

NATURAL RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES  
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731  
Phone:(714) 816-6847 Fax:(714) 816-6853

No. T 115-1359

## REPORT ON OPERATIONS

### WATER FLOOD PROJECT

Ms. Madelyn (Joyce) Holtzclaw  
E & B Natural Resources Management Corporation (E0100)  
1600 Norris Rd.  
Bakersfield, CA 93308

Cypress, California  
December 23, 2015

Your operations at well "**Wnf-I**" 33, A.P.I. No. **037-22768**, Sec. **20**, T. **04S**, R. **13W**, **SB** B.&M., **Wilmington** field, in **Los Angeles** County, were witnessed on **12/3/2015**, by **Miguel Oviedo**, a representative of the supervisor.

The operations were performed for the purpose of **demonstrating that all of the injection fluid is confined to the approved zone.**

DECISION: **NOT APPROVED**

DEFICIENCIES NOTED AND NOT CORRECTED: Unable to determine the fluid path due to high pick-up depth above the top perforations.

HAM:dt

Kenneth A. Harris Jr.  
\_\_\_\_\_  
State Oil and Gas Supervisor

By           *Nafiz Atcey*            
For Daniel J. Dudak, District Deputy

HAM

State of California  
Department of Conservation  
Division of Oil, Gas, and Geothermal Resources

No. T 115-1359

### Mechanical Integrity Test (MIT)

Operator: E&B Natural Resources				Well Name/Number "Wnf-1" 33			
Sec: 20	Tow: 04S	Ran: 13W	B&M: SB	API No.: 037-22768	Field: Wilmington		
County Los Angeles				Witnessed/Reviewed on: 12/3/2015			
Miguel Oviedo, representative of the supervisor, was present from						11:45	to 12:15
Also present were: Brandon Cesenas, Wireline Operator w/PDI							
Casing Record of the Well:							
The MIT was performed for the purpose of: 15							
<input type="checkbox"/> The MIT is approved since it indicates that all of the injection fluid is confined to the formations below _____ feet at this time							
<input checked="" type="checkbox"/> The MIT is not approved due to the following reasons: Unable to determine the fluid path due to high pick-up depth above the top perforation. (EFFECTIVE) CONTRACTOR: PDI UNCORRECTABLE DEFICIENCIES: SEE NOTES DEFICIENCIES NOTED AND CORRECTED							

Well: "Wnf-I" 33	Date: 12/3/2015	Time: 11:45																					
Observed Rate: 85	Meter Rate: 160 B/D	Fluid Level: Surface																					
Injection Press: 780 psi	MASP: 1630 psi	Pick-up Depth (ft): 4026																					
Initial Annulus Pressure: 0 psi	Pressure after bleed-off: psi																						
Casing vented during test (Y/N): Yes	Survey Company: PDI																						
<table border="1"> <thead> <tr> <th colspan="3"></th> <th colspan="3">Spinner Counts</th> <th colspan="1"></th> </tr> <tr> <th>Depth</th> <th>Counts</th> <th>Rate</th> <th>Depth</th> <th>Counts</th> <th>Rate</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table>						Spinner Counts				Depth	Counts	Rate	Depth	Counts	Rate	Comments							
			Spinner Counts																				
Depth	Counts	Rate	Depth	Counts	Rate	Comments																	
<b>Tracer Casing and Tubing Rate Checks</b>																							
Interval (ft to ft)	Time (sec)	Survey Rate (BPD)	Background log (ft):	3975	to	3875																	
3895 to 3900	143	85	Comments:	Factor = 488																			
48 to 55	85																						
to																							
to																							
<b>Top Perforation Check</b>																							
Top Perforation: 3986 feet	Wait at: 3900 feet for 240 seconds	Beads (Y/N):																					
Casing Shoe at: 4049 ft	WSO Holes at: ft																						
Arrival Time Calculated: secs	Arrival Time Actual: secs																						
Log from (ft)	Log to (ft)	Slug at (ft)	Log from (ft)	Log to (ft)	Slug at (ft)	Log from (ft)	Log to (ft)	Slug at (ft)															
Comments: High pick up depth above the effective top perforation.																							
<b>Packer Check</b>																							
Packer at: 3925 ft	Wait at: 3900 feet for 240 seconds	Beads (Y/N):																					
Tubing Tail at: 3961 ft	Tubing size (in): 2-7/8	2nd Packer at (ft):	Mandrel (ft):																				
Log from (ft)	Log to (ft)	Slug at (ft)	Log from (ft)	Log to (ft)	Slug at (ft)	Log from (ft)	Log to (ft)	Slug at (ft)															
3900	4000	3950	4000	3800	3969																		
4000	3800	3959																					
4000	3925	3964																					
4000	3800	3967																					
Comments:																							
General Comments: Hole in casing between 3960' - 3970'. Hole taking 100% of fluid. Upward migration to 3830'.																							

**Ali Mohammed, Hafiz@DOC**

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**From:** Ali Mohammed, Hafiz@DOC  
**Sent:** Wednesday, December 23, 2015 10:10 AM  
**To:** 'jholtzclaw@ebresources.com'  
**Cc:** 'Dan Fouts'  
**Subject:** RA\_Survey failures

Holtzclaw,

The following wells are in violation of CCR 1748.3 (f) because the result could not confirm that the injection fluid is confined to proper zone.

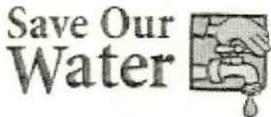
API Number	Well Number	Date of RA	Reason for failure
037-22603	"Wnf-I" 11	12/3/2015	Pick up above top perforations
037-22768	"WNF-I" 33	12/3/2015	Pick up above top perforations

These wells shall be brought into compliance within 30 days from date of this notice. The Division must be provided at least 24 hour notice to witness injection survey.

**Hafiz Ali Mohammed**

Associate Oil and Gas Engineer  
Division of Oil, Gas and Geothermal Resources  
5816 Corporate Ave., Ste100  
Cypress, Ca 90630  
(714)816-6847

Every Californian should conserve water. Find out how at:



[SaveOurWater.com](http://SaveOurWater.com) · [Drought.CA.gov](http://Drought.CA.gov)

**Ali Mohammed, Hafiz@DOC**

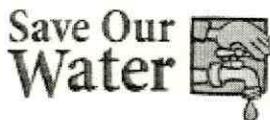
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**From:** Ali Mohammed, Hafiz@DOC  
**Sent:** Tuesday, November 24, 2015 9:06 AM  
**To:** 'jholtzclaw@ebresources.com'  
**Cc:** 'Dan Fouts'  
**Subject:** RA\_SURVEY for well "Wnf-1" 33 API# 037-22768

Dan,  
Our record indicate that the RA\_Survey was done on subject well on 7/23/2015 was not approved.  
This well will need to be remediated and subsequent test run on the well. Please call the Division to witness this test.  
Thank You

**Hafiz Ali Mohammed**  
Associate Oil and Gas Engineer  
Division of Oil, Gas and Geothermal Resources  
5816 Corporate Ave., Ste100  
Cypress, Ca 90630  
(714)816-6847

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## Castrejon, Maureen@DOC

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**From:** Ali Mohammed, Hafiz@DOC  
**Sent:** Tuesday, November 24, 2015 9:06 AM  
**To:** 'jholtzclaw@ebresources.com'  
**Cc:** 'Dan Fouts'  
**Subject:** RA\_SURVEY for well "Wnf-l" 33 API# 037-22768

Dan,  
Our record indicate that the RA\_Survey was done on subject well on 7/23/2015 was not approved.  
This well will need to be remediated and subsequent test run on the well. Please call the Division to witness this test.  
Thank You

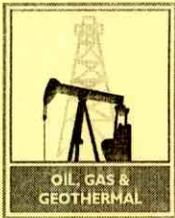
### **Hafiz Ali Mohammed**

Associate Oil and Gas Engineer  
Division of Oil, Gas and Geothermal Resources  
5816 Corporate Ave., Ste100  
Cypress, Ca 90630  
(714)816-6847

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DEPARTMENT OF CONSERVATION  
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES  
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731  
Phone:(714) 816-6847 Fax:(714) 816-6853

No. T 115-1069

### REPORT ON OPERATIONS

#### WATER FLOOD PROJECT

Ms. Madelyn (Joyce) Holtzclaw  
E & B Natural Resources Management Corporation (E0100)  
1600 Norris Rd.  
Bakersfield, CA 93308

Cypress, California  
November 24, 2015

Your operations at well "**Wnf-I" 33**, A.P.I. No. **037-22768**, Sec. **20**, T. **04S**, R. **13W, SB** B.&M., **Wilmington** field, in **Los Angeles** County, were witnessed on **7/23/2015**, by **Max Chavez-Segura**, a representative of the supervisor.

The operations were performed for the purpose of **demonstrating that all of the injection fluid is confined to the approved zone.**

DECISION: **NOT APPROVED**

DEFICIENCIES NOTED AND CORRECTED: Unable to reach top perforation at 4054 Ft. Pick up depth: 4023'.

EXPIRED \_\_\_\_\_  
CANCELLED \_\_\_\_\_  
MAILED \_\_\_\_\_  
EMAILED 12.1.15 TL

HAM:dt

Steven Bohlen  
\_\_\_\_\_  
State Oil and Gas Supervisor

By *Nabil Ateeg*  
For \_\_\_\_\_  
Daniel J. Dudak, District Deputy

State of California  
Department of Conservation  
Division of Oil, Gas, and Geothermal Resources

dc

No. T 115-1009

### MECHANICAL INTEGRITY TEST (MIT)

Operator: E & B Natural Resources Management Corp.				Well: "Wnf-1" 33	
Sec. 20	T. 04S	R. 13W	B.&M. SB	API No.: 037-22768	Field: Wilmington
County: Los Angeles				Witnessed/Reviewed on: 7-23-2015	

Max Chavez, representative of the supervisor, was present from 0700 to 1000  
Also present were: Aaron Glenn and Raul Ronderos (Wellco)

Casing record of the well:

The MIT was performed for the purpose of (15)  
Demonstrating that all of the injection fluid is confined to the approved zone.

The MIT is approved since it indicates that all of the injection fluid is confined to the formations below \_\_\_\_\_ feet at this time.

The MIT is not approved due to the following reasons: (specify)  
Unable to reach top perforation at 4054 Ft. Pick up depth: 4023'.

CONTRACTOR: Wellco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND CORRECTED:

Well: "Wnf-1" 33	Date: 7-23-2015	Time: 0700-1000
Observed rate: Not determined B/D	Meter rate: 400 B/D	Fluid level: 0 feet
Injection pressure: 1120 psi	MASP: 1630 psi	Pick-up depth: 4023 feet

Initial annulus pressure: 0 psi	Pressure after bleed-off: 0 psi
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Casing vented during test (Y/N) Yes	Survey company: WellaCo
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<u>SPINNER COUNTS</u>						
DEPTH	COUNTS	RATE	DEPTH	COUNTS	RATE	COMMENTS:

<u>TRACER CASING AND TUBING RATE CHECKS</u>			
Interval	Time (sec.)	Rate (B/D)	Background log: _____ to _____
			COMMENTS:

**TOP PERFORATION CHECK**

Top perforation depth: 4054'	Wait at: _____ for _____ seconds	Beads: (Y/N)
------------------------------	----------------------------------	--------------

Casing shoe at: 4153'	WSO holes at: _____	Arrival time: <i>Calculated</i> _____ <i>Actual</i> _____
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LOG FROM	TO	SLUG @	LOG FROM	TO	SLUG @	COMMENTS:

**PACKER CHECK**

Packer at: 3926'	Wait at: _____ for _____ seconds	Beads: (Y/N)
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Tubing tail at: 3958'	Tubing size: 3-1/2"	2nd Packer at: _____	Mandrel: _____
-----------------------	---------------------	----------------------	----------------

LOG FROM	TO	SLUG @	LOG FROM	TO	SLUG @	COMMENTS:

COMMENTS: Unable to run checks, pick up depth at 4023 Ft, Top Perf @ 4054 Ft.

RESOURCES AGENCY OF CALIFORNIA  
 DEPARTMENT OF CONSERVATION  
 DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES  
**REPORT OF PROPERTY AND WELL TRANSFER**

Field or county Wilmington		District - Cypress (D1)	
Former owner Four Teams Oil Production & Exploration Company, Inc.		Opcode: F1535	Date August 12, 2010
<b>SEE ATTACHMENT</b>			
Description of the land upon which the well(s) is (are) located <p style="text-align: center;">See Attachment</p>			
Date of transfer, sale, assignment, conveyance, or exchange 8/1/2010	New Owner E & B Natural Resources Management Corp.	Operator code E0100	Type of Organization Corporation
	Address 1600 Norris Road Bakersfield, CA 93308		Telephone No. (661) 679-1700
Reported by OG30A received 8/11/2010 signed by both parties			
Confirmed by. Same as above			
New operator new status (status abbreviation) PA	Request Designation of Agent Jeffrey Blesener		
Old operator new status (status abbreviation) PA	Remarks See Operator File		
Deputy Supervisor  Kenneth Carlson		Signature  Chris McCullough, Associate Engineer	

**OPERATOR STATUS ABBREVIATIONS**

	FORM AND RECORD CHECK LIST					
	Form or record	Initials	Date	Form or record	Initials	Date
PA - Producing Active						
NPA - No Potential Active						
PI - Potential Inactive	Form OGD121			Map and Book		
NPI - No Potential Inactive	Well records			Lease Files		
Ab - Abandoned or No More Wells	New well cards			Well Stat		

OGD156 (Modified 1/00)

E & B Natural Resources Mgmt. Corp.

# **WELL TRANSFER NOTICE**

On 12-21-98

**XL OPERATING COMPANY**

transferred

all wells in the Wilmington field

(See OGD156 dated December 21, 1998 for complete list)

to

**FOUR TEAMS OIL PROD. & EXPL., INC.**

# **WELL TRANSFER NOTICE**

Effec February 7, 1997

**XTRA ENERGY CORPORATION**

***TRANSFERRED***

*all wells Wilmington*

*(See Operator File for Complete List)*

***TO***

**XL OPERATING COMPANY**

***SEE OGD156 DATED 02-7-97***

**DIVISION OF OIL AND GAS**

**Report on Operations**

WATERFLOOD PROJECT

Agnes T. List, Agent-XTRA ENERGY CORPORATION  
C T CORPORATION SYSTEM  
800 South Figueroa Street, Suite 1000  
Los Angeles, CA 90017

Long Beach, Calif.  
June 22, 1987

Your operations at well "WNF-I" 33, API No. 037-22768  
Sec. 20, T. 4S, R. 13W, S. B. B. & M. Wilmington Field, in Los Angeles County,  
were witnessed on 4-30-87. M. Saw, Engineer, representative of  
the supervisor, was present from 1530 to 1540. There were also present G. John,  
Operator

Present condition of well: 16" cem 40'; 10-3/4" cem 602'; 7" cem 4049', cp 4033', perf 4033'  
WSO; 5" ld 3986'-4153', perf 4055'-4147'. TD 4155'.

The operations were performed for the purpose of demonstrating that all of the injection fluid  
is confined to the formation below 4033'.

DECISION: APPROVED.

NOTE: DEFICIENCIES CORRECTED  
NONE

DEFICIENCIES TO BE CORRECTED  
NONE

UNCORRECTABLE DEFICIENCIES  
NONE

CONTRACTOR: Flo-Log, Inc.

MS:mh

cc: Update

M. G. MEFFERD

State Oil and Gas Supervisor

*[Signature]*  
Deputy Supervisor

for. V. F. Gaede

DIVISION OF OIL AND GAS  
WATER SHUTOFF TEST

5-22-87  
No. T 187-354

Operator Xtra Energy Co  
Well designation "WNF-I" 33 Sec. 20, T. 4S, R. 13N, SB B.&M.  
Field Wilmington, County LA was tested for water  
shutoff on 4/30/87. (Name) M. Saw, representative of the supervisor, was  
present from 1530 to 1540. Also present were G. John, Opd

Casing record of well: 16" cem 40'; 10<sup>3/4"</sup> cem 602'; 7" cem 4049', cp 4033',  
perf 4033' NSD; 5" id 3986'-4153', part 4055'-4147' TD. 4155'

The operations were performed for the purpose of (P) 4033'

- The \_\_\_\_\_" shutoff at \_\_\_\_\_' is approved.
- The seal between the \_\_\_\_\_" and \_\_\_\_\_" casings is approved.
- The operations are approved as indicating that all of the injection fluid is confined to the formations below 4033' at this time.

Hole size: \_\_\_\_\_" fr. \_\_\_\_\_' to \_\_\_\_\_'; \_\_\_\_\_" to \_\_\_\_\_'; & \_\_\_\_\_" to \_\_\_\_\_'

Casing			Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested \_\_\_\_\_  
The hole was open to \_\_\_\_\_' for test.

FORMATION TEST:  
Packer(s) \_\_\_\_\_' & \_\_\_\_\_' Tail \_\_\_\_\_' Bean size \_\_\_\_\_" Cushion \_\_\_\_\_  
IHP \_\_\_\_\_ IFP \_\_\_\_\_ FFP \_\_\_\_\_ FHP \_\_\_\_\_  
Blow \_\_\_\_\_  
Open for test \_\_\_\_\_ Hr. \_\_\_\_\_ min. Fluid entry \_\_\_\_\_

BAILING TEST:  
The hole fluid was bailed to \_\_\_\_\_', at \_\_\_\_\_ on \_\_\_\_\_ 19\_\_.  
The hole fluid was found at \_\_\_\_\_', at \_\_\_\_\_ on \_\_\_\_\_ 19\_\_.  
(time)

PRODUCTION TEST:  
Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19\_\_, at \_\_\_\_\_ pump depth \_\_\_\_\_' Engr. \_\_\_\_\_  
Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19\_\_, at \_\_\_\_\_ Engr. \_\_\_\_\_  
Fluid level \_\_\_\_\_' surveyed on \_\_\_\_\_ 19\_\_, reviewed (witnessed) by \_\_\_\_\_  
Total fluid produced, Bbls. \_\_\_\_\_ Net oil \_\_\_\_\_ Water \_\_\_\_\_  
Rate: \_\_\_\_\_ B/D oil, \_\_\_\_\_ B/D water, \_\_\_\_\_ % water cut

INJECTION SURVEY:  
RA/Spinner/Temperature survey run at 145 B/D & 1600 psi on 4/30 1987,  
fluid confined below 4033' (Packer depth 3917' )  
cg valve opened, shoe & packer checked OK

DEFICIENCIES NOTED AND CORRECTED:

*Mhe*

DEFICIENCIES NOTED AND TO BE CORRECTED:

*Mhe*

UNCORRECTABLE DEFICIENCIES:

*[scribble]*

*Mhe*

CONTRACTOR:

*Flo - log Inc.*

DIVISION OF OIL AND GAS  
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Xtra Energy Corp. Well No. WNF-I" 33  
 API No. 037-22768 Sec. 20, T. 45, R. 13W, S.B. B.&M.  
 County Los Angeles Field Wilmington

<u>RECORDS RECEIVED</u>	<u>DATE</u>
Well Summary (Form OGD100)	
History (Form OGD103)	<u>6-14-84 (2)</u>
Core Record (Form OGD101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

<u>STATUS</u>	<u>STATUS</u>
Producing - Oil	Water Disposal
Idle - Oil	Water Flood <u>X</u>
Abandoned - Oil	Steam Flood
Drilling - Idle	Fire Flood
Abandoned - Dry Hole	Air Injection
Producing - Gas	Gas Injection
Idle - Gas	CO2 Injection <u>X</u>
Abandoned - Gas	LPG Injection
Gas-Open to Oil Zone	Observation
Water Flood Source	
DATE	
RECOMPLETED <u>1-26-84</u>	
REMARKS	

- ENGINEER'S CHECK LIST
- Summary, History, & Core record (dupl.)
  - Electric Log
  - Operator's Name
  - Signature
  - Well Designation
  - Location
  - Elevation
  - Notices
  - "T" Reports
  - Casing Record
  - Plugs
  - Surface Inspection
  - Production
  - E Well on Prod. Dir. Sur.

- CLERICAL CHECK LIST
- Location change (F-OGD165)
  - Elevation change (F-OGD165)
  - Form OGD121
  - Form OGD159 (Final Letter)
  - Form OGD150b (Release of Bond)
  - Duplicate logs to archives
  - Notice of Records due (F-OGD170)

2-20-84  
 UPDATE CENTER 1/10/85

RECORDS NOT APPROVED  
 Reason: need RA 6-18-84

RECORDS APPROVED William E. Brennan  
 RELEASE BOND   
 Date Eligible \_\_\_\_\_  
 (Use date last needed records were received.)  
 MAP AND MAP BOOK 128 DA 1-11-85

**CHECK LIST - RECORDS RECEIVED AND WELL STATUS**

Well No. \_\_\_\_\_

API No. \_\_\_\_\_ Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_, \_\_\_\_\_ B.&M.

<u>WORK PERFORMED</u>	<u>STATUS</u>	<u>DATE</u>
Drill _____ Redrill _____ Deepen _____	Producing _____	
Plug _____ Alter Casing _____	Recompleted Producing _____	
Water Flood _____ Water Disposal _____	Water Flood _____	
Abandon _____	Water Disposal _____	
Other _____	Abandoned _____	
	Other _____	
	MAP AND BOOK _____ Engineer _____	

RECORDS FILED AND DATE Clerk \_\_\_\_\_

Summary \_\_\_\_\_

Log and Core \_\_\_\_\_

History \_\_\_\_\_

E-log \_\_\_\_\_

\_\_\_\_\_

Directional Survey \_\_\_\_\_

Other \_\_\_\_\_

(Check records for signature and correct name of operator or well, section, township, range, and field.)

Location \_\_\_\_\_ Notice states \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Elevation \_\_\_\_\_ Notice states \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Production Reports \_\_\_\_\_

\_\_\_\_\_

(If production reports not received, make notation and inform Senior Stenographer when received.)

RECORDS & REQUIREMENTS CHECKED Engineer \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Surface Inspection \_\_\_\_\_

Data Needed \_\_\_\_\_

Request Records \_\_\_\_\_ OGD170 \_\_\_\_\_

Correct records \_\_\_\_\_ OGD165 \_\_\_\_\_

(Specify)

CARDS \_\_\_\_\_

BOND \_\_\_\_\_

Hold \_\_\_\_\_ Reason \_\_\_\_\_

Release \_\_\_\_\_ Date Eligible \_\_\_\_\_ OGD150 \_\_\_\_\_

End premium year \_\_\_\_\_

Release requested \_\_\_\_\_

Bond superseded \_\_\_\_\_ (Check One)

Well abandoned \_\_\_\_\_

Environmental Inspection \_\_\_\_\_ Engineer \_\_\_\_\_

FINAL LETTER \_\_\_\_\_ OGD159 \_\_\_\_\_

and \_\_\_\_\_

File cleared \_\_\_\_\_ OGD121 \_\_\_\_\_

SUBMIT IN DUPLICATE  
RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
**DIVISION OF OIL AND GAS**

**History of Oil or Gas Well**

Operator Xtra Energy Corporation Field Wilmington County Los Angeles  
Well "WNF-I" #33 , Sec. 20 , T 4S , R 13W , S. BB. & M.  
A.P.I. No. 037-22768 Name John D. Carmichael Title Sr. Vice President  
Date May 10 , 1984 (Person submitting report) (President, Secretary or Agent)

Signature John D. Carmichael

2501 Cherry Avenue Suite 270 Signal Hill Ca 90806 (Address) (213) 424-8549 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1-24-84	<u>Convert to Injection.</u> MIRU. Laid down rods and RWA pump. Ran sinker bar and tagged fill at 4145'. Bottom at 4153' = 8' fill. Laid down tbg and gas anchor.
1-25-84	Ran bell collar, xn-nipple, 1 jt 2-7/8" tbg, Otis 7" PRC pkr, pup, 120 jts 2-7/8" tbg, x-nipple, 2 jts 2-7/8" tbg, pup. Tested tbg to 4500 psi going in. All tubing coated inside. Set pkr with top at 3910'. Unlatched from pkr and displaced annulus with chem treated water. Latched into pkr and tested annulus ok. Pumped 500 gal aromatic solvent down tubing. Tbg hung to 3951'. RDMO.
1-26-84	<u>On Water Injection.</u> 391 B/D @ 1600 psi.

DIVISION OF OIL AND GAS

Report on Operations

WATERFLOOD PROJECT

John D. Carmichael, Agent  
XTRA ENERGY CORPORATION  
P.O. Box "9"  
Long Beach, CA 90801

Long Beach, Calif.  
January 17, 1985

Your operations at well "WNF-E" 33, API No. 037-22768  
Sec. 20, T. 4S, R. 13W, S.B.B. & M. Wilmington Field, in Los Angeles County,  
were witnessed on 11-27-84 by M. Johnson, Engineer, representative of  
the supervisor, was present from 0900 to 0930. There were also present P. Kemp,  
Drilling Foreman CP 4033, PERF 4033, WSO;  
Present condition of well: 10 1/4" cem 602'; 7" cem 4049', A 5" ld 3986'-4153', perfs 4055'-4147'.  
TD 4153'.

The operations were performed for the purpose of demonstrating that all of the injection fluid  
is confined to the formations below 4049'.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED  
NONE

DEFICIENCIES CORRECTED  
NONE

CONTRACTOR: Production Data Inc.

MH: mh

cc: Update

M. G. MEFFERD  
State Oil and Gas Supervisor  
By [Signature]  
Deputy Supervisor  
for V. F. Gaede

DIVISION OF OIL AND GAS  
WATER SHUTOFF TEST

No. T 185-89

Operator XTRA ENERGY CORP

Well designation "WNF-I" 33 Sec. 20, T. 4S, R. 12W, S.B.B.&M.

Field Wilmington, County Los Angeles was tested for water shutoff on 7/27/84. (Name) M. JOHNSON, representative of the supervisor, was present from 0900 to 0930. Also present were P. KEMP D.F.

Casing record of well: 10" cem 602'; 7" cem 4049'; 5" id 3986'-4153'; pipes 4055'-4147' TD 4153'

The operations were performed for the purpose of (P) 4049'

- The \_\_\_\_\_" shutoff at \_\_\_\_\_' is approved.
- The seal between the \_\_\_\_\_" and \_\_\_\_\_" casings is approved.
- The operations are approved as indicating that all of the injection fluid is confined to the formations below 4049' at this time.

Hole size: \_\_\_\_\_" fr. \_\_\_\_\_' to \_\_\_\_\_'; \_\_\_\_\_" to \_\_\_\_\_'; & \_\_\_\_\_" to \_\_\_\_\_'

Casing			Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested \_\_\_\_\_  
The hole was open to \_\_\_\_\_' for test.

FORMATION TEST:

Packer(s) \_\_\_\_\_' & \_\_\_\_\_' Tail \_\_\_\_\_' Bean size \_\_\_\_\_" Cushion \_\_\_\_\_  
IHP \_\_\_\_\_ IFP \_\_\_\_\_ FFP \_\_\_\_\_ FHP \_\_\_\_\_  
Blow \_\_\_\_\_  
Open for test \_\_\_\_\_ Hr. \_\_\_\_\_ min. Fluid entry \_\_\_\_\_

BAILING TEST:

The hole fluid was bailed to \_\_\_\_\_', at \_\_\_\_\_ on \_\_\_\_\_ 19\_\_.  
The hole fluid was found at \_\_\_\_\_', at \_\_\_\_\_ on \_\_\_\_\_ 19\_\_.

PRODUCTION TEST:

Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19\_\_, at \_\_\_\_\_ pump depth \_\_\_\_\_' Engr. \_\_\_\_\_  
Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19\_\_, at \_\_\_\_\_ Engr. \_\_\_\_\_  
Fluid level \_\_\_\_\_' surveyed on \_\_\_\_\_ 19\_\_, reviewed (witnessed) by \_\_\_\_\_  
Total fluid produced, Bbls. \_\_\_\_\_ Net oil \_\_\_\_\_ Water \_\_\_\_\_  
Rate: \_\_\_\_\_ B/D oil, \_\_\_\_\_ B/D water, \_\_\_\_\_ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at 360 B/D & 1800 psi on 2-20-84 19\_\_, fluid confined below 4049' (Packer depth 3910')

DEFICIENCIES--TO BE CORRECTED

*NUM*

DEFICIENCIES--CORRECTED

*NUM*

CONTRACTOR

*PRODUCTION DATA INC*

# REPORT ON PROPOSED OPERATIONS

WATER AND GAS INJECTION  
WATERFLOOD PROJECT  
SEC. 3606 WELL

848  
(field code)  
03  
(area code)  
20  
(new pool code)  
00  
(old pool code)

John D. Carmichael, Agent

XTRA ENERGY CORPORATION

Box "9"

Signal Hill, CA 90801

Long Beach, California

December 9, 1983

rework and convert to

Your \_\_\_\_\_ proposal to "WAG" injection well "WNE-I" 33,  
A.P.I. No. 037-22768, Section 20, T. 4S, R. 13W, S.B. B. & M.,  
Wilmington field, Fault Block I, Onshore area, Ranger pool,  
Los Angeles County, dated 11-28-83, received 12-2-83 has been examined in conjunction with records  
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. This well shall conform to the provisions set forth in our letter of June 24, 1983 approving the project.
2. THIS DIVISION SHALL BE NOTIFIED TO WITNESS THE RUNNING OF AN INJECTION SURVEY.

NOTE:

1. The base of the fresh water sands is above 1900'. The fresh water is protected by the 7" casing cemented at 4049' with sufficient cement to fill to 1658'±.
2. The water to be injected is fresh water and tests approx. 509 ppm TDS and is obtained from Dominguez Water Company.
3. The water is to be injected into the Ranger zone which extends from 4049' to 4153' and contains a mixture of oil and water. The formation water tests approx. 28,250 ppm TDS.
4. Approx. surface location of well: 163 feet north and 992 feet east from the southwest corner which is the northeast corner of Main St. and the AT & SF right-of-way.

WEB:mh

cc: Update

BLANKET BOND

M. G. MEFFERD, State Oil and Gas Supervisor

By *V. F. Gaede*  
for V. F. Gaede, Deputy Supervisor

**A copy of this report and the proposal must be posted at the well site prior to commencing operations.  
Records for work done under this permit are due within 60 days after the work has been completed  
or the operations have been suspended.**

*rework and convert  
to water and CO<sub>2</sub>  
injection*

*12-6-83*

### Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD 114	OGD 121
<i>Blanket</i>	<i>2683</i>	<i>2683</i>

### DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well "WNF - I" #33, API No. 037-22768  
*(Well designation)*

Sec. 20, T. 4S, R. 13W, S. B. & M., Wilmington Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth 4153'
- Complete casing record, including plugs and perforations  

<u>10 3/4"</u> ,	<u>40.5#</u> ,	<u>K-55</u> ,	<u>602'</u>
<u>7"</u> ,	<u>23#</u> ,	<u>K-55</u> ,	<u>4049'</u>
<u>5"</u> ,	<u>18#</u> ,	<u>with Wire Wrapped Screen below. hung @ 3986', bottom @ 4153'</u>	

*(See Liner detail attached.)*

3. Present producing zone name Ranger; Zone in which well is to be recompleted Ranger

4. Present zone pressure 1350 psi; New zone pressure ---

5. Last produced	<u>11-28-83</u>	<u>5</u>	<u>1</u>	<u>0</u>
	<i>(Date)</i>	<i>(Oil, B/D)</i>	<i>(Water, B/D)</i>	<i>(Gas, Mcl/D)</i>

*(or)*

Last injected	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
	<i>(Date)</i>	<i>(Water, B/D)</i>	<i>(Gas, Mcl/D)</i>	<i>(Surface pressure, psig)</i>

The proposed work is as follows:

Convert to CO<sub>2</sub> - Water "WAG" injector.

*TOC  
1658±*

**It is understood that if changes in this plan become necessary, we are to notify you immediately.**

Address 2501 Cherry Avenue Suite 270  
*(Street)*  
Signal Hill CA 90806  
*(City) (State) (Zip)*

Xtra Energy Corporation  
*(Name of Operator)*  
By John D. Carmichael  
*(Print Name)*

Telephone Number (213) 424-8549

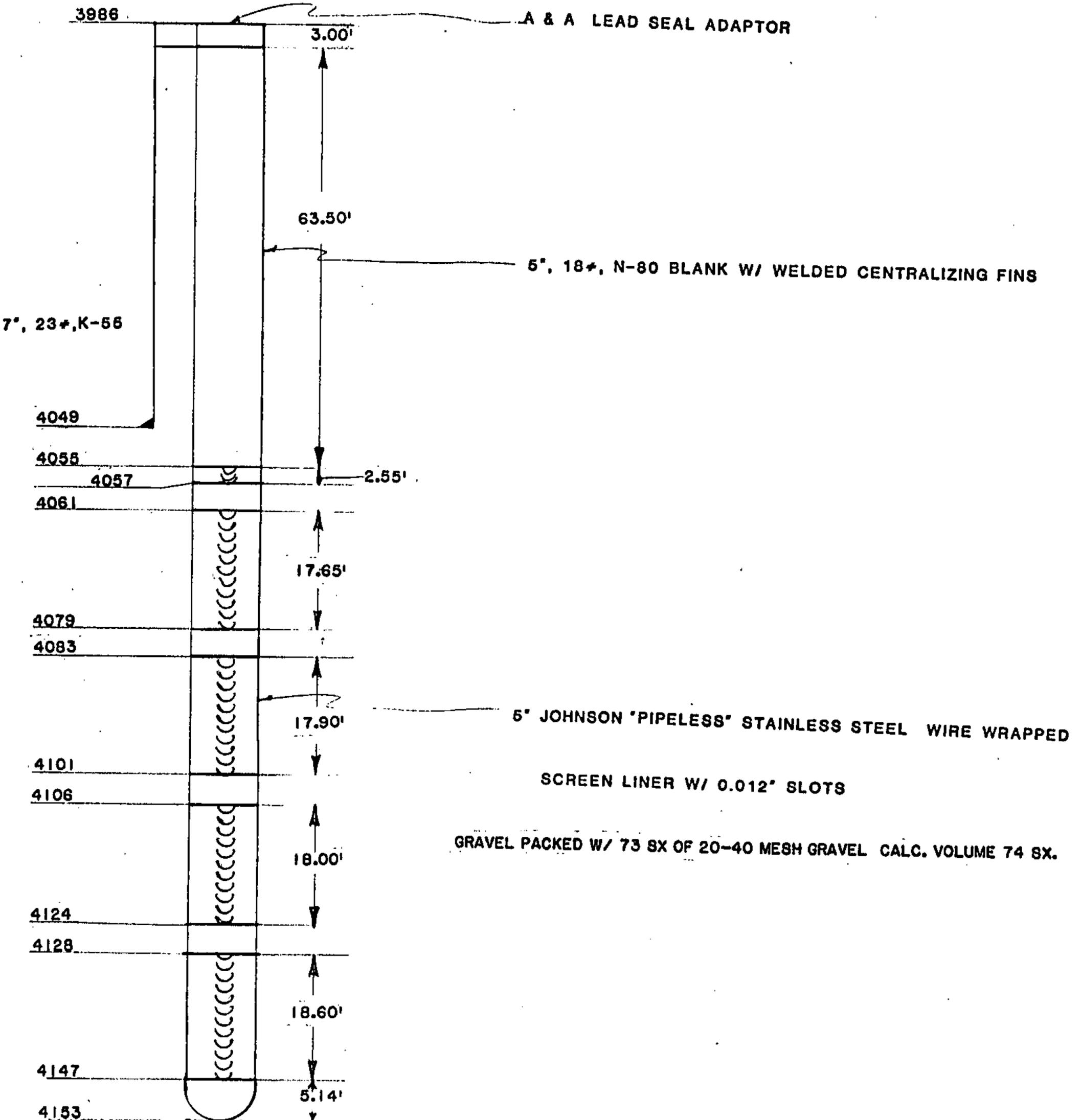
*John D. Carmichael*  
*(Signature)* 11-28-83  
*(Date)*

100-100000-100000

RECEIVED  
DEC 2 3 21 PM '83  
LPG GAS  
LONG BEACH, CA.

# XTRA ENERGY CORP.

## LINER DETAIL WNF-1#33



STATE OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California

October 17, 1983

John D. Carmichael, Agent  
XTRA ENERGY CORPORATION  
2501 Cherry Avenue, Suite 270  
Signal Hill, CA 90806

Your request, dated September 15, 1983, proposing to change the designation of  
see  
well(s) in Sec. below, T. 4S, R. 13W, S. B. B. & M., Wilmington field,  
Los Angeles County, District No. 1, has been received.

The proposed change in designation, in accordance with Section 3203, Public Resources Code, is authorized  
as follows: Sec. 19-4S-13W

OLD	NEW	API	OLD	NEW	API
8	"WNF-I" 8	22620	"American Can" 1	"WNF-I" 12	21433
10	"WNF-I" 10	22611	"	"WNF-I" 15	21644
18	"WNF-I" 18	22853	"	"WNF-I" 3	21768
19	"WNF-I" 19	22846	"Dasco Unit" 1	"WNF-I" 1	21671
20	"WNF-I" 20	22652	I-14	"WNF-I" 11	22603
23	"WNF-I" 23	22672	"Purex Unit" 1	"WNF-I" 9	21669
26	"WNF-I" 26	22666-01	"	"WNF-I" 5	21753
27	"WNF-I" 27	22673	"	"WNF-I" 4	21754
28	"WNF-I" 28	22674	"Sanitation Unit" 1	"WNF-I" 21	21445
29	"WNF-I" 29	22648			
43	"WNF-I" 43	22682			
<u>Sec. 20-4S-13W</u>					
31	"WNF-I" 31	22767	36	"WNF-I" 36	22769
33	"WNF-I" 33	22768	37	"WNF-I" 37	22796
34	"WNF-I" 34	22787	38	"WNF-I" 38	22752
35	"WNF-I" 35	22795	39	"WNF-I" 39	22754

M. G. MEFFERD, State Oil and Gas Supervisor

By Richard C. Johnson  
FOR V. F. GAEDE, Deputy Supervisor

EDP  
Update  
Conservation Committee  
Long Beach Dept. of Oil Properties  
OGD 157 (3-79-DWRR-1M)

Sec. 20-4S-13W

<u>OLD</u>	<u>NEW</u>	<u>API</u>
		<u>037-</u>
"Shell Unit" 1	"WNF-I" 32	21729
"Shell Unit" 2	"WNF-I" 40	21769

Sec. 29-4S-13W

"Lomita Unit" 1	"WNF-I" 67	22487
49	"WNF-I" 49	22886
50	"WNF-I" 50	22884
51	"WNF-I" 51	22885
53	"WNF-I" 53	22874
54	"WNF-I" 54	22871
56	"WNF-I" 56	22865
57	"WNF-I" 57	22815

DIVISION OF OIL AND GAS

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Xtra Energy Corp. Well No. 33  
 API No. 037-22768 Sec. 20, T. 45, R. 13N, 5B B.&M.  
 County L.A. Field Wilmington

RECORDS RECEIVED	DATE	
Well Summary (Form OG100)	<u>5/20/83</u>	<u>(2)</u>
History (Form OG103)	<u>5/20/83</u>	<u>(2)</u>
Core Record (Form OG101)		
Directional Survey	<u>5/20/83</u>	<u>(2)</u>
Sidewall Samples		
Other		
Date final records received		
Electric logs		
<u>Ind. Elect.</u>	<u>5/20/83</u>	<u>(2)</u>

STATUS	STATUS
Producing - Oil <input checked="" type="checkbox"/>	Water Disposal <input type="checkbox"/>
Idle - Oil <input type="checkbox"/>	Water Flood <input type="checkbox"/>
Abandoned - Oil <input type="checkbox"/>	Steam Flood <input type="checkbox"/>
Drilling - Idle <input type="checkbox"/>	Fire Flood <input type="checkbox"/>
Abandoned - Dry Hole <input type="checkbox"/>	Air Injection <input type="checkbox"/>
Producing - Gas <input type="checkbox"/>	Gas Injection <input type="checkbox"/>
Idle - Gas <input type="checkbox"/>	CO2 Injection <input type="checkbox"/>
Abandoned - Gas <input type="checkbox"/>	LPG Injection <input type="checkbox"/>
Gas-Open to Oil Zone <input type="checkbox"/>	Observation <input type="checkbox"/>
Water Flood Source <input type="checkbox"/>	
DATE <u>12-16-83</u>	
RECOMPLETED	
REMARKS	

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.) ✓ ✓
2. Electric Log ✓
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports ✓
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production
14. E Well on Prod. Dir. Sur. ✓

CLERICAL CHECK LIST

1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 6/8/83

RECORDS NOT APPROVED  
 Reason: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RECORDS APPROVED [Signature]  
 RELEASE BOND \_\_\_\_\_  
 Date Eligible \_\_\_\_\_  
 (Use date last needed records were received.)  
 MAP AND MAP BOOK [Signature]  
6/16/83

**CHECK LIST - RECORDS RECEIVED AND WELL STATUS**

Well No. \_\_\_\_\_

API No. \_\_\_\_\_ Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_, B.&M. \_\_\_\_\_

<u>WORK PERFORMED</u>	<u>STATUS</u>	<u>DATE</u>
Drill _____ Redrill _____ Deepen _____	Producing _____	
Plug _____ Alter Casing _____	Recompleted Producing _____	
Water Flood _____ Water Disposal _____	Water Flood _____	
Abandon _____	Water Disposal _____	
Other _____	Abandoned _____	
	Other _____	
	MAP AND BOOK _____ Engineer _____	

RECORDS FILED AND DATE Clerk \_\_\_\_\_

Summary \_\_\_\_\_  
 Log and Core \_\_\_\_\_  
 History \_\_\_\_\_  
 E-log \_\_\_\_\_  
 \_\_\_\_\_  
 Directional Survey \_\_\_\_\_  
 Other \_\_\_\_\_

(Check records for signature and correct name of operator or well, section, township, range, and field.)

Location \_\_\_\_\_ Notice states \_\_\_\_\_

Elevation \_\_\_\_\_ Notice states \_\_\_\_\_

Production Reports \_\_\_\_\_

(If production reports not received, make notation and inform Senior Stenographer when received.)

RECORDS & REQUIREMENTS CHECKED Engineer \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Surface Inspection \_\_\_\_\_  
 Data Needed \_\_\_\_\_  
 Request Records \_\_\_\_\_ OGD170 \_\_\_\_\_  
 Correct records \_\_\_\_\_ OGD165 \_\_\_\_\_  
 (Specify)

CARDS \_\_\_\_\_

BOND \_\_\_\_\_

Hold \_\_\_\_\_ Reason \_\_\_\_\_

Release \_\_\_\_\_ Date Eligible \_\_\_\_\_ OGD150 \_\_\_\_\_

End premium year \_\_\_\_\_  
 Release requested \_\_\_\_\_  
 Bond superseded \_\_\_\_\_ (Check One)  
 Well abandoned \_\_\_\_\_

Environmental Inspection \_\_\_\_\_ Engineer \_\_\_\_\_

FINAL LETTER \_\_\_\_\_ OGD159 \_\_\_\_\_

and  
 File cleared \_\_\_\_\_ OGD121 \_\_\_\_\_

## WELL SUMMARY REPORT

Operator Xtra Energy Corp.		Well 33				
Field Wilmington		County Los Angeles	Sec. 20	T. 4S	R. 13W	B.&M. S.B.
Location (Give surface location from property or section corner, street name and/or California coordinates) 163' north & 992' east from the south west corner which is the north east corner of Main St. & the AT & SF right-of-way.					Elevation of ground above sea level 36	

Commenced drilling (date) 12/3/82	Total depth			Depth measurements taken from top of:		
	(1st hole) 4169'	(2nd)	(3rd)	<input type="checkbox"/> Derrick Floor	<input type="checkbox"/> Rotary Table	<input checked="" type="checkbox"/> Kelly Bushing
Completed drilling (date) 12/16/82	Present effective depth 4153'			Which is 22 feet above ground		
Commenced producing (date)	Junk			GEOLOGICAL MARKERS		
	None			DEPTH		
<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas lift				"F" 4043' "M" 4099' "H" 4160'		
Name of producing zone(s) Ranger				Formation and age at total depth		

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water Including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production						
Production After 30 days						

## CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
10 3/4"	Surf	602'	40.5 #	K-55	New	14 3/4"	787 CF	
7"	Surf	4049'	23 #	K-55	New	9 7/8"	471 CF	

## PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

5" 18# lnr with top at 3986', shoe at 4153', 5" Johnson, stainless steel, wire wrapped, screen with 0.012" slots. - See liner detail.

Was the well directionally drilled? If yes, show coordinates at total depth

Yes  No 561' South & 1713' East

Electrical log depths

H168' to 600'

Other surveys

None

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name John D. Carmichael	Title Senior Vice President	
Address 2501 Cherry Ave. Suite 270	City Signal Hill, CA	Zip Code 90806
Telephone Number (213) 424-8549	Signature <i>John D. Carmichael</i>	Date April 12, 1983

SUBMIT IN DUPLICATE

RECEIVED  
MAY 20 4 38 PM '88  
GAS  
BEACH, CA

SUBMIT IN DUPLICATE  
RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
**DIVISION OF OIL AND GAS**

**History of Oil or Gas Well**

Operator Xtra Energy Corporation Field Wilmington County Los Angeles  
Well 33, Sec. 20, T. 4S, R. 13W, S.B.B. & M.  
A.P.I. No. 037-22768 Name John D. Carmichael Title Senior Vice President  
Date December 16, 1982 (Person submitting report) (President, Secretary or Agent)

Signature John D. Carmichael

717 Walton Street, Signal Hill, CA 90806 (213) 424-8549  
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
12-3	MI from Well No. 34, RU, spud in @ 5:30 P.M. Drlg & surveying 14-3/4" hole fr 50' to 522' @ 6 A.M. CB mud wt 73#/CF, WL 8.3 cc, vis 49", solids 12.0%, sand 2.0%, cake 2/32", 2400 ppm Cl, oil 7.0%.
12-4	Drl'd & surveyed 14-3/4" hole fr 522' to 602', C & C mud, made wiper trip, POH w/bit, H & H Tong Serv ran 16 jts 10-3/4" csg, 40.5#, K-55 csg, shoe @ 602', B-J pmpd 100 CF dye wtr ahead of cmt, pmpd 300 sx "G" cmt mxd 1:1:4 total of 616 CF slurry, followed by 150 sx "G" neat cmt, all cmt mxd w/2% CaCl <sub>2</sub> , no cmt rtns, total of 171 CF tail slurry, dsplsd w/50 CF wtr, mxd 100 sx "G" neat cmt w/3% CaCl <sub>2</sub> , dsplsd fr 90' & 60', good rtns to surf, total slurry of 901 CF, cut off 27.91' of 10-3/4" csg, weld on csg head, now N/U BOP @ 6 A.M. CB mud wt 73#/CF, WL 8.3 cc, vis 47", solids 12.0%, sand 2.0%, cake 2/32", 2400 ppm Cl, oil 7.0%.
12-5	Fin N/U BOP, unable to test BOP, pmpg out shoe, had over-displaced cmt, RIH w/pkr, set @ 597', test annulus & pipe rams w/1000 psi, OK by DOG. POH, RIH w/9-7/8" bit, D/O shoe @ 602', RT for Dynadril, Dynadrilg & surveying 9-7/8" hole fr 620' to 955' @ 6 A.M. SS @ 818', 5°, S 74° E, hole is 9' lo & 1' left. CB mud wt 74#/CF, WL 7.4 cc, vis 47", solids 13.0%, sand 1.0%, cake 2/32", 2600 ppm Cl, oil 6.0%.
12-6	Cont'd Dynadrilg & surveying 9-7/8" hole fr 955' to 1323' RT for angle bldg assy, reamed Dynadril run, drld & surveyed 9-7/8" hole fr 1323' to 1758', RT for locked in drlg assy, now RIH @ 6 A.M. SS @ 1758', 37° 15', S 65° 30' E, hole is 18' hi & 18' rt. CB mud wt 73#/CF, WL 5.4 cc, vis 43", solids 13.0%, sand 0.75%, cake 2/32", 2600 ppm Cl, oil 6.0%.
12-7	Fin RIH w/locked up drlg assy, drld & surveyed 9-7/8" hole fr 1758' to 2128', RT for Dynadril, drld & surveyed 9-7/8" hole fr 2128' to 2241', RT for locked up drlg assy, drld & surveyed 9-7/8" hole fr 2241' to 2441' @ 6 A.M. SS @ 2441', 37° 15', S 74° E, hole is 25' hi & 37' rt. CB mud wt 72#/CF, WL 5.1 cc, vis 44", solids 12.0%, sand 0.5%, cake 2/32", 2800 ppm Cl, oil 5.0%.
12-8	Cont'd drlg & surveying 9-7/8" hole fr 2441' to 3119', RT for bit and angle dropping assy, drld fr 3119' to 3180' @ 6 A.M. SS @ 3119', 35# 45', S 74° 30' E, hole is 16' hi & 11.5' rt. CB mud wt 72#/CF, WL 4.9 cc, vis 47", solids 13.0%, sand 0.5%, cake 2/32", 2750 ppm Cl, oil 4.0%.

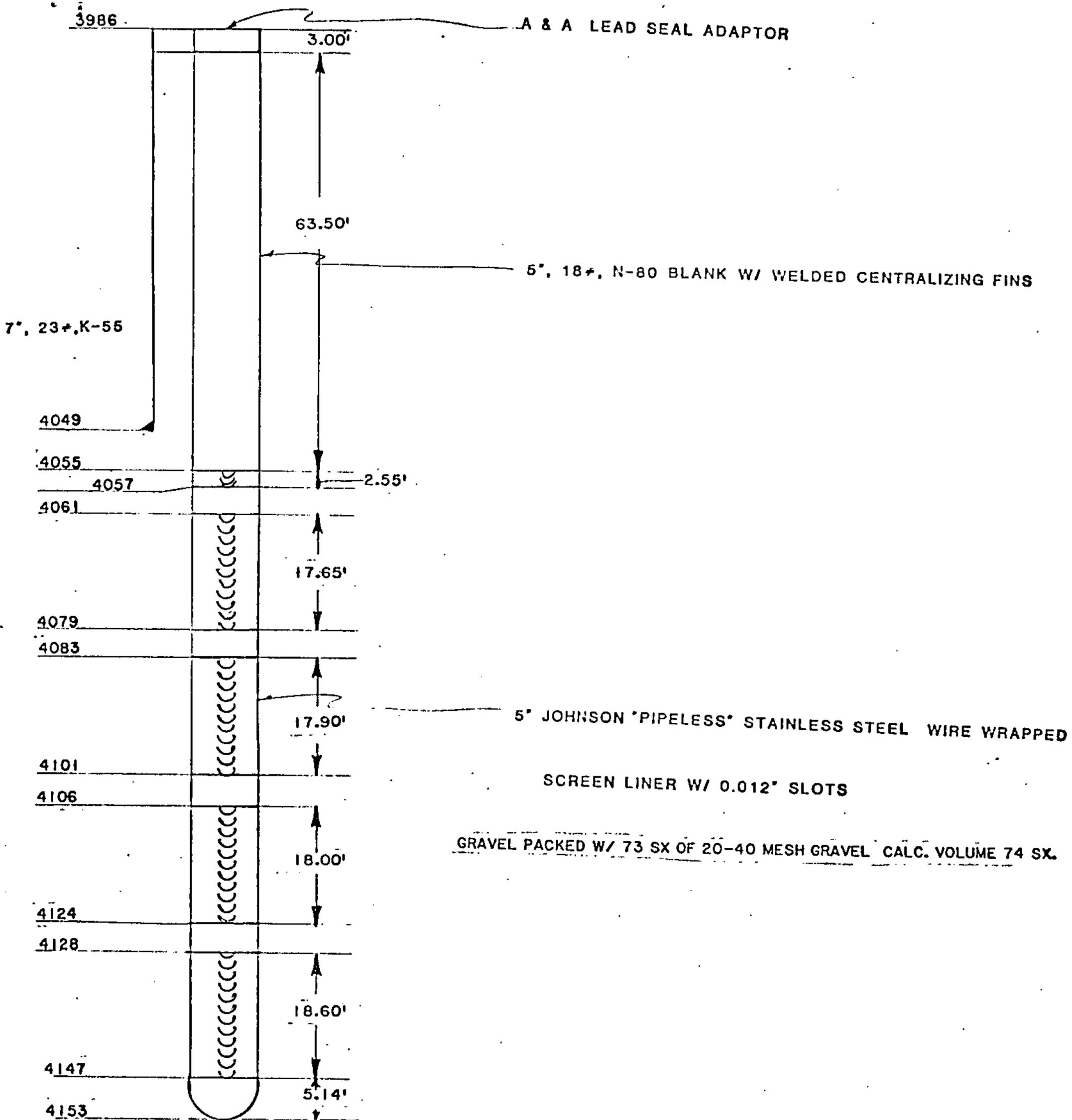
- 12-9 Cont'd drlg & surveying 9-7/8" hole fr 3180' to 3675', RT for bit change @ 6 A.M. SS @ 3664', 39° 30', S 74° 30' E, hole is 16' left & 11' hi. CB mud wt 75#/CF, WL 4.6 cc, vis 49", solids 12.0%, sand 0.5%, cake 1/32", 2400 ppm Cl, oil 8.0%.
- 12-10 Fin RIH w/new bit, cont'd drlg & surveying 9-7/8" hole fr 3675' to 3784', RT for stabilizer change, cont'd drlg fr 3784' to 4155', C & C mud for logs, now making wiper trip @ 6 A.M. SS @ 4155', 34° 15', S 76° 30' E, hole is 41' left & on line for inclination. CB mud wt 76#/CF, WL 4.8 cc, vis 48", solids 13.0%, sand 0.75%, cake 1/32", 2100 ppm Cl, oil 7.0%.
- 12-11 Fin wiping hole, D-A RU & ran IES log fr 4168' to 600', RIH to 4169', C & C mud for csg, POH, LD 4-1/2" DP & drlg assy, RU H & H Tong Service, now rng 7" csg @ 6 A.M. CB mud wt 77#/CF, WL 4.8 cc, vis 43", solids 14.0%, sand 0.75%, cake 1/32", 2100 ppm Cl, oil 7.0%.
- 12-12 Fin rng 118 jts 23#, K-55, Buttress csg, shoe @ 4049', Float @ 3971', B-J pmpd 80 CF "mud sweep", followed by 210 sx "G" cmt mxd 1:1:4, followed by 85 sx "G" cmt neat, dsplsd w/900 CF of mud, plug bmpd w/1250 psi, CIP @ 11:25 A.M., 12-11-82, all cmt mxd w/2% CaCl<sub>2</sub>, set slips on 7" csg, cut off 28.70', weld on tbg head, RIH w/6-1/4" bit, P/U 3-1/2" DP @ 6 A.M. CB mud wt 76#/CF, wl 5.0 cc, vis 48", solids 13.0%, sand 0.75%, cake 1/32", 2100 ppm Cl, oil 7.0%.
- 12-13 Test BOP @ csg w/1000 psi, OK, D/O FC @ 3971', C/O cmt to 4039', POH, RIH w/Howco WSO tools, tool misfired, RT for new tools, perf'd 4 1/2" holes @ 4033', set pkr for 1 hr test, steady blo thru out test, POH, 1000' of gas cut mud & oil in DP, test wet, RIH w/Baker FB pkr, B-J cmtrs now RU @ 6 A.M. CB mud wt 76#/CF, WL 5.2 cc, vis 48", solids 13.0%, sand 0.75%, cake 1/32", 2000 ppm Cl, oil 7.0%.
- 12-14 Fin RIH w/Bkr FB pkr,, set @ 3927' to sqz WSO holes @ 4033', brk form w/2000 psi, pmpd away w/2000 psi @ 16 CF/min. B-J mxd 100 sx "G" cmt, sqzd 93 sx away, sqzd w/2000 psi, final press 2000 psi, CIP @ 8 A.M. 12-13-82. WOC 4 hrs, press up to 2500 psi, no bleed off, POH w/pkr, RIH w/6-1/4" bit & csg scrpr, top of cmt @ 4009', C/O to 4039', POH w/ bit, RIH w/Howco WSO tools, perf'd 4 1/2" holes @ 4033', set pkr @ 3072', opn tool for 1 hr, test dry, approved by DOG, POH w/WSO tools, RIH w/6-1/4" bit, D/O shoe, C/O to 4169', chng over to Polymer mud, now POH. Polymer mud wt 72#/CF, WL - N-C, vis 36", solids 1.1%, sand - trace, cake - film, 128,000 ppm Cl, oil - trace.
- 12-15 Fin RIH w/bit, RIH w/9-7/8" x 12" hole opnr, opn hole to 12" fr 4049' to 4155', regauge hole twice, POH w/ hole opnr, M/U & RIH w/164.99' of liner, shoe @ 4153', adaptor @ 3988', A & A gvl pkd lnr w/73 sx gvl, 750 psi final press, rlsd fr lnr, POH, now RIH w/A & A lead seal @ 6 A.M. Calc volume of gvl was 74 CF. Polymer mud wt 72#/CF, WL - N/A, vis 35", solids 1.6%, sand - trace, cake - film, 108,000 ppm Cl, oil - trace.
- 12-16 Fin RIH w/lead seal, set A & A lead seal @ 3986', rlsd fr seal, dsplsd hole w/SW, POH & LD 3-1/2" DP, Rmvd BOP, instld tbg head, RD ready to move to WNF-I # 31 @ 6 A.M.

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MAY 20 4 38 PM '93  
U.S. DEPARTMENT OF JUSTICE  
WASHINGTON, D.C.

# XTO.A ENERGY CORP.

## LINER DETAIL

WNF-33



RECEIVED  
MAY 20 4 58 PM '83  
GAS  
DI  
LONG BEACH, CA.

**DIVISION OF OIL AND GAS**

**Report on Operations**

SEC. 3606 WELL

John D. Carmichael, Agent  
XTRA ENERGY CORPORATION  
717 Walton Street  
Signal Hill, CA 90806

Long Beach Calif.  
December 23, 1982

Your operations at well 33, API No. 037-22768,  
Sec. 20, T. 4S, R. 13W S.B. B. & M. Wilmington Field, in Los Angeles County,  
were witnessed on 12-13-82 by G. Muggelberg, Engineer, representative of  
the supervisor, was present from 2240 to 2400. There were also present R. Napier,  
Drilling Foreman.

Present condition of well: 16" cem 40'; 10-3/4" cem 602'; 7" cem 4049', cp 4033', perf  
4033' WSO. TD 4153' (Drilling).

The operations were performed for the purpose of Testing the 7" shut-off at 4033' with a  
formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED  
NONE

DEFICIENCIES CORRECTED

1. One ~~wet test.~~  
*Prior*

CONTRACTOR: Cal Pacific Drilling Company

GM: dh

cc: Update

Blanket Bond

M. G. MEFFERD

State Oil and Gas Supervisor

By *[Signature]*

Deputy Supervisor

*[Signature]* J. L. HARDOIN

RM 12-17-82  
No. T 182-1040

Operator XTRA Energy Corporation

Well designation 33 Sec. 40<sup>20</sup>, T. 45, R. 13W, SB B.&M.

Field Wilminaton, County Los Angeles was tested for water shutoff on 12/13/82. (Name) G. Muggelberg, representative of the supervisor, was present from 2240 to 2400. Also present were Roy Napier

Casing record of well:

16" cem 40'; 10 3/4" cem 602'; 7" cem 4049', cp 4033', perf 4033' wso. TD 4153' (Dr. Hing)

The operations were performed for the purpose of D-1 7" @ 4033'

- The 7 " shutoff at 4033 ' is approved.
- The seal between the \_\_\_\_\_ " and \_\_\_\_\_ " casings is approved.
- The operations are approved as indicating that all of the injection fluid is confined to the formations below \_\_\_\_\_ ' at this time.

Hole size: 9 7/8 " fr. 602 ' to 4049 ' ; 6 1/4 " to 4153 ' ; & \_\_\_\_\_ " to \_\_\_\_\_ '

Casing			Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top Bottom	Date	MO-Depth	Volume	Annulus	Casing			
7	23 <sup>#</sup>	∅ 4049'	12/11/82	Bump Plugs	650cf	1658±	3971'	632cf	1200	-
			12/13/82	Pk @ 3927	114cf	3640±	3988'	104cf	2000	4033

7" casing cem w/ 210sx class G 1:1 4% gel 2% CaCl2 + 85sx class G Neat

Depth or interval tested 4 holes @ 4033'

The hole was open to 4039 ' for test.

FORMATION TEST:

Packer(s) 3972 ' & - ' Tail 3993 ' Bean size 3/4 " Cushion ∅

IHP 1814 IFP 27 FFP 27 FHP 1775

Blow Very light 60 minutes

Open for test 1 Hr. ∅ min. Fluid entry 30' drilling mud

BAILING TEST:

The hole fluid was bailed to \_\_\_\_\_ ' , at \_\_\_\_\_ on \_\_\_\_\_ 19 .

The hole fluid was found at \_\_\_\_\_ ' , at \_\_\_\_\_ on \_\_\_\_\_ 19 .

(time)

PRODUCTION TEST:

Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19 , at \_\_\_\_\_ pump depth \_\_\_\_\_ ' Engr. \_\_\_\_\_

Gauge/meter reading \_\_\_\_\_ on \_\_\_\_\_ 19 , at \_\_\_\_\_ Engr. \_\_\_\_\_

Fluid level \_\_\_\_\_ ' surveyed on \_\_\_\_\_ 19 , reviewed (witnessed) by \_\_\_\_\_

Total fluid produced, Bbls. \_\_\_\_\_ Net oil \_\_\_\_\_ Water \_\_\_\_\_

Rate: \_\_\_\_\_ B/D oil, \_\_\_\_\_ B/D water, \_\_\_\_\_ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at \_\_\_\_\_ B/D & \_\_\_\_\_ psi on \_\_\_\_\_ 19 ,

fluid confined below \_\_\_\_\_ ' (Packer depth \_\_\_\_\_ ')

16" conductor cen @ 40'

DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

One wet test

CONTRACTOR

Cal Pacific Drilling Co.

**DIVISION OF OIL AND GAS**

**Report on Operations**

SEC. 3606 WELL

John D. Carmichael, Agent  
XTRA ENERGY CORPORATION  
717 Walton Street  
Signal Hill, CA 90806

Long Beach Calif.  
December 23, 1982

Your operations at well 33, API No. 037-22768,  
Sec. 20, T. 4S, R. 13W, S.B.B. & M. Wilmington Field, in Los Angeles County,  
were witnessed on 12-4-82 by R. Navia, Engineer, representative of  
the supervisor, was present from 1300 to 1345. There were also present R. Napier,  
Drilling Foreman.

Present condition of well: 10-3/4" cem 602'. TD 602' (Drilling).

The operations were performed for the purpose of Testing the blowout prevention equipment  
and installation.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED  
NONE

DEFICIENCIES CORRECTED  
NONE

CONTRACTOR: Cal Pacific Drilling Company

RN: dh

cc: Update

Blanket Bond

M. G. MEFFERD

State Oil and Gas Supervisor

By [Signature]

Deputy Supervisor

J. L. HARDOIN

DIVISION OF OIL AND GAS  
BLOWOUT PREVENTION EQUIPMENT MEMO

12-17-82

182-1039

Operator Xtra Energy Corp Well 33 Field Wilmington County LA

VISITS: Date Engineer Time Operator's Rep. Title  
1st 12/4/82 R. Navia 1300 to 1345 R. Napier DE  
2nd \_\_\_\_\_ to \_\_\_\_\_ \_\_\_\_\_

Casing record of well: 10 3/4" cem 602' TO 602' (drilling)

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.  
DECISION: The blowout prevention equipment and installation are approved.

Proposed Well Opns: Drill MPSP: \_\_\_\_\_ psi  
Hole size: 14 3/4" fr. 0 ' to 602 ' & \_\_\_\_\_ " to \_\_\_\_\_ " to \_\_\_\_\_ "

REQUIRED  
BOPE CLASS: TIB-2M

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details		Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at			Casing	Annulus
<u>10 3/4"</u>	<u>40#</u>	<u>U-55</u>	<u>602</u>		<u>901 cf</u>	<u>class "B"</u>	<u>600</u>	<u>s/c</u>

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec. Time Min.	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
<u>A</u>	<u>12</u>	<u>Hydril</u>	<u>GK</u>	<u>12</u>	<u>3000</u>	<u>-</u>						<u>12-4</u>	<u>1000</u>
<u>Rd</u>	<u>4 1/2</u>	<u>Shaffer</u>	<u>B</u>	<u>"</u>	<u>"</u>	<u>-</u>						<u>12-4</u>	<u>1000</u>
<u>Rd</u>	<u>CSO</u>	<u>"</u>	<u>B</u>	<u>"</u>	<u>"</u>	<u>-</u>						<u>Rpt R. Napier 12/4</u>	<u>1000</u>

ACTUATING SYSTEM			
Accum. Unit(s) Wkg. Press. <u>3000</u> psi			
Total Rated Pump Output _____ gpm			
Distance From Well Bore <u>60</u> ft.			
Mfr.	Accum. Cap.	Precharge	
<u>1 Romy</u>	<u>90 gal.</u>	<u>1500</u>	<u>psi</u>
<u>2</u>	<u>gal.</u>		<u>psi</u>
CONTROL STATIONS			Elec. Hyd.
<input checked="" type="checkbox"/> Manif. at accum. unit			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Remote at Drlr's stn.			
Other: <u>pneumatic</u>			
EMERG. BACKUP SYST.		Press.	Wkg. Fl.
<input checked="" type="checkbox"/> N2 Cyl	No: <u>2</u>	Tpe: <u>12400</u>	<u>gal</u>
Other:		<u>2 "</u>	<u>gal</u>
		<u>3 "</u>	<u>gal</u>
		<u>4 "</u>	<u>gal</u>
		<u>5 "</u>	<u>gal</u>
		<u>6 "</u>	<u>gal</u>

AUXILIARY EQUIPMENT						
	No.	Sz. (in)	Rated Press.	Connections		
				Weld	Flan.	Thrd.
<input checked="" type="checkbox"/> Fill-Up Line						
<input checked="" type="checkbox"/> Kill Line		<u>2</u>	<u>3000</u>			<u>1000</u>
<input checked="" type="checkbox"/> Control Valve(s)	<u>3</u>					<u>-</u>
<input checked="" type="checkbox"/> Check Valve(s)	<u>1</u>					<u>1000</u>
<input checked="" type="checkbox"/> Auxil. Pump Connec.						
<input checked="" type="checkbox"/> Choke Line		<u>3</u>				<u>↓</u>
<input checked="" type="checkbox"/> Control Valve(s)	<u>8</u>					<u>↓</u>
<input checked="" type="checkbox"/> Pressure Gauge						
<input checked="" type="checkbox"/> Adjustable Choke(s)	<u>2</u>	<u>2</u>				<u>1000</u>
<input checked="" type="checkbox"/> Bleed Line		<u>4</u>				
<input checked="" type="checkbox"/> Upper Kelly Cock						<u>1000</u>
<input checked="" type="checkbox"/> Lower Kelly Cock		<u>4 1/2</u>				<u>↓</u>
<input checked="" type="checkbox"/> Standpipe Valve						<u>↓</u>
<input checked="" type="checkbox"/> Standpipe Pressure Ga.						
<input checked="" type="checkbox"/> Pipe Safety Valve		<u>4 1/2</u>				
<input checked="" type="checkbox"/> Internal Preventer		<u>4 1/2</u>				

HOLE FLUID MONITORING EQUIPMENT				
	Alarm	Class		
	Aud.	Vis.	A	
<input checked="" type="checkbox"/> Calibrated Mud Pit				<u>A</u>
<input checked="" type="checkbox"/> Pit Level Indicator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<u>B</u>
<input checked="" type="checkbox"/> Pump Stroke Counter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<u>B</u>
<input checked="" type="checkbox"/> Pit Level Recorder	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<u>B</u>
<input type="checkbox"/> Flow Sensor				<u>C</u>
<input type="checkbox"/> Mud Totalizer				
<input type="checkbox"/> Calibrated Trip Tank				
Other:				

REMARKS:  
Gary Dunn (driller) - OK OK PSV test

Hole Fluid Type	Weight	Storage-Pits
<u>Clay base</u>	<u>9.1</u>	<u>650 R61</u>

DEFICIENCIES--TO BE CORRECTED

*None*

DEFICIENCIES--CORRECTED

*None*

CONTRACTOR

*Cal Pacific Drilling Co.*



**DIVISION OF OIL AND GAS**  
**Notice of Intention to Drill New Well**

OEG  
Section 3606  
Onshore

C.E.Q.A. INFORMATION			
EXEMPT CLASS <input checked="" type="checkbox"/>	NEG. DEC. S.C.H. NO. <input type="checkbox"/>	E.I.R. S.C.H. NO. <input type="checkbox"/>	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION <input type="checkbox"/>
See Reverse Side			

FOR DIVISION USE ONLY				
MAP	MAP BOOK	CARDS	BOND	FORMS
				114 121
126		9-13-82	Blanket	9-13-82 9-13-82

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well 33, API No. 037-22768  
(Assigned by Division)  
Sec. 20, T. 4S, R. 13W, S.B. B. & M., Wilmington Field, Los Angeles County.

Legal description of mineral-right lease, consisting of \_\_\_\_\_ acres, is as follows: \_\_\_\_\_  
(Attach map or plat to scale)  
Map previously submitted

Do mineral and surface leases coincide? Yes \_\_\_\_\_ No X. If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 163 feet North along section/property line and 992 feet East  
(Direction) (Cross out one) (Direction)  
at right angles to said line from the southwest corner of ~~section~~ property which is  
(Cross out one)  
the north east corner of Main Street and the AT&SF right-of-way

Is this a critical well according to the definition on the reverse side of this form? Yes  No

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:  
568 feet south and 1606 feet east  
(Direction) (Direction)

Elevation of ground above sea level 36 feet.

All depth measurements taken from top of Kelly Bushings that is 12 feet above ground.  
(Derrick Floor, Rotary Table, or Kelly Bushing)

**PROPOSED CASING PROGRAM**

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING (Linear Feet)
10-3/4"	40.5	J-55	Surf	600	600	600
7"	23	K-55	Surf	4003	2150	1854
5"	18	N-80	3933	4153	Gravel packed, wire wrapped screen w/0.012" slots.	

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Ranger, -3425', 1200 psi Estimated total depth 4153'  
(Name, depth, and expected pressure)

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator <u>XTRA ENERGY CORPORATION</u>	Type of Organization (Corporation, Partnership, Individual, etc.) <u>CORPORATION</u>
Address <u>717 Walton Street</u>	City <u>Signal Hill, CA</u>
Telephone Number <u>(213)424-8549</u>	Zip Code <u>90806</u>
Name of Person Filing Notice <u>John D. Carmichael</u>	Signature <u>John D. Carmichael</u>
	Date <u>8-31-82</u>

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

SEP 7 2 39 PM '82

Lead Agency: CITY OF CARSON

Lead Agency Contact Person: DIVISION OF AIR AND GAS POLLUTION CONTROL, LOS ANGELES COUNTY, CALIF. JOEL MILLER

Address: P. O. BOX 6234

CARSON, CA 90749

Phone: ( 213 ) 830-7600

FOR DIVISION USE ONLY	
District review of environmental document (if applicable)?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Remarks:	

### CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), "Critical well" means a well within:

- (1) 300 feet of the following:
  - (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  - (B) Any airport runway.
- (2) 100 feet of the following:
  - (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
  - (B) Any navigable body of water or watercourse perennially covered by water;
  - (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
  - (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.

XTRA ENERGY CORPORATION

PROGRAM FOR DRILLING

WELL No. 33

Reference Point: KB which is 12' above G. E.  
Surface Location: Lambert Coordinates N-4,041,480 E-4,205,567  
Bottom Hole Location: Lambert Coordinates N-4,040,912 E-4,207,173  
Elevation: 36' GE + 12' KB = 48'

Proposed Casing Program:

3 10-3/4" 40.5 # to be cemented at 600'  
7 " 23 # to be cemented at 4003'  
5 " 18 # to be hung at 4153', top @ 3933'.

Perfs: 4013' to 4148' Wire wrapped pipeless Johnson Screen liner with 0.012" slots.

Proposed Hole Size:

Surf' to 600' 14-3/4" hole  
600' to 4003' 9-7/8" hole  
4003' to 4153' 6-1/4" hole to be underreamed to 12".

Proposed Total Depth: 4153'

Directional Program

Deflect hole at 600' and increase inclination at 3°/100' in a S 70° 32' E direction to 37° at 1847' (T.V.D. - 1761'). Maintain 37° inclination to a total depth of 4153'. Target is a 50' diameter circle with its center 568' South and 1606' East of the surface site. A total displacement of 1703'.

Mud Program

1. For drilling from surface to 600', use a safe fresh water clay base mud.
2. For drilling from 600' to 4153', use a fresh water clay base mud with the following properties.
  - a. Weight 72 #/CF
  - b. Fluid loss 5cc
  - c. P.V. 8 - 14 cps
  - d. YP 4 - 6#/100 sq. ft.
  - e. Funnel vis 38 - 42"
  - f. Solids 12%

Well No. 33

R. ...  
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DIV. ...  
LC...

3. For underreaming 6-1/4" hole to 12", use a polymer mud with the following properties.

- |    |            |                     |
|----|------------|---------------------|
| a. | Weight     | 72#/CF              |
| b. | P.V.       | 12 - 18 cps         |
| c. | YP         | 4 - 6 #/100 sq. ft. |
| d. | Funnel vis | 34 - 38"            |
| e. | Solids     | Minimum             |
| f. | KCl (KCl)  | 4%                  |

BOP Requirements

1. Bag type - Hydraulic 10" - 3000. 3000 psi WOG.
2. Ram type - double, hydraulic, 10" - 3000, 3000 psi WOG.
3. Accumulator - 80 gallon with dual controls.

Program

1. Install 16" conductor pipe to  $\pm$  40'.
2. Move in and rig up rotary equipment.
3. Drill 14-3/4" hole to 600'.
4. Run 10-3/4", 40.5#, J-55 casing to 600'. Casing to be fitted with stab-in shoe and centralizers on 1st, 2nd and 3rd joints. Cement 10-3/4" casing with 300 sacks of API class "G" cement mixed 1:1 with peralites and 4% Gel followed by enough neat "G" cement to get cement returns. All cement to be mixed with 2% CaCl<sub>2</sub>.
5. Install wellhead and BOP. Representative of D.O.G. to witness pressure test of B.O.P.
6. Run 9-7/8" bit and clean out to 600'. Drill 9-7/8" hole to 4003'. Reduce hole size to 6-1/4" and drill to 4153'.
7. Run Induction electric log from total depth to the shoe of the 10-3/4" casing. Use 20 ohm scale. Two field prints are required including one with 5" scale.
8. Run 7", 23#, K-55 casing to 4003'. Casing to be fitted with Basket Shoe and float collar 2 joints above shoe. Centralizers to be installed on 1st, 2nd, 4th and 6th joints above shoe. Cement 7" casing as follows: 300 linear feet (80 CF) of "mud sweep" or equivalent followed by 210 sacks of class G cement mixed 1:1:4 (cement:perlite:gel) mixed with 2% CaCl<sub>2</sub>, followed by 85 sacks of G cement, neat. Cement to reach 2000' TVD. Land Casing.

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CALIF. CA.

Page three

9. After 24 hours, clean out cement to 3993' (± 10' above shoe). Run combination jet perforator and casing tester. Shoot 4 holes as directed and test water shut off. Results of WSO test to be witnessed by representative of California Division of Oil and Gas.
10. Run 6-1/4" bit, drill out shoe at 4003' and clean out to 4153'.
11. Change over to Polymer completion fluid.
12. Underream 6-1/4" hole to 12" from the 7" casing shoe to total depth. Run Caliper log.
13. Make up and run 5", 18#, K-55 liner as directed.
14. Gravel pack 5" x 12" annulus with ± 80 CF of 20 - 40 mesh gravel.
15. Displace Polymer mud in hole with salt water and close in.
16. Move out rotary equipment.

No.33  
JDC:sc  
8-30-82

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