

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102

Revised August 1, 2011

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

AS DRILLED PLAT

Submit one copy to appropriate
District Office

JUL 10 2018
DISTRICT III

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-35634 NM /05-067-09924 CO		2 Pool Code 97774 - CO		3 Pool Name FRUITLAND COAL Colorado		
4 Property Code 318865		5 Property Name ALLISON UNIT COM			6 Well Number 138H	
7 OGRID No. 372171		8 Operator Name HILCORP ENERGY COMPANY			9 Elevation 6134	

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
C	8	32 N	6 W	LOT 3	176	NORTH	2615	WEST	SAN JUAN

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
D	22	32 N	6 W		830	NORTH	1113	WEST	LA PLATA

12 Dedicated Acres	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 LEGEND:

- = SURFACE LOCATION
- ⊕ = FOUND 1961 B.L.M. BRASS CAP (CC)
- ⊙ = FOUND 1961 B.L.M. BRASS CAP
- ◇ = MILE POST (AS LABELED)

BEARINGS & DISTANCES SHOWN ARE
REFERENCED TO THE NEW MEXICO
COORDINATE SYSTEM, WEST ZONE,
NAD 83, UNLESS OTHERWISE NOTED.

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Amanda Walker 7/10/2018
Signature Date
Amanda Walker
Printed Name
mwalker@hilcorp.com
E-mail Address

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.

Original C-102 Attached

16 BOTTOM HOLE LOCATION
COURSE 1 - N 59°32'30" W, 1177.54'
COURSE 2 - N 42°43'07" W, 3435.62'

S 89°38'55" W 5295.09'
BETWEEN MILE POSTS

2678.63' BETWEEN BRASS CAPS

2615'

176'

M.P. 244

COLO.

N.M.

LOT 4

LOT 3

LOT 2

LOT 1

SURFACE

LAT: 36.9996500° N
LONG: 107.4819169° W
NAD 83

LAT: 36°59.97870' N
LONG: 107°28.87869' W
NAD 27

LOIS SCOFIELD POWELL

SECTION 8

A.D. YOUNG ET AL

USA NMNM 04207

TIRZAH SMOUSE

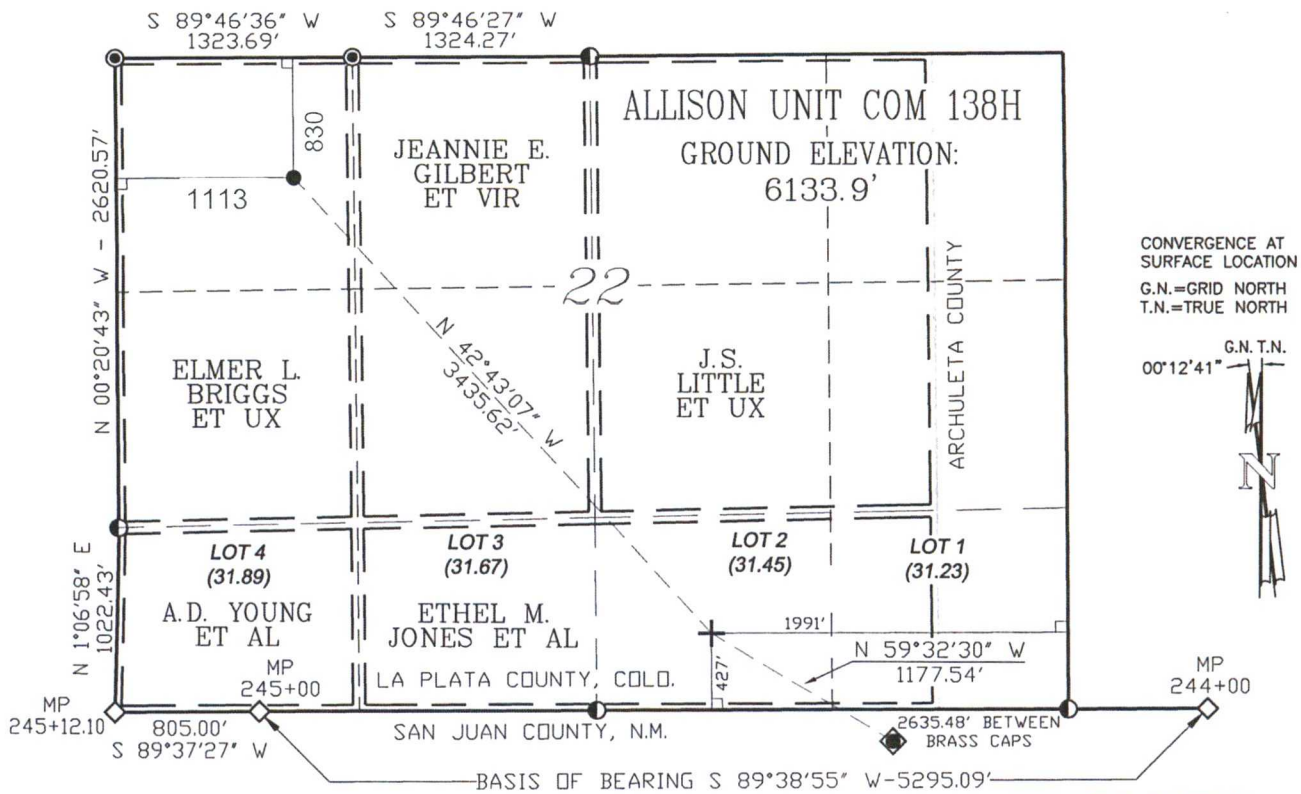
USA NMNM 04207

00°12'41"

G.N.=GRID NORTH
T.N.=TRUE NORTH
CONVERGENCE AT SURFACE LOCATION

J.A. PIERCE ESTATE
LANCE B. REEMTSA
BELINDA LOPEZ

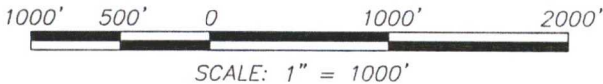
T. 32 N., R. 6 W.



BASIS OF BEARING/DATUM

NM SP WEST (1983) - NAVD 88 ELEV., GPS OBSERVATIONS:
AS MEASURED BETWEEN MP 244 & MP 245 ON THE
NEW MEXICO/COLORADO STATE LINE

BASIS OF ELEVATION: AS MEASURED AT OPUS ADJUSTED CONTROL POINT
LOCATED IN THE SW/4 OF SECTION 9, ELEVATION: 6148.68',
T-32-N, R-6-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO



GEO. SURFACE VALUES

LATITUDE (NAD 83)
NORTH 36.9996500°
LONGITUDE (NAD 83)
WEST 107.4819169°

LATITUDE (NAD 27)
NORTH 36°59.97870'
LONGITUDE (NAD 27)
WEST 107°28.87869'

GEO. BOTTOM HOLE VALUES

(CALCULATED BOTTOM HOLE VALUES
DERIVED FROM HILCORP DESIGN FOOTAGES)

LATITUDE (NAD 83)
NORTH 37.0078393
LONGITUDE (NAD 83)
WEST 107.4929033

LATITUDE (NAD 27)
NORTH 37.007834
LONGITUDE (NAD 27)
WEST 107.492297

SURVEYOR'S STATEMENT:

I, Marshall W. Lindeen, of Farmington, New Mexico, hereby state: This plat was made from notes taken during an actual survey under my direct supervision on APRIL 07, 2014, and it correctly shows the location of ALLISON UNIT COM 138H.

Original Plat Attached

LEGEND

- ◆ SURFACE LOCATION
- BOTTOM HOLE LOCATION
- ✚ PILOT
- 1965 B.L.M. BRASS CAP

- ⊙ ALUMINUM CAP LS #17482
- ◇ MILE POST (244+00, 245+00, 245+12.10)
- L DENOTES 90° TIE

NOTE:

P.D.O.P. VALUE: N/A
BOTTOM HOLE IS CALCULATED POSITION. SURFACE USE IS NOT APPLICABLE.

HILCORP ENERGY COMPANY



P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SCALE: 1" = 1000' JOB No. 10730 DATE: 05/07/14

PLAT OF DRILLING LOCATION FOR HILCORP ENERGY COMPANY ALLISON UNIT COM 138H

SURFACE: 176' F/NL & 2615' F/WL, SEC. 8,
T. 32 N, R. 6 W, N.M.P.M., SAN JUAN COUNTY, N.M.
BOTTOM HOLE: 751' F/NL & 887' F/WL, SEC. 22,
T. 32 N, R. 6 W, N.M.P.M., LA PLATA COUNTY, COLO.

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1000 Rio Brazos Rd., Aztec, N.M. 87410
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1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35634 / 05-067-09924	² Pool Code 97774	³ Pool Name FRUITLAND COAL /Colorado
⁴ Property Code 6785	⁵ Property Name ALLISON UNIT COM	⁶ Well Number 138H
⁷ GRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY	⁹ Elevation 6134

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
C	8	32 N	6 W	LOT 3	176	NORTH	2615	WEST	SAN JUAN

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
D	22	32 N	6 W		675	NORTH	990	WEST	LA PLATA

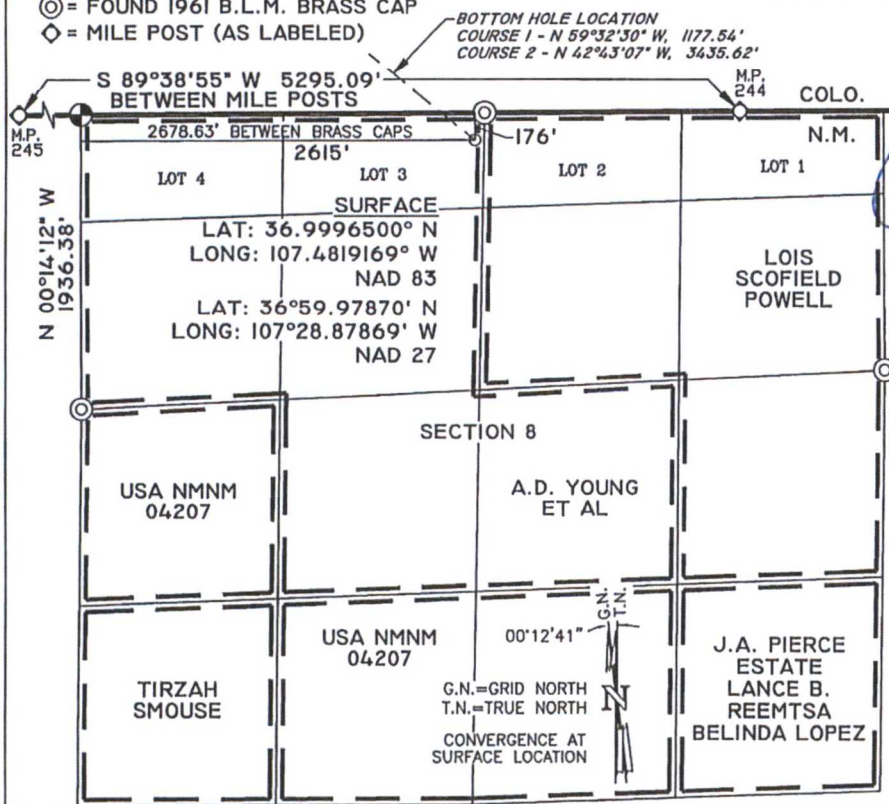
¹² Dedicated Acres Production will be in Colorado only	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 LEGEND:

- = SURFACE LOCATION
- = FOUND 1961 B.L.M. BRASS CAP (CC)
- ⊙ = FOUND 1961 B.L.M. BRASS CAP
- ◇ = MILE POST (AS LABELED)

BEARINGS & DISTANCES SHOWN ARE
REFERENCED TO THE NEW MEXICO
COORDINATE SYSTEM, WEST ZONE,
NAD 83, UNLESS OTHERWISE NOTED.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Amanda Ray 2/1/18
Signature Date
Amanda Ray
Printed Name
mray@hilcorp.com
E-mail Address

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.

04/07/14

Date of Survey

Signature and Seal of Professional Surveyor

Marshall W. Linden
MARSHALL W. LINDEN
NEW MEXICO
17078
2-1-18
PROFESSIONAL SURVEYOR
17078
Certificate Number

CONVERGENCE
SURFACE LOCAL
G.N.=GRID NORTH
T.N.=TRUE NORTH

00°12'41" G.N.

245+00 244+00

245+12.10

805.00'

S 89°37'27" W

MP

245+00

MP

1022.43' E

N 1°06'58" E

N 00°20'43" V - 2620.57'

990'

675'

S 89°46'36" W 1323.69'

S 89°46'27" W 1324.27'

JEANNIE E. GILBERT ET VIR

ALLISON UNIT COM 138H

GROUND ELEVATION: 6133.9'

22

N 42°13'07" W 3435.62'

J.S. LITTLE ET UX

ARCHULETA COUNTY

LOT 4 (31.89)

LOT 3 (31.67)

LOT 2 (31.45)

LOT 1 (31.23)

ELMER L. BRIGGS ET UX

A.D. YOUNG ET AL

ETHEL M. JONES ET AL

LA PLATA COUNTY, COLD.

SAN JUAN COUNTY, N.M.

1177.54'

N 59°32'30" W

1991'

427'

2635.48' BETWEEN BRASS CAPS

BASIS OF BEARING S 89°38'55" W-5295.09'

1000' 500' 0 1000' 2000'

SCALE: 1" = 1000'

LATITUDE (NAD 83)
NORTH 36.9996500°
LONGITUDE (NAD 83)
WEST 107.4819169°

LATITUDE (NAD 27)
NORTH 36°59.97870'
LONGITUDE (NAD 27)
WEST 107°28.87869'

(CALCULATED BOTTOM HOLE VALUES
DERIVED FROM HILCORP DESIGN FOOTAGES)

LATITUDE (NAD 83)
NORTH 37.0082561°
LONGITUDE (NAD 83)
WEST 107.4933364°

LATITUDE (NAD 27)
NORTH 37°00.49507"
LONGITUDE (NAD 27)
WEST 107°29.56383'

(CALCULATED VALUES)
LATITUDE (NAD 83)
 NORTH 37.0013000°
LONGITUDE (NAD 83)
 WEST 107.4853856°
LATITUDE (NAD 27)
 NORTH 37°00.07770'
LONGITUDE (NAD 27)
 WEST 107°29.08680'

P.D.O.P. VALUE: N/A
BOTTOM HOLE IS CALCULATED
POSITION. SURFACE USE IS
NOT APPLICABLE.

I, Marshall W. Lindeen, of Farmington, New Mexico, hereby state: This plat was made from notes taken during an actual survey under my direct supervision on APRIL 07, 2014, and it correctly shows the location of ALLISON LINDEN CON 73381.

- ◆ SURFACE LOCATION
 ● BOTTOM HOLE LOCATION
 + PILOT
 ○ 1965 B.L.M. BRASS CAP
 ⊙ ALUMINUM CAP LS #17482
 ◇ MILE POST (244+00, 245+00, 245+12.19)
 L DENOTES 90° TIE



P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

SCALE: 1" = 1000'	JOB No. 10730	DATE: 05/07/14
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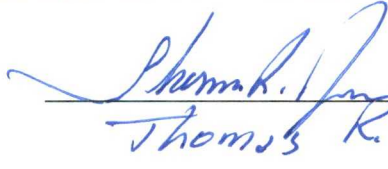
**SURFACE: 176' F/NL & 2615' F/WL, SEC. 8,
T. 32 N, R. 6 W, N.M.P.M., SAN JUAN COUNTY, N.M.
BOTTOM HOLE: 675' F/NL & 990' F/WL, SEC. 22,
T. 32 N, R. 6 W, N.M.P.M., LA PLATA COUNTY, COLO.**

BY: C.B. DWG.#: 10730W02 REV. 01/31/18

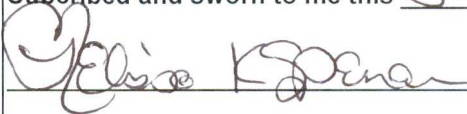
Well Name: ALLISON UNIT COM #138H

Operator HILCORP SAN JUAN, L.P.		Legal WellName ALLISON UNIT COM #138H		API / UWI 3004535634		County San Juan		State/Province New Mexico		
Surface Legal Location 008-032N-006W-C				North/South Distance (ft) 176.0		N/S Ref FNL		East/West Distance (ft) 2,615.0		E/W Ref FWL
Date 7/8/2018			Description DIRECTIONAL SURVEY							
Survey Data										
Date	MD (ftKB)	Incl (*)	Azm (*)	Method			Survey Company			
7/8/2018	0.00	0.00	0.00	IncAzi-MWD			Scientific Drilling			
7/8/2018	575.00	1.18	43.17	IncAzi-MWD			Scientific Drilling			
7/8/2018	606.00	0.71	44.86	IncAzi-MWD			Scientific Drilling			
7/8/2018	667.00	0.74	344.10	IncAzi-MWD			Scientific Drilling			
7/8/2018	730.00	1.66	338.52	IncAzi-MWD			Scientific Drilling			
7/8/2018	793.00	3.04	311.05	IncAzi-MWD			Scientific Drilling			
7/8/2018	856.00	4.82	314.15	IncAzi-MWD			Scientific Drilling			
7/8/2018	919.00	6.18	307.81	IncAzi-MWD			Scientific Drilling			
7/8/2018	981.00	7.90	303.97	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,044.00	9.35	300.88	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,107.00	11.24	300.37	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,170.00	12.72	298.23	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,233.00	14.16	296.25	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,296.00	15.26	295.43	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,358.00	17.10	298.77	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,421.00	18.26	298.08	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,484.00	20.18	299.59	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,547.00	21.52	298.30	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,610.00	23.06	298.50	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,672.00	24.69	298.64	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,735.00	26.55	299.71	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,798.00	28.74	301.67	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,861.00	30.18	302.51	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,924.00	32.09	303.32	IncAzi-MWD			Scientific Drilling			
7/8/2018	1,987.00	33.47	303.56	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,049.00	34.52	301.69	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,112.00	36.67	301.50	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,173.00	38.62	300.79	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,235.00	40.95	301.01	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,296.00	43.74	300.47	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,357.00	45.72	298.74	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,418.00	47.71	299.40	IncAzi-MWD			Scientific Drilling			
7/8/2018	2,480.00	50.15	299.74	IncAzi-MWD			Scientific Drilling			

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.


Thomas R. Lucero

Subscribed and sworn to me this July 10, 2018


Melissa A. Kasper

Notary Public in and for San Juan County, New Mexico

My Commission expires Nov. 4, 2019



NMOC
JUL 10 2018
DISTRICT III

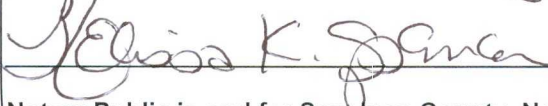
Well Name: ALLISON UNIT COM #138H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
7/8/2018	2,541.00	52.46	300.33	IncAzi-MWD	Scientific Drilling
7/8/2018	2,602.00	54.15	300.95	IncAzi-MWD	Scientific Drilling
7/8/2018	2,664.00	55.59	301.75	IncAzi-MWD	Scientific Drilling
7/8/2018	2,725.00	57.88	302.58	IncAzi-MWD	Scientific Drilling
7/8/2018	2,786.00	61.50	302.47	IncAzi-MWD	Scientific Drilling
7/8/2018	2,847.00	65.04	303.78	IncAzi-MWD	Scientific Drilling
7/8/2018	2,876.00	65.43	303.63	IncAzi-MWD	Scientific Drilling
7/8/2018	2,974.00	69.99	309.76	IncAzi-MWD	Scientific Drilling
7/8/2018	3,005.00	70.45	313.49	IncAzi-MWD	Scientific Drilling
7/8/2018	3,037.00	71.84	316.42	IncAzi-MWD	Scientific Drilling
7/8/2018	3,068.00	73.33	316.65	IncAzi-MWD	Scientific Drilling
7/8/2018	3,100.00	74.59	319.72	IncAzi-MWD	Scientific Drilling
7/8/2018	3,131.00	76.79	321.15	IncAzi-MWD	Scientific Drilling
7/8/2018	3,162.00	78.99	322.20	IncAzi-MWD	Scientific Drilling
7/8/2018	3,194.00	81.89	323.31	IncAzi-MWD	Scientific Drilling
7/8/2018	3,257.00	86.84	326.41	IncAzi-MWD	Scientific Drilling
7/8/2018	3,319.00	87.99	326.97	IncAzi-MWD	Scientific Drilling
7/8/2018	3,382.00	88.02	328.08	IncAzi-MWD	Scientific Drilling
7/8/2018	3,444.00	88.29	327.31	IncAzi-MWD	Scientific Drilling
7/8/2018	3,505.00	88.66	325.93	IncAzi-MWD	Scientific Drilling
7/8/2018	3,566.00	88.02	322.69	IncAzi-MWD	Scientific Drilling
7/8/2018	3,627.00	89.77	319.73	IncAzi-MWD	Scientific Drilling
7/8/2018	3,688.00	89.70	320.08	IncAzi-MWD	Scientific Drilling
7/8/2018	3,749.00	88.66	318.63	IncAzi-MWD	Scientific Drilling
7/8/2018	3,811.00	89.66	318.52	IncAzi-MWD	Scientific Drilling
7/8/2018	3,872.00	90.54	318.88	IncAzi-MWD	Scientific Drilling
7/8/2018	3,933.00	91.41	318.88	IncAzi-MWD	Scientific Drilling
7/8/2018	3,994.00	91.01	317.65	IncAzi-MWD	Scientific Drilling
7/8/2018	4,056.00	94.13	316.63	IncAzi-MWD	Scientific Drilling
7/8/2018	4,117.00	92.21	318.50	IncAzi-MWD	Scientific Drilling
7/8/2018	4,178.00	92.82	319.18	IncAzi-MWD	Scientific Drilling
7/8/2018	4,240.00	91.55	317.53	IncAzi-MWD	Scientific Drilling
7/8/2018	4,301.00	92.79	317.24	IncAzi-MWD	Scientific Drilling
7/8/2018	4,362.00	95.08	317.55	IncAzi-MWD	Scientific Drilling
7/8/2018	4,423.00	96.09	317.97	IncAzi-MWD	Scientific Drilling
7/8/2018	4,485.00	96.29	317.55	IncAzi-MWD	Scientific Drilling
7/8/2018	4,546.00	95.95	317.25	IncAzi-MWD	Scientific Drilling
7/8/2018	4,607.00	94.17	316.38	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.


Thomas R. Acguas

Subscribed and sworn to me this July 10, 2018


Melissa K. Spencer

Notary Public in and for San Juan County, New Mexico

My Commission expires Nov. 4, 2019



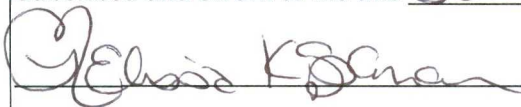
Well Name: ALLISON UNIT COM #138H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
7/8/2018	4,669.00	91.48	315.20	IncAzi-MWD	Scientific Drilling
7/8/2018	4,730.00	90.87	314.82	IncAzi-MWD	Scientific Drilling
7/8/2018	4,791.00	89.83	314.90	IncAzi-MWD	Scientific Drilling
7/8/2018	4,853.00	90.70	315.01	IncAzi-MWD	Scientific Drilling
7/8/2018	4,914.00	91.81	315.96	IncAzi-MWD	Scientific Drilling
7/8/2018	4,975.00	92.72	316.49	IncAzi-MWD	Scientific Drilling
7/8/2018	5,037.00	90.50	315.40	IncAzi-MWD	Scientific Drilling
7/8/2018	5,098.00	90.87	315.23	IncAzi-MWD	Scientific Drilling
7/8/2018	5,159.00	90.94	315.61	IncAzi-MWD	Scientific Drilling
7/8/2018	5,221.00	88.76	315.87	IncAzi-MWD	Scientific Drilling
7/8/2018	5,283.00	88.99	315.44	IncAzi-MWD	Scientific Drilling
7/8/2018	5,346.00	89.70	316.00	IncAzi-MWD	Scientific Drilling
7/8/2018	5,409.00	90.50	316.27	IncAzi-MWD	Scientific Drilling
7/8/2018	5,472.00	91.68	316.58	IncAzi-MWD	Scientific Drilling
7/8/2018	5,535.00	92.55	317.35	IncAzi-MWD	Scientific Drilling
7/8/2018	5,597.00	93.53	317.47	IncAzi-MWD	Scientific Drilling
7/8/2018	5,660.00	93.73	317.32	IncAzi-MWD	Scientific Drilling
7/8/2018	5,723.00	92.38	316.79	IncAzi-MWD	Scientific Drilling
7/8/2018	5,786.00	93.06	316.94	IncAzi-MWD	Scientific Drilling
7/8/2018	5,849.00	92.32	316.62	IncAzi-MWD	Scientific Drilling
7/8/2018	5,911.00	91.68	317.80	IncAzi-MWD	Scientific Drilling
7/8/2018	5,974.00	91.31	316.80	IncAzi-MWD	Scientific Drilling
7/8/2018	6,037.00	88.59	315.79	IncAzi-MWD	Scientific Drilling
7/8/2018	6,100.00	89.16	316.73	IncAzi-MWD	Scientific Drilling
7/8/2018	6,163.00	90.17	318.09	IncAzi-MWD	Scientific Drilling
7/8/2018	6,226.00	90.77	319.00	IncAzi-MWD	Scientific Drilling
7/8/2018	6,293.00	90.77	319.00	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Operations Manager for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.


Thomas R. Jacyna

Subscribed and sworn to me this July 10, 2018



Notary Public in and for San Juan County, New Mexico

My Commission expires Nov. 4, 2019





Scientific Drilling

Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	HilCorp Energy
Well Name & No.	Allison Unit Com 138H ST2 Lateral
County & State	La Plata, CO
SDI Job No.	OP.011308
Rig	Aztec 777

I, Mel Mireles Jr., having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 2974 feet to a measured depth of 6,293 feet is true and correct as determined from all available records.

Signature

09-Jul-18

Date

Mel Mireles Jr.

Grand Junction Assistant Well Planner
Scientific Drilling - Colorado District



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit Com 138H
Project:	La Plata, CO NAD83	TVD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Site:	Allison Unit	MD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Well:	Allison Unit Com 138H	North Reference:	Grid
Wellbore:	ST #2	Survey Calculation Method:	Minimum Curvature
Design:	ST #2	Database:	Grand Junction District

Project	La Plata, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site		Allison Unit			
Site Position:		Northing:	1,127,387.72 usft	Latitude:	36.9996501
From:	Map	Easting:	2,421,227.38 usft	Longitude:	-107.4819170
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.22 °

Well	Allison Unit Com 138H					
Well Position	+N/-S	0.00 usft	Northing:	1,127,387.72 usft	Latitude:	36.9996501
	+E/-W	0.00 usft	Easting:	2,421,227.38 usft	Longitude:	-107.4819170
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,134.00 usft

Wellbore	ST #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/20/2018	9.03	63.53	49,963

Design	ST #2				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	2,876.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	314.12	

Survey Program	Date	7/9/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
575.00	2,876.00	Survey #1 - MWD Survey (Pilot)	MWD+HDGM	OWSG MWD + HDGM	
2,974.00	6,293.00	Survey #1 - ST 2 MWD Survey (ST #2)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,127,387.72	2,421,227.38	36.9996501	-107.4819170	
575.00	1.18	43.17	574.96	4.32	4.05	1,127,392.03	2,421,231.43	36.9996622	-107.4819035	
606.00	0.71	44.86	605.96	4.69	4.40	1,127,392.40	2,421,231.79	36.9996632	-107.4819023	
667.00	0.74	344.10	666.95	5.33	4.56	1,127,393.05	2,421,231.95	36.9996650	-107.4819018	
730.00	1.66	338.52	729.94	6.57	4.12	1,127,394.29	2,421,231.50	36.9996684	-107.4819034	
793.00	3.04	311.05	792.88	8.52	2.52	1,127,396.24	2,421,229.91	36.9996736	-107.4819090	
856.00	4.82	314.15	855.73	11.46	-0.64	1,127,399.18	2,421,226.75	36.9996815	-107.4819200	
919.00	6.18	307.81	918.44	15.38	-5.21	1,127,403.10	2,421,222.17	36.9996920	-107.4819360	
981.00	7.90	303.97	979.97	19.81	-11.38	1,127,407.53	2,421,216.00	36.9997038	-107.4819575	
1,044.00	9.35	300.88	1,042.26	24.86	-19.37	1,127,412.57	2,421,208.02	36.9997172	-107.4819851	
1,107.00	11.24	300.37	1,104.24	30.59	-29.06	1,127,418.30	2,421,198.33	36.9997324	-107.4820187	



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit Com 138H
Project:	La Plata, CO NAD83	TVD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Site:	Allison Unit	MD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Well:	Allison Unit Com 138H	North Reference:	Grid
Wellbore:	ST #2	Survey Calculation Method:	Minimum Curvature
Design:	ST #2	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,170.00	12.72	298.23	1,165.87	36.97	-40.47	1,127,424.69	2,421,186.92	36.9997493	-107.4820583
1,233.00	14.16	296.25	1,227.14	43.66	-53.49	1,127,431.38	2,421,173.89	36.9997669	-107.4821033
1,296.00	15.26	295.43	1,288.08	50.63	-67.89	1,127,438.35	2,421,159.49	36.9997852	-107.4821531
1,358.00	17.10	298.77	1,347.62	58.52	-83.25	1,127,446.24	2,421,144.13	36.9998059	-107.4822063
1,421.00	18.26	298.08	1,407.64	67.63	-100.08	1,127,455.34	2,421,127.31	36.9998300	-107.4822645
1,484.00	20.18	299.59	1,467.13	77.64	-118.24	1,127,465.36	2,421,109.15	36.9998564	-107.4823274
1,547.00	21.52	298.30	1,526.00	88.48	-137.86	1,127,476.20	2,421,089.52	36.9998850	-107.4823954
1,610.00	23.06	298.50	1,584.29	99.85	-158.88	1,127,487.57	2,421,068.50	36.9999150	-107.4824682
1,672.00	24.69	298.64	1,640.99	111.85	-180.92	1,127,499.57	2,421,046.47	36.9999467	-107.4825445
1,735.00	26.55	299.71	1,697.79	125.14	-204.70	1,127,512.85	2,421,022.69	36.9999818	-107.4826269
1,798.00	28.74	301.67	1,753.59	140.07	-229.82	1,127,527.79	2,420,997.57	37.0000213	-107.4827140
1,861.00	30.18	302.51	1,808.45	156.53	-256.07	1,127,544.25	2,420,971.32	37.0000650	-107.4828050
1,924.00	32.09	303.32	1,862.37	174.24	-283.41	1,127,561.95	2,420,943.98	37.0001120	-107.4828999
1,987.00	33.47	303.56	1,915.34	193.04	-311.87	1,127,580.75	2,420,915.52	37.0001620	-107.4829987
2,049.00	34.52	301.69	1,966.74	211.72	-341.06	1,127,599.43	2,420,886.32	37.0002115	-107.4831000
2,112.00	36.67	301.50	2,017.97	230.93	-372.30	1,127,618.64	2,420,855.09	37.0002625	-107.4832083
2,173.00	38.62	300.79	2,066.26	250.19	-404.18	1,127,637.91	2,420,823.20	37.0003135	-107.4833189
2,235.00	40.95	301.01	2,113.91	270.56	-438.22	1,127,658.28	2,420,789.16	37.0003675	-107.4834369
2,296.00	43.74	300.47	2,158.99	291.56	-473.54	1,127,679.28	2,420,753.85	37.0004230	-107.4835593
2,357.00	45.72	298.74	2,202.32	312.76	-510.86	1,127,700.47	2,420,716.52	37.0004791	-107.4836886
2,418.00	47.71	299.40	2,244.14	334.33	-549.67	1,127,722.05	2,420,677.71	37.0005361	-107.4838230
2,480.00	50.15	299.74	2,284.87	357.40	-590.32	1,127,745.12	2,420,637.06	37.0005970	-107.4839639
2,541.00	52.46	300.33	2,323.01	381.23	-631.53	1,127,768.95	2,420,595.85	37.0006600	-107.4841067
2,602.00	54.15	300.95	2,359.46	406.16	-673.61	1,127,793.88	2,420,553.77	37.0007260	-107.4842526
2,664.00	55.59	301.75	2,395.13	432.54	-716.91	1,127,820.26	2,420,510.47	37.0007960	-107.4844027
2,725.00	57.88	302.58	2,428.59	459.70	-760.08	1,127,847.41	2,420,467.30	37.0008680	-107.4845525
2,786.00	61.50	302.47	2,459.37	488.01	-804.48	1,127,875.72	2,420,422.91	37.0009431	-107.4847065
2,847.00	65.04	303.78	2,486.80	517.78	-850.09	1,127,905.50	2,420,377.29	37.0010222	-107.4848648
2,876.00	65.43	303.63	2,498.95	532.40	-872.00	1,127,920.11	2,420,355.39	37.0010611	-107.4849409
2,974.00	69.99	309.76	2,536.14	586.60	-944.59	1,127,974.31	2,420,282.79	37.0012057	-107.4851934
3,005.00	70.45	313.49	2,546.63	605.97	-966.39	1,127,993.69	2,420,260.99	37.0012576	-107.4852694
3,037.00	71.84	316.42	2,556.98	627.37	-987.82	1,128,015.08	2,420,239.57	37.0013151	-107.4853443
3,068.00	73.33	316.65	2,566.26	648.84	-1,008.16	1,128,036.55	2,420,219.22	37.0013728	-107.4854155
3,100.00	74.59	319.72	2,575.10	671.76	-1,028.66	1,128,059.47	2,420,198.72	37.0014346	-107.4854874
3,131.00	76.79	321.15	2,582.76	694.91	-1,047.79	1,128,082.63	2,420,179.59	37.0014970	-107.4855545
3,162.00	78.99	322.20	2,589.26	718.69	-1,066.59	1,128,106.40	2,420,160.80	37.0015612	-107.4856206
3,194.00	81.89	323.31	2,594.58	743.81	-1,085.68	1,128,131.52	2,420,141.70	37.0016291	-107.4856878
3,257.00	86.84	326.41	2,600.76	795.06	-1,121.75	1,128,182.77	2,420,105.64	37.0017677	-107.4858150
3,319.00	87.99	326.97	2,603.56	846.82	-1,155.76	1,128,234.53	2,420,071.63	37.0019078	-107.4859352
3,382.00	88.02	328.08	2,605.75	899.93	-1,189.56	1,128,287.65	2,420,037.82	37.0020517	-107.4860548
3,444.00	88.29	327.31	2,607.75	952.31	-1,222.68	1,128,340.02	2,420,004.70	37.0021936	-107.4861720
3,505.00	88.66	325.93	2,609.37	1,003.23	-1,256.23	1,128,390.94	2,419,971.15	37.0023314	-107.4862905
3,566.00	88.02	322.69	2,611.14	1,052.74	-1,291.80	1,128,440.46	2,419,935.59	37.0024653	-107.4864159
3,627.00	89.77	319.73	2,612.32	1,100.27	-1,330.00	1,128,487.99	2,419,897.38	37.0025936	-107.4865502
3,688.00	89.70	320.08	2,612.60	1,146.94	-1,369.29	1,128,534.65	2,419,858.10	37.0027194	-107.4866881
3,749.00	88.66	318.63	2,613.47	1,193.21	-1,409.01	1,128,580.93	2,419,818.37	37.0028442	-107.4868274
3,811.00	89.66	318.52	2,614.38	1,239.70	-1,450.03	1,128,627.41	2,419,777.35	37.0029694	-107.4869712
3,872.00	90.54	318.88	2,614.28	1,285.52	-1,490.29	1,128,673.24	2,419,737.09	37.0030929	-107.4871124
3,933.00	91.41	318.88	2,613.24	1,331.47	-1,530.40	1,128,719.18	2,419,696.98	37.0032167	-107.4872531
3,994.00	91.01	317.65	2,611.95	1,376.98	-1,571.00	1,128,764.69	2,419,656.39	37.0033393	-107.4873954
4,056.00	94.13	316.63	2,609.17	1,422.37	-1,613.12	1,128,810.09	2,419,614.26	37.0034615	-107.4875429
4,117.00	92.21	318.50	2,605.80	1,467.32	-1,654.21	1,128,855.04	2,419,573.17	37.0035825	-107.4876868
4,178.00	92.82	319.18	2,603.12	1,513.20	-1,694.32	1,128,900.92	2,419,533.06	37.0037061	-107.4878275
4,240.00	91.55	317.53	2,600.76	1,559.50	-1,735.49	1,128,947.21	2,419,491.89	37.0038308	-107.4879718
4,301.00	92.79	317.24	2,598.45	1,604.36	-1,776.76	1,128,992.07	2,419,450.62	37.0039516	-107.4881164



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit Com 138H
Project:	La Plata, CO NAD83	TVD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Site:	Allison Unit	MD Reference:	GL 6134' & RKB 17' @ 6151.00usft
Well:	Allison Unit Com 138H	North Reference:	Grid
Wellbore:	ST #2	Survey Calculation Method:	Minimum Curvature
Design:	ST #2	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,362.00	95.08	317.55	2,594.26	1,649.14	-1,817.96	1,129,036.86	2,419,409.43	37.0040721	-107.4882607
4,423.00	96.09	317.97	2,588.32	1,694.09	-1,858.77	1,129,081.81	2,419,368.62	37.0041932	-107.4884036
4,485.00	96.29	317.55	2,581.64	1,739.72	-1,900.20	1,129,127.44	2,419,327.18	37.0043160	-107.4885488
4,546.00	95.95	317.25	2,575.13	1,784.37	-1,941.26	1,129,172.08	2,419,286.13	37.0044362	-107.4886926
4,607.00	94.17	316.38	2,569.75	1,828.67	-1,982.84	1,129,216.39	2,419,244.55	37.0045554	-107.4888382
4,669.00	91.48	315.20	2,566.70	1,873.05	-2,026.01	1,129,260.77	2,419,201.37	37.0046748	-107.4889893
4,730.00	90.87	314.82	2,565.45	1,916.18	-2,069.13	1,129,303.90	2,419,158.25	37.0047907	-107.4891400
4,791.00	89.83	314.90	2,565.08	1,959.21	-2,112.37	1,129,346.93	2,419,115.02	37.0049063	-107.4892912
4,853.00	90.70	315.01	2,564.79	2,003.02	-2,156.24	1,129,390.73	2,419,071.14	37.0050240	-107.4894446
4,914.00	91.81	315.96	2,563.45	2,046.50	-2,199.00	1,129,434.22	2,419,028.39	37.0051409	-107.4895941
4,975.00	92.72	316.49	2,561.04	2,090.51	-2,241.16	1,129,478.23	2,418,986.22	37.0052593	-107.4897417
5,037.00	90.50	315.40	2,559.30	2,135.05	-2,284.26	1,129,522.76	2,418,943.13	37.0053790	-107.4898925
5,098.00	90.87	315.23	2,558.57	2,178.42	-2,327.15	1,129,566.13	2,418,900.24	37.0054956	-107.4900425
5,159.00	90.94	315.61	2,557.61	2,221.86	-2,369.96	1,129,609.57	2,418,857.42	37.0056124	-107.4901922
5,221.00	88.76	315.87	2,557.77	2,266.26	-2,413.23	1,129,653.97	2,418,814.16	37.0057318	-107.4903436
5,283.00	88.99	315.44	2,558.99	2,310.59	-2,456.56	1,129,698.30	2,418,770.83	37.0058509	-107.4904952
5,346.00	89.70	316.00	2,559.71	2,355.69	-2,500.54	1,129,743.40	2,418,726.85	37.0059722	-107.4906490
5,409.00	90.50	316.27	2,559.60	2,401.11	-2,544.19	1,129,788.83	2,418,683.19	37.0060944	-107.4908018
5,472.00	91.68	316.58	2,558.40	2,446.74	-2,587.61	1,129,834.46	2,418,639.77	37.0062171	-107.4909538
5,535.00	92.55	317.35	2,556.07	2,492.76	-2,630.57	1,129,880.48	2,418,596.81	37.0063410	-107.4911042
5,597.00	93.53	317.47	2,552.79	2,538.34	-2,672.47	1,129,926.06	2,418,554.91	37.0064637	-107.4912510
5,660.00	93.73	317.32	2,548.80	2,584.62	-2,715.03	1,129,972.33	2,418,512.35	37.0065882	-107.4914001
5,723.00	92.38	316.79	2,545.44	2,630.67	-2,757.89	1,130,018.38	2,418,469.49	37.0067122	-107.4915502
5,786.00	93.06	316.94	2,542.45	2,676.59	-2,800.92	1,130,064.30	2,418,426.46	37.0068357	-107.4917009
5,849.00	92.32	316.62	2,539.49	2,722.45	-2,844.01	1,130,110.16	2,418,383.37	37.0069591	-107.4918517
5,911.00	91.68	317.80	2,537.33	2,767.92	-2,886.11	1,130,155.63	2,418,341.28	37.0070815	-107.4919992
5,974.00	91.31	316.80	2,535.69	2,814.20	-2,928.81	1,130,201.92	2,418,298.57	37.0072061	-107.4921488
6,037.00	88.59	315.79	2,535.74	2,859.74	-2,972.34	1,130,247.45	2,418,255.05	37.0073286	-107.4923011
6,100.00	89.16	316.73	2,536.98	2,905.25	-3,015.89	1,130,292.96	2,418,211.50	37.0074510	-107.4924535
6,163.00	90.17	318.09	2,537.35	2,951.63	-3,058.52	1,130,339.34	2,418,168.86	37.0075758	-107.4926029
6,226.00	90.77	319.00	2,536.83	2,998.84	-3,100.23	1,130,386.56	2,418,127.16	37.0077030	-107.4927491
6,293.00	90.77	319.00	2,535.93	3,049.40	-3,144.18	1,130,437.12	2,418,083.21	37.0078393	-107.4929033

Checked By: _____	Approved By: _____	Date: _____
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