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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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NMOCD ARTESIA

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|-----------------------------------|--|--|
| API Number 30-015-41233 | Pool Code 96830 | Pool Name Artesia; Glorieta-Yaso |
| Property Code 309600 | Property Name MCHAM "34" STATE | Well Number 4 |
| OGRID No. 157984 | Operator Name OCCIDENTAL PERMIAN LIMITED PARTNERSHIP | Elevation 3664.6' |

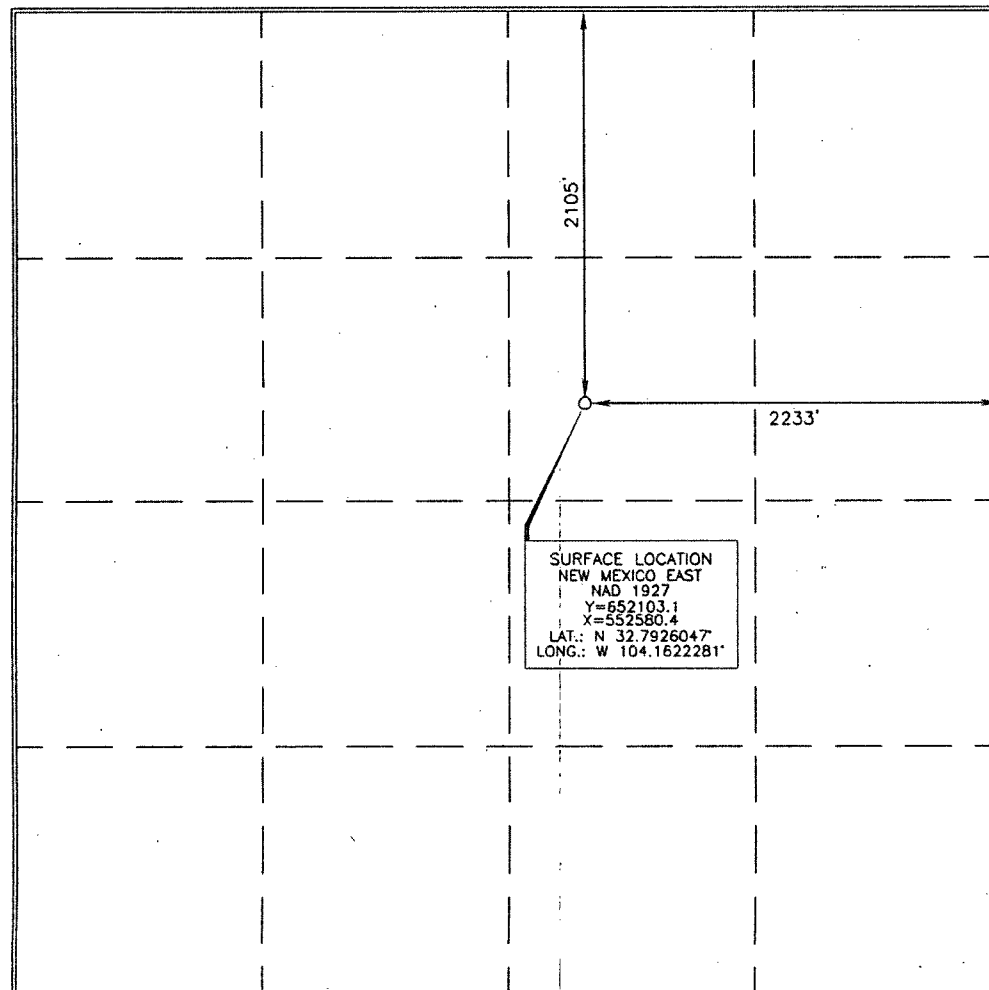
Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|-----------|-----------------|--------------------------|---------|---------------|------------------|---------------|----------------|-------------|
| G | 34 | 17 SOUTH | 28 EAST, N.M.P.M. | | 2105' | NORTH | 2233' | EAST | EDDY |

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 |
|------------------------------|---------|-----------------|--------------------|-----------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |
| Dedicated Acres 40 | | Joint or Infill | Consolidation Code | 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.



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 unleased 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 to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: **Jennifer Duarte** Date: **3/21/13**
Printed Name: **Jennifer Duarte**
E-mail Address: **jennifer.duarte@oxy.com**

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 belief.

Date of Survey: **AUGUST 7, 2012**
Signature and Seal: **Jerry J. Abel**
Professional Surveyor: **15079**

Certificate Number: **15079**

APD DATA - DRILLING PLAN -

OPERATOR NAME / NUMBER: Occidental Permian LP

157984

LEASE NAME / NUMBER: McHam 34 State # 4

STATE: NM

COUNTY: Eddy

SURFACE LOCATION: 2105' FNL & 2233' FEL, Sec 34, T17S, R28E

Surface Location: LAT: 32.7926047 N LONG: 104.1622281 W X: 552580.4 Y: 652103.1 NAD: 27

C-102 PLAT APPROX GR ELEV: 3664.6' EST KB ELEV: 3678.6' (14' KB)

1. GEOLOGIC NAME OF SURFACE FORMATION:

a. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| Formation | TV Depth Top | Expected Fluids |
|--------------|--------------|-----------------|
| Rustler | 276 | Fresh Water |
| Top of Salt | 438 | - |
| Base of Salt | 460 | - |
| Yates | 535 | - |
| Seven Rivers | 750 | - |
| Queen | 1370 | - |
| Grayburg | 1820 | Oil |
| San Andres | 2150 | Oil/Water |
| Glorietta | 3700 | Oil |
| Paddock | 3840 | Oil |
| Blinberry | 4310 | Oil |
| TD | 5300 | Oil |

A. Fresh Water formation is outcropping and will be covered with the 16" conductor pipe, which will be set at 80' prior to spud.

GREATEST PROJECTED TD: 5300' MD/ 5300' TVD **OBJECTIVE:** Yeso

3. CASING PROGRAM: (All casing is in NEW condition)

Surface Casing: 11 3/4" casing set at $\pm 450'$ MD/ 450' TVD in a 14 3/4" hole filled with 8.40 ppg mud

| Interval | Length | Wt | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | Drift (in) | SF Coll | SF Burst | SF Ten |
|----------|--------|----|------|------|-------------------|--------------------|----------------|---------|------------|---------|----------|--------|
| 0'- 450' | 450' | 42 | H-40 | ST&C | 1070 | 1980 | 307 | 11.084 | 10.928 | 7.06 | 3.27 | 18.64 |

Intermediate Casing: 8 5/8" casing set at $\pm 1800'$ MD / 1800' TVD in a 10 5/8" hole filled with 9.6 ppg mud

| Interval | Length | Wt | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | Drift (in) | SF Coll | SF Burst | SF Ten |
|-----------|--------|----|------|------|-------------------|--------------------|----------------|---------|------------|---------|----------|--------|
| 0'- 1800' | 1800' | 32 | J-55 | LT&C | 2530 | 3930 | 417 | 7.921 | 7.875 SD | 3.52 | 1.86 | 8.49 |

Production Casing: 5.5" casing set at $\pm 5300'$ MD / 5300' TVD in a 7 7/8" hole filled with 9.6 ppg mud

| Interval | Length | Wt | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | Drift (in) | SF Coll | SF Burst | SF Ten |
|-----------|--------|----|------|------|-------------------|--------------------|----------------|---------|------------|---------|----------|--------|
| 0'- 5300' | 5300' | 17 | J-55 | LT&C | 4910 | 5320 | 247 | 4.892 | 4.767 | 1.86 | 2.51 | 3.21 |

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

4. CEMENT PROGRAM:

Surface Interval

| Interval | Amount sx | Ft of Fill | Type | Gal/Sk | PPG | Ft ³ /sk | 24 Hr Comp |
|--|--------------|---------------|---|--------|-------|---------------------|---------------|
| Surface (TOC: 0' – 450') | | | | | | | |
| Lead: 0' – <u>450'</u> (150 % Excess) | 390 | 450' | Premium Plus Cement, with 1% Calcium Chloride – Flake | 6.36 | 14.80 | 1.34 | 1608 psi |

Intermediate Interval

| Interval | Amount sx | Ft of Fill | Type | Gal/Sk | PPG | Ft ³ /sk | 24 Hr Comp |
|--|--------------|---------------|---|--------|------|---------------------|---------------|
| Intermediate (TOC: 0' - 1800') | | | | | | | |
| Lead: 0' – 1200' (150 % Excess) | 280 | 1200' | Halliburton Light Premium Plus, with 5 lbm/sk Salt, 5 lbm/sk Kol-Seal | 9.72 | 12.9 | 1.9 | 655 psi |
| Tail: 1200' - <u>1800'</u> (150 % Excess) | 240 | 600' | Premium Plus Cement | 6.34 | 14.8 | 1.33 | 1914 psi |

Production Interval

| Interval | Amount sx | Ft of Fill | Type | Gal/Sk | PPG | Ft ³ /sk | 24 Hr Comp |
|--|--------------|---------------|---|--------|------|---------------------|---------------|
| Production (TOC: 0' - 5300') | | | | | | | |
| Lead: 0' – 2800' (100 % Excess) | 290 | 2800' | Interfill C, with 0.4 % HR-800, 0.25 % D-AIR 5000 | 14.34 | 11.9 | 2.48 | 327 psi |
| Tail: 2800' - <u>5300'</u> (100 % Excess) | 570 | 2500' | Premium Plus, with 0.5% Halad ®-344, 0.2 % WellLife 734, 0.3 % Econolite, 0.3 % CFR-3, 5 lbm/sk Microbond | 7.72 | 14.2 | 1.55 | 1914 psi |

Description of cement additives: Calcium Chloride – Flake (Accelerator), Kol-Seal (Lost Circulation Additive), Interfill C (Cement), HR-800 (Retarder), D-AIR 5000 (Defoamer), Halad ® -344 (Low Fluid Loss Control), WellLife 734 (Cement Enhancer), Microbond (Expander), Econolite (Light Weight Additive), CFR-3 (Dispersant)

5. DIRECTIONAL PLAN

Vertical well

6. PRESSURE CONTROL EQUIPMENT:

Surface: 0 – 450' None.

Intermediate: 0 - 1800' the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi. Operator will be using an 11" 3M two ram stack with 3M annular preventer and 3M Choke Manifold.

- a. The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 11 3/4" surface casing and the 11 3/4" SOW x 13 5/8" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary.
- b. The BOP and ancillary BOPE will be tested by a third party. All equipment will be tested to 250/1386 against the surface casing (70% of casing burst) psi for 30 minutes by a third party and charted.
- c. The pipe rams will be functionally tested every 24 hours; the blind rams will be functionally tested on every trip out of the hole. These functional tests will be documented on the Daily Driller's Log.
- d. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 "choke line having a 3000 psi WP rating, tested to 3000 psi.

Production: 0 – 5300' will be drilled with an 11" 3M two ram stack with a 3M annular preventer and 3M Choke Manifold.

- a. The BOP and ancillary BOPE will be tested by a third party upon installation to the 8 5/8" intermediate casing. All equipment will be tested to 3000 psi (high) and 250 psi (low) except the annular, which will be tested to 70% of its rated working pressure, 2100 psi (high) and 250 psi (low) for ten minutes each. All test will performed against a test plug with the Section B Wellhead valve open to assure that the test is not being performed against the casing
- b. The pipe rams will be functionally tested every 24 hours; the blind rams will be functionally tested on every trip out of the hole. These functional tests will be documented on the Daily Driller's Log.
- c. Same as above
- d. Same as above
- e. Oxy requests a variance so to use a co-flex line between the BOP and choke manifold. (schematic attached)
Manufacturer: Hebei Ouya Ltd.
Serial Number: 1642343-04
Length: 39" Size: 3" Ends: flanges
WP rating: 3000 psi Anchors required by manufacturer: No
- f. See attached BOP & Choke manifold diagrams.

7. MUD PROGRAM:

| Depth | Mud Wt ppg | Vis Sec | Fluid Loss | Type System |
|---------------|---------------|------------|------------|-----------------------|
| 0 – 450' | 8.4 – 8.9 | 32 – 34 | NC | Fresh Water /Spud Mud |
| 450' – 1800' | 9.6 – 10.0 | 28 – 40 | NC | Brine Water |
| 1800' – 5300' | 9.6 – 10.0 | 28 – 40 | 10-20 | Fresh Water /Spud Mud |

8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. **If Hydrogen Sulfide is encountered , measured amounts and formations will be reported to the NMOCD**

9. POTENTIAL HAZARDS:

- H2S detection and breathing equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- The bottomhole pressure is anticipated to be 2645 psi. (0.5 psi/ft)
- No abnormal temperatures or pressures are anticipated.
- Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after the NMOCD has approved the APD. Anticipated spud date will be as soon as possible after location is built. Move in operations and drilling is expected to take 18 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

10. MUD AND WIRELINE LOGGING:

- Mud logging: from Intermediate casing to TD.
- Open Hole Logging as follows: Triple Combo from TD to the shoe of the intermediate CSG

COMPANY PERSONNEL:

| <u>Name</u> | <u>Title</u> | <u>Office Phone</u> | <u>Mobile Phone</u> |
|-------------------|------------------------------|---------------------|---------------------|
| Anthony Tschacher | Drilling Engineer | (713)985-6949 | (832)270-6883 |
| Sebastian Millan | Drilling Engineer Supervisor | (713)350-4950 | (832)528-3268 |
| Roger Allen | Drilling Superintendent | (713)215-7617 | (281)682-3919 |
| Douglas Chester | Drilling Manager | (713)366-5194 | (713)918-9124 |