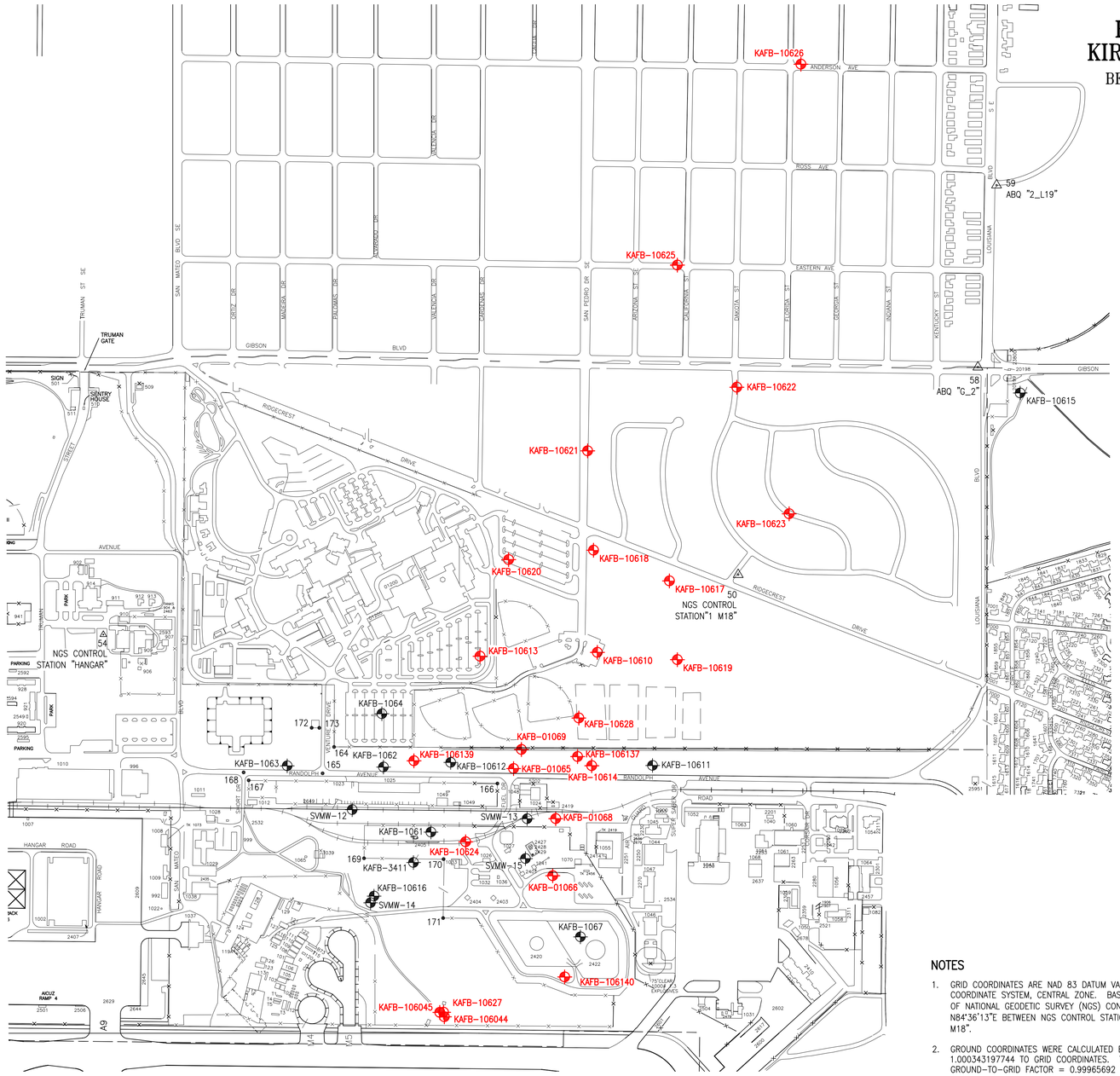
SURVEY OF
MONITORING WELLS
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE

BERNALILLO COUNTY, NEW MEXICO

JANUARY, 2011



SCALE: 1" = 400'

400 200 0 400

LEGEND

- CONTROL POINT
- PREVIOUSLY SURVEYED MONITORING WELLS (SEE DATES AND COORDINATES ON SHEET 2)
- NEWLY SURVEYED MONITORING WELLS (JANUARY 2011)
- SITE IMPROVEMENT POINTS

NOTES

1. GRID COORDINATES ARE NAD 83 DATUM VALUES BASED ON NEW MEXICO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE. BASIS OF COORDINATES ARE PUBLISHED VALUES OF NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION "HANGAR" AND BEARING N84°36'13"E BETWEEN NGS CONTROL STATION "HANGAR" AND NGS CONTROL STATION "1 M18".
2. GROUND COORDINATES WERE CALCULATED BY APPLYING GRID-TO-GROUND FACTOR = 1.000343197744 TO GRID COORDINATES. TO OBTAIN GRID COORDINATES APPLY GROUND-TO-GRID FACTOR = 0.99965692 TO GROUND COORDINATES.
3. ELEVATIONS ARE NAVD 88 DATUM VALUES BASED ON NGS CONTROL STATION "HANGAR", ELEVATION = 5,343.43 FEET. GPS/RTK METHODS AND GEOID99 MODEL WERE USED TO DETERMINE ELEVATIONS OF ALL SURVEYED POINTS.
4. DRAWING COORDINATES ARE GROUND SEE NOTE NO. 2 FOR CONVERSION FACTORS.
5. MONITORING WELL KAFB-1065 WAS ADDED TO THE DRAWING ON 2/21/2007. ORIGINAL SURVEY WAS DATED 5/5/2006.
6. MONITORING WELLS KAFB-1066, KAFB-1067, KAFB-1068, KAFB-1069 AND KAFB-10610 WERE ADDED TO DRAWING ON 5/19/2008.
7. MONITORING WELLS KAFB-10611, KAFB-10612, KAFB-10615, KAFB-10615, KAFB-10616, KAFB-10621, KAFB-10622, KAFB-10623 AND KAFB-10624 WERE ADDED TO THE DRAWING ON 11/16/2009.
8. MONITORING WELLS KAFB-10625, KAFB-10626, KAFB-10627 AND KAFB-10628 WERE ADDED TO THE DRAWING ON 05/21/2010.
9. MONITORING WELLS SHOWN IN RED COLOR WERE ADDED TO THE DRAWING IN JANUARY 2011.

GROUND COORDINATES

CONTROL POINTS

Pnt. #	Northing	Easting	Elevation	Description
50	1,475,776.5261	1,543,904.0041	5340.01	NGS 1 M18
54	1,475,383.2253	1,539,740.5499	5343.43	NGS HANGAR
58	1,477,137.2462	1,545,476.0769	5337.43	ABQ "G-2"
59	1,478,330.7497	1,545,598.4449	5339.76	ABQ "2_L19"
60	1,480,708.2824	1,534,917.7646	5319.34	ABQ "14_L17"

SITE IMPROVEMENT POINTS

Pnt. #	Northing	Easting	Elevation	Description
164	1,474,646.7881	1,541,253.4136	5340.93	F_COR
165	1,474,473.2461	1,541,177.6105	5339.58	C/L
166	1,474,406.4650	1,542,324.9798		WALL
167	1,474,427.4386	1,540,692.6270		WALL
168	1,474,479.4725	1,540,659.4196	5336.76	C/L
169	1,473,916.2225	1,541,449.3822	5340.00	F_COR
170	1,473,910.2427	1,541,971.9330	5343.64	F_COR
171	1,473,524.1169	1,541,968.3346	5343.47	F_COR
172	1,474,771.9681	1,541,105.8894		BLDG. 1190 CORNER
173	1,474,771.6295	1,541,156.1182		BLDG. 1190 CORNER

GRID COORDINATES

CONTROL POINTS

Pnt. #	Northing	Easting	Elevation	Description
50	1,475,270.2167	1,543,374.3215	5340.01	NGS 1 M18
54	1,474,877.0508	1,539,212.2957	5343.43	NGS HANGAR
58	1,476,630.470	1,544,945.855	5337.43	ABQ "G_2"
59	1,477,823.564	1,545,068.181	5339.76	ABQ "2_L19"
60	1,480,200.281	1,534,391.165	5319.34	ABQ "14_L17"

SITE IMPROVEMENT POINTS

Pnt. #	Northing	Easting	Elevation	Description
164	1,474,140.8663	1,540,724.6404	5340.93	F_COR
165	1,473,967.3838	1,540,648.8633	5339.58	C/L
166	1,473,900.6256	1,541,795.8389		WALL
167	1,473,921.5920	1,540,164.0462		WALL
168	1,473,973.6081	1,540,130.8502	5336.76	C/L
169	1,473,410.5513	1,540,920.5417	5340.00	F_COR
170	1,473,404.5736	1,541,442.9133	5343.64	F_COR
171	1,473,018.5802	1,541,439.3161	5343.47	F_COR
172	1,474,266.0034	1,540,577.1668		BLDG. 1190 CORNER
173	1,474,265.6649	1,540,627.3783		BLDG. 1190 CORNER

GROUND COORDINATES

MONITORING WELLS SURVEYED 1/2011

Pnt. #	Northing	Easting	Elevation	Description
273	1,472,906.6757	1,541,971.3989	5,345.65	KAFB-10627-CONC
274	1,472,906.5904	1,541,971.5159	5,348.54	KAFB-10627-CASE
275	1,472,906.4896	1,541,971.5973	5,348.32	KAFB-10627-PVC
317	1,472,908.4944	1,541,970.774	5,345.15	KAFB-10627-GND
276	1,472,906.0167	1,541,946.7976	5,345.44	KAFB-106045-CONC
277	1,472,905.9737	1,541,946.9723	5,348.48	KAFB-106045-CASE
278	1,472,905.8310	1,541,947.0138	5,348.13	KAFB-106045-PVC
318	1,472,907.1904	1,541,946.9336	5,345.20	KAFB-106045-GND
279	1,479,123.9554	1,544,315.1950	5,322.67	KAFB-10626-CASE
280	1,479,123.5668	1,544,315.2900	5,322.39	KAFB-10626-PVC
281	1,477,806.5637	1,543,504.8596	5,317.30	KAFB-10625-CASE
282	1,477,806.2515	1,543,504.8205	5,317.03	KAFB-10625-PVC
283	1,477,005.7140	1,543,894.8339	5,318.18	KAFB-10622-CONC
284	1,477,005.4318	1,543,894.9283	5,317.82	KAFB-10622-PVC
285	1,476,176.6179	1,544,238.3418	5,328.76	KAFB-10623-CONC
286	1,476,176.2025	1,544,238.2296	5,328.43	KAFB-10623-PVC
294	1,475,737.2703	1,543,453.8515	5,338.94	KAFB-10617-GND
287	1,475,735.6176	1,543,453.2862	5,339.38	KAFB-10617-CONC
288	1,475,735.5591	1,543,453.1863	5,342.52	KAFB-10617-CASE
289	1,475,735.3955	1,543,453.2238	5,342.18	KAFB-10617-PVC
290	1,475,937.0916	1,542,955.4481	5,333.28	KAFB-10618-CONC
291	1,475,936.9356	1,542,955.3921	5,336.28	KAFB-10618-CASE
292	1,475,936.6749	1,542,955.4515	5,336.07	KAFB-10618-CAM LOCK
293	1,475,936.6581	1,542,955.3694	5,332.73	KAFB-10618-GND
295	1,476,589.4240	1,542,916.6616	5,314.40	KAFB-10621-CASE
296	1,476,589.0391	1,542,916.6387	5,313.87	KAFB-10621-PVC
297	1,475,875.2155	1,542,398.4081	5,341.08	KAFB-10620-CASE
298	1,475,874.9522	1,542,398.3130	5,340.75	KAFB-10620-PVC
299	1,475,875.2827	1,542,398.4771	5,341.09	KAFB-10620-CONC
300	1,475,241.8382	1,542,210.5887	5,347.70	KAFB-10613-CONC
301	1,475,243.4947	1,542,210.4336	5,347.52	KAFB-10613-ASPH
302	1,475,241.7729	1,542,210.5922	5,350.74	KAFB-10613-CASE
303	1,475,241.4831	1,542,210.6084	5,350.34	KAFB-10613-CAM LOCK
304	1,475,267.2613	1,542,980.4880	5,343.35	KAFB-10610-CASE
305	1,475,266.9060	1,542,980.3844	5,343.13	KAFB-10610-PVC
306	1,474,838.3461	1,542,858.5634	5,348.86	KAFB-10628-GND
307	1,474,836.9296	1,542,858.8591	5,349.06	KAFB-10628-CASE
308	1,474,836.2781	1,542,858.7080	5,348.57	KAFB-10628-PVC-150
309	1,474,836.5022	1,542,858.7580	5,348.44	KAFB-10628-PVC-250
310	1,474,836.5283	1,542,859.0168	5,348.33	KAFB-10628-PVC-350
311	1,474,836.6732	1,542,859.1097	5,348.37	KAFB-10628-PVC-450
312	1,474,836.3437	1,542,859.0032	5,348.67	KAFB-10628-PVC
313	1,475,220.6385	1,543,505.6102	5,351.68	KAFB-10619-GND
314	1,475,219.2292	1,543,505.0773	5,352.07	KAFB-10619-CONC
315	1,475,219.1092	1,543,505.0879	5,354.63	KAFB-10619-CASE
316	1,475,218.8810	1,543,504.8892	5,354.56	KAFB-10619-CAM LOCK
319	1,473,803.9481	1,542,687.5181	5,348.50	KAFB-01066-GND
320	1,473,802.1586	1,542,687.3934	5,348.93	KAFB-01066-CONC
321	1,473,802.1217	1,542,687.5802	5,351.60	KAFB-01066-CASE
322	1,473,801.8865	1,542,687.5716	5,351.55	KAFB-01066-PVC
323	1,474,026.9580	1,542,116.7343	5,343.55	KAFB-10624-GND
324	1,474,025.4047	1,542,116.6315	5,343.68	KAFB-10624-CASE
325	1,474,025.2106	1,542,116.5429	5,343.30	KAFB-10624-PVC
326	1,474,506.7164	1,542,431.1798	5,343.99	KAFB-01065-GND
327	1,474,504.9041	1,542,430.7995	5,344.00	KAFB-01065-CONC
328	1,474,504.7518	1,542,430.8966	5,347.03	KAFB-01065-CASE
329	1,474,504.5574	1,542,430.8835	5,346.82	KAFB-01065-PVC
330	1,474,631.7339	1,542,482.0817	5,344.79	KAFB-01069-GND
331	1,474,630.2037	1,542,482.1737	5,344.88	KAFB-01069-CASE
332	1,474,629.7033	1,542,482.182	5,344.29	KAFB-01069-PVC
333	1,474,178.3506	1,542,707.2163	5,348.80	KAFB-01068-GND
334	1,474,176.7970	1,542,707.2037	5,349.00	KAFB-01068-CONC
335	1,474,176.5421	1,542,707.3503	5,351.90	KAFB-01068-CASE
336	1,474,176.2497	1,542,707.3632	5,351.67	KAFB-01068-PVC
337	1,474,525.3379	1,542,943.3729	5,346.87	KAFB-10614-GND
338	1,474,523.7398	1,542,943.3621	5,347.47	KAFB-10614-CONC
339	1,474,523.6627	1,542,943.4113	5,344.30	KAFB-10614-CASE
340	1,474,523.3818	1,542,943.4043	5,344.16	KAFB-10614-CAM LOCK
341	1,474,557.3000	1,541,777.7212	5,341.27	KAFB-106139-GND
342	1,474,555.9698	1,541,777.4753	5,341.55	KAFB-106139-CASE
343	1,474,555.5786	1,541,777.4116	5,341.01	KAFB-106139-PVC
344	1,474,555.7435	1,541,777.2820	5,341.07	KAFB-106139-PVC-25
345	1,474,555.3019	1,541,777.4866	5,341.04	KAFB-106139-PVC-50
346	1,474,555.1857	1,541,777.2129	5,341.04	KAFB-106139-PVC-150
347	1,474,555.4952	1,541,777.0694	5,341.02	KAFB-106139-PVC-250
348	1,474,555.6369	1,541,777.5563	5,341.02	KAFB-106139-PVC-350
349	1,472,878.5615	1,541,976.8118	5,345.63	KAFB-106044-GND
350	1,472,878.3323	1,541,976.7967	5,345.67	KAFB-106044-CONC
351	1,472,877.3004	1,541,976.8818	5,348.84	KAFB-106044-CASING
352	1,472,877.1514	1,541,976.8871	5,348.52	KAFB-106044-PVC
353	1,473,139.8764	1,542,766.5961	5,345.29	KAFB-106140-GND
354	1,473,138.5393	1,542,766.2767	5,345.35	KAFB-106140-CASING
355	1,473,138.1563	1,542,766.1815	5,344.99	KAFB-106140-PVC
356	1,473,137.9481	1,542,765.9175	5,345.02	KAFB-106140-25
357	1,473,137.8118	1,542,766.2536	5,345.02	KAFB-106140-50
358	1,473,138.2769	1,542,765.9537	5,345.04	KAFB-106140-150
359	1,473,138.3362	1,542,766.2565	5,345.03	KAFB-106140-250
360	1,473,138.0863	1,542,766.4850	5,345.13	KAFB-106140-350
361	1,474,585.2929	1,542,850.7832	5,347.28	KAFB-106137-GND
362	1,474,583.6385	1,542,850.8037	5,347.42	KAFB-106137-CASING
363	1,474,583.3283	1,542,850.7210	5,346.94	KAFB-106137-PVC
364	1,474,583.2646	1,542,850.9582	5,346.86	KAFB-106137-25
365	1,474,583.4453	1,542,850.7128	5,346.76	KAFB-106137-50
366	1,474,583.2582	1,542,850.4383	5,346.75	KAFB-106137-150
367	1,474,582.9879	1,542,850.5755	5,346.91	KAFB-106137-250
368	1,474,582.9941	1,542,850.9181	5,346.90	KAFB-106137-350

GRID COORDINATES

MONITORING WELLS SURVEYED 1/2011

Pnt. #	Northing	Easting	Elevation	Description
273	1,472,401.3509	1,541,442.3794	5,345.65	KAFB-10627-CONC
274	1,472,401.2656	1,541,442.4963	5,348.54	KAFB-10627-CASE
275	1,472,401.1648	1,541,442.5777	5,348.32	KAFB-10627-PVC
317	1,472,403.1690	1,541,441.7547	5,345.15	KAFB-10627-GND
276	1,472,400.6921	1,541,417.7865	5,345.44	KAFB-106045-CONC
277	1,472,400.6491	1,541,417.9611	5,348.48	KAFB-106045-CASE
278	1,472,400.5065	1,541,418.0026	5,348.13	KAFB-106045-PVC
318	1,472,401.8654	1,541,417.9224	5,345.20	KAFB-106045-GND
279	1,478,616.4976	1,543,785.3713	5,322.67	KAFB-10626-CASE
280	1,478,616.1091	1,543,785.4663	5,322.39	KAFB-10626-PVC
281	1,477,299.5578	1,542,975.3140	5,317.30	KAFB-10625-CASE
282	1,477,299.2457	1,542,975.2749	5,317.03	KAFB-10625-PVC
283	1,476,498.9829	1,543,365.1545	5,318.18	KAFB-10622-CONC
284	1,476,498.7008	1,543,365.2488	5,317.82	KAFB-10622-PVC
285	1,475,670.1712	1,543,708.5445	5,328.76	KAFB-10623-CONC
286	1,475,669.7560	1,543,708.4323	5,328.43	KAFB-10623-PVC
294	1,475,230.9744	1,542,924.3234	5,338.94	KAFB-10617-GND
287	1,475,229.3222	1,542,923.7582	5,339.38	KAFB-10617-CONC
288	1,475,229.2637	1,542,923.6584	5,342.52	KAFB-10617-CASE
289	1,475,229.1002	1,542,923.6959	5,342.18	KAFB-10617-PVC
290	1,475,430.7271	1,542,426.0909	5,333.28	KAFB-10618-CONC
291	1,475,430.5712	1,542,426.0350	5,336.28	KAFB-10618-CASE
292	1,475,430.3105	1,542,426.0943	5,336.07	KAFB-10618-CAM LOCK
293	1,475,432.2931	1,542,426.0123	5,332.73	KAFB-10618-GND
295	1,476,082.8357	1,542,387.3178	5,314.40	KAFB-10621-CASE
296	1,476,082.4509	1,542,387.2949	5,313.87	KAFB-10621-PVC
297	1,475,368.8722	1,541,869.2421	5,341.08	KAFB-10620-CASE
298	1,475,368.6090	1,541,869.1470	5,340.75	KAFB-10620-PVC
299	1,475,368.9394	1,541,869.3110	5,341.09	KAFB-10620-CONC
300	1,474,735.7122	1,541,681.4871	5,347.70	KAFB-10613-CONC
301	1,474,737.3682	1,541,681.3320	5,347.52	KAFB-10613-ASPH
302	1,474,735.6470	1,541,681.4906	5,350.74	KAFB-10613-CASE
303	1,474,735.3573	1,541,681.5068	5,350.34	KAFB-10613-CAM LOCK
304	1,474,761.1266	1,542,451.1223	5,343.35	KAFB-10610-CASE
305	1,474,760.7714	1,542,451.0187	5,343.13	KAFB-10610-PVC
306	1,474,332.3586	1,542,329.2395	5,348.86	KAFB-10628-GND
307	1,474,330.9425	1,542,329.5351	5,349.06	KAFB-10628-CASE
308	1,474,330.2913	1,542,329.3840	5,348.57	KAFB-10628-PVC-150
309	1,474,330.5153	1,542,329.4340	5,348.44	KAFB-10628-PVC-250
310	1,474,330.5414	1,542,329.6927	5,348.33	KAFB-10628-PVC-350
311	1,474,330.6862	1,542,329.7856	5,348.37	KAFB-10628-PVC-450
312	1,474,330.3568	1,542,329.6791	5,348.67	KAFB-10628-PVC
313	1,474,714.5198	1,542,976.0643	5,351.68	KAFB-10619-GND
314	1,474,713.1110	1,542,975.5316	5,352.07	KAFB-10619-CONC
315	1,474,712.9910	1,542,975.5422	5,354.63	KAFB-10619-CASE
316	1,474,712.7629	1,542,975.3435	5,354.56	KAFB-10619-CAM LOCK
319	1,473,298.3154	1,542,158.2529	5,348.50	KAFB-01066-GND
320	1,473,296.5266	1,542,158.1282	5,348.93	KAFB-01066-CONC
321	1,473,296.4897	1,542,158.3149	5,351.60	KAFB-01066-CASE
322	1,473,296.2545	1,542,158.3063	5,351.55	KAFB-01066-PVC
323	1,473,521.2488	1,541,587.6649	5,343.55	KAFB-10624-GND
324	1,473,519.6961	1,541,587.5621	5,343.68	KAFB-10624-CASE
325	1,473,519.5020	1,541,587.4736	5,343.30	KAFB-10624-PVC
326	1,474,000.8426	1,541,902.0025	5,343.99	KAFB-01065-GND
327	1,473,999.0310	1,541,901.6223	5,344.00	KAFB-01065-CONC
328	1,473,998.8787	1,541,901.7194	5,347.03	KAFB-01065-CASE
329	1,473,998.6844	1,541,901.7063	5,346.82	KAFB-01065-PVC
330	1,474,125.8172	1,541,952.8869	5,344.79	KAFB-01069-GND
331	1,474,124.2876	1,541,952.9789	5,344.88	KAFB-01069-CASE
332	1,474,123.7873	1,541,952.9880	5,344.29	KAFB-01069-PVC
333	1,473,672.5895	1,542,177.9443	5,348.80	KAFB-01068-GND
334	1,473,671.0364	1,542,177.9317	5,349.00	KAFB-01068-CONC
335	1,473,670.7816	1,542,178.0783	5,351.90	KAFB-01068-CASE
336	1,473,670.4893	1,542,178.0912	5,351.67	KAFB-01068-PVC
337	1,474,019.4577	1,542,414.0199	5,346.87	KAFB-10614-GND
338	1,474,017.8602	1,542,414.0091	5,347.47	KAFB-10614-CONC
339	1,474,017.7831	1,542,414.0583	5,344.30	KAFB-10614-CASE
340	1,474,017.5023	1,542,414.0513	5,344.16	KAFB-10614-CAM LOCK
341	1,474,051.4089	1,541,248.7681	5,341.27	KAFB-106139-GND
342	1,474,050.0791	1,541,248.5223	5,341.55	KAFB-106139-CASE
343	1,474,049.6881	1,541,248.4586	5,341.01	KAFB-106139-PVC
344	1,474,049.8529	1,541,248.3291	5,341.07	KAFB-106139-PVC-25
345	1,474,049.4115	1,541,248.5336	5,341.04	KAFB-106139-PVC-50
346	1,474,049.2953	1,541,248.2600	5,341.04	KAFB-106139-PVC-150
347	1,474,049.6047	1,541,248.1165	5,341.02	KAFB-106139-PVC-250
348	1,474,049.7464	1,541,248.6033	5,341.02	KAFB-106139-PVC-350
349	1,472,373.2463	1,541,447.7904	5,345.63	KAFB-106044-GND
350	1,472,373.0172	1,541,447.7753	5,345.67	KAFB-106044-CONC
351	1,472,371.9857	1,541,447.8604	5,348.84	KAFB-106044-CASING
352	1,472,371.8367	1,541,447.8657	5,348.52	KAFB-106044-PVC
353	1,472,634.4716	1,542,237.3037	5,345.29	KAFB-106140-GND
354	1,472,633.1349	1,542,236.9844	5,345.35	KAFB-106140-CASING
355	1,472,632.7521	1,542,236.8893	5,344.99	KAFB-106140-PVC
356	1,472,632.5439	1,542,236.6254	5,345.02	KAFB-106140-25
357	1,472,632.4077	1,542,236.9614	5,345.02	KAFB-106140-50
358	1,472,632.8726	1,542,236.6616	5,345.04	KAFB-106140-150
359	1,472,632.9319	1,542,236.9643	5,345.03	KAFB-106140-250
360	1,472,632.6821	1,542,237.1927	5,345.13	KAFB-106140-350
361	1,474,079.3922	1,542,321.4620	5,347.28	KAFB-106137-GND
362	1,474,077.7383	1,542,321.4824	5,347.42	KAFB-106137-CASING
363	1,474,077.4283	1,542,321.3998	5,346.94	KAFB-106137-PVC
364	1,474,077.3646	1,542,321.6369	5,346.86	KAFB-106137-25
365	1,474,077.5452	1,542,321.3916	5,346.76	KAFB-106137-50
366	1,474,077.3582	1,542,321.1172	5,346.75	KAFB-106137-150
367	1,474,077.0880	1,542,321.2543	5,346.91	KAFB-106137-250
368	1,474,077.0942	1,542,321.5968	5,346.90	KAFB-106137-350

PROFESSIONAL SURVEYOR
STATE OF NEW MEXICO
NO. 10464
VLADIMIR JIRIK

VLADIMIR JIRIK, NMPS NO. 10464

JANUARY 28, 2011
DATE

SHEET 1 OF 2

26033MW-2-01-25-2011

Plat & Survey By:
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