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

IN THE MATTER OF THE APPLICATION OF DKD, LLC FOR AN ORDER REVOKING THE INJECTION AUTHORITY FOR THE GANDY CORPORATION STATE "T" WELL NO. 2, LEA COUNTY, NEW MEXICO

CASE NO. 13686 DE NOVO

CHRONOLOGY OF ADMINISTRATIVE ACTIONS

April 30, 2002	Administrative Order SWD-836 approving of Pronghorn Management Corporation's administrative application for salt water disposal, Lea County, New Mexico.		
July 9, 2002	Director's letter order suspending Order SWD-836 due to the receipt of an objection from offsetting lease holder.		
September 5, 2002	Division Examiner hearing on Pronghorn Management Corporation's application for approval of a salt water disposal well.		
October 28, 2002	Order No. R-11855 approving of Pronghorn Management Corporation's application to utilize the State "T" Well No. 2 for salt water disposal.		
March 20, 2003	NMOCC De Novo Hearing on Pronghorn Management Corporation's application for approval of salt water disposal well pursuant to Application for Hearing De Novo filed on behalf of DKD, LLC.		
May 15, 2003	Order No. R-11855-B approving of Pronghorn Management Corporation's application for salt water disposal.		
May 3, 2004	The Department Secretary and Acting Division Director issues an Emergency Shut-in Order due to injections through intervals not permitted under Order No. R-11855-B.		
July 1, 2004	Division Order No. R-12161 denying Gandy Corporation's application for an emergency order authorizing it to operate the State "T" No. 2 Well until a decision is issued after a hearing on the merits of Gandy's main application.		

DKD, LLC Exhibit No. 3-A

July 8, 2004	Division Examiner Hearing in Case No. 13293 on the application of Gandy Corporation for approval of a disposal well.
July 9, 2004	Order No. Order -12171 approving of Gandy Corporation's application for disposal into additional perforated intervals in the State "T" Well No. 2.
December 15, 2005	Gandy Corporation application to increase surface injection pressure on the State "T" No. 2 well.
December 19, 2005	Division Order No. IPI-264 authorizing Gandy Corporation to increase the surface injection pressure to 1930 psig.
October 24, 2006	Division enters Order No. R-12649 in Case No. 13686 revoking Gandy's injection authority.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER SWD-836

APPLICATION OF PRONGHORN MANAGEMENT CORPORATION FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Pronghorn Management Corporation made application to the New Mexico Oil Conservation Division on April 5, 2002, for permission to reenter for produced water disposal its State "T" Well No. 2 (API No. 30-025-03735) located 4290 feet from the South line and 500 feet from the West line (Unit L) of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

Pronghorn Management Corporation is hereby authorized to re-enter its State "T" Well No. 2 (API No. 30-025-03735) located 4290 feet from the South line and 500 feet from the West line (Unit L) of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into

Administrative Order SWD-836
Pronghorn Management Corporation
April 30, 2002
Page 2

the San Andres and Glorieta formations from a depth of 6000 feet to 6200 feet through 2 7/8 inch plastic-lined tubing set in a packer located approximately at 5950 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to perforating for injection, the following cementing operations must take place: Set a 5 ½ inch CIBP at 10500 feet, spot mud, then perforate above the current cement top at approximately 9762 feet and squeeze cement through perforations to the surface. Next, spot mud from the retainer to 6500 feet and set a cement plug inside the 5 ½ inch casing at 6500 feet. Wait on cement then run a CBL/CET from 6500 feet to the surface with pressure on the annulus and submit to the Hobbs District office for approval.

The casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1200 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs District Office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as

Administrative Order SWD-836
Pronghorn Management Corporation
April 30, 2002
Page 3

may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 30th day of April 2002.

LORI WROTENBERY, Directo

LW/WVJ

cc: Oil Conservation Division - Hobbs



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

THE RECORD ONLY

July 9, 2002

Mr. G. A. Baber Pronghom Management Corporation PO Box 1772 Hobbs, New Mexico 88241

RE: ADMINISTRATIVE ORDER SWD-836

Dear Mr. Baber:

Under the provisions of Rule 701(B), Pronghorn Management Corporation made application to the New Mexico Oil Conservation Division on April 5, 2002, for permission to re-enter for produced water disposal its State "T" Well No. 2 (API No. 30-025-03735) located 4290 feet from the South line and 500 feet from the West line, NW/4 SW/4, Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.

After the 15-day waiting period, the Division issued Administrative Order SWD-836 approving this application.

Since then, it has come to our attention that one offset leaseholder was not contacted concurrently with the others and therefore had an extended date to file an objection. That party did in fact file objection with the Division on June 28th.

Since valid objection has been received, Administrative Order SWD-836 issued April 30th 2002, is hereby suspended and this case shall be set to hearing at the first available docket which is August 1st 2002.

Sincerely

LW/WVI

cc: Oil Conservation Division - Hobbs

James Bruce Attorney at Law for DKD, L.L.C.

Files: SWD-836

ORI WROTENBERY, Di

JUL 2000

Hobbs OCD

NMOCD CASE NO. 13686 APRIL 27, 2006 DKD, LLC EXHIBIT NO. 3-C

Fe, New Mexico 87505 emurd state nm. us

Oil Conservation Phone: (505)



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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 12905 ORDER NO. R-11855

APPLICATION OF PRONGHORN MANAGEMENT CORPORATION FOR APPROVAL OF A SALT WATER DISPOSAL WELL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on September 5, 2002, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>28th</u> day of October, 2002, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, Pronghorn Management Corporation ("Pronghorn"), seeks approval to utilize the State "T" Well No. 2 (API No. 30-025-03735) located 4290 feet from the South line and 500 feet from the West line (Unit L, Lot 12) of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, to dispose of produced water into the San Andres and Glorieta formations from a depth of 6,000 feet to 6,400 feet.
- (3) DKD, L.L.C., an offset operator, appeared at the hearing in opposition to the application.
 - (4) The record in this case shows that:
 - (a) a Division Form C-108 (Application to Inject) for injection into the State "T" Well No. 2 was

NMOCD CASE NO. 13686 APRIL 27, 2006 DKD, LLC EXHIBIT NO. 3-D

- originally filed by Pronghorn for administrative approval on April 5, 2002;
- (b) on April 30, 2002 the Division issued Administrative Order No. SWD-836, which order authorized Pronghorn to utilize the State "T" Well No. 2 to dispose of produced water into the San Andres and Glorieta formations from a depth of 6,000 feet to 6,200 feet;
- (c) subsequently, DKD, L.L.C. contacted and advised the Division that it operates acreage within one-half mile of the State "T" Well No. 2, and that it was not provided notice of the administrative application filed by Pronghorn on April 5, 2002, as required by Form C-108 and Division Rule No. 701.B.;
- (d) DKD, L.L.C. further advised the Division that it objected to the application; and
- (e) by letter dated July 9, 2002 the Division advised Pronghorn that due to the apparent deficiency in notice to DKD, L.L.C., and the valid objection received by the Division, Order No. SWD-836 would be suspended pending the outcome of a hearing before a Division examiner.
- (5) The evidence presented by both parties demonstrates that:
 - (a) in 1992 or 1993 Pronghorn acquired State of New Mexico Lease No. V-4886, which comprises Lots 11, 12, 13 and 14 of Section 6, Township 16 South, Range 36 East, NMPM. Subsequently, Pronghorn's lease from the State of New Mexico terminated due to lack of production. On June 1, 1996 this land was re-leased by the Commissioner of Public Lands to Chesapeake Operating, Inc. ("Chesapeake");
 - (b) on May 1, 2002, Chesapeake assigned a portion of Lease No. V-4886, being Lots 13 and 14 of Section 6, to DKD, L.L.C. This document was recorded in

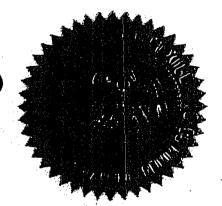
- the Lea County, New Mexico County Clerk's office on May 14, 2002;
- (c) Chesapeake retained Lots 11 and 12 of Section 6;
- (d) prior to termination of its lease, Pronghorn operated several wells within Lots 11, 12, 13 and 14 of Section 6, among them the State "T" Well No. 1 located in Lot 13, the State "T" Well No. 2 located in Lot 12, the State "T" Well No. 3 located in Lot 14, and the State "T" Well No. 4 located in Lot 11. Pronghorn testified that it has plugged, or is currently in the process of plugging, the State "T" Wells No. 1, 3 and 4, although Division records do not reflect that any such plugging has taken place thus far;
- (e) Division records show Pronghorn to be the current operator of the State "T" Well No. 2;
- (f) the surface land on which the State "T" Well No. 2 is located is owned by Felipe A. Moreno and Adelaida P. Moreno;
- (g) Mr. Danny Watson, the owner of DKD, L.L.C., is the surface owner of certain acreage located on Lease No. V-4886. Mr. Watson contends that Pronghorn, in fulfilling its obligation to plug and abandon its wells located on this lease, has not satisfactorily cleaned and restored the surface to its original condition;
- (h) DKD, L.L.C. further contends that the San Andres formation in the area of the State "T" Well No. 2 is potentially productive, and that allowing injection into this formation may violate its, or others, correlative rights;
- (i) neither Chesapeake, Felipe A. Moreno, nor Adelaida P. Moreno has granted any authority to Pronghorn to inject water for commercial disposal purposes on Lot 12; and

- (j) Pronghom has not applied to, nor received any approval from the Commissioner of Public Lands to commercially inject fluid into the State "T" Well No. 2 within Lot 12.
- (6) DKD, L.L.C. did not present any geologic or engineering evidence to support its position that the San Andres formation may be productive in the area of the State "T" Well No. 2 and that approval of the application may violate its correlative rights.
- (7) DKD, L.L.C.'s assertion that Pronghorn has not adequately cleaned up the surface on certain acreage it owns on Lease No. V-4886 as not relevant, and should therefore not be a factor in this case.
- (8) At the time Pronghorn filed its Form C-108 for administrative approval to inject into the State "T" Well No. 2, the owner of record of Lots 13 and 14 was Chesapeake. The evidence shows that Pronghorn provided notice to Chesapeake in accordance with Division rules.
- (9) With regards to Division Order No. SWD-836, it appears that there is no deficiency in notice to DKD, L.L.C., however, it also appears that there is a deficiency in notice to the surface owner, Felipe A. Moreno and Adelaida P. Moreno.
- (10) Pronghorn did not provide notice of this case to the surface owners, Felipe A. Moreno and Adelaida P. Moreno.
- (11) Pronghorn has not secured from either Chesapeake, the lessee of State Lease No. V-4886, the Commissioner of Public Lands, nor the surface owner, any type of additional authorization that may be necessary in order to utilize the State "T" Well No. 2 for commercial disposal operations.
- (12) Due to the notice deficiency described above, Division Order No. SWD-836 should be <u>rescinded</u>.
- (13) Due to the notice deficiency in this case, and due to certain outstanding issues related to Pronghorn's right to inject water into this well on State Lease No. V-4886, the application should be <u>denied</u>.
- (14) Pronghorn may reapply to the Division to utilize the State "T" Well No. 2 for disposal purposes at such time as the issues described in Finding No. (13) are addressed and resolved.

IT IS THEREFORE ORDERED THAT:

- (1) The application of Pronghorn Management Corporation to utilize the State "T" Well No. 2 (API No. 30-025-03735) located 4290 feet from the South line and 500 feet from the West line (Unit L, Lot 12) of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, to dispose of produced water into the San Andres and Glorieta formations from a depth of 6,000 feet to 6,400 feet, is hereby <u>denied</u>.
 - (2) Division Order No. SWD-836 dated April 30, 2002, is hereby rescinded.
- (3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY

Director

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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 12905

THE APPLICATION OF PRONGHORN MANAGEMENT CORPORATION FOR APPROVAL OF A SALT WATER DISPOSAL WELL, LEA COUNTY, NEW MEXICO.

ORDER NO. R-11855-B

ORDER OF THE OIL CONSERVATION COMMISSION

BY THE COMMISSION:

THIS MATTER came before the Oil Conservation Commission (hereinafter referred to as "the Commission") for evidentiary hearing on March 20, 2003 at Santa Fc, New Mexico on application of Pronghorn Management Corporation (hereinafter referred to as "Pronghorn"), de novo, opposed by DKD, L.L.C. (hereinafter referred to as "DKD"), and the Commission, having carefully considered the evidence, the pleadings and other materials submitted by the parties hereto, now, on this 15th day of May, 2003.

FINDS,

- 1. Notice has been given of the application and the hearing on this matter, and the Commission has jurisdiction of the parties and the subject matter herein.
- 2. This matter is before the Commission on application of Prenghorn for review de novo.
- 3. In this matter, Pronghorn seeks a permit pursuant to Rule 701 of the Rules and Regulations of the Oil Conservation Division, 19.15.9.701 NMAC (11-02-2000), to dispose of produced water into the San Andres and Glorieta formations. Pronghorn seeks to use the State "1" Well No. 2 (API No. 30-025-03735) for this purpose. Disposal is to be accomplished through 2 7/8 inch plastic-lined tubing set in a packer located at approximately 5,590 feet. DKD opposes the application on various grounds.
- 4. Before moving to the merits of the dispute, the subject of notice should be addressed. Notice was raised as an issue in the Oil Conservation Division's orders and the parties hereto presented evidence and testimony on the subject during the Division's proceeding (but not during the hearing *de novo*).

NMOCD CASE NO. 13686 APRIL 27, 2006 DKD, LLC EXHIBIT NO. 3-E

- 5. An operator desiring to inject produced water must apply for a permit and serve a copy of the application on the "owner of the surface of the land upon which each injection or disposal well is to be located" and "each leasehold operator within one-half mile of the well" proposed for injection. See 19.15.9.701(A) and (B) NMAC.
- 6. Pronghom filed such an application for administrative approval of its proposed operation on April 5, 2002. On April 30, 2002 the Oil Conservation Division (hereinafter referred to as "the Division") issued Administrative Order No. SWD-836 and granted the application. Such applications may be approved administratively unless an objection to the order is filed within fifteen days of the date of application. See 19.15.9.701(C) NMAC. DKD objected to the application and advised the Division that it operates a well within one-half mile of the State "T" Well No. 2. DKD also advised the Division that it had not been provided notice of the administrative application as required by Form C-108 and Rule 701, 19.15.9.701(B)(2) NMAC. The Division advised Pronghom by letter of July 9, 2002 that Order No. SWD-836 would be suspended pending the outcome of a hearing before a Division examiner. On September 5, 2002, the Division conducted a hearing on the matter. The failure to provide notice to DKD apparently formed the basis for the Division's suspension of Order No. SWD-836.
- 7. Circumstances have changed substantially since the Division hearing. During the hearing *de novo* it became apparent that DKD was not in fact notified of the initial application, but it also became apparent that DKD was not a record "leasehold operator within one-half mile of the [proposed disposal] well" pursuant to Rule 701, 19.15.9.701(B)(2). Almost six weeks after the application was filed, an assignment from Chesapeake to DKD was recorded (May 14, 2002). Moreover, the fact that the document was unrecorded strongly suggests that notice to DKD's predecessor-in-interest was appropriate. See NMSA 1978, § 70-1-2 (Repl. 1995)(effect of failure to record). Nevertheless, after being notified of the potential notice issue, the Division set the matter for hearing. The subsequent hearing before the Division in which DKD actively participated (as well as during the hearing on the application for review *de novo*) cured any defect in the notice.
- 8. Another notice issue addressed by the Division concerned notice to surface owners Felipe A. Moreno and Adelaida P. Moreno. It seems to be undisputed that these persons, owners of record of surface rights at the proposed injection site, were not notified of the application in this matter. However, subsequent to the hearing before the Division and prior to the hearing of this matter, those individuals conveyed their interest to Gandy Corporation. Through a letter agreement, Gandy Corporation and Pronghom have become partners in the proposed disposal operation (along with Marks & Garner) and Gandy Corporation has agreed to the use of the property for purposes of saltwater disposal. It seems this transaction has cured any notice issue with respect to the surface owner.

¹ As the assignment does not bear the approval of the State Land Office, its validity is in doubt. See NMSA 1978, § 19-1-13 (Repl. 1994).

- 9. A final notice issue was obliquely raised by DKD concerning the extent of the perforations through which injection would be accomplished. Initially, notice was provided that injection would be accomplished through perforations located between 6,000 and 6,200 feet. Later, Pronghorn, after a conversation with a Division engineer, requested that it be permitted to inject from 6,000 to 6,400. It does not appear that this defect is material or that DKD was prejudiced by the change.
- 10. Thus, it appears that notice is not an issue in this matter and we can consider the merits of the application.
- 11. As noted, Pronghorn proposes to dispose of produced water into the San Andres and Glorieta formations. Pronghorn seeks to use the State "T" Well No. 2 (API No. 30-025-03735) for this purpose.
- 12. Rules 701 through 708 (19.15.9.701 through 19.15.9.708 NMAC) govern the injection of produced water into any formation. Injection wells must be equipped, operated, monitored and maintained in such a way as to assure mechanical integrity and prevent leaks and fluid movement adjacent to the well bore. See 19.15.9.703(A) NMAC. Furthermore, injection wells must be operated and maintained in such a way as to confine the injected fluids into the interval approved and prevent surface damage or pollution. See 19.15.9.703(B) NMAC. In no event may injection operations be permitted to endanger underground sources of drinking water (19.15.9.703(C) NMAC) and injection wells must undergo rigorous testing to serve these goals (19.15.9.704 NMAC).
- 13. Order No. SWD-836 appears to have addressed each of these points, and the parties have not raised any issue with respect to the conditions for injection set out in SWD-836. Administrative notice is taken of Order No. SWD-836 and the accompanying file
- 14. Although not stated explicitly in the rules, injection operations must not cause waste or threaten correlative rights. Apparently to address this issue the parties focused their presentations on the potential productivity of the San Andres and Glorieta formations.
- 15. Pronghom presented the testimony of a petroleum engineer who testified that he had studied production data, scout ticket data, production test data, log data and other data to reach conclusions concerning the proposed well. He testified that no well in the immediate vicinity of the proposed injection well produced oil or gas from either the San Andres or Glorieta formations in either Section 16 or Section 1. All 35 wells in those sections had penetrated both formations but produced oil and gas only from lower formations such as the Wolfcamp or the Pennsylvania-Strawn. Pronghorn's witness testified that data from electric logs indicated that the resistivity of formation water in the San Andres was 0.165 ohm and 0.86 ohm in the Glorieta; this data demonstrates that the water saturation of the basal San Andres and the upper Glorieta in the vicinity of the proposed injection well exceeds 94 percent. In the two primary zones of permeability, water saturations exceed 98% in the upper interval and 62% in the lower interval. Pronghom's expert testified that even though some hydrocarbons are likely present in the

reservoir (a "show" of hydrocarbons was seen in the State "T" Well No. 2), the relative permeability of the rock and the water saturation make it extremely unlikely that any of the hydrocarbons could move to a well bore and be recovered. The witness further testified that the nearest production from either the San Andres or the Glorieta formations was six miles south of the proposed injection well.

- 16. DKD's witness testified it was his intent to drill a well to produce hydrocarbons from "shallow zones" but failed to identify any specific objective and failed to produce any evidence supporting its apparent assertion that either the San Andres or the Glorieta will produce oil or gas. The witness also testified concerning the potential harm that the proposed injection could cause to DKD's injection well, some 2,000 feet away, but Pronghorn's witness testified that the DKD well was using a zone for disposal that was several thousand feet below the proposed zone. Furthermore, Pronghorn's expert testified even after nine years of operation at 1,500 barrels per day, water would be swept from the well bore at most 1,320 feet south. Therefore, it is apparent that the proposed well does not pose a danger to DKD's operations or other operations in the vicinity.
- 17. It thus appears that the Glorieta and San Andres are wet and will not produce commercial quantities of oil or gas in the vicinity of the proposed injection well. It also appears that the proposed operation will not pose a physical threat to DKD's operations, since water will be swept at most 1,320 feet from the well in nine years. Nor does it appear that the proposed operation poses a hazard to other oil and gas operations in the vicinity.
- 18. DKD seems to claim that Pronghorn's application threatens its existing operations and its substantial investment in those operations and could result ultimately in a loss of approximately 35 to 40 percent of its total revenue. This claim cannot be addressed here; the Commission has no authority to regulate competition among commercial disposal operations.
- 19. Finally, DKD objects to the application of Pronghorn on legal grounds. DKD argues that a mineral right is necessary to operate the proposed injection well, but that Chesapeake owns the mineral interest and Pronghorn only owns a small surface parcel.² DKD argues that Chesapeake's letter stating it has no objection to the application or the issuance of an injection permit is irrelevant.

² DKD's argument that a mineral lease is necessary is undercut by its own operations. The assignment from Chesapeake to DKD on the property where DKD maintains its own injection operation appears not to be valid since it was not approved by the Commissioner of Public Lands pursuant to NMSA 1978, § 19-10-13. Thus, DKD appears not to possess a mineral lease for its injection operations either. See paragraph 7, above.

- 20. Pronghorn, citing <u>Snyder Ranches Inc. v. Oil Conservation Commission et al.</u>, 110 N.M. 637, 798 P.2d 587 (S.Ct. 1990), seems to argue that subsurface trespass is a matter for the courts, not this body, and that the potential for subsurface trespass is essentially irrelevant in this proceeding.
- 21. It appears to be undisputed that Pronghorn controls a one-acre parcel at the site of the proposed disposal well. It also appears to be undisputed that Pronghorn does not own the relevant mineral interest underlying the one-acre disposal site; that is owned by Chesapeake, who holds an oil and gas lease granted by the State Land Office. It also seems to be undisputed that Chesapeake has acquiesced in writing to the disposal operation proposed by Pronghorn.
- 22. DKD's assertion that the right to inject water produced in connection with oil and gas exploration and production can be drawn from a mineral lease appears to be correct; the right to inject fluids is usually considered to be inherent in the mineral lessee as a part of the lessee's right to use so much of the land as is necessary to explore for and remove the oil and gas. DKD's apparent assertion that the typical oil and gas lease does not grant inherent rights to dispose of water that is produced from another lease, transported to the lease, and proposed for disposal also appears to be correct.
- 23. However, a surface owner like Pronghorn may also possess an independent right to permit injection into non-productive zones underlying the property. This right is theoretical and no conclusions should drawn in this case concerning it. An interesting discussion appears in the annals of the Rocky Mountain Mineral Law Institute. See Yoder & Owen, "Disposal of Produced Water," 37 Rocky Mountain Mineral Law Institute. § 21.02[2].
- 24. Snyder Ranches holds that a salt water disposal permit under Rule 701 (19.15.9.701 NMAC) is merely a license to inject and does not confer any specific property right on the holder. Thus, the issue of subsurface trespass is the responsibility of the operator, as correctly observed by Pronghorn. The Commission and the Division may in appropriate circumstances require an operator demonstrate that the operator has a good faith claim to operate the well or operation. See e.g. Application of TMBR/Sharp Drilling. Inc., Cases 12731 and 12744, paragraphs 27, 28 (Order No. R-11700-B):
 - 27. When an application for permit to drill is filed, the Division does not determine whether an applicant can validly claim a real property interest in the property subject to the application, and therefore whether the applicant is "duly authorized" and "is in charge of the development of a lease or the operation of a producing property." The Division has no jurisdiction to determine the validity of any title, or the validity or continuation in force and effect of any oil and gas lease. Exclusive jurisdiction of such matters resides in the courts of the State of New Mexico. . . .

- 28. It is the responsibility of the operator filing an application for a permit to drill_to do so under a good faith claim to title and a good faith belief that it is authorized to drill the well applied for.
- 25. However, in this matter, Pronghorn can make such a good faith claim. Pronghorn owns the property in the immediate vicinity of the proposed injection operation. Chesapeake, the mineral lessee, has indicated it has no objection to the proposed injection operation. Pronghorn has indicated its willingness to seek from the State Land Office a salt-water disposal easement (if required by the State Land Office). Given these undisputed facts, Pronghorn meets any reasonable criteria for issuance of a permit. If DKD believes that Pronghorn lacks the necessary title in this case, its recourse is in the courts of the State of New Mexico, not this forum. Application of TMBR/Sharp Drilling, Inc., supra.
- 26. The reason the permit to dispose of produced water exists in the first place is to ensure that formations potentially productive of oil or gas are protected from the injection operations and that sources of fresh water are also protected. As noted, SDW-836 appears to meet these objectives.
- 27. For the foregoing reasons, the application of Pronghorn herein should be approved.

IT IS THEREFORE ORDERED THAT:

- 1. The application of Pronghorn is granted and Order No. SWD-836 (granting Pronghorn Management Corporation a permit to utilize the State "T" Well No. 2 (API No. 30-025-03735) for injection of produced water) shall be and hereby is reinstated.
- 2. Jurisdiction of this matter is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fc. New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JAMÍ BAILEY, MEMBER

RÖBERT LEE, MEMBER

A.ORI WROTENBERY, CHAIR

SEAL



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor
Joanna Prukop
Cabinet Secretary

May 3, 2004

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Gandy Corporation 1008 W Broadway Hobbs, New Mexico 88240

EMERGENCY SHUT-IN ORDER

Re:

Salt Water Disposal Well State "T" Well No. 2 API No. 30-025-03735 4290 FSL, 500 FWL, Unit L, Section 6 Township 16 South, Range 36 East, NMPM Lea County, New Mexico

Dear Sir or Madam:

On April 30, 2002, the New Mexico Oil Conservation Division ("Division") granted Pronghorn Management Corporation a permit to utilize the State "T" Well No. 2 as a saltwater disposal well to inject for disposal purposes into the San Andres and Glorieta formations from a depth of 6,000 to 6,200 feet through plastic lined tubing. This permit was contingent upon first plugging back the well to 6,500 feet and then squeezing cement from the existing cement top to the surface. Division hearing order R-11855 issued in Case No. 12905 on October 28th, 2002, rescinded this permit and denied Pronghorn's application to inject into this well for disposal purposes from 6,000 to 6,400 feet. Subsequently Pronghorn applied "de novo" to the Oil Conservation Commission to re-instate SWD-836 and permit injection from 6,000 to 6,400 feet. This application was approved on May 15th, 2003 by Commission hearing Order No. R-11855-B.

Division records indicate that operation of the well has transferred from Pronghorn to Gandy Corp (OGRID 8426) and on or before 8/19/2003, the well was plugged back, cement squeezed, and perforated from 4,810 to 6,880. Since this injection interval was not permitted under Commission Order No. R-11855-B, and injection permits are depth specific, this well is in violation of Division rules and regulations. You are hereby ordered to immediately cease injection into this well until such time as either:

- (i) all perforation depths not permitted under Commission Order No. R-11855-B are squeezed off to the satisfaction of the Hobbs district office of the Division, or;
- (ii) you have an approved permit from the Division for injection into depths already perforated.

Gandy Corporation State "T" Well No. 2 May 3, 2004 Page 2 of 2

To obtain the necessary injection permit for this well, please review the Division's rules on injection wells, 19.15.9.701 through 708 NMAC, and follow form C-108, available on http://www.emnrd.state.nm.us/ocd/ under "rulebook" and "forms" respectively.

If you contest this directive, you may file an application for consideration by a Division appointed hearing examiner. However, you must nevertheless, shut-in the well as directed pending such hearing.

JOANNA PRUKOP Acting Director

JP/wvjj

cc: Oil Conservation Division - Hobbs

Division Compliance Officer – Lori Wrotenbery Case 12905, SWD-836, UIC Compliance File

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

IN THE MATTER OF THE PROCEEDING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

REQUEST OF GANDY CORPORATION FOR AN EMERGENCY ORDER TO OPERATE

CASE NO. 13293 ORDER NO. <u>A</u>-12161

ORDER

BY THE DIVISION:

This matter came on for decision before the Director of the Oil Conservation Division on July 1, 2004, upon the request of Gandy Corporation ("Gandy") for an emergency order allowing the operation of salt water disposal well State "T" Well No. 2 (API NO. 30-025-03735, located 4,290 feet from the South line and 500 feet from the West line, Lot 12, Section 6, Township 16 South, Range 36 East) until a determination is made by the Hearing Examiner on Gandy's application to amend the current permit.

NOW, on this <u>15t</u> day of July, 2004, the Division Director, having considered the request, the response filed by DKD, LLC, and the file in this case,

FINDS THAT:

- (1) The Oil Conservation Division ("Division") has jurisdiction over this case and its subject matter.
- (2) Gandy Corporation ("Gandy"), OGRID 8426, is the operator of record of a commercial salt water disposal well, State "T" Well No. 2, API No. 30-025-03735, located 4290 FSL, 500 FWL, Unit L, Section 6, Township 16 South, Range 36 East, NMPM in Lea County, New Mexico (hereinafter the "subject well").
- (3) The subject well is permitted for injection pursuant to 19.15.9.701 NMAC under Commission Order No. R-11855-B. The permit provides for an injection interval from 6,000 to 6,400 feet.
- (4) According to Division records, the subject well was perforated from 4,810 to 6,880 feet.
- (5) On May 3, 2004, Cabinet Secretary Joanna Prukop, Acting Director, notified Gandy that the subject well was in violation of the permit, Commission Order No. R-11855-B and Division rules, and ordered Gandy to cease injection into the subject well until such time as

NMOCD CASE NO. 13686 APRIL 27, 2006 DKD, LLC EXHIBIT NO. 3-G

- a. all perforation depths not permitted under Commission Order No. R-11855-B are squeezed off to the satisfaction of the Division's District I office, or
- b. Gandy obtains an approved permit from the Division for injection into depths already perforated.
- (6) Gandy has applied for a permit to inject into the depths already perforated. DKD, LLC has protested the application. The application is currently set for hearing July 8, 2004.
- (7) According to a letter from Gandy's attorney, received by the Division's District I office on June 24, 2004, Gandy has continued to operate the subject well pending approval of its application. The letter states that on or about May 3, 2004, Gandy received verbal permission from the District I office to operate the subject well.
- (8) By letter dated June 29, 2004, the Division attorney notified Gandy and its attorney that the districts do not have the authority to override a directive issued by the Cabinet Secretary or Division Director, and informed Gandy that continued injection outside the zone allowed by the applicable injection permit constitutes injection without a permit, in violation of Division rule 701 [19.15.9.701 NMAC].
- (9) According to a letter dated June 30, 2004 from Gandy to the Supervisor of the Division's District I office, Gandy ceased its operations at the subject well after receiving the Division's June 29, 2004 letter.
- (10) On June 30, 2004, Gandy filed a written request for an emergency order allowing it to operate the subject well. In support of its request, Gandy presented
- a. a letter from the attorney for DKD, LLC, dated June 21, 2004 requesting a continuance of the original June 24, 2004 hearing date on the application, stating that it did not appear that Gandy would be prejudiced by a continuance because it was operating the subject well pending the hearing;
- b. a letter from Gandy's technical consultants outlining the testimony they intend to present at the hearing on the application; and
- c. a letter from Gandy stating that its clients would suffer hardship if Gandy shut in the subject well pending the hearing on the application.
- (11) On June 30, 2004, DKD, LLC filed a response opposing Gandy's request for an emergency order on the following grounds:
- a. DKD, LLC protested Gandy's original application to use the subject well for injection, and has protested Gandy's pending application for an amendment to the permit;
- b. records provided by Gandy to the Division appear to show that the casing of the subject well was intentionally perforated for injection purposes three times, and over 1390 feet, above the injection interval authorized by the permit, and three times, and over 680 feet, below the injection interval authorized by the permit. In addition, the packer was set at approximately 1200 feet above the depth required by the permit.

- c. at the time DKD LLC filed its request for continuance, indicating that Gandy would not be prejudiced by the grant of a continuance, DKD LLC was not aware that the Division had issued an emergency order requiring Gandy to shut in the subject well pending the hearing on the application for an amendment to the permit;
- d. upon information and belief, Gandy accepted over 10 deliveries of salt water for injection after receiving the Division's June 29, 2004 letter informing Gandy that continued injection would be in violation of the permit.
- (12) The records in this case indicate that there are substantial issues to be addressed at hearing regarding whether Gandy's application for an amendment to the permit shall be granted, including but not limited to issues involving the prevention of waste, protection of correlative rights, and the protection of the environment.
- (13) Gandy has not demonstrated an emergency requiring the issuance of an order without a hearing allowing Gandy to operate the subject well in violation of the applicable permit pending a determination by the Hearing Examiner on Gandy's application to amend the current permit.

IT IS THEREFORE ORDERED THAT:

- (1) Gandy Corporation's request for an emergency order allowing it to operate salt water disposal well State "T" Well No. 2 (API NO. 30-025-03735) until a determination is made by the Hearing Examiner on Gandy's application to amend the current permit is denied.
- (2) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

To the second se

/ MARK E. FESMIRE, P.E.

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

Director

SEAL

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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 13293 ORDER NO. R-12171

APPLICATION OF GANDY CORPORATION FOR APPROVAL OF A DISPOSAL WELL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 8, 2004, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 9th day of July, 2004, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT.

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, Gandy Corporation ("Gandy"), seeks authority to utilize its State "T" Well No. 2 (API No. 30-025-03735) located 4,290 feet from the South line and 500 feet from the West line, Lot 12 of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, to dispose of produced water into the San Andres and Glorieta formations from a depth of 4,810 feet to 6,880 feet.
- (3) On April 30, 2002, the New Mexico Oil Conservation Division ("Division") granted Pronghorn Management Corporation ("Pronghorn") a permit (SWD-836) to utilize the State "T" Well No. 2 as a saltwater disposal well to inject for disposal purposes into the San Andres and Glorieta formations from a depth of 6,000 to 6,200 feet through plastic lined tubing. This permit was contingent upon first plugging back the well to 6,500 feet, squeezing cement from the existing cement top to the surface, and supplying a cement bond log to the Hobbs district office of the Division. Subsequently the Division became aware of an offset operator who was not properly notified. The offset operator, DKD, LLC ("DKD"), filed a letter of objection to the application and the application to inject was set to hearing.

- (4) Division hearing order R-11855 issued in Case No. 12905 on October 28th, 2002, rescinded SWD-836, and denied Pronghorn's application which was to inject into this well for disposal purposes from 6,000 to 6,400 feet.
- (5) Pronghorn applied "de novo" to the Oil Conservation Commission to reinstate SWD-836 and permit injection from 6,000 to 6,400 feet. This application was approved on May 15th, 2003 by Commission hearing Order No. R-11855-B.
- (6) Division records indicate that operation of the well was transferred from Pronghorn to Gandy (OGRID 8426), a sundry notice-of-intent was filed with the Division to plug back the well, cement squeeze, run a cement bond log, and perforate from 6,200 to 6,400 feet.
- (7) During August, 2003, the following well work was done during conversion to salt water disposal. A cast iron bridge plug and cement were placed at 10,288 feet. Holes were found in the casing from 7,650 to 7,700 feet and from 4,750 to 4,815 feet. Cement was placed over the lower holes and over the upper holes without obtaining adequate squeeze operations on either one. Cement was tagged inside the well at 7,690 feet. The casing was perforated at 4,320 feet and cement was circulated from that depth to the surface. During cleanout operations, 1000 gallons of acid was pumped into the casing and the casing went on a vacuum. The well was perforated from 4,810 feet to 6,880 feet. Plastic coated 3-1/2 inch tubing was installed into an injection packer set at 4,720 feet.
- (8) On May 3, 2004, the Division director signed a letter to Gandy ordering this well to be shut-in, until either; (i) all perforation depths not permitted under Commission Order No. R-1 1855-B are squeezed off to the satisfaction of the Hobbs district office of the Division, or; (ii) Gandy obtains an approved permit from the Division for injection into depths already perforated.
- (9) Gandy subsequently applied to the Division on May 11, 2004, to utilize this well for saltwater disposal through a perforated interval from 4,810 to 6,880. DKD, an offsetting operator of record within the NW/4 of Section 6, Township 16 South, Range 36 East, NMPM, filed a letter of objection to the application and the application to inject was set to hearing.
- (10) DKD appeared at the hearing through legal counsel to oppose the application and presented one witness who testified as follows.
 - (a) During plugging operations, an offset well to the subject well produced 50 barrels of oil the first day then 30 barrels of oil the second day from the San Andres formation at depths equivalent to the upper perforated interval of the subject well.

- (b) DKD is the operator of at least two plugged wells within ½ mile of the subject well and intends to attempt completions in the San Andres in the future as money and pulling units become available.
- (c) DKD is a small operator with adequate saltwater disposal capability in the vicinity and can afford to produce the San Andres at a relatively high water cut.
- (11) The applicant presented exhibits and testimony showing the following.
 - (a) Within this Section 6 and the offsetting Section 1 to the west, there are no production from, and no productive intervals in, the San Andres, the Blinebry, the Tubb, or the Drinkard formations.
 - (b) Log analysis information was presented on the subject well, using logs from the subject well and more modern logs from offset wells, showing the probability of commercial production from the Glorieta and San Andres formations is extremely low. There are no indications in the available data that any operator has chosen to test the San Andres in this area.
 - (c) The expanded interval for saltwater disposal is practical in this well due to the casing problems found in the upper San Andres and lower Glorieta.
- (12) The Division finds the following.
 - (a) Within the ½ mile area of review, there has not been production from above 10,500 feet subsurface. The evidence in this case indicates there is likely a very small amount of moveable oil in the upper San Andres within this area.
 - (b) Much time and many opportunities existed in the past for DKD and other operators to have tested the upper San Andres. To-date, no one has tested it for commerciality.
 - (c) Several indications are the upper San Andres is not taking very much injection water at this time and the best injection target is the lower Glorieta.
 - (d) The injection interval is separated from the shallow drinking water with two casing strings, both circulated with cement.
 - (e) Additional well work is needed to ensure injected fluid remains in the proposed injection interval from 4,810 feet to 6,880 feet.

(13) Approval of this application will protect the environment, prevent waste, and protect correlative rights.

IT IS THEREFORE ORDERED THAT;

(1) The applicant, Gandy Corporation, is hereby authorized to utilize its State "T" Well No. 2 (API No. 30-025-03735) located 4,290 feet from the South line and 500 feet from the West line, Lot 12 of Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the San Andres and Glorieta formations from 4,810 feet to 6,880 feet through 3-1/2 inch plastic-lined tubing set in a packer located within 100 feet above the top perforation.

IT IS FURTHER ORDERED THAT:

- (2) The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.
- (3) The wellhead injection pressure on the well shall be limited to **no more than** 962-psi. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.
- (4) The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in migration of fluids out of the injection formation or the fracturing of the injection formation or confining strata.
- (5) The operator shall notify in advance the supervisor of the Hobbs district office of the Division of the date and time of changes in packer, tubing, mechanical integrity tests, or any other work to be performed on this well.
- (6) The operator shall immediately notify the Supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in the disposal well or the leakage of water, oil or gas from or around this well or any producing or plugged and abandoned well within the area, and shall take all steps as may be timely and necessary to correct such failure or leakage.
- (7) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface using any conduit such as fractures or wells.
- (8) Within 30 days of this order, the operator shall verify to the Division director with evidence and in writing that injection fluid is not exiting the 5-1/2 inch casing below the

bottom of the 6,880 foot perforated interval. This determination shall be done by tracer surveys or other means; however, the determination shall also consist of a temperature survey log run from the plugged back depth up into the tubing with and without injection into the well. If holes in the casing are found below the 6,880 foot injection interval, the operator shall pull the injection tubing, plug back the well using cement squeeze operations witnessed by personnel from the Hobbs district office and run a cement bond log from the plugged back total depth to the surface. This log shall be sent both to the Division office and to the Hobbs district office.

PROVIDED FURTHER THAT

- (9) In accordance with Rule No. 705.B, the operator shall provide written notice of the date of commencement of injection to the Hobbs district office of the Division.
- (10) In accordance with Rule No 705.C, the injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the well, and will terminate *ipso facto*, one year after injection operations have ceased.
- (11) In accordance with Rule Nos. 706 and 1120, the operator shall submit monthly reports of the disposal operations on Division Form C-115.
- (12) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.
- (13) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

NEAT TO THE PROPERTY OF THE PR

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MÁRK E. FESMIRE, P.E.

Director



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

December 19, 2005

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Division Order No. IPI-264

Gandy Corporation P.O. Box 827 Tatum, New Mexico 88267

Attention: Mr. Larry Gandy

RE: Injection Pressure Increase

State "T" Well No. 2 Lea County, New Mexico

Dear Mr. Gandy:

Reference is made to your request received by the Division on December 15, 2005, to increase the surface injection pressure on the State "T" Well No. 2. This request is based on a step rate test conducted on the well on November 23, 2005. The results of the step rate test show that an increase in the surface injection pressure for this well is justified and will not result in the fracturing of the injection formation and confining strata.

You are therefore authorized to increase the surface injection pressure on the following well:

WELL NAME & NUMBER	MAXIMUM SURFACE INJECTION PRESSURE
State "T" Well No. 2 API No. 30-025-03735 Unit L, Section 6, T-16 South, R-36 East, NMPM, Lea County, New Mexico	1930 PSIG

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

NMOCD CASE NO. 13686 APRIL 27, 2006 DKD, LLC EXHIBIT NO. 3-I

Injection Pressure Increase Gandy Corporation
December 19, 2005 Page 2

Sincerely,

Mark B. Fesmire, P.E. Division Director

Oil Conservation Division - Hobbs File: Caso No. 13293

RECEIVED

OCT 26 2006

MILLER STRATVERT, P.A.

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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 13686 ORDER NO. R-12649

AMENDED APPLICATION OF DKD, LLC-FOR-AN-ORDER REVOKING-THE-INJECTION AUTHORITY FOR THE GANDY CORPORATION STATE T WELL NUMBER 2, LEA COUNTY, NEW MEXICO:

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 27, 2006, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 24th day of October, 2006, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, DKD, LLC ("DKD"), requests that the Division immediately and permanently revoke the authority of Gandy Corporation ("Gandy") to utilize its State "T" Well No. 2 for the injection of produced water for disposal purposes. In addition DKD requests the Division require Gandy to reduce pressures in the injection formation, to plug and abandon the State "T" Well No. 2, and to repair or plug any wells determined to have been damaged by Gandy's operations.
- (3) In its application, DKD states that Gandy has failed to obey many of the Division's ordering paragraphs within its current permit to inject. In part DKD states that:
 - (a) Gandy has failed to conduct injection operations to ensure injected fluids remain in the authorized injection intervals within the State "T" Well No. 2 and in surrounding wells;

NMOCC CASE NO. 13686 JANUARY 11, 2007 DKD, LLC EXHIBIT NO. 3-J

- (b) Gandy's injection well has caused waste of hydrocarbon reserves and may cause further waste if allowed to continue injection; and
- (c) Gandy's injection well has a reasonable likelihood of causing contamination of fresh water.
- (4) Gandy currently operates the State "T" Well No. 2 (API No. 30-025-03735), which is an injection well located 4290 feet from the South line and 500 feet from the West line (Lot 12) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.
 - (a) The State "T" Well No. 2 was drilled in 1957, with 13-3/8 inch casing set at 378 feet and circulated with cement, intermediate 8-5/8 inch casing set at 4749 feet and cemented within 625 feet of surface, and 5-1/2 inch casing set at 10,679 feet and cemented with 300 sacks of cement, top of cement approximately 9762 feet. The well was completed from 10,538 feet to 10,647 feet in what was then called the Townsend-Wolfcamp Oil Pool; but afterwards considered to be upper Pennsylvanian. The well was inactive by 1976 and remained inactive with open perforations until being considered for saltwater disposal in 2002.
 - (b) An application to inject into the State "T" Well No. 2 was submitted by a predecessor to Gandy, Pronghorn Management Corporation ("Pronghorn"), and first evaluated by the Division for saltwater injection into the lower San Andres and upper Glorieta formations from 6000 to 6200 feet. Administrative permit SWD-836 was issued on April 30, 2002. This permit was contingent upon first plugging back the well to 6500 feet, squeezing cement from the existing cement top to the surface, and supplying a cement bond log to the Hobbs district office of the Division. As an operator within ½ mile of this well, DKD challenged this permit. The Division found deficiencies in required notice and the permit was rescinded in Division Order R-11855 issued in Case No. 12905 on October 28, 2002.
 - (c) Under Commission Order No. R-11855-B issued May 15, 2003 the Oil Conservation Commission considered the issues presented and re-instated administrative Order SWD-836 with an injection interval from 6000 to 6400 feet. The Commission found that SWD-836 appeared to address all requirements of Rules 701 through 708 and therefore did not impose additional requirements.
 - (d) Division records indicate that operation of the well was transferred from Pronghorn to Gandy (OGRID 8426) and a sundry "notice-of-intent" was filed with the Division to plug back the well, cement squeeze, run a cement bond log, and perforate from 6200 to 6400 feet.

Case No. 13686 Order No. R-12649 Page 3 of 11

- (e) During August of 2003, the well was plugged back from the original perforations with permanent plugs set at 10,288 feet and 7722 feet, holes in the casing at 7650 feet and 4800 feet were squeezed with cement, the casing was perforated at 4320 feet and 500 sacks of cement was circulated into the 8-5/8 and 5-1/2 inch annulus. The well was then perforated from 4810 feet to 6880 feet, plastic coated tubing installed, and injection begun. Since these depths were not permitted for injection, the Division Director issued an Emergency Order shutting the well in on May 3, 2004.
- (f) Gandy subsequently applied to the Division on May 11, 2004 to utilize this well for saltwater disposal through a perforated interval from 4810 to 6880 feet. DKD, as an offsetting operator of record within the NW/4 of Section 6, Township 16 South, Range 36 East, NMPM, filed a letter of objection to the application and the application to inject was set to hearing.
- (g) Division Order No R-12171 issued in Case No. 13293 on July 9, 2004, gave Gandy permission to utilize this well to dispose of produced water into the San Andres and Glorieta formations from depths of 4810 feet to 6880 feet. This order contains requirements such as limiting the maximum surface injection pressure to 962 psi and retained jurisdiction for further orders as necessary for the prevention of waste, the protection of correlative rights, and the protection of fresh water.
- (h) During July of 2004, an injection survey run on this well showed 23 percent of the injected fluid entering the San Andres between 4810 and 4850 feet and a small amount leaving the wellbore at 5300 feet. The majority of injected fluid was leaving the wellbore between 6210 feet and 6360 feet.
- (i) During 2005, this well began pressuring up and Gandy conducted a step-rate test to establish a higher surface injection pressure limit. On December 19, 2005, the Division issued Order IPI-264 authorizing Gandy to increase the maximum surface injection pressure on the State "T" Well No. 2 from 962 psi to 1930 psi.
- (5) DKD and Gandy presented testimony and exhibits at the hearing. No other parties entered an appearance in this case or supplied letters of support or opposition.
 - (6) As the applicant, DKD presented two witnesses who testified as follows.
 - (a) The State "T" Well No. 2 reached "fill-up" or finally experienced pressure in August of 2004 after injecting approximately 560,000 barrels of water. Using reservoir parameters obtained from the injection survey and the electric log on the Watson "6" Well No. 1, it is apparent that the effective porosity is very low

×.

and therefore injection waters are confined to the smaller, more permeable intervals.

- (b) The San Andres is a commonly known corrosive interval. Most of the surrounding wells were drilled for the Townsend-Permo Upper Penn ("Wolfcamp") oil production and were not cemented to cover the San Andres or the Glorieta formations. The original permit application for the State "T" Well No. 2 had estimated cement tops that were too optimistic and the actual tops are much lower.
- (c) The latest injection pressure increase awarded by the Division to Gandy has affected the surrounding operators: DKD and Energen Resources Corporation ("Energen").
- (d) Waters injected by Gandy's well are not being confined in the injection interval within surrounding wells. Because of corroded casing and poor cement coverage within surrounding wells and high injection pressures in Gandy's well, injection waters are being seen at the surface from wells within the ½ mile area of review.
- (e) Two wells to the south and one well to the east of the State "T" Well No. 2 have seen direct and immediate communication of waters from the State "T" Well No. 2. One of these wells is the Snyder "A" Well No. 1 operated by DKD and the others are the Snyder "B" Well No. 2 and the Snyder "A" Com Well No. 1 operated by Energen Resources Corporation.
- (f) DKD is concerned about the difficulty, safety, and cost of plugging the Snyder "A" Well No. 1 with constant water pressure on the surface and rods, pump, and tubing installed.
- (g) In October of 2004, DKD began monitoring and recording the surface casing pressures from at least two wells in this area. DKD also compared these pressures with injection pressures on Gandy's injection well and noticed a correlation. When pressures were higher on Gandy's well they were also higher on DKD's Snyder "A" Well No. 1 and when Gandy's well was shut-in and backflowed, the pressure dropped off on DKD's well. The chart presented by DKD shows the surface pressure on Gandy's well as consistently 400 or more psi higher than the surface pressure on the Snyder "A" Well No. 1.
- (h) Gandy's injection into the State "T" Well No. 2 has already affected wells further than ½ mile away and is threatening the remaining active wells in the Townsend-Townsend-Permo Upper Penn Oil Pool.
- (i) DKD is also concerned with the effect of injection by Gandy's well on its own saltwater injection well located 1700 feet to the southeast. DKD

is concerned that high-pressure saltwater injection into the San Andres and Glorieta by Gandy will eventually corrode the casing and someday cause the casing to collapse.

- (7) In its defense, Gandy presented two witnesses who testified as follows.
- (a) This San Andres reservoir does have adequate porosity and thickness and is adequate for use for water injection.
- (b) The San Andres has not had fluids removed from the reservoir and therefore "fill-up" calculations as used in waterflooding are not valid. Pressure will build while injecting into this type of reservoir until equilibrium is reached. It is normal for wells such as Gandy's to eventually need higher maximum allowable surface pressure limits. After the Division allowed a higher maximum pressure, more horsepower was added to the injection pump.
- (c) Some of the pressure increases or spikes for the State "T" Well No. 2 are due to near wellbore effects. This is a commercial injection operation equipped with a filter system. Some trucks have unfortunately dumped damaging materials into this well and overloaded the filtration system. To remedy the situation, the well was back-flowed by approximately 3000 barrels and was cleaned out and re-perforated. Despite these efforts, the well has less injection capacity than before.
- (d) The State "T" Well No. 2 has not caused waste of oil and gas resources or affected correlative rights. It is true that it appears that offset wells could have seen pressure resulting from injection water into the State "T" Well No. 2. However, casing corrosion and leaks in the San Andres have happened in this area for years prior to this well being allowed to inject and the Wolfcamp oil interval has long been depleted and wells have been inactive for years.
- (e) The two Energen wells have now been plugged and abandoned and are no longer an issue. The only other well in the ½ mile area of review is DKD's Snyder "A" Well No. 1. This well is depleted in the Wolfcamp and has been inactive for some time and should be plugged and abandoned.
 - (f) No fresh waters are in danger from operation of this well.
- (8) The following are details for the three affected wells and for the Watson "6" Well No. 1.
 - (a) The Snyder "A" Well No. 1 (API No. 30-025-03727) operated by DKD is located 2319 feet from the South line and 330 feet from the West line (Lot 17) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. It is located 1978 feet from the State "T" Well No. 2.

- (i) The Snyder "A" Well No. 1 was drilled in 1957, with 13-3/8 inch casing set at 370 feet and cemented with 275 sacks of cement, intermediate 8-5/8 inch casing set at 4715 feet and circulated with cement, and a 5-1/2 inch liner set from 4536 feet to 10,719 feet and cemented with 300 sacks of cement. The well was completed from 10,652 feet to 10,692 feet in the Wolfcamp and, in 1960, additional perforations were added from 10,571 feet to 10,649 feet.
- (ii) In December of 2002, Energen had trouble blowing the gas [see DKD's exhibits] off of the well while attempting to set a plug above the perforations. Apparently Energen never set the plug as intended.
- (iii) In August of 2004, DKD blew the gas off the well and after the well died, ran rods and pump to 10,541 feet, installed a pumping unit and attempted to pump the well. That attempt was abandoned after it became apparent the water could not be pumped off and the gas did not come back. It appeared this well had a casing leak up hole.
- (iv) In December of 2005, DKD filed a sundry form C-103, which indicated it intended to plug and abandon.
- (b) The Snyder "B" Well No. 2 (API No. 30-025-03729) operated by Energen Resources Corporation ("Energen") is located 3656 feet from the North line and 2310 feet from the East line (Lot 10) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. It is located 2380 feet from the State "T" Well No. 2.
 - (i) The Snyder "B" Well No. 2 was drilled in 1958, with 13-3/8 inch casing set at 363 feet and cemented with 275 sacks of cement (circulated), intermediate 8-5/8 inch casing set at 4724 feet and circulated with cement, and a 5-1/2 inch liner set from 4551 feet to 10,703 feet and cemented with 300 sacks of cement. The well was completed from 10,624 feet to 10,651 feet in the Wolfcamp oil.
 - (ii) October of 2002 was the end of consistent production from this well and the last reported production was June of 2003. In September of 2005, during operations in preparation for plugging, Energen discovered the casing to be partially collapsed at 6365 feet. Energen set a casing plug at 10,600 feet over the existing perforations and within minutes experienced a strong water flow at the surface. In November of 2005, Energen needed 14.5 pounds per gallon mud weight to kill the well and was then able to complete its plug and abandonment.

Case No. 13686 Order No. R-12649 Page 7 of 11

- (c) The Snyder "A" Com Well No. 1 (API No. 30-025-34073) operated by Energen Resources Corporation ("Energen") is located 990 feet from the South line and 874 feet from the West line (Lot 18) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. It is located 3321 feet from the State "T" Well No. 2.
 - (i) The Snyder "A" Com Well No. 1 was drilled in 1998, with 13-3/8 inch casing set at 398 feet and cemented with 440 sacks of cement (circulated), intermediate 8-5/8 inch casing set at 4762 feet and circulated with cement, and 5-1/2 inch set at 11,745 feet and cemented with 650 sacks of cement (top of cement by cement bond log at 8832 feet). The well was completed in the Strawn in the NE Shoe Bar-Strawn Pool as a marginal producer.
 - (ii) In May of 2005, the well had a casing leak and flowed water out of the tubing and casing with 630 psi shut in tubing pressure. The well's casing collapsed at 8786 feet and was ultimately plugged and abandoned in December of 2005.
- (d) The Watson "6" Well No. 1 (API No. 30-025-34197) is located 2857 feet from the South line and 1417 feet from the West line (Lot 14) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.
 - (i) The well was drilled in 1997 by Chesapeake Operating Inc. as a Strawn oil test. The Strawn was dry and was isolated with a permanent plug and the well was recompleted in February of 1998 into the Cisco, Townsend, and Penn Lime members of the Upper Pennsylvanian within the Townsend-Permo Upper Penn Pool. By January of 1999, these perforations were declared un-economic and were shut-in.
 - (ii) DKD became operator of the well and on April 26, 2002, the well was permitted by administrative order SWD-834 as an upper Pennsylvanian formation (Cisco, Townsend, and Penn Lime) injection well within the existing open perforations located from 10,340 feet to 11,062 feet. The well began injection in June of 2002 without the need for an injection pump and has always injected on a vacuum into the permitted interval through 2-7/8 inch plastic coated tubing. The annulus remains full of water treated with corrosion inhibitor and the well passes all mechanical integrity tests.
 - (iii) This well was cemented with 1720 sacks of cement, with a cement diverter stage tool at 8150 feet. The first (lower) stage of cement circulated and the second (upper) stage covered the Glorieta and San Andres formations with cement.

Case No. 13686 Order No. R-12649 Page 8 of 11

- (9) There are 10 wells located within ½ mile of Gandy's State "T" Well No. 2 injection well. Eight of these wells have now been adequately plugged and abandoned. DKD's Watson 6 Well No. 1 is one of the more recent wells drilled in this immediate area and the only well in this area cemented across the San Andres.
- (10) The last producing well within the ½ mile area of review is DKD's Snyder "A" Well No. 1.
 - (a) The presented evidence shows waters from Gandy's well are likely moving horizontally through the San Andres injection formation and entering the wellbore of DKD's Snyder "A" Well No. 1. After entering the wellbore, the waters are likely moving down into the partially restricted Townsend-Permo Upper Penn perforations and, especially with the recently increased pressure from Gandy's well, are reaching the surface and causing pressure on the well head.
 - (b) The last reported oil production from this well was in 1997 and from the Townsend-Permo Upper Penn Pool. This interval was depleted years ago and is currently receiving active, but low pressure injection of waters from DKD's Watson "6" Well No. 1. DKD's map plat shown at the hearing shows a history of casing leaks in this well from 1970 through 1997 but does not specify how the leaks were repaired although the early leaks must have been repaired. Those casing leaks were not shown in the Division's well file. On December 15, 2005, DKD filed a sundry notice with the Division of its intent to submit a plug and abandonment procedure for this well. This well has been inactive for a long period of time without being temporarily or permanently plugged, has poor cement coverage, corroded casing, and pressure at the surface. This well is providing a method of communication of any waters entering above, with the Townsend-Permo Upper Penn oil reservoir and with the surface.
 - (c) To safely plug or repair DKD's Snyder "A" Well No. 1, Gandy's well should be shut-in to allow dissipation of pressures in the San Andres. Alternately, DKD must use high-density mud to plug or repair this well just as Energen was required to use on the Snyder "B" Well No. 2 in late 2005.
- (11) The Division records indicate the Upper Penn intervals completed in most of these wells were and are commonly called the "Wolfcamp". The perforated intervals appear to be correlative and the latest pool name is the Townsend-Permo Upper Penn Pool (59847). Earlier, it was called the Townsend-Wolfcamp Pool.
- (12) It was shortsighted that the wells in this area drilled in the late 1950s were not cemented to cover all up-hole corrosive intervals. It is also unfortunate that operators of Wolfcamp wells in this area did not obey Division Rule 201 and set a protective plug above the Wolfcamp perforations within a year of inactivity.

Case No. 13686 Order No. R-12649 Page 9 of 11

- through saltwater disposal into largely depleted oil reservoirs. Many saltwater disposal wells are permitted into depleted oil reservoirs, but commonly only into known waterflood candidates such as the San Andres. It is known that primary recovery of oil from reservoirs under drive mechanisms other than natural water-drive is only a small percentage of the original oil in place. So the majority of oil is still present in these reservoirs after all attempts to flow or pump the wells are exhausted. These reservoirs may again be productive under the right product prices or operating costs or after using existing or future secondary or tertiary recovery technologies. In any case, until proven otherwise, they must be assumed to be a resource of the state and should be protected. It is sometimes the practice of the Division to get an opinion from a reservoir engineer prior to allowing injection into older oil reservoirs.
- of remaining Wolfcamp oil in this reservoir and conflicting opinions as to whether this oil is being affected adversely by injection into the State "T" Well No. 2. There were no reservoir engineering studies presented at the hearing as to the volume of primary or secondary reserves, which currently exist for this Townsend-Permo Upper Penn Pool. Product prices are dramatically higher now than when most wells became inactive and when the Watson "6" Well No. 1 was tested in the Wolfcamp prior to its conversion to injection. There was less than adequate evidence of waste presented at the hearing and even less evidence proving this is not occurring. The long production history indicates this oil reservoir is largely depleted and likely low on pressure and below the bubble point with free gas present in the reservoir.
- (15) DKD is the owner of a well which has produced from the Wolfcamp and believes Gandy's injection operations have cut-short its latest production test. The Watson "6" Well No 1 was the first water disposal well in this area of the reservoir and began injection in 2002. In late 2002, Energen had difficulty blowing down the gas in the offsetting Snyder "A" Well No 1. DKD took over the well and spent a reported \$180,000 attempting to pump test this well. DKD was not able to get high volumes of water pumped off and therefore unable to determine if oil and gas could be recovered in this well.
- (16) DKD maintains there are active Wolfcamp wells beyond ½ mile from the State "T" Well No. 2 which may be affected and showed evidence that Energen's Snyder "A" Com Well No. 1, located 3321 feet from the State "T" Well No. 2, did experience a water flow from a casing leak although there was no evidence that high mud weights were required to plug the well. It is apparent that the lower San Andres injection interval has thin, high permeability layers that are capable of being a conduit for injection water over long distances.
- (17) After reviewing the facts in this case the examiner finds that Gandy's injection well is equipped and cemented properly to isolate injected fluids vertically at the injection well site.

Case No. 13686 Order No. R-12649 Page 10 of 11

- (18) DKD's Watson "6" Well No. 1 is also cemented adequately and not in immediate danger from Gandy's injection operations.
- (19) All wells in this area are cemented with two casing strings and usually have two sheaths of cement protecting the existing fresh ground water. Unless there is a surface leak from water pressures experienced in un-cemented surrounding wells or a surface leak during workover operations, Gandy's operations are not a danger to fresh water.
- (20) Division Rule 703 requires injection operations to be confined to the injection interval. Because of poorly cemented surrounding wells and high injection pressures, Gandy has failed to conduct injection operations to ensure injected fluids remain in the authorized injection intervals within surrounding wells.
- (21) It was shown that this injection into the San Andres has hastened the abandonment of Wolfcamp wells, which could possibly have been repaired and used to test the concept of secondary recovery of this Wolfcamp oil. The examiner therefore concludes that this injection has caused waste and impaired correlative rights.
- (22) The following should be done in order to prevent further movement of fluids vertically from the existing San Andres injection interval and to prevent waste and protect correlative rights.
 - (a) The existing injection permit for the State "T" Well No. 2 issued by Division Order No R-12171 in Case No. 13293 should be revoked 30 days after the date of this order.
 - (b) Any new injection permit for this well should be approved through an examiner hearing and only after notice is provided to all affected parties [as defined in Rule 701.B.2] within 1 mile of this well. In addition, the applicant should show evidence that all surrounding wells within 1/2 mile and drilled to deeper horizons are either plugged and abandoned or cemented across the proposed injection interval. Any new permit to inject into this well should limit the maximum surface injection pressure to an equivalent gradient of 0.2 psi per foot over the top perforation. Relief from this pressure requirement should be granted only after notice and hearing and after all offset wells, located within 1 mile, are shown to have cement across the injection interval.
 - (c) It is very important that the Snyder "A" Well No. 1 be repaired and returned to production or abandoned after the pressure has dissipated in the lower San Andres formation. If this well remains out of compliance with Division Rule 201, the Division should pursue enforcement action as soon as is practical.

Case No. 13686 Order No. R-12649 Page 11 of 11

IT IS THEREFORE ORDERED THAT:

- (1) The permit to inject which was granted in Division Order No R-12171 issued in Case No. 13293 is hereby revoked 30 days after the date of this order. Gandy Corporation ("Gandy") is thereafter ordered to cease injection into its State "T" Well No. 2 (API No. 30-025-03735) located 4,290 feet from the South line and 500 feet from the West line (Lot 12) of irregular Section 6, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico.
- (2) If the injection well is not shut-in as ordered above, Gandy shall be subject to enforcement action including fines of 1,000 dollars per day beginning 30 days from the date of this order.
- (3) The operator of the State "T" Well No. 2 may apply for a new permit to inject at an examiner hearing and after notice is provided to all affected parties [as defined in Rule 701.B.2] within 1 mile of this well. In addition, the applicant shall show evidence that all surrounding wells located within 1/2 mile and drilled to deeper horizons are either plugged and abandoned or cemented across the proposed injection interval.
- (4) Any new permit to inject into this well shall have a maximum surface injection pressure equivalent to a gradient of 0.2 psi per foot over the top perforation. Relief from this pressure requirement shall be granted only after notice and hearing and after all offset wells, located within 1 mile, are shown to have cement across the injection interval.
- (5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

1 /00/ 60

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director

1 DEC. 13. 2006 _{1.} 11:43AM 1505:)OMENICI-LAW-FIRM	GANDY CORPORATION	.0N NC	4053 P. 13/13 _{2/02}
Submit 3 Cupi⇔ To Appropriate District	State of New M	1exico		Form C-103
Office District [Energy, Minerals and Na	tural Resources		May 27, 2004
1625 N. French Dr., Hobbs, NM 88240			WELL API NO	30 - 025-03735
<u>District II</u> 1301 W. Grand Avc., Artesia, NM 83210	OIL CONSERVATIO	N DIVISION	5. Indicate Typ	
Disulct.MI	1220 South St. Fr	ancis Dr.		FEE
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM S	87505	6. State Oil & C	Sas Lease No.
1220 S. St. Francis Dr., Santa Fc, NM			•	
SUNDRY NOTICE	ES AND REPORTS ON WELL	S	7. Lease Name	or Unit Agreement Namo
(DO NOT USE THIS FORM FOR PROPOSA DIFFERENT RESERVOIR. USE "APPLICA	lls to drill or to deepen or p ltion for permit" (form C-[01) i	LUG BACK TO A FOR SUCH		
PROPOSALS.) 1. Type of Well: Oil Well C	ias Well 🛭 Other SWD-836		8. Well Number	State T No. 002
2. Name of Operator Gandy	Corporation		9. OGRID Num	122811
3. Address of Operator		-	10. Pool name o	r Wildcat
	lox 827, Tatum, NM 88267			
4. Well Location		44		
	feet from theSouth_			
Section 6	Township 16 S	Range 36 E	NMPM	County LEA
	3,976 D		200	
Pit or Below-grade Tank Application Tor (
Pit typeDepth to Groundwate				face water
Pit Liner Thickness: mil	Below-Grade Tank: Volume	hhis: Con	truction Material	
12. Check Ap	propriate Box to Indicate N	Vature of Notice, R	cport or Other	Data
NOTICE OF INT	ENTION TO:	SIIRS	EQUENT RE	DODT OF
PERFORM REMEDIAL WORK []		REMEDIAL WORK		ALTERING CASING
TEMPORARILY ABANDON				P AND A
	MULTIPLE COMPL	CASING/CEMENT.		
OTUED.	,,	OT (CD)		-
OTHER: 13. Describe proposed or complete	ed operations. (Clearly state all r	OTHER:	ive pertinent date	es including estimated data
of starting any proposed work) or recompletion.	SEE RULE 1103. For Multip	le Completions: Attac	h wellbore diagn	am of proposed completion
Gandy Corp. proposed to plug and aban	don this well no later than July 3	31, 2007 by the follow	ing method:	
 Pull injection tubing and packet Go in hole with work string and 	ar. d cement retainer, set above perf	onotions at any and an		
3. Squeeze 50 sx class C cement i	in perforation, leaving at least 25	oranous at approxima	rely 4, 700°. forations	
4. Load hole with salt solution.			YOU WOLD:	
5. Spot 25 sx plug at 3,000'	- 1.0.501			•
25 sx plug at 8 5/8 sho 25 sx plug at 13 3/8 sh				,
6. 10 sx surface plug.	00377			•
7. Brect marker and clean location				
8. File final sundry notice of plug	dng.			
			,	
				
hereby certify that the information above	ve is true and complete to the hea	nt of my knowledge en	Aballat rame	and at a second
rade tank has been will be constructed or close	daycording to NMOCD guidelines	Algeneral permit. or a	o outles. I juriner	Certify that any pit or below-
1 4 1		$\int_{\mathbf{n} \neq \mathbf{n}} \left(\int_{\mathbf{n}} $	African Contraction of the Contr	
IGNATURE (LALLE S	TITLE T	Muller	<u> </u>	date 12-12-06
ype or print name: Dale Gandy	E-mail address:	•	Telephone No	. (505) 396-0522
	· 	· · · · ·	:	
OROVED BY: (if any):	TITI -)ATE
and an experience (it any).		NMOCC CASE N		
		JANUARY 11,	∠ ∪∪ /	

NMOCC CASE NO. 13686 JANUARY 11, 2007 DKD, LLC EXHIBIT NO. 3-K