

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

Operator Name and Address: Chesapeake Operating, Inc. P. O. Box 18496 Oklahoma City, OK 73154-0496		OGRID Number 147179
Property Code 28298	Property Name Buchanan 5	API Number 30-025-35625
		Well No. 1

7 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	17S	37E		2365	North	1641	East	Lea

8 Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Proposed Pool 1 Shipp Strawn					Proposed Pool 2				

Work Type Code N	Well Type Code O/G	Cable/Rotary R	Lease Type Code P	Grossed Level Elevation 3790'
Multiple N	Proposed Depth 11,325'	Formation Strawn	Contractor Patterson	Spud Date 04/01/01

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48#	480'	500	Surface
12-1/4"	9-5/8"	40#	4,200'	1350	Surface
7-7/8"	5-1/2"	17#	11,325'	1130	4000'

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Chesapeake Operating, Inc. proposes to drill to 11,325' TD in the Strawn Formation with Patterson Rig #48 as the drilling contractor.
Patterson's BOP stack consists of 11" 5M# blind & pipe rams & 11" 5M# Annular

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Barbara J. Bale</i>		OIL CONSERVATION DIVISION	
Printed name: Barbara J. Bale		Approved by: <i>Orlando</i>	
Title: Regulatory Analyst		Title: <i>Paul Rantz</i> Geologist	
Date: 02/21/01	Phone: (405) 848-8000	Approval Date:	Expiration Date:
		Conditions of Approval: Attached <input type="checkbox"/>	

J
C
A

8
mP

C-101 Instructions

Measurements and dimensions are to be in feet/inches. Well locations will refer to the New Mexico Principal Meridian.

IF THIS IS AN AMENDED REPORT CHECK THE BOX LABELED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

- 1 Operator's OGRID number. If you do not have one it will be assigned and filled in by the District office.
- 2 Operator's name and address
- 3 API number of this well. If this is a new drill the OCD will assign the number and fill this in.
- 4 Property code. If this is a new property the OCD will assign the number and fill it in.
- 5 Property name that used to be called 'well name'
- 6 The number of this well on the property.
- 7 The surveyed location of this well New Mexico Principal Meridian NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD Unit Letter.

8 The proposed bottom hole location of this well at TD

9 and 10 The proposed pool(s) to which this well is being drilled.

11 Work type code from the following table:

N	New well
E	Re-entry
D	Drill deeper
P	Plugback
A	Add a zone

12 Well type code from the following table:

O	Single oil completion
G	Single gas completion
M	Multiple completion
I	Injection well
S	SWD well
W	Water supply well
C	Carbon dioxide well

13 Cable or rotary drilling code

C	Propose to cable tool drill
R	Propose to rotary drill

14 Lease type code from the following table:

F	Federal
S	State
P	Private
N	Navajo
J	Jicarilla
U	Ute
I	Other Indian tribe

15 Ground level elevation above sea level

16 Intend to multiple complete? Yes or No

17 Proposed total depth of this well

18 Geologic formation at TD

19 Name of the intended drilling company if known.

20 Anticipated spud date.

21 Proposed hole size ID inches, proposed casing OD inches, casing weight in pounds per foot, setting depth of the casing or depth and top of liner, proposed cementing volume, and estimated top of cement

22 Brief description of the proposed drilling program and SOP program. Attach additional sheets if necessary.

23 The signature, printed name, and title of the person authorized to make this report. The date this report was signed and the telephone number to call for questions about this report.

RECEIVED
MAY 1968
MAY 1968
MAY 1968

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State of New Mexico
Energy, Minerals and Natural Resources Department.

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Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
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Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-35625	Pool Code 55695	Pool Name Shipp Strawn
Property Code 28298	Property Name BUCHANAN 5	Well Number 1
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING, INC.	Elevation 3790'

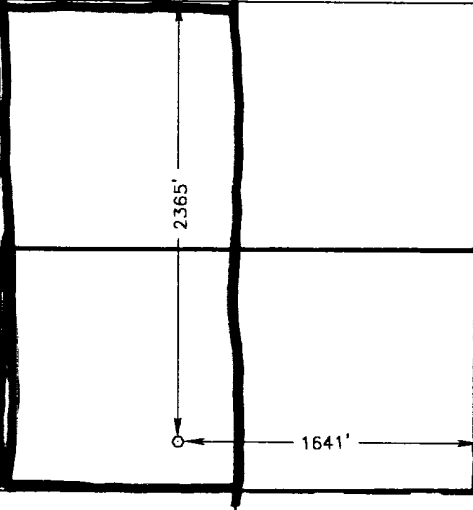
Surface Location

UL or lot No. G	Section 5	Township 17-S	Range 37-E	Lot Idn	Feet from the 2365	North/South line NORTH	Feet from the 1641	East/West line EAST	County LEA
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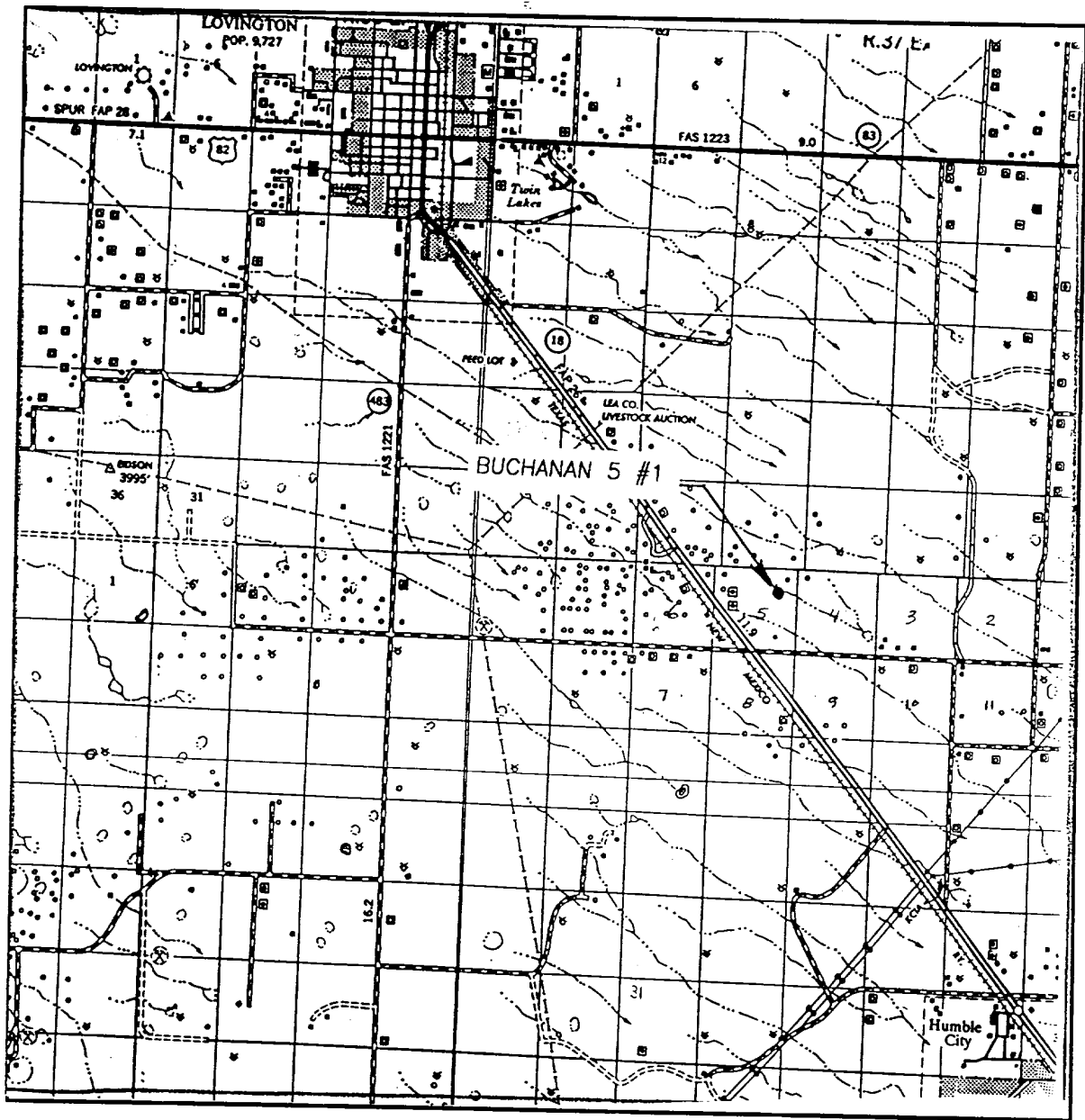
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 80	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SPC NME NAD 1927 N=679936 E=826496			OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Barbara J. Bale</u> Signature <u>Barbara J. Bale</u> Printed Name Regulatory Analyst Title <u>02/20/01</u> Date	
			SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. JANUARY 15, 2001 Date Surveyed ... AWB Signature & Seal of Professional Surveyor <u>Ronald J. Eidson 01/26/01</u> 01-11-0064 Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12641	

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 5 TWP. 17-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2365'FNL & 1641'FEL

ELEVATION 3790'

OPERATOR CHESAPEAKE OPERATING, INC.

LEASE BUCHANAN 5

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

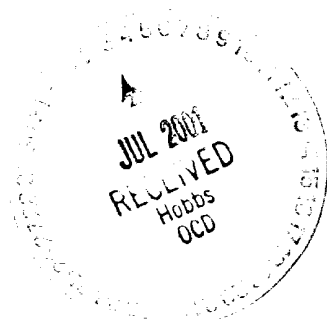
This is a detailed topographic map of the Buchanan 5 #1 well area. The map features a grid system with horizontal and vertical lines. Key features include:

- Topographic Contours:** Wavy lines representing elevation, with labels such as 3800, 3790, 3780, 3770, and 3760.
- Elevation Points:** Numerous points marked with numbers and letters, including 3815, 3804T, 3800T, 3794T, 3789, 3781T, 3773T, 3767, 3768, 3772, 3775, 3778T, 3786T, 3790, 3791, 3792, 3793, 3794, 3796, 3798, 3800, 3802, 3804, 3805, 3806, 3807, 3808, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3818, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830, 3831, 3832, 3833, 3834, 3835, 3836, 3837, 3838, 3839, 3840, 3841, 3842, 3843, 3844, 3845, 3846, 3847, 3848, 3849, 3850, 3851, 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863, 3864, 3865, 3866, 3867, 3868, 3869, 3870, 3871, 3872, 3873, 3874, 3875, 3876, 3877, 3878, 3879, 3880, 3881, 3882, 3883, 3884, 3885, 3886, 3887, 3888, 3889, 3890, 3891, 3892, 3893, 3894, 3895, 3896, 3897, 3898, 3899, 3900.
- Infrastructure:** A prominent road or railway line runs diagonally from the top left to the bottom right. A horizontal line, possibly a road or boundary, crosses the middle of the map. A vertical line, possibly a road or boundary, runs through the center.
- Labels:** "BUCHANAN 5 #1" is prominently displayed in the upper center. Other labels include "Tanks", "Pumping Sta", "UPL", "WW", "OH", "OW", "BH", "T", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "AA", "AB", "AC", "AD", "AE", "AF", "AG", "AH", "AI", "AJ", "AK", "AL", "AM", "AN", "AO", "AP", "AQ", "AR", "AS", "AT", "AU", "AV", "AW", "AX", "AY", "AZ", "BA", "BB", "BC", "BD", "BE", "BF", "BG", "BH", "BI", "BJ", "BK", "BL", "BM", "BN", "BO", "BP", "BQ", "BR", "BS", "BT", "BU", "BV", "BW", "BX", "BY", "BZ", "CA", "CB", "CC", "CD", "CE", "CF", "CG", "CH", "CI", "CJ", "CK", "CL", "CM", "CN", "CO", "CP", "CQ", "CR", "CS", "CT", "CU", "CV", "CW", "CX", "CY", "CZ", "DA", "DB", "DC", "DD", "DE", "DF", "DG", "DH", "DI", "DJ", "DK", "DL", "DM", "DN", "DO", "DP", "DQ", "DR", "DS", "DT", "DU", "DV", "DW", "DX", "DY", "DZ", "EA", "EB", "EC", "ED", "EE", "EF", "EG", "EH", "EI", "EJ", "EK", "EL", "EM", "EN", "EO", "EP", "EQ", "ER", "ES", "ET", "EU", "EV", "EW", "EX", "EY", "EZ", "FA", "FB", "FC", "FD", "FE", "FF", "FG", "FH", "FI", "FJ", "FK", "FL", "FM", "FN", "FO", "FP", "FQ", "FR", "FS", "FT", "FU", "FV", "FW", "FX", "FY", "FZ", "GA", "GB", "GC", "GD", "GE", "GF", "GG", "GH", "GI", "GJ", "GK", "GL", "GM", "GN", "GO", "GP", "GQ", "GR", "GS", "GT", "GU", "GV", "GW", "GX", "GY", "GZ", "HA", "HB", "HC", "HD", "HE", "HF", "HG", "HH", "HI", "HJ", "HK", "HL", "HM", "HN", "HO", "HP", "HQ", "HR", "HS", "HT", "HU", "HV", "HW", "HX", "HY", "HZ", "IA", "IB", "IC", "ID", "IE", "IF", "IG", "IH", "II", "IJ", "IK", "IL", "IM", "IN", "IO", "IP", "IQ", "IR", "IS", "IT", "IU", "IV", "IW", "IX", "IY", "IZ", "JA", "JB", "JC", "JD", "JE", "JF", "JG", "JH", "JI", "JJ", "JK", "JL", "JM", "JN", "JO", "JP", "JQ", "JR", "JS", "JT", "JU", "JV", "JW", "JX", "JY", "JZ", "KA", "KB", "KC", "KD", "KE", "KF", "KG", "KH", "KI", "KJ", "KK", "KL", "KM", "KN", "KO", "KP", "KQ", "KR", "KS", "KT", "KU", "KV", "KW", "KX", "KY", "KZ", "LA", "LB", "LC", "LD", "LE", "LF", "LG", "LH", "LI", "LJ", "LK", "LL", "LM", "LN", "LO", "LP", "LQ", "LR", "LS", "LT", "LU", "LV", "LW", "LX", "LY", "LZ", "MA", "MB", "MC", "MD", "ME", "MF", "MG", "MH", "MI", "MJ", "MK", "ML", "MM", "MN", "MO", "MP", "MQ", "MR", "MS", "MT", "MU", "MV", "MW", "MX", "MY", "MZ", "NA", "NB", "NC", "ND", "NE", "NF", "NG", "NH", "NI", "NJ", "NK", "NL", "NM", "NN", "NO", "NP", "NQ", "NR", "NS", "NT", "NU", "NV", "NW", "NX", "NY", "NZ", "OA", "OB", "OC", "OD", "OE", "OF", "OG", "OH", "OI", "OJ", "OK", "OL", "OM", "ON", "OO", "OP", "OQ", "OR", "OS", "OT", "OU", "OV", "OW", "OX", "OY", "OZ", "PA", "PB", "PC", "PD", "PE", "PF", "PG", "PH", "PI", "PJ", "PK", "PL", "PM", "PN", "PO", "PP", "PQ", "PR", "PS", "PT", "PU", "PV", "PW", "PX", "PY", "PZ", "QA", "QB", "QC", "QD", "QE", "QF", "QG", "QH", "QI", "QJ", "QK", "QL", "QM", "QN", "QO", "QP", "QQ", "QR", "QS", "QT", "QU", "QV", "QW", "QX", "QY", "QZ", "RA", "RB", "RC", "RD", "RE", "RF", "RG", "RH", "RI", "RJ", "RK", "RL", "RM", "RN", "RO", "RP", "RQ", "RR", "RS", "RT", "RU", "RV", "RW", "RX", "RY", "RZ", "SA", "SB", "SC", "SD", "SE", "SF", "SG", "SH", "SI", "SJ", "SK", "SL", "SM", "SN", "SO", "SP", "SQ", "SR", "SS", "ST", "SU", "SV", "SW", "SX", "SY", "SZ", "TA", "TB", "TC", "TD", "TE", "TF", "TG", "TH", "TI", "TJ", "TK", "TL", "TM", "TN", "TO", "TP", "TQ", "TR", "TS", "TT", "TU", "TV", "TW", "TX", "TY", "TZ", "UA", "UB", "UC", "UD", "UE", "UF", "UG", "UH", "UI", "UJ", "UK", "UL", "UM", "UN", "UO", "UP", "UQ", "UR", "US", "UT", "UU", "UV", "UW", "UX", "UY", "UZ", "VA", "VB", "VC", "VD", "VE", "VF", "VG", "VH", "VI", "VJ", "VK", "VL", "VM", "VN", "VO", "VP", "VQ", "VR", "VS", "VT", "VU", "VV", "VW", "VX", "VY", "VZ", "WA", "WB", "WC", "WD", "WE", "WF", "WG", "WH", "WI", "WJ", "WK", "WL", "WM", "WN", "WO", "WP", "WQ", "WR", "WS", "WT", "WU", "WV", "WW", "WX", "WY", "WZ", "XA", "XB", "XC", "XD", "XE", "XF", "XG", "XH", "XI", "XJ", "XK", "XL", "XM", "XN", "XO", "XP", "XQ", "XR", "XS", "XT", "XU", "XV", "XW", "XX", "XY", "XZ", "YA", "YB", "YC", "YD", "YE", "YF", "YG", "YH", "YI", "YJ", "YK", "YL", "YM", "YN", "YO", "YP", "YQ", "YR", "YS", "YT", "YU", "YV", "YW", "YX", "YY", "YZ", "ZA", "ZB", "ZC", "ZD", "ZE", "ZF", "ZG", "ZH", "ZI", "ZJ", "ZK", "ZL", "ZM", "ZN", "ZO", "ZP", "ZQ", "ZR", "ZS", "ZT", "ZU", "ZV", "ZW", "ZX", "ZY", "ZZ".

CONTOUR INTERVAL: 5'
LOVINGTON SE, N.M.

U.S.G.S. TOPOGRAPHIC MAP
LOVINGTON SE, N.M.

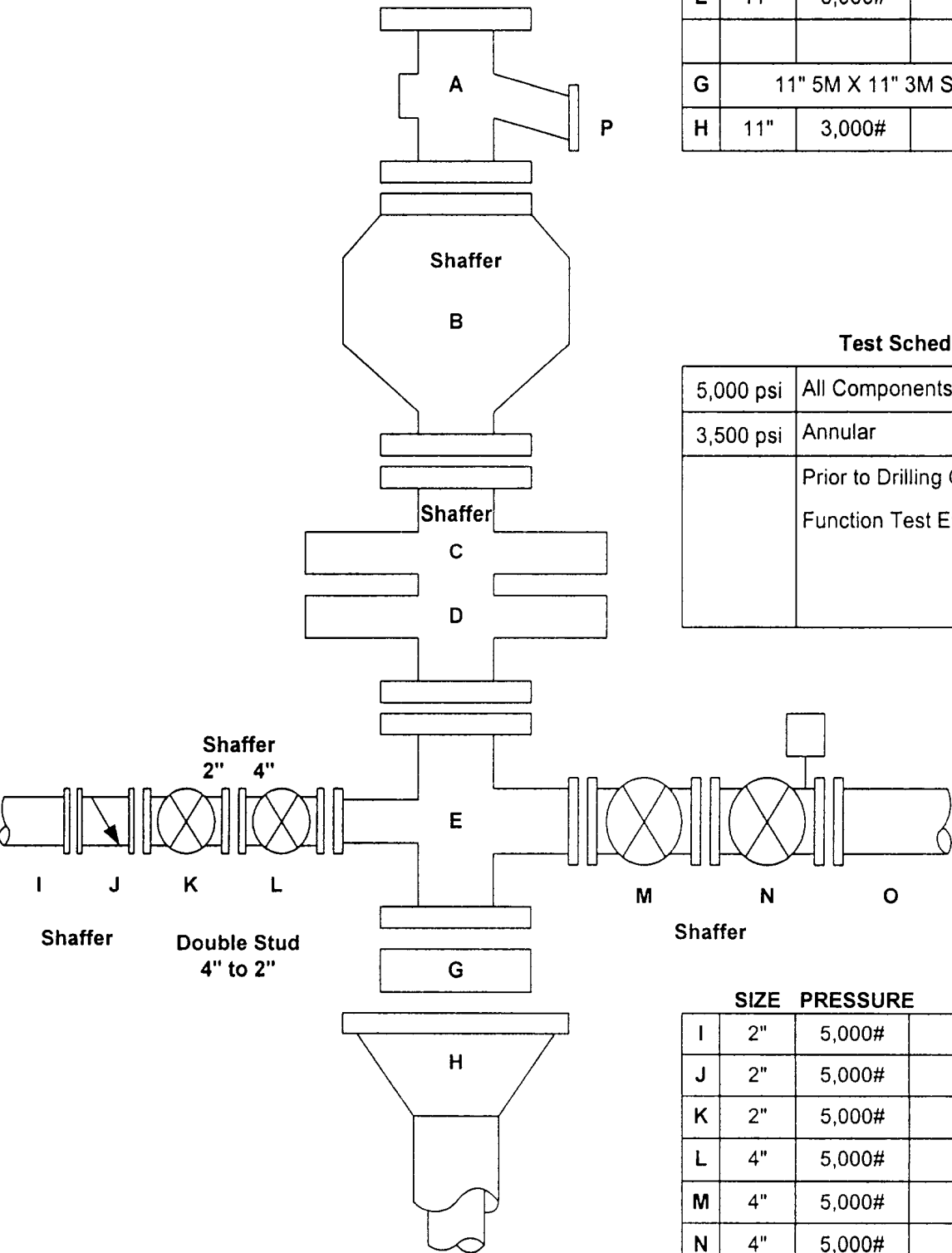
JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117



BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : BUCHANAN 5-1
FIELD : Shipp Strawn
RIG : PATTERSON #48
COUNTY : LEA STATE : NEW MEXICO
OPERATION: DRILLING OUT BELOW 9 5/8" CASING



	SIZE	PRESSURE	DESCRIPTION
A	11"		Bell Nipple
B	11"	5,000#	Annular
C	11"	5,000#	4-1/2" Pipe Rams
D	11"	5,000#	Blind Rams
E	11"	5,000#	Drilling Spool
G	11" 5M X 11" 3M Spool 14" tall		
H	11"	3,000#	Bradenhead

Test Schedule	
5,000 psi	All Components
3,500 psi	Annular
	Prior to Drilling Out Function Test Every Trip

	SIZE	PRESSURE	DESCRIPTION
I	2"	5,000#	Kill Line
J	2"	5,000#	Check Valve
K	2"	5,000#	Gate Valve
L	4"	5,000#	Gate Valve
M	4"	5,000#	Gate Valve
N	4"	5,000#	Gate Valve
O	4"	5,000#	Choke Line
P	12"		Flow Line

