

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 12 2009

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007Bureau of Land Management
SUNDRY NOTICES AND REPORTS ON WELLS**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

SUBMIT IN TRIPLICATE- Other instructions on reverse side.		5. Lease Serial No. NMNM-114942
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator U. S. ENERCORP, LTD.		7. If Unit or CA/Agreement, Name and/or No. N/A
3a. Address P. O. BOX 17098, SAN ANTONIO, TX 78217	3b. Phone No. (include area code) 210 829 4888	8. Well Name and No. ARROYO ALMAGRE 30 #1
4. Location of Well (Footage, Sec., T, R, M, or Survey Description) SHL: 2605' FSL & 2400' FWL 30-24N-1E NMPM		9. API Well No. 30-039-30083
		10. Field and Pool, or Exploratory Area Puerto Chiquito Mancos, West (F9)
		11. County or Parish, State RIO ARRIBA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☒ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☒ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☒ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Propose to pull liner, set 70 sack cement whipstock plug from 5700' to 5500', and drill new lateral through the C sand.
Bottom hole location will be 990' FNL & 1000' FWL as in original APD.
See attachments for more details.

RCVD JUN 18 '09

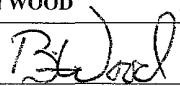
OIL CONS. DIV.

DIST. 3

cc: BLM, Rodriguez

Hold C104

for Directional Survey
and "As Drilled" plat

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) BRIAN WOOD (PHONE 505 466-8120)		Title CONSULTANT (FAX 505 466-9682)
Signature 	Date 06/04/2009	

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason	Title	Date JUN 16 2009
Conditions of approval, if any, are attached. Approval of this notice 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	Office	

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 page 2)

**NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT**

NMOCD

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30083	² Pool Code 50440	³ Pool Name WEST PUERTO CHIQUITO MANCOS
⁴ Property Code 36123	⁵ Property Name ALMAGRE ARROYO 30	⁶ Well Number 1
⁷ OGRID No. 240473	⁸ Operator Name U.S. ENERCORP, LTD.	⁹ Elevation 7212

¹⁰ Surface Location

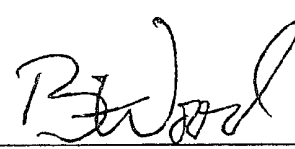
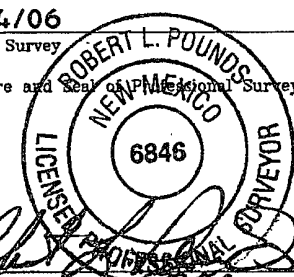
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	30	24 N	1 E		2605	SOUTH	2400	WEST	RIO ARRIBA

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
1	30	24 N	1 E		990	NORTH	1000	WEST	RA

¹² Dedicated Acres 636.39	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

¹⁶ N 89°24'47" E 5274.47' PROPOSED BHL OF LATERAL SECTION 30 2400' LAT. 36.281820° LONG. 106.876966° NAD 83 2605' N 0°31'13" W S 89°27'47" W 5254.26'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature BRIAN WOOD Printed Name CONSULTANT Title OCT. 9, 2006 Date
	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. 3/14/06 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number 6846

11/14/06

U. S. Enercorp, Ltd.
Almagre Arroyo 30 #1
SHL: 2605' FSL & 2400' FWL
Sec. 30, T. 24 N., R. 1 E.
Rio Arriba County, New Mexico

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Drilling Program

ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+7,212'
Pictured Cliffs	1,000'	1,012'	+6,212'
Point Lookout	3,600'	3,612'	+3,612'
Mancos Shale	3,760'	3,772'	+3,452'
Gallup Sandstone	4,500'	4,512'	+2,712'
Sanostee	5,500'	5,512'	+1,712'
Dakota	6,000'	6,012'	+1,212'
Total Depth	6,300'	6,312'	+912'
(Measured Total Depth = 7,768')			

NOTABLE ZONE

Will try to restore production in the C sand by shaking liner. If unsuccessful, will pull the liner, set whipstock plug, and drill a new lateral through the C sand.

PRESSURE CONTROL

Maximum expected bottom hole pressure will be $\approx 1,500$ psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. It is expected rig will use a 5,000 psi system (see PAGE 3).

All ram type blowout preventers and related well control equipment shall be tested with water to $\approx 70\%$ of the specified working pressure of the BOP stack assembly. A low pressure test at ≈ 250 psi should be performed in

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conjunction with the full pressure test or equal to well head ratings. The test procedures should include the upper and lower Kelly cock valves, Kelly, Kelly hose, stand pipe, safety valve and inside blowout preventer valve. This equipment will be tested when installed, before drilling out below the intermediate casing, and following any repairs that require disconnecting a pressure seal in the assembly.

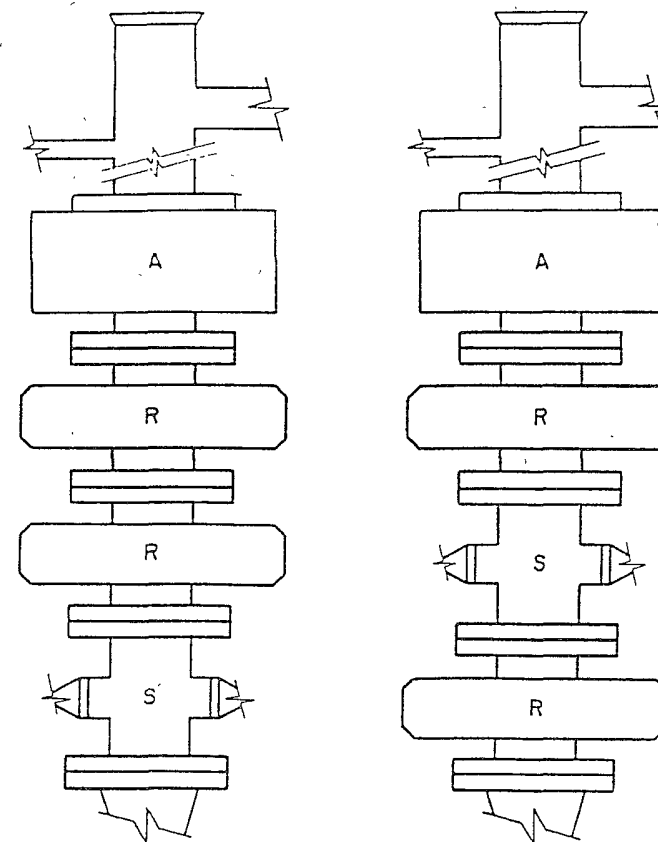
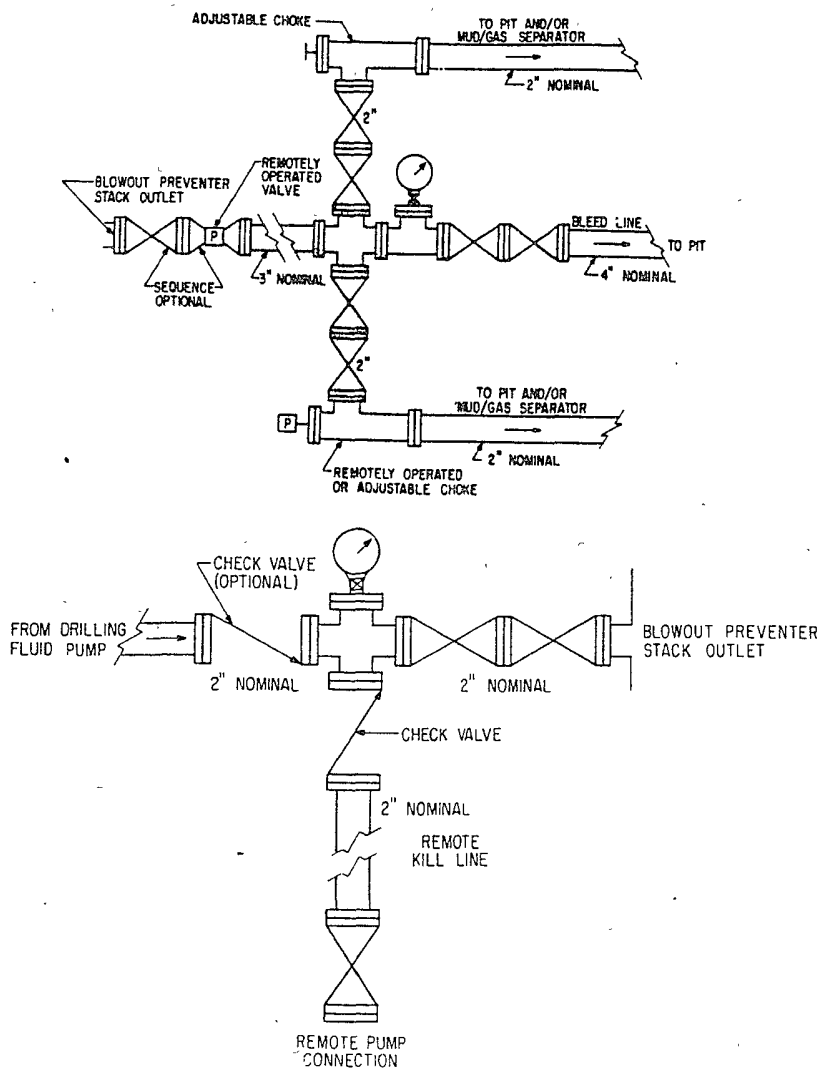
Ram type BOPs shall be actuated to test proper functioning once each trip. The annular preventer will be actuated on the drill pipe once each week. Each BOP test will be recorded on the daily drilling report.

A blowout prevention drill will be conducted weekly for each drill crew to ensure that all equipment is operational and that the crews are properly trained to carry out U. S. Enercorp well control procedure. Each crew BOP drill will be recorded on the daily drilling report.

Inside blowout preventers and a full opening safety valve in the opened position, will be positioned on the rig floor at all times. This equipment should fit each size of pipe in the drill string. The upper kelly cock valve will be installed below the swivel and should have the same inside diameter as the swivel or the kelly. The lower kelly cock valve will be positioned at the bottom of the kelly, full opening in design and be able to pass through the BOP stack.

The well control system must be tested each time the BOP equipment is tested. The system will be tested for leaks, wear, closing time and pressures. Test procedures:

- record pressures on control system
- turn off all pumps
- close annular preventer and pipe rams around test joint simultaneously
- record each preventer's closing time
- turn on all pumps
- open all valves



TYPICAL 5,000 psi WORKING PRESSURE BOP STACKS

A = Annular type blowout preventer
 R = Ram
 S = Drilling spool with side outlet connections for choke & kill lines

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RE-DRILL

- set four frac tanks & fill with 2% KCL water.
- MI & RU work over rig and equipment
- POH, LD rods and pump, NU Bop's, POH w/ 2-7/8" tubing
(inspect tubing after rig released)
- PU and GIH with spear, jars and sting into 4-1/2" liner below the hanger
- attempt to jar the liner free,
if successful POH & LD liner
- if the liner is stuck, then set up to cut liner
- RU wireline GIH and set 4-1/2" CIBP @ 5700'
- GIH w/ chemical cutter and cut 4-1/2 casing 10' above plug @ 5690'
- POH, LD 4-1/2" casing, and send in casing for inspection and storage
- GIH w/ 2-7/8" tubing to 5700', set a cement plug from 5700' to 5500'
- will cement plug with ≈ 70 sacks premium cement + 3% KCL + 0.1% retarder
 - weight = 16.5 pounds per gallon,
 - yield = 1.06 cubic feet per sack
 - excess = 20%
- POH to 5000' and pump 10 barrels fresh water down tubing
- POH with tubing & WOC for 24 hours
- GIH w/ 6-3/4" rock bit, test plug for hardness, dress cement for drilling
- RD & MO work over rig and equipment
- remove pumping unit, cap all flow lines below ground level

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PRODUCTION INTERVAL

- MI & RU drilling rig and equipment
size pump liners for 100-150 gpm
set steel tanks for cuttings
- NU Bop's and test 250 psi low/ 3000 psi high
- RU Weatherford air package ($\geq 2,500$ SCF)
 - McGuire's skimmer system, gas buster, centrifuge, & flare lines
- RU mud loggers & log production hole
- PU 6-3/4" PDC, Scientific directional equipment, & and jet subs
- GIH to KOP at 5565' (TVD) & directionally drill
- maintain KCL fluid system clean of solids
run flow line cleaner and centrifuge 24 hours a day
- make wiper trips every 36-48 hours or as needed
- at TD (7768'), circulate hole clean
 - make wiper trip to intermediate shoe
 - once back on bottom, circulate hole clean with air mist
 - strap out of hole
- RU casing crew and run 5-1/2" 15.5# J-55 flush, pre perforated (slotted) liner (burst = 4810 psi & collapse = 4040 psi) through production interval
 - use plain joint to cover shale areas
- top off string with 5-1/2" casing
 - run mechanical liner top hanger or liner releasing tool with reentry guide
 - set liner top at 4550'
- POH, LD drill pipe & setting tool, ND Bop's, NU dry hole tree
- RD & MO drilling rig and equipment

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COMPLETION

- MI & RU work over rig and equipment
- PU & GIH internally testing to 5000 psi. 2-7/8" bull plug, one joint 2-7/8" tubing, one joint 2-7/8" mud anchor, SN, tubing anchor and 2-7/8" tubing to set SN at +/- 5500', 2-7/8" tubing to surface
- ND BOP, NU 7-1/16" x 2-7/8" well head, set tubing anchor w/ 12-15K tension
- PU & GIH w/ insert pump (designed for 200 BPD rate) w/ 3/4" & 7/8' rods
- install pump and resume production

EVALUATION

- RU mud logging unit at $\approx$ 2,000' with following services
 - 24 hour monitoring and surveillance
 - 1" log over entire interval
 - 5" log through show intervals
 - mud log show reports
 - hot wire gas unit monitoring
 - gas chromatograph analysis
 - sample analysis and description
 - pore-pressure determination
 - drill rate
 - mud pump strokes/lag

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SURFACE USE

No land will be disturbed outside the perimeter of the existing well site. Liquids, cuttings, and mud will be hauled to T-n-T's NMOCD approved disposal site.

U.S. Enercorp, Ltd

Rio Arriba, NM (NAD27 NM-C)

Almagre Arroyo 30 #1-ST2

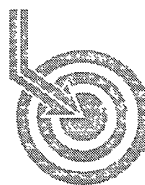
Almagre Arroyo 30 #1-ST2

OH

Plan: Plan #2-ST2 - 6-3/4" Hole

Standard Planning Report

05 June, 2009



Scientific Drilling

Scientific Drilling

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Almagree Arroyo 30 #1-ST2
Company:	U.S. Enercorp, Ltd	TVD Reference:	WELL @ 7212.00ft (Rig ?)
Project:	Rio Arriba, NM (NAD27 NM-C)	MD Reference:	WELL @ 7212.00ft (Rig ?)
Site:	Almagre Arroyo 30 #1-ST2	North Reference:	Grid
Well:	Almagre Arroyo 30 #1-ST2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2-ST2 - 6-3/4" Hole		

Project:	Rio Arriba, NM (NAD27 NM-C)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site:	Almagre Arroyo 30 #1-ST2		
Site Position:		Northing:	1,922,383.80 ft
From:	Map	Easting:	315,386.64 ft
Position Uncertainty:	0.00 ft	Slot Radius:	0"
		Latitude:	36° 16' 54.491 N
		Longitude:	106° 52' 34.931 W
		Grid Convergence:	-0.37 °

Well:	Almagre Arroyo 30 #1-ST2					
Well Position	+N/-S	0.00 ft	Northing:	1,922,383.80 ft	Latitude:	36° 16' 54.491 N
	+E/-W	0.00 ft	Easting:	315,386.64 ft	Longitude:	106° 52' 34.931 W
Position Uncertainty	0.00 ft	Wellhead Elevation:		Ground Level:	7,212.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/06/05	9 69	63.30	50,813

Design:	Plan #2-ST2 - 6-3/4" Hole			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	5,670.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)		(°)
	0.00	0.00	0.00	320.19

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
5,670.00	46.06	321.30	5,612.05	86.65	-60.33	0.00	0.00	0.00	0.00	
5,789.23	34.74	321.30	5,702.71	146.87	-108.56	9.50	-9.50	0.00	179.99	
5,812.26	34.74	321.30	5,721.63	157.11	-116.77	0.00	0.00	0.00	0.00	
6,176.64	70.23	319.84	5,940.00	376.21	-298.10	9.75	9.74	-0.40	-2.38	TG2-AA 30#1ST2
6,516.68	70.23	319.84	6,055.00	620.76	-504.50	0.00	0.00	0.00	0.00	TG3-AA 30#1ST2
6,643.20	76.56	319.75	6,091.13	713.30	-582.73	5.00	5.00	-0.07	-0.79	
6,724.36	76.56	319.75	6,110.00	773.55	-633.74	0.00	0.00	0.00	0.00	TG4-AA 30#1ST2
6,859.07	83.29	319.78	6,133.55	874.74	-719.36	5.00	5.00	0.02	0.28	
7,128.39	83.29	319.78	6,165.00	1,078.98	-892.08	0.00	0.00	0.00	0.00	TG5-AA 30#1ST2
7,191.56	80.14	319.77	6,174.10	1,126.70	-932.45	5.00	-5.00	-0.01	-179.90	
7,926.42	80.14	319.77	6,300.00	1,679.47	-1,400.00	0.00	0.00	0.00	0.00	PBHL-AA 30#1ST2

Scientific Drilling

Planning Report



Database: EDM 5000.1 Single User Db
 Company: U.S. Enercorp, Ltd
 Project: Rio Arriba, NM (NAD27 NM-C)
 Site: Almagre Arroyo 30 #1-ST2
 Well: Almagre Arroyo 30 #1-ST2
 Wellbore: OH
 Design: Plan #2-ST2 - 6-3/4" Hole

Local Co-ordinate Reference: Site Almagre Arroyo 30 #1-ST2
 TVD Reference: WELL @ 7212.00ft (Rig ?)
 MD Reference: WELL @ 7212.00ft (Rig ?)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,670.00	46.06	321.30	5,612.05	86.65	-60.33	105.19	0.00	0.00	0.00
KOP Start 9.50°/100'									
5,700.00	43.21	321.30	5,633.40	103.10	-73.50	126.26	9.50	-9.50	0.00
5,789.23	34.74	321.30	5,702.71	146.87	-108.56	182.33	9.50	-9.50	0.00
EOC hold 34.74°									
5,800.00	34.74	321.30	5,711.55	151.66	-112.40	188.46	0.00	0.00	0.00
5,812.26	34.74	321.30	5,721.63	157.11	-116.77	195.44	0.00	0.00	0.00
Start 9.75°/100'									
5,900.00	43.28	320.79	5,789.74	200.00	-151.47	250.61	9.75	9.74	-0.59
TG1-AA 30#1ST2									
6,000.00	53.02	320.37	5,856.38	257.46	-198.74	325.02	9.75	9.74	-0.42
6,100.00	62.77	320.05	5,909.46	322.46	-252.90	409.62	9.75	9.74	-0.32
6,176.64	70.23	319.84	5,940.00	376.21	-298.10	479.85	9.75	9.74	-0.27
EOC hold 70.23° - TG2-AA 30#1ST2									
6,200.00	70.23	319.84	5,947.90	393.02	-312.28	501.84	0.00	0.00	0.00
6,300.00	70.23	319.84	5,981.72	464.93	-372.98	595.94	0.00	0.00	0.00
6,400.00	70.23	319.84	6,015.54	536.85	-433.67	690.05	0.00	0.00	0.00
6,500.00	70.23	319.84	6,049.36	608.77	-494.37	784.15	0.00	0.00	0.00
6,516.68	70.23	319.84	6,055.00	620.76	-504.50	799.85	0.00	0.00	0.00
Start 5.00°/100'									
6,516.77	70.23	319.84	6,055.03	620.83	-504.55	799.94	0.00	0.00	0.00
TG3-AA 30#1ST2									
6,600.00	74.40	319.78	6,080.30	681.39	-555.72	879.22	5.01	5.00	-0.07
6,643.20	76.56	319.75	6,091.13	713.30	-582.73	921.03	5.00	5.00	-0.07
EOC hold 76.56°									
6,700.00	76.56	319.75	6,104.34	755.47	-618.43	976.27	0.00	0.00	0.00
6,724.36	76.56	319.75	6,110.00	773.55	-633.74	999.96	0.00	0.00	0.00
Start 5.00°/100' - TG4-AA 30#1ST2									
6,800.00	80.34	319.77	6,125.14	830.11	-681.61	1,074.06	5.00	5.00	0.02
6,859.07	83.29	319.78	6,133.55	874.74	-719.36	1,132.52	5.00	5.00	0.02
EOC hold 83.29°									
6,900.00	83.29	319.78	6,138.33	905.78	-745.61	1,173.17	0.00	0.00	0.00
7,000.00	83.29	319.78	6,150.01	981.62	-809.74	1,272.48	0.00	0.00	0.00
7,100.00	83.29	319.78	6,161.69	1,057.45	-873.87	1,371.79	0.00	0.00	0.00
7,128.39	83.29	319.78	6,165.00	1,078.98	-892.08	1,399.99	0.00	0.00	0.00
Start 5.00°/100' - TG5-AA 30#1ST2									
7,191.56	80.14	319.77	6,174.10	1,126.70	-932.45	1,462.49	5.00	-5.00	-0.01
EOC hold 80.14°									
7,200.00	80.14	319.77	6,175.55	1,133.05	-937.81	1,470.81	0.00	0.00	0.00
7,300.00	80.14	319.77	6,192.68	1,208.27	-1,001.44	1,569.33	0.00	0.00	0.00
7,400.00	80.14	319.77	6,209.81	1,283.49	-1,065.06	1,667.84	0.00	0.00	0.00
7,500.00	80.14	319.77	6,226.95	1,358.71	-1,128.69	1,766.36	0.00	0.00	0.00
7,600.00	80.14	319.77	6,244.08	1,433.94	-1,192.32	1,864.88	0.00	0.00	0.00
7,700.00	80.14	319.77	6,261.21	1,509.16	-1,255.94	1,963.40	0.00	0.00	0.00
7,800.00	80.14	319.77	6,278.34	1,584.38	-1,319.57	2,061.92	0.00	0.00	0.00
7,900.00	80.14	319.77	6,295.47	1,659.60	-1,383.19	2,160.44	0.00	0.00	0.00
7,926.42	80.14	319.77	6,300.00	1,679.47	-1,400.00	2,186.46	0.00	0.00	0.00
PBHL-AA 30#1ST2									

Scientific Drilling

Planning Report



Database: EDM 5000.1 Single User Db
Company: U.S. Enercorp, Ltd
Project: Rio Arriba, NM (NAD27 NM-C)
Site: Almagre Arroyo 30 #1-ST2
Well: Almagre Arroyo 30 #1-ST2
Wellbore: OH
Design: Plan #2-ST2 - 6-3/4" Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Almagree Arroyo 30 #1-ST2
 WELL @ 7212 00ft (Rig ?)
 WELL @ 7212.00ft (Rig ?)
 Grid
 Minimum Curvature

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TG1-AA 30#1ST2 - plan misses target center by 71 53ft at 5900 00ft MD (5789 74 TVD, 200 00 N, -151.47 E) - Point	0 00	360.00	5,840 00	158.88	-121.48	1,922,542.68	315,265.16	36° 16' 56.054 N	106° 52' 36.428 W
TG2-AA 30#1ST2 - plan hits target center - Point	0.00	360.00	5,940 00	376.21	-298.10	1,922,760.01	315,088 54	36° 16' 58 192 N	106° 52' 38.602 W
TG3-AA 30#1ST2 - plan misses target center by 0 55ft at 6516.77ft MD (6055.03 TVD, 620.83 N, -504.55 E) - Point	0.00	360.00	6,055.00	620.48	-504 98	1,923,004.28	314,881.66	36° 17' 0 594 N	106° 52' 41.148 W
TG4-AA 30#1ST2 - plan hits target center - Point	0.00	360.00	6,110.00	773 55	-633.74	1,923,157 35	314,752.90	36° 17' 2.100 N	106° 52' 42.733 W
TG5-AA 30#1ST2 - plan hits target center - Point	0.00	360 00	6,165.00	1,078.98	-892.08	1,923,462.77	314,494.56	36° 17' 5.104 N	106° 52' 45.913 W
PBHL-AA 30#1ST2 - plan hits target center - Point	0.00	360.00	6,300.00	1,679.47	-1,400.00	1,924,063 27	313,986.64	36° 17' 11 009 N	106° 52' 52 164 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,670.00	5,612.05	86.65	-60.33	KOP Start 9.50°/100'
5,789 23	5,702 71	146.87	-108 56	EOC hold 34 74°
5,812.26	5,721 63	157.11	-116 77	Start 9.75°/100'
6,176.64	5,940 00	376.21	-298.10	EOC hold 70 23°
6,516 68	6,055 00	620.76	-504.50	Start 5.00°/100'
6,643.20	6,091.13	713 30	-582.73	EOC hold 76.56°
6,724.36	6,110.00	773.55	-633.74	Start 5.00°/100'
6,859.07	6,133.55	874 74	-719.36	EOC hold 83.29°
7,128.39	6,165.00	1,078.98	-892.08	Start 5.00°/100'
7,191.56	6,174.10	1,126.70	-932.45	EOC hold 80 14°

U.S. Enercorp, Ltd

Scientific Drilling for U.S. Enercorp, Ltd
Site: Rio Arriba, NM (NAD27 NM-C)
Well: Almagre Arroyo 30 #1-ST2
Wellbore: OH
Design: Plan #2-ST2 - 6-3/4" Hole



SECTION DETAILS

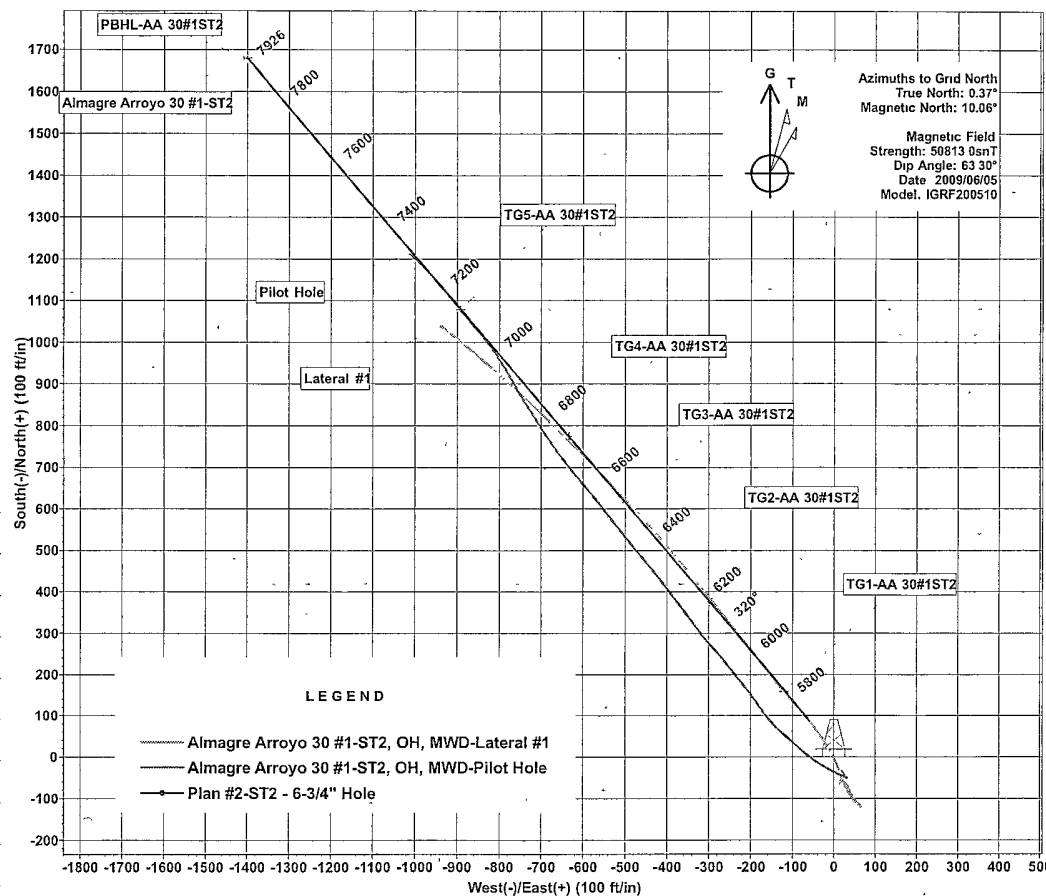
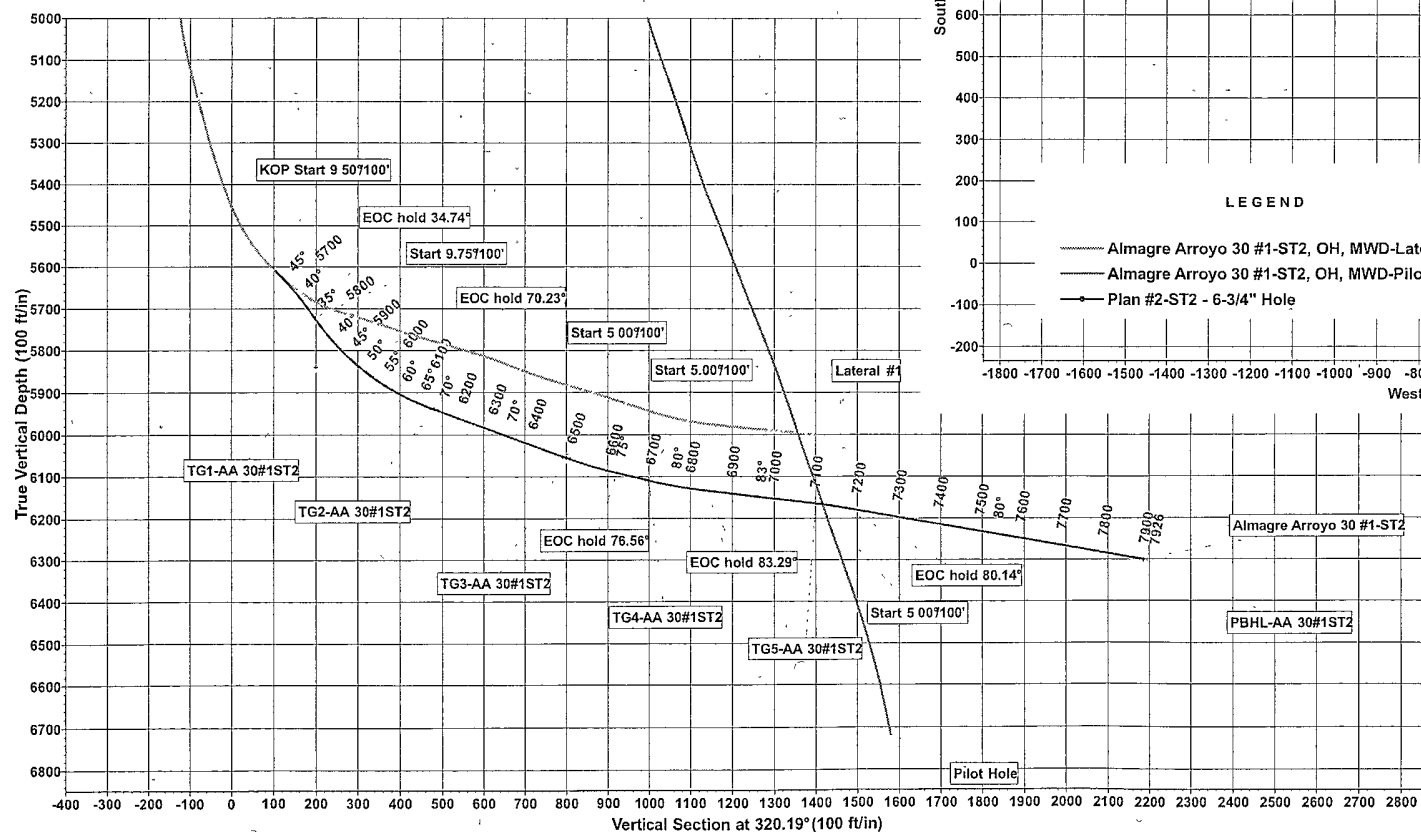
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	5670.00	46.06	321.30	5612.05	86.65	-60.33	0.00	0.00	105.19	
2	5789.23	34.74	321.30	5702.71	146.87	-108.56	9.50	179.99	182.33	
3	5812.26	34.74	321.30	5721.63	157.11	-116.77	0.00	0.00	195.44	
4	6176.64	70.23	319.84	5940.00	376.21	-298.10	9.75	-2.38	479.85	TG2-AA 30#1ST2
5	6516.68	70.23	319.84	6055.00	620.76	-504.50	0.00	0.00	799.85	TG3-AA 30#1ST2
6	6643.19	76.56	319.75	6091.13	713.30	-582.73	5.00	-0.79	921.03	
7	6724.36	76.56	319.75	6110.00	773.55	-633.74	0.00	0.00	999.96	TG4-AA 30#1ST2
8	6859.07	83.29	319.78	6133.55	874.74	-719.36	5.00	0.28	1132.52	
9	7128.39	83.29	319.78	6165.00	1078.98	-892.08	0.00	0.00	1399.99	TG5-AA 30#1ST2
10	7191.56	80.14	319.77	6174.10	1126.70	-932.45	5.00	-179.90	1462.49	
11	7926.42	80.14	319.77	6300.00	1679.47	-1400.00	0.00	0.00	2186.46	PBHL-AA 30#1ST2

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TG1-AA 30#1ST2	5840.00	158.88	-121.48	1922542.68	315265.17	36°16' 56.054 N 106°52' 36.428 W		Point
TG2-AA 30#1ST2	5940.00	376.21	-298.10	1922760.01	315088.54	36°16' 58.192 N 106°52' 38.602 W		Point
TG3-AA 30#1ST2	6055.00	620.48	-504.98	1923004.27	314881.66	36°17' 0.594 N 106°52' 41.148 W		Point
TG4-AA 30#1ST2	6110.00	773.55	-633.74	1923157.34	314752.91	36°17' 2.100 N 106°52' 42.733 W		Point
TG5-AA 30#1ST2	6165.00	1078.98	-892.08	1923462.77	314494.56	36°17' 5.104 N 106°52' 45.913 W		Point
PBHL-AA 30#1ST2	6300.00	1679.47	-1400.00	1924063.26	313986.64	36°17' 11.009 N 106°52' 52.164 W		Point

WELL DETAILS: Almagre Arroyo 30 #1-ST2

+N/-S	+E/-W	Ground Level:	7212.00
0.00	0.00	Northing	1922383.79
		Easting	315386.64
		Latitude	36°16' 54.491 N
		Longitude	106°52' 34.931 W
		Slot	



AZIMUTH CORRECTIONS
ALL AZIMUTHS MUST BE CORRECTED TO GRID
GRID CORRECTIONS MUST BE APPLIED BEFORE PLOTTING
To convert a Magnetic Direction to a Grid Direction, Add 10.06°
To convert a True Direction to a Grid Direction, Add 0.37°

PROJECT DETAILS: Rio Arriba, NM (NAD27 NM-C)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico Central 3002
System Datum: Mean Sea Level

Plan #2-ST2 - 6-3/4" Hole (Almagre Arroyo 30 #1-ST2/OH)

Created By: Julio Pina Date: 05-Jun-09
Checked: _____ Date: _____
Reviewed: _____ Date: _____