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

Form C-101
Revised December 16, 2011

Permit

RECEIVED OCD
2012 JUL -5 P 12:35

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

[1] Operator Name and Address	[2] OGRID Number 34945
Kinder Morgan P.O.Box 1110 St. Johns, AZ. 85936	[3] API Number 30-003-20041

[4] Property Code	[5] Property Name	[6] Well No.
310112	Cottonwood Canyon Unit	CC14

[7] Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	27	1N	21W	D	600'	N	1265	W	Catron

[8] Pool Information

Additional Well Information

[9] Work Type	[10] Well Type	[11] Cable/Rotary	[12] Lease Type	[13] Ground Level Elevation
N	C	R	S	7069'
[14] Multiple	**[15] Proposed Depth**	**[16] Formation**	**[17] Contractor**	**[18] Spud Date**
	3000' +/-	Abo	Aztec Well Drilling	Aug. 15, 2012

Depth to Ground water 400' +/-	Distance from nearest fresh water well 2 miles	Distance to nearest surface water

[19] Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
H-40	17 1/4	13 3/8	48	80	100	surface
J-55	11 ¼	9 5/8	36	1200	400	Surface
J-55	8 ¼	7	23	3000	800	Surface

Casing/Cement Program: Additional Comments

Class G cement

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Ram	3000	3000	Hydrill

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: Thomas White

Title: Ops Sup Co2

E-mail Address: Thomas_white@kindermorgan.com

Date: 6/7/12 | Phone: 928-337-3230

OIL CONSERVATION DIVISION

Approved By: Ed Martin

Title: DISTRICT SUPERVISOR

Approved Date: 8/14/2012 | Expiration Date: 8/14/2014

Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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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
30-003-20041		

[4] Property Code	[5] Property Name	[6] Well Number
	COTTONWOOD CANYON UNIT	CC #14

[7] OGRID No.	[8] Operator Name	[9] Elevation
34945	KINDER MORGAN	7069'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	1N	21W	D	600'	N	1265'	W	CATRON

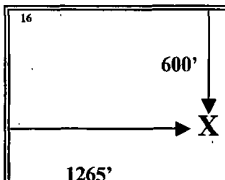
[11] Bottom Hole Location If Different From Surface

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.
640 +/-			

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.

[16]



[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 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 Date

Printed Name

E-mail Address

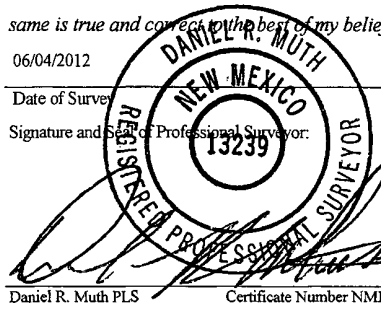
[18] SURVEYOR CERTIFICATION

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 belief.

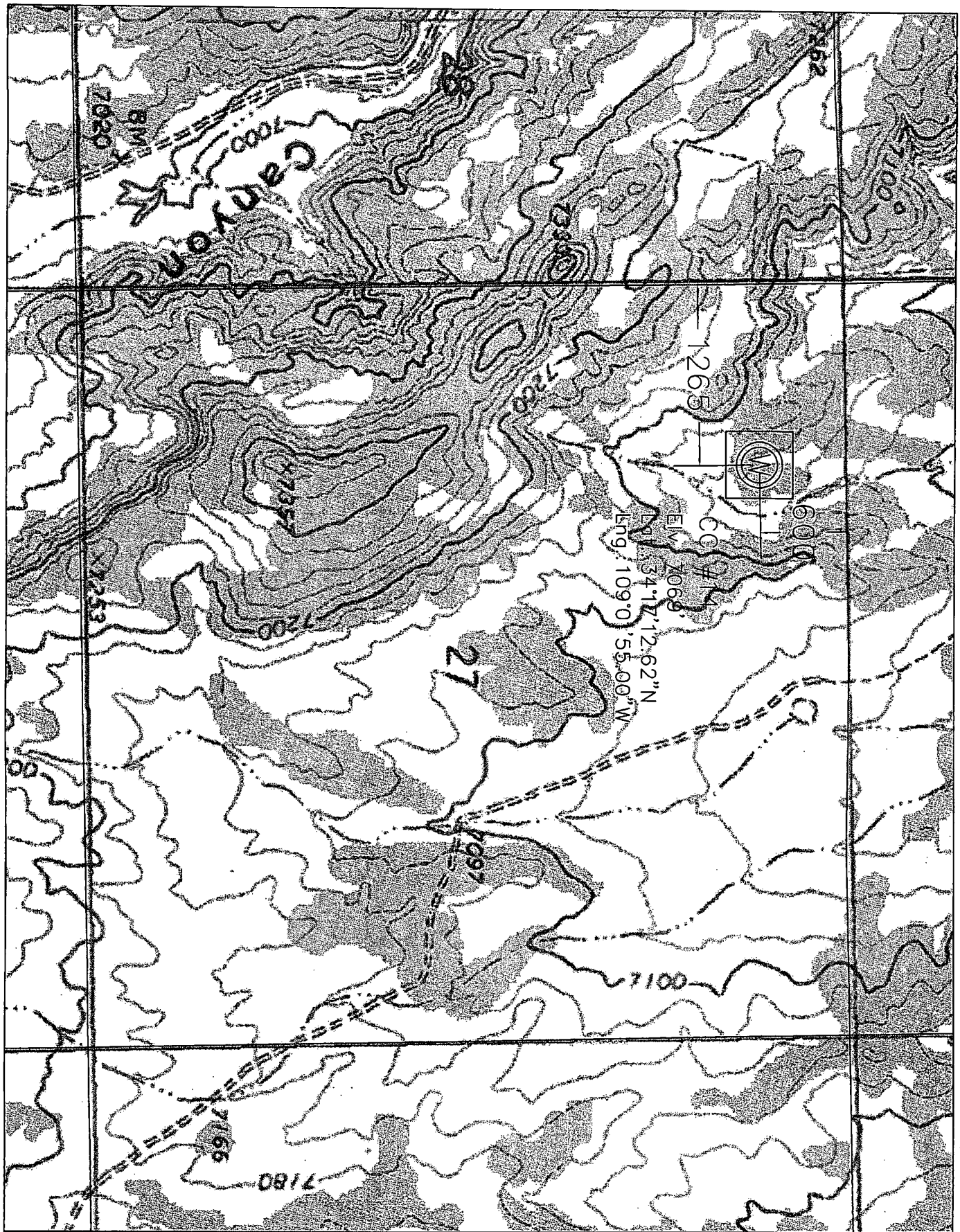
06/04/2012

Date of Survey

Signature and Seal of Professional Surveyor:



Daniel R. Muth PLS Certificate Number NMPS #13239



	Daniel R. Muth PLS Certified Federal Surveyor P.O. Box 1753 Springerville, AZ 85938 (928)-245-3922 dmjmpls.com Project Number 2011.EOR	WELL LOCATION DIAGRAM WELL NO. CC14 S. 27, T1NR21W, NMPM CATRON CO., NM.	NORTH SCALE 1" = 400' 0' 200' 400' 800'	STATE OF ARIZONA) FEE NO. _____ COUNTY OF APACHE) SS. I HEREBY CERTIFY THAT THE WITHIN INSTRUMENT WAS FILED AND RECORDED _____, 20____ AT _____ M IN BOOK NO. _____, PAGE _____ AT THE REQUEST OF DANIEL R. MUTH ARIZONA REGISTERED LAND SURVEYOR NO. 31028 APACHE COUNTY RECORDER BY _____, DEPUTY	

KINDER MORGAN

DRILLING PROGNOSIS

WELL: CC-14

FIELD: Cottonwood Canyon Unit
API # **TBD**

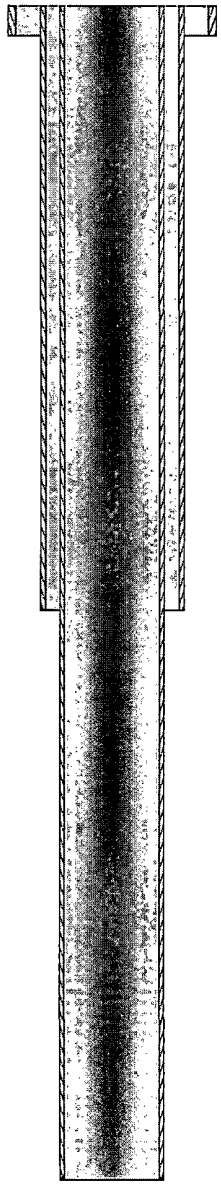
SURFACE LOCATION:
S. 27, T1NR21W, NMPM
Catron County, New Mexico
600' FNL & 1265' FWL
Longitude: W 109° 01' 55.00"
Latitude: N 34° 17' 12.62"

OBJECTIVE: Amos & Granite Wash members of Lower Corduroy
ELEVATION: **7,069 ft**

A FOCUSED EFFORT WILL BE EXPECTED BY ALL PARTIES TO ELIMINATE ANY / ALL ACCIDENTS DURING THE EXECUTION OF THIS DRILLING PROJECT.

GEOLOGY / FORMATION TOPS

Datum: GLE 6,579'



FORMATION	TVD
Glorietta	+/-1,100'
9-5/8" SURF CSG	**+/- 1,200'**
Supai Water Sand	+/- 1,500'
Ft. Apache	+/- 1,800'
Amos Wash Top	+/- 2,000'
Granite Wash Top	+/- 2,700'
Granite Wash Base	+/- 3,000'
7" PROD CSG	**+/-3,000'**

WELL PROGRAM

DRILLING PROCEDURE:

Drill a 12.25" hole to +/- 1,200' TVD, set 9-5/8" casing and conventionally cement to surface.
NOTES: Drill with native water based mud, if circulation is lost switch to air/mist drilling. Casing point is extremely critical. Need hard casing seat must be located by mud loggers and verified by Kinder Morgan Geologist

Drill a 8-3/4" hole to +/- 3,000' TVD, set 7" casing and conventionally cement to surface.
NOTES: Drill with native water based mud. Glorietta/Cocinino and Supai may flow water; therefore, mud wt. should be raised accordingly (not to exceed 9.4 ppg). This section of hole will encounter severe water entry, lost circulation and formation sand influx that seriously will bridge and stick DP; adjust mud recipe as needed in response to hole conditions.

CASING / CEMENTING DETAILS:

Designed TOC for casing strings @ surface

13-3/8" Conductor => 0' – 80'
Cement: Ready Mix to surface
Circulate to surface

9-5/8" 36# J-55 STC => 0' – 1,200'
Cement: Conventional => See Detailed Job Recommendation

7" 23# J-55 LTC => 0' – 3,000'
Cement: Conventional => See detailed job recommendation.
Centralizers to be run on the 1st and 3rd jt's above and below DV tool (4)

Program was prepared using predicted mud weights and properties. It is to serve as a guideline only and should be adjusted based on actual conditions.

SURVEY INFORMATION:

12.25" Sfc Hole: Drop inclination surveys at 500' intervals.
8-3/4" Prod Hole: Drop inclination surveys at 500' intervals.

EVALUATION PROGRAM:

12.25" Sfc Hole:	2-Man Mudlog	0 to +/- 1,200'
8-3/4" Prod Hole:	2-Man Mudlog	+/- 1,200' to Total Depth

DRILLING PROGNOSIS
2012 ST JOHNS DRILLING PROGRAM

OBJECTIVES: 1) Focused effort by all parties to eliminate all accidents during the drilling operation.
2) Drill, evaluate, and case the well in less than 12 days at a cost less than approved AFE.
3) Successfully run open hole log suite for evaluation purposes.

NOTE: Clean, drift, and visually inspect casing.
All depths listed are GL. TOTCO shots required.
Surveys to be run every 500' or nearest bit trip, but not to exceed 750'.

MEASUREMENT DATUM POINT: Ground Elevation

Table 1.1 Proposed CO2 Well-Casing Specifications

TUBULAR	Depth (ft)	Size (in)	Weight (lb/Ft)	Grade	Thread	Collapse/Burst (psi)	Tensile Body/Joint (x1000 lbs)
Conductor	0-80	13 3/8	48	H-40	ST&C	770/1,730	541/332
Surface Casing	0-1,200	9 5/8	36	J-55	ST&C	2,020/3,520	564/394
Production Casing	0-3,000	7"	23	J-55	LT&C	4,040/4,810	248/217

RECOMMENDED DRILLING PROCEDURE

CONDUCTOR HOLE

1. Prepare surface pad location install well cellar.
2. MIRU.
3. Drill 17-1/2 to 80', install 13 3/8 " casing and grout annular space from set depth to surface with concrete.
4. Establish GL at top flange of 13 3/8"
5. Mark drilled depth and set point of 13 3/8" conductor set by cellar service crew.

SURFACE HOLE

6. Rig up 13 5/8 " BOP stack or Hydrill for 12 ½ " hole as shown on BOP Stack Layout drawing. Mix spud mud using freshwater, as detailed in the Baroid drilling fluids program.
7. Pick up 12 ¼ " bit and the bottom hole assembly (BHA), (18) 6" drill collars and 4" X hole drill pipe.
8. Mud drill 12 ¼ " hole to approximately 1,200'or top of Supi anhydrite work drill string every other joint to condition hole. Take deviation surveys every 500' or as required by the State of New Mexico. (Note if circulation is lost due to caverns switch to air/mist drilling)
9. Notify New Mexico Oil & Gas Conservation Commission at least 48 hours prior to setting and cementing surface casing.
10. Clean hole for 1 hour minimum or as necessary to clean the hole. Pull out of hole.
11. Run and cement 9 5/8" casing according to the 9 5/8" Casing Running and Setting Procedures. Please see table 1.1 above.

Reduce mud levels in surface circulating systems and have additional tanks on hand to recover any excess mud or cement that may be circulated to surface.

Designate a qualified person to observe the circulating system and monitor drilling fluid at all times during the cementing procedure. An accurate accounting of volumes will be critical information in the event that circulation is lost.

12. Rig up circulating equipment and perform a pressure test on the lines. Circulate and condition the drilling fluid to ensure correct fluid properties for the cementing procedure. Reciprocate the casing continuously during the circulation of the drilling fluid.

13. Cement the casing in place. Details of the cement blends proposed are located in the contractor cementing program design.

14. Wait on cement 4-6 hours, cut off the surface and conductor pipe and install a 9 5/8" SOW (slip-on for welding) x 11" 3000-psi casing head flange. Perform a pressure test on the casing head after installation. Digitally record the test and maintain the test results on location. Transfer original test data to EOR office for inclusion in well report.

PRODUCTION HOLE

15. Install 11" 3000-psi double ram blow out preventer (BOP), 11" 3000-psi annular preventer, and auxiliary well control equipment (Wellhead) on the 11", 3000-psi casing head flange.

16. Pick up 8 ¾ " bit, stabilizer, (18) 6" drill collars and 4 " DP; strap into hole to maintain precise knowledge of depth due to DP, collars and bit assembly length.

17. Mud drill 8 ¾ " hole to top of Granite Wash anhydrite, at approximately 2,700'.

    This section of hole will encounter severe water entry, lost circulation and formation sand influx that seriously will bridge and stick DP; adjust mud recipe as needed in response to hole conditions and/or when mud properties change due to pH-altering anhydrite sections.

18. Drill adequate interval through the anhydrite, according to the on-site geologist instructions, don't drill past depth provided; must know true drilling depth at all times.

19. Take BH surveys every 500' or as required by the State.

20. Clean hole for 1 hour minimum or as needed to clean the hole. Trip out of hole and strap out if TD not exactly known; driller, toolpusher and mudlogger to keep separate pipe tally.

21. Notify New Mexico Oil & Gas Conservation Commission at least 48 hours prior to setting and cementing surface casing.

22. Run 7" casing according to the 7" Casing Running and Setting Procedures. Please see table 1.1 above. Repeat steps 10 thru 13 of drilling procedures.

23. Fill hole with 4% KCL fluid, run cased hole logging suite

24. Rig up BOP stack according to drawing. (Remember, the next portion of hole will be drilled under balanced with the well flowing gas, Also NO fluid or misting is to be injected into well while drilling this section of hole).

25. Pick up 6 1/4" insert rotary bit and 4" x hole drill pipe and collars. Be sure to run a float with the 6 1/4" bit. Strap in hole to keep accurate drilling depth at all times.

26. Air drill/mist using rotation to the base of the Granite Wash.

27. Clean hole for 1 hour minimum or as necessary to clean the hole, catch flow sample and check with mudlogger or geologist to confirm clean flowstream prior to TOH

28. Pull out of hole under pressure with well flowing – maintain safety procedures at all times

29. Hook up production wellhead according to field drawing.

Approval: X

TODD GENTLES - Drilling & Operations Manager - Kinder Morgan CO2 Company, L.P.

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 124602	2a. Lead (Sponsoring) Agency: New Mexico State Land Office	2b. Other Permitting Agency(ies): N/A	3. Lead Agency Report No.: N/A

4. Title of Report: A Cultural Resources Investigation of A Proposed Kinder Morgan Well Pad and Access Road in Catron County, New Mexico

Author(s): Ryan Brucker

5. Type of Report
☒ **Negative**
☐ **Positive**

6. Investigation Type
☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study
☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other

7. Description of Undertaking (what does the project entail?):

Kinder Morgan CO2 Company, L.P. proposes to construct one well pad and access road, CC#14, on New Mexico State Land Office (NMSLO)-administered State Trust land located in northwestern Catron County, New Mexico. The project area is approximately 3 km (1.86 miles) from the New Mexico-Arizona border, with Springerville, Apache County, Arizona being the closest town at 31 km (19 miles) to the southwest.

In preparation for this project, SWCA Environmental Consultants (SWCA) was retained to complete a pedestrian survey of the area of potential effect (APE) for the proposed well pad and access road (13.33 acre/5.39 ha), for a total of 13.33 acres (5.39 ha) surveyed.

8. Dates of Investigation: June 19, 2012

9. Report Date: June 20, 2012

10. Performing Agency/Consultant:
SWCA Environmental Consultants
Principal Investigator: Matthew Bandy
Project Manager: Matthew Bandy
Field Supervisor: Ryan Brucker
Field Personnel Names: Ryan Brucker, Michael Spears

11. Performing Agency/Consultant Report No:
SWCA Report No. 2012-290

12. Applicable Cultural Resource Permit No(s):
NM State Survey Permit: NM-12-055-S

13. Client/Customer (project proponent): Kinder Morgan CO2 Company, L.P.
Contact: Thomas White
Address: P.O. Box 1110, St. Johns, AZ 85936
Phone: (928) 337.3230
(928) 337.3162 fax

14. Client/Customer Project No.:
SWCA Project number 23940

15. Land Ownership Status ***(Must be indicated on project map):***

Landowner	Acres in APE	Acres in Buffer	Total Acres Surveyed
State Trust Land-NMSLO	8.55	4.78	13.33
Total	8.55	4.78	13.33

16 Records Search(es):

Date(s) of ARMS File Review: June 14, 2012	**Name of Reviewer(s):** Ryan Brucker	
Date(s) of NR/SR File Review: June 14, 2012	**Name of Reviewer(s):** Ryan Brucker	
Date(s) of Other Agency File Review: N/A	**Name of Reviewer(s):**	**Agency:**
Date(s) of Other Agency File Review: N/A	**Name of Reviewer(s):**	**Agency:**

17. Survey Data:

a. Source Graphics ☐ **NAD 27** ☒ **NAD 83**
☐ **USGS 7.5' (1:24,000) topo map** ☐ **Other topo map, Scale:**
☒ **GPS Unit** **Accuracy** ☒**<1.0m** ☐ **1-10m** ☐ **10-100m** ☐ **>100m**

USGS 7.5' Topographic Map Name	USGS Quad Code
The Rincon, AZ	34109-C1

c. County(ies): Catron

17. Survey Data (continued):

d. Nearest City or Town: Springerville, Arizona, approximately 31 km (19 miles) to the southwest, as the crow flies.

e. Legal Description: T1N, R21W, Section 27 - NWNE, NWNW, NENW

Projected legal description? Yes ☐ , No ☒ **Unplatted ☐**

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.): A five acre survey and buffer (30.5-m [100-foot] radius) was conducted around the proposed well pad. Additionally, a proposed access road was surveyed (473.57 by 30.5-m [100-foot] corridor). Centroid for the well pad in the table below (NAD 83, Zone 13):

Location	Proposed Construction Activities	Easting	Northing
New Mexico State Trust Lands	Well Pad CC#14	128801.19 Zone 13	3801325.78Zone 13

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☐ block survey units ☐ linear survey units (l x w): (100 × 1,000 feet) ☒ other survey units (specify): A five acre survey and buffer (30.5-m [100-foot] radius) was conducted around the proposed well pad. Additionally, a proposed access road was surveyed (473.57 by 30.5-m [100-foot] corridor).

Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)

Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 **Crew Size:** 2 **Fieldwork Dates:** June 19, 2012

Survey Person Hours: 2 **Recording Person Hours:** 0 **Total Hours:** 2 (excludes travel)

Additional Narrative: N/A

19. Environmental Setting (NRCS soil designation, vegetative community, elevation, etc.):

The project area is located approximately 3 km (1.86 miles) east of the New Mexico-Arizona border on State Trust lands administered by New Mexico State Land Office. The elevation of the project area is 2,170 m (7,119 feet). The climate for this area, based on the climatic records for Springerville, Arizona (028162), has an average annual maximum temperature of 18.7°C (65.6°F), with an average annual minimum temperature of -0.4°C (31.3°F). The average annual precipitation is 30.38 cm (11.96 inches) and the average annual total snowfall is 46.99 cm (18.5 inches). The period of record is 04/01/1911 to 04/30/2012 (Western Regional Climate Center 2012).

The geology of the area is the Intertongued Dakota-Mancos sequence of west-central New Mexico, which includes the Whitewater Arroyo Tongue of the Mancos Shale and the Twowells Tongue of the Dakota. This formation dates to the Cretaceous period. The primary rock type is a fine-grained mixed clastic, with medium-grained mixed clastic, limestone as secondary and other rock groups located in the area (United States Geological Survey, 2012). There is one group of soil types within the project area: Gustspring-Guy-Typic Ustorthents complex. Gustspring is a well-drained fan alluvium derived from sandstone, with slopes ranging from one to five percent. The soil is found in the tread of fan remnants and has a typical profile of loamy sand, to gravelly sandy clay loam, to gravelly loamy coarse sand, to very gravelly coarse sand, 0 to 152.4 cm (0–60 inches). Guy is a well-drained fan alluvium derived from sandstone, with slopes ranging from three to 10 percent. The soil is found in the rise of alluvial fans and has a typical profile of gravelly sandy loam to gravelly loam, 0 to 152.4 cm (0–60 inches). Typic Ustorthents is a well-drained fan alluvium derived from sandstone, with slopes ranging from one to 10 percent. The soil is found in the rise of alluvial fans with a typical profile of gravelly

sandy loam to gravelly loam, 0 to 152.4 cm (0–60 inches) (Natural Resources Conservation Service 2012).

Flora is typical for the Semiarid Tablelands. It is largely a juniper savanna with one-seed juniper, sage, grama grasses, broom snakeweed, saltbush, yucca and various other cacti, mixed grasses and forbs throughout the project and surrounding areas (Ecoregions of New Mexico 2006). Fauna observed included jack rabbit, ground squirrel, with scat and track evidence for elk, deer, coyote, and pronghorn.

References:

Griffith, G.E., J.M. Omernik, M.M. McGraw, G.Z. Jacobi, C.M. Canavan, T.S. Schrader, D. Mercer, R. Hill, and B.C. Moran.
2006. Ecoregions of New Mexico (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,400,000).

U.S. Geological Survey
2012 Mineral Resources On-Line Spatial Data. Available at: http://tin.er.usgs.gov/geology/state/sgmc-unit.php?unit=NMKdm;0. Accessed June 21, 2012.

Natural Resource Conservation Service
2012 Web Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov. Accessed June 21, 2012.

Western Regional Climate Center
2012 New Mexico Climate Summaries. Available at: http://www.wrcc.dri.edu/coopmap/. Accessed June 21, 2012.

a. Percent Ground Visibility: 80% **b. Condition of Survey Area (grazed, bladed, undisturbed, etc.):** The ground surface is disturbed by moderate ungulate grazing and alluvial erosion (drainages and slope wash).

21. CULTURAL RESOURCE FINDINGS ☐ **Yes, See Page 3** ☒ **No, Discuss Why:**

The project area was very small (13.33 acres [5.39 ha]), and so findings would be unlikely in any location. In addition, the project areas are located in a shallow valley/floodplain environment experiencing erosion and deposition. Moderate grazing and bioturbation occurring within the project area are altering the surface and creating disturbances. Any ancient cultural remains in these locations would probably have been either destroyed or buried by these ongoing processes.

22. Required Attachments (check all appropriate boxes):

- ☒ **USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn**
- ☒ **Copy of NMCRIS Mapserver Map Check**
- ☐ **LA Site Forms - new sites (*with sketch map & topographic map*)**
- ☐ **LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)**
- ☐ **Historic Cultural Property Inventory Forms**
- ☐ **List and Description of isolates, if applicable**
- ☐ **List and Description of Collections, if applicable**

23. Other Attachments:

- ☒ **Photographs and Log**
- ☒ **Other Attachments**

(Describe): A Representative photos of the project area. Table Describing IO.

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Matthew Bandy

Signature _____ **Date:** June 28, 2012 **Title (if not PI):**

25. Reviewing Agency:	**25. Reviewing Agency:**
Reviewer's Name/Date:	**Reviewer's Name/Date:**
Accepted ( ) Rejected ( )	**Accepted ( ) Rejected ( )**
Tribal Consultation (if applicable): ☐ **Yes** ☐ **No**	**Tribal Consultation (if applicable):** ☐ **Yes** ☐ **No**

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.:	2. Lead (Sponsoring) Agency:	3. Lead Agency Report No.:
124602	New Mexico State Land Office	N/A

SURVEY RESULTS:

Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited (***site update form required***): 0
Previously recorded sites not relocated ***(site update form required):*** 0
TOTAL SITES VISITED: 0
Total isolates recorded: 1 **Non-selective isolate recording?** ☒
Total structures recorded (***new and previously recorded, including acequias***): 0

MANAGEMENT SUMMARY:
It is recommended that work on the proposed well pad CC#14 proceed—no further management of this project area is recommended.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

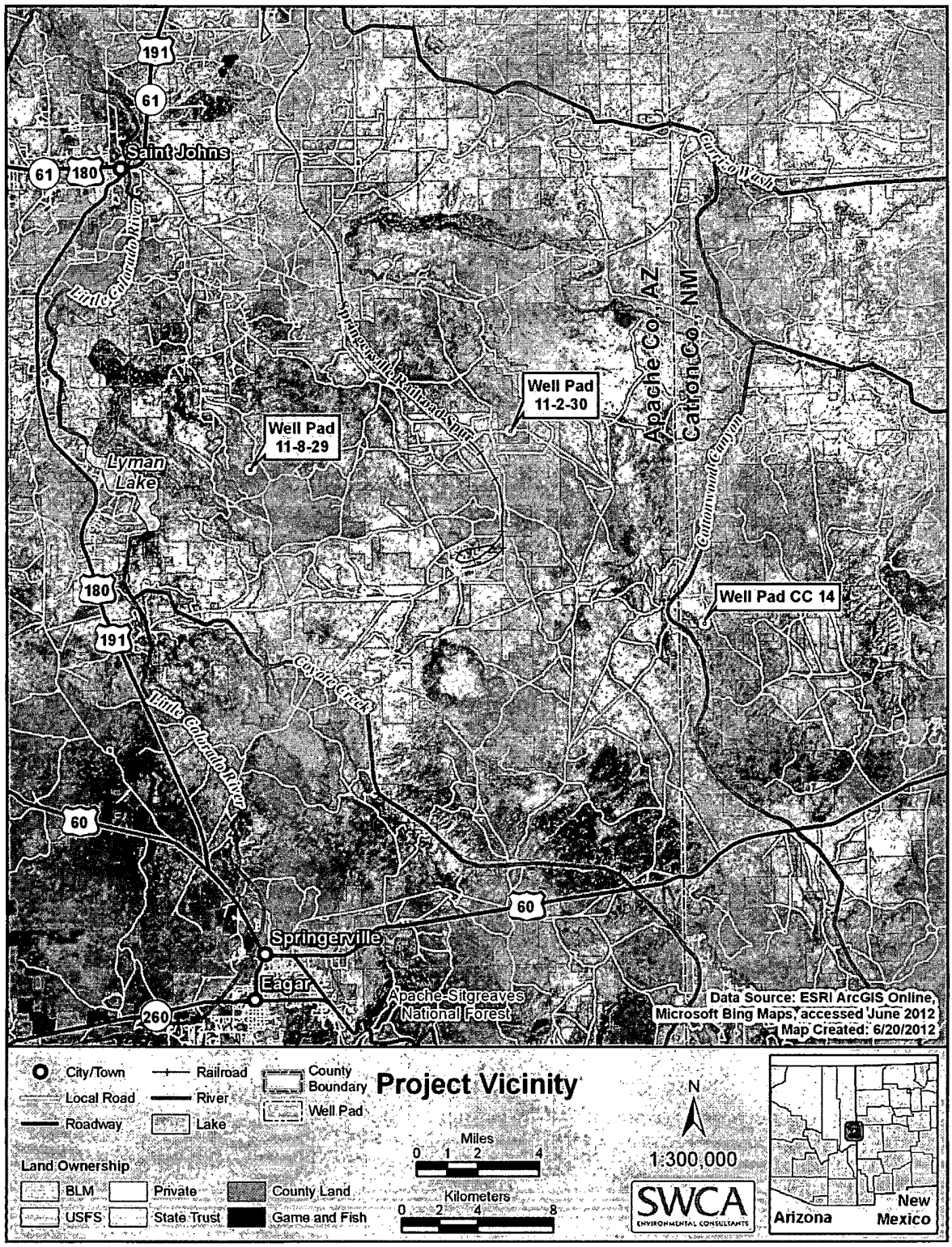


Figure 1. Project vicinity map.

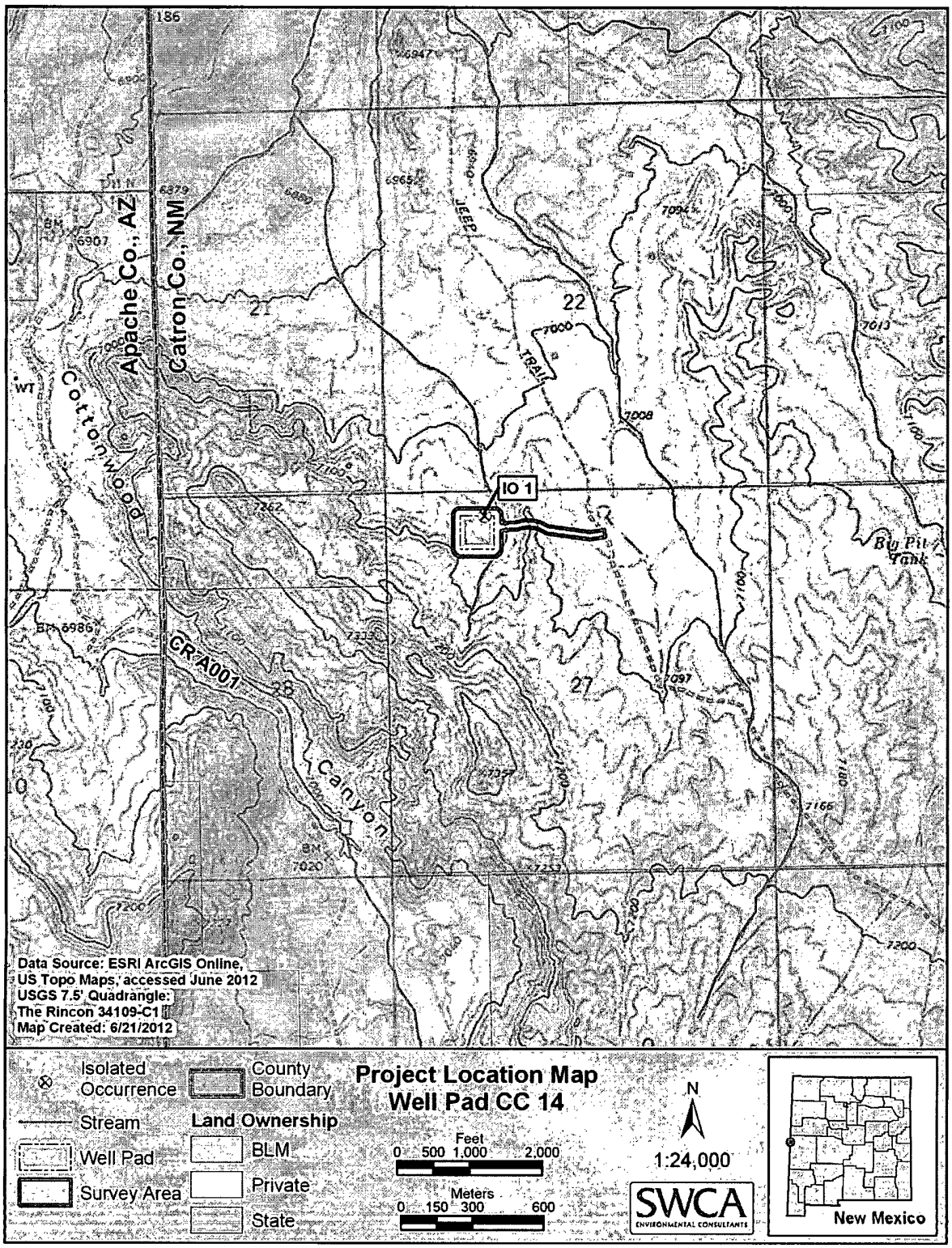


Figure 2. Project location map.

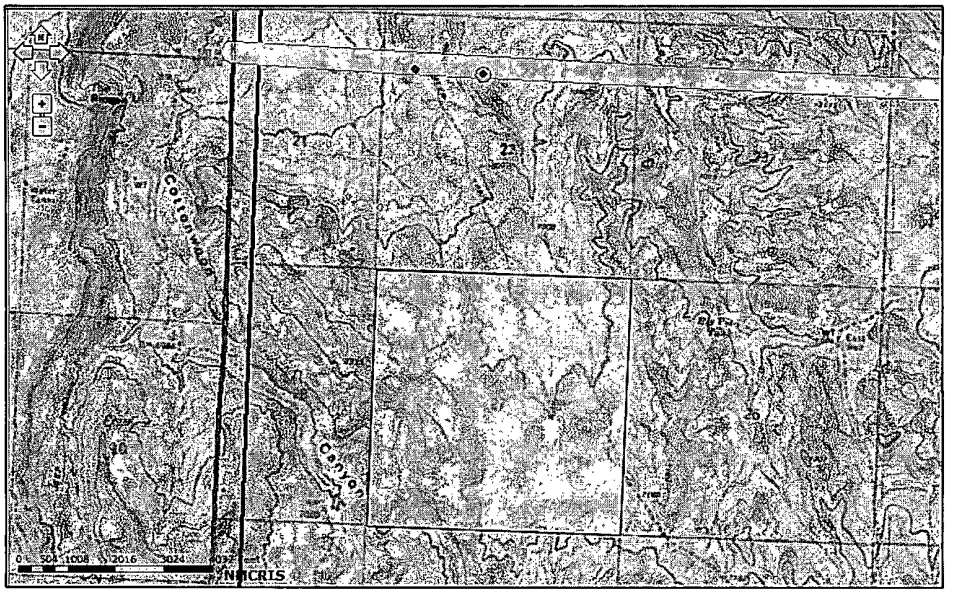


Figure 3. ARMS screenshot of previous investigations and sites, one survey within 1,000 m (3,280 feet) of the project area.

Figure 4. Project area overview proposed Well Pad CC#14, facing northwest.

Table 1. Isolated Occurrence Observed during the Investigation

IO Number	Area of IO	IO Description
1	9 sq. m	One grey/white chert secondary flake, complete; plain platform; size 4–5 cm. One grey/white chert tertiary flake, proximal fragment; plain platform; size 1–2 cm. One grey/white chert secondary flake, complete; faceted platform; size 4–5 cm.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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
Department
RECEIVED OCD
Oil Conservation Division
1220 South St. Francis Dr.
2012 AUG - Santa Fe, NM 87505

Form C-144
Revised August 1, 2011

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: _Kinder Morgan_____ OGRID #: __34945_____
Address: __P.O.Box 1110 St. Johns, AZ. 85936_____
Facility or well name: _____CC14_____
API Number: 30-003-20041 OCD Permit Number: _____
U/L or Qtr/Qtr _____D_____ Section _____27____ Township _____1N___ Range ____21W___ County: _____Catron_____
Center of Proposed Design: Latitude _____34 17'12.62"_____ Longitude ____109 0' 55.00"_____ NAD: ☐1927 ☐ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness ___30____mil ☐ LLDPE ☐ HDPE ☒ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☒ Factory ☐ Other _____ Volume:_Appox. 400_bbl Dimensions: L80'__ x W_80'__ x D___6'___

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.16.8 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☒ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Thomas White Title: Ops. Sup. Co2 PER PHONE CONVERSATION WITH TOM WHITE 8/14/2012

Signature: (See Below) Date: 8/2/2012

e-mail address: thomas_white@kindermorgan.com Telephone: 928-337-3230

20.
OCD Approval: ☑ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Ed Martin **Approval Date:** 8/14/2012

Title: DISTRICT SUPERVISOR **OCD Permit Number:**

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:**

22.
Closure Method:

☐ Waste Excavation and Removal ☒ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: Disposal Facility Permit Number:

Disposal Facility Name: Disposal Facility Permit Number:

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude Longitude NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Thomas White Title: Ops. Sup. Co2

Signature: Date: 8/3/12

e-mail address: Thomas_White@kindermorgan.com Telephone: 928-337-3230

COTTONWOOD CANYON UNIT
CC #14
600' FNL & 1,265' FWL
Section 27, T1N, R21W
CATRON COUNTY, NM
GLE. 7,069'

SURFACE RECLAMATION PLANS

1. Methods of Handling Waste Material

   A. Produced water will either be reused at another drill site in connection with this project or hauled to a Class ~~I~~ II non-hazardous disposal well.

   B. Any produced water containing significant quantities of produced oil will be treated and the oil sold, recycled, or disposed of in a state-licensed treatment facility.

   C. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All wastes other than sewage, drilling fluids and drill cuttings will be contained in a skid-mounted refuse container/trailer. These solid waste and garbage resulting from drilling operations will be hauled to the local landfill or any other landfill permitted for this waste type.

   D. Sewage from onsite sanitary facilities will be stored in an onsite, and then hauled under existing permit to the licensed sewer treatment plant.

   E. Drilling fluids will be recycled whenever practical. The following will be conducted to accomplish the task of handling the drilling fluids and drill cuttings waste materials.

      1. The free liquids from the reserve pit will be removed via vacuum truck. The liquids will either be hauled for reuse to another drilling location in connection with this project or disposed of in a Class ~~I~~ II non-hazardous disposal well.

      2. The contents of the pit and soils below will be tested using the NMAC rule 19.15.17.13 subsection B procedures. The sample test results will dictate the disposal methods for the cuttings.

         a. Regardless of test results, all cuttings from containment pit will be removed and kept separate. The temporary containment and storage method of the cuttings for the purpose of drying and waiting on test results will be determined at a future date and the procedure will be reviewed and approved prior to use by the proper BLM authorities. Some of the possible options include but are not limited to; centrifuge dewatering, steel

tanks, concrete base and bermed containment area on Kinder Morgan property, shallow bermed synthetically lined drying area or other options currently still being investigated.

b. The liners from each containment pit will then be removed and disposed of at an approved solid waste disposal site. The site of preferance being the Montezuma County Land Fill located south of Cortez, CO.

c. If regulatory limits are exceeded for the cuttings they will be dried and transported to a licensed land farm for non-hazardous material.

d. If regulatory limits are met for either of the cuttings, they will be dried and buried on site in their original containment pit and mixed with the native soil recovered from the original pit construction.

2. Plans for Surface Pit Remediation

A. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in a mesh wire cage, and hauled to an approved sanitary landfill.

B. Before any dirt work to restore the location takes place, the reserve pit will be completely dry. Any water remaining in the reserve pit will be disposed in an approved disposal facility. The reserve pit will be reclaimed within 12 months from the date the well is spudded.

1. Before reclamation of the reserve pit proceeds, it will be dry and solid. There will be a minimum of 2 feet of overburden on the pit prior to replacing the topsoil.

C. If production is established, unused portions of the well pad will be re-contoured, and topsoil spread. The well access road will terminate in a teardrop pattern around the wellheads.

D. All disturbed areas will be re-contoured to blend as nearly as possible with the natural topography. All compacted portions of the pad will be ripped to a depth of 12 inches unless in solid rock.

E. Stockpiled topsoil will be spread evenly over the areas designated for restoration. Enough topsoil will be kept to reclaim at a later date the portion of the location and access road needed for production operations.

F. Reclamation operations will start immediately after drilling or completion operations cease and will be completed as soon as practical under prevailing weather conditions.

G. Precautionary measures will be taken to control noxious weeds adjacent to disturbed areas throughout the course of operations (including production phase). Noxious weeds, which may be introduced due to soil disturbance or reclamation, will be treated. These methods may include biological, mechanical or chemical treatments.

3. Other Information

A. If cultural artifacts are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area office will be contacted. All employees working in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.

B. Kinder Morgan CO2 Company will be responsible for informing all persons associated with this project that they will be subject to prosecution for knowingly disturbing Native American Indian shrines, historic and prehistoric archaeology sites, or for collecting artifacts of any kind, including arrowheads and pottery shards, from all federal lands; they may also be subject to prosecution for similar activity on private lands without the permission of the private surface owner.

C. Kinder Morgan CO2 Company will furnish the dirt contractor a copy of the approved Surface Reclamation Plan prior to commencing any work. A copy will be made available on site during construction.

D. Any accidental spill will be cleaned up immediately, and contaminated soils will either be land-farmed or land-filled. Proper reporting procedures will be followed.

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
G 02472 POD1	1	4	3	13	02N	21W	132765	3812965

Driller License:
Driller Name: SEE FILE

Drill Start Date:		**Drill Finish Date:**		**Plug Date:**	
Log File Date:	01/06/2006	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**		**Depth Water:**	100 feet

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
G 02545 POD1	2	4	3	11	01S	20W	140699	3794268

Driller License: CARAWAY DRILLING
Driller Name:

Drill Start Date:	12/15/2006	**Drill Finish Date:**	02/14/2007	**Plug Date:**	
Log File Date:	03/07/2007	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	4
Casing Size:	4.00	**Depth Well:**	450 feet	**Depth Water:**	356 feet

Water Bearing Stratifications:	Top	Bottom	Description
	379	381	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	370	450

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
G 02536 POD1	1	3	4	01	01S	20W	142588	3795884

Driller License: CARAWAY DRILLING
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:	5.00	**Depth Well:**	300 feet	**Depth 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**
G	02506 POD1	2	2	1	01	01S	20W	142376	3797464

Driller License: CARAWAY DRILLING
Driller Name:

Drill Start Date:	10/05/2006	**Drill Finish Date:**	11/09/2006	**Plug Date:**	
Log File Date:	12/11/2006	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	10
Casing Size:	5.00	**Depth Well:**	500 feet	**Depth Water:**	463 feet

Water Bearing Stratifications:	**Top**	**Bottom**	**Description**
	478	479	Shale/Mudstone/Siltstone

Casing Perforations:	**Top**	**Bottom**
	450	500

Tanner, Carmen

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KINDER MORGAN

Maintenance and Operating Plan for Temporary Pits

In accordance with Rule 19 15 17, Kinder Morgan CO_2 Company, L.P. ($KMCO_2$) will maintain and operate a temporary pit in accordance with the following plan:

1. $KMCO_2$ will discharge into a temporary pit, only fluids used or generated during the drilling or workover process.

2. $KMCO_2$ will maintain a temporary pit free of miscellaneous solid waste or debris.

3. Any hydrocarbon base drilling fluid generated during the drilling or workover operation will be contained in an appropriate tank, it will not be discharged into a temporary pit. If any measureable layer of oil from the surface of a temporary pit after any drilling or workover operation, $KMCO_2$ will remove it immediately.

4. $KMCO_2$ shall maintain at least two feet of freeboard for a temporary pit.

5. $KMCO_2$ will use a check list to perform a daily pit inspection while the drilling or workover rig is on-site. After drilling or workover operations, $KMCO_2$ will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be kept in the well file, inspections will be available for the district office's review upon request. $KMCO_2$ will file a copy of the log with the District IV office once temporary pit is closed.

6. $KMCO_2$ shall remove all free liquids from a temporary pit within 30 days from the date the drilling or workover rig is released.

7. $KMCO_2$ shall remove any liquids from the temporary pit used for cavitation within 48 hours after completing cavitation. $KMCO_2$ may request additional time to remove the liquids from the District IV Division Office if it is not feasible to remove the liquids within 48 hours.

KINDER MORGAN

Pit Design and Construction Plan

In accordance with Rule 19 15 17, the following information describes the design and construction of temporary pits on Kinder Morgan CO_2 Company, L.P. ($KMCO_2$) locations. This is $KMCO_2$'s standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

1. $KMCO_2$ will design and construct a temporary pit to contain liquids and solids, prevent contamination of fresh water and protect public health and environment.

2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.

3. $KMCO_2$ will post a well sign, not less than 12" by 24", on the well site prior to construction of the temporary pit. The sign will list the operator on record as the operator, the location of the well site by unit letter, section, township, range and emergency telephone numbers.

4. $KMCO_2$ shall construct all new fences utilizing 4 strand barbed wire. T-posts shall be installed every 12 feet and corners shall be anchored utilizing wooded posts. Entire location including pits will be fenced at all times.

5. $KMCO_2$ shall construct the temporary pit so that the foundation and interior slope are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure.

6. $KMCO_2$ shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.

7. Pit walls will be w2alked down by a crawler type tractor following construction.

8. All temporary pits will be lined with 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.

9. Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.

10. All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.

11. $KMCO_2$ Will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. $KMCO_2$ will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. $KMCO_2$ will minimize the number of field seams in corners and irregularly shaped areas.

KINDER MORGAN

12. The liner shall be protected from the fluid force or mechanical damage through the use of mud pit slides, or a manifold system.

13. The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.

14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.

15. Temporary blow pits will be constructed to allow gravity flow to discharge into the lined drill pit.

16. The lower half of the blow pit (nearest lined pit) will be lined with 20 mil liner. The upper half of the blow pit will remain unlined as allowed in Rule 19 15 17 11 F 11.

17. $KMCO_2$ will not allow freestanding liquids to remain on the unlined portion of the blow pit.

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Temporary Pit Inspection

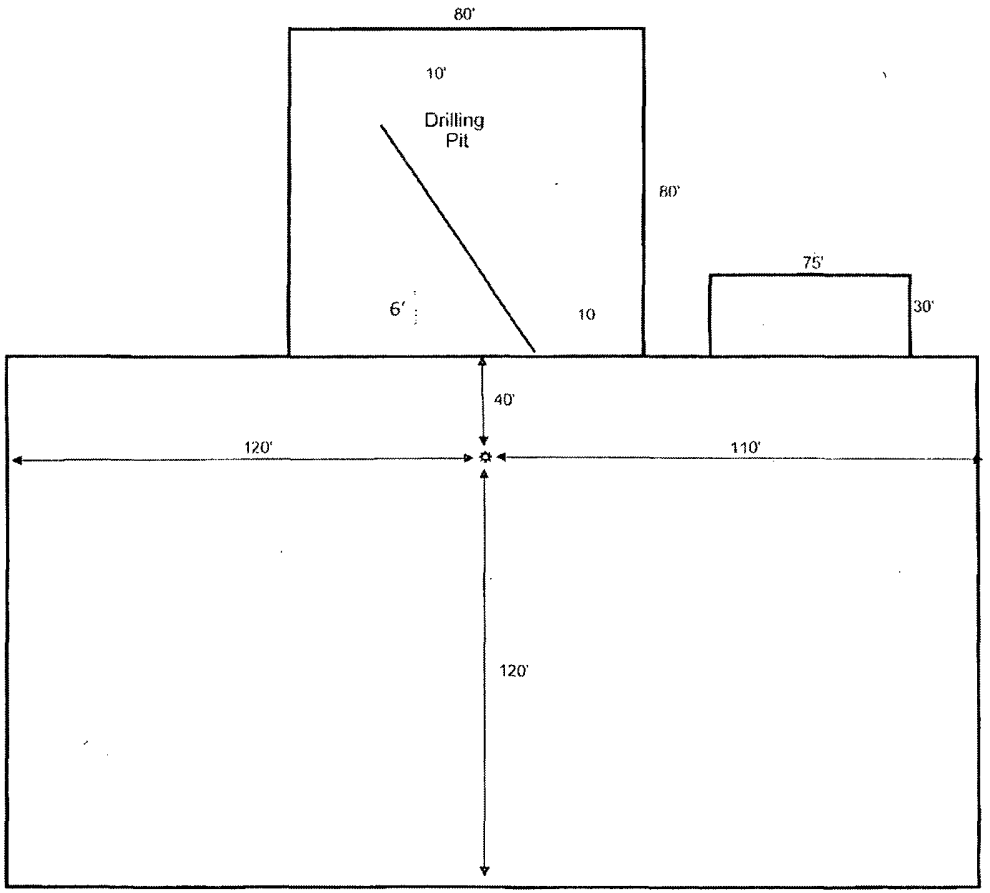
Well Name:		API #:		Rig Mobe Date:	
County:		Pit liner thickness:		Rig Demobe Date:	

Inspection Date:	Time	By Whom?	Has any hazardous waste been disposed of in pit(s)?	Is the liner of the pit intact and free of penetrations?	Is there an oil absorbent boom on location?	Distance from top of pit to fluid level (minimum 2')

All pits to be inspected DAILY during drilling/workover operations.

Any penetration of the pit liner shall be reported to the NM-OCD <u>within 48 hours.</u>

Cottonwood Canyon Gas Unit
Approximate Rig Footprint,
Location and Pit Design



KINDER MORGAN

11" BOP – 5000psi