

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM .87505



### ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]

[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]

[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]

[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]

[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]

[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

#### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

KARLIE CASTILLO

Print or Type Name

see letter

Signature

LEAD REGULATORY ANALYST

Title

SEP 14, 2015

Date

e-mail Address



September 14, 2015

RECEIVED OGD

2015 SEP 15 A 4: 44

Phillip Goetze  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Saltwater Disposal Application

Maljamar 27 SWD #3  
API# Pending  
N-27-17S-32E  
225 FSL & 2185 FWL  
SWD; Wolfcamp 96135  
Lea County, New Mexico

Mr. Goetze:

COG Operating LLC respectfully requests administrative approval for authorization to inject the Maljamar 27 SWD #3 for SWD purposes. This well will be a new drill, completing for purpose of a saltwater disposal. We would like approval to inject into the Wolfcamp interval, located between 9,650' – 10,500'.


Please contact me at 432-685-4332 or email at [kcastillo@concho.com](mailto:kcastillo@concho.com) if you need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "K Castillo", written over a horizontal line.

Kanicia Castillo  
Lead Regulatory Analyst  
COG Operating LLC

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? Yes No
- II. OPERATOR: COG Operating LLC  
ADDRESS: One Concho Center, 600 W. Illinois Ave, Midland, TX 79701  
CONTACT PARTY: Kanicia Castillo PHONE: 432-685-4332
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes X No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Kanicia Castillo TITLE: Lead Regulatory Analyst  
SIGNATURE:  DATE: 09/11/15  
E-MAIL ADDRESS: kcastillo@concho.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

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**NOTICE:** Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

## INJECTION WELL DATA SHEET

OPERATOR: COG Operating LLCWELL NAME & NUMBER: Maljamar 27 SWD #3

WELL LOCATION: <u>225' FSL &amp; 2185 FWL</u>	<u>N</u>	<u>27</u>	<u>17S</u>	<u>32E</u>
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attachment

WELL CONSTRUCTION DATASurface Casing

Hole Size: <u>17-1/2"</u>	Casing Size: <u>13-3/8"</u>
Cemented with: <u>725</u> sx.	or _____ ft <sup>3</sup>
Top of Cement: <u>Surface</u>	Method Determined: <u>Circ</u>

Intermediate Casing

Hole Size: <u>12-1/4"</u>	Casing Size: <u>9-5/8"</u>
Cemented with: <u>650</u> sx.	or _____ ft <sup>3</sup>
Top of Cement: <u>Surface</u>	Method Determined: <u>Circ</u>

Production Casing

Hole Size: <u>8-3/4"</u>	Casing Size: <u>7</u>
Cemented with: <u>1300</u> sx.	or _____ ft <sup>3</sup>
Top of Cement: <u>Surface</u>	Method Determined: <u>Circ</u>
Total Depth: <u>9,650'</u>	

Injection IntervalOpen Hole 9,650' feet to 10,500'

(Perforated or Open Hole; indicate which)

## INJECTION WELL DATA SHEET

Tubing Size: 3-1/2" Lining Material: Poly Lined

Type of Packer: AS-1X Compression Set; Double Grip

Packer Setting Depth: 9,600'

Other Type of Tubing/Casing Seal (if applicable): N/A

### Additional Data

1. Is this a new well drilled for injection?   X   Yes        No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

1. The first part of the document is a title page. It contains the title "The Role of the State in the Development of the Economy" and the author's name "John Doe".

2. Name of the Injection Formation: Wolfcamp Reef

3. Name of Field or Pool (if applicable): Wolfcamp; SWD

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. N/A

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

[illegible]

San Andres - 4,150'

\_\_\_\_\_

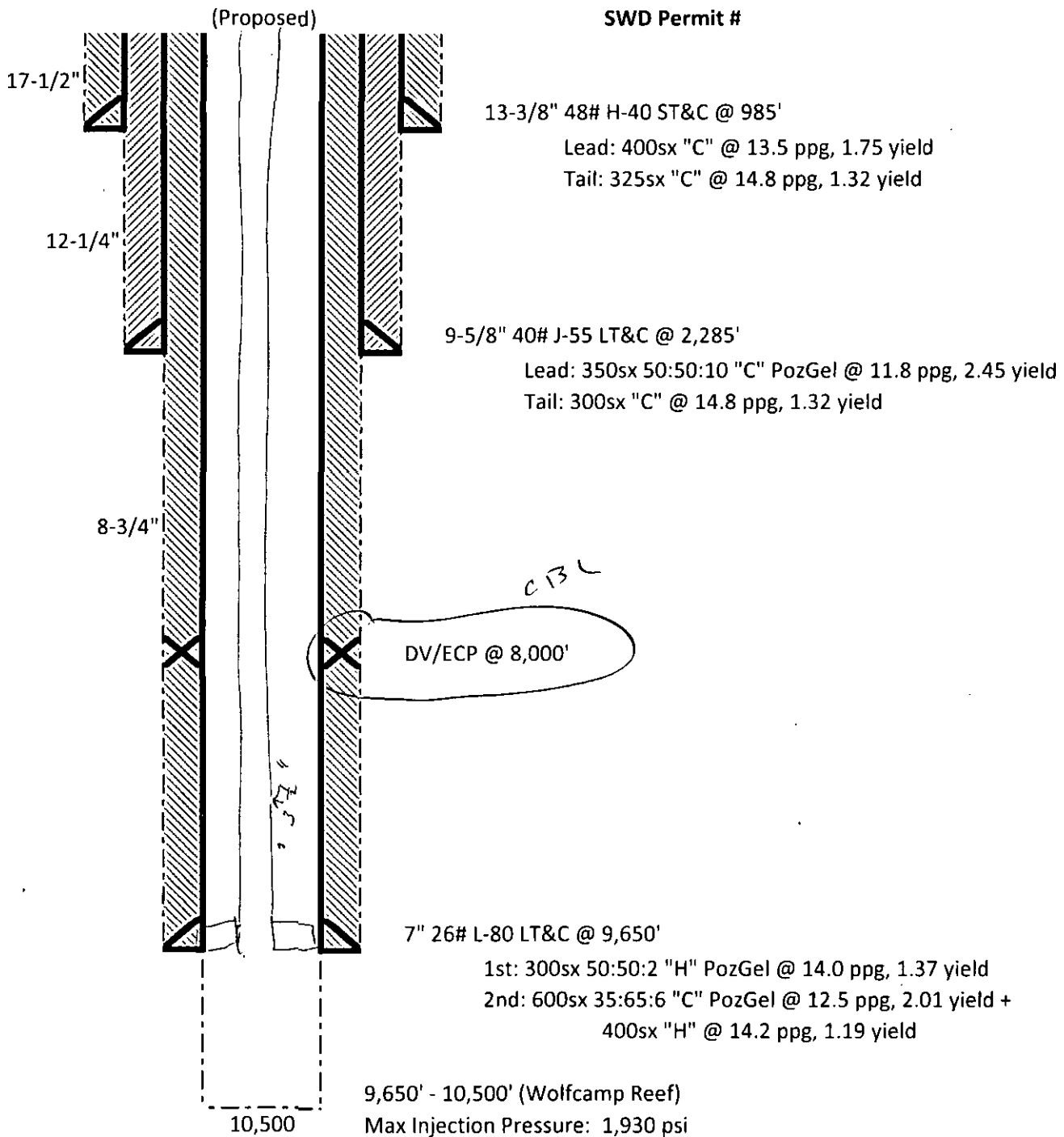
Yeso - 6,045'

| Category             | All respondents | 18-24 | 25-34 | 35-44 | 45-54 |
|----------------------|-----------------|-------|-------|-------|-------|
| 1. No answer (0-10%) | ~10%            | ~5%   | ~10%  | ~10%  | ~10%  |
| 2. No answer (0-10%) | ~10%            | ~10%  | ~10%  | ~10%  | ~10%  |
| 3. No answer (0-10%) | ~10%            | ~10%  | ~10%  | ~10%  | ~10%  |
| 4. No answer (0-10%) | ~10%            | ~10%  | ~10%  | ~10%  | ~10%  |
| 5. No answer (0-10%) | ~10%            | ~10%  | ~10%  | ~10%  | ~10%  |

Wolfcamp - 9,345'

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Maljamar 27 SWD #3  
225' FSL; 2,185' FWL  
N, 27, T17S, R32E, Lea Co., NM  
API#  
SWD Permit #



District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |                      |  |                     |                       |                             |                                  |                              |                               |                      |
|---|----------------------|--|---------------------|-----------------------|-----------------------------|----------------------------------|------------------------------|-------------------------------|----------------------|
| 1 API Number                                      |                      | 2 Pool Code                                  |                     | 3 Pool Name           |                             |                                  |                              |                               |                      |
| 4 Property Code                                   |                      | 5 Property Name<br><b>MALJAMAR 27 SWD</b>    |                     |                       |                             |                                  |                              | 6 Well Number<br><b>3</b>     |                      |
| 7 GRID NO.  |                      | 8 Operator Name<br><b>COG OPERATING, LLC</b> |                     |                       |                             |                                  |                              | 9 Elevation<br><b>3962'</b>   |                      |
| 10 Surface Location                               |                      |  |                     |                       |                             |                                  |                              |                               |                      |
| UL or lot no.<br><b>N</b>                         | Section<br><b>27</b> | Township<br><b>17S</b>                       | Range<br><b>32E</b> | Lot Idn               | Feet from the<br><b>225</b> | North/South line<br><b>SOUTH</b> | Feet From the<br><b>2185</b> | East/West line<br><b>WEST</b> | County<br><b>LEA</b> |
| 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                                |                      | 13 Joint or Infill                           |                     | 14 Consolidation Code |                             | 15 Order No.                     |                              |                               |                      |

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

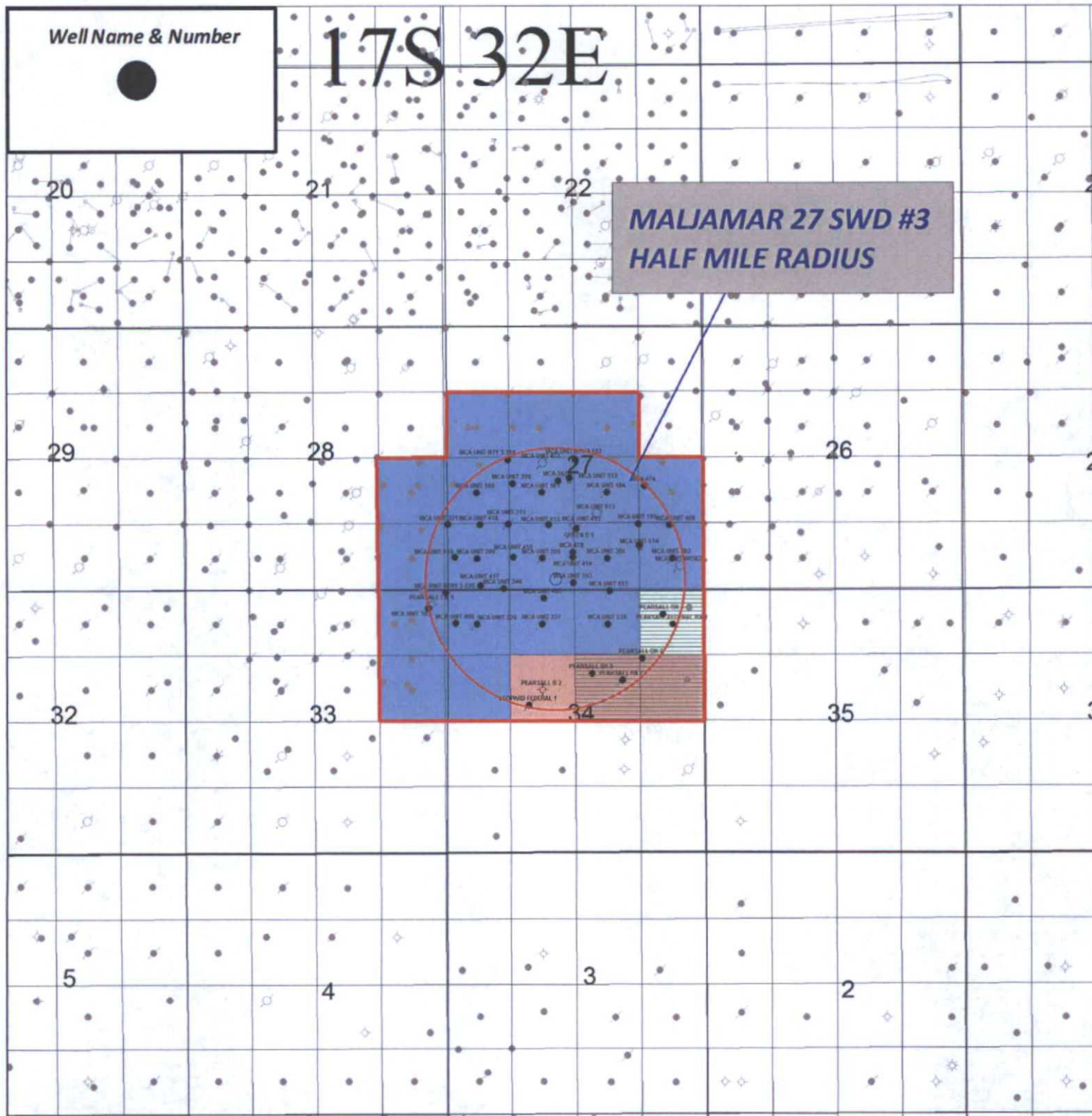
|   |  |  |  |   |  |
|---|--|--|--|---|--|
| <p>16</p> <p>ⓑ</p> <p>DETAIL "A"</p> <p>3971.2' 600' 3969.7'</p> <p>600' S. L.</p> <p>3958.0' 3957.8'</p> <p>2185'</p> <p>SEE<br/>DETAIL<br/>"A"</p> <p>S. L.</p> <p>225'</p> <p>Ⓐ</p> <p>Ⓔ</p>   |  | <p>Ⓒ</p> <p>GEODETIC DATA<br/>NAD 27 GRID - NM EAST</p> <p>SURFACE LOCATION<br/>N 654810.5 - E 677644.7</p> <p>LAT: 32.79882898° N<br/>LONG: 103.75521189° W</p> <p>CORNER DATA<br/>NAD 27 GRID - NM EAST</p> <p>A: FOUND 2" IRON PIPE<br/>N 654576.2 - E 675461.0</p> <p>B: FOUND 1/2" REBAR<br/>N 659858.7 - E 675431.5</p> <p>C: FOUND BRASS CAP "1913"<br/>N 659876.2 - E 680701.5</p> <p>D: FOUND BRASS CAP "1913"<br/>N 654597.3 - E 680736.5</p> <p>E: FOUND BRASS CAP "1913"<br/>N 654587.3 - E 678099.0</p> |  | <p>17 OPERATOR CERTIFICATION</p> <p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p> |  |
| <p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p><b>7/31/14</b><br/>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>19680</b><br/>Certificate Number</p> <p>Ⓓ</p> |  | <p>ROBERT M. HOWETT<br/>NEW MEXICO<br/>19680<br/>PROFESSIONAL SURVEYOR</p>   |  |   |  |



Well Name & Number



17S 32E



**MALJAMAR 27 SWD #3  
HALF MILE RADIUS**

**Legend**

- Occidental Permian Lease Owner of targeted area
- ConocoPhillips Company
- Legacy Reserves
- Mack Energy
- Mack Energy-Legacy Reserves



**SENM  
Maljamar 27 SWD #3  
Sec. 27, T17S - R32E  
HALF MILE RADIUS**

Author:  
L. Marley

SENM: BLM APD FRAC MAPS/lm\_BLM\_APD  
FRAC MAP\_Maljamar27-SWD\_3.gmp

Date:  
3 September, 2015

Scale:  
1:3000

**Maljamar 27 SWD #3**

| Well Name           | Well Number | Well ID      | Operator                      | Hole Direction | TD   | TVD | Status | Unit | SHL/BHL Location                  | SHL/BHL Footage   |
|---------------------|-------------|--------------|-------------------------------|----------------|------|-----|--------|------|-----------------------------------|-------------------|
| MCA UNIT            | 184         | 300250071800 | CONOCOPHILLIPS COMPANY        | VER            | 4009 |     | INJ    | J    | TWP: 17 S - Range: 32 E - Sec. 27 | 1980 FSL/1980 FEL |
| MCA UNIT            | 204         | 300250072300 | CONOCOPHILLIPS COMPANY        | VER            | 4132 |     | OIL    | O    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL/1980 FEL  |
| MCA UNIT            | 181         | 300250072400 | CONOCOPHILLIPS COMPANY        | VER            | 4011 |     | OIL    | K    | TWP: 17 S - Range: 32 E - Sec. 27 | 1980 FSL/1980 FWL |
| MCA UNIT            | 203         | 300250072500 | CONOCO INCORPORATED           | VER            | 4152 |     | ABD-OW | P    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL/660 FEL   |
| MCA UNIT            | 205         | 300250072700 | CONOCO INCORPORATED           | VER            | 4086 |     | ABD-OW | N    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL/1980 FWL  |
| MCA UNIT            | 180         | 300250072800 | CONOCOPHILLIPS COMPANY        | VER            | 3879 |     | OIL    | L    | TWP: 17 S - Range: 32 E - Sec. 27 | 1980 FSL/660 FWL  |
| MCA UNIT            | 206         | 300250072900 | CONOCOPHILLIPS COMPANY        | VER            | 4002 |     | OIL    | M    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL/660 FWL   |
| MCA UNIT            | 183         | 300250073000 | CONOCOPHILLIPS COMPANY        | VER            | 4205 |     | P&A    | O    | TWP: 17 S - Range: 32 E - Sec. 27 | 1295 FSL 2615 FEL |
| QUEEN B             | 1           | 300250073100 | PRE-ONGARD                    | VER            | 3357 |     | ABD-OW | O    | TWP: 17 S - Range: 32 E - Sec. 27 | 1249 FSL/2606 FEL |
| MCA UNIT            | 185         | 300250073200 | CONOCOPHILLIPS COMPANY        | VER            | 4274 |     | OIL    | J    | TWP: 17 S - Range: 32 E - Sec. 27 | 1345 FSL/1345 FEL |
| MCA UNIT            | 383         | 300250081500 | CONOCO INCORPORATED           | VER            | 9486 |     | ABD-OW | A    | TWP: 17 S - Range: 32 E - Sec. 33 | 330 FNL 330 FEL   |
| MCA UNIT            | 226         | 300250081700 | CONOCOPHILLIPS COMPANY        | VER            | 4270 |     | ABD-OW | D    | TWP: 17 S - Range: 32 E - Sec. 34 | 660 FNL/660 FWL   |
| MCA UNIT            | 227         | 300250081800 | CONOCOPHILLIPS COMPANY        | VER            | 4171 |     | ABD-OW | C    | TWP: 17 S - Range: 32 E - Sec. 34 | 660 FNL/1980 FWL  |
| MCA UNIT            | 228         | 300250081900 | CONOCOPHILLIPS COMPANY        | VER            | 4203 |     | OIL    | B    | TWP: 17 S - Range: 32 E - Sec. 34 | 660 FNL/1980 FEL  |
| PEARSALL-FEDERAL BX | 1           | 300250082100 | LEGACY RESERVES OPERATING,LLC | VER            | 4316 |     | OIL    | A    | TWP: 17 S - Range: 32 E - Sec. 34 | 660 FNL/660 FEL   |
| PEARSALL BX         | 2           | 300250082200 | LEGACY RESERVES OPERATING,LLC | VER            | 3560 |     | OIL    | H    | TWP: 17 S - Range: 32 E - Sec. 34 | 1345 FNL/1295 FEL |
| PEARSALL B          | 2           | 300250082300 | PRE-ONGARD                    | VER            | 5150 |     | D&A    | G    | TWP: 17 S - Range: 32 E - Sec. 34 | 1980 FNL/1980 FWL |
| PEARSALL LM         | 1           | 300251274900 | PRE-ONGARD                    | VER            | 515  |     | D&A    | A    | TWP: 17 S - Range: 32 E - Sec. 33 | 250 FNL/250 FEL   |
| MCA UNIT BTRY 3     | 225         | 300251278200 | CONOCOPHILLIPS COMPANY        | VER            | 4139 |     | OIL    | D    | TWP: 17 S - Range: 32 E - Sec. 34 | 25 FNL 25 FWL     |
| MCA UNIT BTY 3      | 182         | 300251279300 | CONOCOPHILLIPS COMPANY        | VER            | 4070 |     | OIL    | J    | TWP: 17 S - Range: 32 E - Sec. 27 | 2615 FSL 2570 FEL |
| MCA UNIT BTY 3      | 314         | 300252412700 | CONOCOPHILLIPS COMPANY        | VER            | 4250 |     | OIL    | E    | TWP: 17 S - Range: 32 E - Sec. 27 | 2615 FNL/1295 FWL |
| MCA UNIT            | 315         | 300252412800 | CONOCO INCORPORATED           | VER            | 4260 |     | ABD-OW | L    | TWP: 17 S - Range: 32 E - Sec. 27 | 1345 FSL/1295 FWL |
| MCA UNIT            | 321         | 300252423300 | CONOCOPHILLIPS CO             | VER            | 4175 |     | OIL    | L    | TWP: 17 S - Range: 32 E - Sec. 27 | 1345 FSL/75 FWL   |
| MCA UNIT            | WI302       | 300252429800 | CONOCOPHILLIPS COMPANY        | VER            | 4400 |     | INJ    | P    | TWP: 17 S - Range: 32 E - Sec. 27 | 510 FSL/510.FEL   |
| MCA UNIT            | 346         | 300252451300 | CONOCOPHILLIPS COMPANY        | VER            | 4425 |     | OIL    | M    | TWP: 17 S - Range: 32 E - Sec. 27 | 55 FSL/1200 FWL   |
| MCA UNIT            | 353         | 300252458300 | CONOCOPHILLIPS COMPANY        | VER            | 4350 |     | OIL    | N    | TWP: 17 S - Range: 32 E - Sec. 27 | 175 FSL/2615 FWL  |
| PEARSALL BX         | 3           | 300252472500 | LEGACY RESERVES OPERATING,LLC | VER            | 4475 |     | OIL    | A    | TWP: 17 S - Range: 32 E - Sec. 34 | 460 FNL 860 FEL   |
| PEARSALL BX         | 5           | 300253105500 | LEGACY RESERVES OPERATING,LLC | VER            | 4758 |     | OIL    | G    | TWP: 17 S - Range: 32 E - Sec. 34 | 1650 FNL 2310 FEL |
| MCA                 | 387H        | 300253514200 | CONOCOPHILLIPS COMPANY        | HOR            | 3988 |     | ABD-OW | K    | TWP: 17 S - Range: 32 E - Sec. 27 | 2197 FSL 2255 FWL |
| PEARSALL BX         | 7           | 300253651100 | MACK ENERGY CORP              | VER            | 6020 |     | ABD-OW | G    | TWP: 17 S - Range: 32 E - Sec. 34 | 1800 FNL 1650 FEL |
| LEOPARD FEDERAL     | 1           | 300253660100 | MACK ENERGY CORP              | VER            | 5360 |     | ABD-OW | F    | TWP: 17 S - Range: 32 E - Sec. 34 | 2310 FNL 1650 FWL |
| MCA UNIT            | 405         | 300253885900 | CONOCOPHILLIPS COMPANY        | VER            | 4566 |     | OIL    | C    | TWP: 17 S - Range: 32 E - Sec. 34 | 160 FNL 1936 FWL  |
| MCA UNIT            | 406         | 300253886000 | CONOCOPHILLIPS COMPANY        | VER            | 4531 |     | OIL    | D    | TWP: 17 S - Range: 32 E - Sec. 34 | 659 FNL 160 FWL   |
| MCA UNIT            | 399         | 300253897200 | CONOCOPHILLIPS COMPANY        | VER            | 4348 |     | OIL    | K    | TWP: 17 S - Range: 32 E - Sec. 27 | 2130 FSL 1330 FWL |
| MCA UNIT            | 408         | 300253897700 | CONOCOPHILLIPS COMPANY        | VER            | 4476 |     | OIL    | P    | TWP: 18 S - Range: 16 E - Sec. 10 | 1310 FSL 660 FEL  |
| MCA UNIT            | 413         | 300253898100 | CONOCOPHILLIPS COMPANY        | VER            | 4620 |     | OIL    | B    | TWP: 17 S - Range: 32 E - Sec. 34 | 10 FNL 1880 FEL   |
| MCA UNIT            | 414         | 300253898200 | CONOCOPHILLIPS COMPANY        | VER            | 4510 |     | OIL    | O    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL 2630 FEL  |
| MCA UNIT            | 415         | 300253898300 | CONOCOPHILLIPS COMPANY        | VER            | 4412 |     | OIL    | N    | TWP: 17 S - Range: 32 E - Sec. 27 | 1310 FSL 2055 FWL |
| MCA UNIT            | 416         | 300253898400 | CONOCOPHILLIPS COMPANY        | VER            | 4465 |     | OIL    | N    | TWP: 18 S - Range: 16 E - Sec. 10 | 660 FSL 1330 FWL  |
| MCA UNIT            | 417         | 300253898500 | CONOCOPHILLIPS COMPANY        | VER            | 4466 |     | OIL    | M    | TWP: 17 S - Range: 32 E - Sec. 27 | 90 FSL 660 FWL    |
| MCA UNIT            | 418         | 300253898600 | CONOCOPHILLIPS COMPANY        | VER            | 4380 |     | OIL    | M    | TWP: 17 S - Range: 32 E - Sec. 27 | 1310 FSL 660 FWL  |
| MCA UNIT            | 419         | 300253898700 | CONOCOPHILLIPS COMPANY        | VER            | 4375 |     | OIL    | M    | TWP: 17 S - Range: 32 E - Sec. 27 | 660 FSL 145 FWL   |
| MCA                 | 474         | 300253932000 | CONOCOPHILLIPS COMPANY        | VER            | 4390 |     | OIL    | I    | TWP: 17 S - Range: 32 E - Sec. 27 | 2100 FSL 1180 FEL |
| MCA                 | 478         | 300253935100 | CONOCOPHILLIPS COMPANY        | VER            | 4200 |     | OIL    | O    | TWP: 18 S - Range: 16 E - Sec. 10 | 760 FSL 2630 FEL  |
| MCA UNIT            | 477         | 300253943100 | CONOCOPHILLIPS COMPANY        | VER            | 4207 |     | INJ    | K    | TWP: 17 S - Range: 32 E - Sec. 27 | 2570 FSL 1920 FWL |

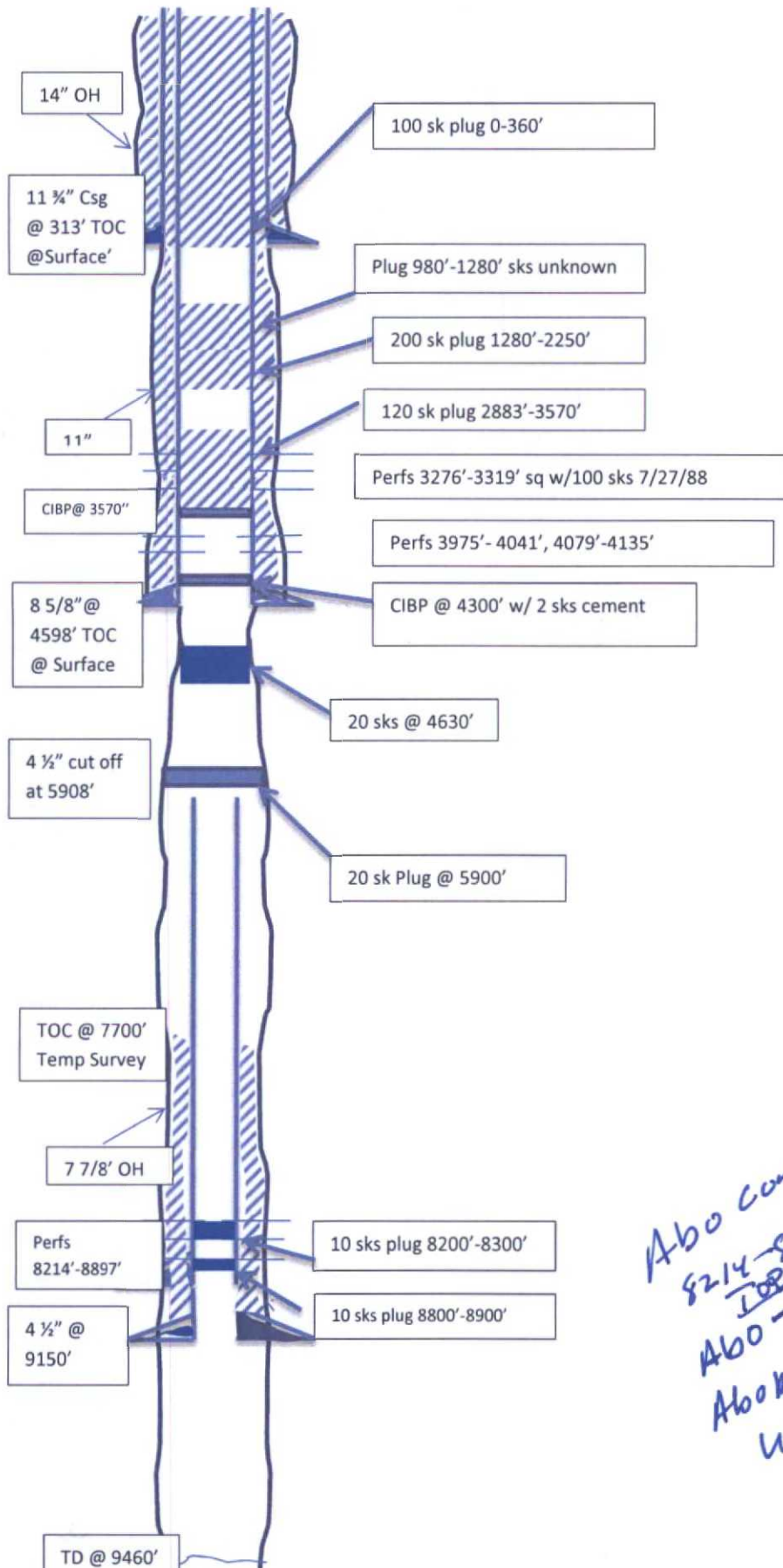
### Maljamar 27 SWD #3

|          |     |              |                        |     |      |  |     |   |                                   |                   |
|----------|-----|--------------|------------------------|-----|------|--|-----|---|-----------------------------------|-------------------|
| MCA UNIT | 512 | 300254139800 | CONOCOPHILLIPS COMPANY | VER | 4375 |  | OIL | K | TWP: 17 S - Range: 32 E - Sec. 27 | 2185 FSL 2470 FWL |
| MCA UNIT | 513 | 300254139900 | CONOCOPHILLIPS COMPANY | VER | 4454 |  | INJ | J | TWP: 17 S - Range: 32 E - Sec. 27 | 1510 FSL 2180 FEL |
| MCA UNIT | 514 | 300254140000 | CONOCOPHILLIPS COMPANY | VER | 4550 |  | OIL | P | TWP: 17 S - Range: 32 E - Sec. 27 | 810 FSL 1300 FEL  |

Area of Review  
Maljamar 27 SWD #3  
Tabulation of all wells which Penetrate or TD close to Proposed Injection Interval

| Well Name         | API Number   | Operator            | Location                             | Spud Date | Completion Date | Type | Total Depth | Completion Interval | P & A Date | Surface Csg Size | Surface Csg Depth | TOC         | Intermediate Size | Intermediate Depth | TOC         | Production Csg Size | Production Csg Depth | TOC                 | Schematic attached | Status |
|-------------------|--------------|---------------------|--------------------------------------|-----------|-----------------|------|-------------|---------------------|------------|------------------|-------------------|-------------|-------------------|--------------------|-------------|---------------------|----------------------|---------------------|--------------------|--------|
| MCA Unit #383     | 300250081500 | Conoco Incorporated | 330' FNL & 330' FEL Sec 33 T17S R32E | 12/7/1961 | 2/27/1962       | oil  | 9406'       | 8214'-8288'         | 8/8/1963   | 13 3/8"          | 360'              | surface/cir | 8 5/8"            | 4576'              | surface/cir | 4 1/2"              | 9180'                | 7700' / Temp Survey | yes                | P&A    |
| 1st Re-Completion |              |                     |                                      |           | 2/7/1965        | oil  | 3405'       | 3276'-3315'         | 2/18/1968  | 13 3/8"          | 360'              | surface/cir | 8 5/8"            | 4576'              | surface/cir | 4 1/2"              | 9180'                | 7700' / Temp Survey |                    | P&A    |
| 2nd Re-Completion |              |                     |                                      |           | 7/27/1988       | oil  | 4300'       | 3975'-4135'         | 11/9/1993  | 13 3/8"          | 360'              | surface/cir | 8 5/8"            | 4576'              | surface/cir | 4 1/2"              | 9180'                | 7700' / Temp Survey |                    | P&A    |

MCA # 383  
 Conoco Incorporated  
 330' FNL & 330' FEL  
 Sec 33 T17S R32E  
 Lea County, New Mexico  
 API # 30-025-00815



*Abc completion  
 8214-8897 (Perf)  
 100%  
 Abc - 7740  
 Abc keef - 8208  
 WC - 933*

VII.

COG Operating, LLC  
Maljamar 27 SWD #3  
Lease # Pending  
API# Pending  
Sec 27, T17S, R32E, Unit N  
225' FSL & 2185' FWL  
Lea County, NM

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
  - **Average daily rate/volume 10,000 to 15,000 BWPD, Maximum daily rate/volume 20,000 BWPD**
2. Whether the system is open or closed;
  - **Closed System**
3. Proposed average and maximum injection pressure;
  - **Average injection pressure - Vacuum, Maximum injection pressure 1930 psig**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
  - **Produced water from the Yeso formation.**
  - **We do not anticipate incompatibility issues because we currently have similar SWD wells in the area that dispose of Yeso produced water in the Wolfcamp.**
  - **Existing Wolfcamp SWD wells: Maljamar SWD 29 #1 30-025-39519, Federal BI SWD #1 30-025-27068**
  - **Please see attached Yeso produced water analysis. (GC Fed 42)**
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
  - **Chemical Analysis for the disposal zone formation water is attached**



Catalyst Oilfield Services  
11999 E Hwy 158  
Gardendale, TX 79758  
(432) 563-0727  
Fax: (432) 224-1038

## Water Analysis Report

|               |                        |                |       |
|---------------|------------------------|----------------|-------|
| Customer:     | COG Operating LLC - NM | Sample #:      | 19044 |
| Area:         | Artesia                | Analysis ID #: | 19266 |
| Lease:        | GC Federal             | BOPD:          | 44    |
| Location:     | 42                     | BWPD:          | 452   |
| Sample Point: | Wellhead               |                |       |

|                     |           | Anions                           |  | mg/l     | meq/l   | Cations                       |  | mg/l    | meq/l   |
|---------------------|-----------|----------------------------------|--|----------|---------|-------------------------------|--|---------|---------|
| Sampling date:      | 5/8/2014  | Chloride:                        |  | 119690.6 | 3375.27 | Sodium:                       |  | 69550.0 | 1961.31 |
| Analysis date:      | 5/13/2014 | Bicarbonate:                     |  | 341.6    | 5.60    | Magnesium:                    |  | 978.9   | 16.05   |
| Analysis:           | Catalyst  | Carbonate:                       |  |          | 0.00    | Calcium:                      |  | 5753.0  | 191.57  |
| TDS (mg/l or g/m3): | 198754    | Sulfate:                         |  | 1500.0   | 31.20   | Potassium:                    |  | 667.5   | 13.88   |
| Density (g/cm3):    | 1.135     |                                  |  |          |         | Strontium:                    |  | 141.1   | 3.22    |
| Hydrogen Sulfide:   | 153       |                                  |  |          |         | Barium:                       |  | 0.0     | 0.00    |
| Carbon Dioxide:     | 260       |                                  |  |          |         | Iron:                         |  | 0.0     | 0.00    |
| Comments:           |           | pH at time of sampling:          |  |          | 6.45    | Manganese:                    |  | 0.0     | 0.00    |
|                     |           | pH at time of analysis:          |  |          |         |                               |  |         |         |
|                     |           | pH used in Calculation:          |  |          | 6.45    | Conductivity (micro-ohms/cm): |  |         | 189200  |
|                     |           | Temperture @ lab conditions (F): |  |          | 75      | Resistivity (ohm meter):      |  |         | 0.0529  |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl |                  |        |                      |        |                    |        |                    |        |                 |        |
|---|------------------|--------|----------------------|--------|--------------------|--------|--------------------|--------|-----------------|--------|
| Temp  | Calcite<br>CaCO3 |        | Gypsum<br>CaSO4*2H2O |        | Anhydrite<br>CaSO4 |        | Celestite<br>SrSO4 |        | Barite<br>BaSO4 |        |
| °F  | Index            | Amount | Index                | Amount | Index              | Amount | Index              | Amount | Index           | Amount |
| 120   | 0.67             | 31.23  | -0.27                | 0.00   | -0.10              | 0.00   | -0.13              | 0.00   | 0.00            | 0.00   |

**Exhibit VIII**  
Geological Review  
Ground Water Sources  
Maljamar Area  
Lea County, New Mexico

The interval under consideration for disposal operations includes the Wolfcamp, part of the Wolfcamp Group. The interval is part of the Wolfcamp Series of the Lower Permian Age, located on the Northwest Shelf of the Delaware Basin in the western part of the Permian Basin.

The injection interval is the following:

Maljamar SWD 27 #3 (SWD; Wolfcamp)

- Wolfcamp:
  - 9,650.0'-10450.0' TVD

The Maljamar SWD 30 #2 is a vertical well that will be drilled to a true vertical depth (TVD) of 10,450.0'.

Produced water from Lower Permian Age rocks is too mineralized to be potable or useable for live stock.

Ground water in Eddy County is obtained from porous and permeable aquifers in consolidated rocks of the Upper Permian and Triassic age and in relatively unconsolidated sediments of Tertiary and Quaternary age.

The area east of the Pecos River is a large area and includes half of Eddy County, generally from T 16 S R 27 E to T 26S R 31E, extending from the Chaves County line south to the Texas State line and east to the Lea County line.



The Triassic System overlies the Rustler formation in Eddy County and is composed of red beds and sandstones of the Dockum group. The lower part of these beds is considered Permian and correlated with Dewey Lake red beds by some geologists. The total thickness of the Dockum group east of Artesia is about 1,000'. Formations of the Dockum group exposed in Eddy County are the Pierce Canyon red beds, the Santa Rosa sandstone and red beds possibly from the Chinle formation.

In the Empire, Empire East, Loco Hills, and Fren Fields, the sandstone beds in the Triassic Dockum group and possibly in the Dewey Lake red beds are the chief sources of ground water. The depth to water in this area is generally less than 300'. Most of the wells in the outcrop area of the Dockum group yield water of better quality than the wells to the west that produce from the Rustler formation. Analyses were made of 21 samples of water from wells probably taking all or part of their water from the Triassic red beds. The hardness of calcium carbonate in the 21 samples ranged from 201 to 3,590 ppm and was more than 1,000 ppm in 14 of the 21 samples. The chloride content ranged from 17 to 785 ppm and was more than 200 ppm in 10 of the samples. Approximately half of the wells in the Triassic red beds produce water that is considered usable for domestic purposes. None of the wells in the Triassic red beds produce water too highly mineralized for stock.

A review of all geologic map data and well as visual searches by field personnel did not indicate the presence of any windmills in the areas of review for the proposed conversions.

In summary, ground water in the Empire, Empire East, Loco Hills, and Fren areas for stock and domestic use can be obtained from wells in the Triassic red beds at depths up to 300'. Water is generally of fair quality but locally impotable. The injection intervals for the proposed conversions are in the Wolfcamp group in the lower Permian age rocks at about 9,650' TVD to 10,450' TVD. No contamination of the known shallow potable ground waters is expected from the proposed deeper secondary operations due to over 9,300' of vertical separation between them. There was no indication of any use of ground water aquifers in the areas of reviews for the proposed conversions.

From Geology and Ground-Water Resources of Eddy County, New Mexico by G. E. Hendrickson and R. S. Jones. Ground-Water Report 3, New Mexico Bureau of Mines and Mineral Resources, 1952

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other SWD

2. Name of Operator

COG Operating LLC

3a. Address

One Concho Center, 600 W. Illinois Ave  
Midland, TX 79701

3b. Phone No. (include area code)

432-683-7443

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

Maljamar 27 SWD #3

9. API Well No.

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

225' FSL & 2185' FWL  
Sec 27, T17S, R32E, Unit N

10. Field and Pool or Exploratory Area

SWD; Wolfcamp 96135

11. County or Parish, State

Lea County, New Mexico

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |   |
|--|---|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity       |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other SWD |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

COG Operating LLC respectfully requests to complete this SWD as follows:

Please see attachment.

A copy of the C-108 and attachments have also been included for your review.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title Lead Regulatory Analyst

Signature



Date 09/11/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**Maljamar 27 SWD #3 – SWD Completion Procedure (AFE#)**

**225' FSL & 2,185' FWL**

**Sec 27, T17S, R32E**

**Lea Co, NM**

**API#**

**SWD –**

**Objective**

Complete the Maljamar 27 SWD #3 in the Wolfcamp Reef formation as detailed in the paragraphs below. The completion will be in 6-1/8" diameter open hole with 850' gross interval acidized according to the schedule below.

**Well Data**

Injection Formation: Wolfcamp Reef

Injection Interval: 9,650' – 10,500'

Completion Type: Open Hole w/ acid stimulation

MD/PBTD: 10,500'

BHT: 120 degF (estimated)

Current Status: Permitting

**Pipe Data**

**7" 26# L80 LTC**

Nom ID=6.276"; Drift ID=6.151"; Capacity=0.0382 BPF

Burst=7,240 psi (5,792 psi @ 80%); Collapse=5,410 psi (4,328 psi @ 80%)

**3-1/2" 9.3# L80 EUE GlassBore (10 ppf actual)**

Liner ID=2.75"; Flange ID=2.69"; Drift ID=2.44"; Capacity=0.00735 BPF

Burst=10,160 psi (8,128 psi @ 80%); Collapse=10,540 psi (8,432 psi @ 80%); Tensile=207,200 psi

Annular Capacity 7" x 3-1/2" =0.0264 BPF

**2-7/8" 6.5# L-80 (workstring)**

Nom ID=2.441"; Drift ID=2.347"; Capacity=0.00579 BPF

Burst=10,570 psi (8,456 psi @ 80%); Collapse=11,170 psi (8,936 psi @ 80%); Tensile=145,000 psi

Annular Capacity 7" x 2-7/8" =0.0302 BPF

**Cement Data**

**13-3/8" 48# H40 STC @ 985'**

1<sup>st</sup>: Lead 400sx "C" @ 13.5 ppg, 1.75 yield; Tail 325sx "C" @ 14.8 ppg, 1.32 yield

**9-5/8" 40# J55 LTC @ 2,285'**

1<sup>st</sup>: Lead 350sx 50:50:10 "C" PozGel @ 11.8 ppg, 2.45 yield; Tail 300sx "C" @ 14.8 ppg, 1.32 yield

**7" 26# L80 LTC @ 9,650' - (DV/ECP @ 8,000')**

1<sup>st</sup>: 300sx 50:50:2 "H" PozGel @ 14.0 ppg, 1.37 yield

2<sup>nd</sup>: 600sx 35:65:6 "C" PozGel @ 12.5 ppg, 2.01 yield + 400sx "H" @ 14.2 ppg, 1.19 yield

**Contacts**

NMOCD – 575.626.0831 – Richard Inge

Injection Tubing:

Injection Packer Equipment:

Acid Stimulation:

Packer Fluid:

Wellhead:

## Procedure

- Notify BLM & OCD of intent to start work 24 hours prior to rig up.
- Set anchors, set frac tanks, set two lined acid frac tanks, MIRU WSU and reverse unit.
- NU 7-1/16" hydraulic BOP with 2-7/8" pipe rams for work string and blind rams. Close blind rams and test casing to 1,000 psi.
- Order 2-7/8" 6.5# L-80 workstring. PU 6-1/8" bit and scraper tool; TIH to clean up casing ID near DV Tool (8,000'). RIH and tag CIBP set near end of 7" casing string. TOH and laydown scraper.
- RIH with 6-1/8" bit, (6) 4-1/8" drill collars, and tubing float valve and tag CIBP. RU power swivel and drill out CIBP circulating 10 ppg brine and push remnants of plug to TD (10,500'). Keep pipe rotating in OH section.
- SWI and record stabilized pressure to calculate kill mud weight. RU kill truck and pump mud to kill the well. TOH (standing back) with workstring and bit.
- RIH w/ 7" nickel plated AS-1X retrievable injection packer on 2-7/8" workstring to 9,600'. Try to circulate mud out prior to setting packer. Space out to put 20 points compression on packer. Set packer and test tubing x casing annulus to 1,000 psi. We may want to lubricate a packer in if we have trouble keeping the well dead.
- RU acid crew and acidize Wolfcamp Reef open hole from 9,650' to 10,500' with 40,000 gals NE Fe 15% HCl acid (double inhibited) plus graded rock salt in gelled brine at 4-5 BPM while limiting treating pressure to 6,000 psi and holding 500 psi on the annulus. Flush acid with one frac tank of fresh water to ensure the rock salt blocker is fully dissolved. Shut well in for a couple hours to let acid soak on formation.
  - 10,000 gal acid
  - 2,000 lbs graded rock salt in gelled brine
  - 10,000 gal acid
  - 2,000 lbs graded rock salt in gelled brine
  - 10,000 gal acid
  - 2,000 lbs graded rock salt in gelled brine
  - 10,000 gal acid
  - 40,000 gal acid total
  - 6,000 lbs graded rock salt total
- RU wireline and set a blanking plug in the profile nipple to isolate well flow. Get off on/off tool and TOH laying down workstring.
- Install 3-1/2" pipe rams in BOP and RIH with 3-1/2" 9.3# L80 EUE GlassBore internally lined tubing. Reverse circulate annulus with approximately 210 bbls fresh water packer fluid containing corrosion inhibitor/biocide/oxygen scavenger.
- Latch onto on/off tool and plumb in wellhead. Top off annulus with packer fluid if necessary.
- RU wireline and retrieve blanking plug set in profile nipple.
- Give NMOCD Artesia 24 hours notice for MIT. Test tubing x casing annulus to 500 psi for 30 minutes. Send MIT chart to Susan Lopez.
- RU pump truck to run injection test and test lines to 3,000 psi. Have one frac tank full of produced water to pump the job. Pumping company must be able to produce rate vs. time plot and data at the end of the job.
- Pump plug off of packer assembly and run injection test as follows without exceeding 2,500 psig:
  - 2.0 BPM for 20 minutes (40 total barrels)
  - 4.0 BPM for 20 minutes (120 total barrels)
  - 6.0 BPM for 20 minutes (240 total barrels)
  - 8.0 BPM for 20 minutes (400 total barrels)
- Collect ISIP, 5 min SIP, 10 min SIP, 15 min SIP and shut well in. RDMO and have all data sent to engineer.
- Contact SWD Operations and put well in service.

X.

COG Operating, LLC  
Maljamar 27 SWD #3  
Lease # Pending  
API# Pending  
Sec 27, T17S, R32E, Unit N  
225' FSL & 2185' FWL  
Lea County, NM

**Logging and test data:** Well has not been yet. Will submit test data and logs when completed.



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

| (acre ft per annum) |     |       |     |           |                   |        |               |      |       | (R=POD has been replaced<br>and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)<br>C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters) |   |   |        |        |     |        |         |   |   |          |
|---------------------|-----|-------|-----|-----------|-------------------|--------|---------------|------|-------|--|---|---|--------|--------|-----|--------|---------|---|---|----------|
| WR File Nbr         | Sub | basin | Use | Diversion | Owner             | County | POD Number    | Code | Grant | q q q  |   |   | Source | 6416 4 | Sec | Tws    | Rng     | X | Y | Distance |
| RA 12204            |     | MON   |     |           | 0 CONOCO PHILLIPS | LE     | RA 12204 POD1 |      | NON   | 3  | 1 | 4 | 28     | 17S    | 32E | 615049 | 3630067 |   |   | 1501     |

Record Count: 1

### UTMNAD83 Radius Search (in meters):

Easting (X): 616500.67

Northing (Y): 3629683.88

Radius: 1609.3

Sorted by: Distance

COG Operating LLC Notes: This well was not drilled.

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/15/15 1:49 PM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Water Right Summary



WR File Number: RA 12204

Subbasin: -

Subfile: -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres:

Total Diversion: 0

Owner: CONOCO PHILLIPS

Contact: IRENE WHITE

### Documents on File

| Trn #                      | Doc    | File/Act | Status     |     | Transaction Desc. | From/    |      | Acres | Diversion | Consumptive |
|----------------------------|--------|----------|------------|-----|-------------------|----------|------|-------|-----------|-------------|
|                            |        |          | 1          | 2   |                   | To       |      |       |           |             |
| <a href="#">get images</a> | 559063 | EXPL     | 2014-12-09 | PMT | APR               | RA 12204 | POD1 | T     | 0         | 0           |

### Current Points of Diversion

| POD Number           | Source | Q Q Q |    |   | (NAD83 UTM in meters) |     |     | Other Location Desc |
|----------------------|--------|-------|----|---|-----------------------|-----|-----|---------------------|
|                      |        | 64    | 16 | 4 | Sec                   | Tws | Rng |                     |
| <u>RA 12204 POD1</u> |        | 3     | 1  | 4 | 28                    | 17S | 32E | 615049 3630067  MW1 |

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Transaction Summary

EXPL Permit To Explore

Transaction Number: 559063

Transaction Desc: RA 12204 POD1

File Date: 12/09/2014

Primary Status: PMT Permit


Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*

Applicant: CONOCO PHILLIPS

Contact: IRENE WHITE


### Events

| Date   | Type | Description                   | Comment | Processed By |
|--|------|-------------------------------|---------|--------------|
|  12/09/2014 | APP  | Application Received          | *       | *****        |
| 12/09/2014   | FTN  | Finalize non-published Trans. |         | *****        |
| 02/26/2015   | QAT  | Quality Assurance Completed   | SQ2     | *****        |
| 03/04/2015   | QAT  | Quality Assurance Completed   | IMAGE   | *****        |

### Water Right Information

| WR File Nbr | Acres | Diversion | Consumptive | Purpose of Use      |
|-------------|-------|-----------|-------------|---------------------|
| RA 12204    | 0     | 0         |             | MON MONITORING WELL |

#### \*\*Point of Diversion

RA 12204 POD1 615049 3630067  in NON Grant

### Remarks

INSTALLATION OF A NEAR SOURCE MONITOR WELL MW1 FOR SAMPLING PURPOSES SEE ATTACHED NMOCD AND BLM APPROVED CORRECTIVE ACTION PLAN

### Conditions

- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.
- C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.
- 1A Depth of the well shall not exceed the thickness of the valley fill.



**Action of the State Engineer**

**\*\* See Image For Any Additional Conditions of Approval \*\***

**Approval Code:** A - Approved

**Action Date:** 12/09/2014

**Log Due Date:** 12/31/2015

**State Engineer:** Tom Blaine, P.E.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

| POD Number    | Q64 | Q16 | Q4 | Sec | Tws | Rng | X      | Y       |
|---------------|-----|-----|----|-----|-----|-----|--------|---------|
| RA 12204 POD1 | 3   | 1   | 4  | 28  | 17S | 32E | 615049 | 3630067 |

**Driller License:**

**Driller Name:**

**Drill Start Date:**

**Drill Finish Date:**

**Plug Date:**

**Log File Date:**

**PCW Rcv Date:**

**Source:**

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:**

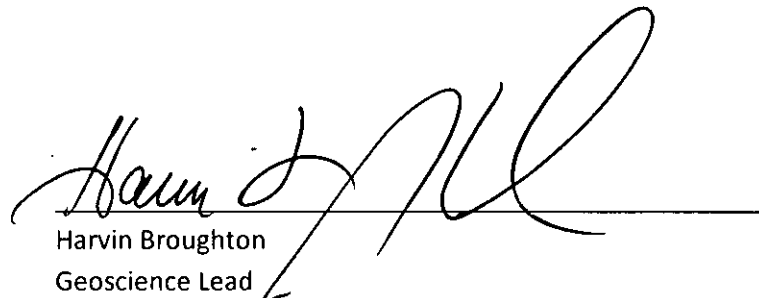
**Casing Size:**

**Depth Well:**

**Depth Water:**

**Exhibit XII**  
**Geological Statement**

Concho Resources has examined available geological, seismic, and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.



Harvin Broughton  
Geoscience Lead  
432-686-3016

# Affidavit of Publication


STATE OF NEW MEXICO  
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

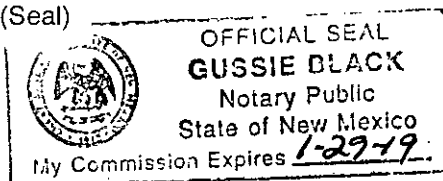
Beginning with the issue dated  
September 03, 2015  
and ending with the issue dated  
September 03, 2015.

  
Publisher

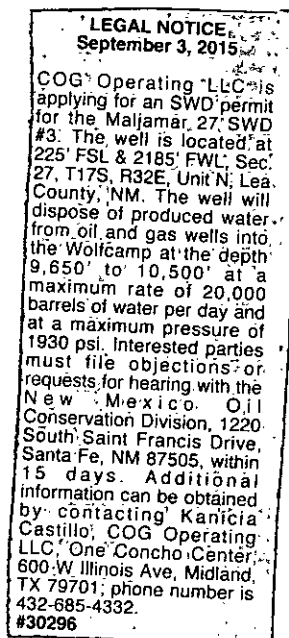
Sworn and subscribed to before me this  
3rd day of September 2015.

  
Business Manager

My commission expires  
January 29, 2019  
(Seal)



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said



67112034

00162440

BRIAN COLLINS  
COG OPERATING LLC  
2208 W. MAIN ST.  
ARTESIA, NM 88210

Maljamar 27 SWD #3

**Notices**

ConocoPhillips Company 3401 E. 30<sup>th</sup> Street, Farmington, NM 87402- 91 7199 9991 7033 2258 1904

Legacy Reserves Operating LP PO Box 10848, Midland, TX 79702 – 91 7199 9991 7033 2258 1928

Mack Energy Corporation 11344 Lovington Hwy, Artesia, NM 88211 – 91 7199 9991 7033 2258 1935

Occidental Permian LTD PO Box 4294, Houston, TX 77210 – 91 7199 9991 7033 2258 1911



September 14, 2015

ConocoPhillips Company  
3401 E. 30<sup>th</sup> Street  
Farmington, NM 87402

Certified Mail Article Number: 91 7199 9991 7033 2258 1904

Re: SWD Application

Maljamar 27 SWD #3  
API# Pending  
N-27-17S-32E  
225 FSL & 2185 FWL  
SWD;Wolfcamp 96135  
Lea County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be injecting, for the purpose of disposal, into the Wolfcamp Reef. Injection interval will be 9,650' – 10,500'.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Castillo", with a long horizontal stroke extending to the right.

Kanicia Castillo  
COG Operating LLC  
Lead Regulatory Analyst



September 14, 2015

Legacy Reserves Operating LP  
PO Box 10848  
Midland, TX 79702

Certified Mail Article Number: 91 7199 9991 7033 2258 1928

Re: SWD Application

Maljamar 27 SWD #3  
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Mack Energy Corporation  
11344 Lovington Hwy  
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Kanicia Castillo  
COG Operating LLC  
Lead Regulatory Analyst





September 14, 2015

Occidental Permian LTD  
PO Box 4294  
Houston, TX 77210

Certified Mail Article Number: 91 7199 9991 7033 2258 1911

Re: SWD Application

Maljamar 27 SWD #3  
API# Pending  
N-27-17S-32E  
225 FSL & 2185 FWL  
SWD;Wolfcamp 96135  
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Kanicia Castillo  
COG Operating LLC  
Lead Regulatory Analyst



One Concho Center  
600 West Illinois Avenue  
Midland, Texas 79701

91 7199 9991 7033 2258 1904

ConocoPhillips Company  
3401 E. 30<sup>th</sup> Street  
Farmington, NM 87402

| SENDER: COMPLETE THIS SECTION  |  | COMPLETE THIS SECTION ON DELIVERY  |                            |
|--|--|--|----------------------------|
| <p><input type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p><input type="checkbox"/> Print your name and address on the reverse so that we can return the card to you.</p> <p><input type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.</p> |  | <p>A. Signature<br/><b>X</b> <span style="float: right;"><input type="checkbox"/> Agent<br/><input type="checkbox"/> Addressee</span></p>  |                            |
| <p>1. Article Addressed to:</p> <p style="text-align: center;">ConocoPhillips Company<br/>3401 E. 30<sup>th</sup> Street<br/>Farmington, NM 87402</p>  |  | <p>B. Received by (Printed Name)</p>   | <p>C. Date of Delivery</p> |
|  |  | <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes<br/>If YES, enter delivery address below: <input type="checkbox"/> No</p>  |                            |
|  |  | <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery</p> |                            |
|  |  | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>  |                            |
| <p>2. Article Number<br/>(Transfer from service label)</p>   |  | <p>91 7199 9991 7033 2258 1904</p>   |                            |
| PS Form 3811, July 2013  |  | Domestic Return Receipt  |                            |



One Concho Center  
600 West Illinois Avenue  
Midland, Texas 79701

91 7199 9991 7033 2258 1928

Legacy Reserves Operating LP  
PO Box 10848  
Midland, TX 79702

**SENDER: COMPLETE THIS SECTION**

- ☐ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- ☐ Print your name and address on the reverse so that we can return the card to you.
- ☐ Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Legacy Reserves Operating LP  
PO Box 10848  
Midland, TX 79702

2. Article Number  
(Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

**X**

☐ Agent  
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail® ☐ Priority Mail Express™
- ☐ Registered ☐ Return Receipt for Merchandise
- ☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee) ☐ Yes

91 7199 9991 7033 2258 1928

PS Form 3811, July 2013

Domestic Return Receipt

INCHO

Center  
inois Avenue  
xas 79701

91 7199 9991 7033 2258 1935

Mack Energy Corporation  
1344 Lovington HWY  
Artesia, NM 88211

| SENDER: COMPLETE THIS SECTION  |  | COMPLETE THIS SECTION ON DELIVERY   |                     |
|--|--|---|---------------------|
| <ul style="list-style-type: none"><li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>Print your name and address on the reverse so that we can return the card to you.</li><li>Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul> |  | <p>A. Signature <input type="checkbox"/> Agent<br/><b>X</b> <input type="checkbox"/> Addressee</p>  |                     |
| 1. Article Addressed to:   |  | B. Received by (Printed Name)   | C. Date of Delivery |
| Mack Energy Corporation<br>1344 Lovington HWY<br>Artesia, NM 88211   |  | D. Is delivery address different from item 1? <input type="checkbox"/> Yes<br>If YES, enter delivery address below: <input type="checkbox"/> No   |                     |
| 2. Article Number<br>(Transfer from service label)   |  | 3. Service Type<br><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™<br><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise<br><input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery |                     |
| PS Form 3811, July 2013  |  | 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes  |                     |

91 7199 9991 7033 2258 1935

Domestic Return Receipt

CERTIFIED MAIL

SONCHO

Soncho Center  
West Illinois Avenue  
and, Texas 79701

91 7199 9991 7033 2258 1911

Occidental Permian LTD  
PO Box 4294  
Houston, TX 77210

| SENDER: COMPLETE THIS SECTION  |  | COMPLETE THIS SECTION ON DELIVERY  |                            |
|--|--|--|----------------------------|
| <ul style="list-style-type: none"><li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>Print your name and address on the reverse so that we can return the card to you.</li><li>Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul> |  | <p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p><b>X</b></p>  |                            |
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|  |  | <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>  |                            |

91 7199 9991 7033 2258 1911

Domestic Return Receipt



ORDER TYPE: WFX / PMX / SWD Number: \_\_\_\_\_ Order Date: \_\_\_\_\_ Legacy Permits/Orders: \_\_\_\_\_

Well No. 3 Well Name(s): MALYAMAR SWD

API: 30-0 25-Pending Spud Date: TBD New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 2155 FLL Lot \_\_\_\_\_ or Unit N Sec 27 Tsp 17S Rge 32E County LCC

General Location: 3 miles South/West of Malamar Pool: SWD, WOLF Camp Pool No.: 96135

BLM 100K Map: Hobbs Operator: COG OPERATING, LLC OGRID: 229137 Contact: KARRIG CASTILLO

COMPLIANCE RULE 5.9: Total Wells: 3923 Inactive: 0 Fincl Assur: Y Compl. Order? MA IS 5.9 OK? Y Date: 1-5-2016

WELL FILE REVIEWED ☐ Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: N/A

Planned Rehab Work to Well: C-B-L 7" / SURFACE

| Well Construction Details                                       | Sizes (in)<br>Borehole / Pipe | Setting<br>Depths (ft) | Cement<br>SY or CF | Cement Top and Determination<br>Method |
|---|-------------------------------|------------------------|--------------------|--|
| Planned ___ or Existing ___ Surface                             | <u>17 1/2 / 13 3/4</u>        | <u>985</u>             | <u>725</u>         | <u>SURFACE / Cement</u>                |
| Planned ___ or Existing ___ Interm/Prod                         | <u>12 1/4 / 9 5/8</u>         | <u>2245</u>            | <u>650</u>         | <u>SURFACE / VISUAL</u>                |
| Planned ___ or Existing ___ Interm/Prod                         | <u>8 3/4 / 7"</u>             | <u>9600</u>            | <u>900</u>         | <u>SURFACE / VISUAL</u>                |
| Planned ___ or Existing ___ Prod/Liner                          |                               |                        |                    |  |
| Planned ___ or Existing ___ Liner                               |                               |                        |                    |  |
| Planned ___ or Existing <input checked="" type="radio"/> / PERF | <u>9650 / 10500</u>           |                        |                    |  |

| Injection Lithostratigraphic Units: | Depths (ft)  | Injection or Confining<br>Units | Tops | Inj Length | Completion/Operation Details:   |
|-------------------------------------|--------------|---------------------------------|------|------------|---|
| Adjacent Unit: Litho. Struc. Por.   |              |                                 |      |            | Drilled TD <u>10500</u> PBTD _____  |
| Confining Unit: Litho. Struc. Por.  |              |                                 |      |            | NEW TD _____ NEW PBTD _____   |
| Proposed Inj Interval TOP:          | <u>96500</u> |                                 |      |            | NEW Open Hole <input checked="" type="radio"/> or NEW Peris <input type="radio"/> |
| Proposed Inj Interval BOTTOM:       | <u>10500</u> |                                 |      |            | Tubing Size <u>3 1/2</u> in. Inter Coated? _____                                  |
| Confining Unit: Litho. Struc. Por.  |              |                                 |      |            | Proposed Packer Depth <u>9600</u> ft  |
| Adjacent Unit: Litho. Struc. Por.   |              |                                 |      |            | Min. Packer Depth <u>9550</u> (100-ft limit)                                      |
|                                     |              |                                 |      |            | Proposed Max. Surface Press. <u>1930</u> psi                                      |
|                                     |              |                                 |      |            | Admin. Inj. Press. <u>1930</u> (0.2 psi per ft)                                   |

**AOR: Hydrologic and Geologic Information**

POTASH: R-111-P \_\_\_\_\_ Noticed? \_\_\_\_\_ BLM Sec Ord ☐ WIPP ☐ Noticed? \_\_\_\_\_ Salt/Salado T: \_\_\_\_\_ B: \_\_\_\_\_ NW: Cliff House fm \_\_\_\_\_

FRESH WATER: Aquifer Quaternary Max Depth 120' HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: Leg CAPITAN REEF: thru adj NA No. Wells within 1-Mile Radius? \_\_\_\_\_ FW Analysis \_\_\_\_\_

Disposal Fluid: Formation Source(s) YES Analysis? Y On Lease ☐ Operator Only ☐ or Commercial ☒

Disposal Int: Inject Rate (Avg/Max BWPD): 104/15K Protectable Waters? MA Source: P&A System Closed or Open \_\_\_\_\_

HC Potential: Producing Interval? \_\_\_\_\_ Formerly Producing? X Method: Logs/DST/P&A/Other P&A 2-Mile Radius Pool Map ☐

AOR Wells: 1/2-M Radius Map? Y Well List? Y Total No. Wells Penetrating Interval: 1 Horizontals? 0

Penetrating Wells: No. Active Wells 0 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? \_\_\_\_\_

Penetrating Wells: No. P&A Wells 1 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? Y

NOTICE: Newspaper Date 9-3-2015 Mineral Owner BLM Surface Owner BLM N. Date 9/15

RULE 26.7(A): Identified Tracts? Y Affected Persons: CONCEPCION, LEGACY, MACK N. Date 9/14

Order Conditions: Issues: Operator shall provide updated

Add Order Cond: \_\_\_\_\_

## Kanicia Castillo

**From:** trackingupdates@fedex.com  
**Sent:** Tuesday, September 15, 2015 1:02 PM  
**To:** Kanicia Castillo  
**Subject:** FedEx Shipment 774505537887 Delivered

# Your package has been delivered

Tracking # 774505537887

Ship date:  
Mon, 9/14/15

Kanica Castillo  
Concho  
Midland, TX 79701  
US



Delivery date:  
Tue, 9/15/15 11:58 am

Chris Walls  
Bureau of Land Management  
620 E. Greene St.  
CARLSBAD, NM 88220  
US

## Shipment Facts

Our records indicate that the following package has been delivered.

**Tracking number:** 774505537887

**Status:** Delivered: 09/15/2015 11:58 AM  
Signed for By: S SOULES

**Signed for by:** S.SOULES

**Delivery location:** CARLSBAD, NM

**Delivered to:** Receptionist/Front Desk

**Service type:** FedEx Priority Overnight

**Packaging type:** FedEx Envelope

**Number of pieces:** 1

**Weight:** 0.50 lb.

**Special handling/Services:** Deliver Weekday

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# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

| POD Number    | POD Sub-Code | basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng    | X        | Y       | Depth Well | Depth Water | Water Column |
|---------------|--------------|-------|--------|------|------|-----|-----|-----|--------|----------|---------|------------|-------------|--------------|
| RA 10175      |              |       | LE     | 2    | 1    | 28  | 17S | 32E | 614814 | 3631005* |         | 158        |             |              |
| RA 12020 POD1 |              |       | LE     | 2    | 2    | 1   | 28  | 17S | 32E    | 614828   | 3630954 | 120        | 81          | 39           |
| RA 12042 POD1 |              |       | LE     | 2    | 2    | 1   | 28  | 17S | 32E    | 614891   | 3631181 | 400        |             |              |

Average Depth to Water: 81 feet

Minimum Depth: 81 feet

Maximum Depth: 81 feet

Record Count: 3

PLSS Search:

Section(s): 27-29, 32-34

Township: 17S

Range: 32E

\*UTM location was derived from PLSS - see Help

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1/4/16 4:45 PM

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WATER COLUMN/ AVERAGE  
DEPTH TO WATER





# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

Y

RA 12020 POD1

2 2 1 28 17S 32E

614828

3630954



Driller License: 1456

Driller Name: WHITE, JOHN (LD)

Drill Start Date: 09/24/2013

Drill Finish Date: 09/25/2013

Plug Date:

Log File Date: 10/07/2013

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size: 2.00

Depth Well: 120 feet

Depth Water: 81 feet

### Water Bearing Stratifications:

| Top | Bottom | Description |
|-----|--------|-------------|
|-----|--------|-------------|

|    |     |                               |
|----|-----|-------------------------------|
| 70 | 111 | Sandstone/Gravel/Conglomerate |
|----|-----|-------------------------------|

|     |     |                          |
|-----|-----|--------------------------|
| 111 | 120 | Shale/Mudstone/Siltstone |
|-----|-----|--------------------------|

### Casing Perforations:

| Top | Bottom |
|-----|--------|
|-----|--------|

|    |     |
|----|-----|
| 75 | 110 |
|----|-----|