

Submit 5 Copies to Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
March 4, 2004

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

WELL API NO.
30-045-33683

5. Indicate Type of Lease - *FEDERAL*
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
Federal Lease NM-0206994

7. Lease Name or Unit Agreement Name

Jacobs Com

8. Well Number
90S

9. OGRID Number
006515

10. Pool name or Wildcat
Basin FR Coal & Harper Hill FR Sand PC

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other ☐

2. Name of Operator
Dugan Production Corp.

3. Address of Operator
P. O. Box 420, Farmington, NM 87499-0420 (505) 325-1821

4. Well Location

Unit Letter F : 1915 feet from the North line and 1920 feet from the West line

Section 25 Township 30N Range 14W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
5494' GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL Sect Twp Rng Pit type Depth to Groundwater Distance from nearest fresh water well

Distance from nearest surface water Below-grade Tank Location UL Sect Twp Rng ;

 feet from the line and feet from the line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐

OTHER: Downhole commingling ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. This well was spudded on 7-12-06 and 5-1/2" casing will be cemented at $\pm 1340'$. The Basin Fruitland Coal and the Harper Hill Fruitland Sand-PC will be perforated. Both intervals will be fracture stimulated. It is proposed that both intervals be downhole commingled to clean up stimulation fluids and then produced.

1&2. NMOCD Order R-11363 established the Basin Fruitland Coal (71629) and Harper Hill Fruitland Sand-PC (78160) as pre-approved pools for downhole commingling.

3. Proposed perforated intervals: Basin Fruitland Coal intervals as developed which will be approximately 1038'-42', 1045'-48', 1068-78', 1085'-89', 1164'-72', 1178'-82'. Harper Hill Fruitland Sand-PC intervals as developed which will be approximately 1055'-59'; 1134'-40' 1184'-90'.

4. Proposed allocation method: Fixed factors based upon an analysis of production from both pools in a 12 section area adjacent or close to the subject well (Ref. Attachment No. 1). A total of 15 FR Coal, 20 PC wells and 5 similarly downhole commingled wells were evaluated.

Proposed Allocation	Fruitland Coal	Fruitland Sand/Pictured Cliffs
Gas	57%	43%
Water	50%	50%

5. Both pools are anticipated to produce high volumes of water & the proposed downhole commingling is necessary to economically & efficiently produce both zones. The value of production from either pool, will not be reduced, but will be maximized as a result of this downhole commingling.

6. The working and overriding royalty interest is not identical for both pools. Royalty interest is federal and is identical. Dugan Production holds 87.5% of the Basin Fruitland Coal plus 100% of the Harper Hill Fruitland Sand-Pictured Cliffs working interest. Notice of this application is being provided to all interest owners by letter dated 7/12/06 (copy attached). No objection is anticipated.

7. A copy of this application is being sent to the BLM.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE John D. Roe

TITLE Engineering Manager

DATE July 13, 2006

Type or print name John D. Roe

E-mail address: johnroe@duganproduction.com

Telephone No. 505-325-1821

(This space for State use)

APPROVED BY [Signature]

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3

DATE JUL 14 2006

Conditions of approval, if any:

8

Attachment No. 1
Offset Well Production
Dugan's Pan American No. 3, Jacobs Com No. 90S, & Winifred Com No. 90S
Sections 24 & 25; T-30N; R-14W
San Juan County, New Mexico

Operator ①	Well	Location UL-S-T-R	# Months Produced	02/06 DHC ③ %FC/%PC	Average Production - mcf/mo & (# of mo. if less than 12) ②									
					Fruitland Coal					Fruitland Sand-PC				
					1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months	1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months
DPC	Pinon Com #90	L-13-30N-14W	43		3,864	8,706	12,491	9,395 (7)		1,174	2,224	1,961	2321 (5)	
DPC	Humble Kirtland #2	P-13-30N-14W	41											
DPC	Humble Kirtland Com #90	B-13-30N-14W	41		748	1,010	1,246	1,888 (5)						
DPC	Dinero #1	H-13-30N-14W	34 ④							413	117	181 (10)		
DPC	Pinon #2	F-13-30N-14W	43							514	487	442	501 (7)	
DPC	Mucho Deal Com #90S	D-14-30N-14W	17		408	569 (5)								
DPC	Mucho Deal #14	F-14-30N-14W	63							3,924	3,582	5,241	3,440	2,003*
DPC	Mucho Deal Com #90	K-14-30N-14W	40		2,093	1,523	844	931 (4)						
DPC	Mucho Deal Com #15	M-14-30N-14W	18							2,368	2,967 (6)			
DPC	Molly Pitcher #90	G-14-30N-14W	40		2,772	3,483	2,436	2,097 (4)		2,634	4,889 (6)			
DPC	Molly Pitcher #5	A-14-30N-14W	18											
DPC	Molly Pitcher #90S	P-14-30N-14W	18		10,363	11,616 (6)				7,655	14,329	7,383	4,789 (6)	
DPC	Molly Pitcher #3	J-14-30N-14W	42											
POGO	Morton #3 ⑤	E-23-30N-14W	32	77/23 ⑤	8,735	4,488	1,925 (8)			2,809	1,341	575 (8)		
POGO	Morton #4	K-23-30N-14W	32	77/23 ⑤	10,182	5,954	5,840 (8)			3,041	1,778	1,738 (8)		
POGO	Morton #2	L-23-30N-14W	32	77/23 ⑤	12,708	6,635	6,049 (8)			3,796	2,579	1,807 (8)		
POGO	Morton #1	G-23-30N-14W	43	77/23 ⑤	5,117	9,935	7,434			846	2,460	2,579	2,089 (7)	
MOG	Hagood #3	I-24-30N-14W	7							6,966 (7)				
DPC	Pan American Federal #2	D-24-30N-14W	41							3,085	4,223	3,693	3,676 (5)	
MOG	Hagood #1	A-24-30N-14W	19							8,882	10,672 (7)			
LOC	WF Federal 25 #2	P-25-30N-14W	33	58/41 ⑥	5,177	4,774	5,146 (7)			4,951	4,173	3,474 (9)		
LOC	WF Federal 25 #1	H-25-30N-14W	42							4,734	4,491	5,734	4,840 (6)	
DPC	Winifred Com #90	O-26-30N-14W	55		802	2,271	1,884	3,291	4,367 (7)					
DPC	Beyond Petroleum Com #90	L-26-30N-14W	50		2,050	8,586	7,035	5,927	4,433 (2)					
DPC	Jacobs Com #90	G-26-30N-14W	55		4,004	3,634	6,059	5,015	7,232 (7)					
DPC	Jacobs #3	C-26-30N-14W	55							3,663	6,434	5,448	5,901	7,113 (7)
DPC	Tabor Com #90	H-35-30N-14W	68		3,486	5,314	9,099	4,166	5,671*					
DPC	Winifred #2	G-35-30N-14W	106							1,111	432	624	890	765*
DPC	Jiggs #2	I-35-30N-14W	66							4,897	5,074	6,449	4,287	4,189*
LADD	Aztec 35 #5	O-35-30N-14W	3 ⑦							239 (3)				
LOC	Perf #90	N-35-30N-14W	42		3,031	6,342	5,886	4,544 (6)						
LOC	Aztec #4	N-35-30N-14W	263 ⑧							1,954	1,522	1,306	1,502	1,465*
LOC	Perf #91	D-35-30N-14W	6		452 (6)									
DPC	Jiggs #1	E-35-30N-14W	60											
DPC	Aztec 35 #3	D-35-30N-14W	72							4,399	5,276	3,860	1,686	1,587
DPC	Stella Needs a Com #2	D-36-30N-14W	58							1,428	1,191	763	709	422*
DPC	Camp David Com #1	G-36-30N-14W	101							1,937	4,865	4,738	5,625	4,743 (10)
DPC	Camp David Com #1S	I-36-30N-14W	25		3,913	2,924	4,800	4,420	6,064*					
DPC	Camp David Com #2	O-36-30N-14W	57		6,383	16,912	15,323 (1)							
DPC	O'Henry #1	N-36-30N-14W	101		1,009	724	995	1,921	2,262*					
										2,426	5,206	3,971	3,086	2,623 (9)

Total all wells												
# wells	87,297	107,410	94,672	43,595	30,029	79,646	90,312	61,967	45,342	24,910		
Average/well	20	19	17	11	6	25	23	20	15	9		
% of FC & PC	4,365	5,653	5,569	3,963	5,005	3,186	3,927	3,098	3,023	2,768		
Avg. 1st 5 yrs	57.8	59.0	64.3	56.7	64.4	42.2	41.0	35.7	43.3	35.6		
60.4												
Total excluding DHC wells												
# wells	45,378	73,614	68,278	43,595	30,029	64,403	77,981	51,794	43,253	24,910		
Average/well	15	14	12	11	6	20	18	15	14	9		
% of FC & PC	3,025	5,258	5,690	3,963	5,005	3,220	4,332	3,453	3,090	2,768		
Avg. 1st 5 yrs	48.4	54.8	62.6	56.2	64.4	51.6	45.2	37.8	43.8	35.6		
57.3												
42.7												

Notes:

- ① - DPC = Dugan Production Corp., LADD = Ladd Petroleum Co., LOC = Lance Oil & Gas Co. (previously Richardson Oil & Gas), MOG = McElvain Oil & Gas, POGO = POGO Producing Co. (previously Calpine)
- ② - Production data from Dwights/PI and ONGARD thru February 2006. All data normalized to 1st month of production. Fruitland Coal production from the Basin Fruitland Coal pool (71629) and Fruitland Sand-PC production from the Harper Hill Fruitland Sand-Pictured Cliffs gas pool (78160).
- * - production data exists beyond 5 years, however only the 1st 5 years is presented.
- ③ - Downhole commingling factors for February 2006. % of commingled gas from Fruitland Coal and % of commingled gas from Fruitland Sand/Pictured Cliffs.
- ④ - The Dinero No. 1 plugged and abandoned 9-27-88.
- ⑤ - Morton wells No. 1, 2, 3, & 4 (API Nos. 30-045-25506; 25766; 31215 & 31214, respectively) all approved for downhole commingling (NMOCD Orders DHC-1004AZ, DHC-1003AZ, DHC-1075AZ, DHC-3084, respectively) with allocation factors based upon an analysis of daily average production from 25 wells in Harper Hill & Twin Mounds Fruitland (Sand)-Pictured Cliffs pools plus 26 wells presented as Fruitland Coal wells (all in Sections 13 thru 30 of T-30N, R-14W). The analysis presented that production from the Fruitland Coal wells averaged 64 mcf/d and production from the Fruitland-Pictured Cliffs wells averaged 83 mcf/d. By subtracting the two averages, it was concluded the Pictured Cliffs wells averaged 19 mcf/d. Based upon this analysis, 19 mcf/d represented 23% of the total and 64 mcf/d represented 77% of the total. This analysis is believed to be incorrect. The 83 mcf/d presented for the Fruitland-Pictured Cliffs is actually for the Fruitland Sand & Pictured Cliffs and does NOT include Fruitland Coal production. Wells completed only in the Pictured Cliffs cannot be separated by subtracting production from the Fruitland Coal. Also, the 64 mcf/d presented as an average for the Fruitland Coal includes eight wells listed as being in the Twin Mounds Fruitland plus two wells in the Twin Mounds Fruitland Coal. There are no such pools for Fruitland Coal. Removing these 10 wells, the Fruitland Coal average reduces from 64 to 58 mcf/d. Revising the allocation factors, the 58 mcf/d for the Fruitland Coal represents 41% of the total (down from 77%) and the 83 mcf/d for The Fruitland Sand-Pictured Cliffs represents 59% of the total (up from 23%).
- ⑥ - WF Federal 25 No. 2 (API No. 30-045-30713) - Administrative Order DHC-1209AZ issued 11/16/04 initially allocated 49% to the Pictured Cliffs and 51% to the Fruitland Coal and starting 11/04, changed to 41.6% to the Pictured Cliffs and 58.4% to the Fruitland Coal.
- ⑦ - Aztec 35 No. 5 (API No. 30-045-23870) - Plugged & Abandoned 9/85.
- ⑧ - Aztec No. 4 (API No. 30-045-23869) - Produced from Pictured Cliffs perfs 1113'-1123' from 11/80 thru 1/99 with no initial stimulation. On 1/24/99 the Pictured Cliffs was frac'd with 70Q foam & 38,960# sand. Production increased from an average of 852 mcf/mo to ±12,200 mcf/month.