

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FEB 04 2008
OCD-ARTESIA

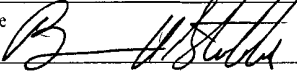
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Nitschke "66" Federal #1 37010
2. Name of Operator ARMSTRONG ENERGY CORPORATION 1092		9. API Well No. 30-005-63226
3a. Address P.O. Box 1973 Roswell, NM 88202	3b. Phone No. (include area code) 575-625-2222	10. Field and Pool, or Exploratory Lone Wolf Devonian; Southwest
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 823' FNL & 1650' FWL (Unit C) At proposed prod. zone 958' FNL & 1859' FWL (Unit C)		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 19-T13S-R29E
14. Distance in miles and direction from nearest town or post office* 16 Miles east of Hagerman, NM		12. County or Parish Chaves
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 330'		13. State NM
16. No. of acres in lease 240 Ac.		17. Spacing Unit dedicated to this well 40 Ac. (NE/NW)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file NM-1826
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3647' GL		23. Estimated duration 45 Days
22. Approximate date work will start* 01/15/2008		
24. Attachments		

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

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

25. Signature 	Name (Printed/Typed) Bruce A. Stubbs	Date 12/11/2007
Title Vice President		

Approved by (Signature) 	Name (Printed/Typed) JOHN S. SIMITZ	Date JAN 29 2008
Title Assistant Field Manager, Lands And Minerals	Office ROSWELL FIELD OFFICE	APPROVED FOR 2 YEARS

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

Title 18 USC Section 1001 and Title 43 USC 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 page 2)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED



District I
PO Box 1880, Hobbs, NM 88241-1880

District II
PO Drawer 80, Artesia, NM 88211-0719

District III
1900 Rio Brazos Rd. Aztec NM 87410

District IV
PO Box 8088, Santa Fe, NM 87504-8088

State Of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-120
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND DEDICATION PLAT

¹ API Number 30-005-63226	² Pool Code 40284	³ Pool Name Lone Wolf Devonian; Southwest
⁴ Property Code 25094	⁵ Property Name NITSCHKE 66 FEDERAL	⁶ Well Number 1
⁷ OGRID No. 1092	⁸ Operator Name Armstrong Energy Corporation	⁹ Elevation 3647'

¹⁰ Surface Location

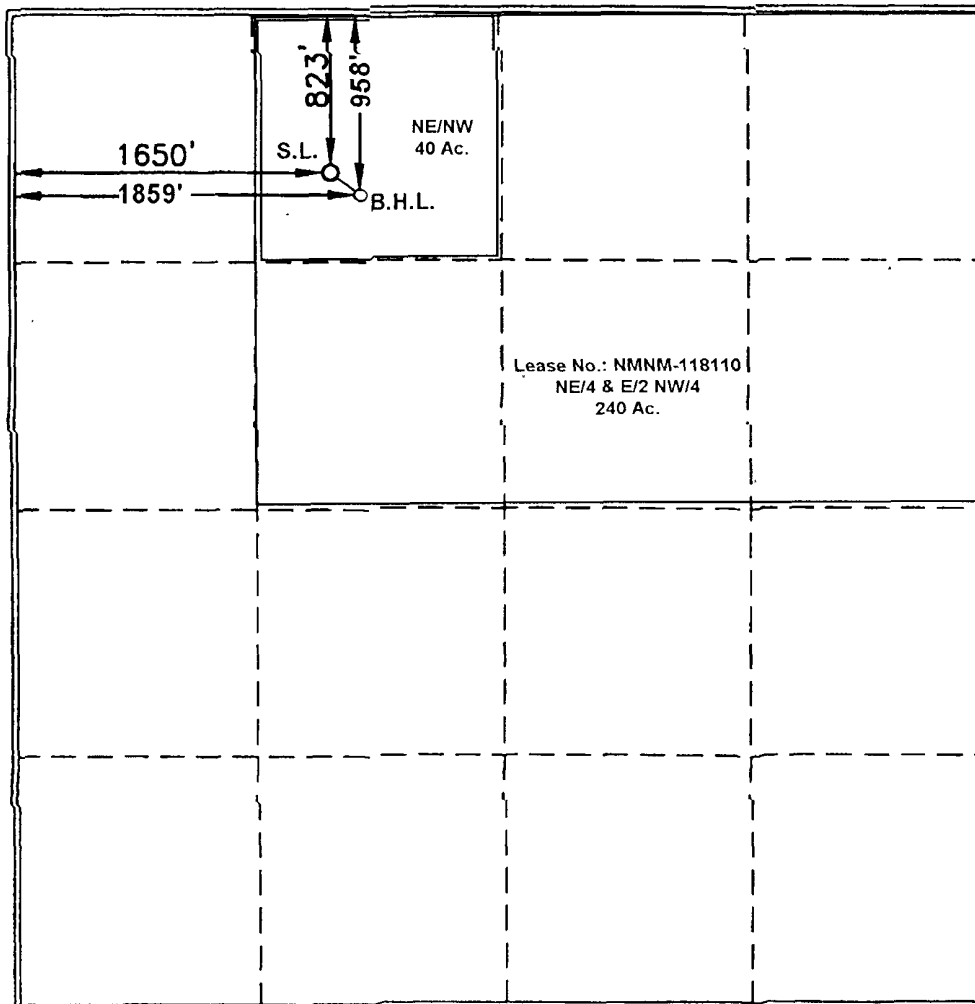
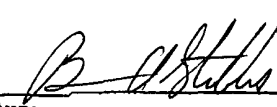
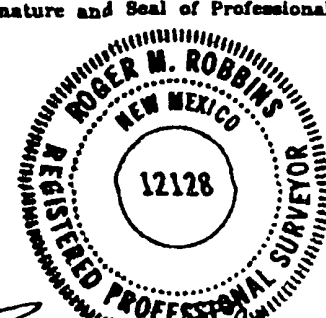
UL or Lot No.	Section	Township	Range	Lot Ida	Feet From The	North/South line	Feet From The	East/West line	County
C	19	13S	29E		823'	NORTH	1650'	WEST	CHAVES

¹¹ Bottom hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Ida	Feet From The	North/South line	Feet From The	East/West line	County
C	19	13S	29E		958'	North	1859'	West	Chaves

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature  Bruce A. Stubbs</p> <p>Printed Name Vice President</p> <p>Title 12/11/2007</p> <p>Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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 complete to the best of my knowledge and belief.</p> <p>Date of Survey 10-19-99</p> <p>Signature and Seal of Professional Surveyor:</p> <p> Certificate Number: 12128</p>

Armstrong Energy Corporation
Nitschke "66" Federal #1
Devonian Test
Surface Location: 1650' FWL & 823' FNL
Bottom Hole Location: 1859' FWL & 958' FNL
Section 19-T13S-R29E
Chaves County, New Mexico

1. The Estimated tops of geological markers are as follows:

Surface Formation: Permian – Quaternary Sandy Alluvium

Yates	630'
7-Rivers	760'
Queen	1436'
Grayburg	1648'
San Andres	1924'
Glorietta	3334'
Tubb	4764'
Abo	5551'
XX Wolfcamp	6713'
3-Brothers	7034'
Mississippian	8735'
Kinderhook	9210'
Devonian	9350'

2. The estimated depth at which anticipated water, oil or gas formations are expected to be encountered:

Water	150'
Oil	9350'

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Any potential surface fresh water sands will be protected by the existing 13 3/8" casing at 325' with cement circulated back to surface.

3. Pressure Control Equipment: 3,000 psi W.P. BOP nipped up on the 8 5/8" casing
4. Proposed Casing and Cementing Program:

A. Casing Program:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft.</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Cond.</u>
17 1/2"	13 3/8"	48 #/ft.	H-40	ST&C	0-325'	Existing
12 1/4"	8 5/8"	24 & 32 #/ft.	K-55	ST&C	0-2247'	Existing
7 7/8"	5 1/2"	17 #/ft.	N-80	LT&C	0-TD	New

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

B. Cementing Program:

<u>String</u>	<u>Sacks</u>	<u>Type</u>	<u>Yield</u>	<u>Fill</u>
Surface	335	Class "C" w/ 2% CaCl ₂	1.32 ft ³	Circ.
Intermediate	750	Innerfill		
	200	Premium Plus w/ 2% CaCl ₂	1.32 ft ³	Circ.
Production	305	Super "H" w/.5% LAP-1, .4% CFR-3, 2.5 #/sx. Salt, .25 #/sx. D-Air		TOC @ 8000'

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid loss</u>
Surface-7500'	Cut Brine/Oil/Torqmaster	9.0-9.1	34-40	N.C.
7500-T.D.	Cut Brine/Oil/Torqmaster	9.0-9.3	34-40	10-15

A closed mud system will be used to drill from 7700' to T.D using steel pits and a centrifuge.

6. Testing, logging and coring programs:

DST's: Possible on target formations.

Mud Logging: From the 7500' to T.D.

Electric Logging: From 7500 to T.D.; projected to run a CNL/LDT/GR, sonic and DLL/MLL.

Coring: No coring is anticipated at this time. However, rotary sidewall cores may be taken while logging.

8. Abnormal pressure, temperature or other hazards

Lost Circulation Zones: Records on nearby wells do not report any lost circulation zones. Appropriate materials will be available to combat any lost circulation that is encountered.

High Pressure: Records available from nearby wells do not indicate any over pressured zones. Mud weights sufficient to maintain a hydrostatic gradient of 0.45 psi/ft. should be sufficient for well control.

High Temperature: BHT measured in nearby wells indicates a normal temperature gradient in this area. (145°F @ 9500' = .89 °F/100 ft.)

9. This is a reentry of the Nitshke "66" Federal #1 drilled in 1999. A cement whipstock plug will be set from 7900'-7500' and the well kicked off at 7700' with a downhole motor and a steering assembly. The angle will be built at a rate of 3°/100 ft. to 8.5°. The course will be maintained at an azimuth of 147° southeast to a bottom hole location 1859' FWL & 958' FNL at a depth of approximately 9250-9350'.

10. Anticipated starting date: January 15, 2008.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Nitschke "66" Federal #1
Devonian Test
Surface Location: 1650' FWL & 823' FNL
Bottom Hole Location: 1859' FWL & 958' FNL
Section 19-T13S-R29E
Chaves County, New Mexico

1. Existing roads: Exhibit A is an aerial map showing the wells and roads in the vicinity of the proposed location. The wellsite is located approximately 16 miles east-northeast of Hagerman, New Mexico and the access road is indicated in yellow. No new construction will be necessary for this reentry.

Directions: From Hagerman, New Mexico, travel east on NM 31 to mile marker 20.6; turn north on Chaves county Road "Jemina"; which meanders north and then west a distance of 2.1 miles; turn north on Chaves County Road "Terersa" a distance of 6.3 miles to a dry hole marker and an unnamed oilfield road leading west. Turn west and travel 1.6 miles to a dry hole marker and large water tank. Turn south and travel .25 miles, turn west onto access road and travel 1.0 mile to location.

2. Planned access road: The original access road will be bladed, resurfaced and packed as necessary.
3. Location of existing wells: Exhibit D shows existing wells within a one-mile radius of the proposed location. The following table lists the wells within the one-mile radius of the Nitschke "66" Federal #1.

<u>Operator Name</u>	<u>Field Name</u>	<u>Prod Zone Name</u>	<u>Lease Name</u>	<u>#</u>	<u>Location</u>
Armstrong Energy Corporation	Lone Wolf South	Devonian	South Lone Wolf	1	Sec 29 F-T13S-R29E
Armstrong Energy Corporation	Lone Wolf South	Devonian	South Lone Wolf	2	Sec 29 M-T13S-R29E
The Rodman Corporation	Wildcat	8778' D H	North King Camp Unit	5	Sec 17 K-T13S-R29E
Jack L. McClellan	Wildcat	1630' D H	North King Camp Unit	6	Sec 17 G-T13S-R29E
McClellan Oil Corporation	Wildcat	1497' D H	North King Camp Unit	7	Sec 17 L-T13S-R29E
McGrath & Smith, Inc	Wildcat	2120' D H	North King Camp Unit	3	Sec 20 G-T13S-R29E

4. Location of existing and/or proposed facilities: In the event the well is productive, the necessary production facilities will be installed on the drilling pad. It is anticipated the well will be an oil well and no electrical power or gas pipeline will be required.
5. Location and type of water supply: It is planned to reenter the proposed well using a cut brine mud system. The water will be obtained from commercial sources and will be hauled to location by truck over the existing and proposed roads shown in Exhibit A.

6. Source of construction material: The dirt contractor will locate the nearest pit and obtain any permits and materials needed for construction should the location need any additional materials.
7. Method of handling waste disposal:
 - A. Drill cutting will be collected in steel pits and hauled to disposal.
 - B. Drill fluids will be stored in steel tanks and hauled to disposal.
 - C. Water produced during production operations will be stored in tanks until hauled to an approved disposal system.
 - D. Oil produced during production operations will be stored in tanks until sold.
 - E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
 - F. All trash, junk and other waste will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved landfill. Burial on site is not approved.
8. Ancillary facilities: None
9. Wellsite layout:
 - A. Exhibit C shows the relative location and dimensions of the well pad, the location of the drilling equipment, rig orientation and access road approach.
 - B. The location and access road was previously archaeologically cleared by Pecos Archaeological Consultants.
10. Plans for restoration:
 - A. After the completion of the drilling and completion operations, all equipment and other materials not needed for additional operations will be removed. The location will be cleared of all trash and junk to leave the wellsite in an aesthetically pleasing a condition as possible.
 - B. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.
11. Surface Ownership: U.S.


Lessee: Mr. Robert Jolly
Sand Camp Ranch
P. O. Box 597
Hagerman, NM 88232
505-752-6662

The surface lessee has been contacted and a surface use agreement is being negotiated between Sand Camp Ranch and Armstrong Energy Corporation.

12. Other information:
- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings and historical and cultural sites.
 - B. The primary surface use is for grazing.
13. Operator's representative:
- Mr. Bruce A. Stubbs
Armstrong Energy Corporation
P.O. Box 1973
Roswell, New Mexico 88202
Phone 505-625-2222
bastubbs@zianet.com
14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Armstrong Energy Corporation and it's contractors and sub contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: December 11, 2007

By : 
Bruce A. Stubbs
Vice President – Operations
Armstrong Energy Corporation

**Armstrong Energy Corporation
Nitschke "66" Federal #1
1650' FWL & 823' FNL
Sec. 19-T13S-R29E
Chaves County, New Mexico**

Hydrogen Sulfide Plan

Offset wells have not reported hydrogen sulfide in concentration in excess of 100 ppm. As per Rule 118.C.2, no further action is necessary.

As a precautionary measure, a H₂S monitor will be maintained on the rig floor to alert personnel to unanticipated H₂S buildup at the bell nipple and rig floor. Should H₂S be detected, a Hydrogen Sulfide Plan will be implemented.

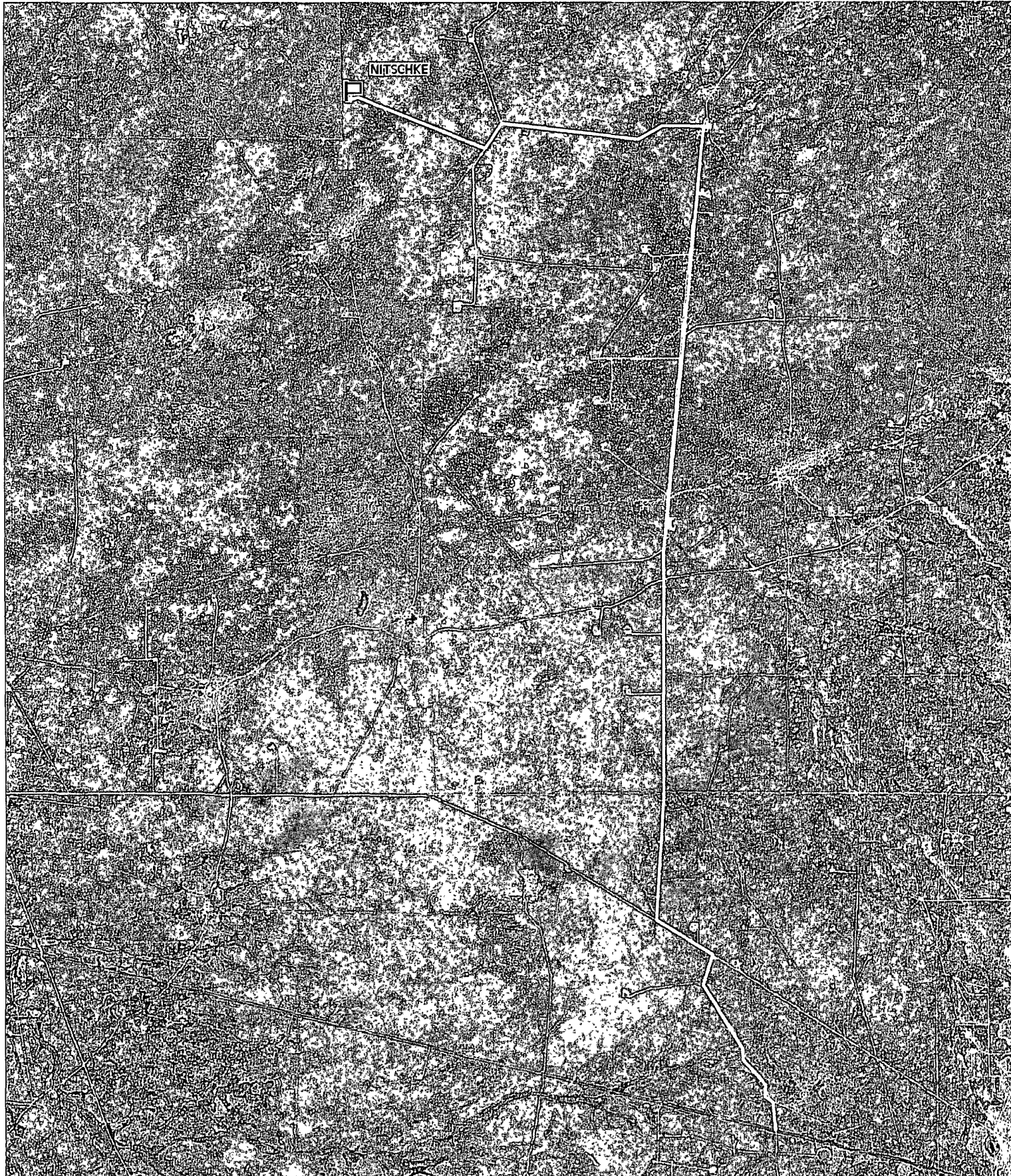
There are no dwellings within a one-half mile radius of the well. The closest dwelling is an abandoned ranch house approximately one mile east of the location.

Should you have any questions concerning this well, please call me at 505-625-2222.

Sincerely,
Armstrong Energy Corporation



By: Bruce A. Stubbs
Vice President - Operations

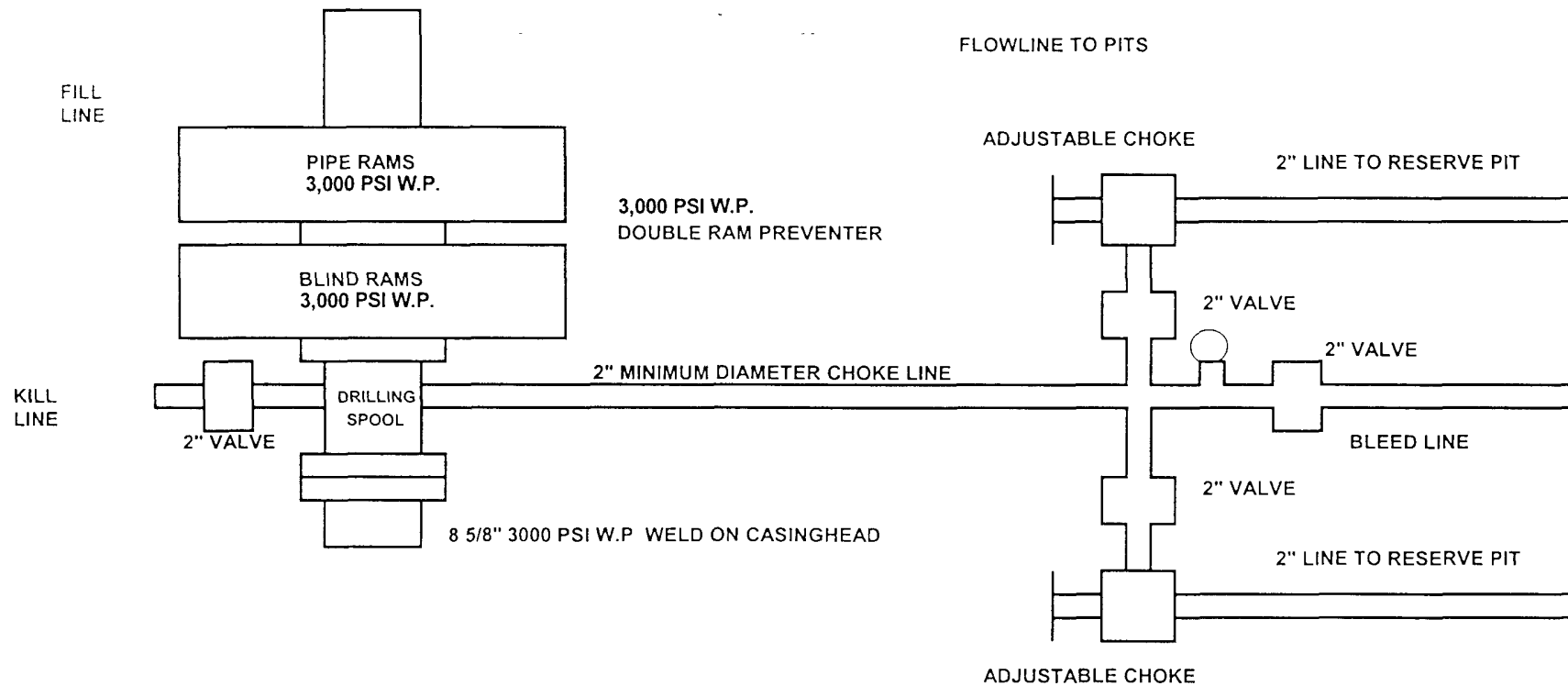


ARMSTRONG ENERGY CORPORATION

NITSCHKE "66" FEDERAL #1
1650' FWL & 823' FNL
SEC. 19-T13S-R29E
CHAVES COUNTY, NEW MEXICO

EXHIBIT A

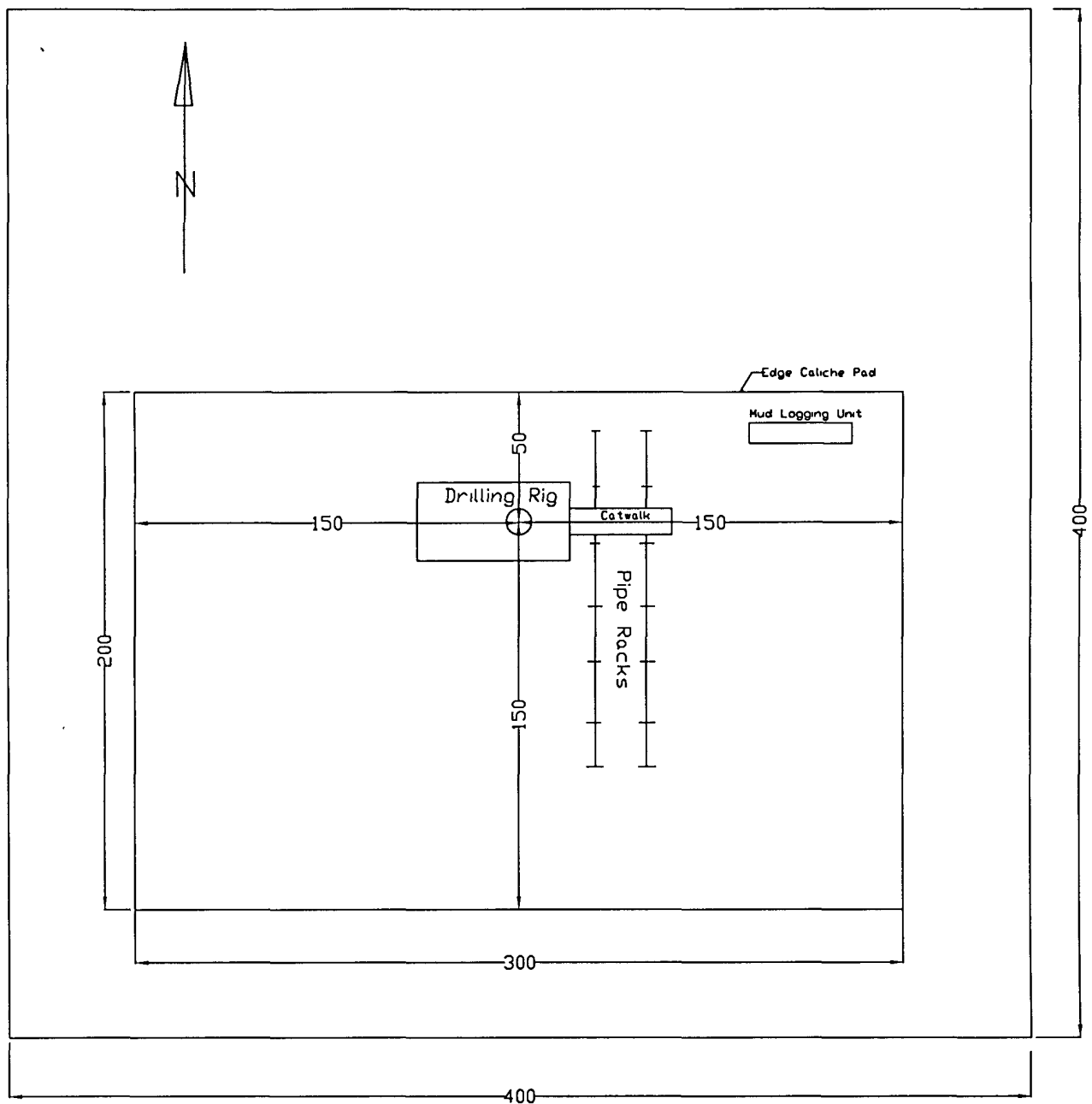
TYPICAL 3000 PSI BOP STACK



ARMSTRONG ENERGY CORPORATION
NITSCHKE "66" FEDERAL #1
1650' FWL & 823' FNL
SEC. 19-T13S-R29E
CHAVES COUNTY, NEW MEXICO

API No. 30-005-63226

EXHIBIT B



Armstrong Energy Corporation

Drilling Rig Layout Plan

Nitschke "66" Federal #1 #1
 1650' FWL & 823' FEL
 Sec. 19-T13S-R29E
 Chaves County, New Mexico

25 Ft

Exhibit C

BAS 12-11-07

YATES 630'
7-RIVERS 760'

QUEEN 1436'
GRAYBURG 1648'
SAN ANDRES 1924'

GLORIETTA 3334'

TUBB 4764'

ABO 5551'

XX MARKER 6713'
3 B 7034'
U PENN LIME 7256'

BURNETT SHALE 8510'
CHESTER LIME 8534'

DEVONIAN 9350'

50'(15 SX) 50'-SURFACE

17 1/2" HOLE
100' (30 SX) 347'-247'
13 3/8" - 48 #/FT , H-40 AT 322'
335 SX CLASS "C" CEMENT W/ 2% CaCl
CIRCULATED 75 SX

NITSCHKE "66" FEDERAL #1
823' FNL & 1650 FWL
CHAVES COUNTY, NEW MEXICO

SPUD DATE: 11/28/1999
API No.: 30-005-63226

ELEVATION. 3647'
K B : 3662'

12 1/4" HOLE

100' (60 SX) 2251'-2151'

8 5/8" - 24 & 32 #/FT , J-55 AT 2247'
750 SX INNERFILL W/ 1/4 #/SX FLOCELE
200 SX PREMIUM PLUS W 2 % CaCl
CIRCULATED 225 SX

100' (40 SX) 3358'-3258'

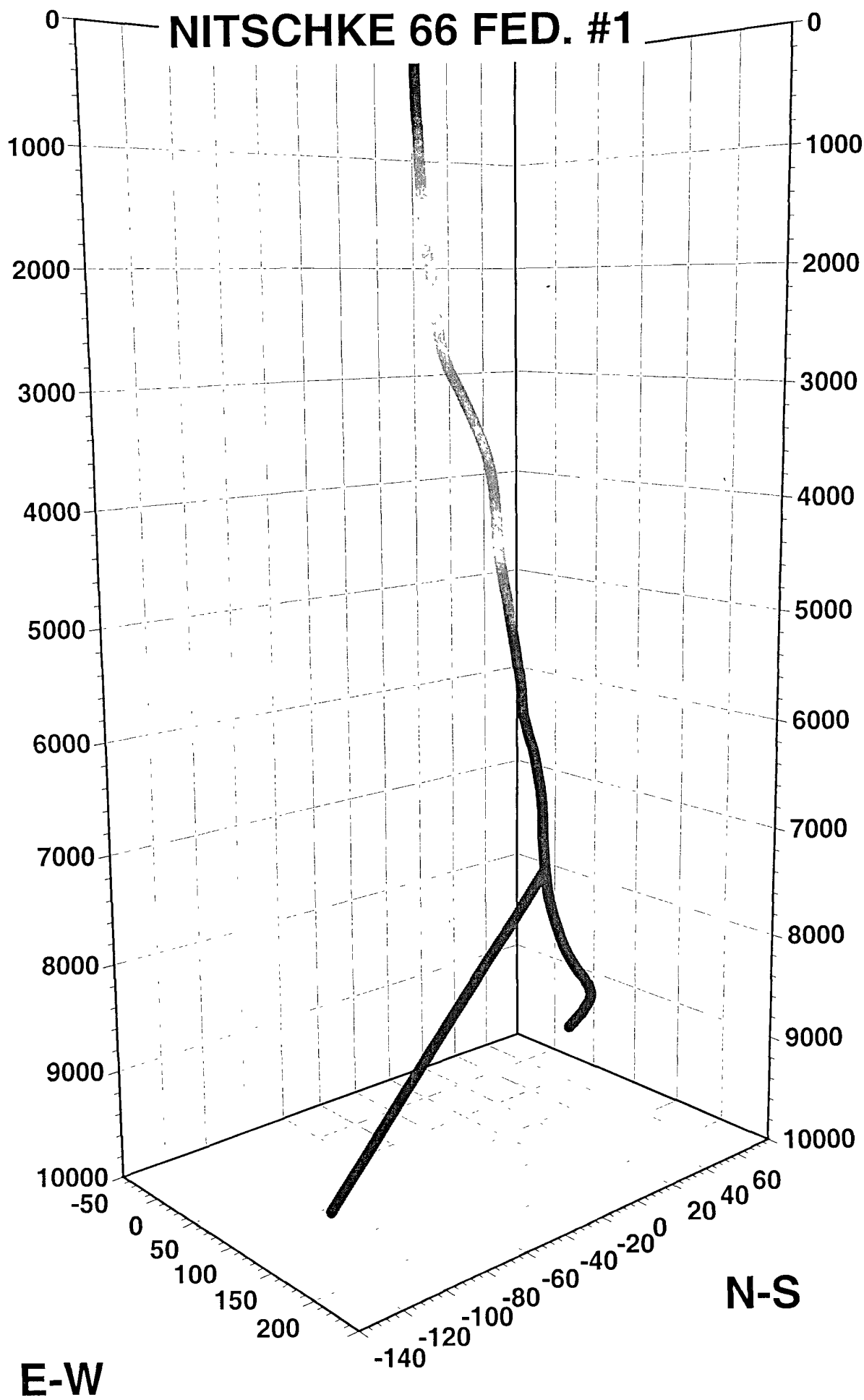
150' (50 SX) 5598'-5448'

7 7/8" HOLE

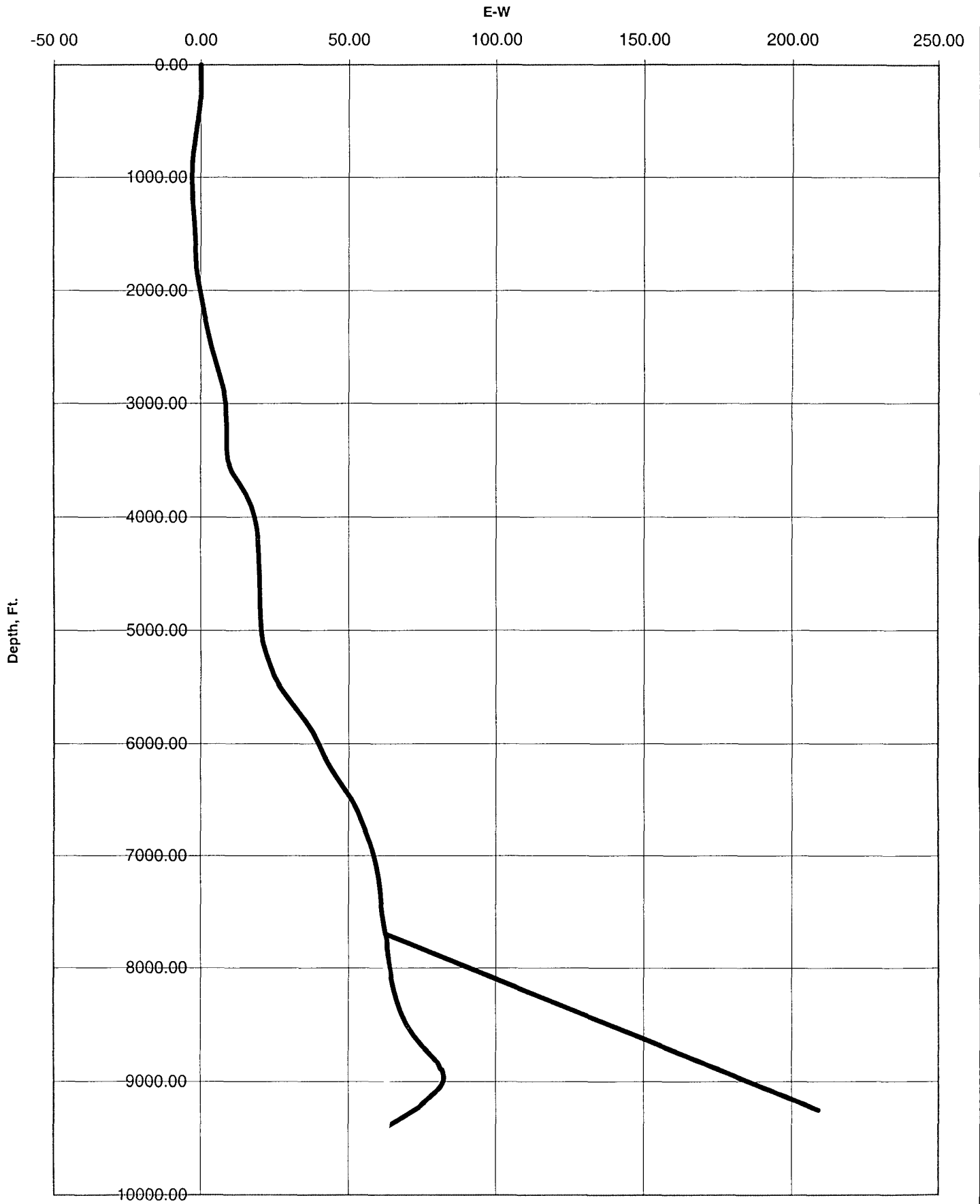
K O P 7700'

150' (50 SX) 8477'-8327'

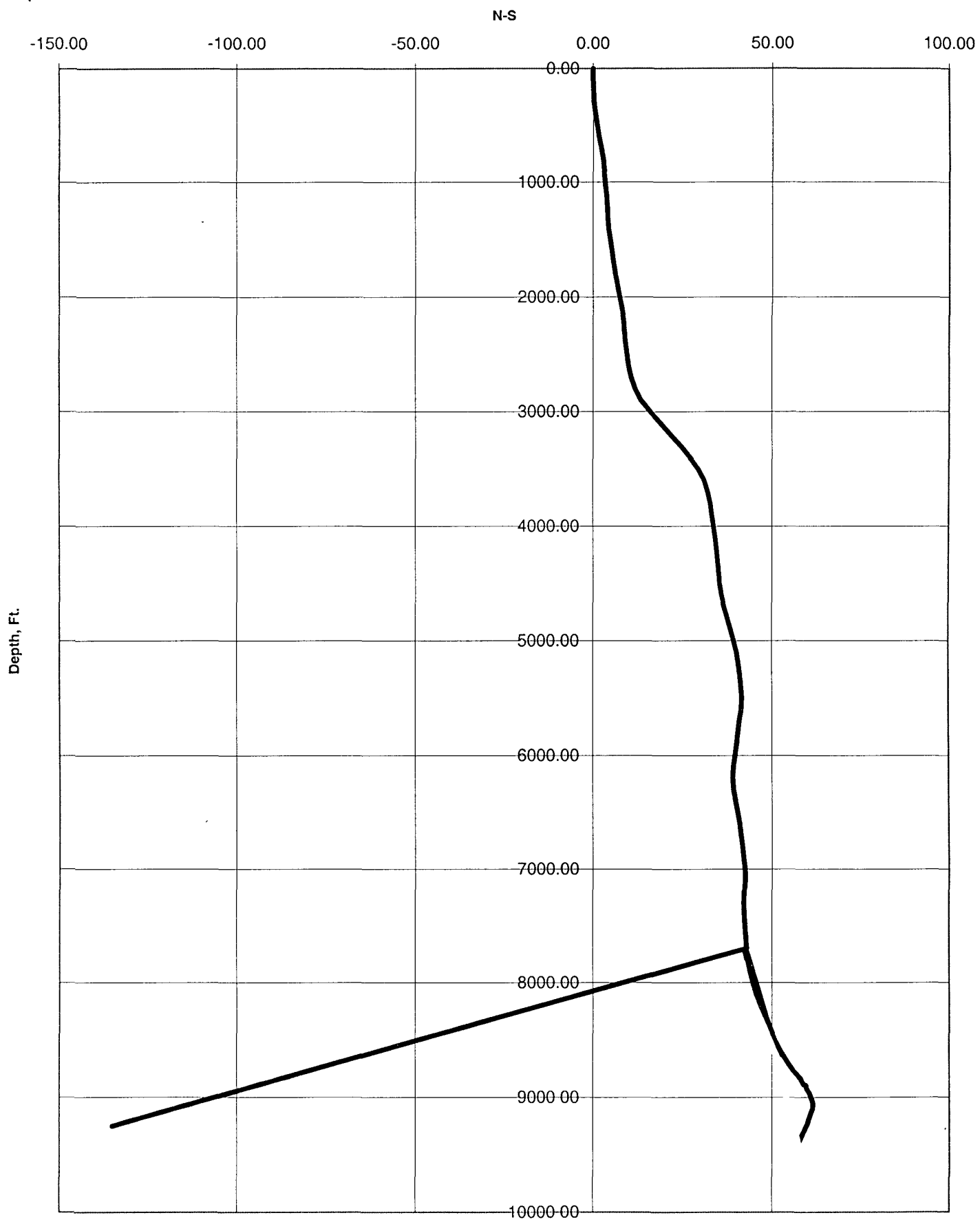
T D 9397'



Nitschke "66" Federal #1

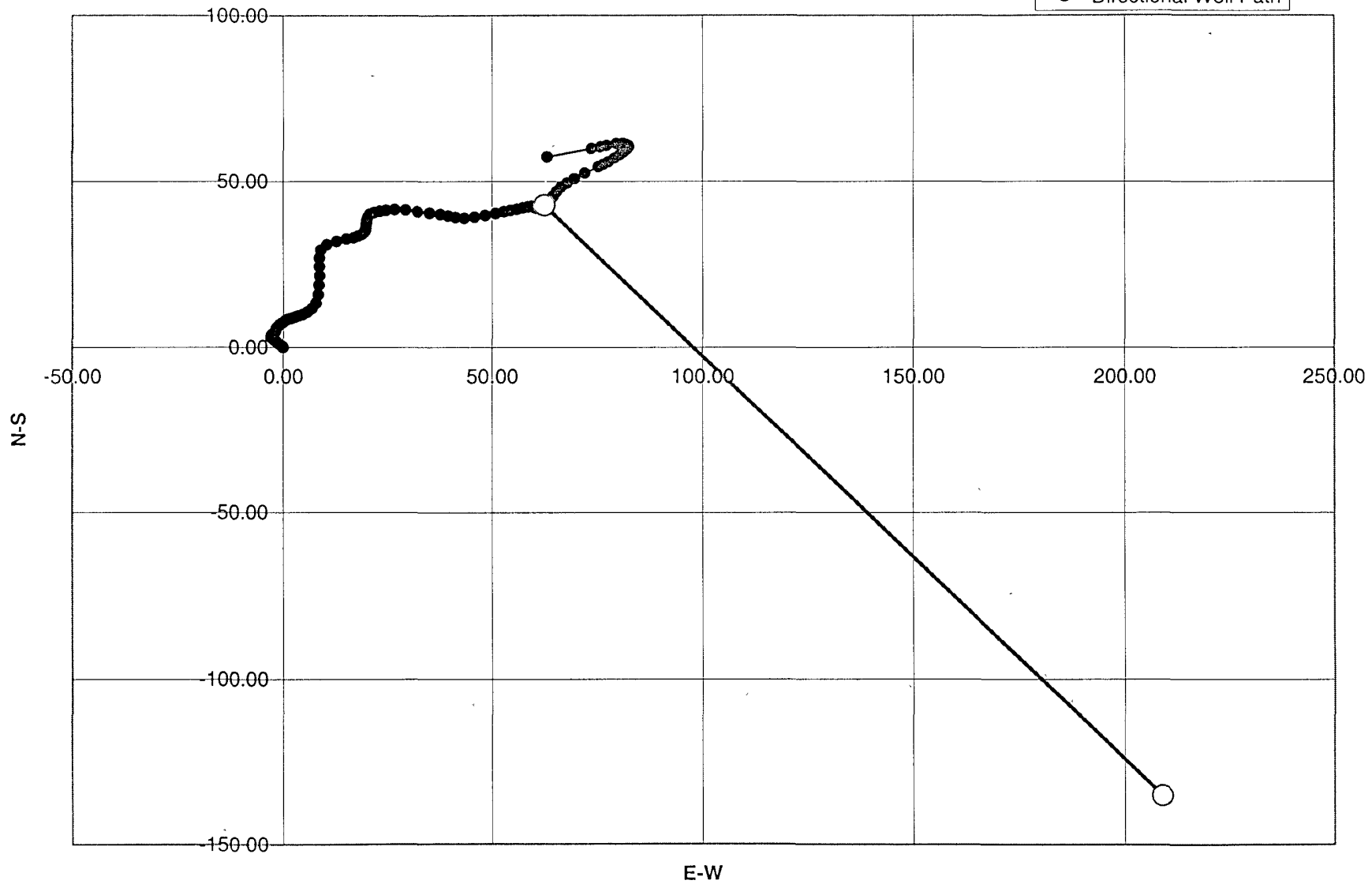


Nitschke "66" Federal #1



Nitschke "66" Federal #1

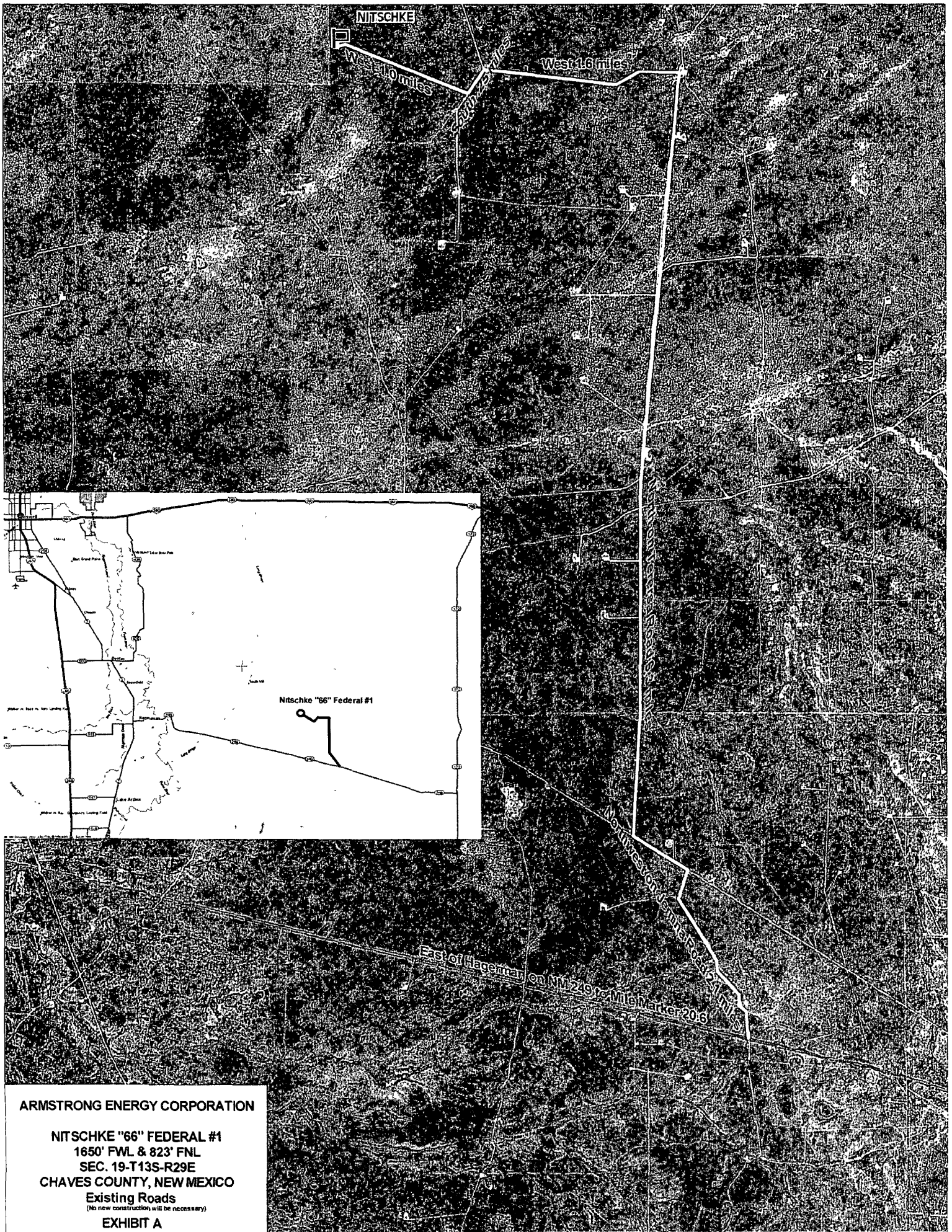
- Original Wellbore
- Directional Well Path



DIRECTIONAL SURVEY

<u>MD</u>	<u>TVD</u>	<u>N-S</u>	<u>E-W</u>
0	0.00	0.00	0.00
100	100.00	0.02	-0.02
200	200.00	0.09	-0.03
300	300.00	0.24	-0.09
400	400.00	0.63	-0.45
500	499.99	1.11	-1.04
600	599.99	1.60	-1.57
700	699.99	2.26	-2.11
800	799.99	2.81	-2.67
900	899.98	3.12	-2.95
1000	999.98	3.41	-2.93
1100	1099.98	3.77	-2.83
1200	1199.98	3.99	-2.70
1300	1299.98	4.12	-2.45
1400	1399.98	4.40	-2.15
1500	1499.98	4.84	-1.96
1600	1599.98	5.31	-1.83
1700	1699.98	5.74	-1.68
1800	1799.98	6.24	-1.42
1900	1899.97	6.81	-0.94
2000	1999.97	7.44	-0.25
2100	2099.96	8.09	0.47
2200	2199.96	8.56	1.13
2300	2299.96	8.80	1.92
2400	2399.95	9.13	2.78
2500	2499.95	9.52	3.61
2600	2599.94	9.93	4.67
2700	2699.93	10.67	5.79
2800	2799.92	11.72	6.85
2900	2899.90	13.35	7.87
3000	2999.87	15.90	8.39
3100	3099.82	18.80	8.59
3200	3199.78	21.64	8.72
3300	3299.74	24.47	8.68
3400	3399.71	27.05	8.67
3500	3499.68	29.41	9.06
3600	3599.65	31.06	10.52
3700	3699.62	32.05	12.89
3800	3799.59	32.75	15.23
3900	3899.57	33.16	17.00
4000	3999.56	33.65	18.14
4100	4099.56	34.12	18.91
4200	4199.56	34.47	19.32
4300	4299.56	34.79	19.52
4400	4399.56	35.08	19.71
4500	4499.56	35.34	19.85
4600	4599.56	35.86	19.89
4700	4699.55	36.61	19.96
4800	4799.55	37.52	20.09
4900	4899.54	38.42	20.20
5000	4999.54	39.33	20.42
5100	5099.53	40.13	20.92
5200	5199.53	40.61	21.98
5300	5299.52	40.99	23.34
5400	5399.51	41.33	24.79
5500	5499.48	41.56	26.86

5600	5599.45	41.36	29.56
5700	5699.40	40.84	32.42
5800	5799.36	40.46	35.34
5900	5899.33	40.12	37.83
6000	5999.31	39.69	39.67
6100	6099.29	39.24	41.45
6200	6199.27	39.03	43.55
6300	6299.24	39.31	45.94
6400	6399.21	39.82	48.50
6500	6499.17	40.44	50.99
6600	6599.15	40.96	52.92
6700	6699.14	41.33	54.41
6800	6799.13	41.71	55.96
6900	6899.12	42.06	57.40
7000	6999.11	42.38	58.52
7100	7099.11	42.46	59.41
7200	7199.10	42.23	60.12
7300	7299.10	42.08	60.63
7400	7399.10	42.21	60.91
7500	7499.10	42.41	61.24
7600	7599.10	42.63	61.86
7700	7699.10	42.86	62.46
7800	7799.09	43.19	62.98
7900	7899.09	43.82	63.41
8000	7999.09	44.60	63.88
8100	8099.08	45.54	64.57
8200	8199.07	46.86	65.38
8300	8299.05	48.29	66.45
8400	8399.03	49.50	67.86
8500	8499.01	50.80	69.64
8600	8598.96	52.50	72.09
8700	8698.89	54.48	75.35
8731	8729.86	55.13	76.54
8765	8763.64	55.94	77.75
8805	8803.80	57.11	79.25
8837	8835.76	58.04	80.40
8888	8886.74	58.87	81.29
8898	8896.72	59.50	81.84
8930	8928.72	59.80	82.21
8960	8959.72	60.42	82.42
8992	8990.71	60.81	82.35
9025	9022.71	61.20	81.85
9053	9051.69	61.49	81.06
9093	9091.64	61.43	79.57
9145	9143.61	60.85	77.26
9177	9175.58	60.50	75.84
9232	9230.53	59.94	73.63
9397	9395.18	57.40	63.15
KOP	7699.10	42.86	62.46
BHL	9250.00	-135.00	209



ARMSTRONG ENERGY CORPORATION

NITSCHKE "66" FEDERAL #1

1650' FWL & 823' FNL

SEC. 19-T13S-R29E

CHAVES COUNTY, NEW MEXICO

Existing Roads

(No new construction will be necessary)

EXHIBIT A

EXHIBIT A

OPERATORS NAME: Armstrong Energy Corporation

LEASE NO.: NM-118110

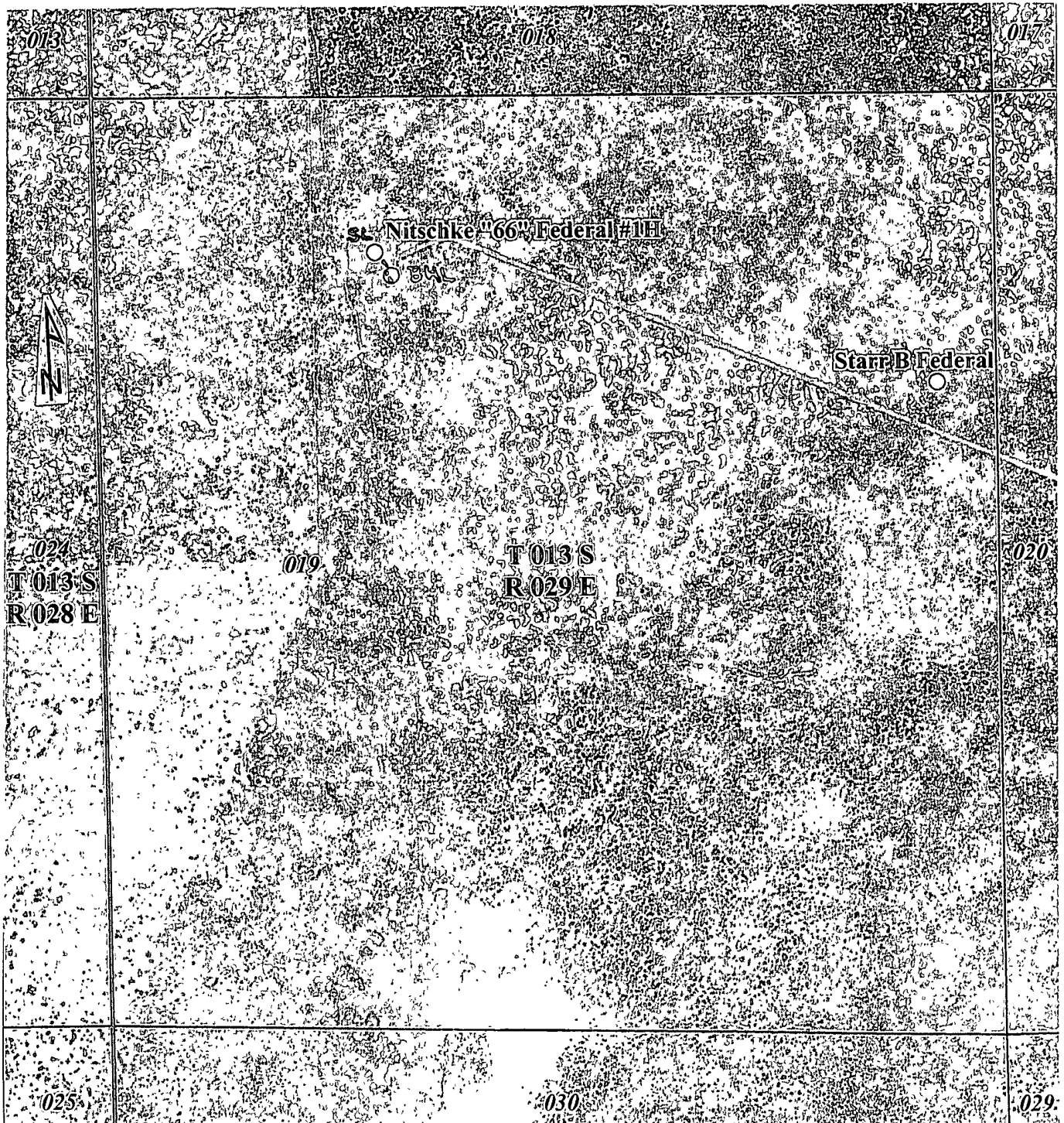
WELL NAME & NO: Nitschke "66" Federal #1H

SURFACE HOLE FOOTAGE: 823' FNL & 1650' FWL

BOTTOM HOLE LOCATION: 958' FNL & 1859' FWL

LOCATION: Section 19, T. 13 S., R. 29 E., NMPM

COUNTY: Chaves County, New Mexico



PECOS DISTRICT - RFO

CONDITIONS OF APPROVAL

1/28/08

OPERATORS NAME: Armstrong Energy Corporation
LEASE NO.: NM-118110
WELL NAME & NO: Nitschke "66" Federal #1H
SURFACE HOLE FOOTAGE: 823' FNL & 1650' FWL
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GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

There is no measurable soil on the existing well pad to stockpile. There is however an existing topsoil stockpile on the southwest edge of the well pad that shall be used to reclaim this well pad.

C. RESERVE PITS: No reserve pit will be used.

Tanks are required for drilling operations: No Pits. The operator opted to use the close system utilizing steel tanks.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT:

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Roswell Field Office at (505) 627-0236.

E. WELL PAD SURFACING:

Resurfacing of the well pad is not required.

The existing well pad has surfacing material on the well pad and upon reclamation the surfacing material shall be removed from the location.

F. ON LEASE ACCESS ROADS:

Road Width

The existing access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when maintaining the existing access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the driving surface of the existing access road. If the operator elects to resurface the existing access road or pad, the surfacing material shall be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

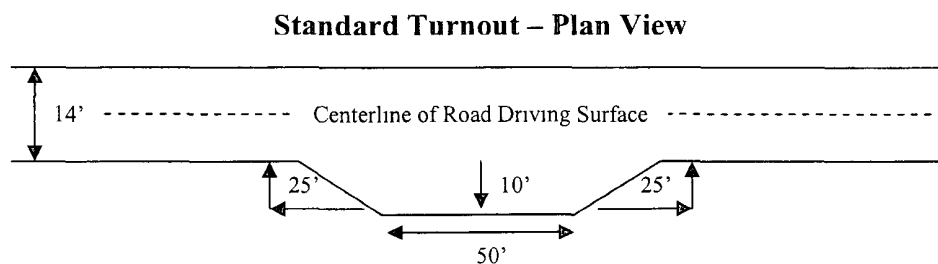
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Turnouts

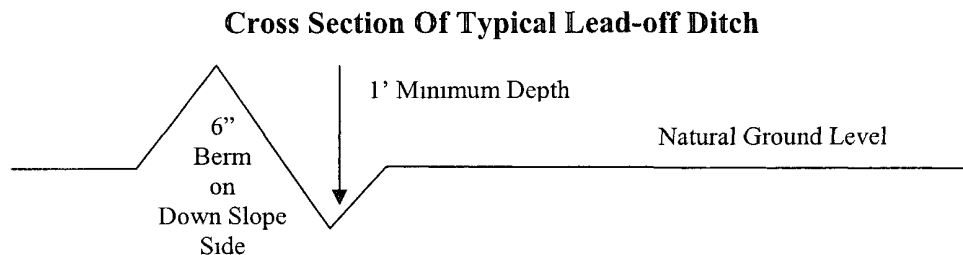
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

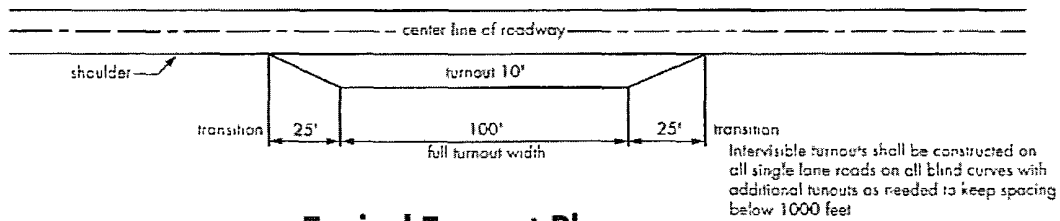
Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

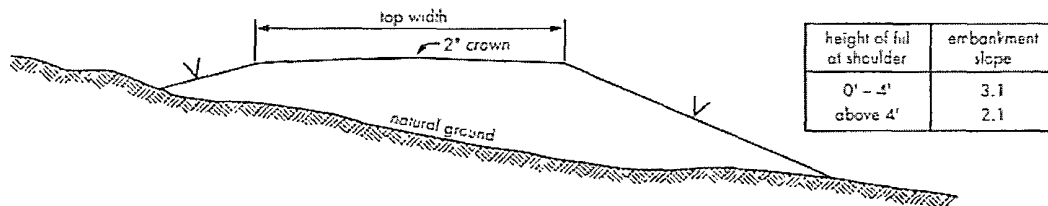
Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

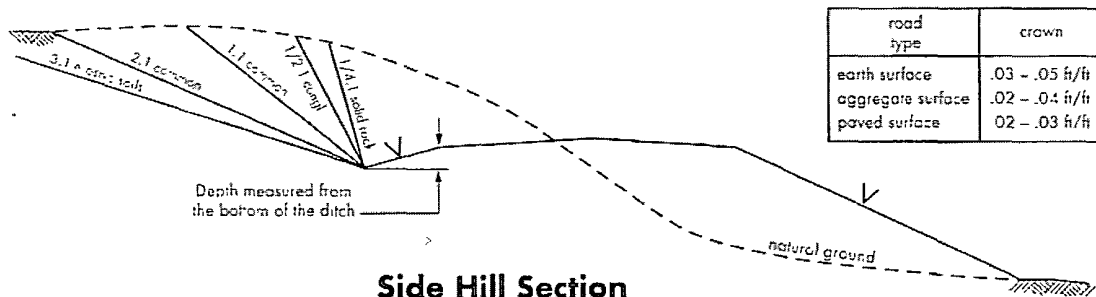
Figure 1 – Cross Sections and Plans For Typical Road Sections



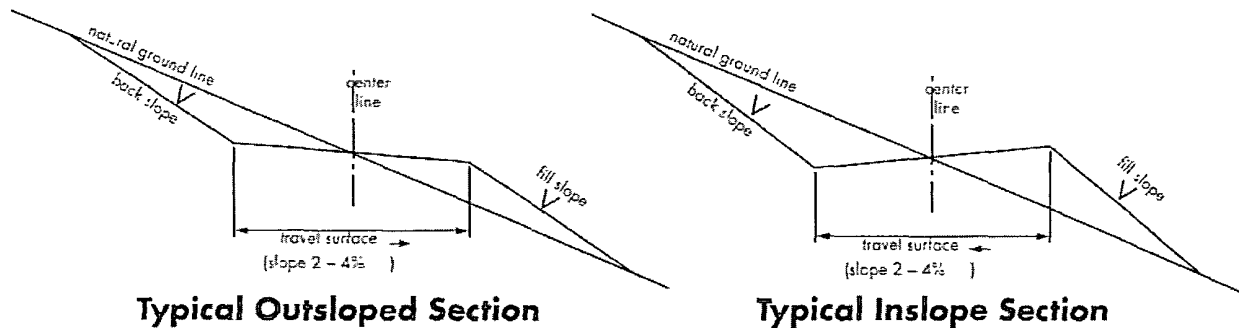
Typical Turnout Plan



Embankment Section



Side Hill Section



V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201. During office hours call (505) 627-0258. After office hours call (505) 200-7902.
2. The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings
 - c. BOPE tests
3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

B. CASING

1. The 13-3/8 inch surface casing is set at 325 feet and was cemented to the surface.
2. The 8-5/8 inch intermediate casing is set at 2247 feet and was cemented to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 500 feet above the top of the uppermost productive formation.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

VI. PRODUCTION

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, Olive Drab, Munsell Soil Color Chart 18-0622 TPX.

VII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. RESERVE PIT CLOSURE

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

The following soil or soil associations may represent these ecological sites:

Anthony Sandy loam, 0 to 1% slope, eroded, Berino complex, 0 to 3% slopes, eroded, Berino – Dune land complex, 0 to 3% slopes, eroded, Bluepoint, Douro, Faskin, loamy fine sands, 0-2% slope, Ima, Jalmar fine sands, 0-2% slope, Kermit fine sand, Likes loamy fine sand, 1 to 5% slopes, Malmstrom loamy fine sand, 0-2% slope, Pajarito-Dune land complexes, 0 to 3% slopes, Pima silt loam, 0 to 1% slopes, Pintura, Pyote, Roswell fine sand, 2-25% slope, Wink fine sandy loam, 0 to 3% slopes

Sandy Plains CP-2 Ecological Site, Sand Hills CP-2 Ecological Site, Deep Sand SD-3 Ecological Site

Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Sand bluestem,	(<i>Andropogon hallii</i>)	0.50 lb.
Little bluestem	(<i>Schizachyrium scoparium</i>)	0.50 lb.
Sideoats grama,	(<i>Bouteloua curtipendula</i>)	1.50 lbs.
Sand dropseed	(<i>Sporobolus cryptandrus</i>)	0.50 lb.
Spike dropseed	(<i>S. contractus</i>)	0.50 lb.
Mesa dropseed	(<i>S. flexuosus</i>)	0.50 lb.
Plains bristlegrass	(<i>Setaria macrostachya</i>)	2.00 lbs.
Desert or Scarlet	(<i>Sphaeralcea ambigua</i>)	0.50 lb.
Globemallow or	(<i>S. coccinea</i>)	
Buckwheat	(<i>Eriogonum</i> spp.)	1.50 Lbs.
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE		8.00 lbs.

CERTIFIED WEED FREE SEED. IF ONE SPECIES IS NOT AVAILABLE INCREASE ALL OTHER PROPORTIONATELY. NO LESS THAN SIX (6) SPECIES WITH A MINIMUM OF ONE (1) FORB. NO LESS THAN 8.0 POUNDS PLS PER ACRE SHALL BE APPLIED.

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.