

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF OXY USA INC. FOR APPROVAL OF 1,280-ACRE NON-STANDARD SPACING UNITS IN THE BONE SPRING & WOLFCAMP FORMATIONS COMPRISED OF ACREAGE SUBJECT TO A PROPOSED COMMUNITIZATION AGREEMENT, LEA COUNTY, NEW MEXICO.

CASE NO. 21908

AFFIDAVIT OF MORGAN BERBER

Morgan Berber, of lawful age and being first duly sworn, declares as follows:

1. My name is Morgan Berber and I am employed by Occidental Petroleum Company (“Oxy”) as a petroleum reservoir engineer.

2. This is my first time testifying before the New Mexico Oil Conservation Division. **Oxy Exhibit F-1** provides my educational background and work history since joining Oxy in 2014. My responsibilities have included the New Mexico Permian Basin since March of 2017. I believe my credentials qualify me to testify as an expert witness in petroleum engineering matters.

3. I am familiar with the application filed by Oxy in this case and the surface production facilities required to develop the oil underlying Sections 27 and 34, Township 22 South, Range 32 East, in Lea County, New Mexico. Oxy plans to develop various intervals of the Bone Spring and Wolfcamp formations underlying Sections 27 and 34 with the “Taco Cat” wells.

4. **Oxy Exhibit F-2** shows the existing tank battery and related surface production facilities for the Taco Cat 27_34 Federal Com #021H and Taco Cat 27_34 Federal Com # 031H wells drilled in the W/2 W/2 of Sections 27 and 34. Approval of Oxy’s application will allow the company to commingle production from additional wells drilled in Sections 27 and 34 at this existing Tank Battery.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. F
Submitted by: OXY USA INC.
Case No. 21908

5. **Oxy Exhibit F-3** shows the additional tank battery that will be required in the E/2 of Sections 27 and 34 if the subject area is developed using standard horizontal well spacing units.

6. **Oxy Exhibit F-4** identifies the reduced surface disturbance and cost savings that will occur if these non-standard spacing units are approved to allow commingling of production from the federal leases comprising Sections 27 and 34. The surface disturbance necessary for the production facilities will be reduced from 13 acres to 7.5 acres. This decreased surface impact is especially important for this project since I understand from Oxy's land department this area is within Prairie Chicken habitat.

7. Oxy Exhibit F-4 further reflects that if these non-standard spacing units are approved to allow commingling, there will be a \$9.046 million cost savings to Oxy and the working interest owners in the subject area. This substantial cost savings will not only make this project more competitive with drilling projects in other states but also lower the operating costs for the Taco Cat wells, thereby extending the productive life of these wells.

8. In my opinion, approval of the non-standard spacing units requested under Oxy's application in this case is in the best interest of conservation, the prevention of waste, and protection of correlative rights.

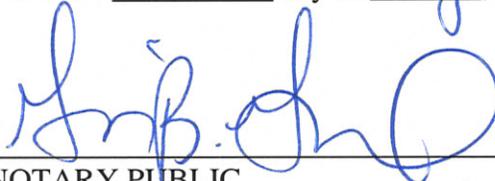
9. **Oxy Exhibits F-1 through F-4** were either prepared by me or compiled under my direction and supervision.

FURTHER AFFIANT SAYETH NOT.


MORGAN BERBER

STATE OF TEXAS)
)
COUNTY OF HARRIS)

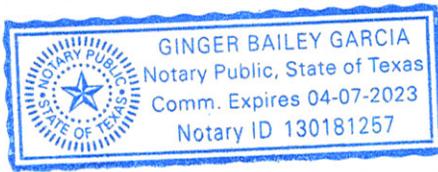
SUBSCRIBED and SWORN to before me this 1st day of July, 2021, by
Morgan Berber.



NOTARY PUBLIC

My Commission Expires:

4/7/2023



MORGAN BERBER

Houston, TX ▪ morgan_berber@oxy.com

PROFESSIONAL EXPERIENCE

OCCIDENTAL PETROLEUM CORPORATION ▪ HOUSTON, TX

Senior Development Reservoir Engineer | Delaware Basin, New Mexico | May 2018 – Present

- Provided field development planning and reservoir engineering support to generate executable short-term and strategic long-term field development plans (FDPs) for several key North New Mexico assets utilizing a decision quality approach. FDPs reflected portfolio optimization within a given price environment and addressed a wide range of aspects such as development sequencing, appraisal timing, uncertainty analysis, contingency planning, land strategy, facilities and takeaway strategy, and operational readiness.
- Led the team's efforts in reducing each field's breakeven (BE) oil price by \$10/bbl. Spearheaded several key BE optimizations, including changing the base spacing and completion design for 2BS in Tanks and re-planning Burton Flat to optimize lateral lengths and remove 7 facility trains.
- Managed the permitting process for 500+ wells by ensuring that all steps in the workflow, from staking the wells to acquiring approved permits, were completed in a timely manner and accurately reflected the most recent, optimized development plan.
- Collaborated with the Land and Inventory Growth teams to support the strategic vision and perform engineering and economic evaluations on acreage trades, acquisitions, and joint venture and farm out opportunities. Added more than 5,000 net acres to the Tanks and Burton Flat assets through successful execution.
- Led the team's efforts for quarterly inventory updates, annual Business Plan submissions and portfolio evaluations. Provided economics and required decision dates for executable projects and contingency options, as well as decision units and dependencies to enable project ranking and 10Y plan optimization.
- Served as the technical lead within the team. Mentored team members and created a training video library detailing Enersight economics (macro, breakeven), the permitting workflow, horizontal spacing units and train optimizations, and flow unit evaluations.

Staff Reservoir Engineer | Delaware Basin, New Mexico | March 2017 – May 2018

- Provided reservoir engineering support for several key assets as part of the South New Mexico Reservoir Management Team.
- Managed the production outlook to ensure the team was on target to meet the quarterly averages, annual average and exit rate as outlined in the Business Plan. Monitored well performance, drill and frac schedule timing, offset frac hit recovery times, well enhancement results, and planned and unplanned downtime. Collaborated with various functions to reflect any key learnings and operational challenges or opportunities in each monthly outlook.
- Collaborated with the Planning team in developing the Business Plan by providing high, base and low production scenarios.
- Collaborated with various functions to develop and submit several horizontal drilling AFE's for approval.
- Coordinated the Tanks vertical recompletion initiative, which involved performing a full field evaluation and collaborating with various disciplines to identify the top five recompletion candidates to be executed.

Reservoir Engineer | South Texas | July 2014 – March 2017

- Provided reservoir engineering support for 400+ natural gas wells as part of a South Texas Reservoir Management Team.
- Performed engineering and economic evaluations on potential capital workovers and future new drill locations and advanced them through the AFE approval process. Recommended 22 capital workovers and 5 new drill locations.
- Provided reserves estimates each calendar year by performing a thorough field analysis and utilizing decline curve analysis, flowing material balance and type curve analysis.
- Coordinated the South Texas division's efforts to reduce operational expenses in 2016 due to the significant drop in product prices. Analyzed profitability across various assets and made business decisions regarding these assets.

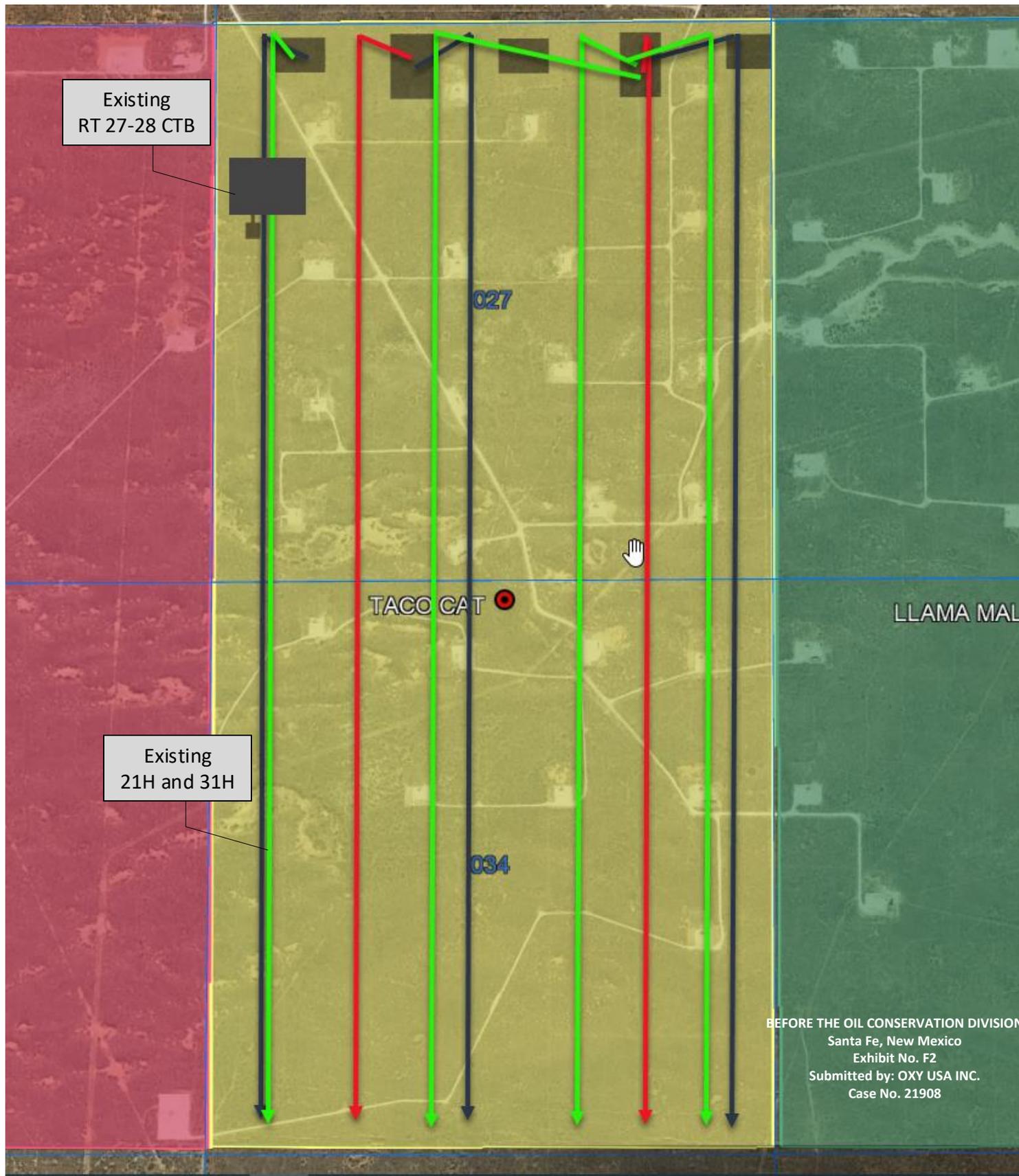
**BEFORE THE OIL CONSERVATION
DIVISION**
Santa Fe, New Mexico
Exhibit No. F1
Submitted by: OXY USA INC.
Case No. 21908

Reservoir Engineering Intern | South Texas | May 2013 – August 2013

Production Engineering Intern | Permian EOR | May 2012 – August 2012

EDUCATION

Carnegie Mellon University | Pittsburgh, PA
B.S. Chemical Engineering, May 2014



LEGEND

- TBS:
- WCXYA:
- SBS:

FACILITY: TACO CAT DEVELOPMENT – RT 27-28 CTB

AREA: NEW MEXICO TYPE: CTB ONEOXY:

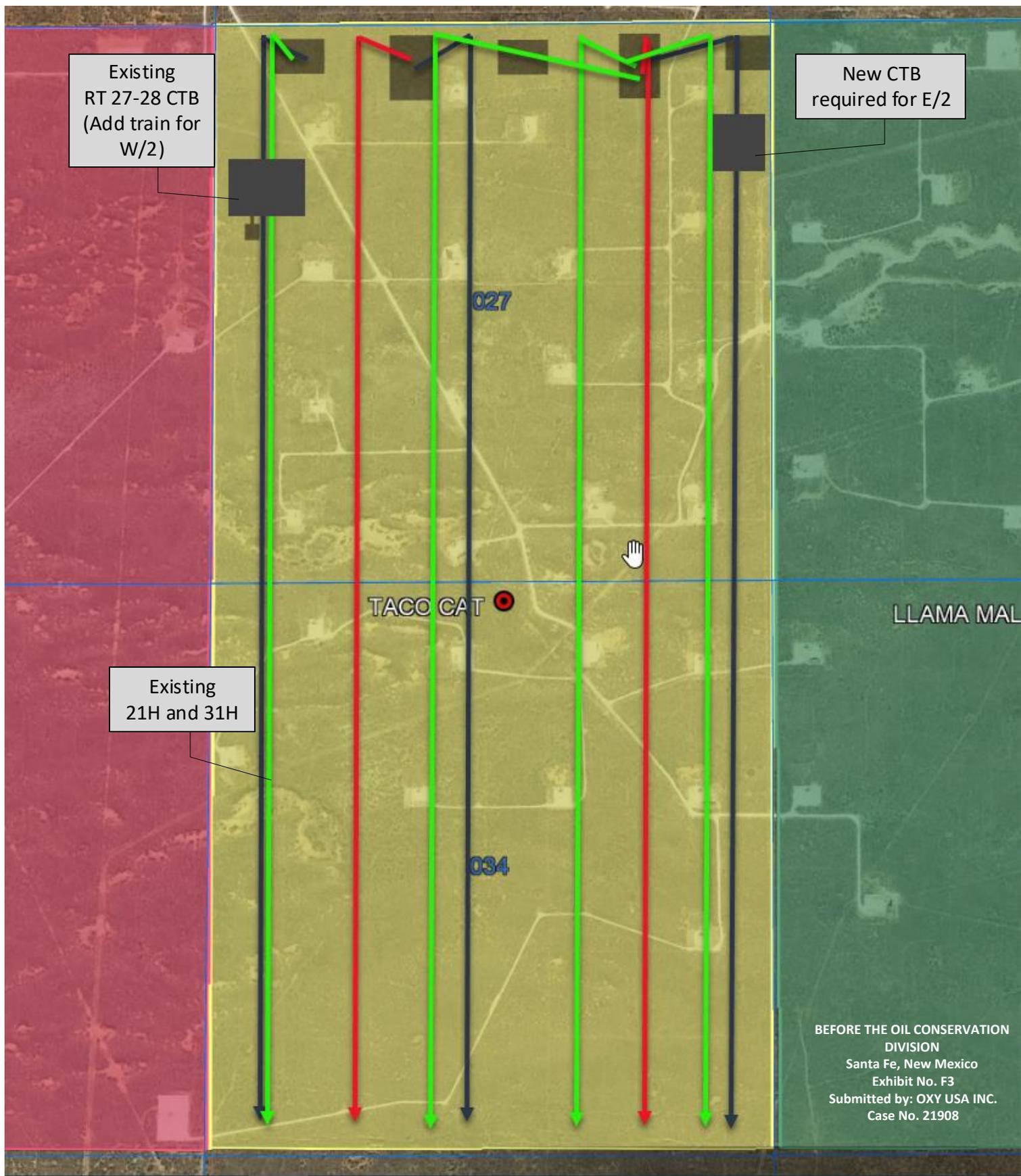
DWG TYPE: DEVELOPMENT EXHIBIT F2 (WITH CA)

DESCRIPTION: FACILITY LAYOUT/LOCATION



OXY USA INC. - Permian Resources
(Operator)

ASSET	BY	DATE	ENG DISC	NUMBER	SHEET
PER	AMB	6/23/2021	FAC	0001	001



BEFORE THE OIL CONSERVATION
DIVISION
Santa Fe, New Mexico
Exhibit No. F3
Submitted by: OXY USA INC.
Case No. 21908

LEGEND

- TBS:
- WCXYA:
- SBS:

FACILITY: TACO CAT DEVELOPMENT – RT 27-28 CTB

AREA: NEW MEXICO TYPE: CTB ONEOXY:

DWG TYPE: DEVELOPMENT EXHIBIT F3 (WITHOUT CA)

DESCRIPTION: FACILITY LAYOUT/LOCATION



OXY USA INC. - Permian Resources
(Operator)

ASSET	BY	DATE	ENG DISC	NUMBER	SHEET
PER	AMB	6/23/2021	FAC	0001	001

Scenario	Description	Design Basis/CTB (BOPD)	CTB Cost (\$M)	Flowline Cost (\$M)	\$M/Well	Total (\$M)	CTB Disturbance Area (Acres)
With NSHSU	Add train to RT 27-28 CTB	16,000	7,900	761	1,129	8,661	7.5 (existing)
W/Out NSHSU	Add train to RT 27-28 CTB for W/2 and build new CTB for E/2	10,000	17,000	707	2,429	17,707	13
SAVINGS					\$	9,046	5.5

BEFORE THE OIL CONSERVATION DIVISION
 Santa Fe, New Mexico
 Exhibit No. F4
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 Case No. 21908

FACILITY: TACO CAT DEVELOPMENT – RT 27-28 CTB			 OXY USA INC.- Permian Resources (Operator)					
AREA: NEW MEXICO	TYPE: CTB	ONEOXY:						
DWG TYPE: EXHIBIT F4			ASSET	BY	DATE	ENG DISC	NUMBER	SHEET
DESCRIPTION: FACILITY COST COMPARISON			PER	AMB	6/23/2021	FAC	0001	001