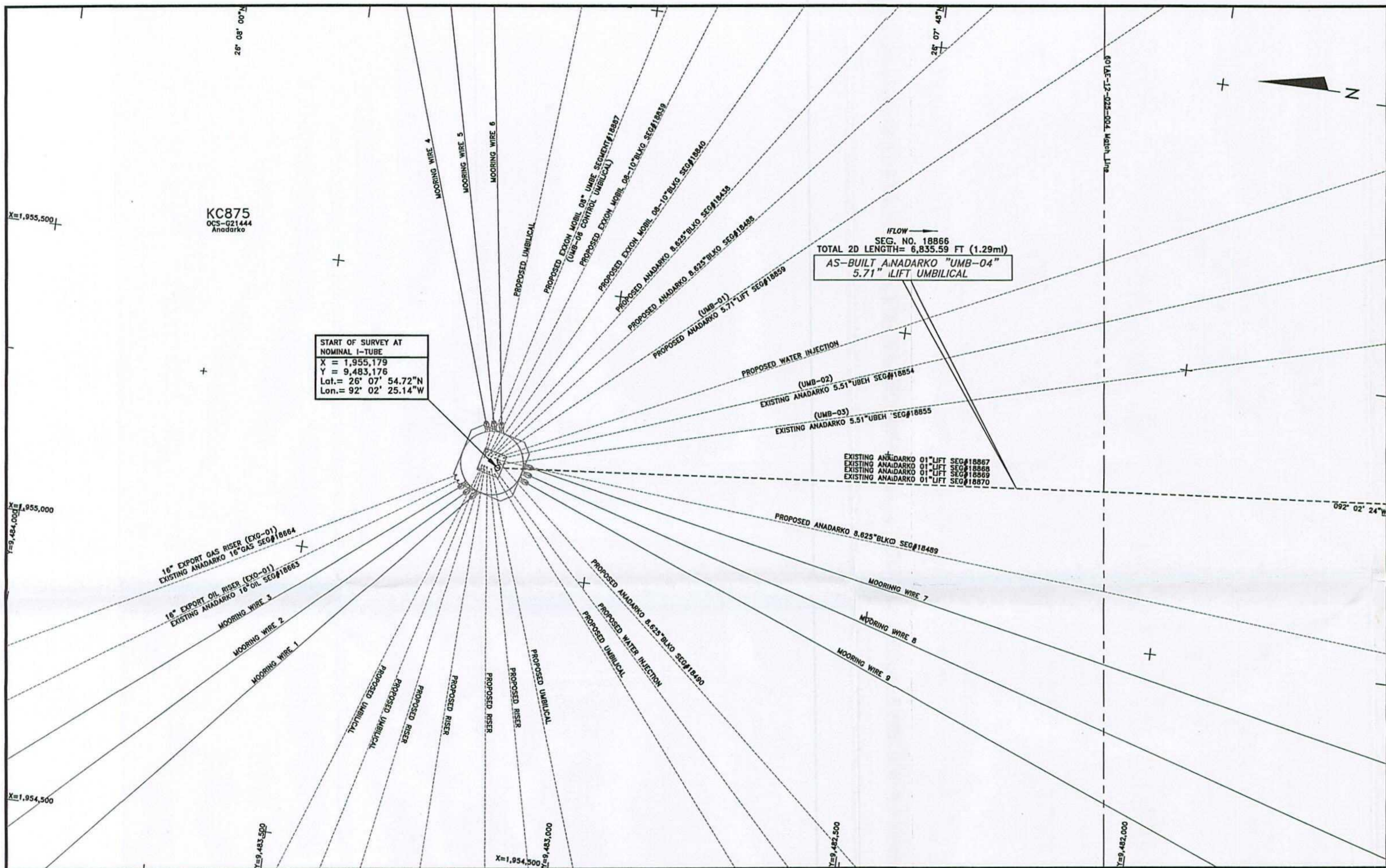


PLAN VIEW



START OF SURVEY AT  
NOMINAL I-TUBE  
X = 1,955,179  
Y = 9,483,176  
Lat. = 26° 07' 54.72\"N  
Lon. = 92° 02' 25.14\"W

IFLOW  
SEG. NO. 18866  
TOTAL 2D LENGTH = 6,835.59 FT (1.29mi)  
AS-BUILT ANADARKO "UMB-04"  
5.71" LIFT UMBILICAL

AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEGMENT#18866

POINT	X-COORDINATE	Y-COORDINATE	DESCRIPTION
1	1,955,179	9,483,176	NOMINAL I-TUBE

NOTES

- 1) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.V. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE) ACOUSTIC POSITIONING.
- 2) SURVEYED COORDINATES TRANSFORMED FROM NAD83 (GPS DATUM) NADCON VERSION 2.1.
- 3) THIS DRAWING IS NOT FOR NAVIGATION. PIPELINES AND FEATURES IN THE IMMEDIATE VICINITY ARE OBTAINED FROM BOEM (BUREAU OF OCEAN ENERGY MANAGEMENT) & BSEE (BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT) DATABASE AND CLIENT PROVIDED DATA.
- 4) AS-BUILT SURVEY DATE: FEBRUARY 1ST & 5TH, 2014

LEGEND

- AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEG#18866
- - - CATENARY
- - - EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- - - PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- - - UTEC AS-LAID FLYING LEADS
- - - MOORING WIRES
- KC875
- ▭ LEASE BLOCK BOUNDARIES
- ▭ PROPOSED STRUCTURES
- ▭ EXISTING STRUCTURES
- ▭ UTEC AS-FOUND/AS-BUILT STRUCTURES
- + GEOGRAPHICAL TICKS
- + UTM TICKS
- o<sup>1</sup> WELLS

GEODESY

Survey Datum: NAD 27  
Ellipsoid: Clarke 1866  
Projection: Universal Transverse Mercator ZONE 15N  
Longitude of Central Meridian: 95°W  
False Easting (m): 500 000  
False Northing (m): 0  
Scale Factor of Central Meridian: 0.99980  
Units: US Survey Feet

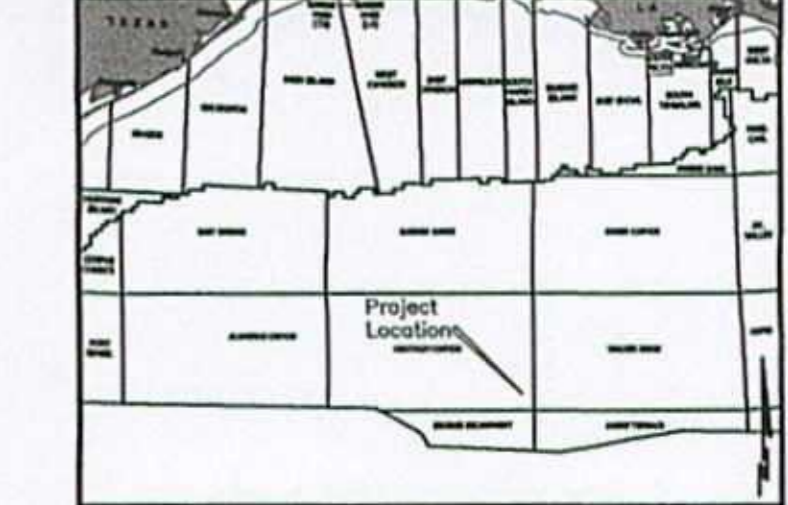
CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.



NATHAN EBY, R.P.L.S.  
TEXAS REG #6198

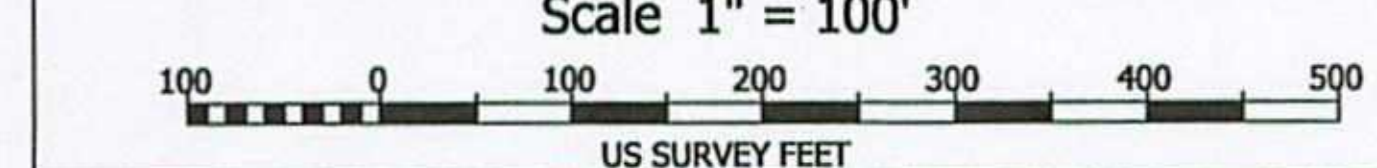
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LOCATION PLAN (N.T.S)



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Website www.utecsurvey.com

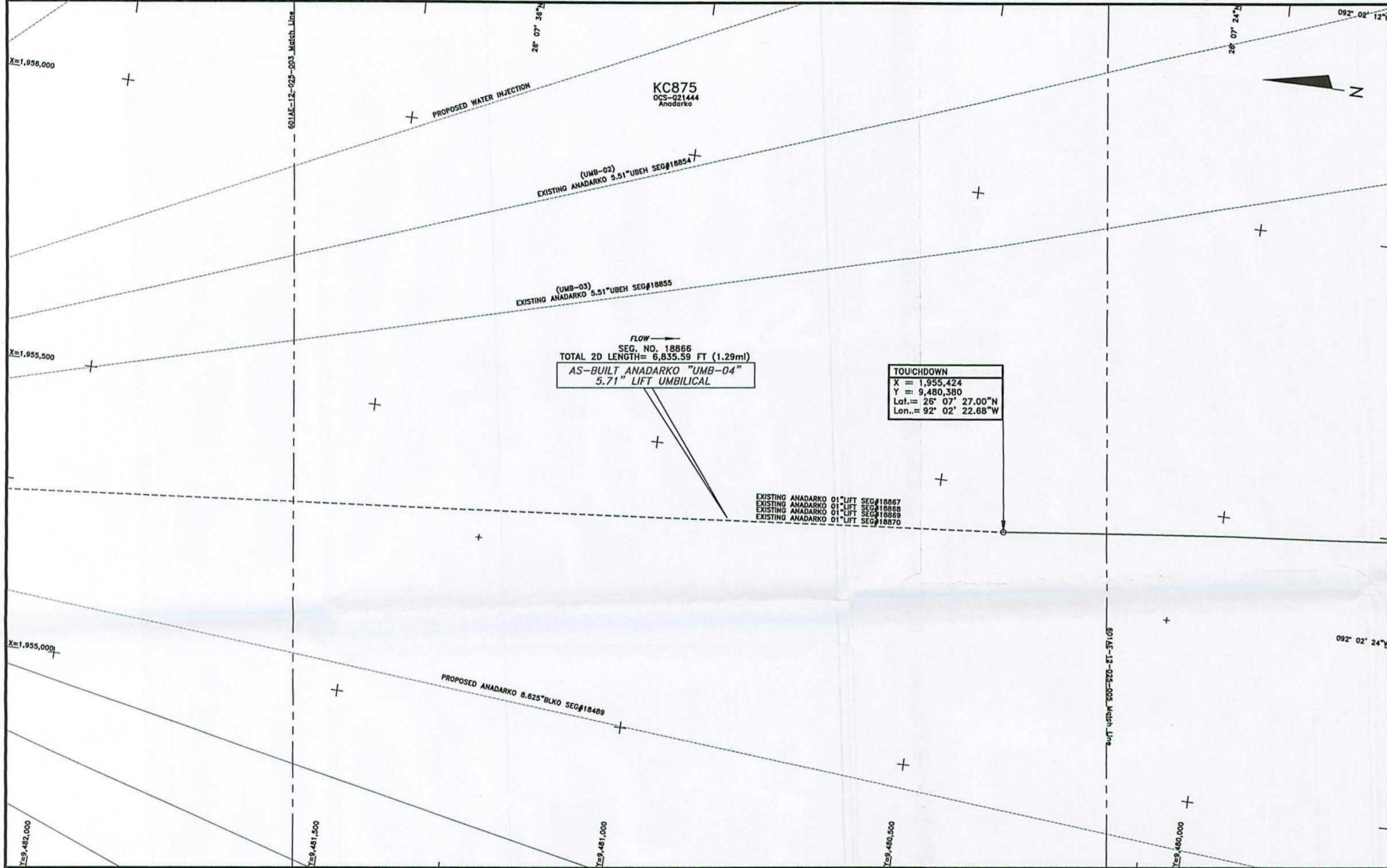
LUCIUS DEVELOPMENT PROJECT  
AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04)  
SEGMENT#18866  
KEATHLEY CANYON BLOCK 875  
GULF OF MEXICO



Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: FEBRUARY 1ST & 5TH, 2014 Survey Vessel: GLOBAL ORION  
UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025-003 Sheet Of 001 004  
Plot Size ANSI D





**AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEGMENT#18866**

POINT	X-COORDINATE	Y-COORDINATE	DESCRIPTION
2	1,955,424	9,480,380	TOUCHDOWN

- NOTES**
- 1) UMBILICAL COORDINATES ARE THE POSITIONS OF THE R.O.V. (REMOTELY OPERATED VEHICLE) LOCATED AT THE POINTS USING VERIPOS LD2 ULTRA DGPS RECEIVING SPOTBEAM CORRECTIONS, VERIPOS STANDARD DGPS RECEIVING INMARSAT CORRECTIONS POSITIONING AND SONARDYNE FUSION LBL (LONG BASELINE) ACOUSTIC POSITIONING.
  - 2) SURVEYED COORDINATES TRANSFORMED FROM NAD83 (GPS DATUM) NADCON VERSION 2.1.
  - 3) THIS DRAWING IS NOT FOR NAVIGATION. PIPELINES AND FEATURES IN THE IMMEDIATE VICINITY ARE OBTAINED FROM BOEM (BUREAU OF OCEAN ENERGY MANAGEMENT) & BSEE (BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT) DATABASE AND CLIENT PROVIDED DATA.
  - 4) AS-BUILT SURVEY DATE: FEBRUARY 1ST & 5TH, 2014

**LEGEND**

	AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEG#18866
	CATENARY
	EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
	PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
	UTEC AS-LAID FLYING LEADS
	MOORING WIRES
	KC875
	LEASE BLOCK BOUNDARIES
	PROPOSED STRUCTURES
	EXISTING STRUCTURES
	UTEC AS-FOUND/AS-BUILT STRUCTURES
	GEOGRAPHICAL TICKS
	UTM TICKS
	WELLS

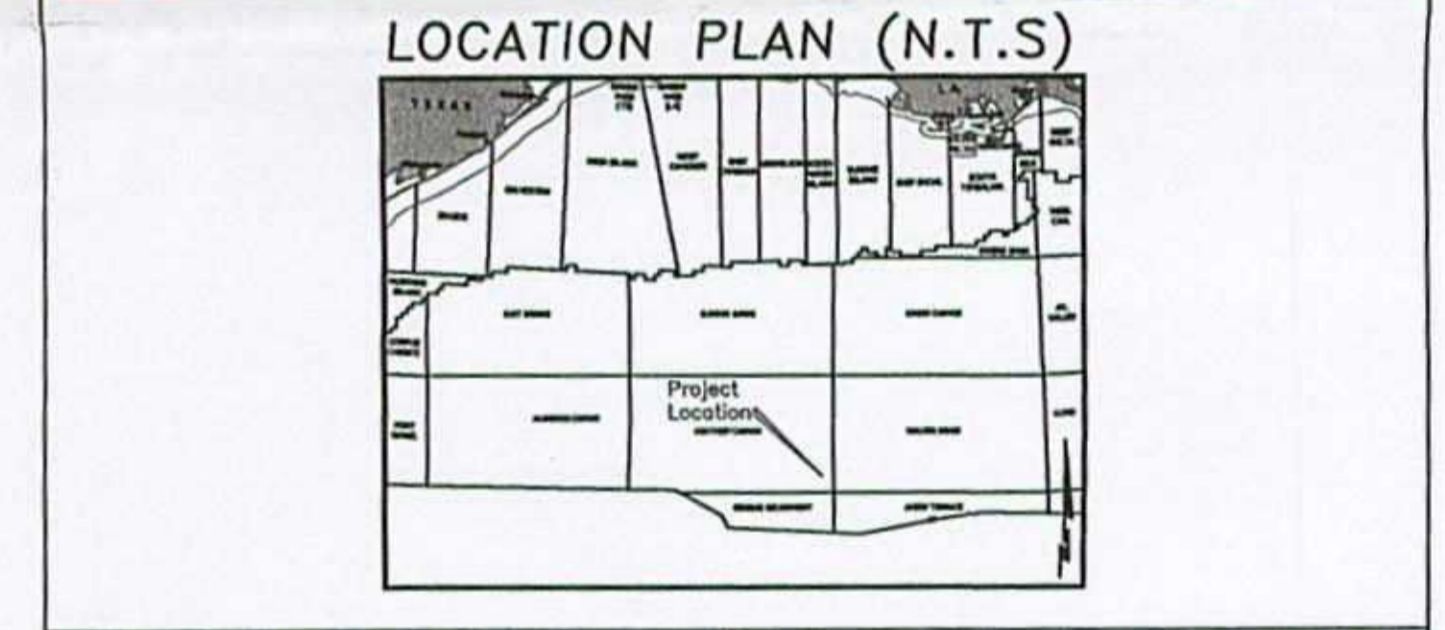
**GEODESY**

Survey Datum: NAD 27  
 Ellipsoid: Clarke 1866  
 Projection: Universal Transverse Mercator ZONE 15N  
 Longitude of Central Meridian: 93°W  
 False Easting (m): 500 000  
 False Northing (m): 0  
 Scale Factor at Central Meridian: 0.99960  
 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.

NATHAN EBY, R.P.L.S.  
TEXAS REG #6198

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Website www.utecsurvey.com

TECHNIP USA, Inc.

**LUCIUS DEVELOPMENT PROJECT**  
**AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04)**  
 SEGMENT#18866  
 KEATHLEY CANYON BLOCK 875  
 GULF OF MEXICO  
 Scale 1" = 100'

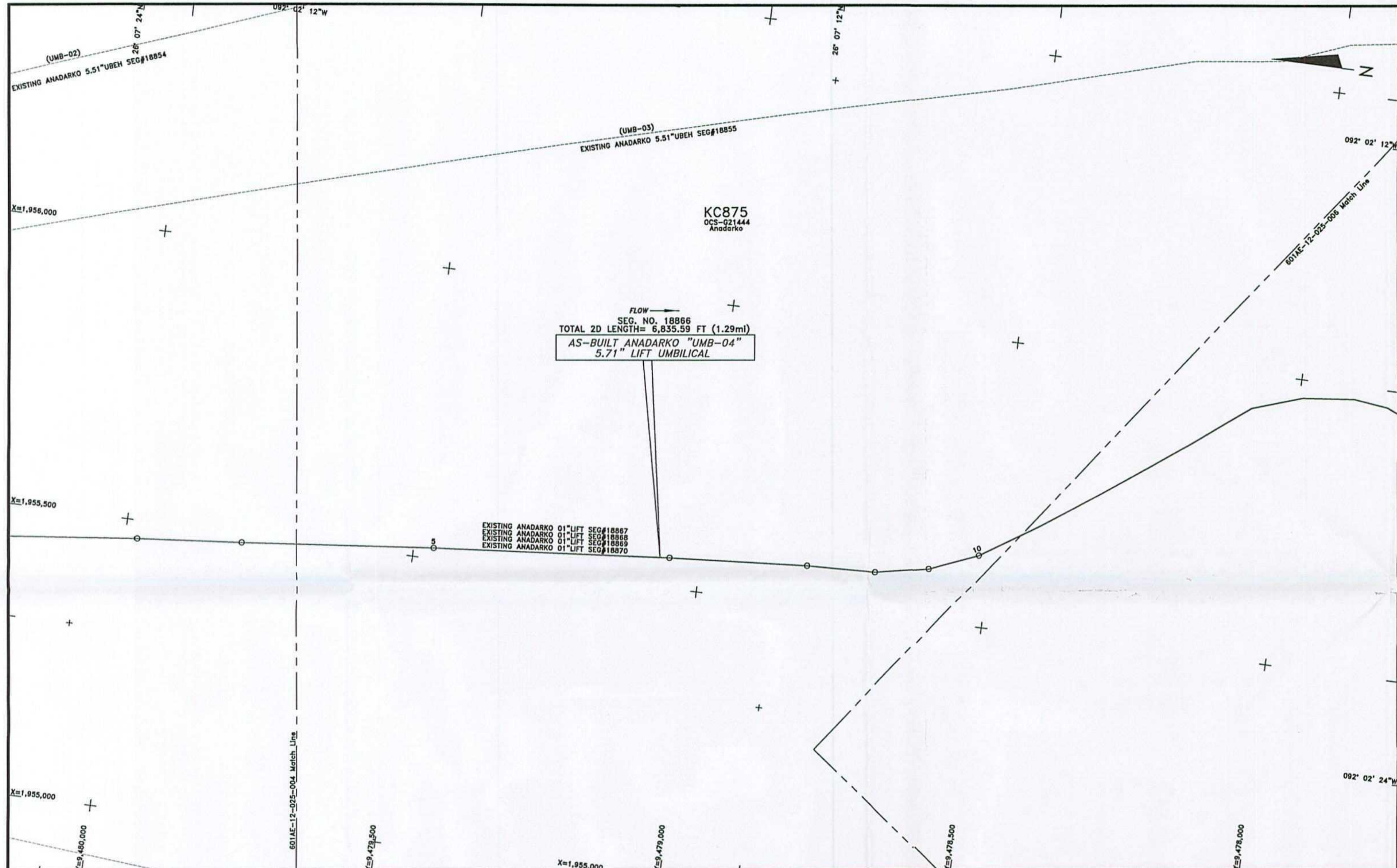
Rev. No.	Date	Comment	Interpr.	Checked	Appr.
0	09/08/14	ISSUED AS FINAL	VR	EG	JL
A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: FEBRUARY 1ST & 5TH, 2014      Survey Vessel: GLOBAL ORION

UTEC Ref. No. 601AE-12-025	UTEC Drawing No. 601AE-12-025- 004	Sheet 002	Of 004
Plot Size ANSI D			



PLAN VIEW



FLOW →  
 SEG. NO. 18866  
 TOTAL 2D LENGTH= 6,835.59 FT (1.29mi)  
**AS-BUILT ANADARKO "UMB-04"**  
**5.71" LIFT UMBILICAL**

EXISTING ANADARKO 01" LIFT SEG#18867  
 EXISTING ANADARKO 01" LIFT SEG#18868  
 EXISTING ANADARKO 01" LIFT SEG#18869  
 EXISTING ANADARKO 01" LIFT SEG#18870

KC875  
OCS-Q21444  
Anadarko

AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEGMENT#18866

POINT	X-COORDINATE	Y-COORDINATE	DESCRIPTION
3	1,955,468	9,479,979	ROV FIX
4	1,955,485	9,479,798	START OF MUD ANCHOR SECTION
5	1,955,519	9,479,463	END OF MUD ANCHOR SECTION
6	1,955,555	9,479,053	ROV FIX
7	1,955,571	9,478,814	ROV FIX
8	1,955,575	9,478,694	ROV FIX
9	1,955,593	9,478,605	ROV FIX
10	1,955,628	9,478,521	ROV FIX

NOTES

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- 4) AS-BUILT SURVEY DATE: FEBRUARY 1ST & 5TH, 2014

LEGEND

- AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEG#18866
- CATENARY
- EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- UTEC AS-LAID FLYING LEADS
- MOORING WIRES
- KC875
- LEASE BLOCK BOUNDARIES
- PROPOSED STRUCTURES
- EXISTING STRUCTURES
- UTEC AS-FOUND/AS-BUILT STRUCTURES
- GEOGRAPHICAL TICKS
- UTM TICKS
- WELLS

GEODESY

Survey Datum: NAD 27  
 Ellipsoid: Clarke 1866  
 Projection: Universal Transverse Mercator ZONE 15N  
 Longitude of Central Meridian: 93°W  
 False Easting (m): 500 000  
 False Northing (m): 0  
 Scale Factor of Central Meridian: 0.99960  
 Units: US Survey Feet

CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.



Nathan J. Eby 09/08/14  
 NATHAN EBY, R.P.L.S.  
 TEXAS REG #6198

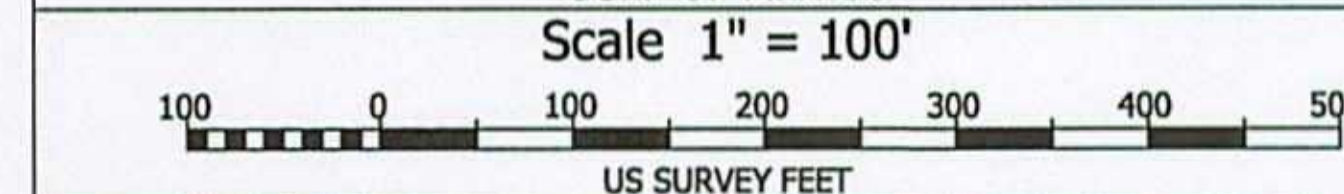
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**LUCIUS DEVELOPMENT PROJECT**  
**AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04)**  
 SEGMENT#18866  
 KEATHLEY CANYON BLOCK 875  
 GULF OF MEXICO

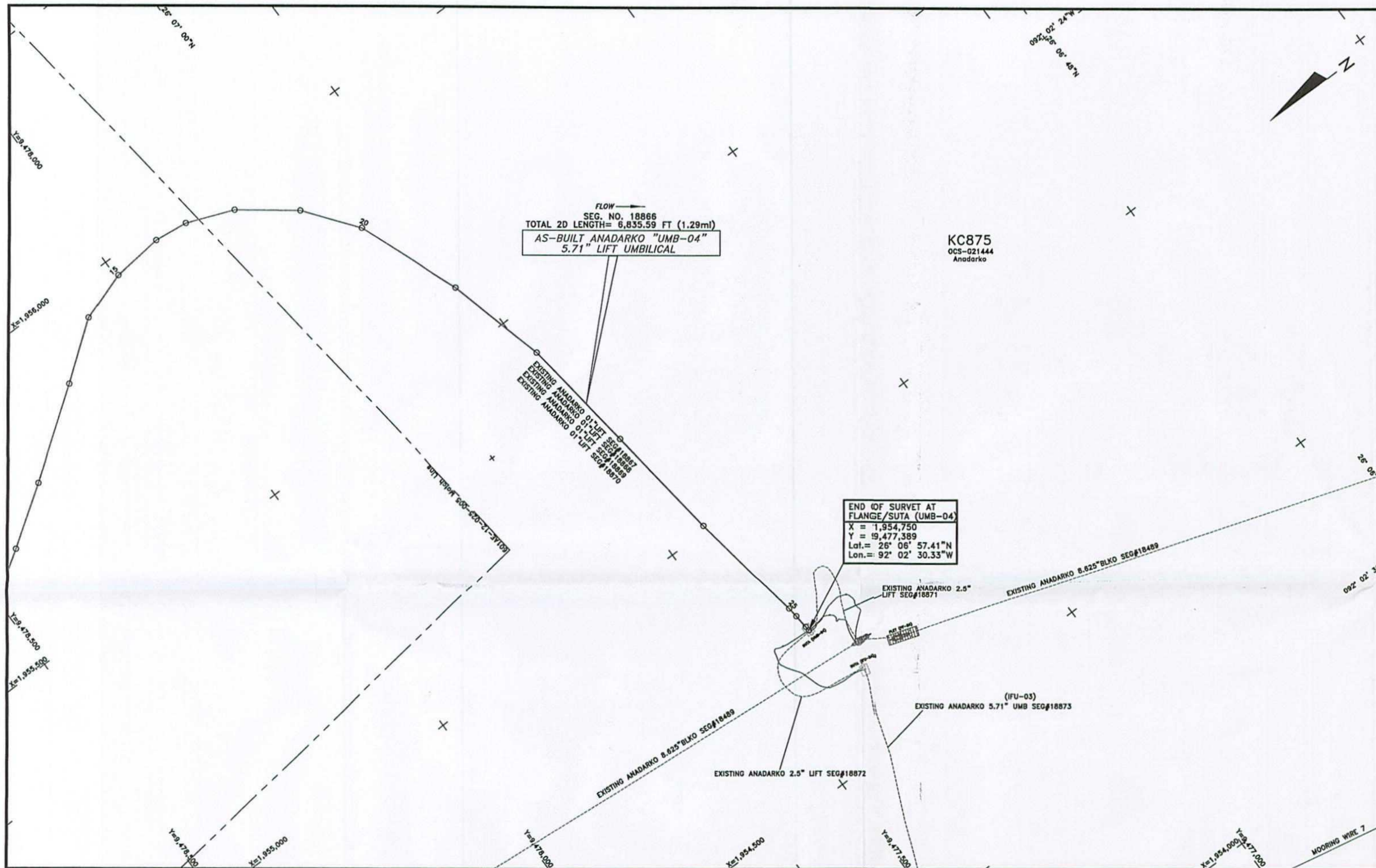


Rev. No.	Date	Comment	Interpr.	Checked	Appr.
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A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: FEBRUARY 1ST & 5TH, 2014		Survey Vessel: GLOBAL ORION	
UTEC Ref. No. 601AE-12-025	UTEC Drawing No. 601AE-12-025- 005	Sheet	Of
Plot Size ANSI D		003	004



PLAN VIEW



FLOW →  
 SEG. NO. 18866  
 TOTAL 2D LENGTH= 6,835.59 FT (1.29mi)  
 AS-BUILT ANADARKO "UMB-04"  
 5.71" LIFT UMBILICAL

KC875  
 OCS-021444  
 Anadarko

END OF SURVET AT  
 FLANGE/SUTA (UMB-04)  
 X = 1,954,750  
 Y = 9,477,389  
 Lat. = 26° 06' 57.41"N  
 Lon. = 92° 02' 30.33"W

AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEGMENT#18866

POINT	X-COORDINATE	Y-COORDINATE	DESCRIPTION
11	1,955,693	9,478,419	ROV FIX
12	1,955,761	9,478,321	ROV FIX
13	1,955,867	9,478,175	ROV FIX
14	1,955,940	9,478,080	ROV FIX
15	1,955,969	9,477,995	ROV FIX
16	1,955,978	9,477,905	ROV FIX
17	1,955,971	9,477,846	ROV FIX
18	1,955,938	9,477,763	ROV FIX
19	1,955,869	9,477,672	ROV FIX
20	1,955,781	9,477,603	ROV FIX
21	1,955,600	9,477,531	ROV FIX
22	1,955,424	9,477,483	ROV FIX
23	1,955,217	9,477,454	ROV FIX
24	1,955,008	9,477,427	ROV FIX
25	1,954,801	9,477,394	ROV FIX
26	1,954,782	9,477,392	START OF BEND RESTRICTOR
27	1,954,758	9,477,390	END OF BEND RESTRICTOR
28	1,954,750	9,477,389	FLANGE/SUTA (UMB-04)

2D LENGTH OF SURVEY POINTS 2 THROUGH 28:  
 4,028.98' = 0.76 MILES

NOTES

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- 4) AS-BUILT SURVEY DATE: FEBRUARY 1ST & 5TH, 2014

LEGEND

- AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04) SEG#18866
- - - - - CATENARY
- - - - - EXISTING PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- - - - - PROPOSED PIPELINES/UMBILICALS/FLYING LEADS/JUMPERS
- UTEC AS-LAID FLYING LEADS
- MOORING WIRES
- KC875
- LEASE BLOCK BOUNDARIES
- PROPOSED STRUCTURES
- EXISTING STRUCTURES
- UTEC AS-FOUND/AS-BUILT STRUCTURES
- + GEOGRAPHICAL TICKS
- o UTM TICKS
- o WELLS

GEODESY

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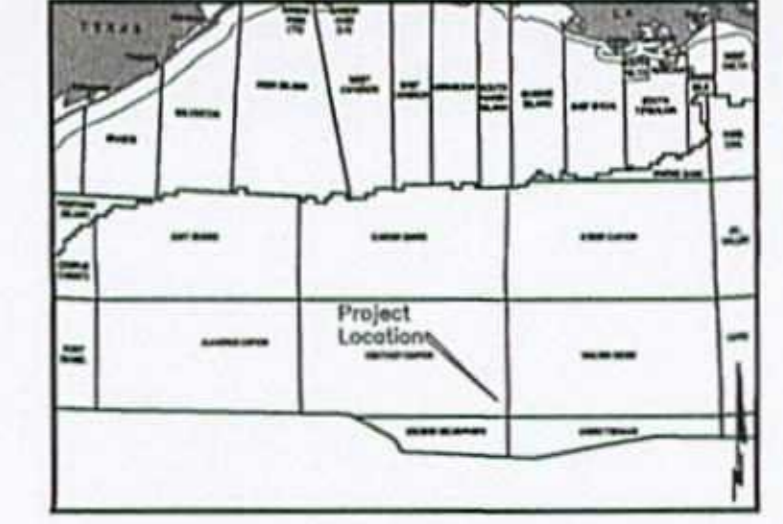
CERTIFIED CORRECT AS TO THE HORIZONTAL POSITION OF THE AS-BUILT UMBILICAL BASED ON THE SURVEY METHODS NOTED.



Nathan J. Eby, R.P.L.S.  
 TEXAS REG #6198

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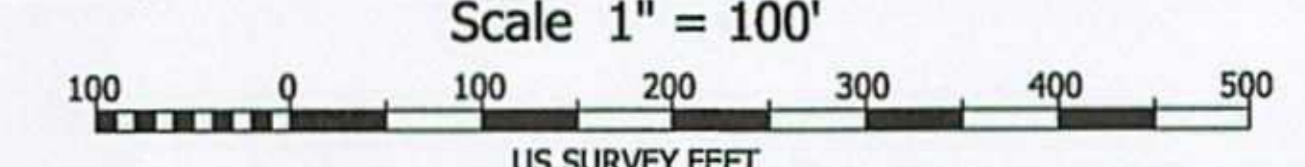
LOCATION PLAN (N.T.S)



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LUCIUS DEVELOPMENT PROJECT  
 AS-BUILT ANADARKO 5.71" LIFT UMBILICAL (UMB-04)  
 SEGMENT#18866

KEATHLEY CANYON BLOCK 875  
 GULF OF MEXICO



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A2	08/14/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL
A1	07/24/14	ISSUED FOR CLIENT COMMENTS	VR	MG	JL

Survey Dates: FEBRUARY 1ST & 5TH, 2014 Survey Vessel: GLOBAL ORION  
 UTEC Ref. No. 601AE-12-025 UTEC Drawing No. 601AE-12-025- 006 Sheet 004 Of 004  
 Plot Size ANSI D