

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Torch Energy Services, Inc. 1331 Lamar, Suite 1450 Houston, TX 77010		² OGRID Number 241401
		³ API Number 30-025-11136
⁴ Property Code 302966	⁵ Property Name Cooper Jal Unit	⁶ Well No. 145
⁹ Proposed Pool 1 Jalmat, Tansill, Yates, 7 Rivers (Oil)		¹⁰ Proposed Pool 2 Langlie Mattix; 7 Rivers, Queen, Grayburg

7 Surface Location

UL or lot no. G	Section 18	Township 24S	Range 37E	Lot Idn	Feet from the 1980	North/South line North	Feet from the 1980	East/West line East	County Lea
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8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Additional Well Information

¹¹ Work Type Code E	¹² Well Type Code O/I	¹³ Cable/Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3293'
¹⁶ Multiple	¹⁷ Proposed Depth 3700'	¹⁸ Formation Queen	¹⁹ Contractor	²⁰ Spud Date
Depth to Groundwater 120'		Distance from nearest fresh water well >1000'		Distance from nearest surface water >1000'
Pit: Liner: Synthetic ☐ _____mils thick Clay ☐ Pit Volume: _____ bbls Drilling Method: Closed-Loop System ☒ Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11"	8 5/8"	32	1238'	250	340'
7 7/8"	5 1/2"	17	3447'	200	2395'
Permit Expires 1 Year From Approval Date Unless Drilling Underway Re-Entry					

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

- 1.) Re-enter CJU #145 (well was plugged 3/3/2000).
- 2.) Drill out 4 cement plugs @ surface-30', 1135'-1460', 2700'-3100' & 3365'-3400'. Drill out CIBP @ 3400'.
- 3.) Pressure Test 5 1/2" casing set @ 3447'.
- 4.) Clean out well to 3700' with 4 3/4" Bit (included 109' of new hole).
- 5.) Test well for production potential (open hole from 3447'-3700').
- 5.) Test well for water injection potential.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature:

Printed name: Melanie Reyes

Title: Production Assistant

E-mail Address: reyesm@odessa.teai.com

Date: 5/7/07

Phone: 432-580-8500

OIL CONSERVATION DIVISION

Approved by:

OC DISTRICT SUPERVISOR/GENERAL MANAGER

Title:

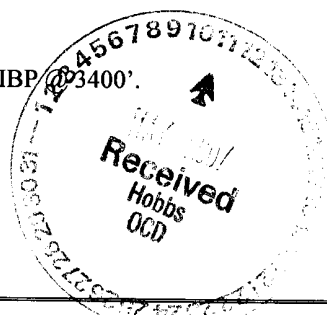
OC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date:

MAY 21 2007

Expiration Date:

Conditions of Approval Attached ☐



WELLBORE SCHEMATIC AND HISTORY

CURRENT COMPLETION SCHEMATIC		LEASE NAME	Cooper Jal Unit		WELL NO. (Formerly No. 302)	145 W	
Surface Csg Hole Size: 11 in Csg. Size: 8 5/8 in Set @: 1238 ft Sxs Cmt: 250 Circ: No TOC @: 340 ft f/ surf TOC by: calc 9.5 ppg gelled brine ↑ Cmt plug 30'-surface ↑ 9.5 ppg gelled brine ↓ Cmt Plug 1460'-1135' 50 sxs sqz'd ↑ 9.5 ppg gelled brine ↓ Cmt Plug 2700 - 3100' 34 sxs ↑ 9.5 ppg gelled brine ↓ Production Csg Hole Size: 7 7/8 in Csg. Size: 5 1/2 in Set @: 3447 ft Sxs Cmt: 200 Circ: No TOC @: 2395 f/ surf TOC by: calc TOC @ 340' Perf'd 6 holes @ 1460' TOC@ 2395' By Calc. 4 SQZ holes at 2900' Yates @ 2915' 2948' 3048' 7-Rivers @ 3185' 25 sxs cmt CIBP @3400' OH Interval 3447 - 3591' Queen @ 3555' PBTD: 3591 ft TD: 3591 ft OH ID: 4 3/4 in		STATUS:	P&A'D	Water Injector	API#	30-025-11136	
		LOCATION:	1980 FNL & 1980 FEL, Sec 18, T - 24S, R - 37E; Lee County, New Mexico				
		SPUD DATE:	02/15/46	TD	3591	KB	3,315' DF
		INT. COMP. DATE:	03/25/46	PBTD	3591	GL	3,293'
ELECTRIC LOGS: GR-CCL from 2700 - 3474 (2-12-53 Schlumberger) HYDROCARBON BEARING ZONE DEPTH TOPS: Yates @ 2915' 7-Rivers @ 3185' Queen @ 3555' GEOLOGICAL DATA CORES, DST'S or MUD LOGS:							
CASING PROFILE SURF. 8 5/8" - 40#, J-55 set@ 1238' Cmt'd w/250 sxs - TOC @ 340' from surf by calc PROD. 5 1/2" - 14#, J-55 set@ 3447' Cmt'd w/250 sxs - TOC @ 2395' from surface by calc LINER None CURRENT PERFORATION DATA CSG. PERFS: 2948 - 3048 w/ 2 spf (200 holes total) OPEN HOLE : 3447 - 3591' Note: Shot 4 holes @ 2900' & swab tst. Sqz'd perfs.							
TUBING DETAIL		ROD DETAIL					
WELL HISTORY SUMMARY 15-Feb-46 Initial completion interval: 3447 - 3591' (7RVR/Queen OH). Shot OH w 250 qts nitroglicem. IP= 61 bopd, 0 bwpd, & GOR=1993 (Flowing) 17-Feb-53 Ran GR-N log from 3474 - 2700'. Set BP @ 3350'. Shot 4 holes @ 2900' & swab tst for water - shut off. Perf'd (Yates) 2948 - 3048' w/ 2 spf. Acidized perfs w/1,500 gals 15% NEFE HCL. Frac'd w/5,000 gals lse oil & 3,000#s sand. AOF= 1,500 Mcfgpd. Produced 925 Mcfgpd @ 600 psi. 1-Feb-71 Production for Jan-71 was 2,849 Mcf. Cumulative Production = 1.56 Bcf 23-Jul-71 CONVERTED TO INJECTOR: Dried out BP @ 3350'. C/O fill from 3540 - 91'. RIH w/pkr on 2 3/8" CL tbg. Set pkr @ 3395'. Placed well on injection. 12-Sep-87 C/O from 3516 - 91' (75'). Acidz'd OH (3447 - 3591') w/ 3,000 gals 15% NEFE HCL in 3 equal stages using 750#'s rocksalt between each stage. AIR=2 bpm @ Pavg=1050 psi. ISIP=800 psi, P15min=400 psi. Installed new cmt lined tubing & pkr. Set pkr @ 3374'. Initiated injection @ 425 bwpd @ TP=vacuum. 3-Mar-00 Set CIBP @ 3400'. Displaced wellbore w/gelled brine. Spot 25 sxs cmt on top of CIBP @ 3400'. Spot 50 sxs cmt from 3100 - 2700' Perf'd 6 holes @ 1460'. Sqz'd with 50 sxs cmt into perfs @ 1460' @ 1 1/4 bpm & 750 psi. WOC. Tag TOC @ 1135'. Spot 15 sxs cmt from 30' - surface. Cut off wellhead and cap casing. Installed Dry hole marker & cleaned location. NMOCD notified - well P&A'd 3-3-2000.							
PREPARED BY:		Larry S. Adams		UPDATED:	09-Sep-02		

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State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005

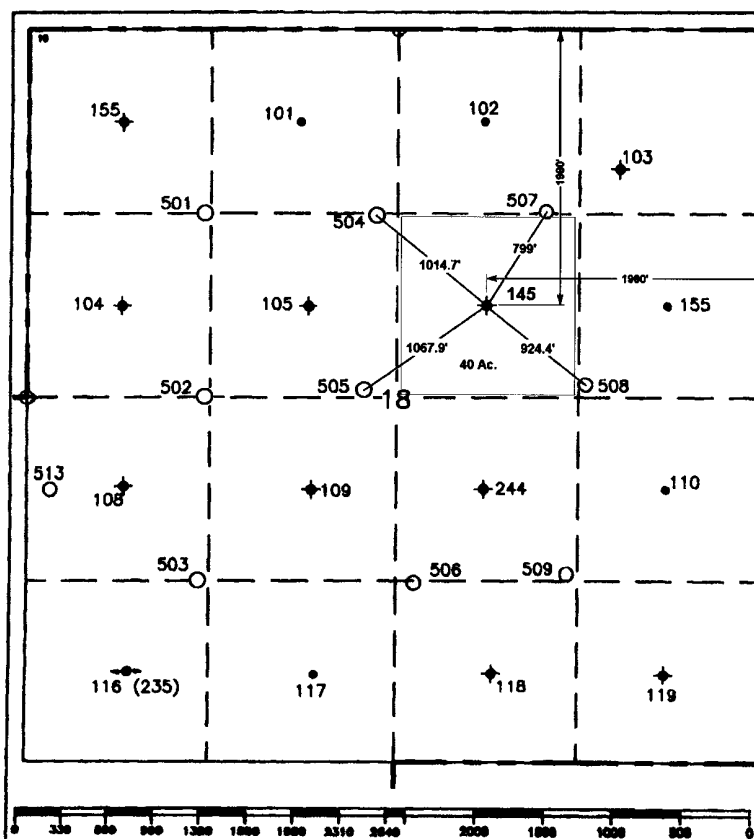
Submit to Appropriate District Office
State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-11136		2 Pool Code		3 Pool Name Jalmat; Langlie Mattix	
4 Property Code		5 Property Name Cooper Jal Unit			6 Well Number 145
7 OGRD No. 193003		8 Operator Name TORCH ENERGY SERVICES, INC.			9 Elevation 3293'
10 Surface Location					
UL or lot no. G	Section 18	Township 24-S	Range 37-E	Lot Idn 1980'	Feet from the North/South line North Feet from the East/West line East County Lea
11 Bottom Hole Location If Different From Surface					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the North/South line Feet from the East/West line County
12 Dedicated Acres 40		13 Joint or Infill		14 Consolidation Code	15 Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.



17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.	
Signature <i>Jim Kidd</i>	Date 5-10-2007
Printed Name Jim Kidd	
18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date of Survey	
Signature & Seal of Professional Surveyor:	
Certificate No.	

○ = Staked Location ● = Producing Well ⊙ = Injection Well ◇ = Water Supply Well ◆ = Plugged & Abandon Well
● = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates			
Northing 445327.32		Easting 891923.8	
Latitude		Longitude	
Zone	North American Datum	Combined Grid Factor	Coordinate File
East	1983/86	0.99988900	
Drawing File		Field Book	

09/2 /2 12:06pm P. 002

Sep 20 02 01:33p Vista

915-367-2678

p. 1

NL Shaffer

Pressure Control

RAM ASSEMBLIES AND PARTS FOR SENTINEL BOPS

SENTINEL RAM ASSEMBLIES 7 1/4" BORE — 3,000 psi WORKING PRESSURE				
Part No. (Sketch)	Complete Assembly	Gun Block	Part Number	
ESD	721773	721774	721775	
1 3/4"	721773	721774	721775	
1 1/2"	721773	721774	721775	
1 1/4"	721773	721774	721775	
3/4"	721773	721774	721775	
2 1/4"	721773	721774	721775	
2 1/2"	721773	721774	721775	
2 3/4"	721773	721774	721775	
3"	721773	721774	721775	
3 1/4"	721773	721774	721775	
Common Part Numbers: 721520 Ram Body 721522 Top Header				

SENTINEL OFFSET RAM ASSEMBLIES 7 1/4" BORE — 3,000 psi WORKING PRESSURE				
Size and Location*	Complete Assembly	Gun Block	Part Number	Blow Casing
1 3/4" — RH	721822	721823	721824	721825
1 3/4" — LH	721822	721823	721824	721825
1 1/2" — RH	721822	721823	721824	721825
1 1/2" — LH	721822	721823	721824	721825
1 1/4" — RH	721822	721823	721824	721825
1 1/4" — LH	721822	721823	721824	721825
3/4" — RH	721822	721823	721824	721825
3/4" — LH	721822	721823	721824	721825
2 1/4" — RH	721822	721823	721824	721825
2 1/4" — LH	721822	721823	721824	721825
2 1/2" — RH	721822	721823	721824	721825
2 1/2" — LH	721822	721823	721824	721825
2 3/4" — RH	721822	721823	721824	721825
2 3/4" — LH	721822	721823	721824	721825
3" — RH	721822	721823	721824	721825
3" — LH	721822	721823	721824	721825
3 1/4" — RH	721822	721823	721824	721825
3 1/4" — LH	721822	721823	721824	721825
Common Part Numbers: 721520 Ram Body 721522 Top Header				

* These blocks and headers require 1/2" x 1/4" x 1/4" NPT

11	Top Plate	1
12	Top Plate	1
13	Top Plate	1
14	Top Plate	1
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92	Top Plate	1
93	Top Plate	1
94	Top Plate	1
95	Top Plate	1
96	Top Plate	1
97	Top Plate	1
98	Top Plate	1
99	Top Plate	1
100	Top Plate	1

* Quantity for single BOP only. Double quantity for dual mode.
All parts are in stock.* These blocks and headers require 1/2" x 1/4" x 1/4" NPT
* These blocks and headers require 1/2" x 1/4" x 1/4" NPT