

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies  
**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**  
1000 Rio Brazos Rd, Aztec, NM 87410

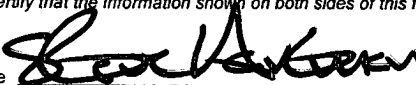
State of New Mexico  
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**

2040 Pacheco St.  
Santa Fe, NM 87505

Form C-105  
Revised 1-1-89

WELL API NO.	30-025-27551
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	B-229-1

<b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>					
1a. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/>				7. Lease Name or Unit Agreement Name  Arnott Ramsay "NCT-B"	
b. Type of Completion: NEW WELL <input type="checkbox"/> WORK OVER <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF RESVR <input type="checkbox"/> OTHER <input type="checkbox"/>				8. Well No. 12	
2. Name of Operator Doyle Hartman				9. Pool name or Wildcat Jalmat (T-Y-7R) Oil	
3. Address of Operator 500 N. Main St., Midland, TX 79701, (432) 684-4011					
4. Well Location SL: O 500' South 1480' East Unit Letter BHL: P 611' Feet From The South 749' Feet From The East Line Section 32 Township 25S Range 37E NMPM Lea County					
10. Date Spudded 01/13/1982	11. Date T.D. Reached 01/31/1982	12. Date Compl. (Ready to Prod.) 09/21/1999	13. Elevations (DF & RKB, RT, GR, etc.) 2988' GR	14. Elev. Casinghead 2990'	
15. Total Depth 3620' / 3514' (MD / TVD)	16. Plug Back T.D. 3560' (MD)	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools 0' - 3620'	Cable Tools
19. Producing Interval(s), of this completion - Top, Bottom, Name 2725' - 3221' [MD], 2651' - 3133' [TVD] (Y-7R)					20. Was Directional Survey Made No
21. Type Electric and Other Logs Run DS-CNL-GR-CCL, VDCBL-GR-CCL				22. Was Well Cored No	
23. <b>CASING RECORD</b> (Report all strings set in well)					
CASING SIZE		WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD
8 5/8"		24 #/ft	350'	12 1/4"	225 sx
5 1/2"		15.5 #/ft	3618'	7 7/8"	1000 sx
24. <b>LINER RECORD</b>					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	
25. <b>TUBING RECORD</b>					
SIZE	DEPTH SET	PACKER SET			
2 3/8"	3442'				
26. Perforation record (interval, size, and number) 2725' - 3221' (MD) 2651' - 3133' (TVD) w/ (28) 0.38" x 17" Holes					
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.					
DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED			
2725' - 3221'		A/ 4200 Gal.			
2725' - 3221'		SWF/ 266,307 Gal. & 600,000 #			
28. <b>PRODUCTION</b>					
Date First Production 09/21/1999		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing / Pumping			
Date of Test 09/25/1999		Hours Tested 24 Hrs	Choke Size 64/64	Prod'n For Test Period 9	Oil - BbL 9
Flow Tubing Press. ---		Casing Pressure 15 psig	Calculated 24-Hour Rate	Gas - MCF 238	Water - BbL 32
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold					Test Witnessed By Don Mashburn
30. List Attachments					
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief					
Signature 		Printed Name Steve Hartman		Title Engineer	

2A Langlie Mattix SR. & W. GB

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all specific tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

## Southeastern New Mexico

## Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____ 2572'	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____ 2722'	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____ 2990'	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____ 3406'	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Otzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Delaware Sand _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Bone Springs _____	T. Entrada _____	T. _____
T. Abo _____	T. _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn _____	T. _____	T. Permain _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

## OIL OR GAS SANDS OR ZONES


No. 1, from ..... to .....  
No. 2, from ..... to .....  
No. 3, from ..... to .....  
No. 4, from ..... to .....

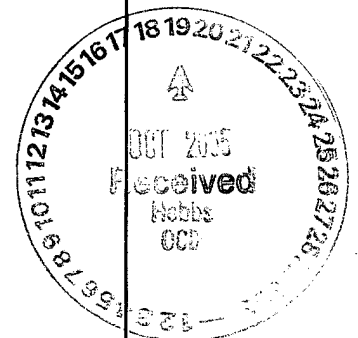
## IMPORTANT WATER SANDS

**Include data on rate of water inflow and elevation to which water rose in hole.**

No. 1, from ..... to ..... feet  
 No. 2, from ..... to ..... feet  
 No. 3, from ..... to ..... feet

## LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
							



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NMOCD Form C-105 dated 10-17-05

Doyle Hartman

Arnott Ramsay (NCT-B) No. 12

O-32-25S-37E

API No. 30-025-27551

### Details of Completed Operations

Moved in and rigged up well service unit, on 8-9-99.

Pulled and laid down worn and corroded 3/4" rod string. Pulled and laid down rod-cut 2 3/8" O.D. tubing.

Ran Baker 5 1/2" Model "C" full-bore packer and new 2 3/8" O.D., 4.7 lb/ft, J-55, EUE tubing string. Set 5 1/2" Model "C" packer at 3200' RKB.

Squeeze cemented Langlie Mattix perms, from 3326' to 3384' (24 holes), with 700 sx of 14.8 lb/gal API Class "C" cement slurry containing 2% CaCl<sub>2</sub>. Initial pump rate was 5 BPM, at 1850 psi. Final pump rate was 0.5 BPM, at 125 psi. Shut down for 15 minutes, to wash up tub and lines. After pumping 3 bbls of displacement, pressure climbed to 2850 psi. Reversed 9.3 bbls of cement from 2 3/8" O.D. tubing.

Pulled 2 3/8" O.D. tubing and laid down 5 1/2" Model "C" packer.

Ran 182.48' bottom-hole drilling assembly consisting of 4 3/4" bit and (6) 3 1/2" O.D. drill collars. Drilled hard cement, from 3200' to 3373'. Cleaned out wellbore to 3560' RKB.



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Attempted to pressure test perfs, from 3326' to 3384', to 1000 psi. Perfs did not hold.

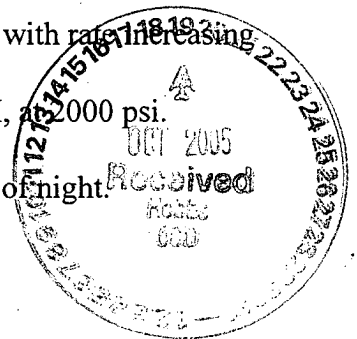
Established a pump-in rate of 1 BPM, at 900 psi.

Pulled 182.48' bottom-hole drilling assembly. Ran into hole with Baker 5 1/2" Model "C" packer. Set 5 1/2" Model "C" packer at 3200' RKB.

Rigged up Halliburton. Pressure tested 5 1/2" x 2 3/8" casing-tubing annulus, from 0' to 3200', to 2500 psi, for 15 minutes. Squeeze cemented perfs, from 3326' to 3384', with an additional 500 sx of 14.8 lb/gal API Class-C cement slurry containing 2% CaCl<sub>2</sub>, at an initial cementing rate of 4.0 BPM, at 1200 psi. Final mixing rate was 1.0 BPM, at 700 psi.

Displaced cement, in three stages, with 14 bbls of flush. Final shutdown pressure was 570 psi. Released wellhead pressure. Observed no backflow.

Backwashed tubing. Pulled 5 stands of tubing and reset 5 1/2" Model "C" packer. Pressured tubing, to 2000 psi, and established a pump-in rate of 0.5 BPM, at 2000 psi, with rate increasing to 2 BPM, at 2000 psi. Finished clearing perfs at an injection rate of 3 BPM, at 2000 psi. Pumped a total of 24 bbls of water, to clear perfs. Shut down for remainder of night.



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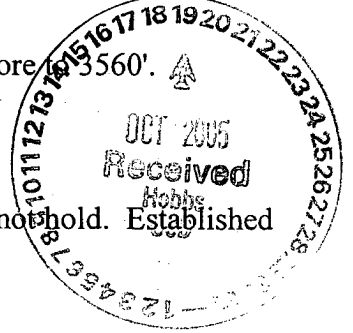
Lowered tubing, but could not run 5 1/2" Model "C" packer below 3135'. Set Model "C" packer at 3135'.

Rigged up Halliburton. Commenced mixing and pumping a 14.8 lb/gal API Class-C quickset cement slurry containing 3% CaCl<sub>2</sub> and 0.25 lb/sx Flocele. After pumping a total of 23 bbls (98 sx) of slurry, pressure sharply increased to 3000 psi. Shut down for 3 minutes. Pressure fell off to 2000 psi, but immediately increased to 3000 psi, upon resumption of pumping process.

Reversed quickset cement from tubing. Raised tubing 5 stands and reset packer. Pressured tubing to 3500 psi. Observed no falloff in pressure. Shut down for night.

Released 5 1/2" Model "C" packer. Pulled 2-3/8" O.D. tubing and laid down 5 1/2" Model "C" packer.

Ran 2 3/8" O.D. tubing and 182.48' BHA consisting of (6) 3 1/2" O.D. drill collars and 4 3/4" bit.

Tagged top of cement at 3135'. Drilled out cement, and cleaned out wellbore to 3560'. 

Attempted to test perforations, from 3326' to 3384', to 1000 psi. Perfs did not hold. Established a pump-in rate of 2 BPM, at 900 psi.

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Pulled 2 3/8" O.D. tubing and laid down 182.48' bottom-hole drilling assembly.

Ran 2 3/8" O.D. tubing and 5 1/2" Model "C" packer. Set 5 1/2" Model "C" packer at 3200'  
RKB.

Rigged up Halliburton. Performed injectivity test, by pumping 15 bbls of water into perfs, from 3326' to 3384', at rate of 4 BPM, at 1600 psi. Squeeze cemented, at an initial rate of 3 BPM, with an additional 294 sx of 14.8 lb/gal API Class-C quickset cement slurry containing 3% CaCl<sub>2</sub> and 0.25 lb/sx Flocele. Final pump rate was 1 BPM, with a corresponding increase in surface pressure, from 2600 psi to 3500 psi.

Released packer. Reversed 12.4 bbls (52 sx) of slurry from tubing. Pulled five stands of tubing and reset packer. Pressured tubing to 3500 psi. Observed no pressure falloff. Closed tubing valve. Shut down for the remainder of night.

Pulled 5 1/2" Model "C" packer.

Ran 2 3/8" O.D. tubing and 182.48' BHA consisting of (6) 3 1/2" O.D. drill collars and 4 3/4" bit.



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Tagged cement at 3200'. Drilled out cement, and cleaned out wellbore to 3560'.

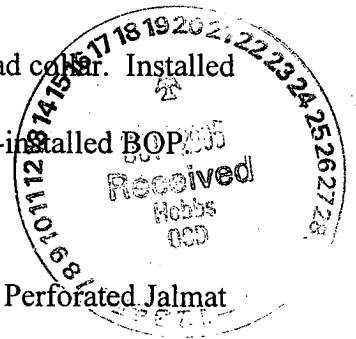
Pressure tested perfs, from 3326' to 3384', as follows:

Time	SICP
<u>(min)</u>	<u>(psig)</u>
0	1000
5	900
20	610
30	510

Pulled 2 3/8" O.D. tubing and 182.48' bottom-hole drilling assembly. Rigged up Schlumberger. Logged well with CNL-DAS-GR-CCL log, from 2382' to 3555'. Schlumberger found PBTD at 3558'.

Removed flanged wellhead. Rigged up welder. Installed 5 1/2" slip x thread collar. Installed B&M Oil Tool 5 1/2" x 2 3/8" x 3 1/2" Type MR 3000-psi tubinghead. Re-installed BOP.

Rigged up wireline truck. Tied to Schlumberger CNL-DAS-GR-CCL log. Perforated Jalmat



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interval, with 3 1/8" O.D. select-fire casing gun, with a total of (23) 0.38" x 19" holes, with one shot each, as follows:

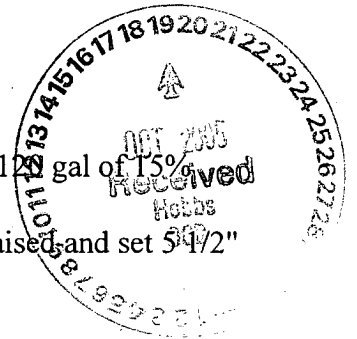
2725	2776	2823	2966	3215
2733	2779	2860	2969	3219
2743	2795	2944	2981	3221
2752	2811	2953	3174	
2768	2817	2956	3187	

Ran into hole with bottom-hole drilling assembly. Pulled and laid down bottom-hole drilling assembly.

Ran 2 3/8" O.D. tubing, 5 1/2" Model "C" packer, and 5 1/2" Model "C" RBP. Set RBP at 3260'.

Set 5 1/2" Model "C" packer at 3242' RKB. Rigged up Halliburton. Pressure tested RBP to 2900 psi. Pressure held okay.

Released packer. Circulated wellbore with 76 bbls of 2% KCl water. Spotted 12 gal of 15% MCA acid across and above lower set of perforations, from 3174' to 3221'. Raised and set 5 1/2" Model "C" packer at 3030'.





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Acidized bottom 5 perfs, from 3174' to 3221', with an additional 800 gal of 15% MCA acid and 8 ball sealers, at an average treating rate of 4.2 BPM, and average treating pressure of 2000 psi.  $TP_{mx} = 3000$  psi (at ballout).  $TP_{mn} = 1500$  psi. Flushed acid with 17 bbls of 2% KCl water.

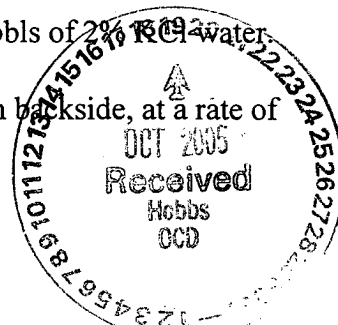
Raised and set 5 1/2" Model "C" RBP at 3030'. Spotted 400 gal of 15% MCA acid across and above perfs, from 2725' to 2981' (18 holes).

Raised and set 5 1/2" Model "C" packer at 2900'. Acidized perfs, from 2944' to 2981' (6 holes), with an additional 960 gal of 15% MCA acid and 10 ball sealers, at an average treating rate of 5 BPM, and average treating pressure of 1750 psi.  $TP_{mx} = 3000$  psi.  $TP_{mn} = 1530$  psi. Flushed acid with 13 bbls of 2% KCl water. Final displacement rate was 3.0 BPM, at 3000 psi. ISIP = 184 psi. 1-min SIP = 0 psi.

Tied onto 5 1/2" x 2 3/8" casing-tubing annulus. Loaded backside with 2 bbls of 2% KCl water.

After filling backside, pumped an additional 2 bbls of 2% KCl water down backside, at a rate of 2 BPM, at 400 psi.

Raised and set 5 1/2" Model "C" RBP at 2900'. Raised and set 5 1/2" Model "C" packer at 2675'.



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Acidized top 12 perfs, from 2725' to 2859', with 1920 gal of 15% MCA acid and 19 ball sealers, at an average treating rate of 6 BPM and average treating pressure of 2250 psi.  $TP_{mx} = 2904$  psi.  $TP_{mn} = 1051$  psi. Flushed acid with 15 bbls of 2% KCl water. ISIP = 30 psi. 15-sec SIP = 0 psi.

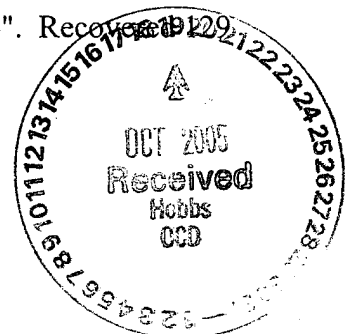
Pulled and laid down 5 1/2" Model "C" packer and 5 1/2" Model "C" RBP.

Ran 2 3/8" O.D. tubing to 3556' RKB. While running tubing, hooked up air units and unloaded water from hole. After reaching 3556', circulated hole, with air, for an additional hour.

Raised and landed bottom of 2 3/8" O.D. tubing at 3514' RKB (108 jts @ 32.21'/jt + (1) 2 3/8" x 10' sub + 1.1' SN + 18' MA + 6' KBC = 3513.8'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string consisting of (138) 3/4" x 25' Axelson S-87 rods equipped with (3) non-slip molded rod guides per sucker rod.

Started pump testing well at 3:00 p.m., CDT, 8-14-99, at 9.5 Spm x 64" x 1 1/4". Recovered 19129 bbls of load water (57% of initial 228 bbls of load), in 16 days.

Rigged up well service unit, on 8-30-99. Pulled rods and tubing.



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Poured 43 sx of 10/20 frac sand down 5 1/2" O.D. casing, to cover abandoned perfs, from 3326' to 3384'. Flushed frac sand with 15 bbls of 2% KCl water. Waited two hours for sand to fall to bottom.

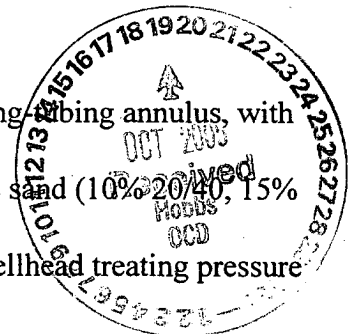
Ran 2 3/8" O.D. tubing. Tagged top of frac sand at 3146' RKB (99' high).

Hooked up air units. Cleaned out frac sand to 3560' RKB. Circulated hole for an additional hour. Pulled 2 3/8" O.D. tubing and laid down seating nipple and mud anchor.

Ran and set 5 1/2" Model "C" RBP at 3260'. Pulled 2 3/8" O.D. tubing and laid down retrieving head.

Ran 2 3/8" O.D. tubing equipped with mud anchor and seating nipple. Landed bottom of 2 3/8" O.D. tubing at 2703' (83 jts @ 32.21'/jt + 1.1' SN + 18' MA + 2' CBJ - 2' AGL + 10' KBC = 2702.5'). Made up wellhead. Installed 3" heavy-duty frac valves.

Rigged up Halliburton, on 8-31-99. Performed CO<sub>2</sub> foam frac down casing tubing annulus, with 266,307 gal of gelled water and CO<sub>2</sub> (44.7% CO<sub>2</sub>) and 600,000 lbs of frac sand (10% 20/40, 15% 10/20, 75% 8/16), at an average treating rate of 38.9 BPM and average wellhead treating pressure



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of 2157 psig. Static tubing pressure = 954 psig.

One hour after completion of frac job, opened well and commenced flowing well to blowdown tank. Flowed well to blowdown tank for 8 hrs, until well died.

Hooked up air units. Cleaned out frac sand to top of 5 1/2" Model "C" RBP, at 3260' RKB..

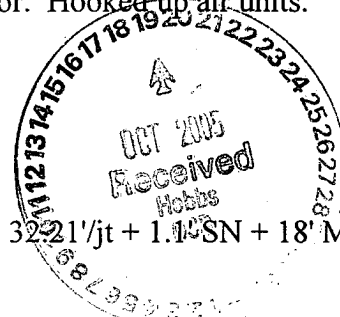
Pulled 2 3/8" O.D. tubing and laid down seating nipple and 18' mud anchor. Picked up retrieving head.

Ran 2 3/8" O.D. tubing to 2850'. Hooked up air units and commenced pumping foam. Cleaned out frac sand to top of 5 1/2" Model "C" RBP, at 3260'.

Latched onto 5 1/2" Model "C" RBP. Pulled and laid down RBP and retrieving head.

Ran 2 3/8" O.D. tubing equipped with seating nipple and mud anchor. Hooked up air units. Cleaned out wellbore to 3560'.

Raised and landed bottom of 2 3/8" O.D. tubing at 3451' (106 jts @ 32-21' /jt + 1.1' SN + 18' MA



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- 2' AGL + 10' KBC = 3451.4'). Ran 2" x 1 1/4" x 12' RHAC insert pump and (135) 3/4" x 25'

API Class "KD" Axelson S-87 rods equipped with (3) non-slip molded rod guides per sucker rod.

Started pumping and cleaning up well, at 6:55 p.m., CDT, 9-2-99, at 9.5 Spm x 64" x 1 1/4".

On 9-25-99, tested well as follows:

Test Period:	24.00 hrs
Fluid Production:	41 bbls
Oil Cut:	22%
Gas Rate:	238 MCFPD
Oil Rate:	9.0 BOPD
Water Rate:	32.0 BWPD
CP:	18 psig

