh)			10070480		10143882	10181647	10132003
Q Stack (dscmh)			285161.54		287240.05	288309.43	286903.67
Fuel Flow Data (Irrelevant when using Method 2. Calculated for interna use from Exhaust flow.							
Fuel Consumption (Btu/hp-hr)			11000		11000	11000	11000
Fuel Flow (dscf-hr)			207583		207583	207583	207583
Fuel (Btu/scf)			1038		1038	1038	1038
O2 F factor			8710		8710	8710	8710
Exhaust Gas Concentrations	**Federal**	**State**	**Run 1**		**Run 2**	**Run 3**	**Average**
CO (ppmvd)	-	-	14.46		12.69	12.63	13.26
NOx (ppmvd)	-	-	51.03		49.99	49.59	50.20
Oxygen							
O2%			17.01%		17.03%	17.05%	17.03%
Exhaust Gas Concentrations	**Federal**	**State**					
CO (ppmvd) @ 15% O2	-	-	21.91		19.37	19.34	20.21
NOx (ppmvd) @ 15% O2	-	-	77.31		76.29	75.96	76.52
Mass Emissions Rates	**Federal**	**State**					
CO (lbs/hr)	-	21.60	10.59		9.36	9.35	9.77
CO (tpy)	-	94.70	46.38		41.01	40.95	42.79
CO (g/hp-hr)	-	-	0.25		0.22	0.22	0.23
	-	-					
NOx (lbs/hr)	-	143.30	61.39		60.58	60.32	60.77
NOx (tpy)	-	628.00	268.90		265.34	264.19	266.16
NOx (g/hp-hr)	-	-	1.42		1.40	1.40	1.41
	-	-					

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number: 17 Chaco C1 Test Conducted On: **3/28/2018**

Unit Operating Data			
Turbine Speed	5015	rpm	Max RPM 5100
Turbine PCD	76.00	psig	
Turbine Site Horsepower	16200	hp	
Estimated Turbine Horsepower	15876	hp	
Estimated Turbine % Load	98%	%	
Turbine Fuel Consumption	144325	scf/hr	
Turbine BSFC	9109	BTU/bhp hr	
Turbine Fuel BTU Content (HHV)	1002	BTU	
Exhaust Temperaturee	860	°F	

Test Run Number	Run 1	Run 2	Run 3
Start Time	08:20:46	09:31:47	10:42:37
Stop Time	09:20:46	10:31:47	11:42:37

Measured Emissions	Run 1	Run 2	Run 3	
NO	53.00	44.00	47.00	ppm
NO_2	7.00	6.00	7.00	ppm*
NOx	60.00	50.00	54.00	ppm
CO	6.00	5.00	8.00	ppm
O_2	15.00	15.00	15.00	%

Emission Rates				
NOx Measured	31.97	26.64	28.77	lbs/hr
CO Measured	1.94	1.62	2.59	lbs/hr

	Average	**Permit Limit**		
NOx Measured	**29.12**	**78.5**	**lbs/hr**	**Passed**
CO Measured	**2.05**	**31.5**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number: 18 Chaco C2 Test Conducted On: **4/12/2018**

Unit Operating Data				
Turbine Speed	5045	rpm	Max RPM 5100	
Turbine PCD	76.00	psig		
Turbine Site Horsepower	16200	hp		
Estimated Turbine Horsepower	15876	hp		
Estimated Turbine % Load	98%	%		
Turbine Fuel Consumption	142015	scf/hr		
Turbine BSFC	8963	BTU/bhp hr		
Turbine Fuel BTU Content (HHV)	1002	BTU		
Exhaust Temperaturee	892	°F		

Test Run Number	Run 1	Run 2	Run 3	
Start Time	08:03:09	09:13:23	10:23:39	
Stop Time	09:03:09	10:13:23	11:23:39	
Measured Emissions	Run 1	Run 2	Run 3	
NO	30.00	45.00	53.00	ppm
NO_2	13.00	5.00	7.00	ppm*
NOx	43.00	50.00	60.00	ppm
CO	20.00	5.00	9.00	ppm
O_2	15.00	15.00	15.00	%
Emission Rates				
NOx Measured	22.54	26.21	31.45	lbs/hr
CO Measured	6.38	1.59	2.87	lbs/hr

	Average	Permit Limit		
NOx Measured	**26.74**	**78.5**	**lbs/hr**	**Passed**
CO Measured	**3.61**	**31.5**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number:	**35**	**Chaco Cryo 8105**	**Test Conducted On:**	**7/17/2019**
Unit Operating Data				
Turbine Speed	10456.6	rpm		
Turbine PCD	177.00	psig		
Turbine Site Horsepower	11818	hp		
Estimated Turbine Horsepower	12183.5	hp		
Estimated Turbine % Load	97.0%	hp		
Turbine Fuel Consumption	2.4930	mmscfd		
Turbine Fuel Consumption	3589920	cf/min		
Turbine Fuel Consumption	59,832	cf/hr		
Turbine BSFC	4921	BTU/bhp hr		
Turbine Fuel BTU Content (HHV)	1002	BTU		
Exhaust Temperaturee	948	°F		
Test Run Number	Run 1	Run 2	Run 3	
Start Time	07:44:41	08:54:50	10:05:01	
Stop Time	08:44:41	09:54:50	11:05:00	
Measured Emissions	Run 1	Run 2	Run 3	
NO	125.05	136.95	148.00	ppm
NO_2	12.57	14.05	15.00	ppm*
NOx	137.62	151.00	163.00	ppm
CO	0.00	0.00	0.00	ppm
O_2	15.00	15.00	15.00	%
Emission Rates				
NOx Measured	30.39	33.35	36.00	lbs/hr
CO Measured	0.00	0.00	0.00	lbs/hr

	Average	**Permit Limit**		
NOx Measured	**33.25**	**76.2**	**lbs/hr**	**Passed**
CO Measured	**0.00**	**2.4**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number:	36	Chaco Cryo 8106	Test Conducted On:	8/10/2022
Unit Operating Data				
Turbine Speed	10398	rpm		
Turbine PCD	173.00	psig		
Turbine Site Horsepower	11818	hp		
Estimated Turbine Horsepower	12183.5	hp		
Estimated Turbine % Load	97.0%	hp		
Turbine Fuel Consumption	2.5460	mmscfd		
Turbine Fuel Consumption	180500	cf/min		
Turbine Fuel Consumption	61,104	cf/hr		
Turbine BSFC	5020	BTU/bhp hr		
Turbine Fuel BTU Content (HHV)	1001	BTU		
Exhaust Temperaturee	961	°F		

Test Run Number	Run 1	Run 2	Run 3	
Start Time	10:21:37	10:54:07	11:27:32	
Stop Time	10:42:38	11:15:07	11:48:31	
Measured Emissions	Run 1	Run 2	Run 3	
NO	116.00	119.50	116.00	ppm
NO_2	12.50	13.00	13.00	ppm*
NOx	128.50	132.50	129.00	ppm
CO	6.00	6.00	6.00	ppm
O_2	15.00	15.00	15.00	%
Emission Rates				
NOx Measured	28.96	29.86	29.07	lbs/hr
CO Measured	0.82	0.82	0.82	lbs/hr

	Average	Permit Limit		
NOx Measured	**29.29**	**76.2**	**lbs/hr**	**Passed**
CO Measured	**0.82**	**2.4**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number:	**37**	**Chaco Cryo 8110**	**Test Conducted On:**	**8/10/2022**
Unit Operating Data				
Turbine Speed	10348.8	rpm		
Turbine PCD	172.00	psig		
Turbine Site Horsepower	11818	hp		
Estimated Turbine Horsepower	12310.4	hp		
Estimated Turbine % Load	96.0%	hp		
Turbine Fuel Consumption	2.6390	mmscfd		
Turbine Fuel Consumption	3800160	cf/min		
Turbine Fuel Consumption	63,336	cf/hr		
Turbine BSFC	5150	BTU/bhp hr		
Turbine Fuel BTU Content (HHV)	1001	BTU		
Exhaust Temperaturee	960	°F		
Test Run Number	Run 1	Run 2	Run 3	
Start Time	08:37:49	09:13:45	09:46:09	
Stop Time	08:58:49	09:34:45	10:07:09	
Measured Emissions	Run 1	Run 2	Run 3	
NO	101.50	110.00	116.50	ppm
NO_2	12.00	13.00	13.00	ppm*
NOx	113.50	123.00	129.50	ppm
CO	5.50	3.00	0.50	ppm
O_2	15.00	15.00	15.00	%
Emission Rates				
NOx Measured	26.51	28.73	30.25	lbs/hr
CO Measured	0.78	0.43	0.07	lbs/hr

	Average	**Permit Limit**		
NOx Measured	**28.49**	**76.2**	**lbs/hr**	**Passed**
CO Measured	**0.43**	**2.4**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Test Conducted On:	**7/25/2018**		**Unit Number:**	**49**
Test Conducted By:	**John Newberry**		**Trans Western Turbine 8501**	
Unit Operating Data				
Turbine Speed	**13954**	rpm		
Turbine PCD	**123.00**	psig		
Turbine Site Horsepower	6039	hp		
Estimated Turbine Horsepower	**5616**	hp		
Estimated GP % Load	93%	hp	13950 RPM	15000RPM @ 100%
Estimated PT % Load	85%	hp	12155 RPM	14300 RPM @100%
Turbine Fuel Consumption	**603.35**	cf/min		
Turbine Fuel Consumption	36201	cf/hr		
Turbine BSFC	**6459**	BTU/bhp hr		
Turbine Fuel BTU Content (HHV)	**1002**	BTU		
Exhaust Temperaturee	**975.00**	°F		

Test Run Number	Run 1	Run 2	Run 3
Start Time	08:07:31	09:17:37	10:27:47
Stop Time	09:07:30	10:17:38	11:27:46

Measured Emissions	Run 1	Run 2	Run 3	
NO	4.84	5.79	4.00	ppm
NO_2	1.00	1.00	1.00	ppm*
NOx	5.84	6.79	5.00	ppm
CO	0.00	0.00	0.00	ppm
O_2	15.00	15.00	15.00	%

Emission Rates

NOx Measured	0.78	0.91	0.67	lbs/hr
CO Measured	0.00	0.00	0.00	lbs/hr

	Average	**Permit Limit**		
NOx Measured	**0.84**	**7.9**	**lbs/hr**	**Passed**
CO Measured	**0.00**	**5.8**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

Summary of Results
Lybrook Pump Station - Emissions Unit #5

Company: Mid-America Pipeline Company
Location: Lybrook Pump Station
Source: Solar Centaur 40-T4702S SN: 5257C
Engine Site Rating: 3538 Hp @ 15500 RPM
Technician: JC, CF

Test Run Number	*1*	*2*	*3*	
Emissions Unit	**5**	**5**	**5**	
Date	8/8/18	8/8/18	8/8/18	
Start Time	15:01	16:06	17:11	
Stop Time	16:01	17:06	18:11	
Turbine/Pump Operation				
Load (%)	**93.0**	**94.0**	**94.0**	
Gas Producer Speed (%)	93.0	94.0	94.0	
Power Turbine Speed (%)	94.0	99.7	99.7	
Turbine Horsepower (Hp)	3290	3326	3326	
Pressure Compression Discharge, PCD (psig)	77.0	79.0	80.1	
Suction Pressure (psig)	400	404	437	
Discharge Pressure (psig)	860	941	973	
Air Inlet Temperature (T1) (°F)	87	88	88	
Average Exhaust Temperature (T5) (°F)	1133	1153	1158	
Pump Throughput (BPH)	7730	6610	6636	
Pump Case Temperature (°F)	78	80	80	
Fuel Data				
Fuel Valve Output (%)	25.5	26.0	26.1	
Gas Fuel Supply Pressure (psig)	263	263	263	
Measured Fuel Consumption (lbs/hr)	1631	1665	1730	
Calculated Fuel Consumption (SCFH)	37628	38412	39912	
O2 F-Factor (DSCF/MMBtu, HHV basis)	8646	8646	8646	
Fuel Heating Value (Btu/SCF, HHV)	1027	1027	1027	
BHp Specific Fuel Rate (Btu/Hp-hr, HHV basis)	11739	11857	12320	
Ambient Conditions				
Pressure Altitude (MSL)	6820	6820	6820	
Atmospheric Pressure ("Hg)	23.27	23.27	23.27	
Dry Bulb Temperature (°F)	87.6	88.3	87.8	
Wet Bulb Temperature (°F)	56.8	56.1	55.6	
Humidity (lb/lb air)	0.0053	0.0047	0.0045	
Measured Exhaust Emissions (Corrected)				***Average***
NOx (ppmv)	11.7	12.9	12.9	**12.5**
NOx (ppmv @ 15% O2) {Quad K Limit = 100}	17.8	19.5	19.5	**18.9**
CO (ppmv)	10.4	10.5	9.0	**10.0**
O2 (vol %)	17.0	17.0	17.0	**17.0**
CO2 (vol %)	2.2	2.2	2.2	**2.2**
Fo (Natural Gas)	1.73	1.76	1.75	**1.75**
Exhaust Flow Rates (EPA Method 2 - Pitot Tube)				
SCFH (dry basis, calc. from meas. stack velocity)	1,458,455	1,525,390	1,457,014	**1,480,286**
Calculated Mass Emission Rates (EPA Method 2)				
NOx (lbs/hr) **{Permit Limit = 5.3}**	2.0	2.4	2.2	**2.2**
CO (lbs/hr) **{Permit Limit = 4.2}**	1.1	1.2	1.0	**1.1**
NOx (tons/yr) **{Permit Limit = 23.1}**	8.9	10.3	9.8	**9.7**
CO (tons/yr) **{Permit Limit = 18.5}**	4.8	5.1	4.2	**4.7**

NEW MEXICO ENVIRONMENT DEPARTMENT
PERMIT NUMBER P202R3

PERFORMANCE TEST REPORT

SOURCES:

FIVE SOLAR SATURN 20-T1602
STATIONARY GAS TURBINES
EMISSION UNIT NUMBERS 1A & 6-9

AND:

ONE KOHLER 24RCL
EMERGENCY GENERATOR

IN SERVICE AT:

MID-AMERICA PIPELINE COMPANY, LLC
SAN LUIS PUMP STATION

PREPARED FOR:

ENTERPRISE PRODUCTS OPERATING, LLC

TEST DATE: MAY 3, 2022

PREPARED BY:

COMPLIANCE SERVICES AND TESTING, LLC

PROJECT NUMBER:

2377

COMPLIANCE SERVICES & TESTING

P.O. Box 94191-87199
7108 Washington St. NE
Suite A
Albuquerque, NM 87109
(505) 681-4909 Phone
www.comptesting.com

Table of Contents

Introduction

Compliance Services and Testing (CST) performed periodic emission testing on the exhaust from five Solar Saturn 20-T1602, designated Emissions Units 1A, 6, 7, 8, and 9, and one back-up generator engine in service at Mid America Pipeline Company's (MAPL) San Luis Pump Station. The purpose of this test was to demonstrate compliance with the requirements specified in the New Mexico Environment Department Air Quality Bureau Permit Number P202R3.

Testing on the stationary gas turbines was performed at the maximum load conditions available at the time of the tests, as determined by the gas producer rating, which was at or above 90% load for Units 6-9. Unit 1A was tested at 56% load, the maximum load that could be placed on the turbine, due to pipeline conditions. The emergency generator was tested in the as found condition. The criteria pollutants of interest are oxides of nitrogen [NO_X defined as nitric oxide (NO) + nitrogen dioxide (NO_2)] and carbon monoxide (CO). Oxygen (O_2) and carbon dioxide (CO_2) are the primary diluents of interest. The emergency generator was tested for percent opacity of the exhaust gas. The tests followed the procedures set forth in the ASTM D6522-00 testing protocol, per NMED conventions, and the Code of Federal Regulations, Title 40, Part 60, Appendix A, Methods 1, 2, 9, and 19.

All information contained in this submittal are true, accurate, and complete.

Table 1 - Background Data

Source Operator:	**Enterprise Products Operating (EPROD)** Attn: Jim Lieb 614 Reilly Rd. Farmington, NM 87401 (505) 599-2159 Phone
Test Contractor:	**Compliance Services and Testing (CST)** Attn: Chris Spencer 7108 Washington St. NE, Suite A Albuquerque, New Mexico 87109 (505) 681-4909 Phone
Test Participants:	**CST** Chris Spencer – Director **EPROD** Todd Burns – Pipeline Technician Jim Lieb - Environmental Engineer
Test Date:	May 3, 2022
Location:	San Luis Pump Station: Approximately 25 miles south-southwest of Cuba, New Mexico in Sandoval County. 35.704836, -107.106566
Test Methods:	**ASTM D6522-0** NOx, CO, O2, CO2 **Title 40 CFR Part 60** Traverse point location by Method 1 Stack velocity by Method 2 Opacity by Method 9 Stack moisture content by Method 19
Regulatory Permit:	NMED-AQB Operating Permit No. P202R3

Summary of Results

The results are taken from the average of three twenty-minute test runs. The mass emissions are based on continuous operation of 24 hours per day for 365 days per year (8760 hours/year). The following table summarizes CST's measured emissions, and the calculated mass emission rates of NO_X and CO in pounds per hour (pph) and tons per year (tons/yr). The opacity results were taken from a 10-minute observation period.

Table 2 – Summarized Emissions Results

	NOx		*CO*	*Load %*
Unit #	**lbs/hr / tpy**	**ppmvd @ 15% O_2**	**lbs/hr / tpy**	**----**
Limits	*(4.1 / 18.0)*	*(100)*	*(5.4 / 23.7)*	*Max Avail.*
1A	0.6 / 2.8	*30.0*	1.6 / 6.9	56.0
Limits	*(6.4 / 28.2)*	*(100)*	*(7.8 / 34.4)*	*>90%*
6	2.5 / 11.1	52.7	1.5 /6. 4	90.2
7	2.9 / 12.7	59.5	1.3 / 5.8	90.7
8	2.7 / 11.7	54.8	1.4 / 6.2	90.9
9	3.0 / 13.0	59.7	1.4 / 6.1	92.6
Limits	*(20%)*	---		
Generator	0%	---		

lbs/hr = pounds per hour; tpy = tons per year

Figure 1 shows the sample system diagram used for the testing. Table 1 summarizes the background information pertinent to these tests and Table 2 shows the summarized emissions results. Table 3 lists the analytical analyzers and sensitivities. Appendix A contains all field and operational data. Appendix B contains the example calculations. Appendix C contains the fuel analysis and CST's fuel calculations. Appendix D contains the quality assurance and quality control documentation. Appendix E contains copies of the calibration gases. The datalog records are in Appendix F and the opacity data is located in Appendix G. The lead technician's resume in in Appendix H.

APPENDIX B. ENGINE DOCUMENTATION

40 CFR Part 60 Subpart JJJJ / GCP-O&G
Performance Test Report

Test Type: Periodic
Test Date: 11-16-2022

Source:
Waukesha L5794GSI
Rich Burn 4 Cycle Engine

Unit Number: ENG-1.2
Serial Number: C-17695/1

Permit: #GCP-O&G 5168M2

Location:
Trunk C Compressor Station
Eddy County, New Mexico

Prepared on Behalf of:
Enterprise Field Services, LLC

303 W. 3rd St (580) 225-0403 Elk City, OK 73644

Index

Tables

Figures

Appendices

1.0 Key Personnel

Great Plains Analytical Services	Nick Gates
Enterprise Field Services, LLC	Jimmy Brown

2.0 Sampling System

The sampling system used consisted of a Stainless steel probe, heated Teflon line, gas conditioning system, and a Gasmet model DX4000 FTIR analyzer. The gas conditioning system used was a Gasmet Personal Sampling System with a Zirconium Oxide oxygen sensor.

3.0 Methods Used

ASTM D6348-03

This extractive FTIR based field test method is used to quantify gas phase concentrations of multiple target analytes (CO, NOX, CH2O, & VOC's) from stationary source effluent. Because an FTIR analyzer is potentially capable of analyzing hundreds of compounds, this test method is not analyte or source specific. The analytes, detection levels, and data quality objectives are expected to change for any particular testing situation. It is the responsibility of the tester to define the target analytes, the associated detection limits for those analytes in the particular source effluent, and the required data quality objectives for each specific test program. Provisions are included in this test method that require the tester to determine critical sampling system and instrument operational parameters, and for the conduct of QA/QC procedures. Testers following this test method will generate data that will allow an independent observer to verify the valid collection, identification, and quantification of the subject target analytes.

EPA Method 1

The purpose of the method is to provide guidance for the selection of sampling ports and traverse points at which sampling for air pollutants will be performed pursuant to regulations set forth in this part.

EPA Method 2 & 2C

This method is applicable for the determination of the average velocity and the volumetric flow rate of a gas stream. The average gas velocity in a stack is determined from the gas density and from measurement of the average velocity head with a standard pitot tube. Velocity readings are taken from each stack at 16 separate traverse points (Table 6.1) and used to determine the engines mass emissions rate, calculated utilizing the formulas seen in section 7.0 of this report.

EPA Method 3A

This is a procedure for measuring oxygen (O2) and carbon dioxide (CO2) in stationary source emissions using a continuous instrumental analyzer. Quality assurance and quality control requirements are included to assure that the tester collects data of known quality. Documentation to these specific requirements for equipment, supplies, sample collection and analysis, calculations, and data analysis will be included.

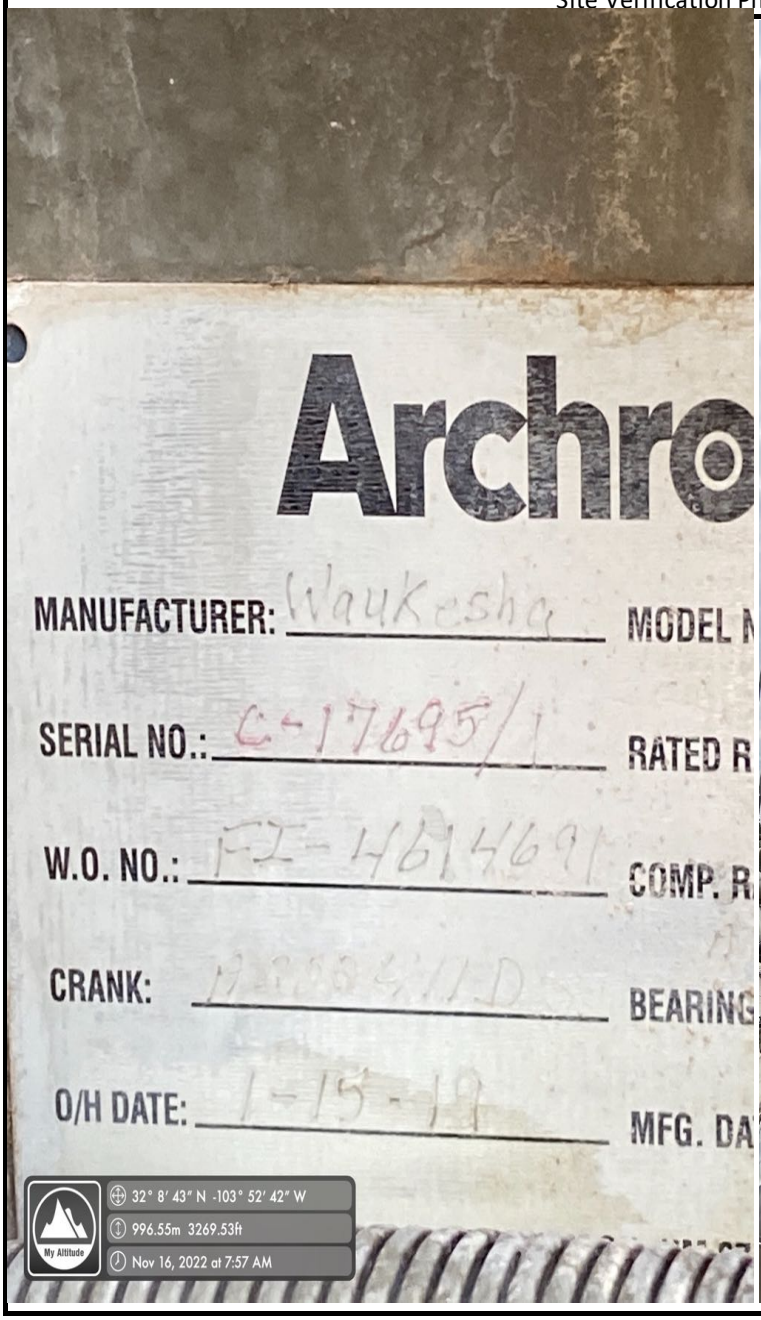
4.0 Test Summary

Unit ENG-1.2 with a serial number of C-17695/1 which is a Waukesha L5794GSI engine located at the Trunk C Compressor Station and operated by Enterprise Field Services, LLC was tested for emissions of: (Oxides of Nitrogen) (Carbon Monoxide) (Volatile Organic Compounds) . The test was conducted on 11-16-2022 by Nick Gates with Great Plains Analytical Services, Inc. All quality assurance and quality control tests were within acceptable tolerances.

The source is a natural gas fired Rich Burn (4 Cycle) engine rated at 1380 brake horse power (BHP) at 1200 RPM. The engine was operating at 1250.00 BHP and 1077 RPM which is 90.58% of maximum engine load during the test. The test HP calculation can be found on page 8. The engine was running at the maximum load available at the time of the test.

This test will satisfy the testing requirements for 40 CFR Part 60 Subpart JJJJ / GCP-O&G. Unit ENG-1.2 is authorized to operate under permit #GCP-O&G 5168M2.

Site Verification Photos



4.0 Test Summary

Engine/Compressor Specs					Test Summary
Location	Trunk C Compressor Station		*Unit ID*	ENG-1.2	
Make	Waukesha		*Site Elevation ft.*	3277	
Model	L5794GSI		*Atmospheric Pressure psi.*	12.97	
Serial number	C-17695/1		*Stack Diameter in.*	12.00	
mfg. rated hp	1380		*Catalyst*	Yes	
mfg. rated rpm	1200		*Date of Manufacture*		
Engine/Compressor Operation		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**
Test Horsepower		1250	1250	1250	1250
Test RPM		1070	1080	1080	1077
Percent Load %		90.58%	90.58%	90.58%	90.58%
Intake Manifold Pressure (hg)		38.74	38.74	40.78	39.42
Intake Manifold Temperature (F)		107.00	109.00	111.00	109.00
Ambient Conditions					
Ambient Temperature Dry (F)		38.00	40.00	43.00	40.33
Exhaust Flow Data					
Q Stack (dscfh)		46453.42	47170.37	48499.56	47374.45
Q Stack (dscm/hr)		1315.40	1335.70	1373.34	1341.48
Moisture Fraction Bws		0.17	0.17	0.17	0.17
			Results		
Method 3A Corrected O2% Dry		0.24%	0.32%	0.29%	0.28%
Moisture %		17.01%	17.16%	17.18%	17.11%

Permitted Standards				***Results***				
Test Start/Completed Times:				***8:00***	***9:21***	***10:38***	***11:59***	***11/16/22***
	JJJJ	**State**		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**	**Pass Permits**
CO (g/hp-hr)	2.000			0.571	0.530	0.763	0.620	Compliant
CO (lbs/hr)		2.500		1.574	1.461	2.104	1.709	Compliant
CO (ppmvd) @15% O2				133.157	122.201	170.900	142.086	
CO (ppbvd) @15% O2				133157.002	122200.652	170900.093	142085.915	
CO (ppmvw)				386.935	353.175	494.415	411.508	
CO (ppmvd)				466.215	426.334	596.939	496.496	
CO (mol wt)				28.01				
NOx (g/hp-hr)	1.000			0.325	0.327	0.317	0.323	Compliant
NOx (lbs/hr)		6.100		0.895	0.902	0.873	0.890	Compliant
NOx (ppmvd) @15% O2				46.098	45.901	43.164	45.055	
NOx (ppbvd) @15% O2				46098.301	45901.149	43164.445	45054.632	
NOx (ppmvw)				133.955	132.660	124.875	130.497	
NOx (ppmvd)				161.401	160.140	150.770	157.437	
NOx (mol wt)				46.01				
NMNEHC (g/hp-hr)	0.700			0.014	0.015	0.017	0.015	Compliant
NMNEHC (lbs/hr)		3.000		0.039	0.042	0.046	0.042	Compliant
NMNEHC (ppmvd) @15% O2				2.118	2.242	2.356	2.239	
NMNEHC (ppbvd) @15% O2				2118.137	2242.119	2355.681	2238.646	
NMNEHC (ppmvw)				6.155	6.480	6.815	6.483	
NMNEHC (ppmvd)				7.416	7.822	8.228	7.822	
NMNEHC (mol wt)				44.10				

40 CFR Part 60 Subpart JJJJ / GCP-O&G
Performance Test Report

Test Type: Periodic
Test Date: 08-10-2022

Source:
Waukesha L5794GSI
Rich Burn 4 Cycle Engine

Unit Number: ENG-2.2
Serial Number: C-62067/1

Permit: #GCP-O&G 5168M2

Location:
Trunk C Compressor Station
Eddy County, New Mexico

Prepared on Behalf of:
Enterprise Field Services, LLC

303 W. 3rd St (580) 225-0403 Elk City, OK 73644

Index

Tables

Figures

Appendices

1.0 Key Personnel

Great Plains Analytical Services	Tristan Harris
Enterprise Field Services, LLC	Jimmy Brown

2.0 Sampling System

The sampling system used consisted of a Stainless steel probe, heated Teflon line, gas conditioning system, and a Gasmet model DX4000 FTIR analyzer. The gas conditioning system used was a Gasmet Personal Sampling System with a Zirconium Oxide oxygen sensor.

3.0 Methods Used

ASTM D6348-03

This extractive FTIR based field test method is used to quantify gas phase concentrations of multiple target analytes (CO, NOX, CH2O, & VOC's) from stationary source effluent. Because an FTIR analyzer is potentially capable of analyzing hundreds of compounds, this test method is not analyte or source specific. The analytes, detection levels, and data quality objectives are expected to change for any particular testing situation. It is the responsibility of the tester to define the target analytes, the associated detection limits for those analytes in the particular source effluent, and the required data quality objectives for each specific test program. Provisions are included in this test method that require the tester to determine critical sampling system and instrument operational parameters, and for the conduct of QA/QC procedures. Testers following this test method will generate data that will allow an independent observer to verify the valid collection, identification, and quantification of the subject target analytes.

EPA Method 1

The purpose of the method is to provide guidance for the selection of sampling ports and traverse points at which sampling for air pollutants will be performed pursuant to regulations set forth in this part.

EPA Method 2 & 2C

This method is applicable for the determination of the average velocity and the volumetric flow rate of a gas stream. The average gas velocity in a stack is determined from the gas density and from measurement of the average velocity head with a standard pitot tube. Velocity readings are taken from each stack at 16 separate traverse points (Table 6.1) and used to determine the engines mass emissions rate, calculated utilizing the formulas seen in section 7.0 of this report.

EPA Method 3A

This is a procedure for measuring oxygen (O2) and carbon dioxide (CO2) in stationary source emissions using a continuous instrumental analyzer. Quality assurance and quality control requirements are included to assure that the tester collects data of known quality. Documentation to these specific requirements for equipment, supplies, sample collection and analysis, calculations, and data analysis will be included.

4.0 Test Summary

Unit ENG-2.2 with a serial number of C-62067/1 which is a Waukesha L5794GSI engine located at the Trunk C Compressor Station and operated by Enterprise Field Services, LLC was tested for emissions of: (Oxides of Nitrogen) (Carbon Monoxide) (Volatile Organic Compounds) . The test was conducted on 08-10-2022 by Tristan Harris with Great Plains Analytical Services, Inc. All quality assurance and quality control tests were within acceptable tolerances.

The source is a natural gas fired Rich Burn (4 Cycle) engine rated at 1380 brake horse power (BHP) at 1200 RPM. The engine was operating at 1246.00 BHP and 1051 RPM which is 90.29% of maximum engine load during the test. The test HP calculation can be found on page 8. The engine was running at the maximum load available at the time of the test.

This test will satisfy the testing requirements for 40 CFR Part 60 Subpart JJJJ / GCP-O&G. Unit ENG-2.2 is authorized to operate under permit #GCP-O&G 5168M2.

Site Verification Photos

4.0 Test Summary

Engine/Compressor Specs					Test Summary
Location	Trunk C Compressor Station		*Unit ID*	ENG-2.2	
Make	Waukesha		*Site Elevation ft.*	3321	
Model	L5794GSI		*Atmospheric Pressure psi.*	13.09	
Serial number	C-62067/1		*Stack Diameter in.*	14.00	
mfg. rated hp	1380		*Catalyst*	Yes	
mfg. rated rpm	1200		*Date of Manufacture*		
Engine/Compressor Operation		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**
Test Horsepower		1246	1245	1247	1246
Test RPM		1100	1028	1024	1051
Percent Load %		90.29%	90.22%	90.36%	90.29%
Intake Manifold Pressure (hg)		32.00	32.00	32.00	32.00
Intake Manifold Temperature (F)		118.00	119.00	120.00	119.00
Ambient Conditions					
Ambient Temperature Dry (F)		84.00	87.00	88.00	86.33
Exhaust Flow Data					
Q Stack (dscfh)		81380.39	83322.02	84850.40	83184.27
Q Stack (dscm/hr)		2304.41	2359.39	2402.67	2355.49
Moisture Fraction Bws		0.18	0.18	0.18	0.18
			Results		
Method 3A Corrected O2% Dry		1.10%	1.11%	1.10%	1.10%
Moisture %		18.21%	18.24%	18.22%	18.22%

Permitted Standards				***Results***				
Test Start/Completed Times:				***11:02***	***12:19***	***13:30***	***14:47***	***8/10/22***
	JJJJ	**State**		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**	**Pass Permits**
CO (g/hp-hr)	4.000	1.970		0.034	0.035	0.037	0.035	Compliant
CO (lbs/hr)		6.000		0.094	0.095	0.101	0.097	Compliant
CO (TPY)				0.411	0.418	0.442	0.423	
CO (ppmvd) @15% O2				4.724	4.694	4.881	4.767	
CO (ppbvd) @15% O2				4724.396	4694.447	4881.489	4766.777	
CO (ppmvw)				12.970	12.875	13.400	13.082	
CO (ppmvd)				15.858	15.746	16.384	15.996	
CO (mol wt)				28.01				
NOx (g/hp-hr)	2.000	2.000		0.745	0.436	0.320	0.504	Compliant
NOx (lbs/hr)		6.100		2.045	1.197	0.881	1.383	Compliant
NOx (TPY)				8.959	5.245	3.857	6.058	
NOx (ppmvd) @15% O2				62.736	35.895	25.905	41.512	
NOx (ppbvd) @15% O2				62735.751	35894.747	25904.679	41511.726	
NOx (ppmvw)				172.230	98.445	71.110	113.928	
NOx (ppmvd)				210.576	120.400	86.947	139.308	
NOx (mol wt)				46.01				
NMNEHC (g/hp-hr)	1.000	0.160		0.004	0.004	0.004	0.004	Compliant
NMNEHC (lbs/hr)		0.500		0.011	0.011	0.012	0.011	Compliant
NMNEHC (TPY)				0.050	0.046	0.054	0.050	
NMNEHC (ppmvd) @15% O2				0.366	0.330	0.379	0.358	
NMNEHC (ppbvd) @15% O2				366.077	329.979	378.862	358.306	
NMNEHC (ppmvw)				1.005	0.905	1.040	0.983	
NMNEHC (ppmvd)				1.229	1.107	1.272	1.202	
NMNEHC (mol wt)				44.10				

GCP-O&G
Performance Test Report

Test Type: Annual
Test Date: 01-20-2022
DOM: 02-01-08
Source:
Waukesha L5794GSI
Rich Burn 4 Cycle Engine

Unit Number: ENG-3.2
Serial Number: C-17346/1
Engine Hours: 41721.1

Permit: #GCP-O&G 5168M2

AI#: 32668
Location:
Trunk C Compressor Station
Eddy County, New Mexico

Prepared on Behalf of:
Enterprise Field Services, LLC

303 W. 3rd St (580) 225-0403 Elk City, OK 73644

Index

Tables

Figures

Appendices

1.0 Key Personnel

Great Plains Analytical Services	Sammy Castillo
Archrock	Darrell Willingham

2.0 Sampling System

The sampling system used consisted of a Stainless steel probe, heated Teflon line, gas conditioning system, and a Gasmet model DX4000 FTIR analyzer. The gas conditioning system used was a Gasmet Personal Sampling System with a Zirconium Oxide oxygen sensor.

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This is a procedure for measuring oxygen (O2) and carbon dioxide (CO2) in stationary source emissions using a continuous instrumental analyzer. Quality assurance and quality control requirements are included to assure that the tester collects data of known quality. Documentation to these specific requirements for equipment, supplies, sample collection and analysis, calculations, and data analysis will be included.

4.0 Test Summary

Unit ENG-3.2 with a serial number of C-17346/1 which is a Waukesha L5794GSI engine located at Trunk C Compressor Station and operated by Enterprise Field Services, LLC was tested for emissions of: (Oxides of Nitrogen) (Carbon Monoxide) (Volatile Organic Compounds) . The test was conducted on 01-20-2022 by Sammy Castillo with Great Plains Analytical Services, Inc. All quality assurance and quality control tests were within acceptable tolerances.

The engine is a natural gas fired Rich Burn (4 Cycle) engine rated at 1380 brake horse power (BHP) at 1200 RPM. The engine was operating at 1261.93 BHP and 1097 RPM which is 91.44% of maximum engine load during the test. The test HP calculation can be found on page 8. The engine was running at the maximum load available at the test site.

This test will satisfy the testing requirements for GCP-O&G. Unit ENG-3.2 is authorized to operate under permit #GCP-O&G 5168M2.

Site Verification Photos

4.0 Test Summary

Engine/Compressor Specs					Test Summary
Location	Trunk C Compressor Station		*Unit ID*	ENG-3.2	
Make	Waukesha		*Site Elevation ft.*	3043	
Model	L5794GSI		*Atmospheric Pressure psi.*	13.05	
Serial number	C-17346/1		*Stack Diameter in.*	12.00	
mfg. rated hp	1380		*Catalyst*	Yes	
mfg. rated rpm	1200		*Date of Manufacture*	2/2008	
Engine/Compressor Operation		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**
Test Horsepower		1262	1263	1262	1262
Test RPM		1097	1098	1097	1097
Percent Load %		91.42%	91.50%	91.42%	91.44%
Intake Manifold Pressure (hg)		34.51	34.51	36.54	35.18
Intake Manifold Temperature (F)		128.00	129.00	129.00	128.67
Ambient Conditions					
Ambient Temperature Dry (F)		26.00	29.00	31.00	28.67
Exhaust Flow Data					
Q Stack (dscfh)		66652.46	65963.24	66653.96	66423.22
Q Stack (dscm/hr)		1887.37	1867.85	1887.41	1880.88
Moisture Fraction Bws		0.18	0.18	0.18	0.18
			Results		
Method 3A Corrected O2% Dry		0.34%	0.33%	0.31%	0.33%
Moisture %		18.15%	18.14%	18.11%	18.13%

Permitted Standards				***Results***				
Test Start/Completed Times:				***9:05***	***10:16***	***11:27***	***12:38***	***1/20/22***
	JJJJ	**State**		**Run 1**	**Run 2**	**Run 3**	**3 Run Average**	**Pass Permits**
CO (g/hp-hr)	2.000			0.479	0.429	0.468	0.459	Pass
CO (lbs/hr)		7.600		1.332	1.195	1.301	1.276	Pass
CO (ppmvd) @15% O2				78.901	71.523	77.006	75.810	
CO (ppbvd) @15% O2				78900.728	71522.624	77005.625	75809.659	
CO (ppmvw)				225.105	204.140	220.050	216.432	
CO (ppmvd)				275.005	249.362	268.714	264.360	
CO (mol wt)				28.01				
NOx (g/hp-hr)	1.000			0.966	0.785	0.723	0.825	Pass
NOx (lbs/hr)		6.100		2.687	2.186	2.010	2.294	Pass
NOx (ppmvd) @15% O2				96.897	79.651	72.393	82.981	
NOx (ppbvd) @15% O2				96897.476	79650.991	72393.336	82980.601	
NOx (ppmvw)				276.450	227.340	206.870	236.887	
NOx (ppmvd)				337.731	277.701	252.619	289.351	
NOx (mol wt)				46.01				
NMNEHC (g/hp-hr)	0.700			0.017	0.017	0.016	0.017	Pass
NMNEHC (lbs/hr)		3.040		0.047	0.046	0.046	0.046	Pass
NMNEHC (ppmvd) @15% O2				1.770	1.757	1.718	1.748	
NMNEHC (ppbvd) @15% O2				1770.057	1757.059	1718.235	1748.450	
NMNEHC (ppmvw)				5.050	5.015	4.910	4.992	
NMNEHC (ppmvd)				6.169	6.126	5.996	6.097	
NMNEHC (mol wt)				44.10				

ENTERPRISE PRODUCTS OPERATING, L.P.

Quarterly Emission Test Results

Unit Number:	**13**	**Chaco 2B**
Test Conducted On:	**6/23/2021**	

Unit Operating Data

Engine Speed	300	RPM
Engine Timing	15.75	°BTDC
Engine Manifold Pressure	25.50	Psig
Engine Site Horsepower	3400	HP
Estimated Engine Horsepower	3264.00	HP
Estimated Engine % Load	96%	%
Engine Fuel Consumption	315	Scf/min
Engine Fuel Consumption	18900	Scf/hr
Engine BSFC	5796	BTU/bhp hr
Engine Fuel BTU Content (HHV)	1001	BTU
Exhaust Temperature	845	°F

Test Run Number	Run 1	Run 2	Run 3	Pre-Converter
Start Time	06:57:18	07:29:29	08:01:55	08:35:09
Stop Time	07:18:18	07:50:29	08:22:55	08:56:09

Measured Emissions	Run 1	Run 2	Run 3	Pre-Converter		Converter Efficiency
NO	275.41	320.91	334.45	282.45	ppm	
NO_2	27.54	32.09	33.45	28.25	ppm*	
NOx	302.95	353.00	367.90	310.70	ppm	-10%
CO	31.77	35.55	29.41	81.55	ppm	60%
O_2	16.13	16.27	16.29	17.14	%	

Emission Rates

NOx Measured	26.10	31.37	32.82	lbs/hr
CO Measured	1.66	1.92	1.60	lbs/hr

	Average	**Permit Limit**		
NOx Measured	**30.10**	**49.7**	**lbs/hr**	**Passed**
CO Measured	**1.73**	**1.8**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Annual Emission Test Results

Unit Number		Clark 3B	Test Conducted on
14			6/19/2019

Unit Operating Data

Engine Speed	298	rpm
Engine Timing	14.8	°BTDC
Engine Manifold Pressure	27.00	psig
Engine Site Horsepower	3194	hp
Estimated Engine Horsepower	3066	hp
Estimated Engine % Load	96%	%
Engine Fuel Consumption	369.1666667	cf/min
Engine Fuel Consumption	22150	cf/hr
Engine BSFC	7238	BTU/bhp hr
Engine Fuel BTU Content (HHV)	1002	BTU
Exhaust Temperaturee	855	°F

Test Run Number	Run 1	Run 2	Run 3	
Start Time	08:01:27	09:12:15	10:22:24	
Stop Time	09:01:27	10:12:15	11:22:25	
Measured Emissions	Run 1	Run 2	Run 3	
NO	292.38	308.57	314.92	ppm
NO_2	29.24	30.86	31.49	ppm*
NOx	321.61	339.43	346.41	ppm
CO	109.43	115.13	115.43	ppm
O_2	15.97	16.28	16.39	%
Emission Rates				
NOx Measured	31.47	35.43	37.07	lbs/hr
CO Measured	6.51	7.31	7.51	lbs/hr

	Average	Permit Limit		
NOx Measured	**34.66**	**49.7**	**lbs/hr**	**Passed**
CO Measured	**7.11**	**17.2**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Quarterly Emission Test Results

Unit Number:	**33**	**Chaco 8104**	**Test Conducted On:**	**3/27/2018**
Unit Operating Data				
Engine Speed	905	rpm		
Engine Timing	17.3	°BTDC		
Engine Manifold Pressure	25.25	psig		
Engine Site Horsepower	2087	hp		
Estimated Engine Horsepower	2024	hp		
Estimated Engine % Load	97%	hp		
Engine Fuel Consumption	236	cf/min		
Engine Fuel Consumption	14160	cf/hr		
Engine BSFC	7002	BTU/bhp hr		
Engine Fuel BTU Content (HHV)	1001	BTU		
Exhaust Temperaturee	954	°F		

Test Run Number	Run 1	Run 2	Run 3	Pre-Converter
Start Time	08:33:52	09:06:05	09:38:37	10:21:09
Stop Time	08:54:53	09:27:05	09:59:37	10:42:10

Measured Emissions	Run 1	Run 2	Run 3	Pre-Converter		Converter Efficiency
NO	41.73	42.95	45.41	24.14	ppm	
NO_2	5.91	5.86	5.73	21.45	ppm*	
NOx	47.64	48.82	51.14	45.59	ppm	-8%
CO	15.82	14.36	13.14	282.41	ppm	95%
O_2	15.08	15.00	14.70	14.71	%	

Emission Rates

NOx Measured	lbs/hr	2.52	2.55	2.54	
CO Measured	lbs/hr	0.51	0.46	0.40	

	Average	**Permit Limit**		
NOx Measured	**2.54**	**4.6**	**lbs/hr**	**Passed**
CO Measured	**0.45**	**0.9**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Quarterly Emission Test Results

Unit Number:	**34**	**Test Conducted By:**	**John Newberry**
Test Conducted On:	**6/12/2018**	**Chaco Cryo 8112**	

Unit Operating Data

Engine Speed	900	rpm
Engine Timing	17	°BTDC
Engine Manifold Pressure	25.00	psig
Engine Site Horsepower	2087	hp
Estimated Engine Horsepower	2004	hp
Estimated Engine % Load	96%	hp
Engine Fuel Consumption	236	cf/min
Engine Fuel Consumption	14160	cf/hr
Engine BSFC	7075	BTU/bhp hr
Engine Fuel BTU Content (HHV)	1001	BTU
Exhaust Temperaturee	955	°F

Test Run Number	Run 1	Run 2	Run 3	Pre-Converter
Start Time	07:48:33	08:21:06	08:54:26	09:28:30
Stop Time	08:09:33	08:42:06	09:15:26	09:49:30

Measured Emissions	Run 1	Run 2	Run 3	Pre-Converter		Converter Efficiency
NO	83.41	94.00	105.27	63.91	ppm	
NO_2	18.27	20.09	21.27	25.55	ppm*	
NOx	101.68	114.09	126.55	89.45	ppm	-28%
CO	12.55	12.73	13.50	183.45	ppm	93%
O_2	11.72	12.08	12.17	13.32	%	

Emission Rates

NOx Measured	lbs/hr	3.41	3.98	4.47
CO Measured	lbs/hr	0.26	0.27	0.29

	Average	Permit Limit		
NOx Measured	**3.95**	**4.6**	**lbs/hr**	**Passed**
CO Measured	**0.27**	**0.9**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP

ENTERPRISE PRODUCTS OPERATING, L.P.

Quarterly Emission Test Results

Unit Number:	**50**	**Bisti 8**	**Test Conducted On:**	**2/21/2018**

Unit Operating Data

Engine Speed	999	rpm
Engine Timing	17.4	°BTDC
Engine Manifold Pressure	25.35	psig
Engine Site Horsepower	3550	hp
Estimated Engine Horsepower	3443.5	hp
Estimated Engine % Load	97%	%
Engine Fuel Consumption	352	cf/min
Engine Fuel Consumption	21120	cf/hr
Engine BSFC	6139	BTU/bhp hr
Engine Fuel BTU Content (HHV)	1001	BTU
Exhaust Temperaturee	995	°F

Test Run Number	Run 1	Run 2	Run 3	Pre-Converter
Start Time	10:26:53	10:57	11:27	12:05
Stop Time	10:46:53	11:17	11:47	12:25

Measured Emissions	Run 1	Run 2	Run 3	Pre-Converter		Converter Efficiency
NO	45.50	47.95	61.14	48.55	ppm	
NO_2	10.23	10.50	13.68	18.73	ppm*	
NOx	55.73	58.45	74.82	67.27	ppm	6%
CO	2.64	2.23	2.00	387.41	ppm	99.409%
O_2	10.91	10.81	10.96	11.00	%	**Catalyst Passed**

Emission Rates

NOx Measured	lbs/hr	2.56	2.66	3.46
CO Measured	lbs/hr	0.07	0.06	0.06

	Average	**Permit Limit**		
NOx Measured	**2.89**	**5.1**	**lbs/hr**	**Passed**
CO Measured	**0.06**	**1.8**	**lbs/hr**	**Passed**

* NO_2 equals 10% NO or actual value whichever is higher per NMAQ SOP