HOBBS OCD

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCT 30 2014

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

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 page 2.*

1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NM-92199_VB 2228
	6. If Indian, Allottee or Tribe Name
	7. If Unit of CA/Agreement, Name and/or No.
	8. Well Name and No. West Copperline 29 Fed/State Com # 4H
2. Name of Operator Caza Operating, LLC	9. API Well No. 30-025-41802
3a. Address 200 North Loraine, Suite 1550, Midland, Texas 79701 3b. Phone No. *(include area code)* 432 682 7424	10. Field and Pool or Exploratory Area Antelope Ridge; Bone Spring, West
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* 150 FNL & 660 FWL, Sec 29, T-23-S, R-34-E	11. County or Parish, State Lea

12. CHECK THE 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
	☑ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ 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 recomplete 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Caza Operating,LLC has decided to change the existing approved APD's objective from the 2nd Bone Spring formation at ± 10,560 ft to the 3rd Bone Spring formation ± 11,376 ft TVD. Attached is the revised Casing program, revised cement program & the revised directional plan. We do not plan on drilling a pilot hole. Mud weights & previously submitted casing strings will remain the same.

14. I hereby certify that the foregoing is true and correct Name *(Printed/Typed)* Richard L. Wright	Title Operations Manager
Signature Richard L Wright	Date 05/06/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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)

OCT 30 2014

Well name: **West Copperline 29 Fed/State Com #4H**

Operator: **Caza Operating, LLC**

String type: **Production Casing: Frac**

Design parameters:			Minimum design factors:		Environment:		
Collapse			**Collapse:**		H2S considered?	No	
Mud weight:	10.00	ppg	DF	1.200	Surface temperature:	75.00	°F
Design is based on evacuated pipe.					Bottom hole temperature:	164	°F
					Temperature gradient:	0.78	°F/100ft
					Minimum section length:	1,500	ft
			Burst:		Minimum Drift:	4.625	in
			DF	1.20	Cement top:	4,473	ft
Burst							
Max anticipated surface pressure:	9,165.74	psi					
Internal gradient:	0.14	psi/ft	**Tension:**		Directional Info - Build & Hold		
Calculated BHP	10,756.12	psi	8 Rd STC	1.80	(J) Kick-off point	10900	ft
			8 Rd LTC	1.80	(J) Departure at shoe:	4800	ft
Annular backup:	1.00	ppg	Buttress:	1.60	(J) Maximum dogleg:	12	°/100ft
			Premium:	1.50	(J) Inclination at shoe:	90.02	°
			Body yield:	1.60	(B)		

Tension is based on buoyed weight.
Neutral Pt: 9,653.86 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)
1	15973	5.5	20.00	HCP-110	CDC-HTQ	11376	15973	4.653

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5910	12200	2.064	10165	12640	1.24	193.1	641.1	3.32 B

Wright — Date: May 6,2014 — Midland, Texas

Remarks:

Collapse is based on a vertical depth of 11376 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tesile load which is added to the axial load.

Engineering responsibility for use of this design will be that of the purchaser.

Caza Petroleum

Copperline 29 State Com #4H "Cement Program" NW/NW_Section 29, T23S, R34E, Lea County, New Mexico. 3rd Bone Spring

Below is the well cement requirements for the West Copperline 29 Fed # 4H

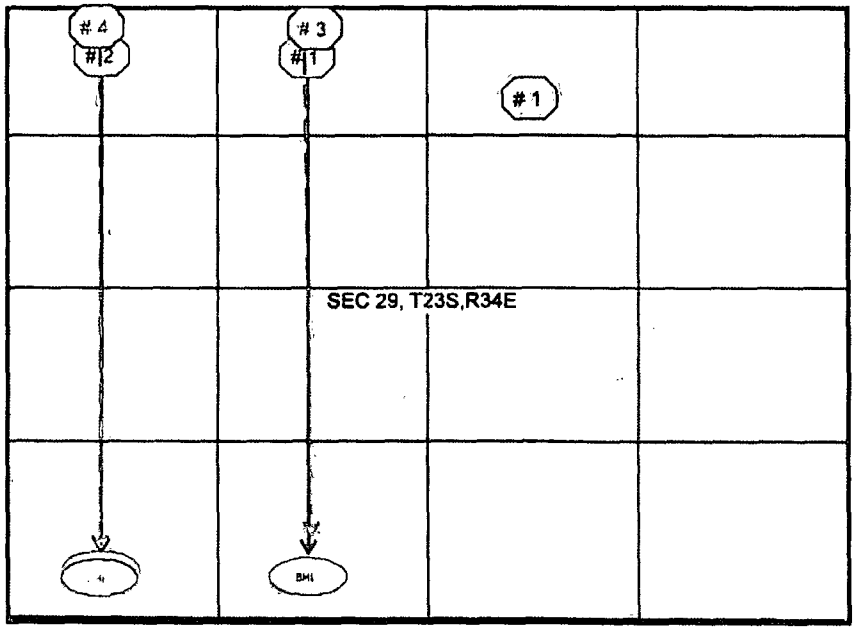
1. **Production Hole depth= 15,970 ft.** "11,376" TVD. **TOC @ 4500 ft** w/ 50% W/O
   Production Hole = 8.75inch to 11600' "End of Curve".
   Lateral = 11600-15,970' MD.

   Production Hole Casing = 5-1/2 inch 20# P-110 CDC HTQ
   Hardware Needed = 24 spring Centralizers
   47 Rigid Centralizers for Lateral. (1 every other Jt)
   Float Collar (1 jt up)
   Float Shoe
   TOC calculated to 4500 ft w/ 50% Washout open hole

   Engineering Data "Production":
   585 ft 9-5/8" 40# X 5-1/2" Csg= 585' X .2607 cu ft / ft = **153 cu ft.**
   10,885 ft 8.75 inch open hole x 5-1/2"20 # casing = 10,885' X .2526 x 1.5 excess = **4124 cu ft**
   44 ft 5.5" 20# casing volume= .1245 X 44 ft = **5 cu ft**
   Total Cement volume required = 4398 cu ft.
   Lead Slurry (11,600-4,500')= 2742 cu ft 65/35 Poz/"H"mixed @12.6 ppg w/yield 1.93 cu ft/sk 1 lb/sk Kol Seal+ retarder **for 6hr pump time = (1421 sks)**
   Tail Slurry (15,970-11,600')= 1656 cu ft "H" SoluCem mixed 15.0 ppg w/ yield of 2.61 cu ft/sk w/ fluid loss control + Defoamer "Acid soluble" **for 6 hr pump time= 634 sks**

West Copperline 29 State #4H Horizontal

Sec 29, (NW/NW)_T-23-S, R-34-E, Lea County, New Mexico



Well Name	Surface Location	Depth and Strata	Target TD	Bottom Hole Location	
W.Copperline 29 St # 4H	150 FNL & 660 FWL	TD = 11,630 Wolfcamp Hrz	15210 MD	330 FSL & 1980 FWL	± 11,630 T
W.Copperline 29 St # 3H	150 FNL & 1980 FWL	TD = 11,630 Wolfcamp Hrz	15210 MD	330 FSL & 1980 FWL	± 11,630 T
W.Copperline 29 St # 2H	330 FNL & 660 FWL	TD = 11,480 3rd Bone Sprgs Hrz	15880 MD	330 FSL & 660 FWL	± 11,480 T
W.Copperline 29 St # 1H	330 FNL & 1980 FWL	TD = 11,480 3rd Bone Sprgs Hrz	15880 MD	330 FSL & 1980 FWL	± 11,480 T
Antelbellum Unit #2	990 FNL & 1980 FEL	TD= 10860-9532', B. Sprgs Vert	14,318 Penn	Same	

West Copperline 29 State # 4H
Caza Operating, LLC
Lea County, New Mexico

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

6000	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

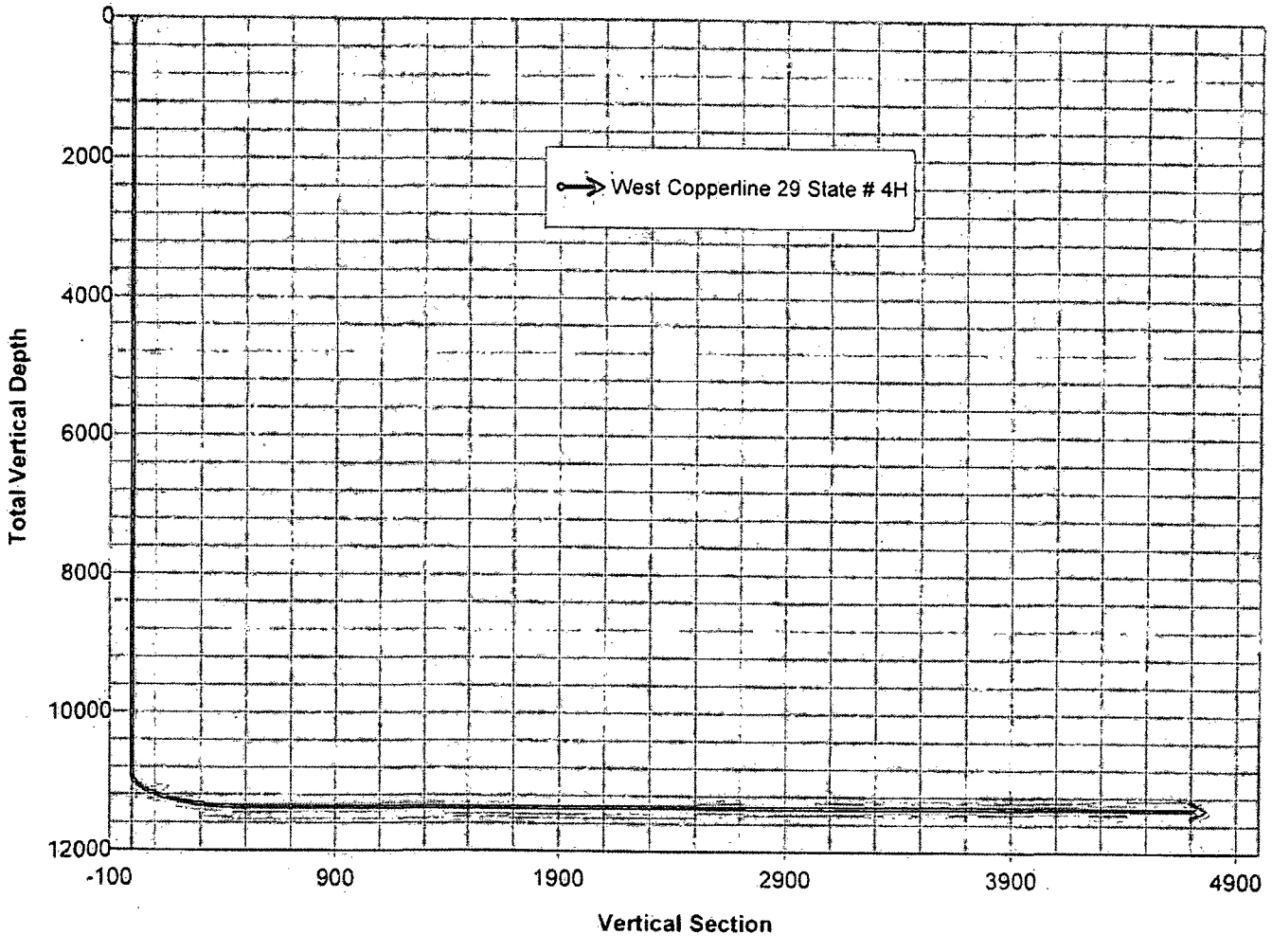
DISTANCE TABLE

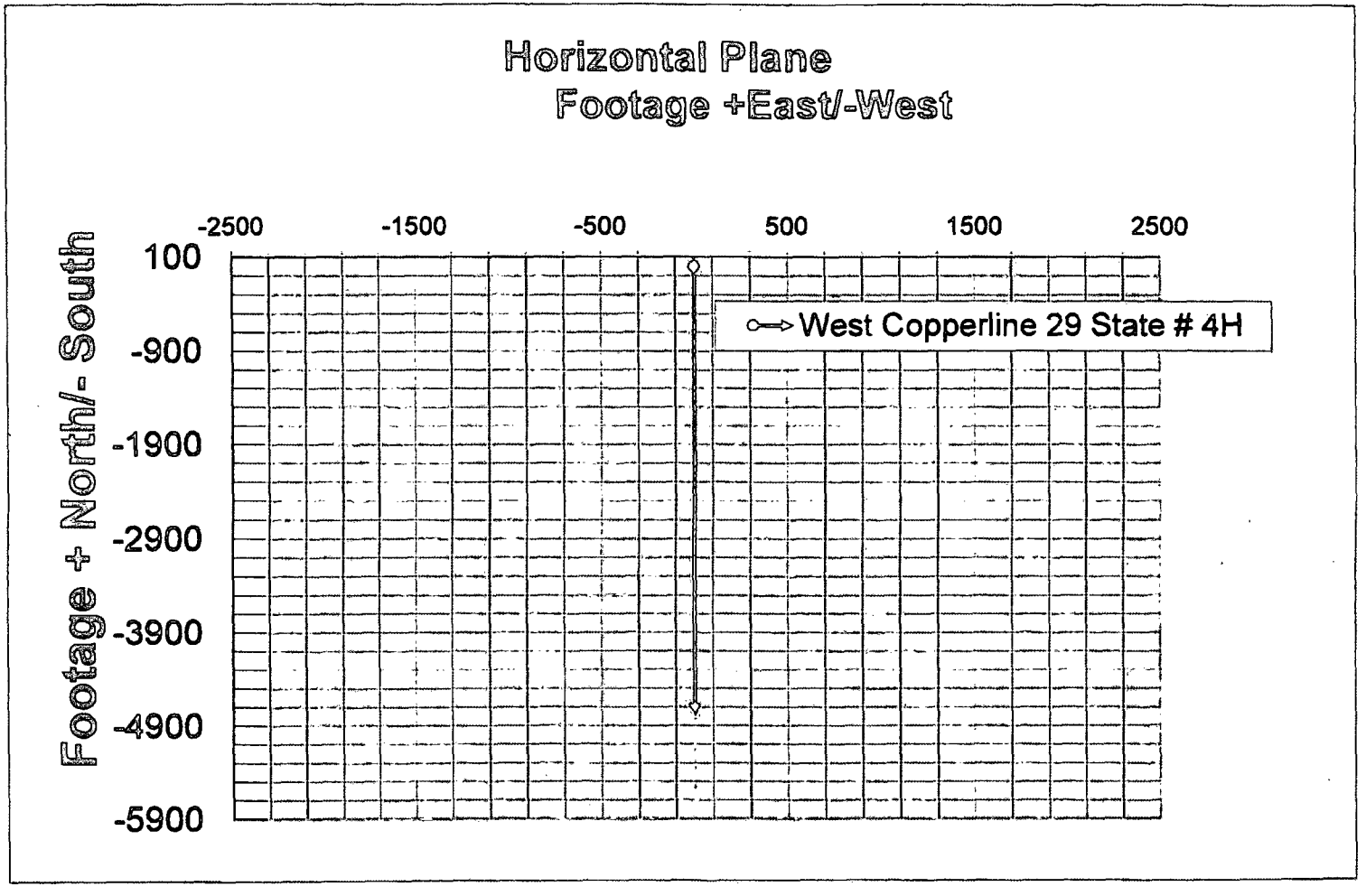
STATION A	STATION B
400.00	600.00
300.00	400.00
100.00	300.00
3 D DISTANCE BETWEEN STATION A AND STATION B	300.00 ft
Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	10899.00	10899.00	0.00	0.00	-
2	100	12	180	10999.00	10998.27	-10.43	0.00	12.00
3	100	24	180	11099.00	11093.20	-41.28	0.00	12.00
4	100	36	180	11199.00	11179.65	-91.19	0.00	12.00
5	100	48	180	11299.00	11253.83	-157.98	0.00	12.00
6	100	60	180	11399.00	11312.50	-238.73	0.00	12.00
7	100	72	180	11499.00	11353.10	-329.92	0.00	12.00
8	100	84	180	11599.00	11373.85	-427.56	0.00	12.00
9	50	90	180	11649.00	11376.46	-477.46	0.00	12.00
10	100	90	180	11749.00	11376.46	-577.46	0.00	0.00
11	100	90	180	11849.00	11376.46	-677.46	0.00	0.00
12	100	90	180	11949.00	11376.46	-777.46	0.00	0.00
13	100	90	180	12049.00	11376.46	-877.46	0.00	0.00
14	100	90	180	12149.00	11376.46	-977.46	0.00	0.00
15	100	90	180	12249.00	11376.46	-1077.46	0.00	0.00
16	100	90	180	12349.00	11376.46	-1177.46	0.00	0.00
17	100	90	180	12449.00	11376.46	-1277.46	0.00	0.00
18	100	90	180	12549.00	11376.46	-1377.46	0.00	0.00
19	100	90	180	12649.00	11376.46	-1477.46	0.00	0.00
20	100	90	180	12749.00	11376.46	-1577.46	0.00	0.00
21	100	90	180	12849.00	11376.46	-1677.46	0.00	0.00
22	100	90	180	12949.00	11376.46	-1777.46	0.00	0.00
23	100	90	180	13049.00	11376.46	-1877.46	0.00	0.00
24	100	90	180	13149.00	11376.46	-1977.46	0.00	0.00
25	100	90	180	13249.00	11376.46	-2077.46	0.00	0.00
26	100	90	180	13349.00	11376.46	-2177.46	0.00	0.00
27	100	90	180	13449.00	11376.46	-2277.46	0.00	0.00
28	100	90	180	13549.00	11376.46	-2377.46	0.00	0.00
29	100	90	180	13649.00	11376.46	-2477.46	0.00	0.00
30	100	90	180	13749.00	11376.46	-2577.46	0.00	0.00
31	100	90	180	13849.00	11376.46	-2677.46	0.00	0.00
32	100	90	180	13949.00	11376.46	-2777.46	0.00	0.00
33	100	90	180	14049.00	11376.46	-2877.46	0.00	0.00
34	100	90	180	14149.00	11376.46	-2977.46	0.00	0.00
35	100	90	180	14249.00	11376.46	-3077.46	0.00	0.00
36	100	90	180	14349.00	11376.46	-3177.46	0.00	0.00
37	100	90	180	14449.00	11376.46	-3277.46	0.00	0.00
38	100	90	180	14549.00	11376.46	-3377.46	0.00	0.00
39	100	90	180	14649.00	11376.46	-3477.46	0.00	0.00
40	100	90	180	14749.00	11376.46	-3577.46	0.00	0.00
41	100	90	180	14849.00	11376.46	-3677.46	0.00	0.00
42	100	90	180	14949.00	11376.46	-3777.46	0.00	0.00
43	100	90	180	15049.00	11376.46	-3877.46	0.00	0.00
44	100	90	180	15149.00	11376.46	-3977.46	0.00	0.00
45	100	90	180	15249.00	11376.46	-4077.46	0.00	0.00
46	100	90	180	15349.00	11376.46	-4177.46	0.00	0.00
47	100	90	180	15449.00	11376.46	-4277.46	0.00	0.00
48	100	90	180	15549.00	11376.46	-4377.46	0.00	0.00
49	100	90	180	15649.00	11376.46	-4477.46	0.00	0.00
50	100	90	180	15749.00	11376.46	-4577.46	0.00	0.00
51	100	90	180	15849.00	11376.46	-4677.46	0.00	0.00
52	100	90	180	15949.00	11376.46	-4777.46	0.00	0.00
53	22	90	180	15971.00	11376.46	-4799.46	0.00	0.00

Copperline Prospect




Horizontal Plane
Footage +East/-West
-2500
-1500
-500
500
1500
2500
100
-900
-1900
-2900
-3900
-4900
-5900
Footage + North/- South
West Copperline 29 State # 4H