Form 3160-3
(September 2001)

RECEIVED
APR 04 2008
Bureau of Land Management
Farmington Field Office

FORM APPROVED
OMB No 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
~~701000001~~ 701-02-0017

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Tribe

1a. Type of Work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No
Joint Venture Agreement

1b Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
JVA 5A

2. Name of Operator
Jicarilla Apache Energy Corporation

9. API Well No.
30-039-~~27411~~ 30515

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
P.O. Box 710, Dulce, New Mexico 87528	505-759-3224	Blanco Mesa Verde

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface 660' FSL & 1052' FEL
At proposed prod zone A/A

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 29, T27N, R2W, NMPM

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
Approximately 30 miles South of Dulce, NM	Rio Arriba	NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
	4653	East 1/2 of 29-27N-2W 216.25
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1906' W of JVA 2	19. Proposed Depth 6200'	20. BLM/BIA Bond No. on file CD @ BIA

RCVD MAY 12 '08
OIL CONS. DIV.
DIST. 3

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
7230' UGL	May 15, 2008	15 Drilling Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Charles Neeley	Charles Neeley	4/3/08

Title
Agent/PE

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Manuel Macias		5/9/08

Title	Office
AFM	FFO

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached NMOCD approval is required for the NSP.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**(Instructions on reverse)*

HOLD C104 FOR NSP

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOTIFY AZTEC OCD 24 HI PRIOR TO CASING & CEME

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCD

MAY 13 2008

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
APR 04 2008
Bureau of Land Management
Farmington Field Office

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-30515	72319	Blanco-Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
5415	Apache JVA	5A

[7] OGRID No.	[8] Operator Name	[9] Elevation
11859	Jicarilla Apache Energy Corporation	7230' UGL

[10] Surface Location

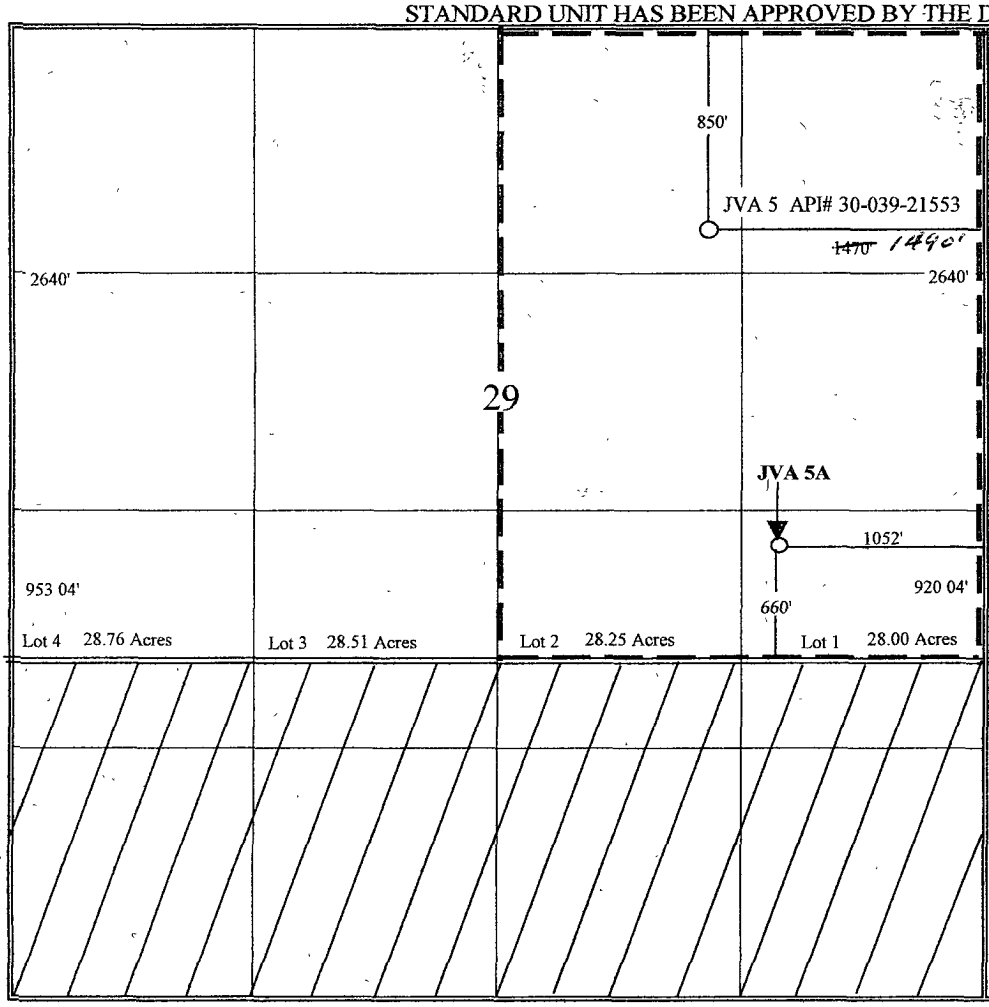
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	29	27N	2W	1	660	South	1052	East	Rio Arriba

[11] 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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
216.25	Y		

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name
Charles Neeley

Title and E-mail Address
Agent/PE neelece@acrnet.com

Date
May 12, 2004

[18] 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.

4-29-05
Date of Survey

Signature and Seal of Professional Surveyor
Cecil B. Tull
NEW MEXICO
9672
REGISTERED LAND SURVEYOR

Certificate Number

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-10
March 4, 200

WELL API NO. 30-039-30515
5. Indicate Type of Lease
INDIAN ☒ STATE ☐ FEE ☐
6. Oil & Gas Lease No.
701900001

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

7. Lease Name or Unit Agreement Name
Joint Venture Agreement

1. Type of Well:
Oil Well ☐ Gas Well ☒ Other

8. Well Number
5A

2. Name of Operator
Jicarilla Apache Energy Corporation

9. OGRID Number
11859

3. Address of Operator
P.O. Box 710, Dulce, NM 87528

10. Pool name or Wildcat
Blanco Mesa Verde

4. Well Location

Unit Letter I : 660 feet from the South line and 1052 feet from the East line

Section 29 Township 27N Range 2W NMPM Rio Arriba County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
7230' UGL

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

Pit Location: UL I Sect 29 Twp 27N Rng 2W Pit type Reserve Depth to Groundwater 122' Distance from nearest fresh water well ~~5281'~~ >1000

Distance from nearest surface water 105' Below-grade Tank Location UL Sect Twp Rng ;

feet from the line and feet from the line

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPLETION	☐	CASING TEST AND CEMENT JOB	☐		
OTHER: Application to construct and discharge into reserve pit lined	☒			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated d of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completi or recompletion.

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

SIGNATURE Charles Neeley TITLE Agent/PE DATE 5/07/0

Type or print name Charles Neeley E-mail address: neelece@acrnet.com Telephone No. 505-486-0211

(This space for State use)

APPPROVED BY TITLE Deputy Oil & Gas Inspector, District #3 DATE MAY 13 2008

Conditions of approval, if any:

Jicarilla Apache Energy Corp
Apache JVA 5A
660' FSL & 1052' FEL
Section 29, T27N, R2W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose

2. **Surface Elevation:** 7230 ' UGL

3. **Estimated Formation Tops:**

Formation	Top - feet	Expected Production
Nacimiento	1584'	
Ojo Alamo	3238'	
Kirtland	3362'	
Fruitland	3549'	
Pictured Cliffs	3601'	GAS
Lewis	3940'	
Huerfanito	4314'	
Cliff House	5596'	GAS
Menefee	5639'	GAS & OIL
Pt. Lookout	5918'	GAS & OIL
Upper Mancos	6100'	
TOTAL DEPTH	6200'	

4. **Casing and Cementing Program:**

Drill a 12 1/4" Hole to 320'. A string of 9 5/8" 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 170 sacks (201 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 3% $CaCl_2$ and 1/4 lb/sack cellophane flake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus. Clearance between couplings and hole is 1.625". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 15 minutes.

Drill an 8 3/4" hole to 3980' feet, approximately 40' feet into the Lewis Shale.

Run Induction and Compensated density/neutron logs from 3980' to surface casing shoe.

4. **Casing and Cementing Program: Continued**

A string of 7" 20#, J-55 Intermediate casing will be set at 3980' with a mechanical DV tool set at 1639', 55' below Nacimiento top. **Stage 1** (3980' - 1639') will be cemented with 225 sacks (423 cf) of 35/65 Poz/B + 6% Gel + 5#/sk Gilsonite and 1/4 #/sk cellophane flake mixed at 12.1 ppg, yield 1.88 cf/sk. Followed by 110 sacks (139 cf) Class B with 5#/sk Gilsonite, ¼#/sk cellophane flake and mixed at 15.2 ppg, yield 1.26 cf/sk. **Circulate and WOC between stages for four (4) hours**. **Stage 2** (1639'- surface) will be cemented with 235 sacks (447 cf) of 35/65 Poz/B + 6% Gel + 10#/sk Gilsonite and 1/4 #/sk cellophane flake mixed at 12.5 ppg, yield 1.90 cf/sk. Followed by 50 sks (63cf) Class B with 5#/sk Gilsonite and 1/4 #/sk cellophane flake, mixed at 15.2 ppg, yield 1.26 cf/sk.
Slurry volumes assume a 75% excess over gauge hole volume for stage 1 and 83% over gauge volume for stage 2 (consistant with our experience in the area). Cement volume is subject to change after review of open hole caliper logs.. Clearance between couplings and hole is 1.094 ". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater

WOC 12 Hours: Nipple up BOP, tag cement & drill out DV, pressure test casing to 500 psi, drill out float collar and cement to within 10' of casing shoe, close pipe rams and pressure test casing/BOPE to 1500 psi for 30 minutes.

Air drill a 6 1/4" hole from 3980' to 6200' TD, approximately 100' feet into the Upper Mancos.

Run Dual Induction and Compensated density/neutron logs from TD to intermediate casing shoe.

A 4 ½" 10.5#, J-55 production liner will be run from 6200' TD to a minimum overlap of 120 feet inside the 7" intermediate casing. This string will be cemented in a single stage with 10 bbls POZ spacer w/4% gel, .2% Halad 9, .15# Fe & 3% KCl mixed at 11.0 ppg followed by 280 sacks (369.6 cf) 50/50 Poz/H containing 2% Gel, 5#/sk Gilsonite, 1/4 #/sk Flocele, 4% H-9 and 0.2% HR-5, mixed at 13.5 ppg, yield 1.32 cf/sk. Slurry volume assumes a 50% excess over gauge hole volume. Cement volume is subject to change after review of the open hole caliper log. Clearance between couplings and hole is 1.25". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

Bits: 12 1/4" surface hole - MT class 115 or 116 to ~320 feet.
8 3/4A intermediate hole - TCI class 447 to ~3980'.
6 1/4" production hole – Air hammer and bit - to TD

Centralizers:
Surface string: 3 - 9e@ X 123@: One centralizer run in middle of shoe joint with lock ring and two centralizers spaced evenly between shoe joint and 100>.

Intermediate string: 4 – 7" X 8 ¾" turbolizers will be spaced such that one is just below the Basal Fruitland Coal, three (3) across the Fruitland and one (1) into the Ojo Alamo. One centralizer will be run on the 1st jt of casing, a centralizer will be run above and one centralizer will be run below the DV tool.

Production liner: No centralizers.

Float Equipment:
Surface string: Texas pattern guide shoe w/insert float,1 jt above shoe.

Intermediate string: Cement nose guide shoe, float collar and DV tool with 2 cement baskets.

Production string: Cement nose float shoe, 1 jt of 4 2" csg, float collar.

5. **Pressure Control Equipment:**

A 2,000 psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to 2000 psig before drilling out of surface casing. Pipe rams will be operated daily. Pipe and blind rams will be operated on each trip.
BOPE, intermediate casing and choke manifold will be pressure tested to 1500 psi prior to drill out of the 7" intermediate casing shoe.

7" & 4 ½" casing rams will be installed prior to running intermediate and production casing, respectfully.

A full opening internal blowout preventor or drill pipe safety valve (capable of fitting all connections in use) will be on the rig floor at all times.
An upper kelly cock will be utilized. The handle will be available on rig floor at all times.
A BOPE pit level drill shall be conducted weekly for each drilling crew.

6. **Mud Program:**

The well will be spudded and drilled to surface casing depth with a high viscosity slurry of bentonite, lime and fresh water. A fresh water, low solids, non-dispersed mud system will be utilized to drill the well from surface casing to intermediate casing depth. Air will be used to drill from intermediate casing depth to total TD. Sufficient mud materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures.
The mud volume will be visually monitored and recorded on a routine basis.

Mud Property Guidelines:

Interval (ft)	Weight (ppg)	Vis (sec/qt)	pH	Fluid Loss (cc/30 min)
0 – 320'	8.6 – 9.2	40 - 35	9 – 9.5	No Control
320' - 3980'	8.6 – 9.2	30 – 35	8.0 – 8.5	< 10 cc.
3980' – TD	Air			

Note: Raise mud viscosity to 45 – 60 for logging. Thin mud viscosity to 40 – 45 to run casing. Have a minimum of 10% LCM in mud prior to running and cementing intermediate casing.

Mud pH will be maintained with lime at the recommended levels to assure drill pipe corrosion protection.

Lost Circulation: is expected and can occur anywhere from the Nacimiento formation to intermediate depth. Mud weights will be controlled as low as possible with solids control equipment then as low as practical with water dilution. Have a minimum of 10% LCM in mud prior to running and cementing intermediate casing.

7. **Auxiliary Equipment:**

All applicable equipment defined in Onshore Order No. 2 will be in place and operational during Air Drilling Operations.

8. **Logging Program:**

Dual Induction with GR and Neutron / Density logs will be run from TD to surface casing shoe. .

Coring and Testing Program:
No cores or drill stem tests are planned

9. **Abnormal Pressure:**

Although not expected, abnormal pressures are possible in the Fruitland formation.

Estimated Bottom Hole Pressure:

1500 psig.

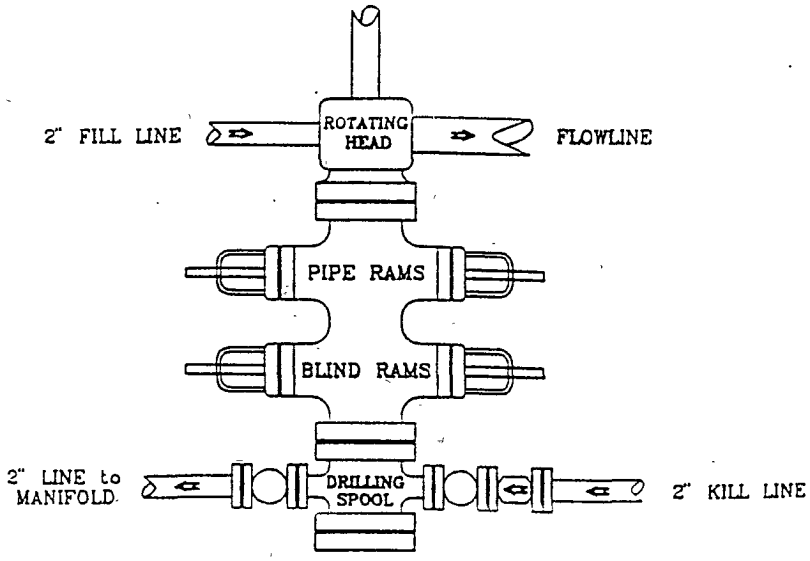
10. **Anticipated Starting Date:**

May 15, 2008

Duration of Operations: It is estimated a total of 15 days will be required for drilling operations.

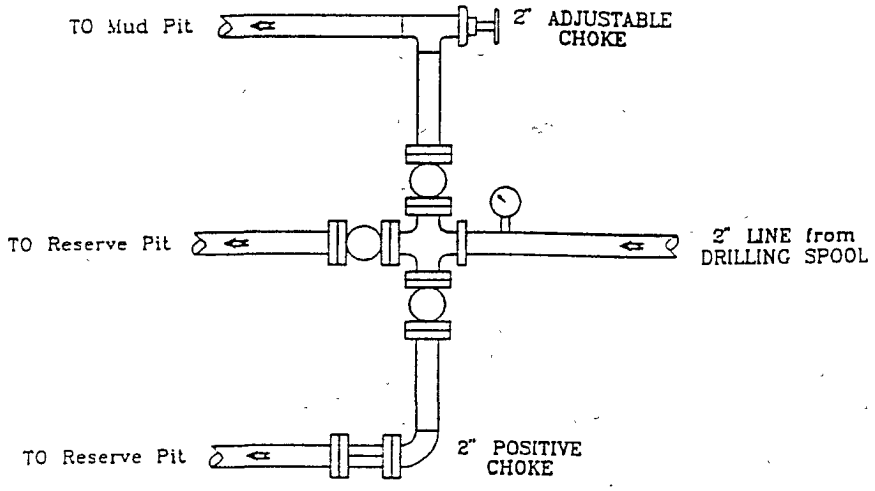
PRESSURE CONTROL

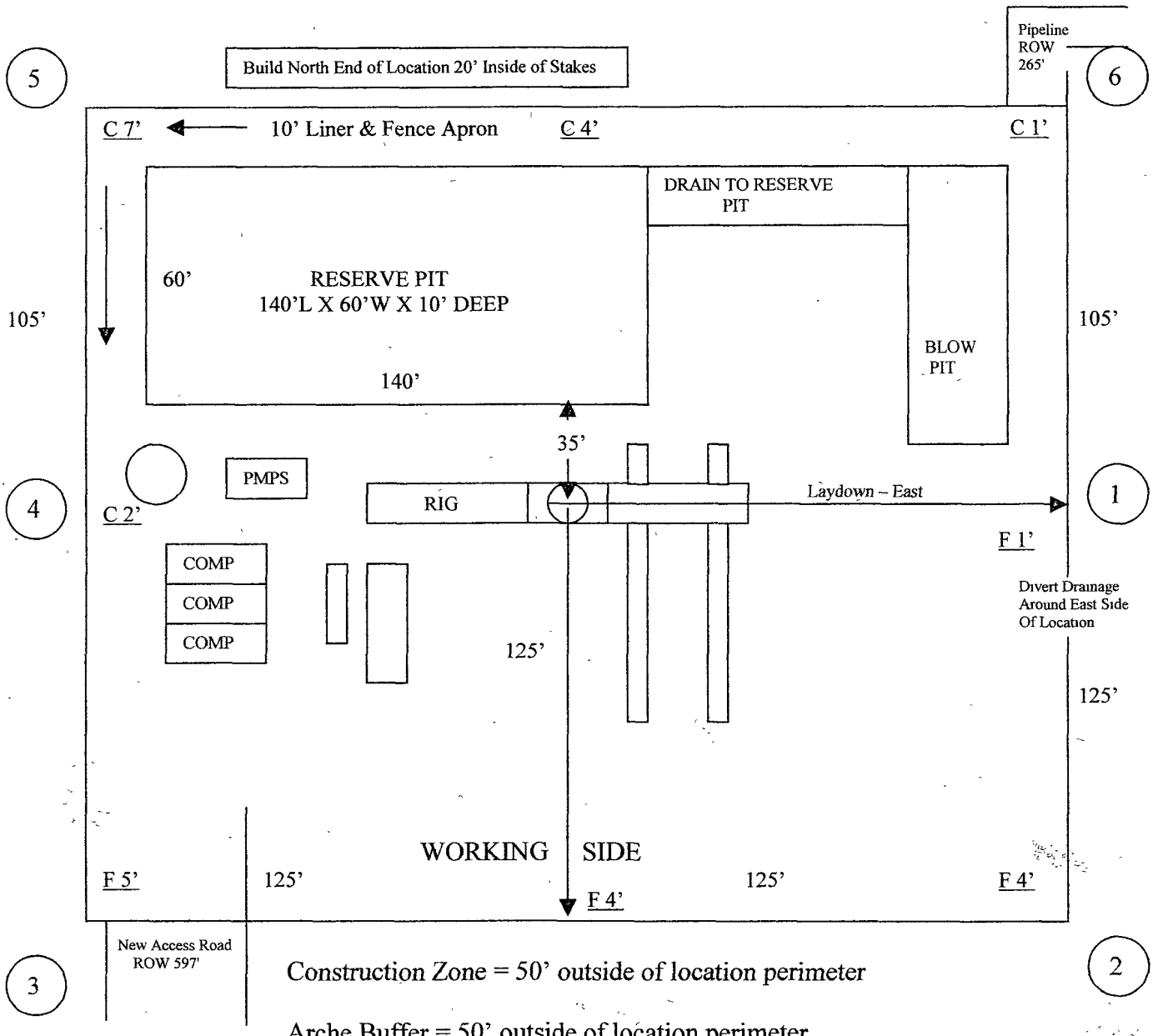
Wellhead Assembly



Preventer and Spools are to have a 6" Bore or larger and a 2000 PSI or higher Pressure Rating

Choke Manifold





JICARILLA APACHE ENERGY CORPORATION

Wellsite Layout Plat with Cut & Fills

Apache JVA #5A

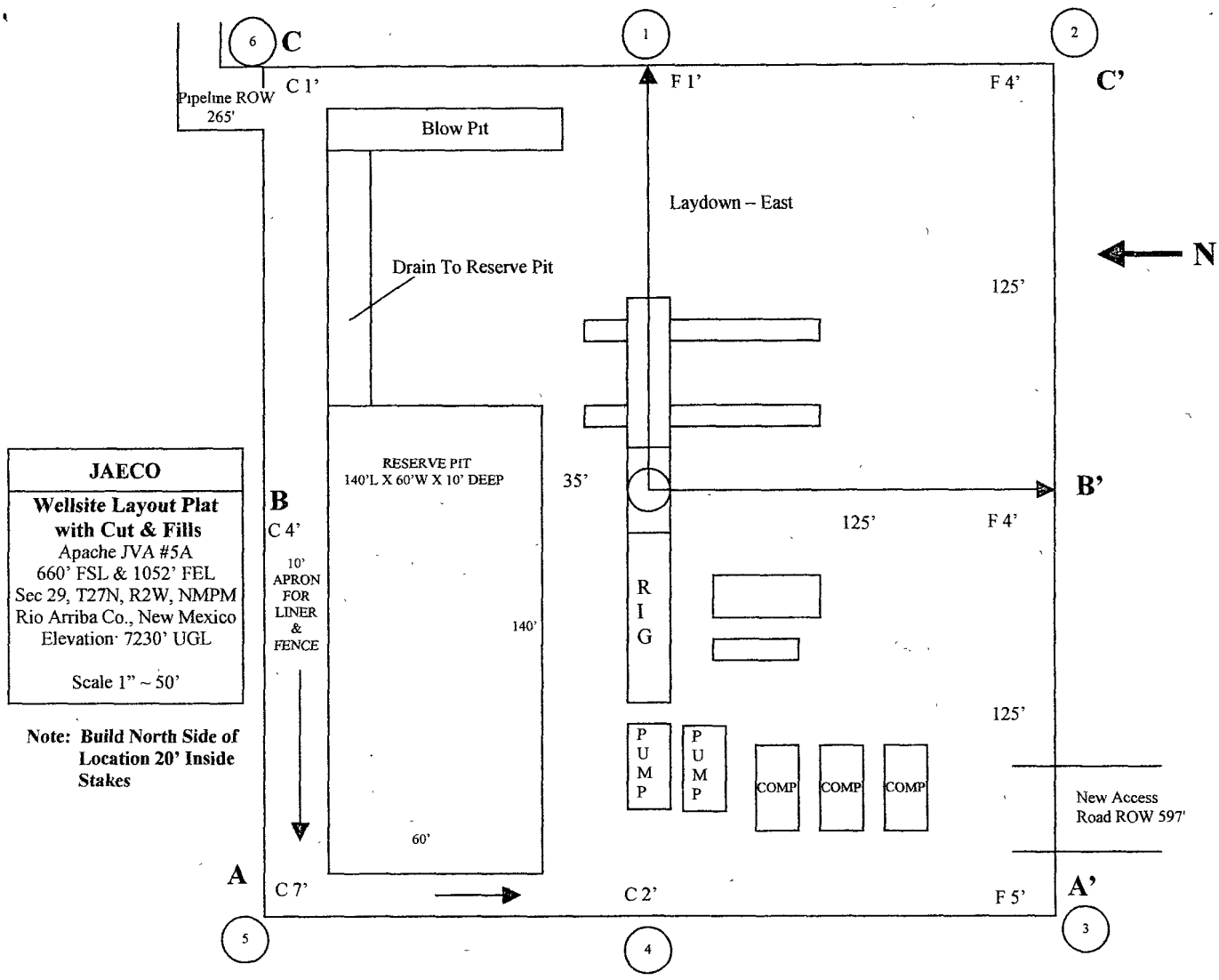
660' FSL & 1052' FEL, Sec 29, T27N, R2W, NMPM

Rio Arriba Co., New Mexico

Elevation: 7230' GL

Scale: 1" ~ 50'

Build Level Location 230'X 250'



JAECO

Wellsite Layout Plat with Cut & Fills

Apache JVA #5A
660' FSL & 1052' FEL
Sec 29, T27N, R2W, NMPM
Rio Arriba Co., New Mexico
Elevation· 7230' UGL

Scale 1" ~ 50'

Note: Build North Side of Location 20' Inside Stakes