District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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

RECEIVED
JUN 17 2004
OCD-ARTESIA

Form C-101
March 4, 2004

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

[1] Operator Name and Address	[2] OGRID Number
Echo Production, Inc. PO Box 1210 Graham, TX 76450	06742
	[3] API Number 30- 015- 33465

[3] Property Code	[5] Property Name	[6] Well No.
	Angell Ranch '36' State	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
I	36	19S	27E		1330'	south	660'	east	Eddy

[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

[9] Proposed Pool 1	[10] Proposed Pool 2
Atoka Angell Ranch Morrow	

Drilling Pit Location and Other Information

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	36	19S	27E		1438'	south	660'	east	Eddy

Depth to ground water	Distance from nearest fresh water well	Distance from nearest surface water
50+ to 100 feet	1000+ feet	1000+ feet

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	S	3386

[16] Multiple	[17] Proposed Depth	[18] Formation	[19] Contractor	[20] Spud Date
no	11200'	Morrow	J & W	7/15/04

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½	13 3/8	48#	400'	425	surface
11"	8 5/8"	32#	2600'	750	surface
7 7/8"	4 1/2	11.6#	11200'	sufficient to reach ±600' above the	
				top of any pay interval.	

[22] 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.

Echo Production, Inc. proposes to drill to a depth sufficient to test the Morrow formation. If productive 4 ½" casing will be set. If nonproductive the well will be plugged in a manner consistent with State regulations. Will utilize 3000 psi WP double ram type blowout preventor. Will be tested before drilling out (cont. over)

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: Tom Golden
Printed name: Tom Golden
Title: Operations Manager
E-mail Address: rondaw@echoproduction.com
Date: 6/11/04
Phone: 940-549-3292

OIL CONSERVATION DIVISION

Approved by: Lori W. Wrotenbery
Title: District Supervisor
Approval Date: JUN 18 2004
Expiration Date: JUN 18 2005

Conditions of Approval Attached ☐

CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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JUN 17 2004
OCD-ARTESIA

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	ANGELL RANCH "36" STATE	1

OGRID No.	Operator Name	Elevation
	ECHO PRODUCTION, INC.	3386'

Surface Location

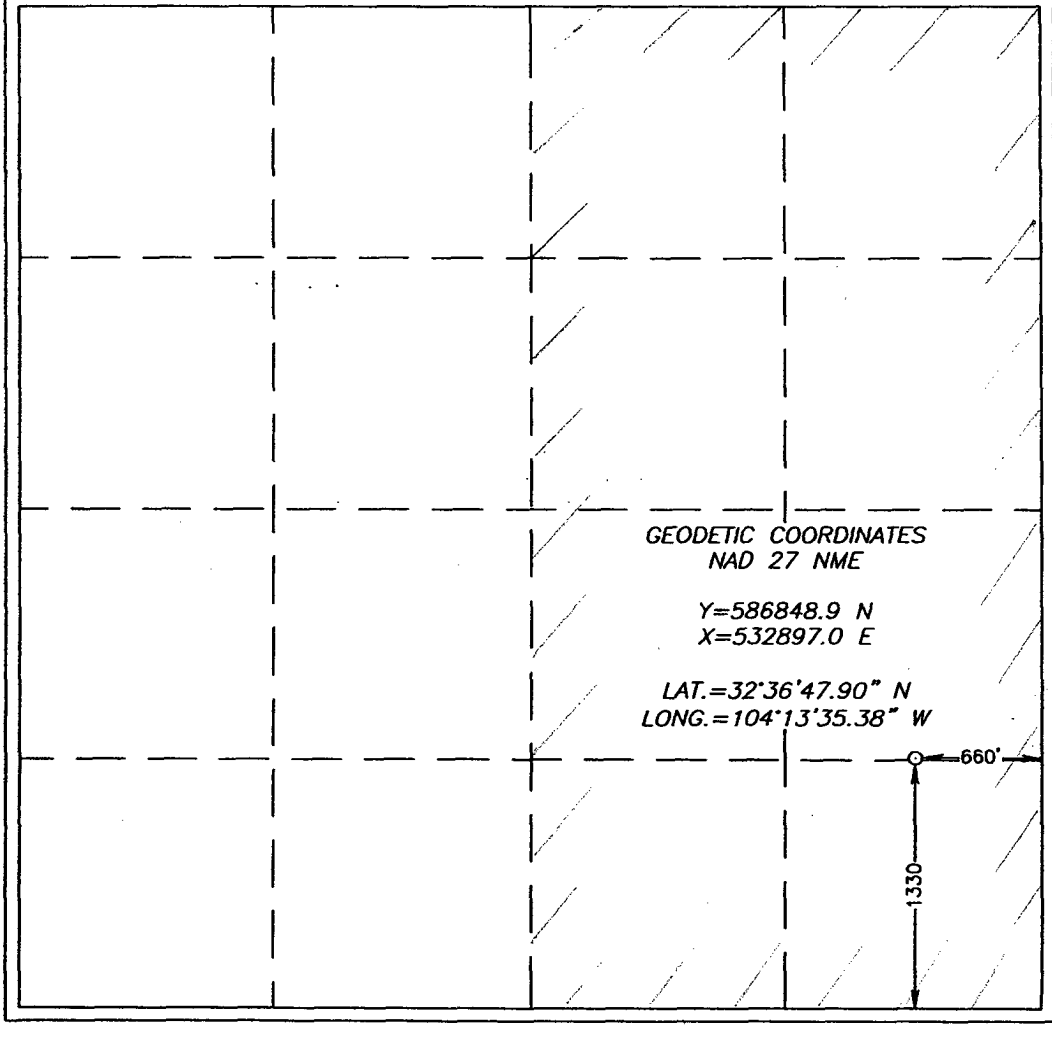
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	36	19-S	27-E		1330'	SOUTH	660'	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
329.1			

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



OPERATOR CERTIFICATION

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

Tom Golden
Signature

Tom Golden
Printed Name

Operations Manager
Title

6/15/04
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 supervison, and that the same is true and correct to the best of my belief.

MAY 11, 2004
Date Surveyed JR

Signature & Seal of Professional Surveyor
GARY L. EIDSON
NEW MEXICO
12641
REGISTERED PROFESSIONAL SURVEYOR
5/19/04
04.11.0571

Certificate No. GARY EIDSON 12641

Echo Production, Inc.

PO Box 1210 Graham, Texas 76450 (940) 549-3292 Fax: (940) 549-5162

June 15, 2004

RECEIVED

JUN 17 2004

OCD-ARTESIA

Bryan Arrant
Oil Conservation Division
1301 W. Grand
Artesia, New Mexico 88210

Re: Angell Ranch '36' State #1
1330' FSL & 660' FEL
Section 36 T19S R27E
Eddy County, NM

Enclosed is the data you requested on the Angell Ranch '36' State #1. The new C-101 form is being submitted, but a new C-102 is not available since the surveyor had used and certified a previous form. I have included the acreage on the C-102 and it was my understanding that you would then accept this form. The surveyor was contacted and will use the updated form on future wells.

Also enclosed are summaries of the mud program for the various portions of the drilling. Fresh water based mud will be utilized for the surface (0-400'), brine water for the intermediate (400-2600') and cut brine for the remainder.

H_2S Contingency Plan

Mud recaps, scout tickets and bit records were reviewed on twelve wells drilled and completed in the area of the subject well. From this data there are no abnormally pressured zones or any formations that encountered any H_2S.

As shown by the attached mud summaries, sufficient mud weights will be utilized to eliminate any flow from the well. A double ram type blowout preventer will be utilized during all drilling operations and will be tested when drilling out the surface casing and again when drilling out the intermediate casing. If any gas flow is encountered the preventer will be closed until additional mud can be displaced preventing any flow.

Due to the proximity of County Road 209 to the location H_2S detection and safety equipment will be utilized and all rig personnel will receive safety training by a qualified H_2S safety instructor as to the following:

A. Characteristics of H_2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems
D. Principle and operation of H_2S detectors
E. Evacuation procedure, routes and first aid
F. Proper use of air pack.

If any additional information is needed please call me at (940) 549-3292 or (800) 933-1323.

Sincerely,

Tom Golden

Tom Golden
Operations Manager

Echo Production * Angell Ranch "36" State # 1 * Sec-36, T-19-S, R-27-E, Eddy, NM

INTERVAL: 0 - 400	17.5" hole	1 days	13.375" csg	1 drill bits		
Product	**Function**	**Treatment**	**Unit Size**	**Usage**	**Unit Price**	**Total Price**
Bentonite	Viscosifier	10-12 ppb	100 #	35	$7.19	$251.65
Ground Paper	seepage and sweeps	1-3 sacks per 100 feet	40 #	20	$8.00	$160.00
Lime	pH additive, flocculant	1 sack per 15 sacks of bentonite	50 #	5	$4.32	$21.60
Plastic	Storage aid	Cover mud	1 roll	1	$48.75	$48.75
					Interval Total:	$482.00

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Solids - % by vol.
0' - 400'	8.6-9.4	32-34	N/C-25cc	9.0	3-8

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 200'	Quaternary	Sand, limestone, gypsum, conglomerates	Unconsolidated, heavy seepage, erosion
200' - 350'	Tansill	Limestone	Vugular, fractured, heavy seepage, lost circulation
350' - 400'	U. Yates	Sand w/red shale & anhydrite stringers	Casing seat

Interval Notes for 0 - 400

Drill surface with Fresh Water spud mud. Maintain viscosity as needed to clean the large diameter hole. Use small amounts of Lime to flocculate the Gel for better carrying capacity. Sweep the hole periodically with Ground Paper additions to control seepage and to enhance hole cleaning. If severe lost circulation is encountered, consider dry drilling to casing point running periodic hole sweeps.

Echo Production * Angell Ranch "36" State # 1 * Sec-36, T-19-S, R-27-E, Eddy, NM

INTERVAL: 400 - 2,600	12.25" hole	5 days	9.625" csg		1 drill bits	
Product	**Function**	**Treatment**	**Unit Size**	**Usage**	**Unit Price**	**Total Price**
Bentonite	Viscosifier	12-14 ppb in sweeps	100 #	20	$7.19	$143.80
Cedar Fiber/Fiber Plug	LCM, sealant	10-20 ppb in sweeps	40 #	20	$5.01	$100.20
Ground Paper	seepage and sweeps	1-3 sacks per 200 feet	40 #	40	$8.00	$320.00
Lime	pH additive	.5-.75 ppb	50 #	40	$4.32	$172.80
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant	10-20 ppb in sweeps	40 #	20	$8.45	$169.00
MF-55/VisPlus(non-ionic)	Flocculant	1 qt in 50 gal water every 4 hr.	5 gal.	3	$94.25	$282.75
				Interval Total:		$1,188.55

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
400' - 2,600'	10.0	28	N/C	10.0	186k

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
650' - 1,000'	Yates	Sand w/red shale & anhydrite stringers	
1,000' - 1,600'	Seven Rivers	Dolomite, w/red shale & anhydrite stringers	Seepage
1,600' - 1,900'	Queen	Sand	
1,900' - 2,200'	Grayburg	Sand w/red shale & anhydrite stringers	
2,200' - 2,600'	Goat Seep Reef	Limestone	

Interval Notes for 400 - 2,600

Drill out with Brine Water circulating reserve pit for solids control. Use small amounts of MF-55 to aid in solids removal. Use Lime additions to maintain pH. Periodically sweep the hole with Paper to control seepage and enhance hole cleaning. Should total loss of returns occur consider dry drilling to total depth sweeping the hole periodically with viscous (50-60) Bentonite pills mixed in Fresh Water with 10-20 ppb of fibrous LCM.

Echo Production * Angell Ranch "36" State # 1 * Sec-36, T-19-S, R-27-E, Eddy, NM

INTERVAL: 2,600 - 9,800	8.75" hole	25 days			3 drill bits	
Product	**Function**	**Treatment**	**Unit Size**	**Usage**	**Unit Price**	**Total Price**
Bentonite	Viscosifier	12-14 ppb in sweeps	100 #	80	$7.19	$575.20
Caustic Soda	pH additive	.25 ppb	50 #	70	$24.70	$1,729.00
Cedar Fiber/Fiber Plug	LCM, sealant	10-20 ppb in sweeps	40 #	30	$5.01	$150.30
Ground Paper	seepage and sweeps	1-3 sacks per 200 feet	40 #	70	$8.00	$560.00
Lime	pH additive	.5-.75 ppb	50 #	40	$4.32	$172.80
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant	10-20 ppb in sweeps	40 #	30	$8.45	$253.50
MF-55/VisPlus(non-ionic)	Flocculant	1 qt in 50 gal water every 4 hr.	5 gal.	8	$94.25	$754.00
					Interval Total:	$4,194.80

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
3,000' - 8,000'	8.6-9.3	28	N/C	10.0	4-90K
8,000' - 9,800'	9.3-10.0	28	N/C	10.0	90-186K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
2,600' - 3,000'	Goat Seep Reef	Limestone	
3,000' - 3,700'	Delaware	Sand	poss. gas kick
3,700' - 5,900'	Bone Spring		
5,900' - 7,050'	1st Bone Spring	Black limestone	
7,050' - 8,050'	2nd Bone Spring	Limestone	Deviation
8,050' - 8,400'	3rd Bone Spring	Sand	
8,400' - 9,150'	Wolfcamp	Shaly limestone	
9,150' - 9,800'	Cisco	Cherty limestone	Mud up

Interval Notes for 2,600 - 9,800

Drill out with Cut Brine Water circulating reserve pit for solids control. Use Ground Paper sweeps to aid in hole cleaning and add Lime for pH control down to 9,600' the switch to Caustic Soda additions. Add brine gradually to raise chlorides to 90k-150k ppm and the mud weight to 9.6 ppg prior to penetrating the Wolfcamp (+/-8,700'). Adjust the weight as necessary with sack salt should gas be encountered in the Wolfcamp/Strawn transition. 10.0 ppg is not uncommon. We suggest rigging up linear shaker & mud/gas separator prior to drilling the Wolfcamp-Penn section to minimize undesirable solids, excessive mud maintenance costs and complications associated with circulating out gas kicks in next interval.

Echo Production * Angell Ranch "36" State # 1 * Sec-36, T-19-S, R-27-E, Eddy, NM

INTERVAL: 9,800 - 11,200	8.75" hole	9 days	5.5" csg		3 drill bits	
Product	**Function**	**Treatment**	**Unit Size**	**Usage**	**Unit Price**	**Total Price**
Biocide (STC)	Biocide	1 gal./100 bbls.	5 gal.	30	$94.50	$2,835.00
Caustic Soda	pH additive	.25 ppb	50 #	30	$24.70	$741.00
Defoamer	Defoamer	If needed	5 gal.	10	$55.25	$552.50
Drispac/Poly Pac/StaFlo/Aquapac	Filtrate control, secondary viscosifier	.5-.75 ppb	50 #	15	$165.10	$2,476.50
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant	3-10 ppb in pills	40 #	20	$8.45	$169.00
Salt Gel	Viscosifier	12-14 ppb in sweeps	50 #	200	$7.05	$1,410.00
Soda Ash	Calcium remover	.5-.75 ppb	50 #	60	$9.10	$546.00
White Starch	Filtrate control	3-4 ppb	50 #	180	$20.15	$3,627.00
					Interval Total:	$12,357.00

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
9,800' - 10,400'	9.4-10.2	32-36	10cc	10.0	90k+
10,400' - 11,200'	9.4-10.2	32-36	6cc	10.0	90k+

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
9,800' - 9,950'	Strawn	Shaly limestone	Poss. gas kick
9,950' - 10,410'	Atoka	Shale	Poss. gas kick
10,410' - 10,765'	Morrow	Shaly calcareous sand	Water sensitive
10,765' - 10,950'	Morrow Clastics	Shale	
10,950' - 11,200'	Morrow Lime	Limestone	TD

Interval Notes for 9,800 - 11,200

Limit circulation to working pits at 9,800' and pre-treat the system with additions of STC (biocide) and mud up with Soda Ash/White Starch/Drispac for high enough viscosity to clean the hole, but low enough to maintain minimum solids content. Small amounts of Defoamer may be used to control foaming while mudding up and to aid in gas removal after trips. Keep filtrate low enough to minimize seepage, differential sticking and formation damage. Raise density with Brine, Salt, or Barite if needed to control gas. Utilize linear shaker to minimize undesirable solids & excessive mud maintenance costs. Continue Caustic Soda additions to maintain pH levels. Sweep hole every 6-10 connections (180-300') with 50 bbl pill containing Salt-gel/Maxi-seal to prevent and/or control seepage and/or lost circ in the permeable sands and fractured carbonates in the Wolfcamp/Strawn/Atoka series. Screen out sweeps with linear shaker as long as hole conditions are stable. Bypass solids control equipment if it becomes necessary to maintain LCM residual in mud system. Raise the viscosity of the entire system only if hole conditions dictate. Additions of XCD Polymer may be used to attain 34-36 viscosity for logs. Circulate and condition hole adequately for DST's, logs, and/or running casing.

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Echo Production, Inc. Telephone: (940) 549-3292 e-mail address: randaw@echoproduction.com
Address: PO Box 1210, Graham, TX 76450
Facility or well name: Angell Ranch '36' State API #: [ ] U/L or Qtr/Qtr I Sec 36 T 19S R 27E
County: Eddy Latitude 32° 36' 47.90" N Longitude 104° 13' 35.38"W NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

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Pit	Below-grade tank
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☐ Thickness 20 mil Clay ☐ Volume 12800 bbl	Volume: ____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	x	(20 points) (10 points) (0 points)	10
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	x	(20 points) (0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	x	(20 points) (10 points) (0 points)	0
	Ranking Score (Total Points)			10

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.
Date: 5/28/04
Printed Name/Title Tom Golden Signature Tom Golden

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approved
Date: JUN 9 2004
Printed Name/Title Field Rep II Signature